

Volume Four

THE PACIFIC: GUADALCANAL TO SAIPAN
AUGUST 1942 TO JULY 1944

THE ARMY AIR FORCES

In World War II

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New Imprint by the
Office of Air Force History
Washington, D.C., 1983

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

FOREWORD

to the New
Imprint

IN March 1942, President Franklin D. Roosevelt wrote to the Director of the Bureau of the Budget ordering each war agency to prepare “an accurate and objective account” of that agency’s war experience. Soon after, the Army Air Forces began hiring professional historians so that its history could, in the words of Brigadier General Laurence Kuter, “be recorded while it is hot and that personnel be selected and an agency set up for a clear historian’s job without axe to grind or defense to prepare.” An Historical Division was established in Headquarters Army Air Forces under Air Intelligence, in September 1942, and the modern Air Force historical program began.

With the end of the war, Headquarters approved a plan for writing and publishing a seven-volume history. In December 1945, Lieutenant General Ira C. Eaker, Deputy Commander of Army Air Forces, asked the Chancellor of the University of Chicago to “assume the responsibility for the publication” of the history, stressing that it must “meet the highest academic standards.” Lieutenant Colonel Wesley Frank Craven of New York University and Major James Lea Cate of the University of Chicago, both of whom had been assigned to the historical program, were selected to be editors of the volumes. Between 1948 and 1958 seven were published. With publication of the last, the editors wrote that the Air Force had “fulfilled in letter and spirit” the promise of access to documents and complete freedom of historical interpretation. Like all history, *The Army Air Forces in World War II* reflects the era when it was conceived, researched, and written. The strategic bombing campaigns received the primary emphasis, not only because of a widely-shared belief in bombardment’s con-

tribution to victory, but also because of its importance in establishing the United States Air Force as a military service independent of the Army. The huge investment of men and machines and the effectiveness of the combined Anglo-American bomber offensive against Germany had not been subjected to the critical scrutiny they have since received. Nor, given the personalities involved and the immediacy of the events, did the authors question some of the command arrangements. In the tactical area, to give another example, the authors did not doubt the effect of aerial interdiction on both the German withdrawal from Sicily and the allied landings at Anzio.

Editors Craven and Cate insisted that the volumes present the war through the eyes of the major commanders, and be based on information available to them as important decisions were made. At the time, secrecy still shrouded the Allied code-breaking effort. While the link between decoded message traffic and combat action occasionally emerges from these pages, the authors lacked the knowledge to portray adequately the intelligence aspects of many operations, such as the interdiction in 1943 of Axis supply lines to Tunisia and the systematic bombardment, beginning in 1944, of the German oil industry.

All historical works a generation old suffer such limitations. New information and altered perspective inevitably change the emphasis of an historical account. Some accounts in these volumes have been superseded by subsequent research and other portions will be superseded in the future. However, these books met the highest of contemporary professional standards of quality and comprehensiveness. They contain information and experience that are of great value to the Air Force today and to the public. Together they are the only comprehensive discussion of Army Air Forces activity in the largest air war this nation has ever waged. Until we summon the resources to take a fresh, comprehensive look at the Army Air Forces' experience in World War II, these seven volumes will continue to serve us as well for the next quarter century as they have for the last.

RICHARD H. KOHN
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FOREWORD

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THE present volume of *The Army Air Forces in World War II*, though numbered fourth in a projected series of seven, is actually the third to appear. Bearing the subtitle *The Pacific: Guadalcanal to Saipan, August 1942 to July 1944*, it deals with the AAF's part in the struggle against Japan during those two critical years. Practical considerations of bookmaking have demanded, in a history of such scope as this, some convenient break in the narrative, and the editors hope to have found in the period herein described a distinct phase of the war as it was fought by the Army's air forces. That phase began with the enemy's outward sweep at full flood; it saw, though by almost imperceptible degrees, the slow turn in the tide of war as the Allies checked the forward flow and took the initiative, and then the beginning of the ebb as the Japanese were driven back toward their Inner Empire. As the volume closes, MacArthur's forces were being readied for the return to the Philippines, and in the Marianas U.S. engineers, still under sniper fire, were preparing the great air bases whence the B-29 could lay under attack the heart of industrial Japan. The last phase of the air war (which will be described in Volume V) was to move swiftly and inexorably and was to introduce with the B-29 a type of warfare hitherto unknown in the Pacific. But the success of the strategic bombardment campaign which ended so dramatically at Hiroshima and Nagasaki was rooted in the two years of bitter fighting by air, naval, and ground forces which had carried the Allies from Guadalcanal and Port Moresby to Guam and Sansapor. It was the campaigns of those years which had blunted the enemy's air weapon and had provided the bases within bomber radius of Honshu.

The first phase of the war has been described in Volume I. During

the six months after Pearl Harbor the Japanese had thrust outward from their home islands with hardly a momentary check—save perhaps in the Coral Sea. Thus the narrative was a dreary chronicle of defeat and retreat for all Allied forces in Asia and the Pacific. The anchors of the defensive line, a great semicircle, had been fixed at Alaska, Hawaii, Australia, and India-Burma. Along a ladder of widely spaced Pacific islands, airfields had been thrown down to provide an air LOC between Hawaii and Australia and to help guard the vital sea lanes to that subcontinent. Australia, still nervous for its own security, would be a prime base area for future offense as for present defense, and the slow build-up of forces had begun early in 1942.

Then in June had come the decisive carrier victory at Midway which had shorn off the barb of the enemy's striking force. The diversionary feint at Dutch Harbor had been parried as well, and thus stability was assured for the Central and North Pacific. Thereafter the Japanese outposts lay in a bold arc, concentric with the defense line of the Allies and facing it: the Kurils and the outer Aleutians; Marcus, Wake, and the mandated islands; the Solomons, New Guinea, and the Netherlands East Indies; Singapore, Burma, and occupied China. Checked in the Central and North Pacific, the enemy had continued to push southward and within a few weeks after Midway had imperiled the Allied defense line in two vulnerable spots. He had moved into the lower Solomons and was hurrying to complete on Guadalcanal an airfield which would threaten the lifeline between Hawaii and Australia. Late in July he landed on the northern Papuan coast, and his drive over the Owen Stanley Mountains would, if successful, emplace his air forces at Port Moresby and bring northern Australia under the shadow of the wings of his Bettys and Sallys. It is with these twin crises that the present volume begins. Efforts to eject the enemy from Guadalcanal and Papua were to absorb most of the energies of the Allies in the Pacific throughout the rest of 1942, and the activities of Army air forces against the Japanese in other areas were of lesser scope and importance.

In all, six Army air forces figure in this volume: the Eleventh (North Pacific); the Seventh (Central Pacific); the Thirteenth (South Pacific); the Fifth (Southwest Pacific); the Tenth (India-Burma); and the Fourteenth (China). Widely scattered geographically, those several forces operated under varying conditions which, with the character of their respective commanders, tended to mark each

with its own individuality. There was no unity of command in the war against Japan, and this lack exaggerated the particularism inherent in geographical isolation. The narrative, as it moves from theater to theater, has reflected inevitably something of the disjointed nature of the war, but it is hoped that an underlying unity may be found in the over-all strategy formulated by the CCS and in the common dependence of all forces upon a single pool of material resources. A brief résumé may indicate the chief contributions of each of the six air forces.

Those deployed at the extremities of the Allied defensive lines operated in areas which seemed to offer few strategic possibilities during the period under discussion and were consequently held to a minimum of combat units. In the North Pacific the Eleventh Air Force had helped throw back the Japanese feint at Dutch Harbor and subsequently participated in the westward move out along the Aleutians from Adak to Kiska. Weather and geographical factors made air operations exceedingly difficult for Americans and Japanese alike, however, and after the summer of 1943 the Eleventh, reduced in size to a "shadow" force, lapsed into a desultory sort of harassing warfare against the Kuril Islands.

On the opposite wing, in the CBI, the stakes were higher, but the prospect of striking a decisive blow did not seem bright enough to encourage the Combined Chiefs to throw into the area preponderant forces. Many difficulties conspired to thwart Allied efforts; two were of especial importance. The logistical problem was perhaps more formidable in the CBI than in any other theater. The distance to India from the United Kingdom or the United States was tremendous. Distances within the theater were of continental proportions, and transport facilities were unequal to wartime needs. For outside aid China was dependent wholly upon an airlift operating under grave natural and military hazards.

Even more serious was the lack of a common objective (other than the defeat of Japan) among the Allied powers. Divergent political aims among the Chinese, the British, and the Americans forestalled any agreement on strategy and fostered a command system of bewildering complexity; even among U.S. generals there was a lamentable lack of accord. The chief aim of the United States was to help keep China in the war by providing lend-lease material and technical assistance. This objective involved little in the way of ground force commitments;

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service and air forces constituted the main contribution. Fundamentally the Tenth Air Force's mission was to protect the Hump air route by which China was presently nourished and to aid in clearing a trace for the Ledo Road, which was to supplement the airlift with a ground LOC from Burma to Kunming. In China the Fourteenth Air Force helped guard the Hump route, aided Chinese ground operations, and attacked Japanese air forces and shipping. Chennault's flyers developed skilful tactics and, operating with marvelous parsimony, inflicted damages wholly disproportionate to the minute force involved.

But the supply factor severely limited the scope of operations, even when it became possible to send some reinforcements to the theater. Both the Tenth and the Fourteenth had been strengthened by mid-1944, and in Burma they had contributed to the long-expected Allied offensive. Gains there were offset by the enemy's spring campaign in eastern China which threatened to engulf those advanced airfields which had been the key to Chennault's offensive tactics. Thus, in spite of hard fighting and much solid work in the CBI, the tactical picture as the volume closes is hardly more cheerful for the Allies than in the earlier chapters.

The role of the Seventh Air Force was wholly different. Throughout 1942 its mission was strictly defensive and, since after Midway the enemy made no serious efforts in the Central Pacific, combat activities in that area were slight. The Seventh performed valuable services in reconnaissance, in combat training of units and replacements headed westward for more active theaters, and in supply, maintenance, and modification. But it was only in late 1943, as growing naval strength fostered a more aggressive strategy in the Central Pacific, that the Seventh's units were sent regularly against the enemy. Most of the force's missions involved long overwater flights to strike at island bases, tiny coral atolls barely supporting a fighter strip or the great redoubt at Truk. The purpose might differ as the bombers softened up islands marked for assault or continued to neutralize those which were by-passed, but the pattern of operations remained pretty constant, with the Seventh moving its bases ever forward as CENPAC forces swept through the Gilberts and Marshalls and, by-passing the Carolines, on to the Marianas. It was a monotonous sort of war, with its own hazards but involving relatively little combat with enemy planes. The monotony was broken as assault forces moved into the Marianas where P-47's from the Seventh provided direct support for

ground troops on Saipan, Guam, and Tinian, but there was no letup—nor would there be soon—in the everlasting hammering-away at “one damned island after another.”

In each of the three areas noticed above Army air forces performed their tasks creditably under difficult conditions, and it is no slur upon their activities to suggest that the heaviest and most sustained air campaigns were those conducted in the South and Southwest Pacific. In those areas the campaigns initiated by the U.S. landing on Guadalcanal on 7 August and the Japanese landing at Buna on 21 July carried into the early weeks of 1943. On Guadalcanal the Thirteenth Air Force fought with Navy, Marine, and New Zealand air units in an effort to interfere with the enemy's air and naval counterattacks and his efforts to reinforce and supply his garrison; there was some close support of ground forces. In Papua the fight for Buna and Milne Bay involved heavy work for the Fifth Air Force and the RAAF (united under the over-all command of the Allied Air Forces) in antishipping strikes, in air supply and troop transport, and in close support.

With Guadalcanal and Papua secured, Rabaul became the chief concern of the Allies in both theaters. Threatening as it did Allied positions in the Solomons and in New Guinea, Rabaul's capture had been scheduled as the third and climactic phase of the ELKTON plan, which had envisaged, after the Guadalcanal and Papuan campaigns, parallel and coordinated moves toward the northwest—MacArthur's forces along the upper coast of New Guinea, SOPAC forces up through the Solomons to the great naval and air base at the head of New Britain. The titles of the chapters and their subdivisions in the present volume indicate the progress of those parallel drives and suggest the important changes in strategy made possible by the sustained air offensive which eliminated Rabaul as a serious threat and by the westward push of Central Pacific forces. The Thirteenth Air Force provided land-based air support for SOPAC forces as they moved through the central and upper Solomons, extending the range of their activities as each advance provided new bases—on the Russells, Rendova, New Georgia, Vella Lavella, Bougainville. By the beginning of 1944 the Thirteenth had taken over from the Fifth responsibility for beating down Rabaul; when SOPAC forces moved into the Green Islands and Southwest Pacific units into the Admiralties, this hitherto formidable base, now bereft of air power, could be left to wither on the vine. So too could Kavieng on New Ireland. On 15 June the Thir-

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teenth was joined with the Fifth to form, under Kenney's direction, the Far East Air Forces, in anticipation of MacArthur's return to the Philippines.

The Fifth, meanwhile, had spearheaded MacArthur's drive along the New Guinea coast. Throughout 1943 the reduction of air power on Rabaul—a boon to both SOPAC and Southwest Pacific operations—had absorbed much effort. So also had attacks on Japanese shipping, a top priority for both air forces; the Battle of the Bismarck Sea was merely the most spectacular manifestation of a continuously successful campaign. But the main effort was in the successive elimination and/or capture of Japanese positions along the New Guinea coast and on adjacent islands and in the occupation of favorable sites not held by the enemy. By these tactics SWPA forces doubled the Huon Peninsula and drove on to the Vogelkop, and the Fifth's progress is marked by the seizure of those places, actual or potential sites for airfields: Woodlark, Kiriwina, Nassau Bay; Lae, Nadzab, Finschhafen; Arawe and Saidor; Aitape and Hollandia; Wakde and Biak; Noemfoor and Sansapor. Meanwhile the landings at Cape Gloucester had secured control of Vitiaz Strait and, with the move into the Admiralties, had helped isolate Rabaul. Thus by midsummer of 1944 Kenney's combined air forces could look to the Halmaheras and the Philippines without fear for their right flank.

Even so sketchy a summary of the air war against Japan is indicative of its complexity and of the variant conditions and missions obtaining in the several theaters. Certain features of the war, however, all or most of the air forces shared in common; and in certain instances these common features contrasted sharply with those which have been described in Volume II as characteristic of the European war.

The prime factor affecting all Army air forces in Pacific and Asiatic theaters was the pre-eminence accorded by the CCS to the war against Germany. Because of the paramount interests of the U.S. Navy in the Pacific, there was no stinting of naval forces there in favor of the Atlantic. But during the early part of the war allocations for Army air (and ground) forces were kept at the minimum demanded for safety and even later were strictly conditioned by the needs of the ETO. Commanders in the Pacific (of whatever service) tended to question the assumptions upon which the over-all strategy was based and persistently strove for more generous allocations. In this effort they differed not a whit from aggressive commanders elsewhere, but

in some instances (as in Alaska and China) their reiterated and urgent requests for air reinforcements seemed to reflect a parochial view of a global war. At times the demands from the Pacific appear hardly to have been justified by the enemy's estimated air order of battle. Even in the summer of 1942—when, according to General Arnold's subsequent statement, "the various commanders" in the Pacific "began yelling their heads off for airplanes"*—current estimates available in Washington did not seem to favor the enemy. Theater commanders tended to question the accuracy of those estimates in terms of serviceable planes actually on hand. But certainly during 1943 the advantage in strength which the Japanese had enjoyed in the early months of the war was more than overcome. For want of sufficiently precise Japanese statistics it is impossible to document closely the stages by which the imbalance in forces was reversed, but after the fall of 1943 the combined strength of U.S. Army, Navy, and Marine and Allied air forces was generally greater than that of Japanese units directly facing them. By midsummer 1944 the Allies had preponderant air superiority.

With the substantial U.S. reinforcements and the continuous and determined attrition against Japanese air power, preponderant superiority might have been achieved earlier but for the advantages the enemy enjoyed in easier lines of communications. Possessing air bases conveniently spotted along routes that led from Tokyo to each front, he was able quickly to fly in replacements for planes destroyed in combat or on the ground. It was this factor which made it so difficult to take out permanently such airfield complexes as Rabaul and We-wak, and it was fortunate that the enemy could not replace so readily the skilful pilots who were lost.

Conversely, the lines from the United States to the several theaters were long—quite long to the Aleutians and Hawaii, very long to New Caledonia and Australia, fantastically long to India and China. Bombers could be flown out, but short-range planes, ground personnel, and supplies went by ship. Shipping remained unequal to demands throughout the period under review; priorities favored the ETO, and over such tonnage as was assigned to the Pacific, air force commanders had little control. Hence the proportion of allocated planes and men and supplies "in the pipeline" was inordinately high. This factor made it difficult to keep deployed units at combat strength and delayed the

* H. H. Arnold, *Global Mission* (New York: Harper & Bros., 1949), p. 334.

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build-up of forces; it contributed also to the frequent lack of agreement between Washington and theater commanders as to forces available for combat. Intratheater distances were great, too; where transportation was by water, the shortage of bottoms was again a limiting factor; where the LOC traversed land masses, as in Australia and the CBI, primitive rail and highway systems imposed a heavy brake on the movement of material. Air transport came then to play a very important role, even a unique one in China, where the Hump airlift was the sole means of supply and where air activities were limited less by the size of U.S. forces than by the tonnage available for fuel, bombs, and ammunition.

Supply and maintenance, handicapped by low priorities and difficult lines of communication, suffered also from dearth of proper facilities. In Hawaii, Australia, and even India some skilled civilian labor was available and some locally produced supplies. But nowhere were the advantages of a highly industrialized society close at hand, as they were for air forces operating out of England or Italy. Improvements came in time, until some rear-area bases were comparatively well equipped, but at advanced bases facilities remained primitive, temporary, makeshift. Aviation engineers developed great skill in the rapid development of airstrips and other installations, and the stories of ingenious improvisations in maintenance and modification have become almost legendary; but there were times when, in spite of Yankee ingenuity and the plentiful use of baling wire and tin cans, an uncomfortable number of planes were inoperable.

Primitive conditions affected men as well as machines. In the wind-swept Aleutians and the tropical jungles of other areas climate, disease, and fatigue took their toll. Aircrews and ground crews at advanced bases lived constantly in tents and on field rations. Opportunities for rest and recreation were scarce and, because of low priorities and the distance from home, it was difficult to set up a satisfactory rotation policy. The circumstances that condition morale are complex, and they certainly are not limited to physical factors; but, to the degree that they are, the Pacific and Asiatic theaters generally suffered in comparison with the ETO and MTO insofar as the AAF was concerned.

Command arrangements in the war against Japan also contrasted sharply with those in Europe. The most obvious feature was, of course, the lack of a unified command in the Pacific or in the CBI.

AAF Headquarters in almost every discussion advocated a single command against Hitler and against Japan, with an air, ground, and naval force on an equal level under the supreme commander. This preference was strengthened by experience in the Japanese war, where command arrangements varied so widely in the several theaters that the one common feature seemed to be complexity. The South and Southwest Pacific were divided in theory by no more than the imaginary line of the 159th meridian east, but there was in reality the vast abyss of the conflicting views of MacArthur and the Navy, reflected in the sharp debates over strategy and but poorly bridged by the "cooperation" which was substituted for unified command. The tangled command situation in the CBI has already been cited as perhaps the worst in any theater of the war; in Alaska and the Aleutians there was divided authority between the Army and Navy. In those theaters (or "areas") in which the Navy had command it was difficult for AAF leaders to secure the degree of operational control they deemed necessary for effective combat, though that condition improved during the period covered in this volume. Probably the happiest arrangement was that in the Southwest Pacific, where the relationship between Kenney and MacArthur was based on a mutual confidence which left to the former a wide latitude in air operations, but even here that confidence was not always shared by MacArthur's GHQ.

Conditioned by these several factors—and others—the nature of the air war against Japan bore little resemblance to that being fought concurrently in Europe and the Mediterranean. There was as yet no effort to beat down the Japanese war potential with attacks on home industries. Such attacks constituted the chief mission of the AAF in Europe, but until summer of 1944 the Americans held no bases from which they could effectively reach Kyushu and Honshu. The wide variety of activities engaged in by Army air forces fighting Japan before the advent of the B-29 and the success of those activities seem hardly to confirm postwar accusations that the Air Force is interested only in strategic bombardment.

There was, too, relatively less of the sort of close support of ground forces which the AAF had developed so successfully in Africa, Sicily, and Italy and was to apply so spectacularly in France and Germany. In the war against Japan there were no large-scale land battles involving great masses of infantry, armor, and artillery. In China, where

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Chennault's handful of P-40's and B-25's occasionally worked with Chinese armies, there was open countryside, but elsewhere the battlefields rarely permitted the successful application of tactics taught in the AAF schools. In the Aleutians perpetual fog minimized the effectiveness of close support of infantry; in the other Pacific areas and in Burma ground soldiers usually fought in small units and under terrain conditions—jungle, rain forest, swamp, mountains—which made identification of targets extremely difficult. Hence though bombing and strafing of enemy troops and field fortifications and supply dumps was often attempted, it was rarely on a large scale and rarely with unqualified success. But in support of amphibious forces in landing operations, which involved special problems, the air forces in the Pacific developed great skill, and here the AAF played a more considerable role.

The pattern of the Pacific war was suggested by the Japanese in the months immediately after Pearl Harbor as they surged out of their homeland to overwhelm the feeble Allied resistance, but it was the U.S. commanders who gave definitive form to that mode of warfare as they returned along the same routes against a bitter Japanese defense. The Allies were successful only after their forces were strong enough to outweigh the enemy's advantages in position, but their success suggests that AAF tactical air doctrines had been sound and flexible enough to allow adaptation to unusual conditions. For the tactics evolved in the Pacific followed the classical pattern of first gaining local air superiority, then isolating the battlefield, and finally assisting surface forces to move forward. Operations were usually joint—or combined, since Australian and New Zealand forces were frequently involved—and the air task was performed by Army, Marine, and Navy air units, land-based, carrierborne, and seaplanes alike, so that it is often difficult to delineate too sharply between the activities of the AAF and of their brothers-in-arms, but the general picture is clear enough.

Beating down the enemy's air strength in any local area was a formidable task in the early days when he possessed superior forces and more numerous bases, and until the end of 1943 he was able, as has been indicated above, to funnel down substantial reinforcements via his island routes. The persistence with which he fed replacements into Rabaul after Allied strikes was remarkable, and the attacks on that and other bases had to be unremittent, regardless of attacks on the air

defense of an area earmarked for seizure. Part of the attrition came through air combat, and as the Allied forces gained experience and acquired more—and better—aircraft, they showed a marked superiority over the enemy, particularly after heavy losses had depleted his store of seasoned pilots. By 1944 combat scores, even when allowance is made for the inevitable errors in reporting—and those are less gross for fighter than for bomber claims—were one-sidedly in favor of the Americans. Meanwhile, heavy strikes were made at airfields; runways were made unserviceable and planes on the ground were bombed and strafed. The development of the parafrag bomb in the Southwest Pacific allowed low-altitude attacks which were highly destructive even against planes protected by dispersal and revetments. The general success of this campaign was reflected in the marked decline in Japanese air power, already apparent before the great carrier strikes of 1944; the particular success in each minor campaign after Guadalcanal and Papua was reflected in the failure of the enemy's air forces to impose serious losses on assault forces or to retaliate effectively after the area under attack had been seized.

Pacific warfare was island warfare. In one of those long letters to Arnold which presented so discerning an analysis of the campaigns in MacArthur's theater, Kenney has pointed to the significant fact that it mattered little whether a Japanese base occupied a small island (like Biak or Vella Lavella) or a shore-line position on a larger land mass (as at Saidor on New Guinea or Cape Gloucester on New Britain). In either case, there was no effective land LOC with other bases. For reinforcements or supplies each base was dependent upon sea or air transport, and in the latter category the Japanese never showed the daring and imagination which characterized American usage. Isolation of any chosen area came to mean then largely an attack on shipping and convoying naval vessels; less usual, though occasionally remunerative, were strikes at jungle trails as in the Buna or Markham valley campaigns.

As in counter-air force activities, antishipping strikes served two purposes. There was a perpetual campaign of attrition, carrying top priority, against merchant vessels wherever found. Here the aim was essentially strategic, since the exploitation of the newly won empire put a strain upon the Japanese merchant marine; and, when losses exceeded the shipbuilding potential, there would follow a general weakening of the enemy's war machine. There was besides a more specific

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effort to isolate each intended or actual battlefield from possible reinforcement and resupply. Part of the attrition in either case was the silent work of U.S. submarines, part was done by Navy and Marine planes; there was plenty of hunting for all. In this volume the interest is, without intended slight, focused largely on the activities of the Army air forces. The story is particularly gratifying because, for reasons elucidated in Volume I, the early record of the AAF against ships had proved disappointing. Some of the adverse factors continued to plague the Fifth and Thirteenth Air Forces in the early campaigns hereinafter described; their efforts off Papua and Guadalcanal were none too successful, and the long resistance of the enemy in those places, as compared with later battles, was an accurate gauge of the importance of isolating an enemy garrison. But, as heavy bombers became more plentiful, they were dispatched in formations permitting a standard bomb pattern; better conditions of operational control allowed AAF commanders to follow or improve on their own doctrines. The heavies were brought down below the excessive altitudes from which they had earlier bombed, and their scores showed a decided improvement. Eventually a limited number of SB-24 radar-equipped "snoopers" were deployed in the theater, and they showed an extraordinary ability in tracking and striking by night. Yet the lesson of 1942—that the heavy bomber was not the ideal antishipping weapon it had once been thought—was not forgotten; ground targets absorbed most of the B-24's efforts, and against surface craft it was perhaps most effective when teamed with other aircraft types.

Much more lucrative were the results obtained by light and medium bombers. Kenney turned B-25's into "strafers" by crowding onto them as many forward-firing .50-cal. machine guns as possible and sent them and his A-20's in at mast height, first to beat down anti-aircraft fire, then to lob in 500-pound bombs at low level. Mixing these planes with bombers at medium and high altitudes, he was able to score again and again on enemy convoys and their escorts. The mission reports carry remarkable claims; even when scaled down by the Joint Army and Navy Assessment Commission, never extravagant in its estimates of AAF accomplishments, the record in the South and Southwest Pacific was impressive. As losses, or threatened interdiction of a given route, forced the Japanese to depend upon luggers, barges, and other light craft which crawled along the shores at night and holed up by day, light and medium bombers became adept at hunting

them out and attacking with bombs or strafing with machine guns and the 75-mm. cannon of the B-25G. Japanese diaries found in many of their captured bases told a grim story of want of ammunition, food, and medical supplies, but these accounts merely fill in the details of a story suggested in outline by the very success of the assault.

As for the assault, that was delivered only after the base had been pounded from the air, often by naval gunfire too. The weight of effort applied, and the efficacy of results, varied widely from island to island: at Tarawa pre-invasion bombardment failed to destroy many defensive works, and the Marines lost heavily; at Cape Gloucester, a month later, the Marines were able to go in "with their rifles on their back" (to quote Kenney), for the whole defense area had been so thoroughly saturated in a long and persistent bombardment that the verb "gloucesterize" came into usage in the Southwest Pacific as "coventrize" had in England. In general, pre-assault bombardment seems to have had more significance than the close support of ground soldiers after they had contacted the enemy; perhaps the most important job of the air forces during the actual invasion was to protect the amphibious forces from enemy air attacks. In this the AAF was highly effective. An infantry officer with wide experience in the North and Central Pacific wrote: "As a ground soldier I have never seen a Japanese airplane in the air during an American amphibious assault—not one."* Had he been at certain other landings, he might well have seen enemy planes but, after Guadalcanal, rarely in considerable numbers. In part this security resulted from the constant hammering of Japanese airfields within range, which forced the enemy to adopt a narrowly conceived defensive policy, with his fighters more active than his bombers, but there still remained the need for an Allied fighter cover during the landing.

This need and the radius-of-action factor of the fighters conditioned strategy in the Pacific. Some assaults were covered by carrier planes alone and there the jump from island to island was long, but usually the move was within a distance over which land-based fighters could operate. The long range of the P-38 (to say nothing of the saving grace, in overwater flights, of a second engine) made it a favorite plane for this purpose, and modifications in the theater added significantly to its original range. But the necessity for fighter cover

* Quoted in Vern Haugland, *The AAF against Japan* (New York: Harper & Bros., 1948), p. 112.

put a premium on the occupation of potential sites for advanced strips in undefended or lightly defended areas (as at Marilinan) and in the rapid restoration and development of fields seized from the enemy. Aviation engineers moved in with the assault troops, and, although their exploits were less widely publicized than those of the Seabees doing similar work, the difference lay rather in the effectiveness of public relations campaigns than in actual accomplishments. The grader and the bulldozer became weapons almost as important as the plane itself and generally more useful in the campaigns, one may suppose, than the tank.

The pace of the advance was sometimes accelerated by the skilful use of paratroopers (as at Nadzab and Noemfoor) and of air transport, both for troop movements and for supply. Here the C-47 was the wheel horse, and it took its place with the B-24, B-25, A-20, and P-38 as the favored weapons of the AAF in the Pacific. The timetable was advanced also by the practice, made possible by Allied air superiority, of neutralizing and by-passing some enemy bases. Attacks on such bases, usually by heavy bombers, continued long after the striking blade of the combined forces had swept forward, but the tactic paid off in lives as well as in time saved.

This, in briefest outline, was the nature of the air war in the Pacific: the assaults were never to gain land masses or to capture populous cities, but only to establish airfields (and fleet anchorages and bases) from which the next forward spring might be launched. Or such, at least, was the nature of the war as it has appeared to the editors; another reader may gain from the narrative a different, perhaps a more discerning, view.

It is hoped that the maps will help the reader to follow the general movement of the war as well as the details of the several campaigns. The spelling of some of the place names, particularly those involving transliteration into our alphabet, has caused the cartographer some difficulty. In general, the practice has been to follow the orthography of the Army Map Service save for those names where common usage has established other spellings. In certain cases the usages of that service are not fully standardized, and advice has been sought from the Board on Geographic Names. It is hoped too that the photographs will serve to illustrate some of the generalizations hazarded in this Foreword as well as the particular activities or places which they portray. The illustrations, incidentally, are from the Air Force Photographic Records and Services Division, to which the editors owe

thanks for aid in combing the files and for permission to use the pictures. The cartoon on page 438 was provided through the courtesy of Lt. Gen. George E. Stratemeyer.

General Stratemeyer has been most helpful too in answering questions pertaining to his tour of duty in the CBI, including many that concerned the command structure so pungently depicted in the cartoon. Because much of the story of the CBI turns upon personal factors—sometimes too delicate to describe fully in an “Eyes Only” cable—interviews with individuals concerned have often proved of more than usual value, and the editors hereby acknowledge their gratitude to those who, like General Stratemeyer, have so courteously submitted to queries which sometimes must have seemed impertinent—to Mme. Chiang Kai-shek, Maj. Gen. Patrick J. Hurley, Maj. Gen. Claire L. Chennault, Maj. Gen. Frank D. Merrill, and Maj. Gen. P. T. Mow of the Chinese Air Force.

The editors are glad also to record their sense of special indebtedness to Gen. George C. Kenney for his careful and penetrating criticism of that part of the manuscript which deals with operations in the South and Southwest Pacific. He brought to his reading of the text a memory sharpened by a review of the record for his own personal account of the war, recently published,* and his willingness to concede to other authors the right to interpret the record differently has strengthened the assurance with which the editors have accepted his clarification of problems that otherwise would have remained obscure. Especially useful has been his assistance in supplementing a none too complete record of the period of the Buna campaign.

The aid thus given by these leaders, and others, serves to emphasize again the cooperative nature of this historical project, and nowhere has the cooperative spirit been more apparent than among the authors of the present volume. For reasons that already have been suggested, the war against Japan lacked even that imperfect degree of unity that characterized the war against Germany. Inevitably, the manuscripts originally submitted to the editors involved a certain amount of duplication arising from the authors' efforts to relate their respective stories to the over-all plans of the Joint Chiefs of Staff, and the editors had no choice but to place the discussion of certain general subjects where it seemed in their judgment best to fit. This has involved more than a little transplanting, as the editors have borrowed heavily from one author to bolster the account of another, and, considerations of time

* *General Kenney Reports* (New York: Duell, Sloan & Pearce, 1949).

being what they are, the borrowing has been done without so much as a by-your-leave. It is believed that the loans about cancel out in the end, but perhaps the reader will tolerate here an editorial apology to the author who may find one of his choicer phrases deeply imbedded in an account credited to a colleague.

The authors are identified in the Table of Contents by their present positions; it may be useful here to indicate also their wartime assignments. Three have already contributed to Volume I of this series. They are Richard L. Watson, Kramer J. Rohfleisch, and Herbert Weaver, all of whom, as Air Corps officers, were members of the Historical Division, AAF Headquarters, with special responsibilities for the Southwest Pacific, the South Pacific, and the CBI theaters, respectively. Of those who appear first in this volume, Harry L. Coles was associated with the same office. The others served with Army air forces in various Asiatic and Pacific theaters: Lee Bowen with EAC SEAC in India; Frank Futrell with FFAF in the Philippines; James C. Olson with AAFPOA in Hawaii and Guam; and Capt. Bernhard L. Mortensen with V Bomber Command in the Southwest Pacific.

There are many others who have helped, each in his own way, to present this story of the air war to the American public. Col. Wilfred J. Paul, Dr. Albert F. Simpson, and Lt. Col. Arthur J. Larsen of the Air Force Historical Division, which is responsible for this and other volumes in this series, at all times have given their energetic and intelligent support. Mr. Alan Bliss, Mrs. Wilhelmine Burch, and Mrs. Estelle Baldwin Cornette, as readers of the manuscript and of the printer's proofs, have saved the editors from much of the burden normally falling to their office and from numerous blunders, large and small. Mrs. Juanita S. Riner and Mrs. Lola B. Lowe, especially in their care for accuracy of detail, have been of great assistance in the preparation of the text. T/Sgt. Fred Kane and Miss Fanita Lanier have done the maps, and Miss Juliette Abington has made the initial selection of the pictures. Capt. George W. Satterfield, Jr., has been most generous in answering questions of a technical sort. Miss Marguerite Kennedy and Mr. Frank C. Myers, as custodians of Historical Division files, frequently have been able to suggest where needed information was to be found; so also has Dr. Edith C. Rodgers, whose acquaintance with those files is both wide and deep. Lt. Col. Garth C. Cobb and Mr. David Schoem have provided substantial assistance at all stages of the project. Others of Colonel Paul's staff, past or present, to whom

acknowledgment should be made for services too varied to be specified are Capt. John W. Miller, Capt. George H. Saylor, M/Sgt. J. P. O. L. Beaudry, S/Sgt. John C. Rayburn, Sgt. Hasken E. Willis, and Sgt. Joseph V. Willis.

In Maj. Gen. Orlando Ward and Dr. Kent Roberts Greenfield of the Army's Historical Division the editors have at all times found a friendly willingness to help with the resources at their command. Similarly Rear Adm. John B. Heffernan and Dr. Henry M. Dater of the Department of the Navy have been generous in their readiness to assist in correcting the details of the text. To Brig. Gen. John T. Selden, Director of Marine Corps History, and to his professional associates, goes a special acknowledgment for their courtesy in making available to Air Force historians the records of air operations in the South Pacific which were joint operations in the fullest sense of the term and are recorded more fully in the files of the Marine Corps than elsewhere.

The editors would like, while making these acknowledgments, to point out one of the embarrassments of their position. Currently the Army, the Navy, the Marine Corps, and the Air Force are engaged in an attempt to present to the public a careful estimate of their respective contributions to the war effort, and in general those of us who write of one service are privileged to draw upon the work of associates of another service—as the incomplete acknowledgments listed above will affirm. As a practical matter, however, it is not always possible to interrupt established publishing schedules in order to take cognizance of the latest published results of our colleagues' work. If in the following pages insufficient attention seems to be given to such recent studies as John Miller, Jr.'s *Guadalcanal: The First Offensive*, Maj. John L. Zimmerman's *The Guadalcanal Campaign*, or Samuel E. Morison's *The Struggle for Guadalcanal*, it is because at the time of their publication this book had gone to press. It can only be hoped that historians of a later date who can put our several published works side by side may be able to come somewhat closer to conclusions that are definitive.

Once again the editors are happy to record their indebtedness to members of the Air Force Advisory Historical Committee: Professors Richard A. Newhall of Williams College, John A. Krout of Columbia University, Joseph R. Strayer of Princeton University, and Clanton W. Williams of the University of Alabama.

WESLEY FRANK CRAVEN
JAMES LEA CATE

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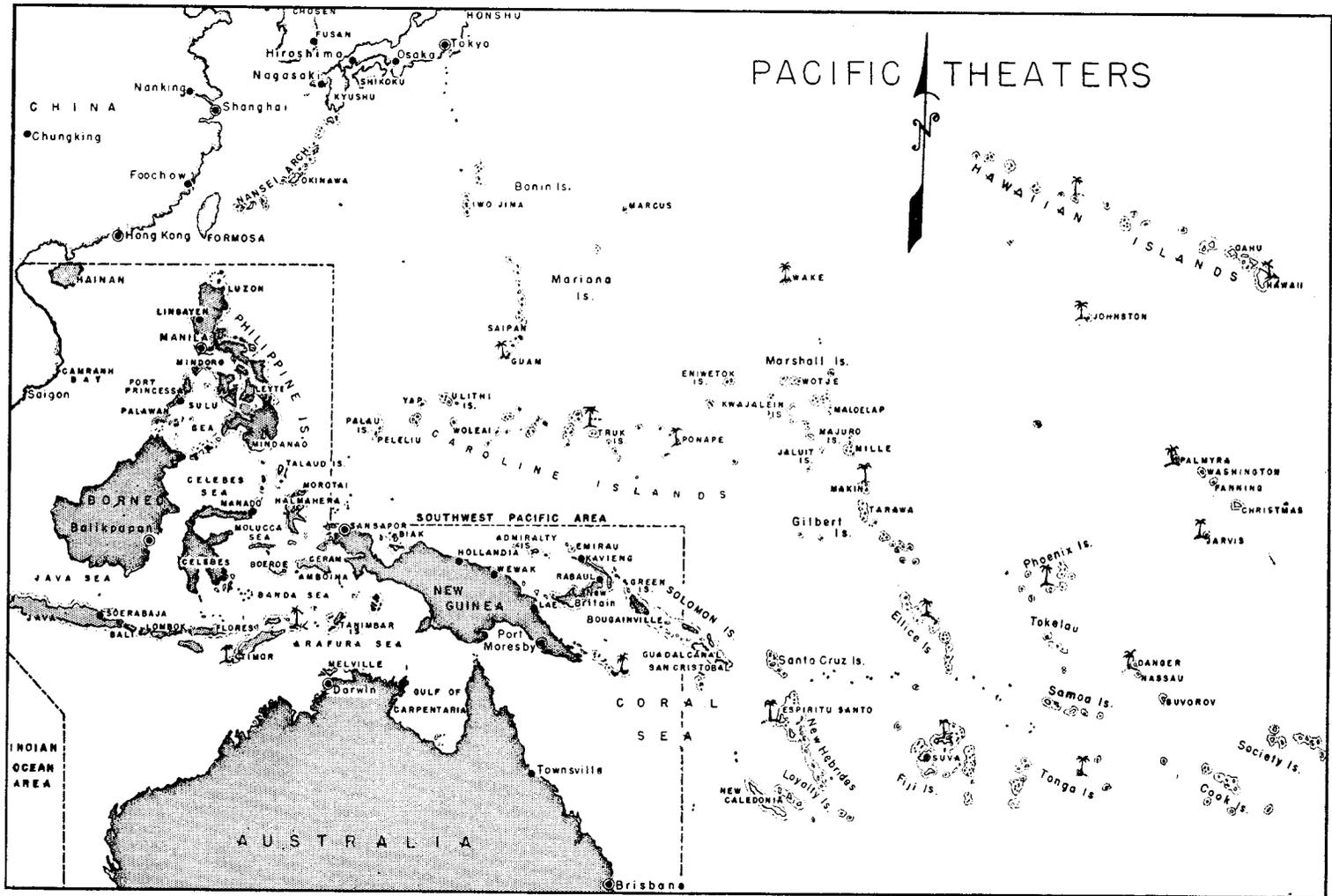
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SECTION I

* * * * *

*THE CRISIS IN THE SOUTH AND
SOUTHWEST PACIFIC*

THE ARMY AIR FORCES IN WORLD WAR II

to retain a line of communication between Australia and the West Coast of the United States. Sydney and Brisbane faced Los Angeles and San Francisco across 7,500 statute miles of water and islands— islands whose retention and safety following the loss of Wake and Rabaul had become a critical necessity to the Allies. Palmyra, Canton, the Fijis, New Caledonia, all were indispensable to maintenance of an air route to Australia and as a screen for vital seaways. Some consideration was given to the possibility of falling back upon an alternate air route running farther south through Christmas, Bora Bora in the Society Islands, Aitutaki in the Cook group, Tongatabu in the Tonga Islands, and thence on to Auckland in New Zealand, but this plan was viewed as a last resort.

Japanese forces had seized New Britain as early as January 1942. To the southeast of the great harbor at Rabaul, stretching away more than 600 miles from Buka Island on the north to San Cristobal in the south, lay the rugged and jungle-covered Solomon Islands, leading toward the New Hebrides and the Fijis. In the bays and harbors of Bougainville, Shortland, Choiseul, Florida, New Georgia, Kolombangara, Vella Lavella, and Santa Isabel were anchorages for Japanese surface craft, habitable areas for personnel, protected shelter for float planes and long-range flying boats. On some of the islands there were flat areas capable of development into airfields for land-based aircraft. The value of the Solomons in the defense of New Britain had not been lost upon the planners of Japanese strategy, particularly upon the naval commanders at Rabaul. Within a few weeks after the capture of Rabaul and Kavieng, on near-by New Ireland, the Japanese began to extend their grip down the chain.¹

As early as February the U.S. Navy had received indications of enemy offensive action in the area, and during the following months Japanese activity in the Solomons increased. By 4 April, Buka, Bougainville, Sohana, and Faisi in the Shortland area, all had been occupied; six weeks later far down on New Caledonia, Maj. Gen. Alexander M. Patch read the fresh reports of enemy concentrations at Rabaul and anticipated an offensive move southward in the near future.² Early in May the Japanese did move down to Tulagi, off Florida Island, where their ships were hit hard by *Yorktown's* aircraft on 4 May in the opening round of the Battle of the Coral Sea but, fortunately, fears of a serious offensive in that direction for the moment lacked justification.

CHAPTER 1

* * * * *

NEW GUINEA AND THE SOLOMONS

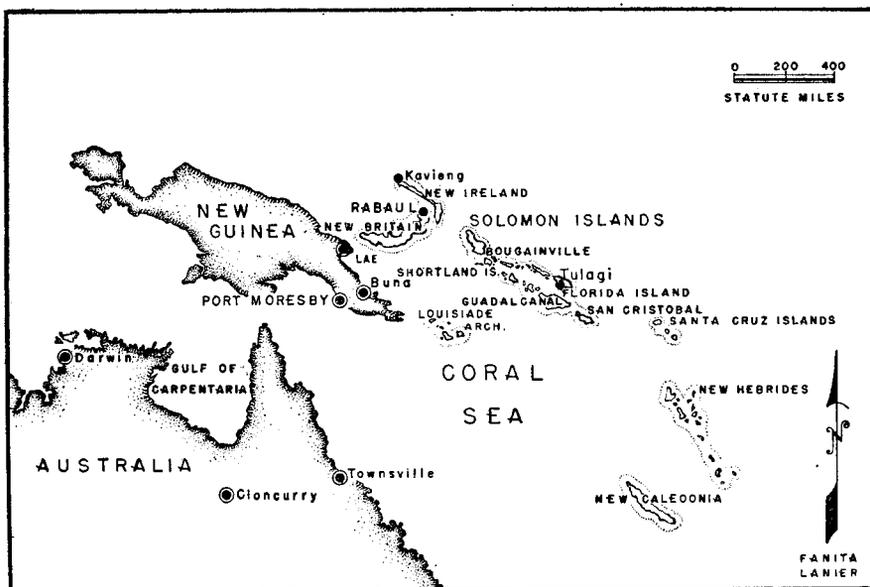
THE Japanese attack on Pearl Harbor was followed by a rapid succession of victories in the enemy's southward drive to gain possession of the Netherlands East Indies. Within little more than five months not only had he won that prize but the collapse of American resistance in the Philippines had given him undisputed control of the sea communications joining the Indies with the home islands. For the protection of his new conquest he had seized Singapore in the west, and by overrunning Burma he had placed his forces in position to cut the last remaining line of supply by which China could draw upon outside aid for her continued resistance to the invader. Meanwhile, the enemy's perimeter had been pushed eastward in the Central Pacific to Wake Island and in the Southwest Pacific to Rabaul in New Britain, with its command of the approaches to Australia and the South Pacific.

Not until May, in the Battle of the Coral Sea, did Allied forces succeed in breaking the chain of Japanese victories. In the enemy's attempt to extend his lines eastward to Midway in June, he sustained a decisive defeat at the hands of American forces. But if there was cause for new optimism in the victory at Midway and in the limited success of the enemy's simultaneous venture in the North Pacific, there still remained an especially critical threat to the Allied position in the South and Southwest Pacific.

One by one the outposts had been stripped away from Australia, now destined to become the focal point of Allied resistance and offensive power in the Southwest Pacific. No less urgent than the problem of the subcontinent's immediate defense was the question of how best

NEW GUINEA AND THE SOLOMONS

The offensive would follow another direction south. Southwest from Rabaul the island of New Britain led down toward the Huon Peninsula on New Guinea across the Vitiaz Strait, and from here the path of the invader swung southeastward along the north coast of Papua. Having seized airfields on New Britain, the Japanese had placed themselves within easy bombing distance of the scattered Australian outposts on New Guinea; Lae and Salamaua, both located on the



NEW GUINEA AND THE SOLOMONS

Huon Gulf, had experienced air raids as early as mid-January, raids which were followed by enemy seizure of the two outposts on 8 March. The thin Australian garrisons could offer only light opposition to the assaults against Lae and Salamaua or against Finschhafen, which fell on 10 March.³ And so by May 1942 Japanese troops and planes stood only 170 air miles from Port Moresby, the most important outpost remaining to the Allies on New Guinea.

Threat to New Guinea

In the early summer of 1942, Port Moresby was the focal point of Allied effort to stem the progress of Japan's conquering forces. Lying on a narrow coastal plain outside the neighboring jungle, protected

from most seaward approaches by dangerous coral reefs, and possessing the only harbor in eastern New Guinea large enough to shelter a fleet, it was of vital importance both in the defense of Australia and as a point of departure for an Allied offensive. Already it had become an outpost of flourishing activity and the target of frequent air raids by the enemy, who struck regularly at the port's satellite airstrips—some of them new fields under construction, some old ones now undergoing improvement by hard pressed engineers. Leading back into the jungle and the Owen Stanley Mountains, which dominate the topography of Papua, were several tracks. The most important of these was that winding up through mountain forest to The Gap, a pass cutting across the Owen Stanleys at elevations varying from 5,000 to 8,000 feet and emerging at the native villages of Isurava and Deniki, just short of Kokoda. At Kokoda an Australian government station 1,200 feet above sea level marked the halfway point between Port Moresby and Buna, on the northern coast of the Papuan Peninsula. To Buna from Kokoda the track carried for a relatively easy sixty-three miles over undulating country.

The area lying between Port Moresby and Buna presented most formidable barriers to military operations. Slashed with rivers and creeks which drain the upper regions and lead down to the swampy lowlands of the coast, the surface of this primitive land was further tortured by a mass of lush and often impenetrable vegetation. There were no railroads nor were there any motor roads linking the principal villages and administrative centers; inland after a storm the narrow native tracks became little better than muddy ruts through the forest. Papua thus was a land peculiarly dependent upon seaborne and air-borne transport. Kokoda and Buna, like Lae, Salamaua, and Wau to the north, possessed all-weather strips.⁴

Port Moresby had been the goal of the enemy in an attempted amphibious invasion early in May but that effort ended in failure in the Battle of the Coral Sea. There is some evidence to indicate that the Japanese navy made further plans to take Moresby, even going so far as to establish the Eighth Fleet for the operation, but the designated forces were destined to be expended in the Solomons and not in a second amphibious attempt against Port Moresby.⁵ Meanwhile, the Japanese army had drawn its own plans for the capture of the port on the south coast of Papua; it would land at Buna on the north coast, then cross the high Owen Stanley range to take Port Moresby from

the rear.⁶ If this was a formidable undertaking the Japanese army did not so regard it, for it labored under the impression that neither the U.S. nor Australian army forces possessed the stamina to offer any serious obstruction, and Imperial army commanders were filled with confidence that the crossing could be made without difficulty.⁷

The Allied forces whose task it would be to meet the enemy thrust were organized under the leadership of Gen. Douglas MacArthur, who had assumed command of the Southwest Pacific Area on 18 April 1942.* His command consisted of the Allied Naval Forces under Vice Adm. Herbert F. Leary; the Allied Air Forces under Lt. Gen. George H. Brett; the Allied Land Forces, commanded by Gen. Sir Thomas Blamey, popular Australian leader of earlier battles in the Middle East; and the U.S. Army Forces in Australia under Maj. Gen. Julian F. Barnes, a command to be reorganized on 20 July as the U.S. Services of Supply in the Southwest Pacific and placed under Brig. Gen. Richard J. Marshall.⁸ To the poorly armed and inadequately trained Australian militia, traditionally limited in its activity to operations within Australia, were added almost two Australian divisions of desert-toughened troops only recently returned from the Middle East. Two American divisions, the 32d and 41st, rounded out Blamey's command.

American air units in Australia and New Guinea were not to be organized into a separate U.S. air force until September. Because the Australians were in a position to furnish the communications and headquarters personnel the Americans lacked, an Allied command incorporating both Australian and American units had seemed appropriate. The American planes were assigned late in May to the operational control of the commanding general of the land forces of the Northern Territory and to the commander of the New Guinea Force on the understanding that these ground commanders would not interfere with the control exercised by air officers except in the event of an imminent attack.†

U.S. air units in the Southwest Pacific—regarded as “pitiably inadequate” for their task—consisted on 31 June 1942 of 1,602 officers and 18,116 enlisted men with a paper strength of two heavy, two medium, and one light bombardment groups, three fighter groups, two transport squadrons, and one photographic squadron. Of the heavy groups, the 43d would not be ready to carry its share of the burden until

* See Vol. I, 419.

† See Vol. I, 420-21.

autumn, a fact which forced the 19th Group and its veterans of the Philippine and Java campaigns to continue as the mainstay for heavy bomber operations. The 38th Bombardment Group (M), which was to be equipped with B-25's, did not have its planes in commission until mid-September and even then two of its squadrons, the 69th and 70th, actually served on assignment to the South Pacific. The 22d Bombardment Group (M) had been in operation with its B-26's since April; the 3d Bombardment Group (L), having incorporated the remnants of the 27th Group after the fall of Java, fought in July under the experienced leadership of Col. John Davies with an assortment of planes which included twenty-two A-24's, thirty-eight A-20's, and seventeen B-25's. All bomber groups were based within Australia, and for strikes against Rabaul and intervening targets they used the fields at Port Moresby only as a staging point, in part because of the frequent bombing raids delivered against Moresby by the enemy's 25th Air Flotilla. The heavy bombardment missions pulled the B-17's away from their home bases at Townsville for thirty-six to forty-eight hours, including approximately eighteen hours in actual flight, and levied a heavy drain upon the aircrews.⁹ Of the fighters, the three groups were reported on 1 May to be 100 per cent complete with a 50 per cent reserve. By July, two squadrons of the 35th Fighter Group equipped with P-400's had moved up to Port Moresby. The 8th Fighter Group had withdrawn its P-39's to Australia, while the P-40's of the 49th Fighter Group continued to concentrate upon the defense of Darwin.¹⁰

The American units were deployed for the most part in areas remote from the main centers of Australian population. Primitive living conditions, lack of opportunity for recreation, unfamiliar rations, the war weariness of men rescued from the Philippines and Java, the inexperience and inadequate training of some of the more recently arrived units, stagnancy in the promotion list, lack of adequate provision for hospitalization, and other such influences made it difficult to maintain a necessary level of morale. And if it was difficult to hold at a high level of efficiency the men who flew the planes, it was equally difficult to maintain the equipment. Heavy tasks confronted the U.S. Army Air Services under Maj. Gen. Rush B. Lincoln. His shops and depots were more than 7,500 miles from the United States, shipping space was at a premium, and the demands of other theaters often took precedence. Even the planes dispatched over the South Pacific ferry

route* were subject to raids upon their incidental equipment at the hands of U.S. air personnel stationed along the island chain, who themselves were in dire need of parts.¹¹ Australian industrial facilities already were overburdened, the local transportation system was woefully inadequate in the most critical areas, and a persistent shortage of spare parts, trained mechanics, and service units, together with imperfect landing fields, hazardous weather, great distances, and unceasing combat, made it difficult to keep more than 50 per cent of available aircraft in commission. Even the estimated wastage factor of 20 per cent was regarded as conservative, and the best efforts of representatives of American and Australian commercial firms, who continued to perform much of the repair work, were unable to meet the demand.¹²

Other difficulties arose from the lack of reliable information concerning a combat area known to only a few white men and for which no adequate maps existed.¹³ Although an effective intelligence organization had been established at Brisbane and was operating under Air Cdre. Joseph E. Hewitt, its evaluation of enemy activities suffered from poor communication. However, it did have the benefit of reports sent in by the coast watchers, a group of men of great daring and ingenuity, Australians for the most part, who worked their way close up to Japanese airfields and installations, sending back over their small radio sets regular reports on enemy activity.¹⁴ Aerial reconnaissance provided a second vital source of information but it was a function which imposed a heavy burden upon the limited resources of the Allied Air Forces. Planes searched for submarines 500 miles off the coast of Australia, patrolled the East Indies and New Guinea, and covered the sea and air lanes along New Britain, New Ireland, and the northern Solomons.¹⁵ All bombardment squadrons occasionally performed these missions, but it was the 435th Squadron of the 19th Group which flew the majority of them in the New Guinea–New Britain area through the summer and early autumn of 1942. Originally flying two daily missions out from Townsville, by August this unit moved four aircraft and eight crews up to Port Moresby and doubled its missions to four per day.¹⁶

Under the leadership of Maj. Karl Polifka the 8th Photo Squadron complemented the work of the 435th. After Flight A of the 8th had reached Australia in April, Polifka in an F-4—a P-38 stripped of its guns and equipped with special cameras for aerial mapping—had per-

* See Vol. I, 180–81, 359–60, 428.

formed almost single-handed the feat of mapping a large portion of the eastern New Guinea and New Britain areas. In June, Flights B and C arrived and a month later, in conjunction with the 435th, the squadron was operating out of Port Moresby, although the base of both units was 675 statute miles distant at Townsville. The normal route led from Port Moresby up to Rabaul, thence back over Lae and Salamaua, but the light F-4 often received a heavy battering from weather as it crossed the equatorial front on the way up to Rabaul. It was a task that extended plane and pilot to the limit, and in time Wewak and Madang became the most distant objectives.¹⁷

The Problem of the South Pacific

The successive attempts that had been made to halt the southward thrust of Japan's forces had given a high priority to the claims of the Southwest Pacific on available military forces. But the build-up to assigned strength, and even the reaching of a firm decision on strategic questions, was complicated by problems of the neighboring South Pacific. It having been settled by the Combined Chiefs of Staff that the Pacific should be an area of American strategic responsibility, the Joint Chiefs had reached agreement in April to establish a separate Southwest Pacific Area under MacArthur's command and to divide the Pacific Ocean Area, under Adm. Chester W. Nimitz, into the North, Central, and South Pacific.* Upon this last command, which joined the Southwest Pacific Area east of the Solomons, fell the primary responsibility for defense of the island chain extending back from Australia toward Hawaii.

Vice Adm. Robert L. Ghormley was assigned as Commander South Pacific (COMSOPAC) on 13 April, with command of all base and local defense forces then assigned or to be assigned to the South Pacific islands, exclusive of the land defenses of New Zealand. The naval forces of that country, however, would come under Ghormley's control, and through his air officer, Commander Aircraft South Pacific Force (COMAIRSOPAC), he would hold responsibility for the operational control of all aircraft in the area.¹⁸ Rear Adm. John S. McCain assumed command as COMAIRSOPAC on 20 May 1942 from his headquarters aboard USS *Tangier* at Noumea, New Caledonia.¹⁹ General Patch, as commander-designate of the New Caledonia Task

* For the geographical limits of these several commands, see Samuel E. Morison, *History of United States Naval Operations in World War II*, IV, 249-50.

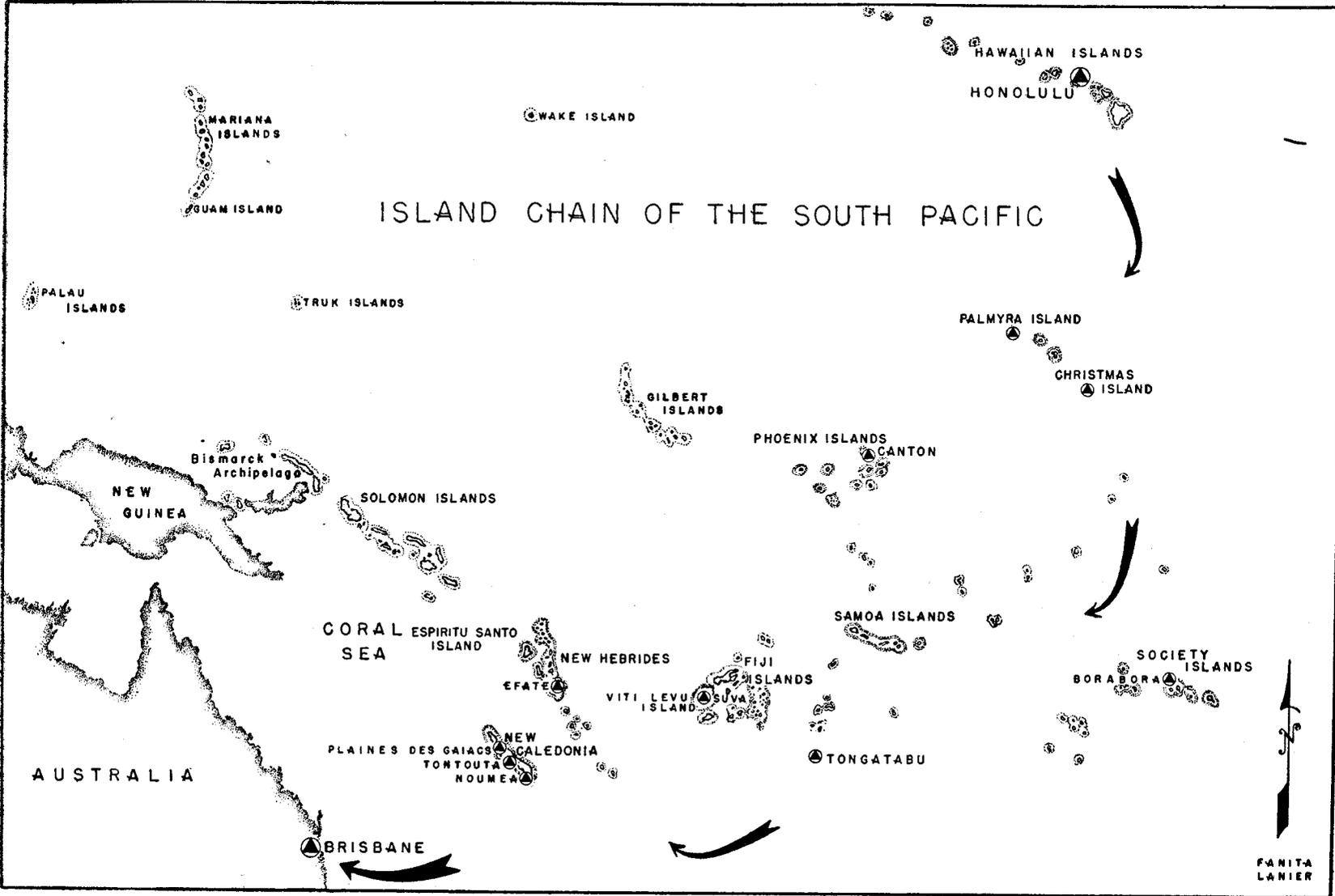
Force, had reached his post as early as 7 March, five days in advance of a strong force which by April was up to division strength. Another division, the 37th, was scheduled to leave the West Coast for Fiji in May.²⁰

When Admiral McCain reached Noumea on 18 May 1942, he found only meager resources available. At Noumea he had one and a half squadrons of PBY's, and elsewhere on New Caledonia one squadron of Army fighters (the 67th, which had come in on 15 March), the Army's 69th Bombardment Squadron (M), and one fighter squadron of the Marine Corps, this last squadron in training preparatory to its movement to Efate. At Efate the field was not yet completed but was being covered by a half squadron of scout observation planes. Based in the rear area was an Army fighter squadron (the 70th) at Fiji, another (the 44th) in the Tonga group, one Marine squadron of fighters and one of SBC-4's at Samoa, plus some miscellaneous scouting aircraft at Tonga, Samoa, and Bora Bora.²¹

Operational bases consisted of one field each at New Caledonia, Tongatabu, and Samoa. Another was then under construction on Efate, where since 4 May the 1st Naval Construction Battalion (Seabees) had continued the work originally begun by the Marines and Army engineers. According to plan, this field would be ready for B-17 test landings on 23 June.²² Over on Fiji, pilots had been using two fields (Nausori and Nandi) since January and February, respectively, and Narewa was added to these two in May when P-39's of the 70th Fighter Squadron moved over from Nandi on the 25th.²³

Tontouta, about thirty miles northwest of Noumea, was the major base on New Caledonia, having been taken over by the 811th Engineer Aviation Battalion early in April 1942. Until this unit departed from New Caledonia on 27 March 1944, it continued to rebuild, improve, and maintain Tontouta, assisted later by the 873d Airborne Engineer Aviation Battalion and by the 131st Engineers. The combined efforts of these service units made Tontouta the most important base on New Caledonia and one of the most highly developed in the entire South Pacific theater.²⁴ Simultaneously, construction of an air base was under way at Plaines des Gaiacs, lying 116 miles northwest of Noumea. Planned and originally begun by U.S. engineers from the Hawaiian Department, this project was taken over on 10 April 1942 by the 810th Engineer Aviation Battalion, which like the 811th had reached New Caledonia on 15 March. At Plaines des Gaiacs the first

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runway was declared operational by approximately 1 May 1942, although the entire project did not reach completion until mid-December, after a constant 24-hour daily construction program. In addition to these installations, the 67th Fighter Squadron then operated from a number of very small and inadequate strips in southwest New Caledonia, plus one more on the east coast of the island.²⁵

The need for occupation of Espiritu Santo as a defense for Efate early became apparent to Brig. Gen. Harry D. Chamberlin, U.S. Army commander at Efate, and to McCain as well, who requested that 500 troops be sent to Espiritu in order to prevent the Japanese from moving in. Troops actually were sent to the large island, a small detachment moving up by 28 May under Brig. Gen. William I. Rose, but COMAIRSOPAC was not allowed to construct an air base. The best Rose could do was to run a survey of a site for the field, construct a road to it, then sit back and await orders to complete the project, orders he knew would come in time.²⁶

The air power thus far available to the air commander of the South Pacific was at best limited to a defensive role. Excluding the Catalina (PBV), his aircraft were of short range, were bound to their bases, and the vulnerability of the PBV served to restrict drastically its offensive function. Nowhere was there a striking force of bombardment aircraft capable of fending off thrusts at considerable distances from the island bases. Indeed, the question of how this need should be met was still under debate at the highest level of command.

A wide margin of difference persisted between the U.S. Navy and the Army Air Forces as to the most efficient means of defending the South Pacific islands. Consistently the AAF rejected the Navy's contention that the solution lay in establishing a series of bases, each to be defended by substantial air strength that would include a component of heavy bombers. The AAF had no desire to immobilize any of its precious heavy bomber strength solely in defensive positions far out on the lesser Pacific islands. Instead, it believed that the answer to their defense lay in holding major mobile striking forces at each end of the line; as necessity arose these could be shifted rapidly along the island chain.²⁷ It had been clear to the Joint Chiefs of Staff in the early months of 1942 that no sound action on the debate could be taken without a survey of the existing situation and commitments. Accordingly, the Joint Staff Planners had been directed to present an assessment of defense requirements for the ferry route,²⁸ and as a result the

Joint Chiefs were offered on 2 May a thorough canvass of all factors affecting the South Pacific. Representatives from all services squarely met the fact that the South Pacific constituted only a small segment of a great global war, that there were many factors over which neither the Army nor the Navy exercised any significant degree of control and which at any time might capsize the entire program for distribution of resources. It was necessary to recognize not only enemy activity in the Pacific but existing obligations in the European theater; even the decision to move 40,000 British troops from the United Kingdom to replace Australian divisions in the Middle East had retarded reinforcement of the Pacific line of communications. In addition, and of somewhat more significance, it was only too plainly evident that Allied forces were unable to confine the Japanese fleet to the western Pacific.²⁹

General Arnold approached the discussions with a firm conviction that no additional air units of any kind would be dispatched to Pacific or India bases over and above those which already had been allocated by earlier decisions.³⁰ Despite this initial reservation, there was general agreement on the necessity for holding the Pacific line of islands, and a directive to this effect had been prepared for the two supreme commanders in the Pacific, Admiral Nimitz and General MacArthur. The former was directed explicitly to hold island possessions between the United States and the South Pacific necessary for security of the line of communications and for supporting naval, air, and amphibious operations against the Japanese. Further, he was instructed to prepare for the execution of major amphibious offensives against positions held by the enemy, offensives which were to be launched initially from the South and Southwest Pacific. For his part, General MacArthur was directed to check the enemy advance toward Australia and its essential lines of communications by destroying enemy troops and supply ships, aircraft, and bases in eastern Malaysia, New Guinea, and the Bismarck-Solomon Islands region.³¹

The Joint Staff committee had agreed upon a number of procedures for defending the South Pacific islands. It recognized that effective defense of the line would depend upon mutual support and use of (1) direct naval and air escort of shipping en route; (2) direct ground and air defense of the positions in the area in use as naval and air bases, either for forces operating in the area or for refueling or staging purposes; (3) covering operations by naval and air forces, interposed between the enemy and important convoys or vulnerable positions, in

readiness to accept combat with enemy striking forces; (4) denial to the enemy of positions which would enable his forces to disrupt Allied sea and air communications, a task involving the employment not only of sea and air forces to prevent enemy establishment in such positions but also of amphibious troops to dislodge enemy forces from positions in which they already were established.³² This final point assumed fresh importance in view of the planners' conclusion that seizure by amphibious forces of positions which would in turn threaten Japanese control of vital sea and air communications offered the greatest promise of success in containing enemy forces in the Pacific. The planners gave some attention to the role of aircraft carriers as defensive weapons for the islands, but there was general agreement that these naval units should not be relied upon, except in their proper function as essential components of naval task forces. Naval men regarded as unsound practice any attempt to place major elements of the fleet in fixed relation to particular shore positions—the fleet must be left free to operate in the theater as a whole.³³

This recognition of the necessity for mobility, which the Navy sought for its surface craft, was precisely what the Army Air Forces desired for its own weapons. In a discussion of the proposed commitments for the South Pacific involving an immediate objective, including reserves, of 40 medium bombers and 162 fighters and an ultimate goal of 40 mediums, 20 light bombers, and 193 fighters, it was essential to consider the possible types of attack which the enemy might throw against the islands. The alternatives ranged from isolated thrusts by surface raiders and enemy submarines to air attacks from carriers and, most dangerous, to sustained assaults by the Japanese in an attempt to seize elements of the island chain, as had occurred at Wake. AAF spokesmen considered these threats and restated their doctrine more fully than they had done at any time before; to them the most economical method of conducting air warfare in the islands lay in the maintenance of air bases properly disposed to accommodate air striking forces capable of concentration wherever needed.³⁴ To be sure, a persistent element of risk was inherent in the application of this arrangement, yet the airmen, viewing the strategic role assigned to the Pacific, were quite willing to accept the risk. And in any case, they did not regard it as sound policy to establish a chain of subsidiary fortresses reaching all the way to Australia in a theater which properly should claim minimum rather than large air forces. In the opinion of the airmen the solution to the defense problem lay in providing mobile air

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forces based in Hawaii and Australia, forces which could be concentrated in the central portion of the island chain in approximately one day.³⁵ They estimated that this central island chain could accommodate simultaneously a total of eighteen heavy bombardment squadrons, a force representing three-fifths of the mobile strength recommended for assignment to the entire area, to which could be added about seventeen naval patrol squadrons. Fiji provided an example. Within Fiji's radius of action lay airfields capable of basing approximately twelve bomber squadrons. Two squadrons already were set up for New Caledonia, leaving a total of ten to be flown in from Australia, New Zealand, or Hawaii. Since some twenty-six were committed to these three areas, a concentration of ten in the Fijis would entail a reduction of nearly 40 per cent in the defensive strength of Australia and Hawaii, and this was not regarded as a dangerous depletion.

With these factors in mind, Army Air Forces representatives submitted their proposal for the air garrisons, recommending that no additional medium or heavy bombardment groups be assigned to the central section of the island route over and above the medium group allocated to Fiji and New Caledonia in March.³⁶ Minor increases were in order. Tongatabu was granted two pursuit squadrons instead of one because of its increasing importance as a refueling base for naval and merchant surface craft. For Fiji, it appeared desirable to form the entire garrison exclusively of New Zealand troops; New Zealanders already comprised the ground forces and the Royal New Zealand Air Force was operating one squadron each of medium bombers and seaplanes from Fiji bases. The presence on permanent station of medium bombers in Fiji and New Caledonia would insure the provision of adequate facilities for both heavy and medium bombers which might be moved in for a particular operation. Such was the Army view. In presenting it the airmen included a summary of their estimate which indicated a total of 2,379 Allied aircraft currently in the Pacific, distributed as follows:³⁷

<i>United States</i>	<i>RNZAF</i>	<i>RAAF</i>
Navy seaplanes 276	Land planes 210	152
Marine land planes . . . 399	Seaplanes 12	
Carrier land planes . . . 300 (approx.)		
<u>975</u>		
Army land planes . . . <u>1,030</u>		
2,005	<u>222</u>	<u>152</u>
Grand Total	2,379	

NEW GUINEA AND THE SOLOMONS

The crux of the AAF argument lay in the plea for mobility. Air planners firmly believed that although mobile bombardment forces could not be assembled with sufficient rapidity to operate effectively against a hostile raiding force, whose carriers could strike and fall back with great speed, they at least could be concentrated in time to oppose a landing in force against any one of the principal islands of the chain. Naval spokesmen opposed this solution throughout and could come to no agreement with the Army. Whereas the AAF put strong reliance upon local fighter squadrons emplaced along the line and supported by mobile striking forces at the ends, the Navy demanded heavier strength in the center. Fighter aircraft alone, according to the Navy, would not suffice. The air component of each island base must include fighters to oppose the enemy in the air and light or medium bombers—or pursuit aircraft fitted to carry heavy bombs—to attack enemy carriers or surface raiders. Pearl Harbor had left a bitter memory and the Navy had no desire to risk a repetition even in miniature; furthermore, Navy men possibly were motivated by a traditional high regard for a chain of powerful fixed bases linking the area of their forward operations with the homeland. Although the Army did assent to the assignment of 120 patrol planes and 70 heavy bombers to Hawaii, Navy men felt that all these must be held in the Central Pacific area, including Canton Island, if fleet mobility were to be assured. And of this number, 72 patrol planes and 52 heavy bombers should be retained continuously in the Hawaiian group to meet minimum requirements for long-range air reconnaissance and striking forces. Nor did the Navy believe that the allotment for Australia was adequate to meet the continuing need of that area and for sudden emergencies in the South Pacific as well.⁸⁸

The Navy even parted company with the Army Air Forces over the ostensibly undebatable question of facility of movement. Navy spokesmen were of the opinion that there was currently a lack of appreciation for the distances and logistical problems involved in movements from Hawaii to the South Pacific and that several days might elapse before large numbers of aircraft could be prepared, moved through the intervening bases, and readied for effective operations. Nor could the Navy share the Army's sanguine view of the effectiveness of aircraft: "Exclusive reliance on long-range aircraft from Hawaii and Australia to meet needs for the defense of intervening communications will jeopardize the safety of these communications and of the forces over-

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seas which depend on them.”³⁹ So the Navy requested the continuous availability in the South Pacific area of long-range aircraft suitable for sustained operations. Specifically, it asked that one medium and one heavy bombardment group be assigned to the South Pacific area, a demand exceeding the Army proposals by thirty-one medium and thirty-five heavy bombardment aircraft, plus fifty-five fighters.⁴⁰ To its request the Navy appended the statement that if all these aircraft could not be provided by the Army, the necessary planes should be allocated to the Navy from current production and manned by naval personnel.⁴¹

General Arnold already had seen these proposals and had called for study of them with the admonition that no additional forces above current allocations could be sent to Pacific bases.⁴² The AAF planners accordingly reacted sharply against the suggested increase, stating that the AAF had been able to furnish only about one-third of the fighter aircraft and none of the bomber forces prescribed for the area by the decision of 14 March 1942.* Furthermore, they added that this latest plan failed to conform to current policy in that if approved, it would authorize equipping the RNZAF with aircraft for one medium and one fighter group in New Zealand and two fighter squadrons and one of medium bombardment in Fiji, including the necessary reserves for maintenance and attrition. As for the proposal to allocate planes to the Navy from current production, the planners reminded General Arnold that “if the airplanes were available, we would man them ourselves.”⁴³ It was clear that a substantial margin existed between the two proposals, substantial in respect to the total aircraft available to the AAF in the spring of 1942, even though in retrospect the number of planes involved appears pathetically small.

It was left to the Japanese commanders to heighten the sense of urgency already pervading the discussions concerning the South Pacific. Though the Japanese were turned back in the Battle of the Coral Sea, to Admiral King the outcome of the battle merely delayed formidable aggressive action on the part of the enemy, and the admiral suggested a trial concentration of land-based aircraft on some of the island bases to determine how rapidly this could be accomplished and what additional facilities were required for effective operations.⁴⁴ The Operations Division of the War Department promptly ordered Lt.

* See Vol. I, 436-37.

Gen. Delos C. Emmons, in command of the Hawaiian Department, to prepare the Fiji airfields for accommodation of approximately seventy bombers. A similar order to ready the bases on New Caledonia went out to General Patch.⁴⁵ But intelligence of Japan's intended thrust against Midway soon arrived, and until that challenge was met, it became necessary to concentrate all available forces at the eastern anchor of the chain. And for the time being the discussions rested.

No comprehensive plan agreeable to both Army and Navy for the air garrisons of the Pacific had yet been devised. Army air and ground forces both were planning for a major effort in Europe whereas the Navy was geared by training and indoctrination to a Pacific war. The Army's viewpoint did receive substantial support from the Commander in Chief. On 4 May, General Marshall laid the problem before Mr. Roosevelt, who assured the Chief of Staff two days later that only those heavy and medium bombers and pursuit aircraft necessary to maintain the existing commitments in the Pacific at full strength should be dispatched; as for sacrificing forces from the European theater, he reminded General Marshall that "I do not want Bolero slowed down."^{*46} In view of the recent successes of the naval task forces in raiding operations against the Japanese mandates and Lae, the President seemed confident that a strong Japanese offensive against Australia or New Zealand could be prevented.

Because no generally acceptable long-range program for Pacific air allotments had yet been formulated in Washington, General Arnold continued to work with those forces he felt he might reasonably spare. On the day following the Battle of the Coral Sea, 9 May 1942, he outlined his plans for Pacific air strength to be achieved by 1 July. His schedule included twenty-three fighter aircraft for Christmas, twenty-five for Canton and Fiji, forty each for Tongatabu and New Caledonia; Australia and Hawaii continued as before to serve as the repositories of the heavy bombers, and General Arnold indicated eighty planes for each.⁴⁷ These figures seemed not excessive to the commander of the AAF and he agreed that the necessary planes should be sent out to the Pacific as quickly as possible if the quotas could be attained without seriously interfering with BOLERO.⁴⁸ A more comprehensive statement appeared a few days later in compliance with a request from the Joint Chiefs of Staff as to how the Army proposed

* BOLERO was the plan for build-up of forces in the United Kingdom. (See Vol. I, *passim*.)

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to implement the President's position of 6 May relative to deployment of forces in the Pacific. The Army Air Forces presented both an immediate and an ultimate objective, the latter merely restating the recommendations already offered on 2 May.⁴⁹ But even the dispatch of planes and personnel sufficient to meet the ultimate goal would not close the gap between Navy and Army plans for Pacific air garrisons. The struggle between supporters of the European and Pacific theaters was destined to continue for many months to come.

That struggle was not without its influence even on the question of an immediate strategy for containing the Japanese in the southern Pacific. General MacArthur proposed an assault by way of the northeastern coast of New Guinea against Rabaul, main center of the enemy's menace to both Australia and the South Pacific chain. Naval and other forces of Admiral Ghormley's command would thus operate in support of the Southwest Pacific forces in the latter's assumption of the primary responsibility for throwing back the enemy. The Navy, objecting to a commitment of its forces between New Guinea and the Solomons while the enemy held the latter, argued instead for an initial conquest of Tulagi by South Pacific forces with those of the Southwest Pacific in support. The approach to Rabaul, in other words, would be by way of the Solomons with the initial responsibility falling chiefly to the naval command of the South Pacific. The question of command was in itself a difficult one. Tulagi fell within the Southwest Pacific, but it was evident that the Navy anticipated that the operation would be mounted in the South Pacific and controlled by Ghormley. By late June, in fact, Admiral King had made specific proposals to that effect. Ghormley would be in command until the seizure of Santa Cruz and Tulagi had been accomplished. General MacArthur would then assume leadership in a concerted effort directed against Rabaul.⁵⁰

The proposal offered the basis of a working compromise and on 2 July 1942 the Joint Chiefs of Staff issued a directive outlining a three-task plan of operation.⁵¹ Under this plan, Task 1, the occupation of Santa Cruz and Tulagi in the lower Solomons, would be accomplished by Admiral Ghormley's South Pacific forces with the assistance of the Southwest Pacific command. Task 2, which called for reoccupation by Allied forces of the northeastern coast of New Guinea together with capture of the upper Solomons, and Task 3, which set as its goal the reconquest of New Britain, became the pri-

mary responsibility of MacArthur. Control of composition of forces, the timing of the tasks, and the "passage of command" remained with the Joint Chiefs. To avoid jurisdictional complications the boundary joining the two theaters would be moved westward as of 1 August to the 159th meridian, thus placing all of the lower Solomons under the command of the South Pacific. The first of August was set tentatively for the inauguration of Task 1.

General MacArthur, already committed to a forward movement of his forces in the hope of beating the enemy to the occupation of positions on the New Guinea coast that would be vital to achievement of Task 2, argued against an early mounting of Task 1. With additional training, his ground forces might meet his needs, but both his air and naval forces he considered inadequate for the interdiction of enemy operations against the Solomons and the establishment of air superiority over New Guinea.⁵² Admiral Ghormley was little if any more enthusiastic about his share in Task 1, but the Joint Chiefs dared not risk postponement. MacArthur was warned that global requirements might delay provision of forces equal to the accomplishment of Tasks 2 and 3, and so he was left to do what he could toward preparing for the second while assisting in Task 1.⁵³ Although the decision promised to deprive him of badly needed naval support, his air obligations to Task 1 presented a less serious problem. Reconnaissance for intelligence of Japanese movements out of Rabaul and the bombing of that vital center would be the chief obligation imposed on the Allied Air Forces, and this was work of critical importance to both commands.

The Japanese Landing at Buna

In plans for contesting the possession of the upper coast of eastern New Guinea, sites suited to the development of advanced airfields assumed a critical importance. Polifka's 8th Photographic Squadron had undertaken surveys which indicated that the best location for an airstrip lay near Buna, former government station at the mouth of the Giriwu River, and on 15 July, Maj. Gen. Richard K. Sutherland, MacArthur's chief of staff, announced detailed plans for the occupation of the Buna area.⁵⁴ A company of Australian infantry already had started a difficult overland march to reach Buna by way of the Kokoda pass. Engineers were dispatched to Milne Bay for the development of airstrips in that area, which could control the water approach around New Guinea to the Coral Sea. It was not anticipated that

occupation of Buna in any force could be attempted prior to 3 August, but immediate action was taken to land supplies and equipment by small boat at selected points along the seaward approach to Buna.⁵⁵ The Australians by 19 July were halfway across the Owen Stanley range on their way to Buna. On 20 July, General Headquarters, theretofore located at Melbourne, was moved to Brisbane, and there were other indications of an effort to concentrate available Allied strength in the forward area. But the race was against time, and on 21 July the Japanese upset the Allied timetable by landing in force just north of Buna.

The enemy landing at Buna came as no complete surprise to the Allied command, which had received a number of advance warnings. On 12 July local observers at Buna had spotted a Japanese float plane over the area; and captured documents indicated that a special landing force had sailed from Truk on 10 July with eastern New Guinea as its destination. Lt. Don Tower in a B-17 of the 435th Squadron reported a convoy in the neighborhood of Rabaul on the 19th, and on the next day the Japanese struck Moresby with twenty-six bombers escorted by fifteen fighters.⁵⁶ By the 21st a convoy reported to consist of a cruiser, four destroyers, a 10,000-ton transport, and several small craft appeared to be heading for the Buna area; in the afternoon of the same day a float plane strafed the shore, followed by a bombardment from the surface craft which left little doubt as to the enemy's intentions. He was landing at Buna and the place was virtually without land defenses. The advance reconnaissance party pushing over the Kokoda track still was three days' march from the area, and only a few patrols from a Papuan infantry battalion commanded by Australian officers were within striking distance.⁵⁷ If there was to be any opposition, it would come from the Allied Air Forces at Port Moresby.

Only two U.S. fighter squadrons—the 39th and 40th of the 35th Group—plus certain Australian units were based at Port Moresby to ward off enemy attack, but bomber squadrons now were brought up in preparation for the Japanese landing. Late in the afternoon of 21 July one B-17 and five B-26's succeeded in locating the targets. The medium bombers met with some success, dropping their 500-pound bombs from 6,000 to 7,000 feet and observing one direct hit on a transport.⁵⁸ A later mission by five B-25's was unable to find the target because of darkness, which also served to conceal the enemy's

preliminary landing at Gona, twelve miles north of Buna.⁵⁹ Early on the 22d the air forces delivered their main attack in a series of three heavy bomber, five medium bomber, and five fighter strikes against the convoy, landing barges, supplies, and personnel already ashore on the beaches. The enemy presented almost no air opposition, but his anti-aircraft guns kept ten B-17's high; these scored no hits from 25,500 feet, nor did five B-25's and six B-26's, although another B-26 claimed a direct hit on a transport. Lt. Robert M. Debord of the 435th Squadron brought his plane down to a much lower altitude, enabling his bombardier, Sgt. Richard H. Olson, to report two hits squarely on a transport. Amid the bombing attacks RAAF P-40's dive-bombed barges and supply concentrations with 500-pound bombs, while P-39's and P-400's poured heavy fire into barges and enemy shore positions.⁶⁰

But the Japanese had accomplished their initial mission. They had landed between 4,000 and 5,000 men who had established a base protected by anti-aircraft guns. They had shot down one RAAF P-40 and a P-400, and they had damaged several bombers. In return they had suffered losses to their personnel in the strafing attacks, some damage to shipping off the beaches, and the possible loss of one transport⁶¹—a cost low enough for the advantage gained. The development of air-strips in the Buna area would strengthen the Japanese hold on New Guinea. Of more immediate significance, the landing placed the enemy in position to attempt dislodgment of the Allies at Port Moresby.

Japanese army commanders were highly confident, immediately sending their troops up the track toward Kokoda against practically no opposition. By the afternoon of the 22d, their patrols already were on a line twelve to fifteen miles inland. Four days later the Australians were attempting to hold the enemy off from Kokoda, receiving their supplies from the planes of the 21st Troop Carrier Squadron, whose pilots did not always know which side controlled the strip as they came in to land. Until 9 August the Australians held on, and then fell back toward the villages of Deniki and Isurava at the gateway to the gap through the Owen Stanleys.⁶² And so began the Papuan campaign in a rapid thrust which promptly brought the enemy dangerously close to Port Moresby.

Air force responsibilities through these first few days of the fight were prophetic of the wide variety of duties that would fall to the lot of the Allied Air Forces through the long months leading down to

the final expulsion of the Japanese from Buna in January 1943. Planes of the 435th Squadron kept an alert watch for convoys carrying supplies and reinforcements for the Papuan invaders. On 28 and 29 July transports were sighted heading south from St. Georges Channel. RAAF Hudsons and PBY's, AAF B-17's and A-24's all went out from Port Moresby to oppose the landing, and eight of the B-17's bombing from approximately 2,000 feet claimed direct hits upon a transport, but the enemy landed his troops regardless. And he did it again on 13 August, despite the efforts of fifteen B-17's and four B-26's.⁶³

First priority naturally went to the defense of Allied bases, a burden which fell upon the fighter units at Moresby and Darwin. Over both points the enemy bombers usually came in at 22,000 feet and above, too high for satisfactory interception by P-40's, P-39's, or P-400's, the only fighters available to the AAF in the Southwest Pacific, and their limitations seriously affected Allied operations.⁶⁴ During July the P-39 had made contact with enemy bombers only four times in a series of nine raids despite a thirty-minute warning; in sixteen actual contacts it never once enjoyed an altitude advantage and the Zero invariably could outclimb and outmaneuver this fighter, which suffered the additional disadvantage of increased vulnerability because of the location of its motor behind the pilot. The P-40 was somewhat better, but it, too, was outperformed by the more nimble enemy fighters, particularly at high altitudes. Inferior performance of their planes lowered the morale of the pilots.⁶⁵ It was true that the Allied planes were more rugged and less inflammable, they could outdive the Zero, and if given warning to permit them to reach sufficient altitude they could achieve creditable scores, as they did on 30 July over Darwin when twenty-seven P-40's shot down six Zeros and two bombers at the cost of one P-40.⁶⁶ But pilots continued to be frustrated, as on 17 August, when for the seventy-eighth time enemy bombers struck Moresby in an attempt to disable their favorite target, Seven-Mile Airdrome. Although defending fighters had received adequate warning, they were unable to intercept.⁶⁷

The thirty-two Lockheed and Douglas cargo aircraft, a few old B-17's, and a pair of LB-30's which constituted the equipment of the 21st and 22d Troop Carrier Squadrons on 21 July were already overtaxed in their efforts to supplement the generally inadequate transportation of the theater. Neither unit, moreover, possessed anything like enough skilled maintenance personnel, but their planes had taken

up at once the additional duty of flying supplies and equipment to the hard pressed Australians at Kokoda.⁶⁸

The first phase of the Papuan campaign served not only as a severe testing period for air transport, but provided opportunity as well for applying both fighters and bombers to the direct support of ground troops fighting deep in jungle terrain. P-400's, unable to compete on even terms with the Zeros, made excellent strafers, and on 8 August thirty-two of them from the 35th Fighter Group swept up from Port Moresby through the gap in the Owen Stanleys and on over to the Kokoda area where they thoroughly strafed the enemy's supply dumps; sixteen of the fighters equipped with bomb racks dive-bombed the target area on the same mission.⁶⁹ Of the two light bomber types in the Southwest Pacific, the A-20 and the A-24, only the latter was used during the Buna-Kokoda operations, since the A-20's at the time were back in Australia undergoing radical modification. The A-24—Army version of the Navy's SBD dive bomber—was so poorly armed that pilots dreaded flying it without fighter protection, and its speed was so slow that fighters lacked sufficient fuel capacity to provide continuous protection even on normal missions from Port Moresby to the northeastern coast of New Guinea. It was a vulnerable plane, one whose pilots had suffered severe losses in the earlier fighting. When seven of these planes went out on 29 July to strike at a Buna convoy, only a single dive bomber, that piloted by Lt. Raymond H. Wilkins, returned intact to its base. Five were shot down after becoming separated from their P-39 escort and one riddled aircraft reached Milne Bay. Thereafter the A-24 was employed solely for noncombat missions.⁷⁰

During these initial operations of the Papuan campaign the Allied Air Forces experienced a change in command. Neither the War Department nor General MacArthur had been completely satisfied with the organization and operations of the air forces in the Southwest Pacific, and both believed that the organization would profit by a change of command.⁷¹ Dissatisfaction found further expression in MacArthur's headquarters at the time of the Japanese landing at Buna. Intelligence officers pointed out that they had indicated Buna as an enemy objective as early as 23 May, that they had predicted a landing there would occur on or about 16 July, and that the convoy had been sighted ten hours in advance of the landing, but "we were able to deliver only five B-26's at the decisive point."⁷² By this time, however,

the choice of Maj. Gen. George C. Kenney to succeed General Brett had already been made by MacArthur from a list of possibilities suggested by the War Department.⁷³ Kenney, who had jumped from the rank of lieutenant colonel to brigadier general in January 1941 and to major general in February 1942, had a brilliant record as commander of the Fourth Air Force and before that had been in charge at Wright Field of the activities of the Materiel Division, OCAC. He reached Australia on 28 July and on 4 August assumed command of the Allied Air Forces.⁷⁴

Among his first duties was the execution of plans for coordination of the operations of his long-range planes with the landing of the U.S. Marines at Guadalcanal in the lower Solomons, scheduled for 7 August. As early as 3 June the 435th Squadron had sent a photo reconnaissance mission over Tulagi. Three weeks later another had gone to Guadalcanal to provide photos supplementing the meager intelligence available to the Navy in its planning for the invasion of the lower Solomons; still another mission flown on 17 July with two Marine officers as observers had proved especially helpful.⁷⁵ The North Eastern Area Command in Australia* had been warned on 3 July of the necessity for coordinating reconnaissance and strike missions with the landing operation, and plans subsequently perfected gave full responsibility to SWPA planes for search west of 158°E.⁷⁶ AAF bombers sent down to the South Pacific from Hawaii assumed a large share of the responsibility for reconnaissance east of that line, and on D-day Kenney's 19th Group had as its own special job an attack on Rabaul.

Guadalcanal

As had been the case all through the early months of the war, the selection of the point at which the Marines would go ashore had been determined in large part by the enemy's own action. The Japanese commander at Tulagi had been quick to recognize that the northern coastal plain on Guadalcanal across the Sealark Channel offered an area suitable for the development of an airfield. In June, reports reached Noumea that the enemy was burning off the grass from the level area of upper Guadalcanal, presumably in preparation for construction of an airdrome.⁷⁷ Shortly thereafter, on or about 4 July, a considerable force of troops and construction personnel was landed on Guadalcanal not far from Lunga Point; by 11 July, unloading was

* See Vol. I, 420-21.

completed and a week later the labor force began construction of the field. Down on New Caledonia it was not difficult for the intelligence officers to estimate the enemy's future utilization of Guadalcanal as they scanned the reports of trees being cut away and of clouds of smoke arising from the Lunga plain.⁷⁸ By the end of July they reported that something very much like a concrete runway was growing on Guadalcanal, although, as the Marines learned later, the strip was not concrete at all but of tamped coral.⁷⁹

The enemy's choice of construction mattered little; if he were allowed to continue unmolested, his land-based bombers would be in a fair position to threaten the line of communications with Noumea. Behind Guadalcanal, 675 miles distant, stood Rabaul; between Guadalcanal and Rabaul the enemy was laying out bases at Kieta and at Buka Passage on Bougainville, and seaplanes already were operating from several points in the Solomons. If he was to be halted short of a point where he could break the line to Australia, then Guadalcanal offered the last possible opportunity. One more leap and he would land in the New Hebrides, if not on New Caledonia itself. And once permitted to establish himself on any of these islands, his bombers could threaten critically much more than the line of communications to Australia; he could cut deeply into all Allied planning for the Pacific, in fact for the entire global war. For so sensitive was Allied strategy to threats upon inadequate shipping resources that undue pressure upon any point in any sea endangered the structure in all its component parts. Already the Combined and Joint Chiefs of Staff were hard pressed to find the ships to service the existing route to the Southwest Pacific; now, if that line were forced to seek safety by bending even farther to the south—perhaps even below New Zealand—the increased drain upon surface transport facilities might endanger projects already under way elsewhere. Clearly, Guadalcanal must not be left in Japanese possession.

In the plans for meeting this threat, the U.S. Army and its air forces assumed a secondary role. The responsibility was the Navy's and the first Marine Division under Maj. Gen. A. A. Vandegrift would bear the brunt. Nevertheless, AAF units formed a vital part of the hastily improvised defenses of the South Pacific chain and would play their part in the historic Guadalcanal operation.

First to participate actively in that operation was Col. LaVerne G. Saunders' 11th Bombardment Group (H). General Arnold's plan to

hold the bulk of his heavy bomber strength at each end of the Pacific line, ready for concentration at any intermediate base as required, had received War Department approval by July. One heavy group then assigned to Hawaii would be available for operations outside the Central Pacific on orders from the Joint Chiefs of Staff.⁸⁰ General Emons, as commander of the Hawaiian Department, objected that removal of one of his two heavy groups would lessen his ability to defend the islands, but on 4 July—the same day on which Japanese troops were reported ashore on Guadalcanal to begin construction of an airfield—he received orders to designate one heavy bombardment group of the Seventh Air Force as the Hawaiian Mobile Air Force, with the stipulation that the group could leave the Central Pacific only when so directed by the Joint Chiefs of Staff.⁸¹ By 15 July the 19th Bombardment Group (H) had been designated as a mobile force in the Southwest Pacific,⁸² and on the following day the 11th Group, some of whose units had recently participated in the Battle of Midway, received its designation as the Mobile Force, Central Pacific. Within four days the group departed from Hickam Field under Saunders' command⁸³ to begin an odyssey which eventually led this group over all the major islands of the South Pacific, then back to Hawaii, and thence once again down into the Pacific for the drive across the Gilberts, the Marshalls, the Marianas, and finally to Okinawa.

The 11th Group had flown down without its service crews, which followed by water transport. Originally, the group was to have operated from Efate, Fiji, and New Caledonia, but rapid construction of an airfield on Espiritu Santo permitted some alteration of the plan. To be sure, the order to construct the first Espiritu strip had not gone out until July, but within sixteen days after the order was received the 7th Naval Construction Battalion, engineers of Patch's Americal Division, and Company B of the 810th Engineer Aviation Battalion by their combined efforts laid down an airstrip 5,000 by 200 feet, hacking it out of coconut grove and jungle.⁸⁴ On 30 July, Maj. Allan J. Sewart of the 26th Squadron landed the first B-17 on Espiritu and Colonel Saunders the next day estimated that he could operate six striking B-17's and two search planes from the new field. Lack of taxiways and dispersal areas prevented employment of a larger number.⁸⁵

Already the 11th Group had taken up the work of reconnaissance begun by the 19th flying out from Port Moresby. On 23 and 25 July the newly arrived bombers flew photo missions over the Guadalcanal-

Tulagi-Gavutu area.⁸⁶ Because of the lack of Army photographic equipment and trained personnel, the Navy provided the cameras, the Marines furnished the photographers, and the 11th Group provided the planes in a procedure which remained standard until AAF photo and mapping units arrived in 1943.

When Admiral McCain issued his operations order for SOPAC air forces on 25 July, he asked the ten B-26's of the 69th Bombardment Squadron (M) on New Caledonia and the six New Zealand Hudsons based there to conduct searches northwest of the island to a depth of 400 miles. To Colonel Saunders went the order to maintain with his twenty-seven planes a daily search of the southern Solomons and their western waters, to track important contacts, and to execute all air attacks as directed.⁸⁷ Subsequently, the group was requested to strike Guadalcanal and Tulagi with maximum strength from 31 July to 6 August, inclusive.⁸⁸ Because Saunders was uncertain of the service facilities on Espiritu Santo, he determined to open his attack from Efate even though this island lay 710 nautical miles from the target on Guadalcanal. After assembling every plane which was equipped with an extra fuel tank in its radio compartment, on 31 July, Saunders led the first formation of nine B-17's in the opening assault on Guadalcanal.⁸⁹ His targets were the new landing strip and the area about Lunga Point, where the enemy had established his principal concentrations of supply and personnel, and these were bombed without meeting any air opposition. Opening of the new field on Espiritu on the following day permitted the carrying of full bomb loads, for now the planes could land at this northern base on their return flight to Efate.⁹⁰ Such was the pattern for operations during the brief pre-invasion period. In the seven days remaining, the group flew fifty-six striking and twenty-two search sorties for an average of eleven aircraft in the air each day—a minuscule figure perhaps, but in view of the primitive conditions under which operations were conducted, this appeared as a very creditable performance.⁹¹

Meanwhile, there was agreement on problems of organization and command affecting Army forces in the South Pacific. At the time of Ghormley's designation as COMSOPAC in April, it had been indicated that COMAIRSOPAC would hold responsibility for operational control, including training and indoctrination, of all air units in the area.⁹² Army commanders were willing enough to place their air forces under the theater command, which was naval, but they de-

murred at the prospect of intrusting to COMAIRSOPAC responsibility for training and indoctrination. Such a move, they believed, exceeded existing authority under the principle of unity of command. Even if a case could be made for it in the current emergency, the action would establish a poor precedent.⁹³ AAF planners felt even more keenly that Army air units operating in support of naval forces should not be integrated into a naval force and assigned to a subordinate naval commander. They maintained instead that Army air forces functioning under the operational control of the Navy should be assigned appropriate missions by the naval commander in chief of the supported naval force; thereafter, the Army units should be permitted to carry out such operations under the command organization already established by the AAF for the conduct of these assigned missions. The basic objection of the AAF went against any development tending to fracture the organizational entity of the supporting air force; the entire AAF was geared to unit control, unit morale, unit organization, and unit training. If the squadrons were to be broken up and fed piecemeal into naval organizations, something less than satisfactory performance undoubtedly would result. For these reasons the air planners strongly recommended that naval jurisdiction should be confined to operational control and nothing more.

Ultimately, the discussion ended in an adoption of the viewpoint of the AAF. On 27 July, COMSOPAC informed all commanders of island bases in the South Pacific that responsibility for training of all units of Army ground and air personnel was the province of Maj. Gen. Millard F. Harmon, who had been designated Commanding General of U.S. Army Forces in the South Pacific Area (COMGEN-SOPAC) on 7 July. To Admiral McCain went responsibility under COMSOPAC for direct operational control of all shore- and tender-based aircraft.⁹⁴ These preliminary instructions were amplified on 3 August when Admiral McCain surveyed his air establishment and concluded that because of its dispersion and dissimilar composition, the variation in available facilities, inherent difficulties in communications, and differences in defense problems confronting the several commanders, it was entirely impracticable for him to exercise his command directly.⁹⁵ After consultation with General Harmon, it was agreed that McCain should delineate the types of operations he might expect of the various air components. He would then promulgate a general doctrine for employment of available air forces, but he would

not assume responsibility for training of Army air units for these operations. This would remain with COMGENSOPAC, exercised through the several island commanders. By means of these officers Harmon would supervise normal and routine employment of his air units, whereas operational control would rest with COMAIRSOPAC, who normally would issue orders and instructions directly to defense commanders, task groups, or operational units as circumstances might dictate. For each base in the South Pacific, Admiral McCain prescribed a basic air organization encompassing all Allied air units in the area and calling for four commands: air patrol, bomber, fighter, and base. Control and coordination of these units was vested in the island defense commander, operating under the principle of unity of command, and he in turn exercised his command function through the air officer who controlled the local units.⁹⁶

The necessity for mobility within the South Pacific was recognized in the provision that base units must be organized and prepared to accommodate for a short period during an emergency a concentration of aircraft in any locality. Similarly, all combat aircraft were to be maintained in a mobile status, prepared to shift at short notice to any point which might become the focus of an enemy attack. A clear indication of the future employment of heavy bombers in the South Pacific appeared in McCain's basic organization: heavy bombers and naval patrol bombers were carried under both the air patrol and the bomber command, with the justification that this arrangement would achieve a more effective off-shore patrol.⁹⁷ B-17's thus were destined to search; during the early months of the Solomons campaign they were to search far more often than they fought. Meanwhile, the organization outlined by Admiral McCain was submitted to COMSOPAC and to General Harmon, both commanders granting their approval on 4 August 1942.⁹⁸

General Harmon, who now was charged with the training and administration of all air and ground units in the South Pacific, had reached Noumea on 28 July, little more than a week prior to the opening of the Guadalcanal offensive. His arrival was the result of a realization by the War Department, with the Navy concurring, of the need for a general officer to command Army forces in the South Pacific.⁹⁹ General Marshall had made it clear to Harmon that his new position would be subordinate to that of Ghormley.¹⁰⁰ Harmon's instructions required that he assist COMSOPAC in the preparation and

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execution of plans for the employment of Army forces in the South Pacific. In addition, he was ordered to make a survey of his entire organization, to analyze the means at the disposal of each Army command for the execution of its assigned mission, and to submit for approval his own recommendations for improving the position of each base command. Perhaps most significant of all, the Chief of Staff warned Harmon that for the time being operations in the Pacific were to be restricted to those necessary to support the strategic defensive, and that requirements for the South Pacific were to be held to a minimum consistent with that role. To General Harmon's new organization would fall the task of furnishing all bases with those supplies for which the Army was responsible, drawing upon San Francisco as the port of embarkation. It was incumbent upon Harmon to remain in close contact with Gormley on the one hand and with his subordinate base commanders on the other; because the Navy retained responsibility for providing Army units with aircraft components and parts, it was necessary for him to maintain a sharp check upon the stock levels at each base for relay to COMSOPAC and San Francisco.

These instructions contributed to the elimination of much of the initial confusion which had prevailed in the area. As late as the end of May, naval authorities possessed no information as to how the War Department intended to administer the forces in the South Pacific or what agencies were responsible for supplying them. Admiral Nimitz had received requests for supplies for Army forces, but in the absence of information he had merely passed these pleas on to the Navy Department.¹⁰¹ Now with the creation of the U.S. Army Forces in the South Pacific Area (USAFISPA) there was some prospect in sight for improved organization of the numerous island bases scattered along the route to Australia.

In Washington, General Harmon immediately contacted Army and naval agencies in order to familiarize himself with his assignment, selecting his staff and key officers, while out at Fort Ord, California, the Headquarters Company of USAFISPA already had been organized on 30 June.¹⁰² After hasty preparations, Harmon left Washington by air on 16 July together with the key personnel of the forward echelon of USAFISPA, men who were to direct the operations of the South Pacific air units. At least seven of the original group of nine were Air Corps officers. Brig. Gen. Nathan F. Twining was destined to lead first the Thirteenth, then the Fifteenth and Twentieth Air

Forces; Lt. Col. Dean C. Strother was to command the fighters of the Thirteenth; and Col. Frank Everest eventually served as AAF representative on the staff of COMSOPAC. Thus headquarters personnel clearly were weighted in favor of the Air Corps, but to fill the remaining vacancies a policy was established to draw half the personnel from the Army Ground Forces and half from the Air Corps.¹⁰³

Harmon's small forward echelon flew out from Hamilton Field on 21 July, arriving at Noumea seven days later and leaving behind at Camp Stoneman, California, the rear echelon which continued to absorb the new personnel then reaching it.^{*104} Meanwhile, General Harmon assumed tactical command of all U.S. Army forces in the South Pacific on 26 July when he reported to COMSOPAC and established a provisional command post at Suva.¹⁰⁵ When the command post shifted to Noumea on the 29th, this French colonial city became the center of activity for USAFISPA, but Harmon had to wait until 15 October before he finally could assume complete control over tactical, administrative, and supply functions.

There remained much to accomplish in improving the Army organization throughout the area, but at least now a single Army agency existed through which the War Department might maintain contact with its widely scattered units and with which Admirals Ghormley and McCain might act in securing Army cooperation. To be sure, each island had its defense commander but his jurisdiction theoretically was limited. Instead of a fragmented structure in which Army units fell under the Navy, the Marine Corps, or the New Zealand forces on Fiji, there now was an Army spokesman to defend their interests. Even more hopeful from the viewpoint of the AAF was the fact that the new theater commander had stepped directly from his post as chief of the Army's air staff, bringing with him a staff dominated by air officers. Harmon personally held strong reservations as to the wisdom of sacrificing operational control over the air units, but in the absence of any specific directive or policy from the War Department to support him, he was disinclined to debate the point in conferences with Ghormley and McCain. Nor did he feel that the situation would permit a debate on the question of command. Instead, it demanded a maximum effort to insure the complete cooperation of all services necessary to defeat the Japanese, and he was determined to support his directive as fully as possible.¹⁰⁶

* On 1 September this unit sailed from the West Coast for Auckland and joined Harmon's forward unit at Noumea on 29 November.

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While on duty in Washington, General Harmon had been a member of those councils which determined the direction and flow of the Army's air units; now he was at the other end of the line—and it was by no means the main line. By the time he had reached Noumea, he had seen enough of the theater to convince him that it was in dire need of reinforcements. Immediately, he sent off the first of a long series of requests for equipment and personnel. Conceding that both the BOLERO and Middle East commitments would suffer if he were granted all that he asked, Harmon nevertheless submitted requests on the basis of what was necessary to discharge the task regardless of availability. He admitted also that he had not appreciated the situation of the South Pacific while on duty in Washington, and he pointed to the heavy Japanese forces then gathering in the Bismarcks.¹⁰⁷

His first requirement was air transport, for Harmon discovered that his theater involved immense distances. He found as well a necessity for rapid movement of supplies and for construction and defense of advance airfields, all creating an imperative need for more rapid transportation facilities. Accordingly, to meet his requirements for inter-island transport of materiel and personnel, he requested early dispatch to New Caledonia of one complete C-47 transport squadron. For the longer distances, particularly those separating New Zealand from New Caledonia, he recommended three B-24's as soon as they could be made available, and for local command use on New Caledonia, New Zealand, and in the Fijis he proposed that three BT-13's or primary trainer models be sent to each base. Roads were very poor, distances between installations extended up to 200 miles, and the sole available aircraft were limited to a few small New Zealand types in the Fijis.¹⁰⁸

The request foundered on the hard rock of prior commitments elsewhere. No transports could be sent out to the South Pacific. Neither could the radar and signal personnel already requested, the general-service engineer regiments or quartermaster truck battalions which COMGENSOPAC had called for on the day following his arrival in Noumea, nor the engineer battalions (aviation) needed in the Fijis and on New Caledonia.¹⁰⁹ In fact, Harmon's vigor in uncovering the urgent requirements of his command ran well in advance of the available supply of equipment and men, despite a sharp reminder from OPD of his former instructions. However, one problem was soluble. With the invasion of Guadalcanal lying only a few days ahead on

the calendar, air units were scattered over a large section of the South Pacific, with no adequate organization existing for their operational control. The situation had become so acute the Navy was preparing to assume full responsibility itself, although unwillingly. Harmon's solution was to request activation of island combat control groups for New Caledonia and Fiji, units whose personnel would take over local operational direction not only of fighter aircraft but of all units in the island combat team.¹¹⁰ General Marshall appreciated the problem, supported the plan, and by 11 September both commands had been authorized, although effective activation for the I Island Air Command (New Caledonia) did not occur until 17 October 1942, and for the II Island Air Command (Fiji) until 20 October.¹¹¹ Both were placed under the immediate control of COMGENSOPAC and upon the subsequent activation of the Thirteenth Air Force these island air commands remained directly responsible to General Harmon.

It had proved indeed fortunate that the order to assault Guadalcanal had come when it did. Work on the airfield there had been pushed and Japanese land planes were scheduled to move in on 7 August, but on that day at 0910 in the morning the First Marine Division began to move ashore off Lunga, after landings on Tulagi which had begun an hour earlier.¹¹² The reconnaissance and bombing operations of the 11th Group had continued through the day preceding the landings, and even as the Marines landed they were covered by two B-17's searching out from Espiritu Santo in the area north of Guadalcanal on a mission which cost the loss of one plane. Maj. Marion N. Pharr and his crew may have fallen to enemy fighters.¹¹³ On that morning, too, sixteen B-17's of the 19th Group, led by Lt. Col. Richard H. Carmichael, refueled at Port Moresby and took off for Rabaul on a mission coordinated with the landing at Guadalcanal and for the purpose of pinning down enemy aircraft which otherwise might be sent against the Marines. One B-17 crashed on take-off, two turned back because of engine trouble, and of the thirteen attacking the Vunakanau airdrome one was destroyed by enemy fighters.¹¹⁴ Though it was difficult to assess precisely the results of this mission, the returning crews claimed seven enemy fighters shot down, and General Kenney concluded from enemy radio reports that a substantial number of bombers had been destroyed on the ground.¹¹⁵

Nor was it easy to evaluate immediately what Colonel Saunders and his B-17's had contributed to the success of the operation in their first

week of effort. For his part, Saunders believed that the ease of the landings at Guadalcanal and Tulagi was attributable to the destruction his planes had inflicted upon the two areas and, conversely, that the heavy opposition encountered on Gavutu was due to the absence of preparatory air attacks.¹¹⁶ Yet in view of the small number of aircraft involved and the limited weight of bombs carried over the great distances, this estimate appears somewhat optimistic. Vandegrift's engineers found the runway on Guadalcanal in a damaged condition but not badly hurt and his troops captured an amazing supply of undamaged equipment useful for completing the field.¹¹⁷ There was much to learn about the enemy; neither naval gunfire, bombs of the carrier planes, nor strafing were able to do him much harm in his caves and tunnels on Gavutu, and it is doubtful that sporadic bombing by the B-17's could have achieved more. The cruiser *San Juan* alone had poured over thirty tons of five-inch shell into the island on the morning of the invasion. Two destroyers added the weight of their fire, and the bombardment by surface units came in supplement to a dawn attack by carrier planes.¹¹⁸

It would seem to be a safe assumption that AAF planes had contributed to the success of the Guadalcanal landing chiefly through the reconnaissance missions they had performed over the two months preceding it. Flying out of Port Moresby, New Caledonia, and Espiritu Santo, they had kept watch on the enemy's movements and had helped to chart the area of one of the war's critical battles. And these were substantial services to the Marines who so soon would be hard pressed to hold their easily gained footing on Guadalcanal.

CHAPTER 2

* * * * *

THE BATTLE FOR GUADALCANAL

WITH the beachhead at Lunga Point secured, the B-17's of the 11th Bombardment Group settled back into a regular search routine covering the lower Solomons to a depth of 700 to 800 miles from Espiritu Santo on sectors ranging from 286° to 316°.¹ Australia-based planes of the AAF continued to carry the primary responsibility for reconnaissance of the upper Solomons and Rabaul. It was the task of Saunders' B-17's to prevent enemy surprise of the forces feverishly at work consolidating the Guadalcanal beachhead, and this they accomplished by following a long, grinding routine of daily flights over 1,600 miles of open water.

The planes operated under primitive conditions, their crews for a time finding what sleep they could under trees, under the wings of the planes, or even inside the aircraft. In the absence of service personnel, a large share of the burden of daily maintenance fell upon the combat crews as an extra duty. Spare parts were not available, nor was there equipment to handle and refuel the planes.² At Espiritu there were no docks, no roads, and no unloading facilities, and the foot-thick cover of soft, black dirt made a devil's brew in the heavy tropical rains. Even when boxes and crates were brought ashore, there was no certainty that the supply officers had received information of their arrival, with the result that thousands of crates piled up under the coconut trees awaiting identification.

More critical than any other single item during the early operations from Espiritu was the supply of fuel. The B-17's could not draw upon an integrated system of tank trucks, pipe lines, and elaborate bulk storage; there were not even gas trucks and trailers. All these refinements lay in the future.³ Now steel drums of fuel were merely dumped

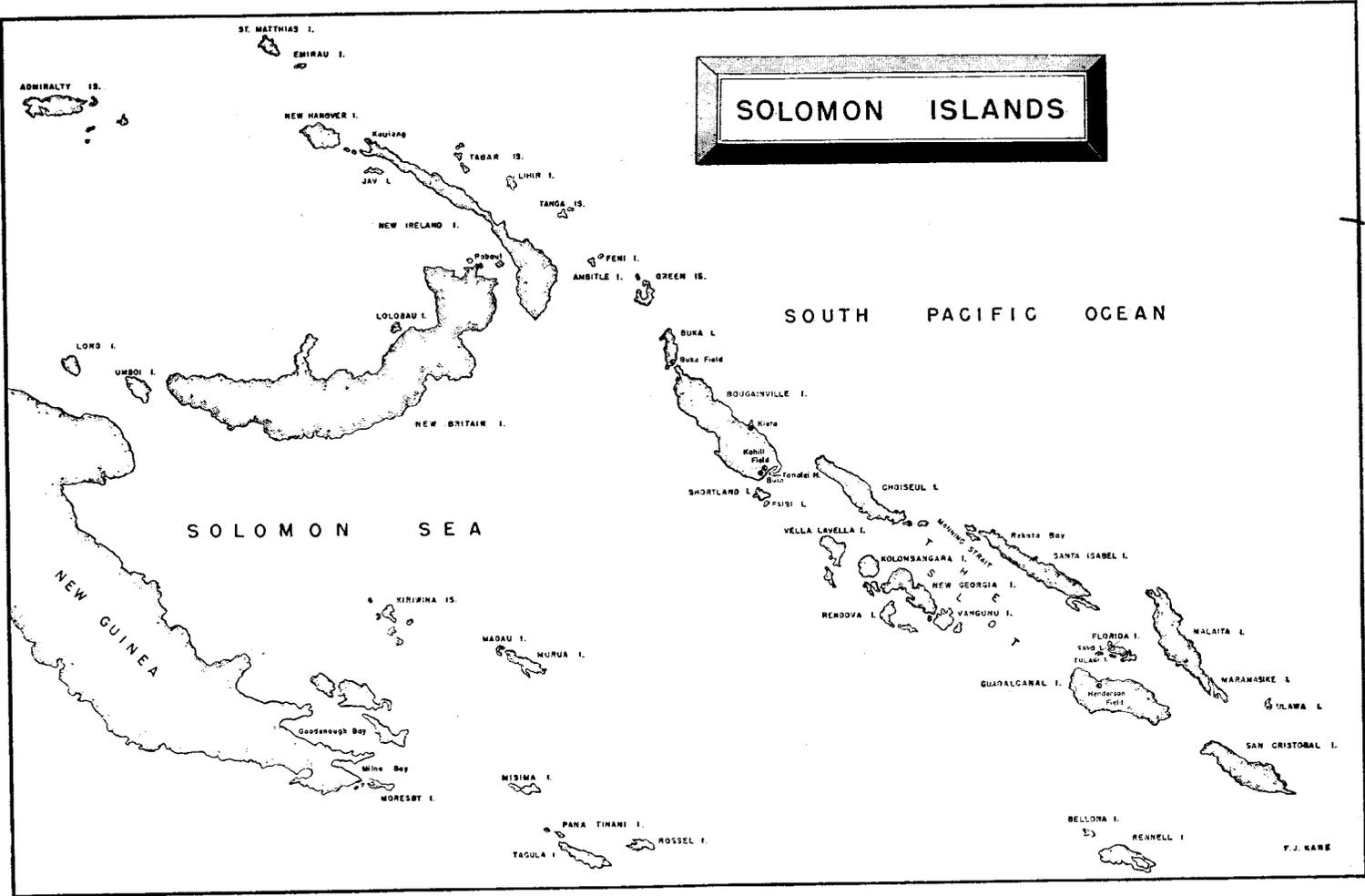
over the sides of the cargo vessels in Segond Channel at Espiritu, then towed ashore in a net where they were manhandled up under the trees for storage in dispersal dumps. Before the fuel could reach a plane it had to be loaded into a truck, rolled up on a stand, and poured out of the drums into tank wagons which then serviced the aircraft. Such was the sequence at Espiritu and later on Guadalcanal. Since one single B-17 drank up fifty drums of aviation fuel for each mission, these early operations taxed all personnel to the utmost; General Rose, Colonel Saunders, and all available hands worked a bucket line twenty hours straight through a driving storm on 6 August to put 25,000 gallons aboard the bombers. And yet even with such prodigious efforts strike missions were sometimes delayed because of the lack of service facilities. Wide dispersal of the squadrons and absence of reliable radio communications made it exceedingly difficult to maintain contact with all units and Saunders found that he could exercise direct control only over the fourteen B-17's based on Espiritu.⁴

Early Air Operations

Despite these handicaps, a handful of planes was able on 24 August to take part in the action known as the Battle of the Eastern Solomons against an approaching enemy task force covering a transport formation headed for Guadalcanal. Saunders accepted the risk of a possible night landing on the Espiritu strip, and in cooperation with the Navy's *Enterprise* and *Saratoga* air groups, he sent off seven planes in two flights to strike at the enemy surface units.⁵ Nearly 750 miles northwest of their base both flights attacked and both claimed hits on carriers. One of them may have been *Ryujo*, already mortally hurt by *Saratoga's* dive and torpedo bombers; she was lying dead in the water when bombed. The other probably was the seaplane carrier *Chitose*, which was attacked at dusk by Maj. Allan J. Sewart's flight of four planes. Poor visibility prevented accurate observation; Sewart claimed hits and *Chitose* limped up to Truk with a flooded engine room, but enemy sources attribute the damage to two dive bombers.⁶ In any case, all this was good score for seven planes bombing 750 miles out from their base, though the mission was marred by loss of Lt. Robert E. Guenther and four men of the 26th Squadron when their plane crashed into a hill at the edge of the field at Espiritu while attempting to land in darkness amid a sudden rain storm.

The carrier planes under Vice Adm. Frank J. Fletcher, aided by the

SOLOMON ISLANDS



handful of B-17's, had stopped the enemy's air attack on the 24th, but his transports came on; during that night four enemy warships shelled the field on Guadalcanal. The heavy enemy attacks which the Marines expected at dawn did not occur. Instead, at 0835 on the 25th Marine dive bombers from Guadalcanal intercepted the occupation force only 125 miles from the island and hit it hard. Two hours later, as the destroyer *Mutsuki* stood by preparing to sink the damaged transport *Kinyru Maru*, eight B-17's came up from Espiritu and put three 500-pound bombs on the *Mutsuki*, sinking her on the spot.⁷ The Japanese had had enough. By noon of the 25th they were steaming north at high speed. Of the approximately ninety aircraft lost by them, the B-17's claimed five.⁸ Land-based and carrier aircraft together had turned back the first major attempt to retake Guadalcanal, but the enemy would try again. Meanwhile, the bombers would return to their ceaseless searching in a routine which wore down machines even more rapidly than men.⁹

On Guadalcanal the problem was to retain control of the small area around the unfinished airstrip, now unofficially named Henderson Field, but there could be no question of attempting to drive the Japanese completely off the island. Admiral Ghormley had withdrawn the amphibious force and the covering carriers on 9 August prior to completion of unloading, leaving the builders of the airstrip with little more than bare hands, a keen sense of urgency, and whatever items of equipment the fleeing enemy had abandoned. Using what they found scattered about the field, at top speed the Marine engineers and the 6th Seabee Battalion prepared the strip on the Lunga plain to receive fighters and dive bombers, the first of which came in on 20 August with the arrival of VMF-223 and VMSB-232.* Now there were nineteen F4F's and twelve SBD's on Guadalcanal. General Vandegrift felt that a turning point had been reached;¹⁰ until this day the area had been utterly defenseless in the air ever since the withdrawal of the carriers.

Two days later his force was bolstered by the arrival of five P-400's which had flown up from New Caledonia, crossing the 640 miles of open water from Espiritu under the guidance of a B-17. Led by Capt. Dale D. Brannon, these were the advance planes of the AAF's 67th Fighter Squadron, which now became the first AAF unit to operate a detachment from Henderson Field. When Capt. John A. Thompson flew in with nine more P-400's on 27 August, the 67th was ready for

* U.S. Marine Corps fighter and scout bomber squadrons.

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daily contact with the enemy under the operational control of Marine Aircraft Wing One (MAW-1).¹¹ Ready, that is, within the limits of operating conditions on this front-line base, and—more significant—within the limitations of the P-400. For rarely have pilots and ground crews faced more primitive and difficult conditions than those under which the Marines and men of the 67th operated on Guadalcanal. Here no comfortable quarters were available at a reasonable distance behind the front lines or on a carrier where there was every opportunity for rest. This was the front line, and there were few replacements for these pilots; men and machines would fly until either or both gave way under the strain. Facilities for servicing aircraft were almost completely lacking when the planes arrived, and personnel were left to shift for themselves.¹² Open fires cooked the food, washing and bathing were carried out in the Lunga River, nearly all hands kept their clothes on continuously, and the unfloored, unscreened tents providing the sole cover against weather permitted the malarial mosquito to roam at will. Ground crews labored long and hard with primitive equipment in their efforts to maintain the aircraft in flying condition; no free time remained for them to spend in improving their own living quarters—fourteen hours per day measured an average stint and a sixteen-hour stretch was not unusual.¹³

All these factors were the normal accompaniment to early South Pacific operations. Much less acceptable to fighter pilots was the painfully inadequate performance of the P-400, which was no match either for the Zero or for the enemy bombers now striking Henderson from altitudes above 20,000 feet. As an export version of the early P-39 originally destined for the British, the plane lacked proper supercharging equipment and its oxygen system was of the high-pressure type. Since no supply of high-pressure oxygen bottles was available on Guadalcanal, regardless of the plane's other deficiencies, pilots were forced to do their flying at low levels, usually below 10,000 to 12,000 feet or less than half the altitude of the attacking bombers.¹⁴ As a consequence the high-scoring honors on Guadalcanal easily passed to the Marines in their rugged and effective Grumman Wildcats.

After only four days' operations, no more than three P-400's of the original flight of fourteen remained in commission and squadron morale scraped bottom. General Vandegrift, very quickly recognizing that the P-400 was being called upon to perform a task quite beyond its ability, altered its assignment.¹⁵ From 2 September forward the 67th sent its

P-400's up and down the beaches and jungles of Guadalcanal, bombing, strafing, and harassing the Japanese ground units in close support of the Marine troops, and in this type of work the plane excelled. Soon its pilots were dive-bombing transports, barges, and destroyers, and they did everything but engage the enemy at high altitude. This last function remained almost exclusively a province of the Marines until newer models of the P-39's and finally P-38's arrived. Harmon continued to press AAF Headquarters for better fighters, citing the inadequacies of the P-400, and the War Department continued in its attempt to reassure the South Pacific commander that the plane could be used successfully.¹⁶ But Harmon well realized that his P-39 replacements could not fight at high altitudes, which was his chief need if the Japanese attacks were to be stopped. The P-38 was the only solution, but the P-38 was not to be available for combat until November.¹⁷

On Guadalcanal the chief factor which plagued air operations in the early days of the campaign was the lack of supply and the dependence upon surface transport to bring in fuel and the heavy equipment for base construction. Five weeks after the invasion Henderson remained unusable by medium or heavy bombers; except for the small detachment of the 67th Fighter Squadron, supported by personnel drawn from the other AAF fighter squadrons in the rear areas, no AAF unit was based on Guadalcanal until December. Fighters and other small aircraft could operate only when the rolled coral and earth surface was dry. Although P-400's had taken off in heavy mud at a time when other planes were grounded, the P-400's were not defending Henderson against enemy bombers—fighters that were defending it remained on the ground when the field was muddy.

There was no harbor at the island. Cargo vessels lay off Lunga to discharge food, fuel, and ammunition, then withdrew under threat of enemy air attack; and the threat was frequent, too frequent in fact for Ghormley to feel justified in permitting extensive unloading operations. The entire beachhead was anything but secure. Enemy bombers regularly struck at the airstrip during the daylight hours, and at night surface units shelled it, destroying equipment and planes and making it impossible for the aircrews to obtain badly needed rest. By 11 September, Harmon was increasingly apprehensive over the entire situation. He pointed to the growing concentration of enemy strength on Bougainville and in the Bismarcks, as well as on Guadalcanal itself; here was a ripe opportunity for the heavy bombers but so long as they were

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forced to cling to their base 640 miles to the rear on Espiritu Santo their accomplishment was limited indeed.¹⁸ The B-17's could do little more than occasionally stage through Henderson in their effort to strike at enemy shipping in the Buin-Tonolei area at the southern tip of Bougainville, and the persistent lack of fuel on the island prevented even this procedure on anything more than a sporadic and limited scale.

By mid-September only a small amount of Marston mat had reached Henderson and, even more serious, the fuel reserve on the field could scarcely sustain current operations for four days; nor were there any prospects for improvement. All this was not the responsibility of COMGENSOPAC. It was the Navy's task, and Harmon was disinclined to criticize too severely, feeling that he was not "fully cognizant, nor perhaps appreciative of all the factors that go to influence Navy decision." But he was convinced that the existing lack of air facilities on the newly won island was traceable to the lack of vigor in bringing up surface transport to support the initial operation. While recognizing the difficulties facing the naval commanders, nevertheless he believed that they did not regard the seizure of Guadalcanal and its development into an air base as the first and immediate objective; it was not a "consuming thought with them," but was something that could follow along in its own good time. Repeatedly he urged Ghormley to speed the establishment of facilities for B-17's at Henderson Field, from which point they could easily reach the Buin-Tonolei area where the enemy marshaled his surface craft for the assaults upon the lower Solomons, but throughout September not much was accomplished. In fact, halfway through the month Harmon strongly doubted that Guadalcanal could be held at all in the absence of more vigorous action on the part of COMSOPAC, and he believed that had Henderson been prepared for full air operations even within three weeks after its capture by the Marines, the serious difficulties facing Ghormley would not exist.¹⁹

Harmon was not far wrong. The grip upon Guadalcanal was tenuous, and the Japanese planned to make it more so. COMGENSOPAC had focused attention upon one cardinal feature of air operations in the Pacific island theater: despite all the mobility inherent in aircraft, here in the Solomons that mobility was bound down to a relatively narrow arc in front of the maximum advance of the line of supply. And that line of supply lay upon the surface of the water. Where the ships could not move with some reasonable degree of safety, or where

risk of their loss could not or would not be accepted, air operations not only were hampered—they came perilously close to a full stop.

Allocations for the Pacific

In the continuing debates over the merits of the European as against the Pacific theater of war it was only natural that the Navy, Marine, and Army air commanders who directly faced the enemy in the Pacific would state their case as forcibly as possible in frequent demands for more men and equipment. They could realize only with considerable difficulty that their task was regarded as inferior in importance to that of other theaters, yet this point repeatedly had been made clear in staff meetings. The Combined Chiefs and the Joint Chiefs of Staff took the long view of the war. It was necessary for both groups to maintain a delicate balance between the Atlantic and the Pacific theaters, one which frequently provided the Pacific commanders with equipment regarded by them as less than adequate for the task ahead. Yet in July 1942, when the decision was reached to abandon the project for an invasion of continental Europe in 1942, some promise arose that the pendulum might swing in favor of the war against Japan.²⁰ On 24 July advocates of a higher priority for the Pacific theater were able to obtain from the Combined Chiefs of Staff a statement that over and above the U.S. forces required from BOLERO for operations in North and Northwest Africa, a total of fifteen groups should be withdrawn from current commitments to BOLERO for the purpose of furthering offensive operations in the Pacific.²¹ Such a course, had it been followed, would have sent into the Pacific three groups of heavies, two each of medium bombers, light bombers, fighters, and observation aircraft, and four groups of transport planes. Undoubtedly the commanders of all services in the South Pacific would have given a warm welcome to an increment of this magnitude, but their potential good fortune was short-lived; by the end of the month it was clear that the North African operation would absorb maximum production of the aircraft assembly lines.²²

In any event, General Arnold was unwilling to commit his air force to an offensive in the Pacific at the cost of drawing air power away from the British Isles. His staff pointed out that if the major effort were to be swung away from Germany and sent toward Japan there would arise a military requirement for air operations directed against Japan from the Asiatic mainland as well as from the Pacific islands, and these

in turn were dependent upon the Allied grip upon the Middle East, where failure would jeopardize logistical support of India.²³ Moreover, to General Arnold, Germany remained the primary objective, and the Allied air forces currently possessed the sole weapons able to exert direct pressure upon her. Only by continuous application of massed air power could air operations enjoy success against critical objectives, and this could be achieved only from bases located in the United Kingdom. Therefore he opposed the plan to drain off strength toward the Pacific prior to full implementation of BOLERO and the North African operation, and he clung to his original goal to carry out direct action against Germany from the British Isles as early as possible.²⁴

Regardless of opinion currently held in Washington concerning the South Pacific, it was General Harmon who faced the Japanese in the field and who surveyed the theater's needs in terms of enemy capabilities shortly after his arrival in July. His criterion was not what might be available in Washington. He realized full well that BOLERO and the Middle East program could not go forward if his own ideal requirements were met. But he did aim to present a plan which he regarded as essential to discharge his own new responsibility.²⁵ Accordingly, he noted a deficiency of three fighter squadrons, two of heavy bombardment, and two dive bomber squadrons, together with a full infantry division, two regiments of coast artillery (AA), and one battalion of coast artillery less one battery.²⁶ His figures omitted the units necessary for contemplated Army garrisons on Guadalcanal and in the Santa Cruz group, but because he anticipated that determined attempts would be made to eject American forces from these areas immediately after their capture, his proposal carried the implication that even greater strength was required. The Marines should be relieved by Army ground troops as promptly as possible, and certain additional air units would have to be provided for the defense of the southern Solomons and for the development of plans and operations for the reduction of Rabaul. The fighter strength of this force should consist of two squadrons of P-38's, whose long range would enable them to negotiate the great distances between island bases, while the bomber strength included the entire 11th Group, in addition to one squadron each of medium and dive bombers. All these units raised the total additional requirements to six fighter squadrons, three of dive bombers, two of heavy bombardment aircraft, and one of medium bombers.²⁷ It is significant to note that Harmon placed a request for dive bombers, a type

serving the Marines exceedingly well on Guadalcanal but discredited both by AAF Headquarters and experience in the Southwest Pacific.

In conformance with these conclusions, General Harmon prepared an outline for the Chief of Staff, stressing the point that he stood face to face with painful realities and that in order to hold the key points in his theater reasonable force should be available. Consciously disregarding the question of availability, he asked for the immediate dispatch of three P-38 squadrons to New Caledonia, replacements for the 11th Group's lost B-17's, one medium bomber squadron for use at Guadalcanal, two B-17 squadrons for permanent station on New Caledonia and Fiji, and three dive bomber squadrons, one each for Guadalcanal, New Caledonia, and Fiji. Because the program envisioned substantial reinforcement for the South Pacific, it won strong concurrence from Admirals Ghormley and Nimitz.²⁸

It was quite evident that Nimitz shared Harmon's apprehensions over the situation in the Solomons, neither of them believing that adequate forces were at hand to continue the pressure against the enemy with sufficient strength to hold positions already gained.²⁹ During the early weeks of the Guadalcanal campaign the War Department was bombarded with requests from the Pacific, particularly for more aircraft. While Harmon stressed his needs from his headquarters on New Caledonia, Nimitz and Emmons pressed for reinforcements for the Hawaiian area, asking specifically for two heavy groups in the belief that the most urgent need was for heavy bombers.³⁰ Emmons learned only three days prior to the landings on Guadalcanal that his demands conflicted with other commitments and that the fate of reinforcements rested upon plans then under study by the War Department. However, if additional planes and crews for the South Pacific could not be made available, the existing commitments might be shifted to the critical areas. With this in mind, Marshall authorized Harmon to divert, when necessary, aircraft passing through the South Pacific to Australia, and he informed the Navy that all Army air units assigned to the South Pacific were available for movement as directed by COMSOPAC.³¹

Two weeks of operations in Guadalcanal had passed when Harmon submitted a review of air strength and capabilities. On 21 August he could report the presence of twenty-four serviceable or repairable B-26's and thirty-three B-17's, of which two B-26's and four B-17's had been diverted from Australia. He assumed that a flow of heavy bombers would be maintained to meet the attrition of the 11th Group

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and he planned to bring up the strength of the 69th and 70th Bombardment Squadrons (M) to twenty aircraft each; yet even this figure fell below requirements, and he felt that there should be twenty-four aircraft for each medium squadron with twelve for the B-17 squadrons.³² Nor did he regard the fighter situation as satisfactory. Instead of the allotted eighty-two aircraft in the Fijis, only one squadron with sixteen P-39's was available, and New Caledonia was equally poorly furnished. Harmon could report only twenty-seven P-400's, two P-39's, and two P-43's; after the dispatch of half the P-400's to Guadalcanal, New Caledonia was left with virtually no air defense other than the security afforded by Marine fighters which could be moved over from Efate in an emergency.³³

By 25 August, General Harmon regarded the air situation in his command as critical. His minimum requirement now was a force of fifty B-17's and forty B-26's, all complete with combat crews. Despite the need for bombers, it was easier to obtain fighters. Thirty P-39's, diverted to New Caledonia from Australian allocations, were scheduled to arrive at Noumea in late September, and a like number of fighter pilots were coming down from Hawaii. And there the matter rested for the present.³⁴ MacArthur had instructions to provide all possible support for COMSOPAC, Ghormley could shift at will all aircraft assigned to the South Pacific, Harmon held authority to divert temporarily bombers and aircrews en route to Australia, provided he could put them to more effective use in the South Pacific, and Nimitz had approval for the movement of any aircraft and crews, including fighter pilots of the Seventh Air Force, considered necessary to the success of the Solomons operation. But for the present no additional heavy bombers could be sent into the Pacific.³⁵ There was little to add to the liberality of this arrangement so far as it concerned control over aircraft. Army planes all the way from Hickam Field to Guadalcanal were at the complete disposal of the responsible naval commanders, and Harmon had been instructed to cooperate fully with the admiral in command of his area. But all these dispositions were at best only inadequate substitutes for more aircraft, and on 20 August, Admiral King added his own plea, almost duplicating the list of requirements already submitted by Harmon on 4 August.³⁶

General Arnold's reaction to the plan was terse and in line with the position taken on previous occasions: execution of the plan would serve merely as an additional diversion of inconclusive force. If successful,

it would make no material contribution toward winning the war; if unsuccessful, it would result in one more step toward defeat in detail; and under any circumstances the additional units "must come from the theaters where the war can be won." The only available reservoir was the force being prepared for North Africa, already regarded as insufficient to assure success in that venture. Therefore, he could not consider compliance unless the African operation were abandoned. In that event the units could be employed more profitably against Germany than against Japan's peripheral island outposts.³⁷

And so the cleavage persisted between Army and Navy spokesmen over the respective merits of the several theaters. Army members of the Joint U.S. Strategic Committee firmly held that with the exception of the single heavy group already withdrawn from the United Kingdom and ordered to the Pacific, there should be no diversion of the fifteen groups until the forces for North Africa, the Middle East, and the United Kingdom had been built up. The Navy, on the other hand, presented a priority list in which the United Kingdom rested at the bottom, even though North Africa and the Middle East rated first and second, respectively.³⁸

Admiral King himself led the assault upon the AAF position. Early in September he informed Arnold that, in view of the statement of 24 July by the Combined Chiefs of Staff, he believed a clear mandate existed to divert the groups from the European theater, particularly since the CCS had reached the decision prior to the increased urgency created by the enemy's bombings of Guadalcanal.³⁹ Arnold's reply was a vigorous defense of his strategical concept. In his opinion there apparently was a "lack of common understanding as to the accepted overall strategic policy of the United Nations." He cited a previous decision of the Combined Chiefs of Staff, stating that an offensive with maximum forces should be conducted at the earliest practicable date against Germany, while a strategic defensive with minimum forces should be maintained in the other theaters; no subsequent agreement had in any way altered that fundamental concept.⁴⁰ He called the admiral's attention to the impending North African invasion which had been granted highest priority by Mr. Roosevelt and Mr. Churchill, adding that diversions would jeopardize the success of that operation and in any case were not consistent with established priority. To General Arnold, accustomed to thinking in terms of rapid air movements, the European-African theater was all of one piece.* The very nature of the weapon

* See Vol. II, 60-66, 105-6, 279-85.

under discussion did not permit England and Africa to rest at opposite ends of a priority scale, simply because the Germans would not abide by any such artificial line of demarcation. The Luftwaffe must not be allowed to divert its aircraft to Africa. Instead, its fighters must be occupied by Allied planes operating from the United Kingdom. Arnold even foresaw the possibility of failure of the African operation should any of the fifteen groups be withdrawn from the European allocations. Finally, he pointed out that on 2 September, Nimitz had under his control in the Pacific a total of 472 Army aircraft, of which 119 were heavy bombers either in the Pacific theater or on the way, and that these forces could be strengthened by October replacements consisting of twelve heavy bombers, fifteen medium bombers, and forty-four fighters.⁴¹

To the persistent requests for P-38's arising from the Pacific theater General Arnold replied with praise for the work of the P-40's in Australia, reminding the Navy that if the South Pacific needed P-38's to cover the broad distances between bases, so did the Atlantic. The success of the North African venture depended upon the presence of every possible P-38, because of all fighters then available only this one could cross the Atlantic or move from the United Kingdom down to Oran or Casablanca. If the P-38's were withdrawn, then the African invasion must be abandoned altogether.⁴²

Despite the plea of men in the South Pacific that Tulagi and Guadalcanal could be held only by continuous support of strong air and naval forces, Arnold refused to retreat from his original position that the European area would yield the most profitable return on an investment of air power. The principle was clear enough: German vitals lay within reach of his heavy bombers while those of Japan as yet did not; in any event, German air strength must not be allowed to move unhindered to Africa. Moreover, G-2 estimates of the Japanese order of battle refuted the contention that the Pacific lacked strength. Intelligence reports indicated that by 1 April 1943 the Japanese air forces would total about 4,000 combat planes, against which the Allies would have deployed approximately 5,000, including carrier-based aircraft and those in China and India. Because many Japanese squadrons would be held in Asia, the margin of 1,000 seemed adequate without further diversions from Europe. It was also General Arnold's firm belief that facilities available in the South Pacific were inadequate to care for greater numbers of planes than those currently allotted.⁴³

As the Japanese pressed down on Henderson Field, U.S. naval com-

manders grew increasingly pessimistic, and General Harmon shared their concern.⁴⁴ Admiral King pointed to the extraordinarily high attrition suffered by the Marine air squadrons on Guadalcanal, where the rate of loss based on the initial twenty-five days of operation ran to 57 per cent, a figure which led King to state unequivocally that the Navy could not meet such attrition and continue to operate its carriers.⁴⁵ The security of Guadalcanal, he informed Marshall on 17 September, made it "imperative that the future continuous flow of army fighters be planned at once, irrespective of, and in higher priority than the commitments to any other theater."⁴⁶ In reply to this powerful statement of the case, the Army's Chief of Staff referred once more to the authority already granted to Nimitz which permitted him to shift aircraft throughout the Central and South Pacific. Marshall reminded King that the War Department had not assigned to operations in the Solomons area a higher priority than that of any other theater. Instead, he declared, "priorities adhered to . . . conform to those prescribed by higher authority by whose decision the highest priority has been given to a special operation [TORCH]."⁴⁷

Here, then, was the broad gulf between Army and Navy thinking; here was the first major clash between the supporters of the Pacific and the European theaters under the impact of critical operations in the field. And the debate did not slacken. In the latter part of September, General Arnold himself made a hurried visit to the Pacific, hearing at first hand the reports of the field commanders, among them Harmon, whose pessimism had grown as he watched the thin trickle of supplies and reinforcements reaching Guadalcanal and the gathering of enemy forces at Buin.⁴⁸ By early October enemy troops and aircraft streamed into the New Britain-upper Solomons area from the Netherlands Indies and China in preparation for a massive assault upon the Guadalcanal positions.⁴⁹ General Arnold continued in his belief that base facilities in the South Pacific remained inadequate to absorb more than the numbers already allocated to them and that the major problem was one of proper distribution. He regarded Hawaii as a reservoir of aircraft and personnel ready to support the South Pacific, although Admiral McCain, recently returned to the United States from his command as COMAIRSOPAC,* accepted this as an unduly optimistic analysis of the situation. McCain had found maintenance crews and parts arriving at the operating bases much later than the planes, and ground crews

* He had been succeeded in that command on 20 September by Rear Adm. Aubrey W. Fitch.

already at the forward bases often not equipped to service the types sent in as replenishments.⁵⁰

As the debate over allocations reached its climax, there arose a wide divergence of opinion regarding the capacity of the airfields and the types of aircraft to be based along the route.⁵¹ It was a familiar argument. In nearly every category—fighters excepted—General Arnold reached a lower estimate than Admiral McCain, who was influenced perhaps by carrier practice where the planes' wings dovetailed in neat ranks upon the flight decks. McCain recommended a powerful force of twenty-seven fighters, eighteen scout bombers, eighteen torpedo bombers, and twelve long-range patrol craft or B-17's at each base across the Pacific, whereas AAF spokesmen were of the opinion that the fighters based along the line of communications were not being economically employed.⁵² But Japanese pressure in October had reached a point which precluded any further delay in settling the dispute.

Out on Guadalcanal the Marines prodded the debaters by sending in a predicted need for eighteen F4F's and a like number of SBD's every ten days, together with 100 per cent replacement of flight crews.⁵³ And on 24 October the President expressed to the Joint Chiefs his apprehension over the critical situation then prevailing in the Solomons and his desire "to make sure that every possible weapon gets into that area to hold Guadalcanal, and that having held it in this crisis that munitions and planes and crews are on the way to take advantage of our success." It would be necessary to furnish adequate air support for both North Africa and Guadalcanal, "even though it means delay in our other commitments, particularly to England," for the President feared that the long-range plans of the Allies would be set back for months if less than full strength were thrown into the immediate and pending conflicts.⁵⁴ He asked for an immediate and complete canvass of every possible temporary diversion of material for the active fronts.

General Marshall responded at once, indicating that in the South Pacific the entire situation hinged on the outcome of the current Japanese assault upon Henderson Field, and that the problem was not one of lack of troops in the Pacific but rather had its origin in the shortage of transports and the necessary escorts for these transports.⁵⁵ To meet the current emergency he could report the presence in the South Pacific of 27 medium bombers and 133 fighters in addition to the heavy bombers; 23 heavies were being dispatched by air, with 53 fighters following by water. Furthermore, General MacArthur had been advised on 25 October that he should prepare to furnish on call

to the South Pacific bombardment reinforcements and attrition replacements for P-38 fighters, fifteen of which already were in the South Pacific with the newly activated 339th Fighter Squadron. After surveying the aircraft then available in the continental stations, General Marshall concluded that Guadalcanal could not possibly draw upon replacement training units within the United States without fatally reducing the flow of trained personnel to the several combat theaters. In any case, the Western Defense Command had only twenty-five heavy bombers, none of them suited for operations in the Pacific. The sole remaining source from which combat aircraft could be diverted to the South Pacific was the force of five heavy bombardment groups destined to execute diversionary or supporting missions for the North African operation, and these units even then were en route to or already in England.

But the long debate was nearing its end. On 22 October a complete schedule of deployment of all Army and Navy aircraft in the South Pacific had been discussed by the Joint Chiefs of Staff, and this plan met acceptance five days later.⁵⁶ Although the schedule extended only to 1 January 1943, it undoubtedly imparted a certain stability to the plans of the Army and Navy commanders in the field. If its provisions were met, the South Pacific heavy bomber strength never would drop below 70, medium bombers on hand would number 52, and fighters 150, exclusive of the squadron at Canton, of that manned by the New Zealanders on Fiji, and of the forces at Palmyra, Christmas, Johnston, and Fanning. General Arnold agreed with Admiral Leahy that these figures represented a total, and that the aircraft should be at the complete disposal of the area commander for distribution where most needed.⁵⁷ In conformance with this provision, on 14 November, Admiral Nimitz received complete freedom to deploy and distribute all available air forces assigned to the South and Central Pacific, provided, however, that he moved them to COMSOPAC as units and not as individual planes and pilots.⁵⁸ Nimitz might deplore the lack of greater air strength at hand, but he could hardly have asked for any broader sanction for employment of the weapons he did have.

Japanese Counterattacks

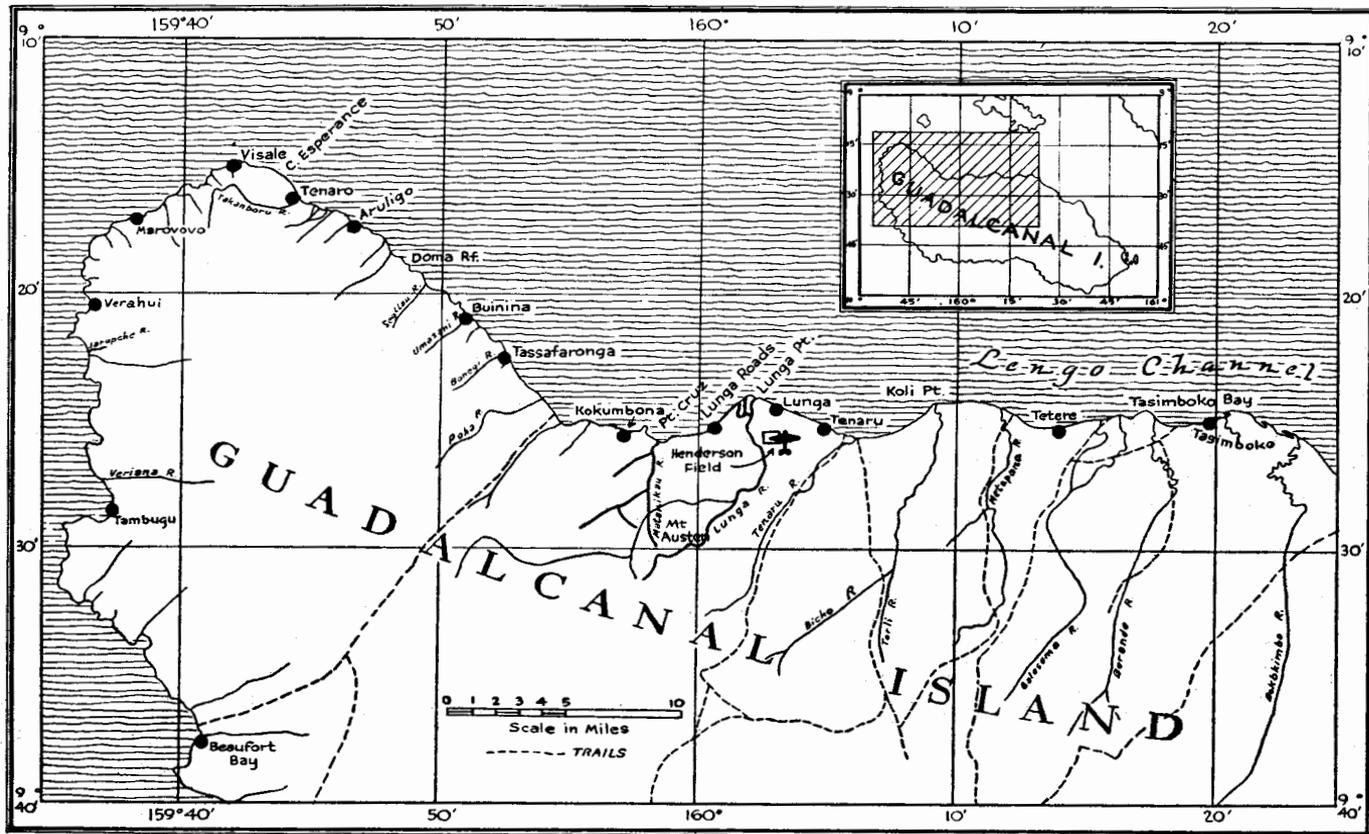
During the debates in Washington over the relative needs of the South Pacific theater, the enemy prepared to make a supreme effort to recover Guadalcanal. Steadily he had been pushing small reinforce-

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ments through the "Slot," as the seaway which funneled down to Guadalcanal from Buin was known to the defenders of that island. From the lower tip of Bougainville, where the harbor of Tonolei was the focal point for enemy shipping moving down from Rabaul, Palau, and Truk, the enemy prepared his reinforcements, and this time they would include two fresh and highly trained divisions, the 2d and the 38th.⁵⁹ The B-17's could do little to interfere with these gathering forces; as often as possible, they staged through Guadalcanal to strike at the highly profitable Buin-Tonolei area, but lack of fuel held these efforts down to infrequent and light raids. It was obvious by September that the maximum efforts of the 11th Group were not sufficient for the job at hand and, on the 15th, General Emmons was ordered to send down the 72d Squadron of the 5th Bombardment Group (H), which joined the veteran 11th on 23 September at Espiritu, followed by two additional squadrons of the group in the following month.⁶⁰

It was well that these fresh squadrons were coming down from Hawaii. There was work enough for all of them. The enemy's "Tokyo Express" steadily built up the ground forces opposing the Marines. Cruisers and destroyers would leave Buin-Shortland early in the afternoon and by steaming at thirty knots they would be off Guadalcanal after midnight. Here the vessels unloaded men and supplies, threw a few rounds at Henderson Field, then withdrew at high speed, only to repeat the performance again the next night. Not until well along in the afternoon would the B-17's, ranging up from Espiritu, be able to pick them up and report the contact to Henderson Field, and by then it was difficult for the dive and torpedo bombers on Henderson to catch the Express.⁶¹ The hostile force failed to enter the effective radius of action of Marine aircraft until late afternoon, thus limiting retaliatory attacks from Guadalcanal to a single mission before nightfall. Nor could the B-17's do much, for by the time Saunders' striking force could cover the 640 miles up to Guadalcanal the enemy usually was well out of range and dispersed up the Slot.⁶²

Early in October the heavy bombers made a weak attempt to restrict the enemy's use of his Buka field when they executed three small raids from Guadalcanal, but they did little more than serve notice upon the Japanese commanders that their airstrips throughout the Solomons lay within reach of Guadalcanal. Nothing like a permanent offensive was possible; fuel was too scarce,⁶³ a fact which lent support to the AAF's argument in the current debate over additional allocations. The B-17's



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continued to render their most useful service in their daily searches over the Shortland area for intelligence of the enemy's surface movements.

By 11 October the searchers had their information: a task force of cruisers and destroyers had been sighted boiling down on Guadalcanal only 210 miles out. That night in the battle of Cape Esperance, Rear Adm. Norman Scott drove them off with his cruisers; next day five B-17's struck again at Buka, followed by six more which divided their effort between Buka and Tonolei on the 13th.⁶⁴

Back on Guadalcanal on the 13th the Bettys from Rabaul had smashed all afternoon at Henderson. They had an easy time of it. Pilots of the P-400's cruised around at 12,000 feet looking up at the enemy formations at 30,000, the P-39's struggled up to 27,000 and could go no higher, and the Marines' Grummans could not make contact in force because of insufficient warning.⁶⁵ Then when all fighters had returned for refueling and rearming, another wave of bombers came over to bomb at will, inflicting casualties both on the field and among the 164th Infantry Regiment of the Americal Division, then disembarking down at Lunga Point. All day long the Seabees of the 6th Battalion raced up and down the strip with their pre-cut Marston mat and with their pre-loaded dump trucks, each carrying a load carefully measured in advance to fit the size of the anticipated craters, yet by noon thirteen holes were visible in the main runway.⁶⁶ Prodigious effort barely held the field in operation when enemy artillery for the first time began to register on one end of the runway. This was "Pistol Pete," destined to gain ill repute among the men around the airstrip; when the P-400's prepared to take off in an attempt to track down the guns, the mission suddenly was canceled amid rumors of no fuel.⁶⁷

That night the Express arrived on schedule. It was a big one. For eighty minutes *Kongo* and *Haruna* hit Henderson in a furious bombardment; heavy shells crashed into gasoline storage and an ammunition dump, and all over the field parked aircraft went up in clouds of smoke and flame.⁶⁸ Early on the 14th amid the shambles of Henderson Field, Colonel Saunders led out his remaining B-17's, which temporarily had been operating from Guadalcanal, leaving behind two planes damaged by shrapnel and two that lacked parts.⁶⁹ Henderson now was useless for heavy and medium bombers and would remain so for more than a month. Only five Navy dive bombers remained in commission to stop the Japanese task forces. Enemy gunners apparently could leisurely

shell Henderson out of existence.⁷⁰ On the 14th Pistol Pete resumed his work. Seabees labored valiantly to fill the craters, but as they tamped one level another shell would dig at the field, scattering men and equipment. Between bursts four P-400's were loaded with 100-pound bombs while their pilots, with parachutes strapped on, waited in near-by fox-holes. One at a time between explosions they would make a dash for their planes and so they took off, with the shells literally opening up fresh craters under the tail surfaces. But they could not locate Pete this day, and the necessity of saving every drop of fuel for vital fighter defense canceled all further efforts to knock out the enemy artillery.⁷¹

Henderson Field was out of operation by the afternoon of 14 October. For the Marine commanders the situation was indeed desperate. Providentially in September the Seabees had laid out a grass strip some 2,000 yards distant and parallel with Henderson; now the strip was rough and it was short, but it supported the light planes based on Guadalcanal during these critical days.⁷² Fuel was—as always—the primary problem. Without it the dive bombers and the P-400's and P-39's now serving as dive bombers could not strike at the enemy's transports and escorts. Gasoline was even siphoned out of the abandoned B-17's left behind by Saunders, this windfall permitting one more mission, but the enemy came on with his ships. Never before and never again did he succeed so well in destroying aircraft grounded on Guadalcanal as during these mid-October nights. And not much was left of Henderson Field by the evening of the 14th.⁷³

By midmorning of the 15th gas had begun to arrive, ferried in by C-47's; throughout the day the transports came in from Espiritu, each carrying twelve drums or enough to keep twelve planes in the air for one hour. All day Marines scoured the beachhead for any stray cache of fuel which might have been overlooked or forgotten in some of the widely dispersed dumps.⁷⁴ Now the task was to destroy the five invasion transports lying between Kokumbona and Doma Reef where the enemy's 2d Division was pouring ashore only eight miles from Henderson Field.⁷⁵ The days that followed saw a weary succession of missions shuttling down to Kokumbona and back to Henderson for rearming and refueling; on the 16th the old P-400's and the P-39's made seven separate attacks on the area, bombing, strafing, and harassing the Japanese without respite.⁷⁶ But the enemy continued to push through his Express; his bombers hit Henderson daily and all along the line there was evidence that Japanese pressure was increasing.

The enemy now had up to 29,000 men on Guadalcanal and his optimism over the outcome was indicated by a German broadcast, relying upon a Tokyo report, which announced capture of two important airfields from U.S. forces in the Solomons.⁷⁷ Not quite, but very close. The U.S. Navy had revealed on 16 October that more enemy troops and equipment had landed, but little beyond that. A hint of the highly critical situation reached the public, still in ignorance of the battle for the island, in a statement of Secretary Knox's "hopes" that Guadalcanal could be held.⁷⁸ A fuller and surprisingly accurate analysis was presented to the public by the *New York Times* commentator, Charles Hurd, who assumed that defensive air power at Henderson had been overwhelmed. So it was, but only temporarily. Prodigious labor soon had erased the pockmarks from the airstrip, and the public learned that the field was in operation on both 16 and 17 October, but enemy artillery continued to harass the strip, which was out of operation again on the 22d.⁷⁹

Vice Adm. William F. Halsey relieved Ghornley on 20 October. Halsey immediately abandoned a plan to occupy Ndeni in the Santa Cruz Islands, sending the 147th Infantry to Guadalcanal instead. He instituted construction of a second bomber strip at Koli Point, approximately twelve miles southeast of Henderson, and his general aggressive spirit soon imparted a rare tone of optimism to the reports reaching Washington from General Harmon.⁸⁰ But Guadalcanal came through with a narrow escape.

The enemy made his supreme effort to slash through the Marine and Army lines around Henderson Field on 24 and 25 October. The field had been put back into operation by the 23d, and the Americans began to inflict crushing losses on the enemy's naval air force. During one raid on the 23d in which sixteen bombers and twenty-five fighters were met by twenty-four F4F's and four P-39's, no less than twenty-two Japanese planes fell to the Marines, who incurred no loss whatsoever to themselves;⁸¹ and the enemy continued to take losses which proved a severe drain upon the Japanese naval air force. On the ground, his troops threw themselves against the defense lines around the airstrips on the 23d and again on the following two days in a poorly coordinated attack which cost them dearly, yet their utmost efforts never once carried the shrieking waves of assault troops closer than one mile to the fighter strip.⁸² Meanwhile, northwest of the Santa Cruz Islands and steaming down from Truk came a powerful task force, the greatest

yet marshaled against American positions in the Solomons; and here on 26 October carrier planes from the *Hornet* and *Enterprise* fought out the violent air action known as the Battle of Santa Cruz Islands. With three of his carriers hit and nearly 100 aircraft lost, including many of the precious pilots saved at Midway, Vice Adm. Nagumo retired to Truk, although not before his planes had sunk the *Hornet*.⁸³

In these actions B-17 participation had consisted for the most part in providing searchers to detect the enemy surface forces. Lt. Mario Sesso of the 5th Group, out on his first mission in the area, found one section of the force on the afternoon of the 25th. He clung to his contact for over a half hour, then escaped from seven Zeros which attempted to shoot him down.⁸⁴ On the next day a flight of eleven B-17's and another of four both bombed the surface forces but neither could report any hits. The issue at sea was decided by the carriers, and on land by the ground forces defending Henderson together with the handful of planes left on that battered field.⁸⁵

Thus ended the most critical of the battles for Guadalcanal to date. By 27 October, Harmon believed that the immediate crisis had passed and that the situation did not necessitate emergency dispatch of any additional heavy bombardment units from the mainland. He now had forty-seven B-17's available, of which thirty-five were ready for combat; eight B-24's of the fresh 90th Group were en route from Hawaii to Australia, and seven B-17's of the worn 19th Group* were being held in Fiji in conformance with instructions to COMSOPAC to make use of these transient units if needed to meet the current emergency.⁸⁶ Yet not one of these planes could operate from Guadalcanal to strike at the great numbers of ships the enemy now was massing at Rabaul and in the northern Solomons for another and even greater effort to push the invaders off Guadalcanal. Two fresh Japanese divisions were preparing for the task; the 20th was staging at Rabaul, the 6th on Bougainville, and on 11 November the searchers from Henderson could report at least sixty-one ships in the Buin-Tonolei area.⁸⁷ To push this force down the Slot the Japanese possessed a definite superiority in surface craft and in land-based aircraft; to meet it at sea Halsey's sole remaining carrier was the damaged *Enterprise*, supported by two new battleships and an inadequate force of light and heavy cruisers.

Eleven enemy transports left the Shortland area on 12 November carrying 13,500 fresh troops and supported by a heavy bombardment

* See below, p. 111.

force of cruisers and two battleships, the *Kirishima* and *Hiei*.⁸⁸ If they could break through the air defenses of Guadalcanal, Henderson Field would be useless and the two divisions could pour ashore unhindered, provided they could slip past Halsey's surface forces. They did neither. That night Rear Adm. Daniel J. Callaghan's cruisers checked them in a wild and costly action off Savo Island, and all day on the 12th planes had rushed across to Guadalcanal from Espiritu. Maj. Dale D. Brannon brought in eight P-38's of the new 339th Fighter Squadron (TE), while COMSOPAC sent in Marine and Navy air reinforcements to raise the island's total strength to forty-one F4F's, thirty SBD-3's, nineteen TBF-1's, and two P-400's, in addition to the P-38's.⁸⁹ General MacArthur had been called upon to send eight P-38's and these planes of the 39th Fighter Squadron arrived on the 13th, flying direct from Milne Bay across to Henderson where they remained until 22 November.⁹⁰ Further to support Henderson, both the 69th and 70th medium squadrons moved their B-26's to Espiritu, the 69th coming up under command of Maj. James F. Collins, pilot of one of the two surviving B-26's which had attacked the enemy carrier force at Midway.⁹¹

With these forces, bolstered by torpedo planes and fighters from the *Enterprise*, the air defenders of Guadalcanal wrought havoc upon the heavily laden transports. They found the battleship *Hiei*, crippled by Callaghan's cruisers on the 12th, and they bombed it mercilessly, aided by seventeen B-17's which came up from Espiritu to score hits upon it. *Hiei* was down by the morning of the 14th but she died slowly, subjecting Henderson to a damaging bombardment before she sank. Early on this same Saturday morning, the *Enterprise* was ordered to attack the convoy, and ten B-26's of the 70th Squadron were sent across to Guadalcanal.⁹² Now while dive and torpedo bombers pounded the retreating bombardment force of cruisers and destroyers, the transports moved down, closer to the base where the short-legged SBD's and TBF's could hit them. For the enemy the outcome was complete disaster. One after another, seven of his transports went down or were set afire under the attacks of the Henderson planes, supported by a flight of fifteen B-17's from Espiritu, which claimed one hit on a transport. Only three of the transports and one cargo vessel were able to reach Guadalcanal; and these four were beached near Tassafaronga, where air and artillery bombardment, supplemented by surface bombardment, quickly destroyed them.⁹³

Repulse of the final enemy thrust was all surface action. On the night

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of the 14th, Rear Adm. Willis A. Lee with *South Dakota* and *Washington* met a powerful Japanese force, sank *Kirishima* in a radar action, and, in spite of losses, forced the Japanese to retreat. Never again did they make such a frontal attack either by land or by sea. Now they would resort exclusively to the Tokyo Express to sustain their troops on Guadalcanal, meanwhile building up their air strength at Rabaul. But they could maintain slight hope for recovery of Guadalcanal, even though the campaign was to drag on into February. Shipping losses had been high in the November action, reaching 77,000 tons exclusive of the combat craft sunk; clearly for the Japanese the Solomons were absorbing air and naval strength at an appalling rate.⁹⁴

With the collapse of the two massive enemy efforts the outline of future operations became reasonably clear. The aggressive personality of the new theater commander had created an air of optimism, and to support whatever plans lay ahead there now was a schedule of allocation of aircraft for the theater. The maximum effort of the Japanese had been met and turned back, and many of the initial problems of the South Pacific had been overcome. The solution for others must wait, but there was an awareness among an increasing number of personnel that service loyalties were subordinate to the primary task: defeat of the Japanese.

CHAPTER 3

* * * * *

THE THIRTEENTH AIR FORCE

HENDERSON FIELD had been won in the violent air, sea, and land battles which had occurred in the hectic days of October and November. There would be more fighting on Guadalcanal, more battles at sea in the Slot, many more in the air, too, but henceforth there would be far less doubt as to the outcome. In October and November there had been little margin for error or miscalculation. The race had been far too close for comfort. But now from November forward, the Allied potential began to show under the energetic leadership of Admiral Halsey; men, ships, guns, and planes reached Guadalcanal in numbers sufficient to provide a modest margin of safety.

Review of the Record

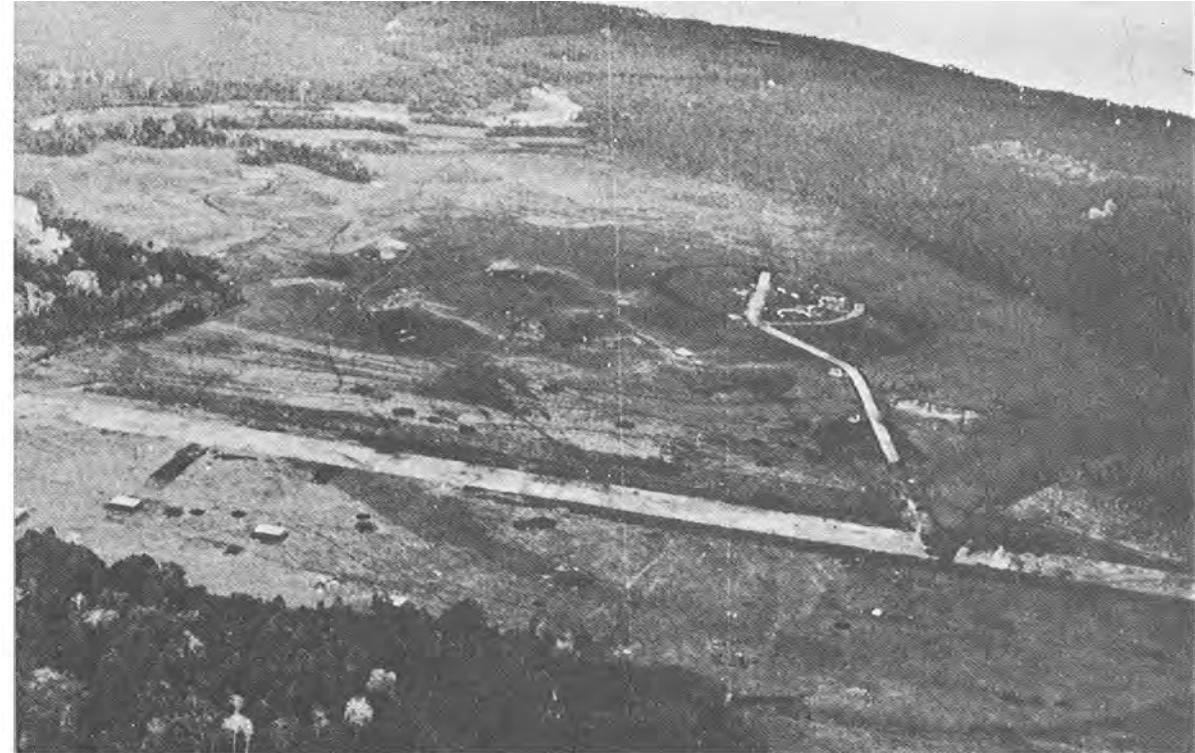
When the smoke had cleared away and the pressure had eased somewhat, the men who sent the planes on their missions took stock of their weapons. By the end of November, General Harmon's heavy bombers had been in operation four full months. They had gone out from Espiritu Santo almost daily, staging through Guadalcanal as often as possible, and now their commanders and aircrews had gathered sufficient operational data to permit an assessment of their achievements and an analysis of the employment of heavy bombardment aviation in the theater. Of 610 of all types of Japanese planes contacted, B-17 gunners had claimed twenty-one aircraft destroyed and fifty-seven damaged. On the debit side, twenty-one bombers had been lost while executing their missions, but more than half this number could be attributed to operational losses. No more than six could be recorded as combat losses, excluding the three additional planes which were badly damaged by

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naval gunfire while parked on Henderson Field. Altogether these aircraft had carried down with them a total of 101 officers and men of the 5th and 11th Groups, of which number a third could be charged to operational causes rather than to combat with the enemy.¹

Pilots, crews, and commanders had learned many lessons during the first sixteen weeks of continuous operations. There was complete confidence in the B-17 as a combat weapon; anti-aircraft fire repeatedly had hurt the bombers, and so had the 7.7-mm. machine guns and 20-mm. cannon of the Japanese Zeros, but the toughness of the B-17 had enabled most of the planes to return to their bases. They were highly durable and pilots respected them. That this toughness would be needed was evident from a marked improvement in enemy fighter tactics since the initial contacts in July and August. Zero pilots always fought more aggressively over their own bases, and it was believed that fresh pilots with considerable experience were reaching the Solomons from other fronts.² Certainly, the B-17 crews were having trouble in meeting effectively the frontal attack so often employed by the Zero pilots. To combat this menace General Harmon had requested, as early as 31 August, modification of all 11th Group B-17's after the pattern completed on one of his heavy bombers by the Cheyenne Modification Center. This operation involved the installation of two .50-cal. nose guns and another in the radio compartment, together with new mounts for the waist guns and larger waist ammunition boxes to provide flexible feed. Initial experience with these improvements had shown a material contribution to the defense of the B-17 against frontal attack, but the field of fire still remained badly restricted and it was doubted that anything short of a nose turret would solve the problem.³

Colonel Saunders in his own analysis cited the toughness and aggressiveness of the fighter unit encountered over Buin, where enemy fighters seemed much more difficult to shoot down, indicating the presence of armor in the planes. He granted the need for a nose power turret and for installation of armor plate in the entire nose compartment. Had his B-17's been so equipped, several bombardiers and navigators would not have been killed, but beyond this, his observations of operations and enemy tactics in the South Pacific indicated that the time had come for a radical change in the design of heavy bombers. The B-17, he felt, had been developed to the extreme limit, and now a completely new aircraft should be built.⁴ Nevertheless, only two aircraft were known to have been lost to enemy fighters, one on 24 Sep-



THE PRIZE OF GUADALCANAL

Above: JAPANESE AIRSTRIP, LUNGA POINT, 7 AUGUST 1942

Below: HENDERSON FIELD, AUGUST 1944



PORT MORESBY

Above: THE HARBOR

Below: WARDS (8-MILE) DROME

tember over Buin and the other on 18 November after a running fight of seventy miles. Thus far, and in most cases, formations of three or more B-17's had proved sufficiently strong to prevent serious damage at the hands of enemy fighters.

If the record of the heavy bombers against enemy aircraft was outstanding, the statistics turned in by Saunders' aircrews indicated quite a different performance against enemy ships. Since 31 July a total of 1,163 surface craft of all types had been contacted, of which 60 were attacked with a total of 828 bombs. Of this number, the pilots claimed 4 sunk and 15 damaged, exclusive of 9 others believed damaged as a result of close misses.⁵ General Harmon had presented to Admiral Halsey on 22 October a statistical analysis of the effect of search activities upon the striking power of the B-17's, concluding that on a basis of eight planes flying daily search missions, each of eleven hours' duration, approximately 78 per cent of the group's total effort was devoted to reconnaissance work. The remaining 22 per cent of flying time was available for strike missions. Harmon conceded that this view of the problem was somewhat academic, but nevertheless he believed it emphasized the necessity for preserving the offensive effort of the bombers. He accordingly had recommended that no more than 25 per cent of the heavy bomber effort should be expended thereafter on reconnaissance, that a careful survey be made of all equipment and its employment in order to secure a reduction of the current figure, and that Hudsons be placed in service to supplement the search effort of the PBY's and B-17's. As for targets, he recommended that the heavy bombers be concentrated upon important objectives lying beyond the range of other types of aircraft, or in force upon vital surface objectives at all ranges. But the planes should not be assigned definite strike missions against small detachments of cruisers and destroyers at long range because of the improbability of obtaining hits on such highly maneuverable targets, except by employment of more planes than the target was worth.⁶

On 20 November, Harmon submitted to COMSOPAC another extensive analysis of the difficulties confronting Colonel Saunders. He had discovered that the attacks by B-17's against the convoy on the 14th had resulted in no more than 1.1 per cent direct hits, which he viewed as less than a distinguished performance. The action of the following day had yielded a better score, since 12.5 per cent of the bombs dropped were hits, but the record was weakened somewhat in view of

the fact that the hits had been made in part upon a beached transport or on a vessel lying motionless upon the surface of the sea. Of all bombs dropped against maneuvering enemy surface craft during the early months of the campaign, slightly less than 1 per cent was classified as hits, although the inclusion of those listed as probable hits would bring the figure up to 2.5 per cent.⁷

Colonel Saunders was fully aware of his chief's reaction to the results thus far obtained. Early in November, Harmon had advised the 11th Group commander of the necessity of inflicting more damage upon the enemy if "we are to justify the type and volume of effort we are putting into our B-17 operations for long range strike against enemy surface objectives."⁸ He did not urge a prodigal expenditure of planes and crews, but in view of the remarkably light loss sustained from enemy fire, the planes must be prepared to bomb from dangerously low altitudes. It was a pressing matter. Vital enemy land installations at this stage of the war lay beyond the reach of any considerable bombing force, and it was only through his seaborne tentacles that the enemy could be hurt seriously. General Harmon was not prepared to accept the doctrine of skip bombing with 4-second fuzes, but he did feel that Saunders should be ready to employ the B-17's in this manner if the emergency should warrant action which might be sacrificial in nature.⁹ Harmon offered his suggestion in a spirit of objective examination, in the hope that he and Saunders might advance the effectiveness of the air weapon against the Japanese. The tremendous handicaps under which the heavy bombers had operated from Espiritu Santo received full recognition, and Harmon assured Saunders that he had exerted his utmost effort to develop a suitable airfield on Gaudalcanal.¹⁰

Back in Washington, General Arnold had observed closely bomber operations in the South Pacific and he, too, was perturbed over the failure to strike in strength at surface targets during the great convoy action of mid-November, even though he expressed pride in the general performance of the heavy bombers.¹¹

The limitations which had contributed to the low score of the bombers were more apparent to the Army's airmen than to the theater commander, Admiral Halsey. Practically all targets had been at maximum range and the majority of them lay in excess of that range, thereby necessitating a reduction in the bomb load carried by the B-17's. Furthermore, the extreme length of the missions, coupled with frequent necessity for exhaustive search by striking forces to locate targets, neces-

sarily induced crew fatigue and strain, which in turn exerted an unfortunate effect upon bombing accuracy. In Harmon's view, as he explained to Admiral Halsey, the power of bombardment stood in inverse ratio to the distance to the target.¹²

In the Solomons operations, always it was the maneuverable surface craft which defied the bombardiers. Few of the latter had entered the area with much experience against this type of objective, and only rarely was it possible to assign specific targets to the aircrews in advance of the mission.¹³ Even the choice of bomb load was sharply curtailed. During the first three months of operations there were only two fuze selections available—instantaneous and 1/10-second delay—of which the former was preferred because it would penetrate the water only some fifteen feet prior to detonation, thereby creating a mining effect in the case of near misses.¹⁴ Perhaps most serious of all the problems was the tactical employment of the heavy bombers, a factor dictated by forces quite beyond the control either of General Harmon or the 11th Group commander. Colonel Saunders had gone out from Hawaii with bombing plans based upon attacks by nine planes—three flights of three planes each. Yet in practice he found that it was quite impossible to apply this technique; not enough planes could be put into the air to produce a pattern of nine bombers, nor were the experienced flight leaders available who could have effected perfect timing. Over and above the heavy claims upon his resources for search operations, the airdrome facilities at Espiritu Santo simply would not permit take-offs in sufficient force—there were no circulating taxiways and there was no traffic control. Three months had passed before sufficient lumber arrived to permit erection of a control tower that extended up above the coconut trees. For these several reasons the air commanders felt reasonably satisfied if they could put six bombers together in the air.¹⁵

It was pointed out to COMSOPAC that even in November clearance of twelve B-17's from Espiritu's bomber strip consumed one hour, while landing the same flight cost an additional hour and a half if it should return after dark, and obviously all this time must be deducted from the maximum flying time—and therefore range—of the formation.¹⁶ It is of interest to note that shortly before the Battle of Midway, Maj. Gen. Robert C. Richardson in Hawaii informed the Chief of Staff that in order to achieve a mathematical probability of 7 per cent hits on a maneuvering Japanese carrier under ideal conditions and from

14,000 feet, a minimum force of eighteen to twenty bombers per carrier would be necessary. Anything less would produce only the most meager results.¹⁷ But it was not Colonel Saunders' lot to have twenty B-17's per carrier. He revised his bombing plan to a 5-plane Vee, and the results were what might have been expected. In the period 31 July to 15 November, only six formations went over their targets with more than six aircraft, and as late as 18 November nine or more bombers never had bombed simultaneously a single surface vessel steaming at high speed. General Harmon advised Halsey not to expect high scores from such small flights, stressing his belief that a minimum of nine planes should be employed and confessing that the results obtained thus far were "disappointingly low."¹⁸

If the score was low, operating conditions had contributed to it, and General Harmon wished his critics to bear this in mind; he had no desire to see his figures interpreted as a blanket indictment of high-level bombardment. He was willing both to indicate the limitations of the B-17 and to stress its potentialities when properly employed. It was a bomber capable of driving its way through heavy fighter opposition to a fixed objective such as the air installations at Buka Passage, but against maneuvering targets the lesson was obvious—the plane must be used only in numbers sufficient to produce a pattern which would cover the possible maneuvering area of the vessel under attack. Perhaps this was an expensive employment in terms of hits per bomb released, but nevertheless worth while against important naval objectives. And despite the low number of hits there was evidence that the Japanese naval commanders did not relish contact with the bombers; Harmon stressed the fact that since 24 August no carrier had approached within a 500-mile radius of Espiritu. If only Guadalcanal had been operable for B-17's and B-26's during the past sixty days, General Harmon believed that the enemy would have encountered serious interference with his construction efforts at Buin and Buka and with his invasion fleet based in the Faisi-Tonolei area. Once these bombers could move into Guadalcanal, the reduction of enemy naval and air bases at Buin and Tonolei might begin, but until such a time arrived, heavy and medium bombardment would be unable to throw full weight into the task of defeating the enemy.¹⁹

Harmon reviewed all these problems for General Arnold a few days later. He praised the 11th Group, believing that it had been of inestimable value in limiting enemy naval action despite its rather slim box

score. He believed, too, that Halsey was cognizant—as McCain was—of the difficulties the bombers faced, and he decried the current sniping at high-level bombing. The B-17 had proved itself against fixed objectives; granted that it was less effective against surface targets under way, nevertheless it would be premature to pass judgment on the bomber's suitability for attack upon this type of objective. For his chief he listed some of the factors which had contributed to the low scores achieved by the bombers in the South Pacific: "cow pasture fields, lack of maintenance and relief combat crews, adverse weather, inaccurate intelligence reports, no opportunity for training due to shortages of fuel, engines and operational necessity, inadequate maintenance of bomb sights and instruments, occasional operational misdirection, and *always* extreme ranges." Such were the formidable obstacles complicating Colonel Saunders' operation of the 11th Group, but there were others to be considered, i.e., the enemy's elusiveness, his knowledge of effective B-17 range, and his well-known propensity to use adverse weather conditions to his own advantage. Although Harmon did not regard the results to date as entirely satisfactory, he felt that they provided an indication of what could be achieved from adequate bases against targets within range of fully loaded aircraft.²⁰

Part of the difficulty besetting Saunders lay in the virtues of the B-17, rather than in any deficiencies. It was most irksome for the local air commanders to watch their heavy bombardment crews devoting so much time and energy to reconnaissance activity, yet no other aircraft on hand could press home an effective search in the face of air opposition. The obligation varied from week to week. On occasion it had been necessary to send up as many as nine search planes simultaneously. In the early days these planes were not permitted to carry bombs, but their crews begged for them in order to strike at the ships moving down the Slot, and in response to these pleas the B-17's were given a half load of four 500-pounders. Henceforth, with full radio compartment tanks it was possible to maintain a complete search pattern and at the same time to carry something for the bombardier.²¹ By the end of November, strike missions had been curtailed, but four search planes were running each day up from Espiritu to cover the area east of the Solomons, while two others now went northwest from Guadalcanal for a distance of 400 miles. Below Bougainville these two parted, one passing up each side of the island, but both planes flew as far north as Buka. Over the Shortland area the B-17's could expect both flak and fighter

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opposition; the former was often quite substantial and the fighter unit now based near Buin was very aggressive.²²

Harmon urged Halsey to employ Hudsons to supplement the PBV's and B-17's, and that he move the Hudsons forward to Guadalcanal at the earliest opportunity.²³ Yet, there remained the inescapable fact that no plane available could match the B-17 for long-distance sea search. Originally, it had been assumed that the PBV's would carry the burden of patrol missions—this at least was their designed function—but the great vulnerability of the Catalina rendered it less reliable than the B-17; if it approached an enemy carrier it could not maintain the contact, and often it could not even establish contact. Enemy radar would reveal the presence of the PBV, whereupon the air combat patrol would destroy the lumbering flying boat before it could sight the Japanese task force. In contrast, on the afternoon of 12 November a B-17 sighted a carrier 350 miles north of Guadalcanal and maintained the contact for two hours, during which time it shot down six Zeros before returning to its base.²⁴

It was not surprising that COMAIRSOPAC valued highly the ability of the heavy bombers to search the area stretching 800 miles northwest of Espiritu Santo. These planes could stay in the air and trade blow for blow. Admiral Fitch credited the B-17's with a significant share in the success of the last two major battles, and Colonel Saunders felt considerable pride in their work, even though searching was less spectacular than the strike missions.²⁵ Regardless of the outstanding performance of the B-17's in this direction, it represented a serious diversion from the available striking power and created a most unsatisfactory situation in the eyes of the air commanders, who agreed that heavy bombardment requirements for the South Pacific should rest on the assumption that B-17's constituted primarily a striking force and not tools for reconnaissance. Air search properly should be carried out by patrol planes, or by shore-based reconnaissance aircraft and float planes; not only would this lighten the burden upon the bombers but it would relieve the congestion of the airdromes.

In Washington, General Arnold was reluctant to accept what he believed to be a misdirection of his offensive strength. Seriously disturbed by Harmon's reports, he undertook to persuade Admiral King to throw more of the South Pacific's sixty-eight PBV's (an estimate later revised downward to fifty-two) into reconnaissance.²⁶ Arnold reviewed for King the problems facing local commanders of the B-17's,

urging the further use of the Navy's Catalinas. He admitted the limited nature of results achieved by the Army's land-based bombers in the recent air-sea actions but pointed to the extenuating circumstances. Because failure to employ mass strength could not be attributed to lack of familiarity on the part of the theater commander with the basic principles of air employment, Arnold concluded that three factors had and were interfering with proper utilization of heavy bombardment.

Of foremost importance was the dissipation of striking force aircraft and crews as a consequence of routine patrol missions; fuller exploitation of PBY's, under conditions of acceptable risk, would substantially augment the availability of the B-17's.²⁷ Arnold admitted the justification for an occasional diversion of bombers and their combat crews to reconnaissance missions, but such a diversion should be necessary only if the presence of enemy fighters was anticipated. He reminded Admiral King of a factor too often overlooked: that successful performance of high-altitude precision bombing missions might reasonably be expected only if equipment functioned perfectly, and if the crews were in excellent physical condition and at the peak of their technical proficiency. Without adequate rest, without sustained practice in bombing technique, something less than successful performance might be anticipated. Secondly, General Arnold pointed to the inadequacy of base facilities, and specifically to the delays in the program for improving the airfields at Espiritu Santo and Efate. Finally, he pointed to the lack of aviation fuel on Guadalcanal, which prevented the staging of strike missions through Henderson Field against the concentrations of shipping at Buin and Faisi. But fundamentally, it was a fuller utilization of the PBY's for routine patrol missions that would release the land-based bombers for their proper function.²⁸

This effort on the part of General Arnold to secure proper employment of the B-17's did not bring immediate relief, and out in the South Pacific General Harmon continued to press the point with Admiral Fitch.²⁹ Arnold's air planners assumed a more detached and long-term view of the whole question: to them there never would be enough bombers at any time during the war to justify indiscriminate use of these offensive weapons for "diversionary" purposes.³⁰

Perhaps not. Perhaps the employment of B-17's on search missions was of a diversionary nature; but the information brought back by the aircrews was absolutely vital to the theater commander and could have been obtained in no other way. Coast watchers were able to observe

enemy movements on shore, and they recorded the arrival and departure of Japanese shipping, but only the B-17's could cling to contacts made with powerful task forces at sea, as they had so ably demonstrated during the great actions of November.³¹ So the bombers continued their searches. The burden would be lightened in time, but not until 1943 when the PB4Y's (Navy B-24's) arrived in the theater, and not until it was discovered that the P-38 served as an excellent search plane for the daylight run over Rabaul.³²

A New Air Force

Meanwhile, what could be done to increase the effectiveness of the air effort? General Harmon saw slight hope for improvement under existing circumstances—only by personal and constant contact with operations could he insure that missions would be planned and executed in conformance with proper AAF doctrine. There was need for a competent staff which understood the various categories of Army aircraft, led by an air commander intimately aware of the capabilities and limitations of his forces. In short, Harmon argued for recapture by the AAF of operational control, which he came to regard as “the heart and soul and guts of the whole business.” General Harmon was not a man to complain, but he argued that “no one can build up a force, train it, dispose it and supply it and be held responsible for its operational effectiveness without some direct contact and influence on its operational control.”³³ The command structure of the South Pacific was at fault, for it had made him partially responsible for whatever deficiencies the B-17's might turn up, without adding the operational control necessary to remedy the errors.

The solution, as Harmon assessed the situation, was to push hard for the authorization of a South Pacific air force. Already he had outlined a plan for General Arnold; now on 29 November he submitted to the Chief of Staff his recommendations for authorization of a new Army air force, expressing his inability, arising from the command structure, to insure preparedness, proper distribution, and effective employment of the Army air forces assigned to his area and for which he was responsible.³⁴ Harmon proposed that the new force be designated a part of his own organization, the U.S. Army Forces, South Pacific, and that Brig. Gen. Nathan F. Twining be named commander, as the best qualified officer available. He suggested, too, that the new air force should include a bomber and a fighter command whose leaders would be selected from officers already in the South Pacific.

The proposal had no intention of capsizing the accepted principle of unity of command, nor could it aim at gaining for the AAF full operational control of its own aircraft. But Harmon did ask for a closer coordination with COMAIRSOPAC in drawing up plans for operational employment, for general supervision of all air activities exclusive of a few administrative agencies, and for distribution of air units and forces according to the plan of operational employment as determined by COMAIRSOPAC, in addition to control of all training activities and regular command inspection to determine the status of training and to insure the proper execution of combat missions. Beyond these tasks the new air force commander should serve in an advisory capacity to COMAIRSOPAC in the preparation of plans and issuance of orders, and as an intermediate agency in the chain of command for operational employment as determined by COMSOPAC.³⁵ If these objectives could be attained, Harmon believed they would aid in eliminating the Navy's continued practice of dealing directly with subordinate AAF units, thus permitting the new air force to achieve genuine unity of command.

There was reason enough to cause Army air commanders in the South Pacific to seek the establishment of an autonomous air force. Since all air operations, regardless of service, were under the direct control of COMAIRSOPAC, General Harmon exercised no operational control over the AAF units and no formal air organization existed. Both combat and service units were under the commanders of the various island bases, who controlled training functions as well as the defenses of the particular base. Such an arrangement inevitably led to numerous difficulties, but one of the most critical was that of supply; because Harmon lacked advance information on future movements of units, neither he nor his air staff were in any position to know what supplies would be required for forward areas.³⁶

By early December, General Harmon was most anxious to further the development of his plan for the new air force, urging the Chief of Air Staff to push it along. Much could be achieved with an air force working closely with Admiral Fitch, he believed, even though full operational control was lacking; under existing conditions he found "too little imagination being exercised in the employment of our Air Force."³⁷ Fortunately for Harmon, the Chief of Staff wasted little time in debate. On 5 December, General Marshall sent out a dispatch informing COMGENSOPAC that the AAF units in the South Pacific now were designated the Thirteenth Air Force.³⁸ No details had as yet

been elaborated, and in fact Washington had not yet received General Harmon's own outline of 30 November. But at least the first step had been taken toward creation of a new Army air force for the South Pacific theater. Once before—early in June—a similar plan had arisen, one based on a separate air force for the "Five Islands" of Canton, Christmas, the Fijis, New Caledonia, and Tongatabu, but the idea had never matured.³⁹ Only the experience gained from active operations against the enemy had brought home to all concerned the necessity for such an organization. General Harmon reported that both Halsey and Fitch were sympathetic to the idea, and that he would establish Twinning's headquarters on Espiritu Santo immediately adjacent to Admiral Fitch, who was moving ashore. Thus, there should be an improvement in the employment of aircraft as a result of the opportunity for joint planning and supervision of activities.⁴⁰

Little time was lost in preparing the ground for the new air force. Constitution of headquarters and headquarters squadrons for the Thirteenth Air Force, XIII Bomber Command, and XIII Fighter Command occurred on 14 December 1942, and General Harmon was so informed on the following day.⁴¹ Personnel for the force, at least most of it, would have to come from units in the field, but Harmon anticipated no real problem in this respect. Responsibilities of both bomber and fighter command would necessarily be restricted because of the wide dispersion of air units and their position on the various island bases. As opportunities arose for increased operational control, he would call for appropriate augmentation.⁴² Even before the new air force could be activated, Harmon was deep in the process of reorganizing the units under his command, which were then operating under earlier and inadequate tables of organization.⁴³ His pleas were recognized, General Marshall granted the necessary authority, and Harmon prepared for the activation orders soon to come.⁴⁴

With his eye focused upon global requirements as well as upon the South Pacific, Marshall found it advisable to modify downward some of Harmon's original suggestions. Headquarters of the XIII Fighter and XIII Bomber Commands must be limited to bare cadre strength, Harmon could not requisition equipment for them until the situation warranted and until the War Department granted its approval, nor could he borrow similar personnel from his USAFISPA force with the expectation that replacements would be forthcoming. However, the restrictions were sweetened with the admission that a change in the

tactical situation might necessitate a standard air force organization in the South Pacific.⁴⁵

It was obvious that these paper preliminaries had cleared the way for a field air force, albeit a bareboned force. All its personnel must come from sources already under control of Harmon, who was enjoined from requesting fresh replacements, a restriction which undoubtedly served to hold the area's air commitment down to levels agreed upon by the Joint Chiefs of Staff. But a happy solution for the Joint Chiefs did not necessarily indicate a similar one for Harmon, who now faced a major problem in his efforts to provide the commanders and personnel necessary to fight and maintain the Thirteenth Air Force. By the end of December, Harmon noted rapid progress in the construction of office and housing facilities for General Twining up on Espiritu Santo, immediately adjacent to Admiral Fitch's headquarters.⁴⁶ But the question was not one of facilities only, and very quickly Harmon was obliged to report that his hard pressed organization no longer could furnish additional officers to fill the needs of the Thirteenth Air Force, the I and II Island Air Commands, as well as a number of service units scattered over the South Pacific. He appealed for help, Operations Division in Washington investigated, and on 13 May, General Marshall reversed his original intention, directing that Harmon be permitted to requisition fillers and replacements for his source units. This action would help, to be sure, but meanwhile the new air force had launched its career on a very spare basis.⁴⁷

On 13 January 1943, General Harmon activated the Thirteenth Air Force and General Twining, as the new air force commander, established his headquarters on Espiritu Santo. The new bomber commander was Col. Harlan T. McCormick, fighter command went to Col. Dean C. Strother, and the new chief of staff was Col. Glen C. Jamison, who had served as G-3 at USAFISPA since July 1942.⁴⁸ These men worked with an organization far more potent on paper than in actuality; in truth no real air force yet existed. Much of the administrative and supply service of the Thirteenth would remain with USAFISPA for some time to come because of the absence of an air service command, and only gradually would the new air force be able to assume the position of a self-sustaining unit. The conditions surrounding its birth were not wholly unfamiliar to military organizations, but to the men directly concerned they seemed a bit more stringent. With no authorization for basic equipment or for anything else, they did what military men usually do in similar circumstances: they

borrowed, they begged, or they stole what was needed to establish their headquarters and get under way.⁴⁹

What this youngest air force might accomplish was not at all clear, since its establishment in no way altered the basic pattern of operational control of aircraft in the South Pacific. This remained, as before, with COMAIRSOPAC. General Harmon stressed the fact that the Thirteenth Air Force was distinctly a part of his command and that he must retain direct responsibility for and control of all matters affecting administration, supply, movement, and training, together with the right to insist upon observance of sound principles, doctrines, and techniques of employment.⁵⁰ Legally, he could do all these things, but one vital item remained quite beyond either his reach or that of General Twining—operational control. For the immediate future the Thirteenth's control over its own operations must remain upon an advisory basis, dependent in large measure upon the relations between General Twining and Admiral Fitch.

Supply and Operating Conditions

The South Pacific combat units had lacked more than operational control. Throughout the Guadalcanal campaign they operated without benefit of an air service command within the theater. Facing Harmon after his assumption of command in July 1942 was a twofold supply and service problem. First and most important, there was the necessity for moving materiel to the theater and placing it on shore; secondly, there was the question of what to do with the boxes and crates, once they arrived on the docks at Noumea. The first difficulty was eased somewhat when initial operations indicated that Hawaii should be substituted for San Francisco as a more advantageous supply point for air force supplies.⁵¹ To be sure, because of the ever-present shortage of shipping, this shift covered only items that might be shipped from Hawaii by air.⁵² And selection of a proper source of supply provided only a partial solution. More difficult was the task of moving supplies out to the island bases and carrying them ashore. While it was obvious to all that an acute shipping shortage prevailed, it was somewhat less apparent that wise counsel always directed the shipping that was available. Port facilities at Noumea were highly inadequate; and with the usual perversity of war, at the very time the transport burden was extremely heavy there arose the necessity for a vast amount of feverish construction of wharves, docks, loading and stor-

age facilities, and connecting roads.⁵³ It was not uncommon to find twenty to thirty cargo vessels lying in the harbor and at times the number rose to seventy or eighty; moreover, some of them lay at anchor more than three months before they could move alongside a dock. Up at Espiritu and Guadalcanal conditions were even more primitive and remained so long after improvements appeared at Noumea; it was reported that at Espiritu Santo some vessels lay in Segond Channel over three months before they could be touched.⁵⁴

Part of the trouble lay in improper scheduling. It was estimated, for example, that Noumea could discharge twenty-four vessels per month when properly spaced, yet twice that number were dispatched without regard for schedule. Accordingly, during the month of November there were instances when twenty-three cargo vessels were waiting to load or unload, and this accounted at least in part for the many overdue shipments of AAF supplies.⁵⁵ Investigation of the situation placed responsibility for these conditions with the Naval Transportation Service and Naval Operating Force, and after the case had been carried to the Joint Chiefs of Staff, a directive was finally issued placing the responsibility for unloading vessels in the Army's Transportation Corps, a practice which prevailed in other ports.⁵⁶

Meanwhile, additional difficulties continued to crop up. Vessels arrived with heavy deck loads whose weight surpassed the capacity of the unloading gear; some radar units, for example, exceeded twenty tons per package, yet the ships' cargo booms could handle nothing beyond seven tons. In the absence of unloading cranes at Espiritu, the vessel would swing at anchor in Segond Channel many weeks with its vital cargo on deck or stowed away in the hold. It was this type of practice which led to serious shortages of B-17 engines badly needed by the 11th Group.⁵⁷

Fortunately, at Noumea it was possible to deliver fighter aircraft already assembled except for the wings, which were attached at near-by Magenta Field. From this small strip the P-39's and P-38's were flown to Tontouta in order to avoid the slow haul by truck over thirty-odd miles of hilly country.⁵⁸ Paradoxically, it was even simpler to land completely assembled fighters at Espiritu than at Noumea. At Pallikula Bay there were cranes capable of handling the P-39's, P-40's, and P-38's, and the dock lay only 200 yards from the airfield, to which it was linked by a satisfactory airstrip. But despite the fact that all types of assembled fighters could be set ashore at Pallikula, General Harmon

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recommended that the planes normally be handled at Noumea because of the central location and better maintenance facilities.⁵⁹

All these physical difficulties slowly smoothed out, permitting COMGENSOPAC by the end of November 1942 to anticipate definite improvement in fuel and airdrome facilities on Guadalcanal. In marked contrast to his earlier experiences in the area, Harmon could advise General Arnold of his satisfaction with the service forces then reaching him; they were the product of a long campaign to secure an adequate body of service personnel to maintain his planes and shops.⁶⁰ Even prior to his departure from Washington Harmon had placed a request for an air depot group capable of performing fourth echelon repair, assuming that without such a unit a substantial portion of his air strength would remain out of commission. He knew that he could not depend upon facilities in Australia in face of the shipping shortage.⁶¹ Although General Harmon quite promptly obtained authorization for his requested units, including the 13th Air Depot Group and two air service groups, the 6th for New Caledonia and the 29th for Fiji, a long wait lay ahead. By October there still were no facilities in the South Pacific for fourth echelon repair; major repair work had to be sent over to Australia. Even as late as November, Brig. Gen. Robert G. Breene, commanding general of Services of Supply, USAFISPA, was advised to send all engines requiring complete overhaul either to the Hawaiian or the Sacramento Air Depot, and this awkward system would necessarily prevail until the arrival of the 13th Air Depot Group.⁶²

This painful lack of engineering and air base groups plagued General Harmon throughout the critical months of the Guadalcanal campaign and it was perfectly apparent to the many visitors to his theater. Both Generals Emmons and Arnold personally observed the improvisation forced upon the South Pacific commander—improvisation which so often is the subject of postwar praise but which can chew up time and manpower in prodigious amounts. Often combat troops were compelled to perform a very large amount of construction and non-combat work, activity for which they were neither trained nor equipped and which properly should have been done by air base groups.⁶³ But despite the evidence of need, it seemed very difficult for Harmon to speed the shipment of his service units. At one point the promised 13th Air Depot Group was threatened by OPD with diversion to Townsville in Australia, on the grounds that there it would be located near the center of operations in the South and Southwest

Pacific, and thus could serve both areas.⁶⁴ Harmon again marshaled his arguments, citing the terrible shortage of shipping which made it highly desirable to place the repair depot on New Caledonia, and this time he gained his point. OPD informed the South Pacific commander that the 13th Air Depot Group would sail early in November, accompanied by the two service groups, each of which was capable of supporting two combat groups. Thus, after many weeks of preparation the 13th Air Depot Group, plus the 6th and 29th Service Groups, sailed from San Francisco on 3 November and reached Noumea on the 22d.⁶⁵

Harmon was ready for them but he had altered his plans for their employment. The 29th Service Group would go to Espiritu Santo rather than to Fiji, for which he planned to form a special unit from the two service groups. This was a move which violated organizational unity, but General Harmon had discovered very early that the nature of island warfare had prevented rigid maintenance of unit integrity either of combat or of service organizations located on the widely scattered bases. As a general rule of thumb, many small units met his needs better than fewer large ones, a factor which forced him to plan to break up the service squadrons and shift their fragments from point to point as needed. He lacked ground service units to provide for the needs of combat squadrons which had been separated from their own ground echelons; already the experience of the 11th Group and of the 67th Fighter Squadron on Guadalcanal, where combat crews performed their own service work, indicated that something less than full efficiency would result. For this reason Harmon urgently requested six of the special airdrome squadrons then being trained to maintain combat squadrons based on airdromes distant from their parent organizations.⁶⁶ Unfortunately the need ran in advance of the solution. The new units could not reach him prior to April 1943, and meanwhile he would have to fill the gap with the personnel of the one depot and two service groups which had arrived in the theater in November.⁶⁷ One lesson was obvious. South Pacific air warfare could not be waged by adherence to the rule book.

The service units taking station on New Caledonia and Espiritu Santo were destined to replace the primitive supply system which had prevailed since February 1942. Facing the 13th Air Depot Group were mountains of repairable aircraft supplies of all types, including engines, accessories, tires, propellers, and hundreds of other items, many of which might have been placed in service had their presence

been known, and which now were piled in pyramidal tents or lay in the open exposed to the elements.⁶⁸ Very quickly the warehouses sprang up, shelves and bins were installed and inventories compiled for the benefit of the using units.⁶⁹

Of vital importance to the repair program was the 13th Depot's engineering department, which had arrived on 26 November with full expectation of an extensive program of engine overhaul. By 15 January, personnel were ready and the shops were erected, but the necessary parts and equipment had failed to arrive.⁷⁰ Some cleaning vats had turned up, but no boiler for them. Not a single engine stand for any engine was yet available, nor was there any demagnetizing equipment, nor any cylinder hones.⁷¹ Most disturbing was the knowledge that many of the missing items even then were stowed away in the holds of vessels swinging at anchor in the harbor of Noumea. Still more exasperating was the fact that the vessel might already have been there for a month or more, but because Air Corps parts lacked the necessary priority they could not be moved ashore. Further to complicate the problem, no lists of equipment shortages could be submitted until the ships were unloaded and cargoes checked; ships' manifests merely indicated so many boxes of machinery, and hence failed to inform supply personnel as to particular items.⁷²

The inevitable consequence of a policy which placed lower priority upon spare equipment was to force aircraft to operate unsupported by spare parts. Ships arriving in Noumea with aircraft as deck cargo quickly moved alongside the dock to discharge their planes, since these carried a high priority. But immediately after removal of the deck load, the vessel was pulled back out into the harbor without discharging its cargo of "machinery," there to remain many weeks while fighters and bombers went into combat minus the support of spare engines and parts.

If many of these difficulties seemed nearly insuperable at the time, it is possible to note steady improvement despite the vexations. Here it was a case of personal intervention by General Breene on behalf of some squadron's ordnance supply officer; there it was a case of guarding against shortstopping—that is, the disappearance of items stripped from aircraft en route to the combat area.⁷³ But with improvement in the general supply system, depredations and needless wastage diminished. Repair machinery finally arrived and by early May 1943 newly overhauled engines were leaving the test blocks of the 13th Air Depot

Group. Small service detachments went out from New Caledonia to Efate, Espiritu, back to Fiji, on up to Guadalcanal; and by July, six AAF supply stations were in operation and furnishing local issue for the several island bases.⁷⁴

There were still shortages—many of them—and each new advance would raise fresh ones. One which had long disturbed the air commanders was the absence of the so-called dinghy radio sets; equipped with balloons and kites, these compact senders were designed for use in rubber rafts when aircraft were forced down at sea. They were badly needed. By November, when Harmon placed his request for 100, they could have been used in at least eight rescues since August 1942, yet nearly three months later only thirty-six sets had arrived. The critical value of these items was highlighted by the disappearance at sea of General Twining and his crew of fourteen on 27 January between Henderson Field and Espiritu. Although there was a happy ending six days later, the rescue of the entire crew was not the result of radio contact; Twining's rubber rafts carried no radios. After this event, action came rapidly and 100 sets moved out early in February.⁷⁵ Such was the rough pattern of supply operations in the early days of the air campaign of the South Pacific. By the spring of 1943, Harmon and Twining could handle most of their repair needs locally and were able to leapfrog forward as new bases were acquired by Army and Marine troops.

Guadalcanal Secured

Throughout the first four months of the Guadalcanal campaign it had been impossible to carry out anything like a sustained offensive against enemy positions in the central and northern Solomons. Not until late November was there any assurance that fuel and supplies could reach Henderson Field with regularity or that heavy bombers would not be destroyed on the ground during one of the regular nightly shellings. Then, with the defeat of the enemy in the series of naval, air, and ground actions in October and November, Japanese commanders lost their freedom of action in the lower Solomons. General Harmon now could concentrate upon increasing the intensity of long-range operations out of Guadalcanal.⁷⁶

Early in December, the island was reasonably secure. U.S. forces held a beachhead running some seventeen miles north and south, extending inland to a depth varying from three to four miles. Henderson

Field, now converted to a bomber strip, was in good condition, 6,000 feet in length, well protected by automatic weapons and supported by two fighter strips. One, lying just to the east, was a muddy affair in rainy weather—and there was much rain—but the new strip across the Lunga River to the west of Henderson was a great improvement. It was constructed of coral for the most part and it was nearly ready for operations.⁷⁷ Despite these improvements air operations on Guadalcanal continued to labor under the handicap of constant observation by the Japanese, who were in a strong position around Mt. Austen, a series of hills dominating Henderson Field from the upper Matanikau River. From this vantage point the Japanese could report the movement of aircraft from all three airfields. Already in November, Harmon had foreseen the necessity of taking over the Mt. Austen area and had proposed it to General Vandegrift, but the Marine commander's responsibility came to an end on 9 December. On this day command of the Guadalcanal-Tulagi area passed to General Patch of the Americal Division, who henceforth would direct the offensive.⁷⁸

The work of the First Marine Division on Guadalcanal was over. As this worn division withdrew from the island during December, it left behind under Army control the 2d and 8th Marine Regiments, together with artillery battalions of the 10th and 11th Marines. But the bulk of the ground combat forces consisted of the Americal Division, whose 164th and 182d Regiments already had pushed along the coast until by 24 November they had reached a position immediately south of Point Cruz. Beyond this point they did not advance until a general offensive could be prepared, following the arrival of reinforcements.⁷⁹ Throughout these preliminary operations the P-39's continually hammered at enemy ground positions and troops all along the coast, flying on some days as many as eleven missions.⁸⁰

December was a month of preparation. From Hawaii came the fresh 25th Division and from New Zealand the 6th Marine Regiment, and by 4 January General Patch had three divisions. The two Army divisions were joined in the XIV Corps, to which the Second Marine Division was attached.⁸¹ Meanwhile, the Japanese worked the Tokyo Express overtime. After the disaster of mid-November, the enemy seemed to have consigned his forces in the lower Solomons to outright extinction, but on 24 November search pilots reported substantial numbers of destroyers and cargo vessels in the harbor at Buin, and subsequent sightings raised these figures.⁸² Obviously there was in the

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offing another desperate attempt to push down the Slot and save Guadalcanal. The try came on the last day of the month, only to be beaten back by a U.S. Navy task force in the Battle of Tassafaronga. U.S. losses were severe, as were those of the enemy, but the Express continued to operate with considerable freedom of action, frequently slipping past the air screen to put troops ashore at Kokumbona, at Doma Cove, or in the vicinity of Cape Esperance.⁸³

Admiral Halsey was aware of the difficulties facing the forces on Guadalcanal, and in the latter part of December he directed Harmon to take necessary action for elimination of all Japanese forces from the island. Proceeding to Guadalcanal, Harmon approved of General Patch's plan to send his Americal Division, together with some units of the Second Marine Division, westward along the north coast of the island, while the 25th Division was to carry out an enveloping movement to the south and westward of the Japanese forces.⁸⁴

All this was rather a large order, involving three steps. First was the reduction of Mt. Austen. Secondly, the enemy must be driven west of Kokumbona, thereby preventing him from using artillery against the airstrips. And finally, it would be necessary to block the trail that crossed the island from Kokumbona south to Beaufort Bay, thus preventing the escape of enemy troops trapped east of the Poha River.⁸⁵

On 17 December the preliminaries to the final phase of the Guadalcanal campaign were opened by the 132d Infantry, which attacked the Mt. Austen positions. Shortly after the opening round, elements of the two Army divisions and of the Second Marine Division joined in the task of driving the Japanese off Mt. Austen. Much of the terrain was nearly impassable, and as often as possible the enemy had organized the ground in such a way that it was necessary to deliver the attacks upward. Resistance was bitter; often the strongpoints fell only after violent hand-to-hand combat.⁸⁶

Throughout the early stages of the offensive the AAF participated directly in the battle. Now on the island were detachments from the 339th, 70th, 12th, and 68th Fighter Squadrons, all operating under the control of Brig. Gen. Francis P. Mulcahy, USMC, who had come up with the forward echelon of the 2d Marine Aircraft Wing on 26 December.⁸⁷ The burden of much of this work fell upon the P-39's, which had proved themselves well in their close cooperation with the Marines and now were to carry on with the two Army divisions.⁸⁸ During the preliminary stages of the offensive, P-39's and Marine

SBD's struck regularly at the enemy's bivouac areas and supply dumps around Kokumbona, causing Marine intelligence officers to log the work of the AAF planes as "P-39's harassed the enemy all day."⁸⁹ But on D-day the P-39's did more. With each plane carrying one 500-pound bomb, they teamed with SBD's, each of which held three depth bombs, and thus equipped, they helped to prepare the way for the successful infantry attack upon the hills of Mt. Austen. In this difficult ground assault, the AAF fighters attempted to isolate the area by cutting off the Japanese from their coastal supply points, breaking up reinforcements moving through the jungle, and by destroying munition dumps. Down on the beach at Kokumbona two P-39's strafed troops early on 13 January, five more hit Visale later in the day, and as often as targets appeared the strafers were out to strike them down. On the 14th they flew all day long, this time carrying improvised gasoline bombs, and two days later the B-26's from Espiritu were called in to lend their weight against Tassafaronga.⁹⁰

One unforeseen problem arose in the attempt to supply the troops around Mt. Austen, particularly in the sector held by the 35th Infantry of the 25th Division. Both the 1st and 2d Battalions met powerful resistance, and their extended supply lines outran the capacity of some 300 native carriers. The temporary solution lay in calling upon the B-17's from Henderson Field for unorthodox assistance; for three days the burden of furnishing rations, water, and ammunition was thrown upon the bombers. Cargo parachutes were improvised to the extent of the local supply, but some drops were made simply by wrapping the items in canvas or burlap and heaving them out. The loss rate was excessively high.⁹¹

To be sure, the scale of these operations was exceedingly modest when measured by the standards of other theaters; here the total for a day's delivery did not exceed 8,000 pounds, but small and inefficient as they were, these efforts helped to keep alive a battalion of hard pressed troops until the ground supply lines could be reopened on 17 January.⁹² Under the blows of artillery, hand-to-hand combat, and depth bombs dropped by P-39's and SBD's, the pockets of enemy resistance slowly collapsed, so that by 23 January the 25th Division had driven up the coast to take Kokumbona and the Poha River valley as well. Thus the enemy had lost control of the nearest good landing beach west of the airstrips. With the beach went the artillery positions and the guns which were a constant menace to Henderson

Field and to the ground troops in the Mt. Austen area. Lost, too, were the enemy's supply routes to the south and east which led to the Matanikau, then on around to Henderson Field; gone were the main radio station, the principal ammunition dumps, and the painfully gathered stores of materiel.⁹³

The final phase of the offensive consisted of a pursuit of the enemy along the northwest coast of the island toward Cape Esperance, a procedure ordered by General Patch on 25 January and complicated—for the enemy—by the landing of a U.S. battalion at Verahui, about seven miles southwest of Cape Esperance. Now there could be no retreat. Both American forces made rapid progress, and by 8 February, General Harmon could submit to Washington the happy report that his opponents were on the run.⁹⁴

So they were. The enemy was learning the full weight of the phrase "isolation of the battlefield," as he retreated up the coast past the skeletons of the vessels intended to bring in his reinforcements. To be sure, Halsey recognized that it had not been possible completely to seal off Guadalcanal from the enemy's supply depots extending up the Solomon chain. But the measure of achievement in this direction was in large part the product of the growing air strength upon the island. As soon as the supply lines into Guadalcanal had been secured in November, it became possible not only to defend the airfield more effectively but to mount an increasing number of B-17 strikes against enemy shipping points on Bougainville. No longer was long-range air activity limited to sporadic and weak raids; henceforth Japanese air bases and cargo carriers would feel the presence of heavy bombers, of B-26's, and of a growing number of SBD's and TBF's.

The enemy did not supinely accept all this without a countereffort. He too was racing to solidify his holdings throughout the Solomons, and he had selected New Georgia as a major block to Guadalcanal. By late November his supply ships were sighted off Munda, on the southwest point of New Georgia, and almost simultaneously he developed Rekata, on Santa Isabel Island, as an advanced reconnaissance base.⁹⁵ Both points became frequent targets in December and January, but Munda offered the prime example of Japanese persistence in the face of almost daily bombing by all types of aircraft from Guadalcanal. Here the P-39 pilots, strafing from an altitude of fifty feet on 6 December, found trucks, steam rollers, carts, and ample evidence of two strips under construction, strips whose completion was made

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almost impossible by the constant hammering from the air.⁹⁶ In the month of December alone, B-17's of the 5th and 11th Groups, now operating under a joint headquarters, struck Munda twenty-one times, although they moved out against the Bougainville strips and harbors whenever the searchers' reports indicated profitable targets. And in retaliation for the incessant night work of "Washing Machine Charlie," the enemy's nightly disturber of the peace on Guadalcanal, the B-17's began to operate over Kahili and Munda during the early morning hours in an attempt to harass Japanese flying personnel.⁹⁷

By the end of December the Japanese were strongly entrenched in the central Solomons. To the north Buka showed increased activity; in the Buin area of Bougainville the 2,200-foot strip on Ballale Island appeared to be surfaced, and at Kahili the airstrip was enlarged and strengthened, probably to accommodate two-engine bombers.⁹⁸ But always it was Munda which caused the Guadalcanal air commanders their chief concern. The place was of great importance to the enemy. Its coral construction indicated rapid repair, and lying only 196 miles from Henderson, it was close to the extreme range of SBD's operating from Guadalcanal. If only it could be developed, Zero fighters could cover the movement of surface craft down to the lower Solomons and hold off the devastating air attacks upon the Tokyo Express.⁹⁹ But Munda was never to fulfil its mission, despite all the heavy sacrifices. Any type of combat plane could hit it from the Lunga strips, and hit it they did, both by day and by night. B-17's and PBY's would hang over Munda for three or four hours on a night mission, dropping one or two 100-pound bombs every quarter-hour to harass the defenders, alternating with mortar shells and with beer bottles, which added their eerie wail as they fell. By day strafers would hit the field, but never so profitably as on the morning of 24 December, when P-39's, F4F's, and SBD's caught some two dozen Zeros attempting to take off. Total claims ran to twenty-four enemy fighters destroyed on the ground or in the air; whatever the actual score may have been, every attacker returned unhurt.¹⁰⁰

The Japanese retaliated as best they could. Small patrols occasionally threatened to leak through the defense lines to destroy aircraft standing on Henderson and the fighter strips, but more serious by far was the constant annoyance of Washing Machine Charlie. For months, small raids by enemy planes at night had caused much annoyance to troops and air personnel on Guadalcanal. Pilots rapidly felt the

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loss of sleep, and even though enemy bombing was never very accurate—and some of the missiles were bottles—nevertheless the mental hazard was constant. Furthermore, the increase in exposure to malaria during the dark hours in the foxholes offered a constant threat to the combat efficiency of all personnel.¹⁰¹ To check Charlie's depredations a request for a flight of night fighters went in to Washington, but these—Detachment B of the 6th Night Fighter Squadron—would not arrive from Hawaii until the last day of February, and even then the unit's P-70's proved no match for the enemy.¹⁰² Meanwhile night defense of Guadalcanal was provided by searchlights, antiaircraft, and fighter-searchlight teams. Very rarely did the defending fighters have the success achieved by Capt. John W. Mitchell, whose P-38 sent an enemy bomber flaming into the sea before dawn on 29 January.¹⁰³ The solution to the night fighter problem lay well in the future.

When General Harmon went up to Guadalcanal at the end of December, he found conditions much improved, at least insofar as they concerned air activities. The fighter pilots impressed him, and the P-38's were giving excellent service with a minimum of maintenance difficulties; in fact, of all planes then operating, he singled out the P-38 for special praise. It provided cover for bombers, performed excellently as a reconnaissance plane, and Harmon admired its potentialities as a second bomber. Very soon he would have 41—he could easily use 100. He found the airstrips on Guadalcanal coming along at a good pace, and soon there would be a second bomber strip down at Koli Point.¹⁰⁴ All this was most heartening, yet operations from Guadalcanal still fell far below ideal. Weather conditions were extremely severe, imposing a heavy strain upon all flying personnel. Strikes were executed under low ceilings with limited visibility and amid driving rain squalls; and pilots landed or took off during the hours of darkness whenever the need arose. Some fighter pilots on escort duty were averaging five or six hours' flight each day, and when Charlie prevented opportunity for sleep and rest each night, the rate of physical exhaustion was high.¹⁰⁵ There were other obstacles to smooth operations, one of the most pressing being provision of adequate fighter escort for the bombers. This affected the operations of the B-26's, which came up to Guadalcanal with the 69th Bombardment Squadron (M) on the afternoon of 31 December. Only the P-38 could stay with the B-26 to the bomber's full range, yet this fighter operated at a most serious disadvantage when forced into combat at the B-26 altitude, or even lower. In strikes

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against Kahili and the Buin area P-38's could furnish high cover to the target, while P-40's, held fifty miles short of Buin, could cover withdrawal of the bombers, but no fighter then available could escort B-17's to Rabaul. This development could occur only after seizure of more advanced bases.¹⁰⁶

Throughout the campaign Harmon had to watch his aircrews carry on without adequate replacements, and he made a special plea for some relief for his bomber crews. Observing the squadrons of the 11th and 5th Groups, he found them tired, almost too tired to carry on, and he could give them no reasonable assurance that there would be any relief. "To them there appears no end—just on and on till the Jap gets them."¹⁰⁷ The best that he could do was to send the crews on an occasional rest trip to Auckland, but the lack of air transport did not permit even this on a regular basis.

Much had been asked of these pioneer aircrews and they had given much. Some of them back in September had flown as many as seventeen consecutive days on missions which averaged eleven to thirteen hours each, and many had gone to bed hungry after flying combat missions all day. Flight surgeons recognized their fatigue, but were forced to close their eyes to the physical condition of pilots and crewmen.¹⁰⁸ Harmon did what he could to call for relief, and General Arnold initiated a modest replacement program, but by 8 January there remained in the 11th Group only nineteen of its original thirty-five crews, and Harmon doubted that the scheduled flow of eight new crews per month would save the group.¹⁰⁹ By February, arrangements for relief had matured. The new 307th Bombardment Group (H) would move south from Oahu with its B-24's, the 5th Group would remain with Harmon, and the 11th would return to Hawaii for reconstitution as a B-24 group. All this was over the vigorous protest of General Emmons, who was reluctant to denude Hawaii of his remaining heavy bomber squadrons, but in view of the critical condition of the 11th Group, the risk to Hawaii was accepted. By 4 February Admiral Nimitz had ordered the first fifteen B-24's south.¹¹⁰ And so the 11th Group drew its South Pacific tour to a close. It carried on through February, then early in March its aircraft passed to the 5th Group. Finally, on 28 March, all remaining personnel embarked on the *President Polk*, reaching Oahu on 8 April after an absence of nine months. Henceforth its affairs were those of the Seventh Air Force and the Central Pacific.¹¹¹

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A happy solution to the problem of the exhausted 11th Group was not enough; General Harmon badly needed help in other directions as well. Not only were his planes and personnel carrying a heavy burden but the flow of aircraft to his theater had fallen well below the total allotted to the South Pacific by the Joint Chiefs of Staff.¹¹² The agreement with the Navy had committed to the South Pacific a total of 72 heavy bombers, 57 mediums, and 150 fighters, all of which were to reach the theater by 1 January 1943. But by the end of 1942 actual replacements stood far behind this schedule in medium and heavy bombers, although shipment of fighter aircraft had more than met the minimum designated in the original agreement.¹¹³ This gap between plan and performance had its dangers. OPD called General Arnold's attention to the fact that it exposed the War Department to criticism by the Navy, and at the same time Harmon sent in his own plea for help, pointing out that as of 2 January he had in commission no more than twenty-five B-17's, of which twelve had been sent off to Port Moresby for operations against Rabaul under General Kenney. Moreover, many of his heavy bombers were too old and war-worn to carry on much longer.¹¹⁴ Halsey, too, joined in the struggle for more planes, hoping to put them on the expanded Guadalcanal fields, but Arnold doubted the need. Acting upon his suggestion, AAF Headquarters surveyed the order of battle in the South and Southwest Pacific and came up with a total of 405 Japanese aircraft opposing 959 Allied planes, a number which seemed to provide a substantial margin of preponderance.*¹¹⁵

Statistical proof of Allied superiority did little to relieve the strain upon General Harmon's men and equipment. He needed planes. He soon had them. Arnold agreed to bolster the medium bomber situation, and in response to his orders the 390th and 75th Bombardment Squadrons (M), together with the 42d Bombardment Group (M), were withdrawn from the Western Defense Command. These units were on their way south by March, bringing with them new B-25's

* With reference to these figures on the order of battle, General Kenney has commented that the figures used for Japanese strength were restricted to combat types depending upon an LOC which permitted their replacement and reinforcement within from twenty-four to forty-eight hours. On the other hand, figures for Allied strength included transports and other noncombat types in forward areas, planes committed to such tasks as antisubmarine patrol in rear areas, and aircraft undergoing overhaul or modification in depots. Hence, he has estimated that the actual number available in forward airdromes was seldom over one-third the strength advertised by Washington, while losses had to be replaced by planes sent out from the United States.

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now destined to replace all B-26's in the Pacific. They would join the veteran 69th and 70th Squadrons, permitting Twining to operate a full medium group.¹¹⁶

All along the line there was general improvement, even though Harmon still regarded the flow of replacements as meeting only the barest minimum needs. And in the case of one plane, the P-38, he simply could not get enough of them.¹¹⁷ But both Twining and Harmon now could see light ahead, and they knew that AAF Headquarters was aware of their difficulties and deficiencies.¹¹⁸

On the afternoon of 9 February organized enemy resistance came to an end on Guadalcanal; except for cleaning up isolated bands of Japanese, division commanders now could rest their men.¹¹⁹ A fresh division, the 43d, took over the burden of advance up the Solomons, landing without opposition on Banika Island in the Russells on 21 February. Construction of a fighter strip followed immediately and by 15 April this new strip, only sixty-five miles north of Henderson Field, was ready for operation in the defense of Guadalcanal and the assault upon Munda.¹²⁰ Although the ground forces could relax temporarily, the air forces could not. Their campaign continued to gather momentum as the search planes revealed feverish enemy activity in the northern Solomons. Everywhere there were more antiaircraft installations, searchlights, and most dangerous of all, many more fighters.¹²¹ Throughout February every type of combat plane on Guadalcanal continued to hammer at Munda, where enemy capacity for punishment seemed phenomenal. But over all these operations the AAF exercised only limited control, despite activation of the Thirteenth Air Force.

Instead, there was developing on Guadalcanal a peculiar hybrid control organization stemming from the "Senior Naval Aviator" on the island. On 26 December 1942, General Mulcahy, of the Marines, had assumed this rank, exercising direct operational control not only over the Second Marine Aircraft Wing but also over all other aircraft on Guadalcanal regardless of service.¹²² Apparently this initial arrangement proved unsatisfactory; on 1 February, General Mulcahy assigned to the commanding officer of Marine Aircraft Group 12 the additional duty of fighter commander, a position held by the latter till 25 July. The fighter commander was charged with operational control of all Army, Navy, Marine, and New Zealand fighter squadrons based on Guadalcanal and later on the Russells.¹²³ A further step in the

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growth of the unique air organization occurred on 16 February when Rear Adm. Charles P. Mason assumed command of all aircraft on the island. Known as Air Command, Solomons, the unit soon acquired the abbreviated title of COMAIRSOLS. It rested initially upon the old 2d Marine Aircraft Wing but later it developed a more independent structure, including on its staff representatives of all three services.¹²⁴ This was the command unit which now sent heavy bombers up to Bougainville and the astonishing mixture of planes against Munda. With increasing frequency the services were pooled so that AAF fighters flew alongside TBF's, SBD's, the New Zealand P-40's, and the Marines' Wildcats and Corsairs. The task of welding this conglomerate air force into a smoothly functioning organization was not an easy one nor was it achieved at once, but no problem proved insoluble and COMAIRSOLS represents a notable achievement in inter-service cooperation.

By the end of February, AAF units had been engaged in the Solomons for slightly more than seven months. The pioneer period was drawing to an end—what were its lessons? Whatever was accomplished must be judged in the light of two major factors: at no time did the AAF exercise operational control over its own aircraft, and at no time were the air and ground personnel able to escape the damaging effects of combat amid primitive conditions.

For the first factor there is a ready explanation. The South Pacific was a Navy theater; admirals commanded both its air and surface forces, regardless of parent service of the units involved. As often as necessary General Harmon attempted to advise and guide the naval commanders with respect to the proper operation of AAF aircraft, and from Admiral Halsey he secured excellent cooperation.¹²⁵ There were AAF representatives on Halsey's staff, while others were affiliated with the nascent organization of COMAIRSOLS, but never was there operational autonomy for the AAF units and never did they possess any control over the supply lines which kept them alive.

In the second case, there arose the simple problem of keeping physically fit amid the primitive conditions of the forward areas. Malaria was the primary scourge, but much more than malaria lowered the efficiency of fighter pilots and ground crews on Guadalcanal during the early months of the campaign. On Henderson there were the shellings, the nightly bombings by Charlie, and the limited food supply. With little rest at night—or none at all—and with physical comforts

nonexistent, pilot fatigue was all out of proportion; here men flew in combat who under normal conditions would have been grounded.¹²⁶ The Navy pilots who had been sent ashore on Guadalcanal from their carriers understood better, perhaps, than anyone else, the full effect of the hardships upon combat efficiency; the carriers afforded them ample rest, but Guadalcanal did not. They estimated a maximum tour of three weeks on the island, but the early tours ran to six or more weeks, with damaging effects upon flight personnel.¹²⁷

A large portion of the AAF's record in the early campaign for the Solomons is a series of pleas for reinforcements, all of them urgent and some of them mingled with a note of desperation. There was nothing unique in this. Commanders in every theater clamored for more men and materiel, as they had in earlier wars. But in the South Pacific the margin was painfully slim. Air commanders in the field faced the enemy and thought in terms of their immediate problem. Their counterparts in Washington were interested no less in the theater, yet they could not forget that the South Pacific was but one of many theaters, each with its role to fill in the global strategy, and all pleading for planes and air-crews. There were not enough of either to go around.

Within the framework of the above limiting factors, it is possible to conclude that the heavy bombers could not halt the Japanese advance in the South Pacific. Here were no strategic targets in the European sense; the enemy's centers of production lay far beyond reach of any bomber based upon Guadalcanal. Here nearly all targets were tactical. And furthermore, those possessing the highest tactical priority—surface craft—were precisely the ones which the heavies proved unable to hit with any reasonable degree of consistency, as Colonel Saunders had quickly discovered. This should not imply that the B-17's failed to hit ships from moderately high altitudes. They did hit them, but at such an expenditure of effort and with such a large percentage of error that the enemy could afford to absorb all such losses and continue his advance.

The reasons for this already have been stated in part. Had the B-17's operated from reasonably permanent bases well supplied with materiel and training facilities, it is highly probable that they would have emerged with more impressive scores; yet no weapon can be assessed accurately by its performance under parade-ground conditions. Island warfare in the early South Pacific campaign permitted the realization of none of these ideal conditions. Island bases were not ready in time

to permit mass attack, even had the aircraft been available; that is to say, the theater itself could not physically support the number of planes necessary to assure fatal hits on enemy convoys.

What did halt the Japanese in the crisis? The answer lies in the record of all the services. General Kenney's bombers hindered them at the focal point of Rabaul and occasionally at Buin. The Navy's cruisers and battleships shattered their heavy escorts and drove them away from "Sleepless Lagoon" at night. The epic defense and subsequent offensive operations of the Marines and Army ground forces broke the assaults of those enemy units which reached Guadalcanal. Fighters of all services joined to inflict crushing losses upon Japanese fighters and bombers assaulting Guadalcanal, and as often as fuel supplies permitted, the 11th and 5th Groups struck at the surface craft anchored in the Bougainville harbors. But once the cargo ships and transports began to move down the Slot toward Guadalcanal, the burden of air defense was thrown upon the short-range TBD's and SBD's of the Navy and Marines. Local AAF commanders then stood in the awkward position of having to provide fighter cover with their P-39's for the dive bomber which, as the A-24, AAF Headquarters had judged unsuitable for the South Pacific. Yet the dive bomber, despite its vulnerability, proved to be a deadly weapon against all types of ships within 200 miles of Henderson, and it is reasonable to assume that the AAF crews could have made an equally brilliant contribution to the defense of Guadalcanal had they flown their own A-24 dive bombers.

By February, Guadalcanal was safe. Men and machines of all services had been strained to the breaking point to make it so, succeeding only by the narrowest of margins. In all the months of the campaign the AAF had been forced to play a secondary role; the requirements of global war had designated this as a minor theater, while under local command structure the AAF was a minor service. With fresh forces on the way and with increased facilities on Guadalcanal, there was hope that Army air would fill a more vital role.¹²⁸

CHAPTER 4

* * * * *

THE PAPUAN CAMPAIGN

NO ONE apart from those immediately involved in the bitter contest for Guadalcanal followed the development of that struggle with more concern than did the Allied commanders of the Southwest Pacific. Not only did they have a supporting role to play—one which absorbed much of their heavy bomber strength, deprived them of the bulk of their naval forces, and robbed them of badly needed air reinforcements by diversion to the South Pacific—but that support had to be given by men heavily engaged on their own front. While Japanese naval forces pushed down the Solomons to Guadalcanal, the Japanese army drove toward Port Moresby. And if there was debate at General MacArthur's headquarters over what could be spared in the face of an aggressive foe, there was also fear of the full force the enemy might turn on the defenders of Port Moresby should the defense of Guadalcanal fail.

In these circumstances, General MacArthur joined with General Harmon and the naval commanders of the South Pacific in urging upon Washington a reallocation of forces in favor of the Pacific. Admitting that his own mission was a holding one, MacArthur warned the Joint Chiefs of Staff at the close of August that holding forces must be actually strong enough to hold and that their needs, so long as the enemy held the initiative, must be subject to constant reappraisal.¹ But while his opinion served to intensify the continuing debate over global strategy,* General Marshall and General Arnold clung to their determination, in Arnold's words, not to "vacillate with every new demand made upon us from every point in the compass,"² and in the end their will prevailed. With TORCH coming up, Mar-

* See above, Chap. 1.

shall promised limited reinforcements for the Southwest Pacific and every effort to maintain an uninterrupted flow of air replacements, but he warned that defense of the Pacific areas would ultimately depend upon close cooperation among the forces already available to the several commands.³ That this was easier said than done would be demonstrated more than once. As MacArthur in September informed Ghormley, in response to a request for P-38's then in Australia, it would be easy to transfer reinforcements from one area to the other if only one of the areas was under pressure but not when both faced simultaneous attack.⁴

The Japanese advance toward Port Moresby had been rapid following the successful landing at Buna on 21 July,* two and a half weeks before the Marines went ashore at Lunga Point. In late August, the enemy had no reason to believe that he could not reach Port Moresby; his lines of communication at sea were being maintained, Buna now was a firmly established base, and already his troops were halfway over the distance to the goal. Thus far he had met nothing which could inflict upon him unacceptable losses and he had not stopped. After the loss of Kokoda on 9 August, the retreat of the Australians had been almost precipitate in spite of their reinforcement by an additional brigade. On 29 August the Japanese broke through the so-called Gap at Isurava and within a few days they had forced a further withdrawal to the Imita and Iorabaiwa ridges, less than thirty miles from Port Moresby.⁵

Milne Bay

Only at Milne Bay, situated on the strategically important southeastern tip of New Guinea, had the Allied forces managed to seize the initiative. The place had been selected as early as the preceding May for the development of airfields to guard the approaches from the Solomons to the Coral Sea and to assist in the seizure of the coastal areas above. Instructions for the immediate construction of a fighter strip and the subsequent development of a bomber field with appropriate dispersal facilities had gone out on 12 June.⁶ The original plan called for two companies of infantry, together with some 700 additional antiaircraft and service troops, to be stationed there. But the effort was soon intensified. By mid-July an Australian militia brigade of some 4,500 men, a veteran RAAF fighter squadron with its P-40's,

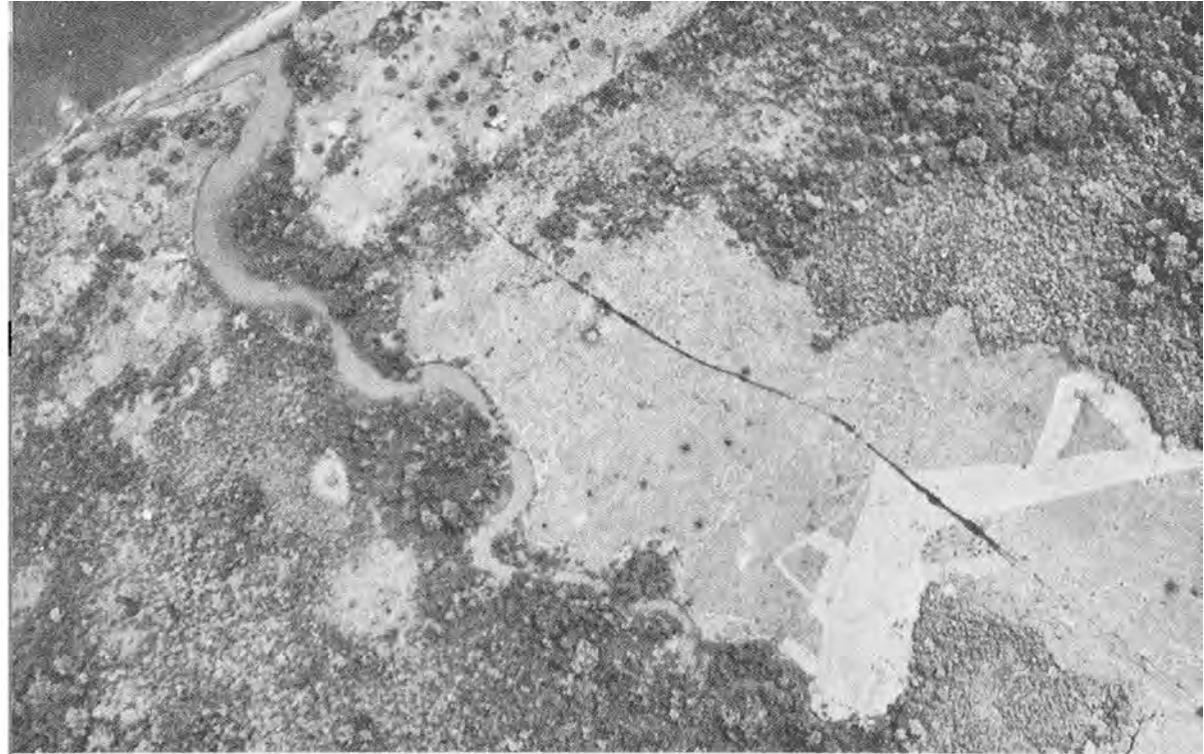
* See above, Chap. 1.

and antiaircraft reinforcements which included an American automatic weapons battery had reached Milne Bay.

The Japanese landing at Buna gave new emphasis to the importance of holding Milne Bay. By the middle of August an American fighter control squadron had established itself near a second and recently completed strip and had posted detachments out on Goodenough and Normanby Islands for additional protection. Two RAAF P-40 squadrons, together with a few Hudsons, now operated from the new strips. By 19 August, MacArthur could report that one bomber strip would be ready within a week and that he expected two others to be completed in September. The recent arrival of an additional brigade of veterans from the Middle East had brought land forces to a total of 8,600.⁷

That there would soon be work for them all was evident enough. It was logical that the enemy's seizure of Buna should be followed by an effort to take Milne Bay, perhaps as a preliminary to another seaborne attempt on Port Moresby in coordination with an overland attack by way of Kokoda. Allied intelligence was alert to these possibilities, and when on 17 August estimates of enemy potentialities promised some major effort within ten days, orders went out to the Allied Air Forces to prepare for maximum operations between 22 and 27 August. There were reasons, of course, for believing that an attempt to dislodge the Marines on Guadalcanal would claim first place in the enemy's plans, but he also might move simultaneously to obtain his objectives both in the Solomons and in New Guinea. Air headquarters should prepare, among other things, to oppose landing operations at Goodenough Bay, Milne Bay, or Port Moresby.⁸

On 17 August, Port Moresby sustained its seventy-eighth bombing raid of the war when twenty-four planes attacked Seven-Mile Airdrome. Bombs falling on operations headquarters and parked aircraft destroyed three B-26's and a transport, and did damage to eight other planes. Day after day Japanese reconnaissance planes had appeared over Milne Bay, where on 24 August the Australians intercepted a dozen Zekes to shoot down two of them. The next day brought reports from coast watchers of Japanese barge movements at Porlock Harbor and off Goodenough Island, and B-17's sighted a convoy reported as consisting of three light cruisers or destroyers, two transports, and other smaller vessels. The B-17's shadowed the convoy to a point indicating Milne Bay as its objective.⁹



THE BUNA AREA

Above: BUNA MISSION

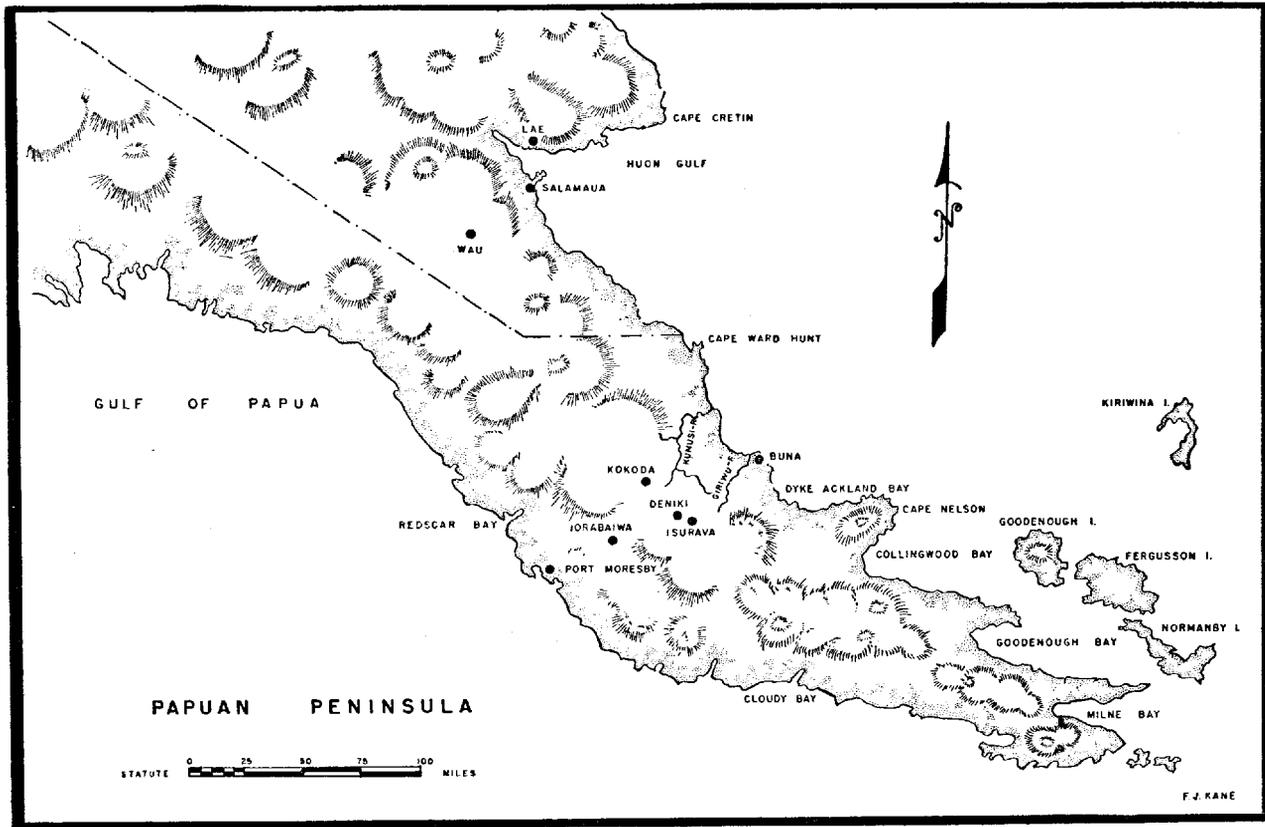
Below: SANANANDA TRACK



PAPUA AIRSTRIPS

Above: KOKODA, JULY 1942

Below: DOBODURA, FEBRUARY 1943



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Before noon Maj. Gen. Cyril A. Clowes, commanding the forces at Milne Bay, had been warned. All reserve aircraft in the Townsville area were released for attack missions; nine B-17's made ready at Mareeba to go out against the convoy; all available mediums were ordered to Moresby for attack on the following day; and two RAAF Hudson squadrons at Darwin were ordered to prepare for possible transfer to the threatened area.¹⁰ The weather, which had been bad for two weeks, if anything worsened, with the result that the B-17's could not find the enemy and, as so often before, turned back without dropping their bombs. But out from Milne Bay one of the Hudsons succeeded in leading twenty-three RAAF P-40's in a dive-bombing and strafing attack on the convoy which resulted in a claim to have sunk one small vessel.¹¹ Whatever the fact, the enemy experienced no delay in the execution of his plans. An Australian patrol boat, groping through steaming rain and mist just before midnight, discovered the convoy along the bay's shore and shortly reported that the landing had begun.¹²

Back at General Headquarters, an intelligence officer summed it up thus: "The failure of the Air in this situation is deplorable; it will encourage the enemy to attempt further landings, with assurance of impunity."¹³ It cannot be said that in the circumstances more could have been done, but the experience did clearly indicate that much remained to be accomplished toward a more effective employment of Allied air power. It is probable that the chief contribution made by the air forces at the outset of the Milne Bay operation came in a series of attacks instituted on the 25th against the Buna airfield. Recent improvements undertaken there, of which Allied commanders had been apprised by reconnaissance and reports from friendly natives, argued that the enemy would use the field for fighters in support of the effort to seize Milne Bay. As the attempt to neutralize this potential threat got under way on 25 and 26 August, battering storms forced several of the fighters, A-20's, and B-26's to turn back, but the low-flying P-40's carried through some twenty sorties. Observation was difficult, but of the fighters and dive bombers found on the field claims ran as high as ten destroyed.¹⁴

Meanwhile, General Clowes' ground forces had joined battle with the enemy in rain and mud. In the ensuing contest for possession of the airstrips at Milne Bay, the Japanese were outnumbered. They had an original force of just under 1,200 troops, and these were reinforced

by not above 800 more; but the enemy proved adept at taking advantage of weather and terrain, he had two light tanks, and destroyers regularly paid night visits for the delivery of supporting shellfire. Clowes depended chiefly upon inadequately trained militia, inclined to show panic when outmatched by the foe, but after a week the resistance stiffened. The American engineers had set up machine guns near the airstrips, and as the Middle East veterans brought their experience to bear, the enemy was gradually pushed back.¹⁵

In the grueling fight, units of the Allied Air Forces played a notable if not a decisive part. Milne Bay was their primary assignment. After the original failure to prevent an enemy landing, Allied bombers had concentrated upon supply points and had been able to prevent the establishment of usable depots on shore. A small enemy force moving from Buna by barge reached Goodenough Island on 26 August, but all of their barges were destroyed. In direct cooperation with the infantry, the RAAF P-40's continued to fly from the Milne Bay field and proved effective.¹⁶ These squadrons had a number of carefully selected infantry or artillery officers assigned as "air liaison officers," who briefed pilots on enemy targets and upon friendly dispositions.¹⁷ Oil drums, landing barges, and vehicles, particularly the two tanks (soon put out of commission), were favorite targets. Numerous sorties were sent out to strafe treetops, where Japanese snipers frequently hid.¹⁸

Periodic threats of a major Japanese reinforcement of the area never materialized.¹⁹ Desultory fighting would continue for weeks, but the Japanese made no major gain after the first of September. Close to 700 of the enemy were killed during the course of the Milne Bay fight, some 1,300 were evacuated, and 9 were captured. Perhaps 300 of the enemy remained on Goodenough Island, where their landing on the 26th had forced the American warning unit to destroy its radio equipment and withdraw to the mainland.²⁰

If from the Japanese point of view the Milne Bay venture had involved a limited commitment which failed to pay off, there was on the Allied side cause for satisfaction in having beaten the enemy to the punch. It would be possible to move with new assurance in meeting the overland drive against Port Moresby and to plan with fresh hope for the ultimate expulsion of the enemy from the northern coast of New Guinea.

Other developments also offered encouragement. During the early

days of September the Directorate of Air Transport* had pressed every available plane, whether civil or military, into service to ferry an Australian regiment from Brisbane to Port Moresby. By 15 September, the exhausted troops facing the Japanese in the ridges above Port Moresby had been reinforced by three fresh Australian battalions; and on that same day the first American infantrymen to reach New Guinea, Company E, 126th Infantry of the 32d Division, landed by transport plane at Seven-Mile Airdrome. This had been a test flight to determine the feasibility of moving units by air transport, and by 24 September the 128th Infantry Regiment, less artillery, had been flown to Port Moresby, where the remainder of the 126th Infantry came in by water on 28 September. On that day the reinforced Australians launched an attack which broke the enemy's defenses on Iorabaiwa Ridge and then in the face of tenacious resistance forced their way back toward Kokoda. Though it would take over a month to reach that place, with its useful airfield, the turning point in the Japanese attempt to take Port Moresby from the rear had come. Bitter fighting lay ahead, but the battle soon would be for Buna instead of for Moresby.

The Fifth Air Force

As so frequently is the experience of men in war, it had been necessary for air force leaders to divide their attention between operations and reorganization. General Kenney had been preceded to Australia by Brig. Gens. Ennis C. Whitehead, an experienced fighter commander, and Kenneth N. Walker, expert in bombardment aviation; Brig. Gen. Donald Wilson, whom Kenney proposed to use as chief of staff, soon followed.²¹ Plans, on which General Kenney had been briefed in Washington, called for the organization of American units into a distinct air force that would be largely free of obligations for the immediate defense of Australia in order to concentrate on the support of a rapidly moving offensive to the north.²² On 7 August, three days after Kenney had assumed command in Australia, MacArthur requested authorization for an American air force and suggested the designation of Fifth Air Force in honor of his fighter and bomber commands in the Philippines.† This request having been promptly granted, the Fifth Air Force was officially constituted on 3 September. Kenney immediately assumed command, retaining in addition his command of the Allied Air Forces.²³ With headquarters at Brisbane,

* See Vol. I, 424.

† See Vol. I, 182, 612.

the latter organization would serve thereafter as "a major policy making establishment" with only a general supervision over the operations of its two components—the Fifth Air Force and the RAAF, for a time known as Coastal Command and under Air Vice Marshal W. D. Bostock.²⁴ The RAAF retained its administrative autonomy.

Except for northeastern Australia, the RAAF assumed responsibility for the defense of the Australian continent and, in addition, full responsibility for reconnaissance and bomber operations flown from the Darwin area against Japanese bases in the Netherlands East Indies. The Fifth Air Force took over the full job in eastern Australia and in Papua on New Guinea. The arrangement, of course, was not intended to be inflexible. RAAF squadrons were attached to the Fifth Air Force and repeatedly participated in its operations, while the Fifth frequently furnished units to its ally on request.²⁵

On paper the organization of the Fifth Air Force followed a conventional American model. It consisted of the United States Army Air Services Command under Maj. Gen. Rush B. Lincoln, the V Bomber Command under Brig. Gen. Kenneth N. Walker with temporary headquarters at Townsville, and the V Fighter Command, which existed largely on paper until early in November.²⁶ This organization, however, was not considered flexible enough to cope with the peculiar problems of the theater. Because of General Kenney's responsibilities for administration and planning, whether he wore the cap of Allied or of American commander, it was essential that he maintain his headquarters near GHQ at Brisbane, a thousand miles south of the main center of operations in New Guinea. Because "I do not dare to base any bombardment in New Guinea until I weed Mr. Moto down to my size," as Kenney explained to Arnold, all heavy and most medium bombers continued to be based in Australia and used Moresby only for purposes of staging.²⁷ Nor, looking into the future, did there appear to be much prospect of escaping altogether the "horrible handicap" of operating from advanced bases. Accordingly, General Whitehead was made deputy air force commander and placed directly in charge at Port Moresby of Fifth Air Force, Advanced Echelon. ADVON, to use the abbreviated designation, had been conceived as a separate, small, and highly mobile advanced headquarters, free of most administrative details and charged primarily with the immediate direction of combat operations.

Enjoying the complete confidence of both MacArthur and Kenney,

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Whitehead worked out the details of general directives sent forward from Brisbane. All aircraft operating from Port Moresby were subject to his immediate and personal control. The Fifth Air Force itself and its several commands carried the administrative burden. The bomber command from its headquarters at Townsville, 600 miles below Port Moresby, was limited in its direction of operations merely to dispatching "aircraft on call to the Deputy Air Force Commander."²⁸

For combat operations Kenney and Whitehead, like Brett before them, had a paper strength of one light bombardment group, three fighter groups, and two groups each of heavy and medium bombardment. Actually, there were approximately seventy B-17's on hand at the end of August, of which rarely more than thirty were in commission, scarcely enough to re-equip the 19th Group and the 63d Squadron of the 43d Group. Moreover, many of the crews were worn out from long operations. Kenney had approximately forty B-26's but they were kept in commission only with increasing difficulty, for most of them had been operating since the arrival of the 22d Group in April. Of B-25's, which were scheduled to replace the Marauders in the Southwest Pacific, there were forty-five, ten of them operational. B-25 units were two squadrons of the 38th Bombardment Group (M) and two of the 3d Bombardment Group (L). The 89th Squadron, soon to become the work horse for ADVON, alone had light bombers, A-20's. Of the some 250 fighters, many were badly worn or not yet ready for flight; approximately 100 were P-400's, the rest P-39's and P-40's.²⁹

Deliveries of new planes remained uncertain, became in fact more uncertain with the opening of the Guadalcanal campaign. On 29 June, General MacArthur had been provided with a "general schedule" of deliveries listing twenty-four heavy bombers for June shipment and sixteen for each of the months of July and August; twenty-four medium bombers for June, twenty for July, and eighteen for August; and sixteen light bombers for July and twenty-four for August. Actually, forty-six heavies, fifty mediums, and no light bombers represented the totals received by the end of summer.³⁰ Soon after the landing on Guadalcanal, Admiral Ghormley had received from the Joint Chiefs authorization for diverting to his command heavy and medium bombers en route to the Southwest Pacific. Fortunately, the authority was exercised in accordance with General Harmon's assurance that it would be used only in case of extreme emergency, but

to Kenney the consequences at times were most serious.³¹ Though the 19th Group, designated a mobile force in July for possible employment in the South Pacific, was never called down as were the Hawaiian units, the bombers would devote much of their time through the fall to missions coordinated with efforts to relieve successive crises in the neighboring theater. The largest single diversion came in the shipment late in August of thirty P-39's from Australia to New Caledonia.³²

Estimates of enemy strength made in August offered some assurance. At a time when the Fifth Air Force had 258 fighters, 82 medium bombers, 74 heavies, and 36 light bombers, these estimates credited the enemy in the entire South and Southwest Pacific, including the Netherlands East Indies, with 117 fighters, 170 bombers, and 114 other miscellaneous combat aircraft.³³ But numbers do not tell everything.* As Kenney warned Arnold in October, "The Jap is two days from the factory to the combat zone, and he may swarm all over me." He had assured Arnold in August as to the usefulness of the P-40 and to a less extent of the P-39, but he pled especially for the P-38, the speedy high flyer with the twin tail. Japanese tactics depended upon fighter cover, a luxury not yet available for his own long-range bombers. "If we take out his fighters, his bombers won't go," Kenney wrote, adding: "If his fighters don't go, his troops and boats don't go either." The general was looking forward to the day when he had P-38's to engage "the Zero coverage up top-side while the P-39's and P-40's take on the bombers."³⁴

With allocations small and replacements uncertain, a premium was placed upon keeping the equipment on hand in service. Battle damage was only one of many causes of attrition. The wear and tear exacted by rough landing fields, or by the necessity of flying through tropical storms, added greatly to the burden of maintenance. The weather created its own special problems. There was so much moisture in the atmosphere of the New Guinea area that electrical equipment soon acquired a corroding fungus growth; for that matter, any metal surface was subject to almost immediate corrosion and ordinary lubricating oils, in the hot temperatures, seemed either to evaporate or simply run off. Problems of distance from the main source of supply in the United States, the inadequacy of shipping and air transport, and the claims of other theaters continued to impose their delays on efforts

* See again note on p. 87.

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to overcome these and other difficulties. Within the theater itself, the units were widely separated and the problems of transportation especially difficult. In these early days, moreover, service and supply personnel were often inexperienced, and at times it proved difficult to persuade responsible officers at the depots to send parts forward to the points at which they were most sorely needed.³⁵

Problems of maintenance were ultimately joined with those of supply. In August Kenney described maintenance on his B-17's in these terms: "We are salvaging even the skin for large patchwork from twenty millimetre explosive fire; to patch up smaller holes we are flattening out tin cans and using them. Every good rib and bulkhead of a wrecked airplane is religiously saved to replace shot up members of other airplanes."³⁶ Lack of bearings for Allison engines grounded many fighters; requisitioned in August, the bearings were not available for shipment until October, by which time Kenney claimed the main bearings in five out of six engines needed changing.³⁷ Improper tools for Pratt & Whitney engines delayed the repair of grounded B-26's and transports.³⁸ Perhaps most discouraging of all was the difficulty experienced in getting the P-38's ready for combat. By October approximately sixty of these fighters had reached the theater, but none of them had seen combat. First, the fuel tanks began to leak, requiring repair or replacement, and then superchargers, water coolers, invertors, and armament all required major adjustment or repair. As a consequence, it was not until late in December that the P-38's flew a major combat mission over New Guinea.³⁹

It having been War Department policy from the first to encourage full utilization of Australian industrial facilities,* a number of commercial aircraft companies and airlines were now providing much-needed assistance. Help came also in the overhaul of engines from affiliates of such American concerns as General Motors and the Ford Motor Company.⁴⁰

Perhaps the greatest need in the summer of 1942 was for a more effective organization of the air service units and facilities. The existing organization reflected too much of the concern for Australia's defense, which naturally had tended to give original shape to the U.S. Army Air Services.† A first plan to locate the air base groups according to the several defensive areas of Australia had never been fully implemented, but the principal service facilities remained in the vicinity

* See Vol. I, 228.

† See Vol. I, 421-23.

of Melbourne, over two thousand miles from New Guinea.⁴¹ Not only did this prove a serious embarrassment to current operations but the embarrassment would become more acute as opportunity arose to implement plans for an advance against Rabaul. Of five air base groups and two air depot groups present in July, only the 8th Air Base Group had been located in New Guinea. Two groups, one in each category, were still in southern Australia.⁴²

Although countless officers and enlisted men should be given credit for their unique contributions in overcoming the difficulties of service and supply, nevertheless it is pertinent to note that General Kenney himself was both by character and training peculiarly equipped for directing the battle of maintenance that in the Pacific was little if any less important than combat operations. Not only was he by nature one who scorned the conventional to find new ways of doing things but his prewar career had given him a wide acquaintance with the problems of materiel. A former student at the Air Service Engineering School, for two years Army representative at the Curtiss plant, and past chief of the production engineering section of the Air Corps Materiel Division, he had served after the outbreak of the war in Europe as assistant military attaché in Paris. He returned to the United States with information which, according to General Arnold, helped to bring "our production and performance dope up-to-date."⁴³

In the weeks after Kenney's assumption of command, major changes took place in the service organization. Lincoln's Army Air Services Command was officially made a part of the Fifth Air Force on 5 September 1942, but it was already in the process of a reorganization that would bring with it a new designation. By the middle of October, the name had been changed to Air Service Command, Fifth Air Force, and Brig. Gen. Carl W. Connell had succeeded General Lincoln.⁴⁴ Since late summer, a movement forward had been put under way which would soon concentrate all service units north of Brisbane, most of them in the Townsville area and in New Guinea.*

A particularly significant development of late 1942 and early 1943 was the opening of a major air depot at Townsville, "an installation

* By November the air base groups, redesignated as service groups, were located as follows: the 8th at Port Moresby, the 22d near Brisbane, the 35th at Charters Towers, the 36th divided between Port Moresby and Milne Bay, the 45th between Charleville and Port Moresby, and the 46th at Mareeba near Cairns. The 4th Air Depot Group was at Townsville, and the 81st and a new arrival, the 27th, were in the Brisbane area.

unmatched in size and production potential anywhere outside of the United States and England.”⁴⁵ Townsville at that time was almost in the forward area and suffered occasional air attacks, but the advantages of having a central supply and maintenance depot some 600 miles from Port Moresby were immeasurable. Furthermore, the town possessed an excellent airport, a “credible” harbor and jetty, and railroad connections with the south. On 7 August 1942, General Kenney appointed Col. Donald W. Benner as officer in general charge of the supply and maintenance activities at Townsville, and a month later he assigned Lt. Col. Victor E. Bertrandias, a former vice president of Douglas Aircraft, to command of the 4th Air Depot Group with the specific task of building the depot.⁴⁶ This involved the construction of six 170- x 200-foot and five 100- x 200-foot wooden-arch hangars for repair and five more hangars for warehousing, together with a camp for 600 officers and men. Building material was difficult to obtain, but the problem of labor proved even more difficult. A few Australian civilians were available, but these were subject to union rules and local custom which, on occasion, considerably annoyed the Americans. The construction, therefore, had to be done by American military personnel. The 4th Air Depot Group, which had arrived in the theater in February, was a logical choice, because of its earlier experience in constructing the large depot at Tocumwal, far to the south. Early in October, constituent units of the group began to arrive on the site of the depot—then little more than some 1,630 acres of land covered with trees. In December, by dint of 12- to 18-hour working days, with some assistance by special assignments from the 11th AC Replacement Center Depot, 90 per cent of the original project was brought to completion. Not until the pressure of rapid construction began to diminish late in December did the men have time to think of the cities to the south where life had been easier and recreational facilities more plentiful.⁴⁷

While Townsville was being developed as a major center for supply and maintenance, steps were taken to organize more effectively activities in the forward area which could be expected with the passage of time to grow. In September, Advance Headquarters of the U.S. Army Air Services had been established, under Lt. Col. Henry A. Sebastian, at Port Moresby. The new headquarters was intended to be a “clearing house for all Air Corps supplies on the island, for petroleum, for salvage, for aircraft returning to the Australian mainland, for all the

et cetera from requisition to crash boats, from personnel to the allocation of equipment and parts."⁴⁸

The work horse at Port Moresby since April had been the 8th Service Group. With some 50 officers and 1,000 enlisted men, it manned Jackson airdrome, one of the three principal fields in the Moresby area. It operated the Arcadia Transient Camp for the housing and feeding of combat crews on the way through Port Moresby. It operated an air depot for both the Port Moresby and Milne Bay areas. It held responsibility for salvaging damaged aircraft on five airdromes, on near-by islands, and along the coast for eighty miles. Perhaps of chief importance, it performed routine maintenance for fighters, light bombers, transports, and any other transient aircraft needing help.⁴⁹

The general forward movement of ground echelons and the arrival, early in December 1942, of the 27th Air Depot Group from Brisbane gave some hope of relief for the overburdened 8th Service Group. Relief was slow, however, because of the difficulties experienced by new units in adjusting to the primitive conditions of an advanced tropical base. Upon disembarking from the ships at Port Moresby, the men of one of the 27th's units were carried by truck for seven miles into a desolate area where "every inch of ground was covered by mosquito laden tough fibrous waste [*sic*] high Kunai grass." At first the 900 or more men had only their barracks bags and field packs. Other supplies and equipment had to be brought from the ships and uncrated before such essentials as field kitchens could be set up. The only water immediately available was that contained in canteens and Lyster bags. The table of basic allowances had not been designed to meet such a situation. A depot repair squadron, for example, was allotted one carpenter's kit, and with that its personnel were expected to clear the area and build whatever buildings were necessary.⁵⁰

As soon as the camp had been established, the men turned to the duties for which they had been trained. Welding, sheet-metal, and machine shops were set up, in most cases under a canvas thrown over a wooden frame. Unfortunately, canvas was scarce and some of the precious machinery would be ruined during the rainy season. Something in the nature of permanent housing was necessary. Since there were at that time no engineers available for construction, 40 per cent of the group's personnel was assigned the task of building the depot.⁵¹

It would be difficult to exaggerate the contributions made by the supply and maintenance men. Perhaps the most spectacular of their

achievements came in the field of modification and in the development of materiel to meet conditions unforeseen when an item was first designed. As the historian of one service unit wrote: "There was hardly a tactical or service squadron which was not busily engaged in hanging more guns or armor" on whatever aircraft were available.⁵² Although there was always the danger that individualistic engineering would add stresses and strains too great for the structure of the plane, the Fifth Air Force encouraged modification through the agencies of its Air Service Command. Before the Townsville and Port Moresby depots were well established, most of this work had been done in the Brisbane area. There, under the direction of such officers as Col. Ralph L. Fry and Col. William H. Monay, commanding officer and executive respectively of the 81st Air Depot Group, numerous feats of supply, maintenance, and modification were accomplished.

It was there too that Maj. Paul I. Gunn, veteran flyer and authority on materiel, made for himself an almost fabulous reputation for the things he could and would do to an airplane. He contributed greatly to the winning of the Papuan campaign by supervising a modification of the A-20, Douglas light bomber. Originally the A-20 was armed with only four .30-cal. machine guns, and its short range made a flight over the Owen Stanley Mountains extremely dangerous. After considerable experimentation, four .50-cal. guns were attached to the plane's nose in addition to the original armament, and two 450-gallon bomb-bay tanks increased the fuel capacity. The redesign of this bomber delayed its entry into combat until September, but from that time it became a key weapon with the Fifth Air Force.⁵³ Its employment was at first somewhat restricted, because there were no bombs which could be dropped safely from a minimum altitude without endangering the plane. But the service command found the solution of this problem by following a suggestion made by General Kenney himself. This was simply to attach a parachute to a 23-pound fragmentation bomb armed with an instantaneous fuze. Forty or more of these bombs could be carried in a sort of honeycomb rack fastened into the bomb bay, from which they could be safely scattered on an enemy airfield.⁵⁴ The device was first tried in combat on 12 September against the Buna airfield with outstanding success.

No less important was the effort to devise more effective means for attacking enemy ships, a function in which the record of Army planes in the Pacific had not been particularly good. As General Kenney was

to point out later, a bombardment squadron of the Fifth Air Force seldom had as many as nine planes in commission, this being the minimum number generally considered necessary in a flight to carry through the pattern of bombing called for by AAF doctrine. At the same time, low-flying and erratic cloud formations interfered with establishing the pattern.⁵⁵ There were other explanations, similar to those offered in the South Pacific,* which figured during the summer and fall in discussions both in Washington and in the theaters.† Out of these discussions came the logical suggestion that in such circumstances the planes might be brought down to bomb at mast height. British experience had proved the practicability of the tactic, even with four-engine planes, and during the summer experiments had been undertaken in the United States for development of the proper delayed-action fuze.⁵⁶

General Kenney was enthusiastic. He had long had an interest in "attack aviation," having taught courses on the subject more than ten years before in the Air Corps Tactical School at Langley Field, and he made the problem of low-altitude bombing one of his first concerns on arriving in Australia. Maj. William G. Benn, commander of the 63d Squadron of the 43d Bombardment Group (H), spent hours in his B-17 during August and September on test runs, skipping bombs or aiming them directly at an old wreck in Port Moresby harbor, and experimenting with improvised bombsights.⁵⁷ The service command worked on the problem of a fuze suitable for low-level attack. As early as 15 August, experiments in the Southwest Pacific had indicated that fuzes with an 8- to 11-second delay were best against merchant shipping. A partially satisfactory result was achieved by modifying the standard M-106 tail fuze.⁵⁸ A new detonator housing was constructed, and standard RAAF detonators with 1-, 5-, 8-, or 11-second delay inserted. Although many of these failed to detonate, they were the only type available until early in the following year, when an adequate supply of standard M-113 fuzes became available.⁵⁹

* See above, pp. 63-70.

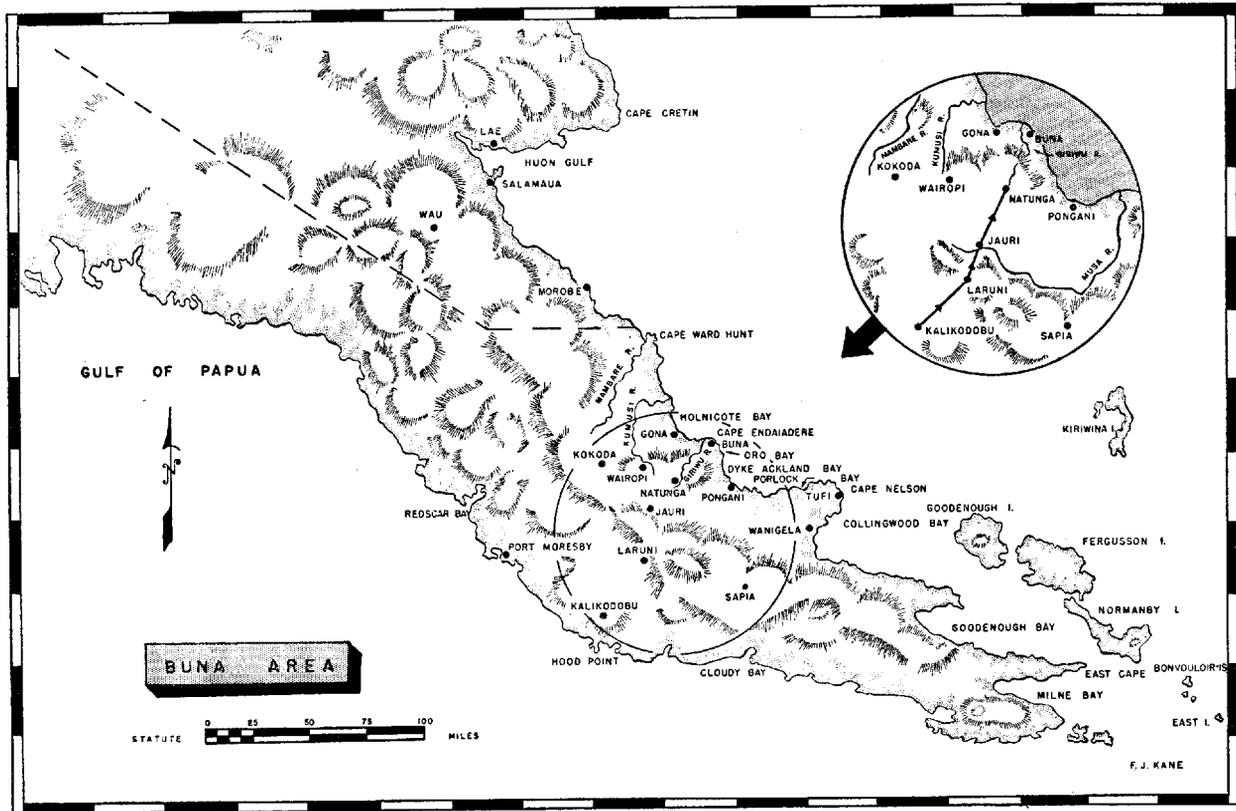
† There was a question as to why the Fifth Air Force did not make use of the A-24 dive bomber and the aerial torpedo against shipping. It will be recalled that the A-24 had been used. But the Fifth Air Force was convinced that it could not be used successfully from New Guinea landing fields against distant targets across New Guinea mountains without a fighter escort. General Brett had also experimented with the torpedo. This experimentation continued for a time under General Kenney, but he came to the conclusion that experimentation with bombing techniques was more practicable. Thus the torpedoes available were turned over to an RAAF Beaufort squadron.

Buna

The stemming of the Japanese advance toward Port Moresby at Iorabaiwa Ridge in September had reset the stage for an Allied offensive looking immediately to the occupation of Buna. Credit for this change belonged chiefly to the Australian infantry, which stoutly fought its way back toward Kokoda during the month of October. But the air forces had played, and continued to play, their part.

They failed to obstruct the one major reinforcement of the Buna forces undertaken by the enemy during the months of September and October. Attacks on a transport accompanied by two naval vessels early in the latter month were hampered by Japanese fighter cover, with the result that an estimated 1,000 men were landed. For supply of his forces, the enemy relied for the most part on submarines and small boats moving down from Lae and Salamaua under cover of darkness. Intelligence reports frequently described these movements, but to prevent them proved impossible. A considerable number of barges were destroyed by daylight bombing and strafing, but what percentage of the total employed remains uncertain.⁶⁰

More successful, though not all that could be desired, were the missions flown in support of the Australians as they fought between Kokoda and Iorabaiwa Ridge. The vital supply line maintained by natives acting as carriers was supplemented by aerial dropping until the reoccupation of Kokoda on 2 November permitted transports once again to land there, bringing in supplies or reinforcements and evacuating the wounded on the return trip.⁶¹ Continual attack was maintained on the supply line of the Japanese, who after passing Kokoda had experienced some of the difficulty of extended lines theretofore besetting the Allied force.⁶² Bombings along the track leading back to Buna repeatedly engaged the attention of every type of plane, from the P-400 or RAAF Beaufighter to the B-17. Certain points considered vital to Japanese communications were kept under continuing attack. In the Wairopi bridge, hung across the rushing Kumusi River on wire ropes, the planes found a favorite target. It was bombed and strafed; even "incendiary belly tanks" were dropped on it. The enemy persistently kept it in repair but eventually it was destroyed, sufficiently at least to hamper both the Japanese retreat and the Allied pursuit. Buna itself received close and constant attention, especially the airstrip which was potentially useful for staging purposes. The thick foliage covering



the area of battle made direct air support of the infantry especially difficult, but useful experience in the employment of air liaison officers and smoke or panel signals was gained. The A-20 did most of the work, under a cover of P-39's or P-400's which usually swept down for strafing before turning back to Port Moresby.⁶³

It is difficult to evaluate the role of the air forces during this period of changing fortunes. Certainly the attacks against shipping were ineffective unless it can be assumed that the existence of Allied planes discouraged the Jap from sending additional convoys. The effect of the attacks along the track could not be measured by pilot observation, as operational reports frequently acknowledged. But there are indications of success achieved. Photographs taken before and after attacks pointed to the destruction of specific objectives, and the starved condition of the Japanese dead indicated that, for some reason, sufficient supplies had failed to reach the forward areas. Particularly damaging was the destruction of Wairopi bridge which the Japanese themselves testify resulted in a breakdown of communications and heavy losses by drowning in the flooded Kumusi River.⁶⁴

That the Allied Air Forces held almost undisputed mastery of the air over Papua is clear enough, though this must be attributed in part to heavy Japanese commitments to the Solomons. According to Allied estimates, there were never fewer than 100 and usually nearer 150 aircraft at Rabaul, but rarely did the enemy send any of them down to the New Guinea airfields. Moreover, he undertook only two major air attacks on Allied bases in New Guinea during September and October, neither of them effective. And of the numerous missions flown by Allied planes, on only two occasions did they meet interception.⁶⁵

Although the advantage arising from Japan's heavy commitments in the Solomons was recognized, the dread remained that the enemy might at any time turn his full air strength on the Allied positions in New Guinea. In October, MacArthur renewed his appeal for a review of strategic decisions. He wanted more men, more ships, more planes. In short, he urged that the full resources of the United States be used to meet the emergency in the Pacific.⁶⁶ This estimate of the situation received, of course, careful consideration by the high command in Washington, but it did not result in any inclination to put the needs of the Pacific before those of Europe. In fact, the principal result of MacArthur's plea was a small reinforcement in heavy bombers. After considerable discussion, it was decided to transfer the 90th Bombardment

Group (H) with its B-24's, then at Hawaii, to the Southwest Pacific as a replacement for the veteran 19th Group, whose many months of service in the Pacific had greatly reduced its effectiveness. Actually, a decision had been made as early as the preceding July to replace all B-17's in the Pacific with B-24's, and Kenney entertained some doubts that the latter plane would meet his peculiar needs as well as did the B-17.⁶⁷ The decision did promise, however, the replacement of old planes with new ones, and of tired men by fresh crews.

The exchange would not be effected until November. Meanwhile, by attacks on Rabaul, crews of the 19th Group, some of whom would complete their long and difficult service in the Pacific by flying missions for General Harmon on the way out to Hawaii,* gave such support as they could to the hard pressed defenders of Guadalcanal. MacArthur had rejected all suggestions that his B-17's be transferred to the South Pacific, arguing that they could not be based on Guadalcanal and that such bases as could support them in the South Pacific were too distant from the targets. On the other hand, from Port Moresby, in addition to the maintenance of vital reconnaissance, he could strike at Rabaul, Kavieng, Buka, Kieta, and Buin, all of them important enemy bases and none of them within the reach of South Pacific planes at that time.⁶⁸ Fitting his actions to his words, he maintained an almost daily watch of Japanese activities in New Britain and the upper Solomons, and through October and November sent his B-17's on repeated bombing missions to that area with the primary intention of supporting South Pacific forces.†

Rabaul, chief objective and by now an old target for Fifth Air Force planes, lay 450 miles from Port Moresby over a mountain range and with much treacherous weather between the two points. Commonly, one or two planes, RAAF Catalinas or B-17's, would lead the way to provide weather information and, since most of the missions were flown at night, to illuminate the target with incendiary bombs or by dropping "true flares by pairs" every three or four minutes. The beacons thus provided guided the formations in their bombing runs, usually made at from 4,000 to 10,000 feet, and frequently these runs were followed by individual strafing of searchlight and antiaircraft posi-

* See above, p. 58.

† From 18 September through 30 November, approximately 40 sorties were carried out by Catalinas against Buka in the upper Solomons, 38 Catalina and 47 B-17 sorties against Buin at the southern tip of Bougainville, and 180 B-17, 11 Catalina, and 2 B-24 sorties against Rabaul.

tions.⁶⁹ The first major attack in what would be a sustained effort over a three-week period came on 5 October as one of the few daylight missions undertaken against Rabaul during the latter part of 1942. The Japanese having opened a new offensive on Guadalcanal, record attacks on Rabaul town by thirty and twenty-one planes, respectively, were executed on 9 and 10 October. Three days later fifteen B-17's, their effort coordinated with a scheduled reinforcement of Guadalcanal, dropped thirty tons of bombs on Lakunai and Vunakanau.⁷⁰

Not until 23 October did any of the attacks result in sensational claims. Intelligence reports continually showed a high concentration of shipping in Rabaul harbor, and an especially heavy concentration reported on the 20th invited a test in combat of the recently developed techniques for low-level attack. While two of the three flights in which the B-17's flew bombed according to standard procedures, picked planes of the 63d Squadron, including that of Major Benn, glided down through the moonlit darkness to release their bombs from less than 250 feet. Violent explosions and flying debris were observed, with the result that the experiment was considered to have been eminently successful. A later assessment, however, indicates that no vessels were actually sunk.⁷¹

Indeed, it is almost impossible to measure the effects of an offensive effort which was continued until the crisis had passed on Guadalcanal. The most careful assessment of shipping damage available credits Army aircraft with only one small vessel sunk at Rabaul during October, but Fifth Air Force records indicate that in addition damage was done to perhaps as many as nineteen vessels. It seems probable that flights from Lakunai and Vunakanau to Guadalcanal experienced some interruption. Damage to the town from the record raids of 9 and 10 October was probably considerable. Bombs hit a cooling jetty, machine shops, bomb and fuel dumps. Here, however, at a time of crisis in the Solomons the wisdom of assigning these targets rather than the airfields and shipping might be questioned.⁷² The more significant results were perhaps the less tangible: a fuller knowledge of Japanese movements and concentrations, experience turned to account later, and help in the preservation of good will between neighboring theaters. After the mission of 23 October, Admiral Halsey radioed his thanks to MacArthur, and asked that the latter continue to select the target areas.⁷³ As a further contribution to the South Pacific, MacArthur released the first of his P-38's that became ready for combat. Admiral King had made a

special appeal in mid-October to General Marshall, who then asked MacArthur to hold a flight in readiness for transfer in an emergency.⁷⁴ The planes made the long flight from Milne Bay to Henderson Field early in November.*

The bomber attacks on Rabaul served also to fulfil one of the air force obligations under plans for the retaking of Buna. These plans called for the continued sustenance of a small band of Australians (Kanga Force) which had held out inland from Lae at Wau since March, for a counterattack to be pressed by the Australians along the track leading down from Kokoda to Buna, and for a flanking movement to be undertaken by the 32d Division in an overland march across the mountains for the purpose of intercepting the Japanese as they fell back from Kokoda. Having liquidated thus the enemy's advance guard, Allied forces would concentrate on the reduction of Buna.⁷⁵ To Kenney fell the threefold task of striking such points as Rabaul and Buin and interrupting enemy sea communications south of New Britain with his long-range planes, of supplying Kanga Force and the two ground forces in Papua with his transports, and of directing his short-range aviation against hostile supply in the Buna-Lae-Solomons areas.⁷⁶ Whitehead, for the more effective coordination of air and ground operations, was authorized to deal directly with the New Guinea Force, which under General Blamey comprised all ground troops in New Guinea. North of the Owen Stanleys, Lt. Gen. E. F. Herring, another Australian, would have charge of the Advanced New Guinea Force in the final reduction of Buna. Maj. Gen. Edwin F. Harding of the U.S. 32d Division and Maj. Gen. E. A. Vasey of the Australian 7 necessarily would assume a good deal of independent authority, especially in the earlier phases of the campaign.⁷⁷

It became increasingly clear that success of the plan would depend heavily upon air transport. The intended route of advance for the flanking operation ran through some of the most difficult country in the world, native carriers were limited both in the numbers available and in their capacity, and the scarcity of shipping imposed a limit on the supplies that could be landed on the coast above Milne Bay. Unhappily, air transports were also scarce. Planes of the civil airlines might be chartered for service in noncombat areas, thus releasing military planes, but the Directorate of Air Transport under Capt. Harold Gatty suffered from a serious shortage of assigned strength. Only forty-one of

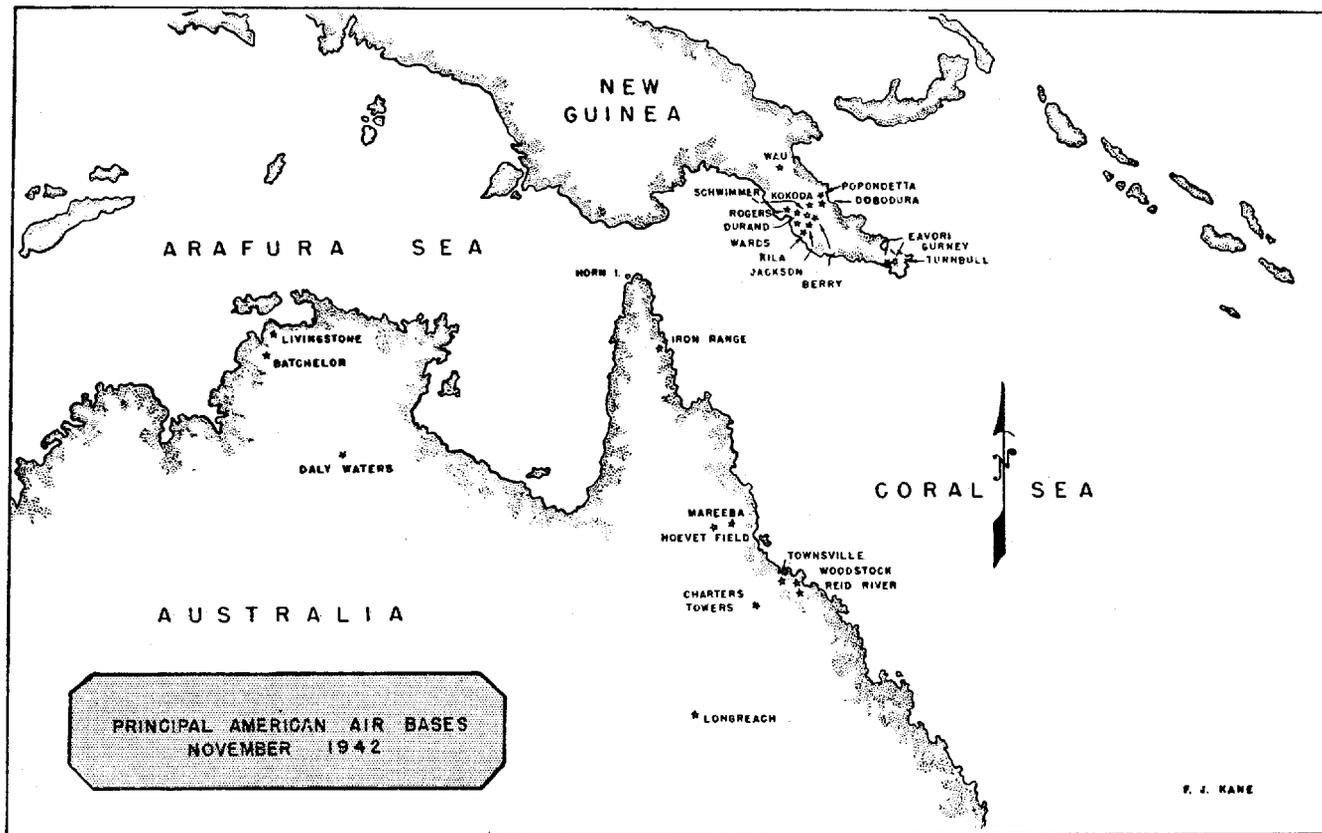
* See above, p. 59.

the seventy-eight planes allocated to American units were on hand in mid-September, and of these some fifteen were of little use except as sources for spare parts.⁷⁸ MacArthur and Kenney, fortunately, were successful in persuading OPD to provide two additional transport or, as they were now known, troop carrier squadrons.⁷⁹

Even so, the Fifth Air Force did not receive its full quota of transport planes and crews until late November. One of the new squadrons reached Australia with thirteen C-47's in mid-October, but the other was "sandbagged," as Kenney put it, by General Harmon in the South Pacific, where seven of the squadron's C-47's flew between New Caledonia and Guadalcanal for more than a month before resuming their flight to Australia. In their continued absence, the Fifth Air Force activated the 374th Troop Carrier Group to include the four transport squadrons soon to be available.⁸⁰ Air force leaders in the theater had been pushing a proposal for the early seizure by use of troop carriers not only of Buna but of Lae as well. A "cow pasture" within easy striking distance of Lae had been "surveyed" and the possibility of landing airborne troops there discussed. But when Kenney "could not show the capacity to land and supply the forces necessary to do the job," the idea was dropped. There was even some delay in the development of plans for attainment of the more limited objective at Buna.⁸¹

These plans had come to place still heavier emphasis on the role of air transport than in their first form. Generals Blamey and Harding, whose 32d Division was moving into Port Moresby during the last two weeks of September, now proposed, after consultation with Whitehead and Walker, also at Port Moresby, a wide envelopment to the east that would depend upon flying as large a force as could be supplied to some advanced field in the neighborhood of Buna for attack in that vicinity. Fifth Air Force planes had reconnoitered the area and picked Wanigela Mission, on the northwestern shore of Collingwood Bay, some sixty-five miles below Buna. By late September transport aircraft had made landings there to prove the feasibility of the venture. Australian coast watchers had reported there was little danger of opposition if the operation could be promptly mounted.⁸²

General Headquarters hesitated. Not only did supply of the Australians facing Kokoda hold high priority on air transport but the transport to Wau, which was entirely dependent on air supply, of a fresh company of Australian troops had only recently been authorized.



However, MacArthur approved of HATRACK, as the new proposal had been coded, on 2 October, subject to a check of the entire plan by Kenney on his arrival at Port Moresby that same day. With HATRACK on, only one battalion of the 32d Division would attempt the difficult overland movement against the Japanese flank.⁸³ The details had been worked out at Port Moresby by 5 October. A total of 10,900 men, including the Kanga Force and 3,900 native carriers, would have to be supplied largely by air. It was estimated that maximum requirements for air supply would total 102,000 pounds per day, but the expectation that a small-boat supply line could be established from Milne Bay to Wanigela led to fixing the minimum at 61,900 pounds.⁸⁴

The 2d Battalion plus the antitank and cannon companies of the 126th Infantry and the 19th Portable Hospital Unit, having previously moved forty miles southeast of Port Moresby to Kalikodobu, took up their march into the jungle and over the mountains on 5 October. The trail being scarcely passable, the troops depended almost entirely on supplies dropped from the air. For this work neither proper equipment nor an adequate number of trained personnel was available. Members of the regimental bands and other service organizations aided the few quartermaster personnel in wrapping bundles and pushing the supplies out of the plane at the designated moment. The supply of cargo parachutes and containers being insufficient, only the more fragile items, such as ammunition, medical supplies, and bottled liquids, were dropped by chute. Rations, clothing, and individual equipment were simply wrapped in sacks and blankets, securely wired, and dropped without chutes.⁸⁵

Frequent radio messages complained about the failure of supply. Patrols did not always know the radio frequency of transports. Some planes at first dropped all bundles in one approach, thus spreading them for miles along an inaccessible mountain side.⁸⁶ But the techniques were improved. It was found that almost any kind of plane could be employed to increase the airlift. The B-25 came to be a favorite type. Pilots learned to fly at an altitude of between 400 and 500 feet, since greater altitude led to inaccuracy and a lower altitude imparted so much velocity to the bundles that they usually broke. Intelligence officers and staff officers frequently accompanied the planes. Maj. William G. Hipps, operations officer with ADVON, having participated in preliminary reconnaissance of the route, often directed pilots in their approach to the assigned area. Although panels were the custom-

ary means of marking the dropping point, smoke signals were also used to attract the attention of pilots, and white streamers attached to packages aided those on the ground in recovery of the supplies.⁸⁷ Considering the danger of low flying over peak-studded country, casualties were comparatively few. During the three months extending from October to December, only eleven planes of the four American troop carrier squadrons crashed in New Guinea, and of these, five were "salvaged" or "rebuilt."⁸⁸

On that same 5 October which saw the 2d Battalion set out on a march that by 14 November would bring advance elements to Natunga, some fifteen miles inland from Oro Bay, troop carrier planes began an operation in which they moved an Australian battalion to Wanigela within two days. In preparation for Operation HATRACK, Australian officers had been landed at Wanigela, where with the assistance of native laborers they had burned the kunai grass for the prospective landing field. A small detachment of Australian engineers had then carved a runway, using machetes, cane knives, and even bayonets.⁸⁹ One report indicates that twelve transports were involved in the movement and that seventy-one flights were made from Port Moresby, each protected by P-39's recently transferred to Milne Bay.⁹⁰

The success and speed with which the operation had been accomplished persuaded General Harding to investigate the possibility of establishing other landing fields that might permit the movement of his forces even closer to Buna. He received immediate encouragement. Cecil Abels, a New Guinea-born missionary, knew of several likely sites, and both Whitehead and Walker were enthusiastic about using the air to advance the infantry.⁹¹ On 11 October, Abels was flown to Wanigela. From there he pushed inland, and aided by natives succeeded in completing a strip near Mt. Sapia, where an Anson made an initial landing on 17 October. Two days later Col. L. J. Sverdrup arrived with a party of American engineers, who moved from the Sapia field, clearing a series of strips in progress, down to the coast at Pongani on Dyke Ackland Bay. There, some twenty-three miles below Buna, they had a strip cleared by 4 November.⁹²

Despite the fear of the Australian commander at Port Moresby of an attack by sea on that place, the C-47's on 14 October had begun to fly the Australian 6 Independent Company and the 128th Regiment from Moresby to Wanigela. For two days the flights continued. Then the rains came and not only interrupted the air movement but virtually

mired down a force of ninety Australians trying to reach Pongani overland from Wanigela, a straight-line distance of less than fifty miles. They got through, but with only twenty men fit for duty. Meanwhile, an American detachment of some eighty men heading for the same point by water in two 20-ton luggers were bombed by an American B-25. One of the priceless luggers was severely damaged and casualties included the death of Byron Darnton, able *New York Times* correspondent.⁹³ Because of the difficulty in getting from Wanigela to Pongani without an airlift, General Harding suspended the movement of his troops to Wanigela in the hope that one of the more advanced landing fields in preparation by Abels and Sverdrup might soon be available. After some debate between the Australian and American commanders, the troop carriers received instruction to fly the remainder of the 128th Regiment to Wanigela, a move completed on 8 November, but on the same day the 126th Regiment, minus the elements moving overland, began its movement by air to Pongani. Actually, the early flights landed at the field near Sapia, but on 10 November the rest were landed at Pongani.⁹⁴

Additional protection for this forward movement had been provided on 23 October by the reoccupation of Goodenough Island. A battalion of Australian troops landed that day soon overcame the resistance of some 300 Japanese who had been in possession since the Milne Bay operation in September. Prompt steps were taken to prepare an emergency landing field and for the restoration of warning facilities.⁹⁵

The island held a prominent place in a plan looking to the future of air operations which was submitted to MacArthur on 2 November.⁹⁶ GULLIVER, as the plan was known, proposed the development of strong fighter bases on Goodenough, at Milne Bay, and at Buna. Like Port Moresby through the preceding months, these bases would serve, in addition to their defensive functions, for staging bombardment missions to the north. Already three fields were in operation at Milne Bay. Already, too, Kenney had brought forward most of his tactical units to New Guinea,* and that he was looking beyond Buna with a daring estimate of the future role of his air forces is indicated in the following excerpt from a letter of 24 October to Arnold:

* By 3 November two American fighter squadrons were based at Milne Bay, five at Port Moresby, and only one on the Australian mainland. One light and two medium squadrons were at Port Moresby, and even one heavy squadron had been moved to Milne Bay. Six medium and three heavy bombardment squadrons continued to base on northern Australia. The four squadrons of the 19th Group were now in process of replacement by the 90th Group.

Tanks and heavy artillery can be reserved for the battlefields of Europe and Africa. They have no place in jungle warfare. The artillery in this theater flies, the light mortar and machine guns, the rifle, tommygun, grenade and knife are the weapons carried by men who fly to war, jump in parachutes, are carried in gliders and who land from air transports on ground which air engineers have prepared. These engineers have landed also by parachute and by glider, with airborne bulldozers, jeeps and light engineer tools . . . , the whole operation preceded and accompanied by bombers and fighters. . . .

In the Pacific theater we have a number of islands garrisoned by small forces. These islands are nothing more or less than aerodromes or aerodrome areas from which modern fire-power is launched. Sometimes they are true islands like Wake or Midway, sometimes they are localities on large land masses. Port Moresby, Lae and Buna are all on the island of New Guinea, but the only practicable way to get from one to the other is by air or by water: they are all islands as far as warfare is concerned. Each is garrisoned by a small force and each can be taken by a small force once local air control is secured. Every time one of these islands is taken, the rear is better secured and the emplacements for the flying artillery are advanced closer and closer to Japan itself.⁹⁷

This, of course, was a prediction of things to come as both Kenney and Arnold well understood, but even so the prediction rested upon a substantial achievement for these early days.

For the moment, air transport, having set the infantry down well on its way to Buna, struggled with the problem of supplies for the Advanced New Guinea Force. It had been hoped that the forward elements could be maintained by sea. From supply dumps to be established at Wanigela or Porlock Harbor, above Collingwood Bay, small boats would run a shuttle service to forward points. Advanced headquarters was not to demand air transport if the movement could be made by sea.⁹⁸ But trouble arose from the fact that Whitehead could not provide air cover for these boats. Disregard of his advice that they stay under cover during daylight hours would bring heavy losses in mid-November; indeed, the temporary elimination of virtually the entire small-boat flotilla.⁹⁹

What the fighters could not guarantee, the troop carriers had to supply. Clearing had been begun early in November by engineers and infantrymen at Dobodura, a site within fifteen miles of Buna offering great potentialities for a huge air base. A rough strip was ready there by 21 November; by 12 December the reinforced engineers had completed three more, one with a 4,200-foot runway. At near-by Popondetta, other strips had been prepared to round out a group of advanced fields which would carry the burden of transport operations during the bitter fighting for Buna.¹⁰⁰

MacArthur had been inclined to impose a restraining hand upon the more optimistic of his advisers, but he had approved GULLIVER as a basis for further planning and early in November had authorized an attack on Buna to be mounted between 10 and 15 November. The attack began actually on 19 November. The infantry landed by air below Buna had pushed forward to take up positions close to Buna on the 18th. Elements of the 126th Infantry, having completed their march across the mountains, moved into position in the neighborhood of Soputa, inland from Buna. Near at hand was the Australian force which, after crossing the Kumusi River at Wairopi on 15 November, had pursued the retreating Japanese down the track from Kokoda. Japanese dispositions extended along the coast from Buna northward past Sanananda to Gona. The Allied forces began the action with optimistic expectations of an early victory, but the struggle was destined to be long and bitter.¹⁰¹

As the battle for Buna began, improved procedures were being worked out for coordination between land and air force headquarters on problems of air transport. Advanced headquarters requested by radio supplies from Port Moresby, where New Guinea Force then called for a requisite number of planes for the following day, sometimes as many as thirty.¹⁰² The fighter command had the responsibility for providing protection for the unarmed air freighters. Since the distance between Moresby and Dobodura was short, an area cover rather than continuous escort was commonly used.¹⁰³ At forward supply dumps lack of service personnel at first created a bottleneck. Infantrymen, engineers, casuals, natives, and others were used to unload the planes. Not until 10 December was the situation eased by arrival at Dobodura of a trained quartermaster detachment.¹⁰⁴

Although the record of air transport in its first major test in the theater was impressive, it is probably true that approximately half of the supplies brought in during the Buna campaign was seaborne.¹⁰⁵ The available statistics on this are not conclusive, but they do give some indication of the importance of both means of transport. Between 13 November and 20 January approximately 117,000 pounds of rations were dropped to the ground forces at points between Natunga and Cape Endaiadere. After completion of the field at Dobodura, almost 2,000 tons of rations, equipment, ammunition, vehicles, and personnel were landed there. Between 20 December and 28 January, 7,800 tons of supplies were moved by boat from Oro Bay, exclusive of tanks and

other vehicles which were moved by lighter. More specifically, air units landed or dropped 4,900,371 pounds of rations and supplies, including vehicles, in the Buna area between 13 November 1942 and 23 January 1943.¹⁰⁶ Artillery was brought in both by sea and by air. Four B-17's carried four 105-mm. howitzers with tractors, ammunition, and gun crews from Brisbane to Port Moresby; and on 26 November, one of these howitzers with a tractor, howitzer squad, and 100 rounds of ammunition was transferred in three DC-3's to Dobodura. Four 25-pounders had already been delivered by air, and toward the end of December, four Australian 4.5 howitzers were flown in. On the other hand, boats brought in four 25-pounders and two 3.7-inch howitzers.¹⁰⁷

Perhaps as important as the ferrying of supplies and personnel was the use of transports to evacuate the sick and wounded from the battle area. Of the transport planes in the Southwest Pacific, at least 10 DC-3's and 10 C-60's were equipped for this purpose.¹⁰⁸ Before the engineers had completed the strips at Dobodura, small boats carried patients to Pongani, whence they were flown to Port Moresby. Thereafter, litter patients were delivered by native carriers to Dobodura for pickup by the transports. During December and early January the aircraft took out an average of more than 100 patients daily, achieving a peak of 280 on 8 December. Every possible plane was thrown into the service, and when the fight was over, the record showed that for the 32d Division and its attached troops, the air force had flown out 2,530 sick and 991 battle casualties.¹⁰⁹

These are impressive figures for that time and place, but they represent only a part of the varied obligations which fell upon the Allied Air Forces during the fighting for Buna. On at least six occasions during November and December the enemy undertook to send in reinforcements by sea. Each time General Kenney gave top priority to attacks on the convoys with all available planes, but weather conditions and Japanese fighter cover sent out from Rabaul made the task of the American heavy and medium bombers difficult as they sought out the enemy vessels.¹¹⁰ By this time, however, bombardment crews did not hesitate to attack the ships from lower altitudes. For example, when seven B-17's sighted five enemy destroyers in the Huon Gulf on 24/25 November, Capt. Kenneth D. McCuller's plane dropped down for a first run at 200 feet above the water. An anti-aircraft burst penetrated the post of the tail gunner, who succeeded in smothering the flames while McCuller made a second run. This time three members of the

crew sustained slight wounds. On a third run, No. 1 motor was hit and "all controls shot away," or so it seemed, but the plane was good for still another run and was seeking out a target for the fifth time, now at 4,000 feet, when the No. 3 engine went out. Two of the enemy destroyers appeared to have been badly damaged, and so McCuller set out for home and miraculously made it.¹¹¹

Such persistence as this paid dividends. It cannot be said that the air attacks imposed on the enemy heavy costs in terms of major vessels sunk, but there is evidence of the increasing effectiveness of shipping strikes. Up to mid-November, when a Japanese report fixes the enemy force ashore in the Buna area at some 9,000 men, attempts to land reinforcements there had been generally successful. Thereafter, according to the same report, Allied aircraft completely frustrated two attempts. In two other efforts, one saw 300 men out of 800 killed by bombing and strafing, and in the second, while most of the men got ashore, they were handicapped by the loss of equipment and arms.¹¹²

Typical of the counterconvoy operations were those of mid-December. Four enemy war vessels had landed an estimated 800 troops during the night of 1/2 December with no apparent loss except to fighters covering the movement. On 9 December, bombing had driven off six destroyers seemingly headed for Buna, but another attempt came within a week. A B-24 reported two cruisers and three destroyers headed for Vitiaz Strait on the morning of 15 December. The B-17's attacked during the afternoon through heavy clouds and thunderstorms, but under cover of the weather and darkness the vessels reached an anchorage off the mouths of the Mambare and Kumusi rivers to put their troops ashore by motor craft. With dawn and through a drizzling rain, P-39's, Beaufighters, A-20's, B-25's, and B-26's carried through approximately 100 sorties against supply dumps and troops on the shore, while Catalinas, B-17's, B-24's, and B-25's harassed the withdrawing warships.¹¹³ Fortunately, this would be the last significant reinforcement received by the enemy in Papua.

If thereafter the Japanese at Buna suffered from the effects of an increasingly effective blockade of the battle area, they enjoyed nevertheless an unanticipated strength of position. The enemy had taken every advantage of the low-lying, swampy, and difficult terrain. They had constructed bunkers of heavy palm logs reinforced by sheet iron, earth, rocks, coconuts, and steel drums or ammunition boxes filled with sand—fortifications defended with courage and tenacity.¹¹⁴ Following

the initial engagements on 19 November, General Headquarters on 20 November had ordered an attack from the right flank designed to take Buna on the following day.¹¹⁵ But this was not to be. By the end of November, the advance had bogged down almost completely, and it had become evident that the enemy could be destroyed only at tremendous cost. As Lt. Gen. Robert L. Eichelberger took over a combined command of the Allied forces,* the problem of direct support from the air for troops on the ground received new attention.

For air-ground cooperation Kenney had relied chiefly for close-in work upon American and RAAF A-20's with the help of one RAAF squadron of Beaufighters. Medium units, eight squadrons but with rarely more than sixty-five B-25's and B-26's in condition for combat, carried the burden in operations behind the front lines. The importance of effective liaison had been recognized from the first. The 32d Division on 4 November had directed that individual battalions should submit requests for air support to the division command post, these requests to be predicated "on the availability of not more than two flights of three planes each daily" and on the ability of each flight to operate over the target area for not more than forty-five minutes. "Remunerative targets"—such as troop concentrations, supply dumps, gun emplacements, and bridges—should be specified as exactly as possible, along with the position of friendly troops and, if necessary, a time limit for the requested aid. Targets should be designated by coordinates, but this designation was to be supplemented by the use of panels, smoke signals, or ground-to-air communication when possible.¹¹⁶

These procedures received their first test on 21 November. As the infantry moved out in its attempt to take Buna, A-20's swept in at an altitude of sixty feet to shower the area with parachute bombs. B-25's supplemented the effort by bombing from 6,000 feet. Though several enemy machine guns were silenced, one A-20 dropped all of its bombs in the water, a bomb from one of the B-25's fell within the bomb line killing several Allied soldiers, and results elsewhere were not satisfactory. The official report of the 32d Division describes the early attacks as not very successful "because of the failure of direct-air-ground communication and the ineffectiveness of area bombing of pinpoint targets, such as the pill boxes which held up the advance."¹¹⁷

* Eichelberger first assumed command of Allied forces east of the Giritu River on 1 December with orders to reorganize the American combat forces. His principal change was the replacement of General Harding, 32d Division commander, by Brig. Gen. Albert W. Waldron. On 7 December, the Headquarters Buna Force was organized under Eichelberger's command.

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In these circumstances, artillery fire assumed an increasing importance in efforts to clear the way for the infantry, as did aerial photographs for the guidance of the artillery. Unhappily, only limited photographic reproduction facilities existed at Port Moresby, and dependence upon Australian facilities imposed unavoidable delays. American F-4 planes and Australian Wirraways took the shots, though not in the numbers desired. Somewhere liaison failed, for Eichelberger learned only after it was all over that useful and "excellent large-scale aerial photographs had been taken of the combat zone before the campaign was well started."¹¹⁸ Invaluable assistance to the artillery was rendered by the Australian Wirraways. Though slow and almost weaponless, they were manned by skilful pilots who hovered courageously over the Japanese lines to give the coordinates of targets, to spot shell bursts, and to lure the enemy AA into disclosing its positions. They were repeatedly forced down and occasionally crashed in flames, but one pilot in a Wirraway actually shot down a Zero.¹¹⁹

Following Eichelberger's reorganization of the Allied forces, the Australians on the west bank of the Giriwu and the Americans on the east prepared for new offensives. A general attack was ordered for 5 December. In spite of intensive air, artillery, and mortar preparation, the advance was measured in yards.¹²⁰ Savage fighting, malaria, and tropical disease had greatly reduced the strength of the Allied forces. On 6 December, fresh Australian troops replaced those which had pursued the Japanese across the Owen Stanleys.¹²¹ Five days later, two companies of the 127th Combat Team which troop carriers had just ferried to Dobodura and Popondetta reinforced the American units.¹²² These fresh troops won early victories.¹²³ Australian infantry overran Gona on 9 December, and five more days brought the occupation of Buna village by the 127th Combat Team.¹²⁴ But then the advance slowed down. Not until 2 January 1943 did Australian troops eliminate all organized resistance between Cape Endaiadere and a corridor east of Buna Mission and did the Americans take the mission itself.

Although Allied aircraft continually bombed and strafed Japanese land positions throughout these operations, the liaison between air and ground forces was still far from perfect. An exchange of messages on 10 December illustrates the confusion sometimes existing. A message from Buna Force asked:

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Will you please clarify *where* our radio request for air support should be directed.

Yesterday we sent our request to you ADV NGF. We sent photos and duplicate of msg to you via plane to NGF. None the less this A.M. we received a radio from you that our request was not received.

In addition to all of the above, our Lt. Col. Howe spoke on the phone to your King (?) reference air support.

We will send messages to you wherever you direct—if you will please tell where!! Yesterday at 1130L we started our yell for today's support directly to your headquarters but alas! no avail! Thanks.¹²⁵

At the same time, however, progress was being made. Kenney, described as “straining at the leash to help,” was repeatedly requested to knock out mortars or other obstacles in the way of the Allied advance. The air force responded with A-20's scraping the trees before loosing parachute bombs, even B-25's and B-26's coming in at 100 feet to drop delayed-action bombs.¹²⁶ By the last of November troop carrier and bombardment aircraft as well as the ground troops could depend upon an increasingly effective fighter patrol to protect them against the occasional attacks of Japanese aircraft.¹²⁷ Late in the month the patrol had been greatly strengthened by the addition of P-38's. On 27 December twelve of these versatile planes made their first interception. Dividing into three flights, they dived on a Japanese formation of more than twenty fighters and seven dive bombers in the neighborhood of Cape Endaiadere. One P-38 was forced down at Dobodura, but by that time the patrol had registered claims of nine fighters and two dive bombers shot down. This victory, followed by another of comparable proportions on 1 January, inspired General Whitehead to write that “we have the Jap air force whipped.”¹²⁸

Experience had brought modification of earlier practices in air-ground cooperation. Time limits for supporting missions were more exactly fixed and greater care was exerted to determine the location of the bomb line, two obviously related factors. As New Guinea Force on one occasion pointed out, the exact time for an air attack was vital only in cases of close support. Where the target lay well beyond the position of friendly troops, a delayed attack might serve as well as any other, but otherwise the attack must be closely geared to the infantry's own timetable.¹²⁹ And with time, improvement came in the development of the necessary administrative machinery. An “air support officer” at New Guinea Force headquarters advised General Blamey and through the senior Army liaison officer at Fifth Air Force head-

quarters coordinated air and ground efforts. Attached to all squadrons engaged in supporting operations were air liaison officers who assisted in the briefing and interrogating of pilots.¹³⁰

Although it was obvious by 1 January that the Papuan campaign was nearing its close, twenty-two days of tough fighting still remained. Another regiment of American troops, the 163d of the 41st Division, ferried in by air from Port Moresby* served to give impetus to the Allied drive, but it bogged down again on 12 January. On 13 January, General Eichelberger assumed command of all Allied troops north of the Owen Stanleys, and he at once initiated vigorous patrolling activities in the Giriwu area. The hand-to-hand fighting which resulted prevented any attempts at direct support by the air arm. After 1 January the routine mission of the Fifth Air Force had been to bomb and strafe certain areas in the region of the Giriwu and Sanananda Point,¹³¹ but on 13 January, Advanced New Guinea Force substituted armed reconnaissance along the coast and directed that there should be no bombing or strafing unless it was specifically requested.¹³² Actually, there remained little need for further direct air support. The enemy on 12 January made a final effort, but this was contained and the counterattack initiated movements that would destroy all organized Japanese resistance in Papua by 22 January 1943.¹³³

An exact evaluation of the role of air power in this Allied victory is difficult, but unquestionably the Allied Air Forces had played a major part. From 26 August 1942 until the end of the campaign, 110 requests for air support had been made by the ground forces. The air forces refused fifteen because the targets were unsuitable, twelve because of the lack of combat planes, and eleven because of unfavorable weather. The seventy-two completed missions employed 568 aircraft, which dropped 474,000 pounds of bombs and expended 400,000 rounds of ammunition. Of these aircraft, only 121, which dropped 80,000 pounds of bombs and fired 97,000 rounds, carried out missions in direct support of the ground forces.¹³⁴ Attacks made beyond the lines and employing the newly developed parachute bomb against area targets were highly successful, but the results of missions in direct cooperation with ground troops were less satisfactory. Not only were Japanese positions difficult to destroy but it was not always possible to distinguish them from Allied positions. On at least six occasions, Fifth Air Force planes attacked their own troops and inflicted casualties.¹³⁵

* The ferrying began on 30 December.

From the beginning of the campaign, anticonvoy attacks and long-range missions against shipping had received a top priority. Early efforts proved abortive, and the Japanese landed troops almost at will. But as the crews gained experience in the employment of new techniques of low-level bombing, they met with greater success. It is true that Allied bombers sank relatively few ships during the Papuan campaign,¹³⁶ but they made the waters off the coast dangerous enough to discourage any major Japanese shipping ventures south of Lae after the first of January. Allied headquarters began to feel that the Japanese control of the seas was being successfully challenged.¹³⁷

Kenney's air units chalked up their greatest victory in establishing an Allied control of the air over Papua. An entry in a Japanese diary of 3 December 1942 remarked that "they fly above our position as if they owned the skies."¹³⁸ Japanese air raids on much-bombed Darwin and Port Moresby decreased in effectiveness. The Japanese raided Port Moresby five times during September, using a total of approximately sixty bombers, but from October through January they used only forty bombers.¹³⁹ But this Allied control of the air meant more than the decrease in Japanese bombing attacks and the claim to 432 Japanese planes destroyed. Of immeasurable importance was the salutary effect of the retreat of enemy air upon the morale of both the air and the ground forces. It had not been possible to prevent all attacks. Japanese attacks during November and December on the small-boat supply route along the coast had been costly. The enemy made frequent attempts to bomb artillery positions at night. On 7 December three Japanese navy planes bombed the plainly marked Second Field Hospital. Three direct hits caused fearful casualties. A prisoner of war later claimed that this was in direct retaliation for the inadvertent bombing of the enemy's hospital in Buna.¹⁴⁰ The record as a whole, however, justified a growing confidence in the ability of the Allied Air Forces to hold their own and better.

The Americans who had fought in the Papuan campaign had undergone a strenuous initiation into war. Casualties for the 32d Division, including the sick, ran to more than 10,000. That only 7 per cent of this figure represented deaths can be explained in part at least by the speed with which the Fifth Air Force evacuated the sick and wounded.¹⁴¹ Airmen, too, had seen strenuous service, a fact borne out by the 380 deaths and almost 200 missing among officers and enlisted men of the AAF from July 1942 through January 1943.¹⁴² The men of the Fifth

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Air Force had flown their planes long hours over dangerous peaks and unfriendly seas as well as through clouds and storms which battered them unmercifully. Unarmed transports had flown through the same stormy weather to make hazardous landings on bumpy strips cut out of the mountain or jungle. Ground crews with insufficient tools and parts worked faithfully through long hours to keep their planes in commission. For relaxation they had, in most instances, only the limited opportunities of the malaria-infested portions of New Guinea or of the more isolated sections of Australia.

Col. Frederic H. Smith, deputy chief of staff of the Fifth Air Force, expressed an airman's opinion of the battle for Papua when he declared that "in view of the bad weather and bad terrain, the handling of ground units was the key to the final outcome. It was in the transport of such units and their supplies that our air power was most useful."¹⁴³ General MacArthur paid tribute to the work of the airmen in a typical summary of the campaign: "To the American Fifth Air Force and the Royal Australian Air Force no commendation could be too great. Their outstanding efforts in combat, supply, and transportation over both land and sea constituted the key-stone upon which the arch of the campaign was erected. They have set up new horizons for air conduct of the war."¹⁴⁴ General Kenney on 1 January 1943 already had put the preceding months of air combat in their proper perspective when he asserted that "we learned a lot and the next one will be better."¹⁴⁵

CHAPTER 5

* * * * *

BATTLE OF THE BISMARCK SEA

AT BUNA and on Guadalcanal the Allied forces had fought essentially defensive actions, but these actions were intended also to wrest the initiative from the enemy. They had been undertaken in accordance with plans calling for a two-way advance on Rabaul—up through the Solomons and along the coast of New Guinea. And now the time had come to bring these plans into line with the opportunities of a new year.

In General MacArthur's mind, the experience of recent months had lent new emphasis to the opportunity, through full exploitation of the potentialities of the air weapon, for an advance by successive stages along the New Guinea coast. As he explained to the War Department in January, he proposed to base his tactics upon the principle that air echelons should be moved forward progressively in such a way as to provide cover for the movement of "all surface elements" and to assure the isolation of each objective prior to its final assault.¹ By 12 February 1943, General MacArthur had embodied his ideas in a basic strategic plan known as the ELKTON plan.²

The ELKTON and RENO Plans

The ELKTON plan, which underwent two revisions of detail during the spring of 1943,* followed the broad outlines of the JCS directive of 2 July 1942,[†] but it assumed that the occupation of Guadalcanal represented the accomplishment of Task 1. Seizure of the remainder of the Solomons was joined with projected operations in New Guinea under Task 2. The occupation of Rabaul remained as the cli-

* ELKTON II of 11 March and ELKTON III of 26 April.

† See above, pp. 20-21.

mactic Task 3. The general offensive would be developed under the supreme command of MacArthur. On the western axis this command would be immediate and full; in the Solomons the proposed authority would be exercised chiefly for the purpose of assuring effective coordination of the two efforts. Detailed plans for South Pacific operations would be left to COMSOPAC, but MacArthur would determine the timing of the several operations to be undertaken.

Lae, on the Huon Gulf of New Guinea, would be the first objective under Task 2. In a series of "shore to shore overwater" movements along the coast in small craft, supported by light naval vessels and protected by air cover, Salamaua would be by-passed. Simultaneously with the seizure of Lae would come an occupation by airborne forces of the Markham River valley, which extends northwestward from Lae toward the Ramu River. New airborne and shore-to-shore operations could next converge on Astrolabe Bay at Madang, 150 miles above Lae and over against New Britain. The occupation of New Georgia, placed first on the calendar of South Pacific operations, would await seizure of the Huon Peninsula in order that the Fifth Air Force might be in better position for neutralizing Japanese airfields at Rabaul, Kavieng, Buka, and Buin. Next would come the occupation of Bougainville, and simultaneously Southwest Pacific forces would land on Cape Gloucester and at Arawe in New Britain. A subsequent landing at Gasmata and probably another at Talasea would complete the preparations for Task 3, in which South Pacific forces were to seize Kavieng while MacArthur's own troops took Rabaul. Concurrent discussions of a timetable foresaw the completion of these operations during 1943.

Rabaul itself, of course, was no more than an intermediate objective, an obstacle blocking the way back to the Philippines. In February 1943, MacArthur's staff had also completed a preliminary plan for operations subsequent to the occupation of New Britain and New Ireland.³ This paper, described as the RENO plan, called for consolidated and augmented SWPA-SOPAC forces to move westward by successive stages along the northern coast of New Guinea and into islands lying west of New Guinea. The final jump northward into Mindanao, in the southern Philippines, would be covered by capture of the Palau Islands for protection of the right flank.

That there would be competing strategies had been evident since the mid-January meeting of the Combined Chiefs of Staff at Casablanca. With new assurances regarding the defenses of Australia and the se-

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curity of the South Pacific line of communications, the CCS at that time had reaffirmed their faith in a strategy giving first place to operations against Germany. The Pacific commitment entailed no more than the maintenance of constant pressure on the Japanese foe and retention of the initiative in operations designed to win positions from which a full-scale offensive might be launched immediately after the defeat of Germany. In the fulfilment of this plan, the reduction of Rabaul by South and Southwest Pacific forces seems to have been taken for granted, but the Combined Chiefs tentatively accepted proposals for ousting the Japanese from the Aleutian Islands, for a diversionary attack on the Malay barrier, perhaps at Timor, and for some direct advance across the Central Pacific toward Guam and Truk.⁴

Not only did this last proposal, sponsored chiefly by the U.S. Navy, challenge the assumptions on which RENO was based* but the ELKTON plan for the reduction of Rabaul in itself presented complex questions of command. In March 1943 the Joint Chiefs of Staff called a conference in Washington of representatives of the Central, South, and Southwest Pacific commands. MacArthur, in testimony to his understanding of the importance of this conference, sent General Kenney, Maj. Gen. Richard K. Sutherland, GHQ's chief of staff, and Brig. Gen. Stephen J. Chamberlin, operations officer.⁵ Halsey was represented by his chief of staff, Capt. Miles R. Browning, and Rear Adm. Raymond A. Spruance came as Deputy CINCPAC to Nimitz. The Navy, through Rear Adm. C. M. Cooke, argued that the proposed arrangements for coordination of the moves against Rabaul would destroy the "unity of command indispensable to naval operations" in the South Pacific. Pointing out that the Navy had supported unity of command under the Army for the North African invasion and for the projected landing in Europe, he insisted that the Pacific was and would continue "to be a naval problem as a whole" and should be unified under a naval command.⁶

Sutherland saw in this a desire on the part of the Navy to control Army operations in the Southwest Pacific,⁷ and General Marshall countered with a proposal which he frankly admitted "skirted" the question of unity of command. COMSOPAC would retain direct con-

* It seems doubtful that the original RENO plan was submitted to Washington, but it was well understood that MacArthur proposed to base the main effort against Japan on Australia, and it was evident enough that the Navy's proposals offered an alternative to that plan.

trol of operations in the Solomons, but his movements would be in accordance with general directives from MacArthur, and naval units of the Pacific Fleet attached as task forces in support of ELKTON operations would remain under the control of the Commander in Chief, Pacific.⁸ Admiral King, who recalled that the Joint Chiefs had from the first undertaken to prevent the development of situations in which differences of opinion between MacArthur and Nimitz might arise, obviously felt that in the event of such a clash Nimitz must be upheld.⁹ The issue involved unity of command over operations of the fleet, but King was willing to go along with Marshall so long as it was understood that control of the fleet remained "in a fluid state." On this point the JCS directive was redrafted to read: "Units of Pacific Ocean Areas other than those assigned by the Joint Chiefs of Staff to task forces, will remain under command of the Commander in Chief, Pacific Ocean Areas."¹⁰

The ELKTON plan served thus to provide no more than a generally agreed upon outline for more or less coordinated operations directed toward the conquest of Rabaul. An objection from King that Halsey's forces should not remain idle while MacArthur consolidated his position in New Guinea had brought a reply from Marshall that such problems could be worked out between the commanders concerned. MacArthur should be protected against diversions from the Southwest Pacific in support of large-scale operations by COMSOPAC, but this need not prevent Halsey from maintaining constant pressure on the enemy and taking advantage of any weakness discovered. General Sutherland, seeking an adjustment of plans to the means that would be available and feeling that the shortage of long-range aircraft would prove critical, proposed that Kiriwina and Woodlark Islands, lying north and northeast respectively of Goodenough Island, should be added to the list of objectives. Orders had already been issued in Australia for the development of Goodenough as a major air base, and airfields on the other two islands would bring within reach of medium bombers both New Britain and important areas of the Solomons.¹¹ A less optimistic view of the time that would be required to take Rabaul than had been incorporated in the original ELKTON plan now prevailed. In addition to the occupation of Kiriwina and Woodlark, MacArthur during the remainder of 1943 would advance along the line Salamaua-Lae-Finschhafen-Madang and occupy western New Britain.

Halsey's operations would have as their major objective the seizure of Bougainville.

In determining upon these joint operations for the reduction of Rabaul, the JCS had left unsettled the question of what thereafter should be the main line of action. But the debate would soon be joined, and on proposals which threatened even to delay the accomplishment of objectives set forth in the ELKTON plan. When the Combined Chiefs at Casablanca had decided to implement plans for a large-scale bomber offensive against Germany, to follow the conquest of North Africa by the invasion of Sicily, and then to mount such other offensive operations as seemed best calculated to bring about the defeat of Germany, they had necessarily relegated the war against Japan to a position for the time being of secondary importance. Resources available, and this was particularly true of those at the disposal of Britain and the U.S. Army, would be concentrated in European theaters with a surplus left for the Pacific that could meet the demands of no more than decidedly limited offensive thrusts.

MacArthur's representatives at the Washington conference in March received a practical demonstration of the point when they were denied the full forces considered by them to be necessary for implementation of the ELKTON plan. However, the prospect that an invasion of western Europe would not be mounted until 1944, together with the impressive progress of production and training programs in the United States, made possible the promise of substantial reinforcements for both the South and Southwest Pacific.* Moreover, the growing and potential power of the U.S. Pacific Fleet, especially in the category of carrierborne aviation, and the build-up of the U.S. Marine Corps to unprecedented strength invited consideration of new possibilities for offensive action.

On 28 April 1943 the Joint Strategic Survey Committee (JSSC) issued an appreciation of the situation which was quite different from that set down by MacArthur's staff in RENO.¹² Advancing the belief that a sustained air offensive against Japan itself would be required to bring about her defeat, with or without invasion, the JSSC directed attention to the need for a large number of air bases in China. The maintenance of full-scale air operations from Chinese bases would depend upon the opening of some such port as Hong Kong. For good

* See below, pp. 151-53, 207.

measure it would be well to reopen the Burma Road, but this could only reduce—not obviate—the dependence on some lodgment along the China coast and on a line of communications that might best be established by a direct drive across the Central Pacific from Pearl Harbor to the Philippines. The suggestion was prompted by the growing power of U.S. carrierborne aviation. Rejecting the old maxim that carriers would operate at a disadvantage within the range of Japanese land-based aircraft, the committee argued that this concept at least would be subject to revision once massed carrier forces, taking advantage of a superior mobility, could bring to bear an overwhelming concentration of planes at any desired place and time. The proposed line of attack would dispose of Japanese defenses in the Central Pacific, promise an earlier severance of the enemy's line of communications with the Netherlands East Indies, offer the prospect of decisive fleet engagements, and would put U.S. forces in position for an earlier attack on the Japanese homeland in the event of an unexpected collapse of resistance. On the other hand, the New Guinea–Philippines approach would follow the long way in, lead through easily defended land masses, and leave untouched the threat to its right flank from Japanese bases in the Central Pacific. The committee actually recommended simultaneous advance along both approaches, but it argued that the main effort should be made through the Central Pacific.

At the TRIDENT conference of May 1943 the Combined Chiefs confirmed established policy in these words: "Upon defeat of the Axis in Europe, in cooperation with other Pacific powers, and, if possible with Russia, to direct the full resources of the United States and Great Britain to force the unconditional surrender of Japan." But they made this significant addition: "If, however, conditions develop which indicate that the war as a whole can be brought more quickly to a successful conclusion by the earlier mounting of a major offensive against Japan, the strategical concept set forth herein may be reversed."¹³ Although no agreement on over-all strategy in the Pacific was possible at this time, the CCS agreed that the opening of an Allied line of communication to the Celebes Sea should be the major strategic objective for 1943–44. They also indicated that this might be accomplished by use of more than one approach when, in addition to operations for expulsion of the Japanese from the Aleutians, Solomons, Bismarcks, and New Guinea, the Combined Chiefs specifically approved an undertaking to seize the Marshall and Caroline Islands in the Central Pacific.¹⁴

Late in June 1943 the JSSC recommended that an offensive against the Marshalls and Carolines—as the first steps in an advance across the Central Pacific—would be the most remunerative operation that could be undertaken against Japan during 1943. The proposal received the strong support of Navy members of the JCS, and the Joint Planning Staff (JPS), when called on for advice, recommended that Nimitz be directed to plan the invasion of selected islands in the Gilberts as a preliminary to entering the Marshalls and Carolines.¹⁵ For this purpose Nimitz would need the First Marine Division, which MacArthur planned to use against Rabaul, and the latter vigorously objected. Nevertheless, a directive for Nimitz, charging him to prepare for seizure of the Gilberts by 1 December 1943 and for additional operations in the Marshalls on or about 1 February 1944, went out on 20 July.¹⁶

This decision left room enough for later debate over the final strategy to be employed. Meantime, the enemy's pickets would be driven back, whether in the North, the Central, the South, or the Southwest Pacific. And for such delays as might be imposed on the Allied advance along any one of the chosen lines of attack, there would be compensating advantages elsewhere.

The Bismarck Sea Action

Already MacArthur's forces had taken the first steps toward ousting the Japanese from their positions on the Huon Gulf, the way having been made easier as the result of one of the more brilliant and historic actions of the Fifth Air Force. The Battle of the Bismarck Sea had been fought during the first days of March in fulfilment of an obligation falling to General Kenney's air forces in the last days of the fight for Buna. When late in December the enemy had given up efforts to reinforce his troops around Buna, it had been anticipated that he would attempt the build-up of his garrisons at Lae and Salamaua. Consequently, the isolation of that area had become a primary and continuing responsibility of the Allied Air Forces.

The first major action came early in January. B-24's, B-17's, and Catalinas on regular patrol kept watch over Rabaul and the sea lanes leading down into the Huon Gulf. F-4's from Kenney's lone photographic squadron repeatedly mapped the Lae area, where it was suspected that supplies were being regularly run in by submarine. On 30 December, shipping concentrations at Rabaul were the largest there-

tofore sighted—ninety-one vessels, including twenty-one warships and an estimated 300,000 tons of merchant shipping, were counted. Float planes sighted in the vicinity of Lae, usually an indication of antisubmarine patrol in advance of ship movements, offered a clue as to the direction a new convoy might take, as did also the activity on Japanese airfields.¹⁷

On 6 January, reconnaissance reported a convoy consisting of two light cruisers, four destroyers, and four medium transports off the south-central coast of New Britain heading west-southwest. For the next two days, all types of Allied bombers, protected by fighters, pierced the enemy's fighter escort and bombed through low and broken clouds, but on 8 January the convoy, now reported as consisting of one light cruiser, three destroyers, and three transports, had reached Lae, where it unloaded. Early on the following morning, the enemy ships withdrew to the east, leaving one beached transport behind.¹⁸ As is usual with convoy action, exact assessment of damage is difficult. The Japanese had succeeded in their effort to reinforce Lae; Headquarters, Allied Land Forces estimated that better than 4,000 troops had reached shore. But at least two transports, and perhaps more, had been sunk, and American fighters had enjoyed a field day. The P-40's of the veteran 49th Group claimed twenty-eight enemy planes shot down in addition to their contribution as dive bombers with 300-pound bombs in attacks on the transports. Lt. Richard I. Bong of the same group, flying a P-38, claimed three planes, while other P-38's accounted for at least thirteen of the enemy craft. The total claims ran well over fifty, against a loss of ten Allied planes.¹⁹

These were reassuring figures for the fighter command, but the convoy had gotten through and that meant extra work for the air forces. With reinforcements at Lae, the Japanese moved promptly against the small Australian force based inland at Wau, troops who for a year now had been kept alive almost entirely by air transport and who, after the fighting ended at Buna, represented the only Allied ground forces in contact with the enemy on New Guinea. Troop carrier pilots had become accustomed to the 3,000-foot runway at Wau with its 12 per cent grade heading directly at Kainde Mountain, and they had learned to maneuver the clumsy C-47's as though they were fighters, "dodging a peak here and a cloud there."²⁰ Now it would be necessary

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to operate on an emergency schedule for assistance of the some 200 Australian defenders of Wau.*

On 29 January the Australians repulsed a sharp patrol attack in the immediate neighborhood of the airfield only to find the enemy back, employing tactics of infiltration, within a few hours. A call for reinforcements brought the C-47's onto the line back at Port Moresby. Heavy thunderstorms over the mountains threatened a fatal delay, but fortunately the weather shifted and the transports took off with reinforcements and supplies in the first flights of a movement that would carry over 2,000 troops into Wau within the two days following. A full-scale battle for possession of the airfield on which the movement depended already had been joined: the Japanese had reached one end of the strip itself, which had been brought under fire from mortars, and some of the Australians literally came out of the planes with their guns firing. In some instances, it was necessary for the troop carriers to circle the field until the Aussies below had "grenaded" the Japanese far enough back into the jungle to permit a landing. But by noon of 30 January, the enemy had been driven back with a loss of some 250 killed.²¹ The airfield at Wau would remain in Allied hands and its reinforced garrison, supplied by stepped-up transport operations, would continue its harassing tactics until it joined in the final assault on Lae.

Although the enemy had an estimated 50 bombers and 50 to 150 fighters regularly based in the New Britain–New Ireland area,²² he chose not to commit any part of this strength to operations against Wau until almost a week after the crisis had passed. On 6 February, eight P-39's, covering a routine cargo flight of C-47's, engaged an enemy force of twenty-four planes with resulting claims of eleven Zekes and one Sally shot down. Simultaneously, another flight of eight P-40's discovered that planes erroneously identified as Australian Beauforts were bombing the airfield. Roaring down into this formation, the P-40's found themselves engaging twelve Lily bombers and an equal number of escortings Zekes and Hamps. The Americans were subsequently credited with seven of the enemy. And the final score would be still higher—a score achieved without loss—for General Whitehead

* Fortunately, badly needed reinforcements reached Australia with the air echelon of the 317th Troop Carrier Group, which in January flew fifty-two new C-47's from California. The new planes were promptly transferred to the veteran 374th Group, and the 317th took over the assorted C-47's, C-49's, C-60's, LB-30's, and B-17's heretofore serving as the troop carrier equipment.

had answered a call for help by sending out from Port Moresby three more squadrons, which covered the hundred miles to Wau in time to claim five more planes.²³

If there was cause in this action for assurance that the Allied Air Forces could maintain a necessary control of the air over New Guinea, there existed also new reasons for concern. The long and bitter fighting on Guadalcanal was reaching its end, and as the enemy surrendered the lower Solomons, it had to be recognized that henceforth he might focus his attention on Allied positions in New Guinea. Not only did the attack on Wau suggest this possibility but intelligence brought word of growing activity by Japanese engineers in the development of airfields as far as Babo, near the westernmost tip of Netherlands New Guinea, and eastward to Lae. On Wakde Island they were building a 1,400-yard strip, another of 1,300 yards inland from Hollandia Bay, a major airdrome already possessing seventy-seven dispersal bays at We-wak, and in addition, they were at work on roads at Madang and Alexishafen and activity had been noticed on Cape Gloucester.²⁴ It would be necessary to keep a close watch on all this activity, and the turn of fortune that had come on Guadalcanal could be expected to reduce only partly the responsibility for coordinated effort with South Pacific forces in keeping under surveillance Japanese positions in the upper Solomons and in the Bismarcks. The heavies based on Henderson Field could be expected now to carry the main burden in covering the Solomons, but Rabaul would continue for many months yet as a responsibility of the Fifth Air Force. Even Buin and Buka remained within easier reach of Southwest Pacific bases.

Throughout January the Fifth Air Force had kept up small but sharp attacks on Rabaul at regular intervals. Making their bomb runs at both medium (5,000- to 9,000-foot) and low (250-foot) altitudes, the heavies hit the town, the airfields, and shipping in the harbor. Most of the attacks were made at night, when darkness or the glare of searchlights prevented accurate observation. Many of the reports by returning crews read simply: "Bombs in target area causing large fires." An exception had come on 5 January in a daylight mission which took the life, among others, of Brig. Gen. Kenneth Walker of the V Bomber Command. Forty 500-pound demolition bombs and 24 x 1,000-pound bombs were dropped from 8,500 feet. The official report indicated that nine vessels of an estimated total tonnage of over 50,000, including one destroyer tender hit with destroyer alongside, had been sunk or left

burning. Antiaircraft fire was heavy and fighter attack by apparently inexperienced pilots continuous. Two B-17's, including Walker's, were shot down. A total of thirteen attacks had been made during the month, none of them by a force larger than twelve planes.²⁵

For some time yet, General Kenney would be forced to husband carefully his heavy bomber strength. At the close of the Buna campaign, the veteran 43d Bombardment Group had seen six months of hard service. Of its fifty-five B-17E's and F's, approximately twenty were usually in depot for overhaul. Perhaps 50 per cent of the remainder could be kept in daily combat commission, and a quarter of these were regularly required for reconnaissance, which left twelve to fourteen planes available for strikes. The 90th Bombardment Group (H), a late arrival with its B-24 equipment, began taking over a major share of heavy operations only in January. Maintenance of the new plane presented special difficulties, and important modifications to the plane itself were undertaken.* Of the sixty B-24's on hand, no more than fifteen could be counted upon at any one time for a striking force.²⁶

Fortunately, the strain of bomber operations had been somewhat reduced by the fact that it was now possible to base some of the heavies at Port Moresby and Milne Bay in the forward area. Airfield development over the preceding six months had shown great progress. Six of the seven fields lying within thirty miles of Port Moresby were in constant use, with extensive taxiways and dispersal areas. More frequent complaints were heard of rough and muddy landing strips at Milne Bay, but there were three fields and two of them handled steady traffic.²⁷ The development of Dobodura into a major operating base had been begun. Along with the development of installations had come progress in the organization of more effective air defenses. An American aircraft warning unit had reached Moresby in the preceding September to supplement "the poor man's radar"—Australian coast watchers and spotters located in the mountains with binoculars and radio. Coast watchers above Milne Bay and on outlying islands as far to the northeast as Kiriwina continued their invaluable services, but radar equipment had been installed at Milne Bay, at Tufi Point 125 miles to the northwest, and on Normanby and Goodenough Islands.²⁸ The antiaircraft protection had been increased, and since autumn the V Fighter Command had greatly improved its defensive organization.

* See below, p. 154.

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The command had three veteran fighter groups, each with almost a year's experience in the theater. All nine squadrons were now operating from New Guinea bases, though some, and especially the malaria-ridden group at Milne Bay, would soon have to be sent back for rest and recuperation. Of the command's 330 fighters, 80 P-38's represented the chief strength. The other planes included 74 worn P-400's.²⁹

Destructive raids on Allied bases had become the exception rather than the rule, partly because of a more effective defense and partly because of the enemy's concern with other targets. The most serious of recent attacks had occurred at Milne Bay on the afternoon of 17 January 1943, when more than twenty escorted bombers destroyed with fragmentation bombs two B-17's, one B-24, two P-39's, and one RAAF Hudson, and for good measure, six vehicles and half a dozen fuel dumps. There had been other raids, enough to keep the men "nervous and jumpy," but the success of this one was exceptional.³⁰

It was at Moresby that Kenney based the bulk of his medium and light bombardment. He had six squadrons of medium bombers, of which the two squadrons of the 38th Group equipped with B-25's were virtually up to strength. The four squadrons of the 22d Group, having suffered heavily over a long period of operations, had been withdrawn with their B-26's to Australia for recuperation. The 13th and 90th Squadrons of the 3d Bombardment Group (L) were equipped with B-25's; the 8th and 89th Squadrons fought with A-20's, but they had suffered such attrition that they now operated in effect as a single squadron.³¹ Indeed, so heavy had been the burden on the air forces through the fall and into January that General Kenney could meet his varied obligations only by care in the disposal of his limited strength.* He was working out a policy of rotating his squadrons in such a way that one-third would be assigned for rest and training, one-third held on alert, and the other on combat assignment. Thus it would be possible to marshal at least two-thirds of his available units for an emergency.

The training program during the winter of 1942-43 had its focus in an effort to perfect the techniques of low-level antishipping strikes. Especially significant were the experiments of the 90th Squadron of

* It should be noted that the Allied Air Forces, relying chiefly on Australian Hudsons, the Dutch B-25's, and the 90th's B-24's, covered in continuous operations the Timor-Amboina-southern Celebes areas of the Netherlands East Indies and that long-range planes reconnoitered the upper New Guinea coast as far west as Wewak.

the 3d Bombardment Group with its newly received B-25C1. This was the plane that the "gadgeteers" of the service command, with Kenney's encouragement and the advice of Major Gunn and Jack Fox, representative in Australia of the North American Aviation company, had modified for strafing. They had taken off the lower turret and the tail gun of the standard model and had added forward-firing guns until four bristled from the nose and four more from blisters attached on either side. In addition to these eight forward-firing guns, an upper turret carried two .50-cal. machine guns. For its low-level work, the plane's bomb racks could carry sixty small fragmentation bombs together with six 100-pound demolition bombs.³² The crew of three included a co-pilot instead of the bombardier, standard in the B-25 crew. It was somewhat slower and less maneuverable than the A-20, but in attacks at 150 feet of altitude maneuverability counted for little and the longer range, heavier bomb load, and greater firepower of the modified B-25 promised real dividends.³³ The experimental model had passed the tests in December, and by April some thirty of the B-25C's had been accordingly modified.

Meanwhile, crews of the 90th Squadron practiced for weeks on an old wreck lying off Port Moresby. Experiments with skip bombing were soon abandoned for direct attack on the target, a reference point on the nose of the plane serving as a bombsight. The bombs were armed with modified delayed-action fuzes, and the practice acquired more than a touch of realism when two planes sustained damage from flying debris and another was lost by collision with the wrecked vessel's mast. The planes went out twice during February against real targets, but each time failed to locate the reported vessels.³⁴ By the end of February, however, they had engaged in coordinated rehearsals with A-20's and Australian Beaufighters and were thus ready to participate in the celebrated action of early March which frustrated an enemy attempt once more to reinforce Lae.

As early as 19 February, Allied intelligence, which already had built a reputation for accuracy in its predictions of enemy movements, had issued a warning of "further troop movements to the Lae area." By 28 February, G-2 talked in terms of a landing to be attempted at Lae on 5 March and at Madang on or about 12 March.³⁵ Accordingly, V Bomber Command prepared three different operational plans. The first assumed that the convoy would head for Lae, in which case it would come within reach of virtually the full striking power of the

THE ARMY AIR FORCES IN WORLD WAR II

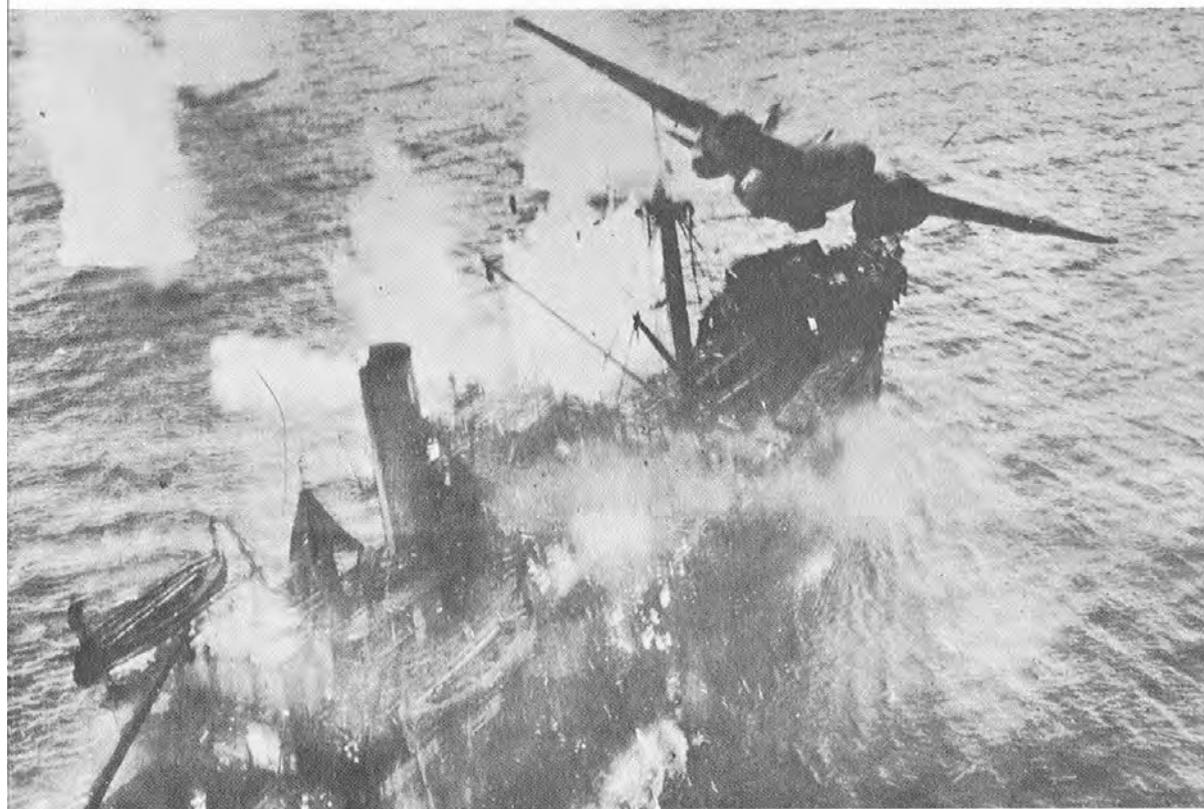
Allied Air Forces. A second plan was based on the assumption that the convoy might be divided north of the Dampier Strait. Should that occur, the heavies were to concentrate upon that portion of the convoy heading toward Madang, while light and medium bombers intercepted the remainder of the vessels if and when they came within range. Since it was recognized that the entire convoy might follow a course toward Madang, out of range of all but heavy air units, the third plan was drafted accordingly.³⁶

The enemy had determined to reinforce his troops in the Lae area at all costs. His plans, as subsequent examination has shown, were carefully drawn.³⁷ Reinforcements would consist principally of the 51st Infantry Division, which would be transported in a convoy of seven merchant vessels and eight destroyers. The ships would load at Rabaul between 23 and 27 February on a schedule calling for departure at 2300 on the following night. Air cover was to be furnished by some forty naval and sixty army planes operating on a definite schedule. The plan called for the convoy to reach Lae on 3 March and to arrive back at Rabaul five days later.

At first the weather, which was generally stormy between 27 February and 1 March, conspired with the enemy. The first contact was reported on 1 March. Two B-24's patrolling the sea lanes off New Britain that morning reported a break in the weather, and a third B-24 dispatched on patrol at 1130 sighted fourteen ships under Zero escort on a westerly course some forty miles northwest of Ubili at approximately 1500 hours. Another B-24 sent out two hours later to shadow the convoy found the weather closing in, and eight B-17's on a late afternoon mission failed to locate the target.³⁸

By now the Fifth Air Force Advanced Echelon (ADVON) at Port Moresby had been fully alerted, although another day would pass before the convoy came within reach of anything but the heavies.* There would be some work meantime for the other planes, such as the

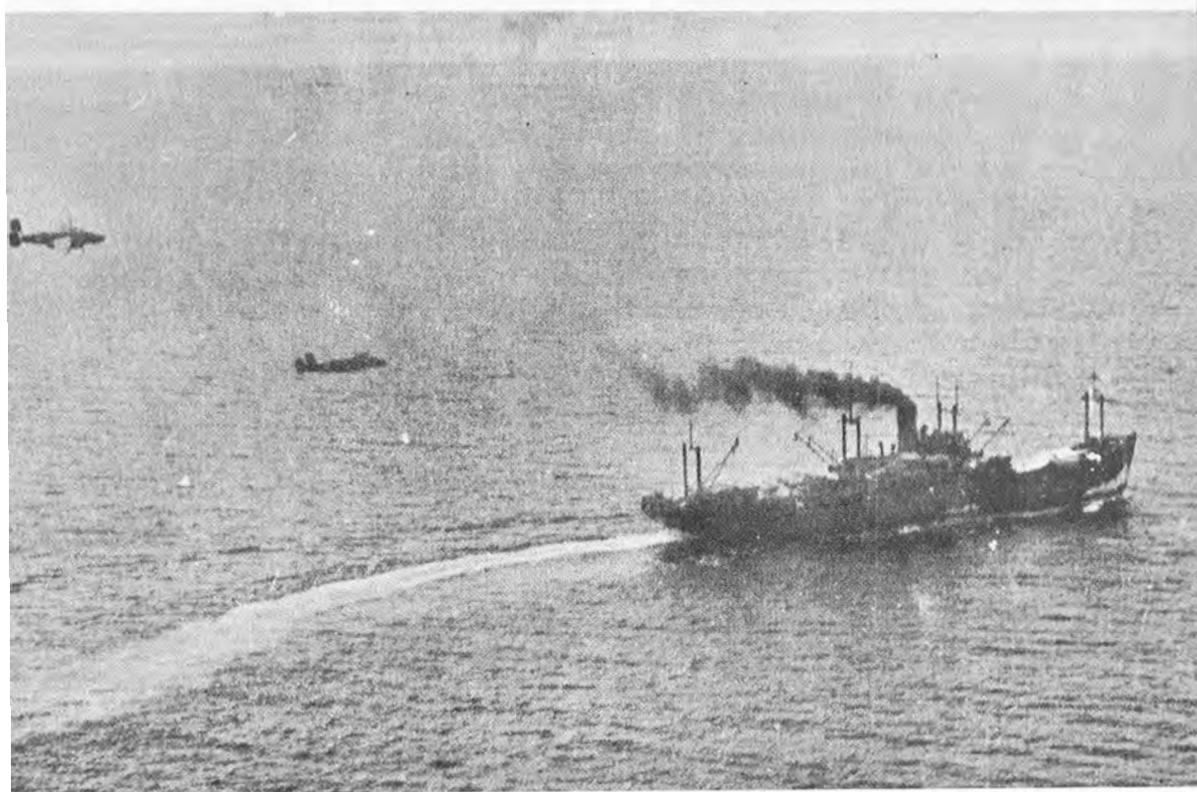
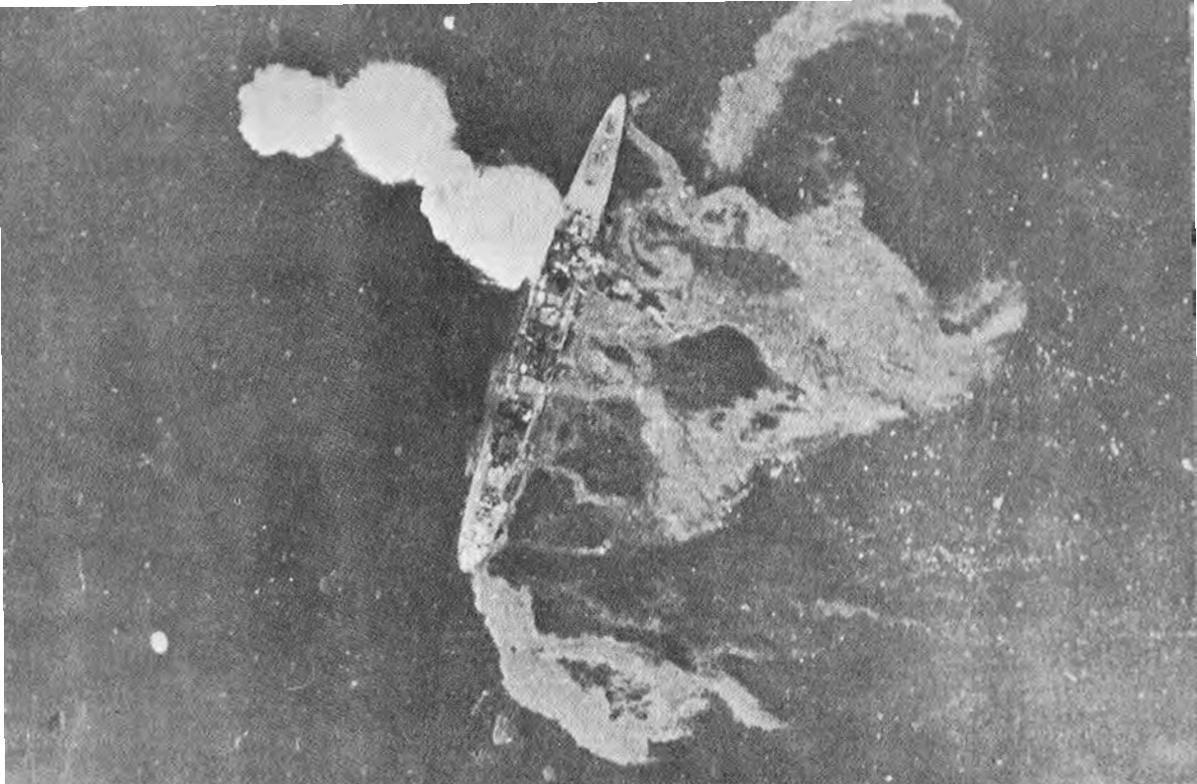
* Of the units assigned to ADVON and prepared to participate in a convoy attack, the following aircraft were ready for action: 43 P-40's and 18 P-38's of the 49th Fighter Group; 17 P-38's of the 35th Fighter Group; 17 P-40's of the RAAF 75 Squadron; 6 B-25C's and D's of the 13th Squadron, 11 B-25C's of the 90th Squadron, and 15 A-20's of the 89th Squadron, all of the 3d Bombardment Group; 11 B-25C's and D's of the 38th Group; 28 B-17's of the 43d Group; 9 B-24's of the 90th Group; and 6 Bostons, 13 Beaufighters, and 13 Beauforts of the RAAF 9 Operational Group. In the Allied Air Forces as a whole on 1 March, there was a total of 154 fighters, 34 light bombers, 41 medium bombers, and 39 heavy bombers ready for combat. Totals exclude planes on reconnaissance or escort duty.



HIT 'EM HIGH, HIT 'EM LOW

Above: DIRECT HIT BY B-24

Below: A-20 AT MAST HEIGHT



BATTLE OF THE BISMARCK SEA

Above: WOUNDED DESTROYER

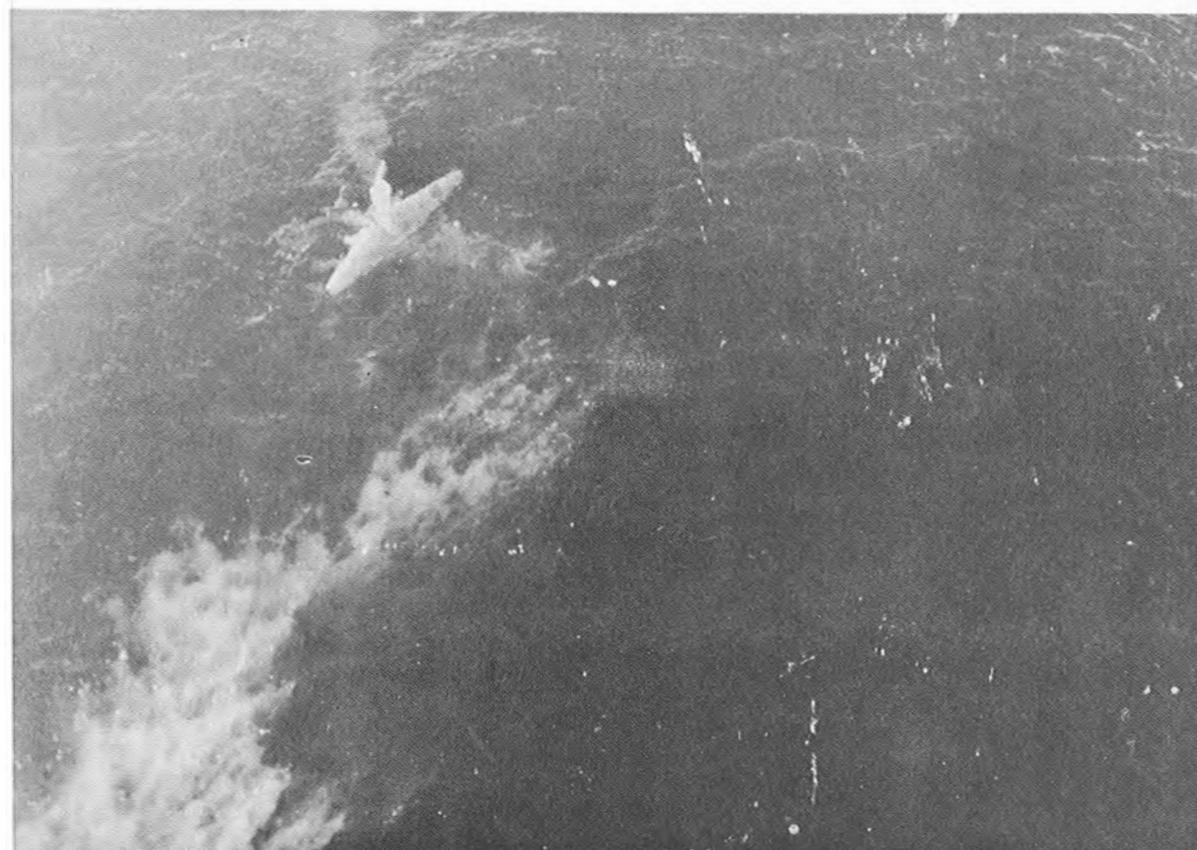
Below: LOW-LEVEL ATTACK ON FREIGHTER



KENNEY'S B-25'S GET A JAPANESE CORVETTE

Above: FIRST PASS

Below: ON THE MARK



MAINTENANCE: HEAVY BOMBERS

Above: LADD FIELD, ALASKA

Below: LOS NEGROS

effort inaugurated by six RAAF Bostons on the afternoon of 1 March to put the enemy's airfield at Lae out of operation, but for the moment the critical responsibility fell to long-range reconnaissance. The weather was still unfavorable on the 2d, and not until midmorning did a B-24 send back the convoy's location. Eight B-17's promptly took off for attack, to be followed shortly by twenty more bombers. The P-38 fighter cover failed to make its rendezvous with the first flight, but the heavies dropped 1,000-pound demolition bombs from an altitude of 6,500 feet with apparently good effect. Two merchant vessels were claimed sunk, one being described as breaking in half and sinking in two minutes.* The second flight, again without its fighter protection, was over the convoy (variously described by the bomber crews as containing fourteen or fifteen vessels) within the hour. Though claiming only two hits and four near misses, the returning crews reported, no doubt with some duplication, a 6,000-ton transport "burning and exploding," a 5,000-ton ship "burning," a large cargo vessel "smoking and burning amidships," a 6,000- to 7,000-ton vessel "seen to explode," and a somewhat larger one "in a sinking condition."

A B-17 clung to the contact until nightfall, reporting that two unidentified vessels had joined the convoy between 1530 and 1630 and later, at 1730, that "two possible CL's left convoy." And as night drew on, eleven B-17's made the final attack of the day at the entrance to Vitiav Strait. Enemy fighters, though not very persistent, were numerous and one was shot down. A total of forty-three bombs were dropped with claims registered for two hits. One vessel "was left sinking." There had been, according to report, sixteen vessels at the beginning of the attack. An RAAF PBY† kept contact through the night, turning over the job to a B-17 at 0545 on the following morning.

The convoy, now off the Huon Peninsula, had come within a range inviting the coordinated attack so carefully rehearsed during recent weeks at Port Moresby. Torpedo-carrying Beauforts of the RAAF made the first attack on the morning of 3 March without success, but by 0930 the planes for a coordinated effort had assembled over Cape Ward Hunt. Within half an hour thirteen Beaufighters, each armed with four cannons in the nose and six machine guns in the wings,

* At this time the convoy was reported as including one light cruiser, five destroyers, and eight merchant vessels. Actually there were no cruisers in the convoy. Sightings frequently mistook large destroyers for cruisers.

† Not U.S. Navy planes as suggested by Capt. Walter Karig *et al.* in *Battle Report: The End of an Empire*, p. 26.

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“went into the target with flights in line astern.” Flying at 500 feet when they came within the reach of antiaircraft fire, they “then lost height rapidly and using rated power attacked in line abreast at a speed of 220 knots.”³⁹ Thirteen B-17’s had come into position above to drop their bombs just as the Beaufighters began their sweep. Thirteen B-25’s followed the Beaufighters in for a standard bombing attack from medium altitude. And then came twelve of the 90th’s B-25C1’s in probably the most successful attack of all. Coming down to 500 feet above the now widely dispersed and rapidly maneuvering vessels, the new strafers broke formation as each pilot sought his own targets. The forward-firing .50’s beat down opposing AA, and 500-pound bombs struck ship after ship. Out of the thirty-seven bombs dropped, seventeen were claimed as direct hits.

The returning pilots of the 90th Squadron reported one transport “badly damaged,” one left “burning violently,” and another “sinking,” that a cargo vessel “burst into flames and sank,” that another “stopped and began to settle,” that a third “appeared sinking,” and that a fourth had been left smoking and a fifth burning. One destroyer had been left smoking, while another “rolled on its side and sank.”* The B-17’s claimed five direct hits, the sinking of one vessel, and the probable sinking of another.† Twelve U.S. A-20’s had joined the attack to claim eleven direct hits, and six more B-25’s coming in toward the end reported four additional hits.

The cost had been four Allied aircraft shot down—three P-38’s out of the twenty-eight providing cover and one B-17. Enemy interception, which had been fierce, tended to concentrate on the B-17’s. Lt. Woodrow W. Moore’s plane received hits in a wing and the radio compartment. He pulled out of formation and salvoed his bombs, but the plane went into a dive. Seven of the crew who bailed out were strafed on the way down and lost in the confusion of battle below. The plane disintegrated before plummeting into the sea. But the bombers claimed five enemy planes, and returning P-38 pilots turned in a score of fifteen.

* Form 34 summaries credit the 90th Squadron with hits on eleven ships, resulting in one cruiser and one transport sunk, two destroyers damaged, and seven transport and cargo ships damaged. (Cf. ADVON Rpt.)

† Perhaps it should be said that ADVON credited them thus, because Form 34 for the squadrons represented (the 64th, 65th, and 403d) carries only the following reports: “Hits on AK & DD seen sinking.” “Ships left burning—exact number of hits unknown—at least 4 near misses observed.” “Due to interception results were not observed.”

BATTLE OF THE BISMARCK SEA

After these morning assaults, the surviving Japanese ships received no more than a brief respite. New strike orders went out to the air units shortly after noon, and almost immediately the planes were roaring off the Moresby dromes and heading for Lae. The afternoon strikes did not go entirely according to plan. The weather had turned bad over the ranges: none of the Beaufighters crossed the mountains, twelve A-20's "could not climb above or find [a] hole in the weather," and of the twenty-nine B-25's that set out, six failed to find the target. Partly no doubt because of interference by the weather, there was some confusion in the timing of attacks.

The first attack, by B-17's, occurred at 1512, one of the planes claiming two direct hits on a large destroyer which "stopped and burned." Then eight B-25C1's of the 90th Squadron struck in a low-level sweep. Within five minutes they had left a destroyer "definitely sinking" after four direct hits, another "probably sinking" after an equal number of hits, and two merchant vessels badly damaged.* In the next ten minutes, fifteen additional B-25's, some attacking from 200 feet but most of them from medium altitude, had completed their runs with claims of at least ten direct hits. Almost simultaneously with this attack, five RAAF Bostons concentrated on a destroyer, while B-17's bombed from medium height through both the B-25's and the Bostons. The Bostons claimed at least two direct hits and numerous near misses, and they were credited with still another sinking.

These afternoon missions represented the last coordinated attacks, for the victory had been won and back at Port Moresby there was already a feeling of festivity. It remained only to clean up the job. During the remaining daylight hours, planes sent on reconnaissance swept over the scene of action, strafing survivors and seeking assurance that none of the burning hulks were in condition to get away; in the night of 3/4 March five motor torpedo boats of the Seventh Fleet from their base at Tufi undertook a search which resulted in the dispatch of one crippled vessel. Allied bombers on the next morning sank a badly damaged destroyer. And that ended it, except that Beaufighters, A-20's, and B-25's continued for several days to search the general area and to strafe surviving enemy personnel, some of whom were picked up as far to the east as Goodenough, Kiriwina, and even Guadalcanal.

The victory thus won would be described by General MacArthur,

* Form 34 lists four hits on a destroyer, four on a cruiser, and one each on two transports, "all left in sinking condition."

after the Japanese surrender in 1945, as "the decisive aerial engagement" in his theater of the war,⁴⁰ and certainly the enemy had suffered a smashing setback to his plans for holding New Guinea. General Kenney's flyers had accomplished as much in three days as had been possible in similar operations extending through the entire Papuan campaign, for only toward the end had Buna been blocked off from incoming shipping. But now enemy troops in the Lae-Salamaua area were left dependent for supply and reinforcement on the provision that could be made by submarines, air transport, and barges cutting across Vitiaz Strait from Cape Gloucester or clinging to the coast on the way down from Madang or Wewak. Never again did the Japanese accept the risk of running large vessels into Lae; an effective if not absolutely tight air blockade had been established—months in advance of the Allied conquest of Lae.

That this blockade could have been maintained in the face of a persistent attempt to challenge it may be open to debate. Kenney had concentrated virtually all available air strength against this one convoy; it might have been difficult to repeat the performance immediately, but the job had been done well enough to obviate any such necessity. The victory had been a triumph of coordinated effort—of an accurate evaluation of intelligence, of daring technical developments, and of meticulous training.⁴¹ During the two-week period ending with 14 March, Allied aircraft catalogued 400 sorties connected with the Bismarck Sea action, of which number 76 per cent reached the objective. The planes engaged dropped 571 bombs for a total of 426,000 pounds. Bombers and escorting fighters reported more than 350 enemy aircraft encountered, of which 50 to 60 were claimed as destroyed. The losses were one B-25 in a landing accident and one B-17 and three P-38's shot down in combat.⁴² But the statistics of air warfare serve chiefly to emphasize the magnitude of the effort put forth. In their very nature they cannot be exact on such items as claims against the enemy force, and the central fact of an operation often stands independent of any of the statistician's tables, however helpful those tables may be to an assessment of the effort.

It is unfortunate, therefore, that attention should have been diverted from the brilliant achievement of the Allied Air Forces in the Bismarck Sea action by a controversy over the exact number of enemy vessels destroyed. The fact that counts is that a major effort to reinforce Lae was turned back with mass destruction inflicted upon an enemy who

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never thereafter dared renew the effort. All other points, whatever their inherent interest and significance, must assume a position of secondary importance.

Secondary though it may be, the question demands some attempt here to arrive at a conclusive settlement. The official GHQ communiqué of 7 March 1943 put the size and composition of the enemy convoy at twelve transports, three cruisers, and seven destroyers, and advanced a claim to their total destruction.* These figures apparently depended in the first instance upon an evaluation of reports by returning crews. Their reports had indicated a total of fourteen ships sighted during missions flown on the morning of 2 March and that perhaps as many as two of these vessels had been sunk. Reports of the afternoon missions on that same day showed a total of perhaps fifteen or even sixteen vessels in the convoy at that time.⁴³ These and other differences in sightings reported during the course of a running battle extending over a large area and through two days led to a natural conclusion that additional units had probably joined the original convoy.⁴⁴ Up at ADVON, the evidence seemed to support the view expressed in its final report on 6 April 1943 that "an additional seven merchant vessels" had "moved into the immediate area" of combat.⁴⁵ The final figure of twenty-two ships rested then upon the assumption that other vessels had joined the convoy after the action began, an assumption which seemed to find at least partial support in certain enemy documents captured with some of the survivors immediately after the battle.† Since no ship was seen to escape, it was assumed that all had been sunk. The evidence at best was tenuous, but good enough for a preliminary assessment.

At AAF Headquarters in Washington the Historical Office undertook in the summer of 1943 a study of all records of the action forwarded from the theater, including the captured enemy documents. These documents offered conclusive proof of the presence of no more than sixteen ships in the original convoy and failed to establish the

* Official theater publications, however, are consistent only as to the total number of vessels. Allied Air Forces Intelligence Summary 83 of 6 March 1943 and ADVON's official report, dated 6 April 1943, both describe the convoy as comprising eight warships and fourteen merchant vessels.

† One of these, a Supplement to Operational Order 57, listed three vessels not carried in Operational Order 157 for the Lae convoy. Aside from the similarity in number and the fact that the two papers were captured at the same time, there is no definite connection with the Lae convoy established. (See SWPA Allied Translator and Interpreter Sec. Rpt. 7, Pt. 1, p. 73A.)

assumption that additional vessels had later joined them. The negative conclusion thus arrived at received support from the fact that photo intelligence had provided positive identification for only three destroyers and six merchant vessels, with five other units listed as possible destroyers for a total of fourteen. Moreover, ADVON's report, published a month after the action, had declared that "only 12 or 13 ships were actually sighted sinking or in obviously desperate condition."⁴⁶ But GHQ SWPA, on being apprised of the conclusions of this study in Washington, elected to stand on the original figures; indeed, one message forwarded over MacArthur's signature even contained the remarkable suggestion that some action might be taken against those responsible for calling the claim into question.⁴⁷ And General MacArthur renewed the claim in a postwar news release.⁴⁸

There would seem to be some advantage, therefore, in an attempt to piece together the story of the action from the enemy's point of view as revealed by interrogation of key Japanese personnel after the close of hostilities and by study of additional documentary records.⁴⁹ That story follows.

Shortly after midnight on 1 March 1943 a convoy of sixteen vessels—eight destroyers, seven transports, and the special service vessel *Nojima*—left Rabaul for Lae. In the early morning of 2 March the convoy took its first bombing, by B-17's, which scored on two of the transports and sank the Army transport *Kyokusei Maru*. Approximately 850 men rescued from the sinking transport were then put aboard two destroyers, which headed for Lae under forced draft. Having delivered these troops at Lae during the night, the destroyers rejoined the convoy on the morning of 3 March, in time for the heavy and coordinated attacks previously described.*

The morning attacks of 3 March were just as destructive as the returning crews at Port Moresby claimed. The destroyer *Arashio* received three direct hits, which threw it out of control and caused it to collide with the already damaged special service vessel *Nojima*. The *Nojima* sank; the *Arashio*, though mortally hit, managed to stay afloat for several hours. Within a few minutes after this collision, the flagship *Shirayuki* was strafed and bombed with a resultant explosion aboard ship that caused its abandonment and the transfer of the flag to the destroyer *Shikinami*. Meanwhile, the destroyer *Tokitsukaze* had taken severe hits from which it sank sometime later, and the six remaining

* See above, pp. 143-45.

transports, as the bombers withdrew, had been sunk or left in a sinking condition. The convoy, in short, had been broken up and in large part destroyed or doomed to destruction during the morning of 3 March.

As the planes returned in the afternoon, the five surviving destroyers—the *Asashio*, the *Uranami*, the *Shikinami*, the *Yukikaze*, and the *Asagumo*—were engaged in attempts begun during the morning attacks to rescue as many as possible of the troops from the water and an undetermined number of crippled transports. The *Asashio* took hits and went down, but the other four destroyers survived to continue rescue operations that were on the whole remarkably successful. A rendezvous with the destroyer *Hatsuyuki*, sent out from Kavieng, permitted refueling and the transfer of 1,400 men to the *Hatsuyuki* and the *Uranami* for return to Rabaul. The other three destroyers turned back toward Lae to pick up additional survivors, and having rescued about 200 more men, they reached Kavieng early in the morning of 4 March. Submarines are credited with rescuing another 275. It is impossible to reconcile all of the figures given, but the Japanese admit an over-all loss of some 3,000 men and claim that just under 6,000 survived.

Nor is it possible to fit together as neat and detailed a picture of the action as is desirable. This much, however, would seem to be clear from the evidence presently available: the convoy at no time included more than the original sixteen vessels and of this total, all of the transports, the *Nojima*, and four of the destroyers were lost, one of the vessels receiving its final dispatch by torpedo boat during the night of 3/4 March. The full destruction thus could not have exceeded twelve vessels;* the four surviving destroyers are all accounted for, three of them having been destroyed in combat during 1944 and the *Yukikaze* having run aground in July 1945.⁵⁰ The rendezvous on 3 March with the *Hatsuyuki* may help to account for the belief on the Allied side that additional vessels had joined the original convoy, although the confused and scattered nature of the action, together with a natural tendency for claims to be duplicated, would seem to offer sufficient explanation for conflicting reports as to the number of vessels engaged. The Japanese rescued a substantial part of their troops, but few if any more than the

* This figure does not include a small transport claimed sunk in Wide Bay on New Britain by a reconnaissance plane or a small cargo vessel claimed by Allied fighters in an attack on Lae airfield and harbor. (See George C. Kenney, *General Kenney Reports* [New York, 1949], pp. 203-5.) General Kenney states his own conviction that additional vessels joined the convoy on 2 March and concludes that the total destruction was nineteen to twenty-two ships, depending upon the number of merchantmen in the convoy and including the two claims at Wide Bay and Lae.

850 men carried into Lae during the night of 2 March reached their original destination.

The downward revision of claims counts for little beside the fact that land-based air forces had effectively demonstrated their power to impose an interdiction on seaborne forces seeking the reinforcement of a critically important coastal base. That fact was not only of vital significance for the further development of the New Guinea campaign but it demands the respectful attention of all students of warfare itself.

Problems of Men and Materiel

The victory in the Bismarck Sea action provided, among other advantages, a much-needed boost to the morale of air force personnel. In general, the fighting spirit of the Fifth Air Force under General Kenney's leadership, as one competent observer reported, had been "tops," but there were a number of problems which still threatened to become serious. One of the most pressing was the question of replacements. Although the weary veterans of the 19th Bombardment Group had been sent home during the fall, there remained many Fifth Air Force flyers who had records almost as long for continuous combat and who were variously described by flight surgeons as "irritable, short-tempered and lackadaisical." Back-breaking labor, frequently continuing from twelve to eighteen hours a day, had also worn down ground crews and other service personnel.⁵¹ In the absence of a definite policy of rotation, there seemed little prospect of relief.

Responsible officers still struggled with the problem of providing a satisfactory diet for troops in the advanced area. Units stationed near the larger Australian cities generally enjoyed good rations, but the inadequacy of shipping, refrigeration, and air transport limited the quantity and variety of food supplies that could be provided in New Guinea. There the troops for the most part ate out of cans. The food, although it satisfied medical requirements, was almost invariably of Australian manufacture and the men found that even American canned food soon lost its flavor. One squadron had recorded its surprise and satisfaction over a Christmas dinner in these simple yet eloquent words: "Ham, sweet potatoes, mashed potatoes, several vegetables, three kinds of dessert, three kinds of beverages, nothing was dehydrated."⁵²

No less important was the closely related question of health. Troops stationed in New Guinea could expect a loss of fifteen to twenty pounds in weight, and the peculiarities of a tropical climate contributed

to a general lowering of resistance to disease. At Milne Bay it was almost a foregone conclusion that everyone sooner or later would be afflicted with malaria. At Port Moresby the men suffered a smaller percentage of malarial cases but were plagued by diarrhea, which seemed to be endemic to the locality.⁵³ The individual soldier himself contributed to his own difficulties, for he was as yet not mentally prepared to meet all the hazards of tropical warfare.⁵⁴ While in "malarious areas" he was supposed to wear slacks and long-sleeved shirts, to sleep under mosquito bars, to use repellents, and to take quinine or atabrine regularly, but his cooperation could not always be secured and unless each individual gave wholehearted support to preventive measures, satisfactory results could not be achieved.

The medical organization of the Fifth Air Force under Col. Bascom L. Wilson faced thus a heavy responsibility, as did those who administered the hospitals and medical depots, which operated under control of the Army's Services of Supply. Three hospitals had been established at Port Moresby with a total of more than 2,000 beds by the close of 1942, and two more with 350 beds at Milne Bay. Portable hospitals had followed the troops across the Owen Stanley range; the ever-busy air transports made possible a quick return for hospitalization to Port Moresby.⁵⁵ The arrangements that could be made in the more advanced areas naturally continued to be primitive, but at Moresby the efforts of medical officers combined with the ingenuity of the men themselves to provide mess halls, living quarters, incinerators, and latrines comparing favorably with facilities at some of the encampments in the United States.⁵⁶ In the absence of adequate replacements, Kenney rotated his units between Australia and New Guinea as frequently as possible. While in Australia, the men were provided with an abundance of fresh eggs, meat, milk, and vegetables. Kenney also encouraged the granting of regular leaves for trips to Sydney, Brisbane, and other Australian cities.⁵⁷

With a keen sense of the strain under which his men worked, General Kenney, while in Washington during March for the conference on Pacific strategy,* pressed for increased allocations to his force. It had been estimated that the ELKTON plan would require for its implementation an immediate increase of the Fifth Air Force by two heavy, two medium, and two and one-half light bombardment groups together with three fighter, one observation, and two troop carrier

* See above, p. 131.

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groups. For the New Britain phase of the operation it was estimated that an additional fighter, one medium, two heavy, and three troop carrier groups would be required.⁵⁸ Instead, General Kenney got the promise of receiving by September one additional heavy group, one medium, one light, one observation, and two fighter groups and of such further increases of strength as are indicated in the following table:

UNIT	PRESENT OR EN ROUTE		PLANNED INITIAL EQUIPMENT STRENGTH					
	8 Mar. 1943		30 June 1943		30 Sept. 1943		31 Dec. 1943	
	Units	A/C	Units	A/C	Units	A/C	Units	A/C
Bomb Gp (H) (4 Sq Each)	2	102	2	96	3	144	3	144
Bomb Gp (M)	1½	82	2	114	3	171	3	171
Bomb Gp (L)	1	28	1	57	2	114	3	171
Ftr Gp (3 Sq Each)	3	353	3	225	5	375	6	450
Ftr Sq Nite			2	24	2	24	2	24
T/C Gp (4 Sq Each)	2	100	3½	182	4½	234	4½	234
Obsn Gp (4 Sq Each)		53		50	1	131	1	128
Photo Gp	½	16	½	13	1	51	1	51

Although less than Kenney had requested, this was more than the Joint Planners, who argued the necessity of implementing to the full the bomber offensive against Germany, had initially considered possible. There is some reason to believe that the President may have influenced the final decision.⁵⁹

A subject of hardly less concern to General Kenney than that of reinforcements was the question of replacements. In March, as during each of the preceding five months, the total of aircraft lost exceeded the number received.⁶⁰ At the close of the month, to take one example, five of the twenty-five P-40's assigned to the 8th Fighter Squadron were credited with 400 or more flight hours, seven with 300 or more, and the rest with totals in excess of 200 hours.⁶¹ An entire medium bombardment group and one light bombardment squadron were forced to remain out of combat from March through May because of the shortage of planes. One of the heavy squadrons never had more than five aircraft on hand during the same period, and a medium squadron having seven B-25's on hand at the close of March and April could report no more than three at the end of May.⁶² Thus, the official tabulation of one light, two medium, and two heavy bombardment groups and three fighter groups hardly gave a true picture of Fifth Air Force strength. Actually, combat strength through May was much more accurately

represented as one light, three medium, and seven heavy bombardment squadrons and nine fighter squadrons.

It had been decided while Kenney was in Washington for the March conference that steps should be taken to maintain a 25 per cent depot reserve in the theater, a flow of 20 per cent of the initial equipment per month as attrition aircraft for combat units, and a plane-for-plane replacement of losses in transport aircraft.⁶³ There remained some uncertainty as to the type of aircraft to be supplied. It was understood that B-24's and B-25's would be sent for the heavy and medium groups in accordance with already established policy, but Kenney's desire for A-20G's to equip his light bomber units ran into difficulty. Production was slow; moreover, Twelfth Air Force held priority of claim, and a project for the conversion of A-20's into P-70 night fighters had caused further delays. Kenney showed no enthusiasm for proposals that he might use A-36's and A-25's. Arnold suggested "some sort of swap" between Spaatz and Kenney, but the final comment at AAF Headquarters on 5 May simply stated that any A-20G's not needed by Spaatz would go to Kenney.⁶⁴

Already the Fifth Air Force had lost out temporarily to the Twelfth in the competition for P-38's. After having received eight P-38's under a replacement schedule of fifteen per month initiated in January, Kenney had word in February that because of the critical situation in North Africa he could expect no more until summer.⁶⁵ For the new groups promised to him in March, he wanted P-38's and next he preferred the P-47. He entered vigorous objections in April to suggestions that he might get P-40's instead, winning assurances early in the next month from Marshall. The 348th Group, originally scheduled for Europe, would be ready for shipment with P-47's by 12 June. Authorization was also given to activate in the theater the 475th Fighter Group, for which P-38's would also be available in June.⁶⁶ This was encouraging, but meantime reinforcements during April and May had been limited to one night fighter squadron with six P-70's, help first requested the preceding October. And the service command had to work over the P-70 to increase its speed, ceiling, and maneuverability before it would be equal to the demands made upon it.⁶⁷

Failure to receive the desired replacements and reinforcements found some compensation in the steadily improving work of the service command. A general maintenance policy established early in 1943 provided for the repair of fighters in New Guinea, with all bombers

which could be flown sent back to Australia. In Australia not only had provision been made for heavy maintenance but, with substantial help from Australian industry, it was now possible to provide many items of supply. Kenney had reported in January that it would soon be possible to manufacture in Australia 1,200 belly tanks per month, enough for all his fighter aircraft. In April, he indicated that all engine overhaul could be taken care of locally, and by July it would be possible similarly to handle all propeller overhaul and the replacement of blades.⁶⁸ At Townsville the 4th Air Depot Group had added, with some assistance from Australian labor, sixteen new warehouses and seven repair hangars. But the group's varied duties required work around the clock through seven-day weeks, and not until midyear did the arrival of two new depot groups relieve the pressure.⁶⁹

A part of the burden arose from the necessity to de-winterize many of the combat aircraft arriving from the United States for operations in the tropics. De-icing and engine-winterization equipment was standard on the C-47's, B-25's, and B-24's, as on other AAF planes, and before they could be used in tropical zones, the equipment had to be removed either in the United States or in the theater. Kenney evidently had preferred at first to do the job himself rather than run the risk of delay in deliveries, but in May he got the promise that in the future winterization items would be deleted from his aircraft.⁷⁰

Modification of incoming planes continued also to claim the time of service agencies. The B-24's with which the 90th Group had been equipped lacked forward firing power. A solution worked out at Archerfield during the winter added a Consolidated tail turret to the Liberator's nose. Kenney had asked in January for thirty-five of the turrets and had requested that the Hawaiian Air Depot* be instructed to make the installation on all future deliveries. Shipped by water, the turrets arrived late in March, and in May, Kenney asked for thirty-six more to equip recently received planes.⁷¹ By this time he had also decided to substitute manually operated twin .50's for the ball turret. Proposals that the plane be sent out with this modification presented to AAF Headquarters an awkward problem involving some of the limitations inherent in mass production, for it appeared that other theaters desired that the turret be kept. Not until September was it agreed that planes for SWPA should differ in this particular from the standard.⁷²

* See below, pp. 288-90.

Preparations for Another Forward Move

The development of Dobodura as a major air base during the spring and early summer of 1943 promised a more efficient employment of the aircraft available for support of the next advance. The field there had played a vital part in winning the victory at Buna, and though it would be May before a road had been opened from Oro Bay to Dobodura, plans for the field's development were implemented in every way possible. Wharves were built on Oro Bay for receipt of supplies moved in by small boat, the supplies reaching Dobodura by jeep and native carrier moving along improved tracks. Troop carrier planes continued to pour men and materials onto the airstrips. During a six-week period in March and April, the average daily lift was 600,000 to 678,000 pounds a day.⁷³

The first complete service group was flown in during March to join quartermaster, service, and communications detachments previously active there. American aircraft warning units had reached Oro Bay in February. At least one Australian radar set had operated—not too satisfactorily—in the area since December, but by March reporting platoons operated at Tufi, McLaren Harbor, and Ionanda as well as Oro Bay.⁷⁴ Ground crews of the 49th Fighter Group had been stationed at Dobodura in February to make it possible for the unit's planes to fly in each morning for a day-long alert; in the evening they returned to Port Moresby. The advantages gained by this northward extension of fighter cover were such that two of the unit's squadrons were stationed there in mid-March, a third squadron joining them in April.⁷⁵ This movement into a new forward area brought with it the usual difficulties. Refueling facilities were unsatisfactory; supply dumps were inaccessible, in part because of the lack of transportation equipment; and even more than at Port Moresby, spare parts were at a premium. Shortly after arriving at Dobodura, one of the fighter squadrons reported that P-38's out of commission were "being stripped to keep 16 for the daily alert." There were the usual complaints from combat personnel who had to build their own camp sites where equipment was scarce and insects many. The incidence of malaria was high. Until the latter part of June, when improved sanitation measures began to take effect, from 15 to 20 per cent of the 46th Service Group were regularly incapacitated from malaria and dengue fever.⁷⁶

By the time the camp site with tents, mess halls, latrines, and garbage

disposal facilities had been established, living conditions were probably no worse than in the Port Moresby area. Some, in fact, preferred the new camp site. Adjacent to some of the camps were swift little streams which solved the water problem both for bathing and, when properly treated, for drinking. The Special Services section arranged for movies, a baseball league, a lending library, an orchestra, post office facilities, regular cable service, and a new canteen "chock full of supplies" in a corner of one of the mess halls. Visiting shows occasionally reached Dobodura. On 21 March a USO unit, consisting of an accordion player, a violinist, a juggler, and "several boys that sang old songs which were popular when our Moms and Pops were young," was well received. So was Joe E. Brown, who arrived two weeks later.⁷⁷

One of the principal operational disadvantages at Dobodura was the lack of reliable communications with ADVON Fifth Air Force at Port Moresby. The peculiar conditions caused by towering mountains and tropical weather frequently interrupted radio reception, and hence a plan to string a telephone line across the 150 miles from Port Moresby was conceived. To those acquainted with the razorback ridges, the gorges, and the jungle, this must have seemed a next-to-impossible job; yet by May the project was under way. It took 250 natives and 100 American and an equal number of Australian signal troops, supplied principally by aerial dropping, a little more than a month to complete the task.⁷⁸

Communications problems were not fully solved by the herculean job of stringing a telephone line across the Owen Stanley range. The constant dampness in New Guinea rotted poles and corroded wires, and frequent storms grounded newly strung lines. Moreover, it was understood that the move to Dobodura was only the first of a series of forward jumps that would take combat, service, and troop carrier units hundreds of miles ahead of previously established bases. General Kenney's Fifth Air Force headquarters had to be retained in Brisbane where it could coordinate its activities with GHQ. Port Moresby remained the most desirable location for ADVON. Yet, if authorization had to be obtained from Port Moresby or Brisbane for every strike by aircraft based on the north side of the Owen Stanleys, operations would be disastrously delayed. A new headquarters was thus considered necessary for operational control over the units at Dobodura.

Accordingly, General Kenney in March 1943 created the First Air Task Force or, as it was originally known, the Buna Air Task Force.

This new organization consisted of a headquarters and such units as might be attached for an indefinite period, or for a particular operation only, to the organization. When a fighter or bomber unit was thus attached, the appropriate command (V Fighter or V Bomber) retained administrative control, but operational control went to the task force. Theoretically, General Whitehead, as commander of ADVON, directed the operations of all combat units in northeastern New Guinea. Actually, however, the commander of the task force could assume, when necessary, the responsibility for dispatching his own units on combat missions.⁷⁹ The plan met with some resistance in Washington, where it was felt that the Southwest Pacific had requested too many headquarters personnel in higher grades. General Kenney insisted that the three headquarters for the Fifth Air Force, exclusive of the commands, were necessary, and wrote that "G-3 has no idea of the details of the problem out here."⁸⁰ The task force, however, was never officially authorized by the War Department, and personnel for task force headquarters had to be taken from other organizations. For example, Col. Frederic H. Smith, Jr., appointed task force commander, continued to be listed on official rosters as deputy chief of staff of the Fifth Air Force.⁸¹ For some time the organization consisted principally of the one fighter group, but by the end of June, in addition to service units, it had a total of seven squadrons—one P-38, two P-40, one Beaufighter, one A-20, one B-25C1, and one unmodified B-25.⁸²

Of less immediate importance was the organization of a troop carrier wing as a headquarters intended for operation on the same echelon as the fighter and bomber commands. The War Department authorized the wing, in response to a request from General MacArthur, "to insure proper coordination of increased air transport activities," and it had been constituted as early as 26 February.⁸³ But the Headquarters and Headquarters Squadron, activated on 13 March, consisted at first of only one officer and one enlisted man with no more to do than keep a morning report. On 3 May the organization was moved from Brisbane to Port Moresby, "less personnel and equipment," where, on 20 May, eight officers under the command of Col. Paul H. Prentiss, former commander of the 374th Troop Carrier Group, were assigned to it. For the next three months the wing had only one group, the 374th, assigned to it, and Colonel Prentiss' entire staff, with one or two exceptions, was taken from that group. Thus the organization functioned for

the time being merely "as an added channel, in A-3, for operational orders from Fifth Air Force."⁸⁴

Kenney had been promised a total of three and a half troop carrier groups, and he foresaw a rapidly increasing burden of work for them. Of first importance was the supplying of Dobodura, where Japanese air attacks were creating "a constantly decreasing enthusiasm on the part of the shipping people and the Navy about running supplies even as far north as Oro Bay."⁸⁵ The transport planes still carried a heavy responsibility for the supply also of the Australian troops in the Wau area; a road had been under construction since February to connect the Lakekamu River with Wau, but it would not be complete until late August.⁸⁶ And these current activities, in Kenney's opinion, were little more than preliminary to a major role to be played by the troop carriers in the planned seizure of Lae.

In plans for the reduction of Lae and the expulsion of the enemy from other positions on the Huon Gulf, the Kanga Force at Wau had its own vital part to play. From its inland base, it would infiltrate enemy positions around Mubo and keep the Japanese sufficiently engaged to prevent their withdrawal of forces to oppose amphibious attacks along the coast.⁸⁷ The task thus assigned of keeping the enemy busy was already a familiar one, and in the continuing contest some of the Australians had reached a village within five miles of Salamaua by 5 May. In this grubbing advance, the Diggers depended heavily upon air drops for supply and upon air support in lieu of artillery. An air support party maintained headquarters near that of the Australian 17 Brigade, where operational plans could be agreed upon. Requests for air attacks were dispatched to Port Moresby, where General Whitehead either sent out the desired mission or relayed the request to the First Air Task Force. Targets were located by smoke shells or by use of a grid system based on aerial photographs.⁸⁸

Already, too, preliminary advances had been made along the coast. In mid-March a battalion of the 162d Combat Team of the 41st Infantry Division had moved from the Buna-Gona area toward the mouth of the Mambare River in accordance with a plan to deny the use of that area to the Japanese.⁸⁹ It had little more than reached this point when intelligence was received which indicated that the enemy had withdrawn to points north of Morobe, some seventy-five miles farther up the coast. This Japanese withdrawal invited a further Allied advance into the harbor at Morobe itself and to the airstrip at Dona, a few

miles to the south and suitable for emergency landings and for regular use by liaison planes. Accordingly, the MacKechnie Force, consisting principally of the 1st Battalion of the 162d Regiment, was activated on 28 March and specifically directed to secure these points. It began its move on 31 March, landed at the mouth of the Waria River and at Dona, and on 3 April other elements splashed ashore in Morobe harbor. Three days later Col. Archibald R. MacKechnie, the commander from whom the force received its designation, reported that his men were in control of the harbor, that he was preparing to maintain the Dona airstrip as an emergency landing field, and that patrols had found no signs of the enemy south of Mai Ama, ten miles northwest of Morobe harbor.⁹⁰

Although this important advance, which brought American forces within seventy-five miles of Salamaua, had been accomplished against little or no enemy opposition, the increasing number of air attacks on advanced Allied bases demonstrated the growing concern of the Japanese. A series of heavy Japanese raids began on 9 March, when Wau was hit with little effect by approximately twenty-six bombers and twenty-one fighters. Two days later an equally heavy force bombed Horanda airdrome at Dobodura, killing two enlisted men and destroying three aircraft on the ground. Allied interceptors claimed at least nine of the enemy planes, with the loss of one American P-40. Again at Oro Bay, fifteen more bombers damaged installations during the night of the 14th. Three days later eighteen bombers escorted by thirty-two fighters bombed Porlock Harbor. But the most destructive raid of the month occurred on the 28th, when some forty bombers escorted by a large formation of fighters once more struck at Oro Bay. The local fighter sector picked up a large enemy plot and sounded the red alert at 1113. Thirty-one American fighters took off and destroyed six Hampfs, five Zekes, and two Vals. One P-40 and its pilot were lost, and enemy bombs crashed into a new wharf, sank two small ships, and killed several men.⁹¹

There followed a brief lull in enemy activity over New Guinea as the Japanese directed their attention to the Solomons. But intelligence, pointing to the greatest air strength ever assembled by the enemy in the Southwest Pacific, warned of new attacks.⁹² Some of this strength, it was soon made evident, was intended for use against Guadalcanal, but on 11 April "45 enemy dive bombers and fighters" were intercepted off Oro Bay by fifty P-40's and P-38's. Seventeen of the enemy planes

were shot down, but the bombers had scored two direct hits on a 2,000-ton Allied merchant vessel and other hits on a corvette and a small supply ship.⁹³ On the next day an even larger enemy force raided Port Moresby. There was adequate warning from the fighter sector, and our planes claimed fifteen enemy bombers and nine or ten fighters at a cost of two American fighters, but the Japanese in Port Moresby's 106th air raid scored heavily on ground targets. Parked aircraft, inadequately protected by revetments, suffered severely. One Beaufighter and three B-25's were destroyed and fifteen other aircraft were damaged, some of them badly. Bombs hit runways on Wards, Berry, and Schwimmer airdromes, and set fire to a fuel dump at Kila. Australian and American personnel working at the dump were burned to death, their screams a nerve-shattering experience for those who squatted within earshot in rain-filled slit trenches.⁹⁴

After one more heavy but ineffective raid against Milne Bay, this series of attacks came to an end. Allied intelligence, after assessing enemy strength in the entire northeastern area, reported a decline from 611 on 7 April to 466 on 4 May and cautiously hazarded the prophecy that this indicated a diminished threat of aerial attacks.⁹⁵ Certainly the tempo of Japanese attack for a time diminished. Fighter squadrons became almost bored in performing routine patrol duty, ground alert, and transport and bomber escort missions. At Dobodura, bingo parties were introduced and a loudspeaker system was rigged up so that enlisted men of the 49th Fighter Group could have "musical programs dished up with their chow." Farewell parties were held for the first large group of "49ers" to be returned to the United States after a year of combat. Early in May, 100 bags of Christmas cards and packages arrived just in time to help enliven a program put on by the enlisted men to commemorate Mother's Day. Storms proved more disturbing than Japanese raids. Tropical winds and rain rotted the tents, soaked beds, blew down trees, and seemingly stimulated the activity of tropical insects. At Moresby, too, there was a period of relative quiet in which the 35th Fighter Group celebrated "Over the Hump" week in honor of its first year of combat service in New Guinea.⁹⁶

But on 13 May a new series of attacks began with ineffective night raids. On the following day more than twenty bombers and twenty-five fighters hit Dobodura and destroyed a bitumen dump and a gasoline barge. Forty-three American fighters shot down at least seven bombers and nine fighters. One P-38 was lost, and its pilot was last seen

BATTLE OF THE BISMARCK SEA

swimming about twenty miles offshore in shark-infested waters. Meanwhile other enemy formations attacked Wau four times a week. Sallys and Bettys, generally protected by Zekes or Hamps, swept in over the mountains at such low altitudes that Allied signal units had little chance to give warning; at the same time Japanese pilots sabotaged the efforts of Allied controllers by maintaining a constant chatter on fighter radio frequencies. The heaviest raid occurred on 17 May, when twenty-five or more Bettys destroyed the headquarters, signal office, and operations office of the Australian 17 Brigade. The Japanese returned on the following day, and again three days later. In this last raid "they paid their own way." Twelve Moresby-based P-38's had taken off to escort a flight of C-47's toward Wau, but the controller immediately after the take-off switched their mission to a scramble over Salamaua. There they intercepted more than fifteen Oscars, Zekes, and Hamps. Seven of the Japanese fighters were shot down. No American planes were lost.⁹⁷

General Kenney's air forces lacked the strength to develop an all-out assault against the bases from which the enemy mounted these offensive efforts. Much of the heavy bomber strength had to be used to fly long, lonely reconnaissance flights. One squadron of B-24's based on Darwin provided much intelligence of enemy activity in the Netherlands East Indies. The heavies from Port Moresby, frequently "topping off" at Dobodura, patrolled the sea lanes in the Bismarck Sea; Moresby-based F-4's, P-38's converted for photography, continued to photograph New Guinea as far to the northwest as Wewak and most of New Britain, including Rabaul; and in May the longer-range F-5 began to reach Kavieng. B-25's also flew their share of noncombat missions. Indeed with a few notable exceptions, three medium bombardment squadrons were engaged entirely in short reconnaissance missions, anti-submarine patrol, and convoy escort during March, April, and May. This meant that the majority of combat missions had to be carried out by the one squadron equipped with the modified B-25, by an A-20 squadron, and by such heavy bombers as could be spared from reconnaissance. In addition, General Kenney could fall back upon the RAAF A-20, Beaufighter, and Beaufort squadrons.⁹⁸

Heavy bombers struck occasionally and in some force against Rabaul, more frequently and in the company of mediums against Gasmeta and Cape Gloucester. The sea lanes were scoured for Japanese convoys, but few ventured within range of a concentrated bombing

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force. Heavy bombers had some success, however, in attacking shipping at anchor.⁹⁹ The most sensational claims were made for a series of attacks against a convoy of some thirteen ships that had been tracked into the harbor of Kavieng in New Ireland. In a period of four days beginning on 1 April, twenty-one B-17's and nine B-24's harassed the ships at anchor, attacking from medium and low altitude. The greatest damage was claimed by B-17's skip-bombing from 75 to 250 feet. Hits were recorded on a merchant vessel, several destroyers, and two "probable" cruisers. The cruisers, in fact, were listed as sunk. A later evaluation, however, indicates that only a 5,854-ton passenger-cargo vessel actually went to the bottom without hope of salvage.¹⁰⁰

By the end of May, the groundwork for a major offensive had been laid. American troops of the 162d Regiment were securely ensconced on the coast at Morobe. Australian patrols with air support were gradually eliminating Japanese pockets of resistance between Wau and Salamaua. The air forces were maintaining the blockade of the coast from Finschhafen south and were keeping some pressure on Japanese bases. Best of all, from the AAF point of view, was the promise of early reinforcement.

CHAPTER 6

* * * * *

HUON GULF AND PENINSULA

BY THE summer of 1943—it was winter in Australia—plans had been completed for the inauguration of Operation CART-WHEEL, to use the code word for the projected offensives from New Guinea and the Solomons which were aimed ultimately at the reduction of Rabaul. These plans called immediately for a landing on Rendova Island near New Georgia by South Pacific forces* and for the occupation of Woodlark and Kiriwina Islands, near the southeast tip of New Guinea, and of Nassau Bay, some fifty miles up the New Guinea coast from Morobe harbor. These initial moves would be followed by the seizure of Lae (Salamaua being simultaneously by-passed and isolated) and by further steps to assure Allied control of the Huon Gulf and of the peninsula which bears the same name and which, with Cape Gloucester on New Britain, commands Vitiaz Strait. Meanwhile, as opportunity and available forces permitted, Admiral Halsey in the South Pacific would advance into the upper Solomons. Thus would the stage be set for the final reduction of Rabaul.

In the initial operations, South Pacific naval units would provide protection against the Japanese fleet out of Truk. They would reconnoiter an area above 1° N. and perform a similar service east of 155° E. and northeast of New Ireland and the Buka Passage. Southwest Pacific air and sea forces were to provide reconnaissance over the Solomons and the Bismarck Sea areas west of 155° E. and southwest of the Buka Passage and New Ireland.¹

In New Guinea, Australian troops operating from their base at Wau would seize Bobdubi Ridge, which dominated the Japanese supply line from Salamaua to Mubo. American troops landed at Nassau Bay would

* See below, pp. 219-21.

push inland and up the coast for a junction with the Australians near Mubo. Australian outposts farther north in the interior and notably at Bena Bena, northwest of Lae some 100 miles, would provide intelligence and interfere in all possible ways with the consolidation of enemy positions in the Markham and Ramu river valleys. The airstrip at Bena Bena, with which contact by air transport had been maintained over the preceding months, was considered to be of importance to future "air activity."²

Woodlark-Kiriwina-Nassau Bay

First on the schedule came Woodlark and Kiriwina. Neither of the islands had been occupied by the Japanese, and both were considered to be conveniently located for the development of useful airfields. Advance landing parties had gone ashore in May to investigate beaching conditions and to scout for airstrip sites. Curiously enough, these parties apparently made no contact with coast watchers and air warning units already located on the islands, with the result that only good luck saved embarrassing incidents when the landings occurred in June.³

Conferences between South and Southwest Pacific representatives at Brisbane in May had decided that forces for the occupation of Woodlark should be provided from the South Pacific. Kiriwina would be the responsibility of SWPA.⁴ Although the two operations would be undertaken without enemy opposition, they constituted nevertheless an important experiment with the techniques of an amphibious landing. The naval elements of MacArthur's command had been redesignated as the Seventh Fleet on 19 February 1943, and subsequently the Seventh Amphibious Force had come into existence, under Rear Adm. Daniel E. Barbey, for the control of such landing operations as these. The Woodlark Force had assembled at Townsville by 4 June to begin a short period of vigorous training. Units scheduled for the Kiriwina Task Force were in training at several different points and would not assemble at Milne Bay until 25 June.

Since no enemy would be met on either of the two islands, the air force had only to provide a fighter cover. Only at Nassau Bay would air support operations be required. Three RAAF squadrons, equipped respectively with P-40's, Beaufighters, and Hudsons, together with a squadron of P-39's sent over from Guadalcanal, took up station at Milne Bay, and one squadron of P-38's was put on alert at Port Moresby. A group of heavies received instructions to hit Rabaul as flying condi-

tions permitted, and other bomber units were alerted for emergency summons from air support parties going in at Nassau Bay.⁵

The landing at Kiriwina, though described by the Navy as "fouled up beyond repair," went off without serious incident on 30 June. At Woodlark a comparable force of some 2,500 troops moved ashore on the same day. Advanced engineering survey and construction parties had landed on the two islands on 23-24 June, however, to prepare for the arrival of the main parties.⁶ The garrison at Kiriwina was promptly doubled and an airstrip begun which was in operation by 18 July. The first plane had already landed on the strip at Woodlark two days earlier.⁷ With the recently completed Vivigai airfield on Goodenough Island, the new strips brought cover from the Southwest Pacific closer both to the Solomons and to New Britain.

The landing at Nassau Bay presented a different story. On 26 June the MacKechnie Force, somewhat more than a battalion in strength, commenced its movement by boat to a staging area at Mageri Point, fifteen miles northwest of Morobe. Three days later the outfit embarked for Nassau Bay. The maneuver had not been particularly well planned. Landing craft—twenty-eight LCV's, one damaged LCM, two Japanese barges, and three PT boats—sembled only the day before the initial move. Information on the character of the beach was limited, coming chiefly from a cursory reconnaissance by an Australian officer. Colonel MacKechnie's efforts to secure aerial photographs had met with little success; the one set received provided coverage for only half of the landing area and the number of copies was too few.⁸ The landing itself had to be made through a surf represented by natives as the worst they had ever seen. An Australian patrol, whose duty it was to mark the beach, arrived late, with the result that the first two waves were landed at the same time. The PT boats, comprising a third wave, failed to make shore at all, which perhaps was just as well, for the less than twenty landing craft that got in suffered serious damage from high seas. Fortunately, the 740 men aboard landed without loss of life, but mortars, radios, and much ammunition were lost. No artillery and only a few anti-aircraft guns could be brought to shore.⁹

The troops soon made contact with the enemy, but because of the lack of artillery and the loss of so many of the landing craft which had been counted on to bring up supplies, they hesitated to undertake an advance. Fear of Japanese air attack in these circumstances became the greater because of the loss of virtually all radio equipment upon which

liaison with the Fifth Air Force depended. Fortunately, the air support officer at Bulolo suggested that a telephone line be strung from his station to the beachhead, and by this means a precarious and roundabout communication was established. But the first request sent by the air liaison officer with the MacKechnie Force—a request on 30 June for fighter cover until the beach could be cleared—brought no planes, although several squadrons were not otherwise occupied. It would have been impossible to maintain constant cover over the beach, and perhaps the policy was to hold the fighters on the ground until hostile plots showed.¹⁰

The assigned missions of the Fifth Air Force during the week of the three landings had been held up by the miserable weather prevailing until the 30th. But it cleared sufficiently that day to permit eight B-17's and three B-24's to hit Vunakanau at Rabaul. During the following night, ten B-24's struck at Lakunai and Rapopo; Vunakanau and Rapopo were the targets for eleven B-17's and seven B-24's on 2 July; and all three airfields were bombed by thirteen B-24's a day later. One B-17 was lost in this four-day assault, in which almost 100 tons of bombs were dropped. In the same period, B-25's and A-20's carried out approximately seventy sorties against airfields and supply points in the Lae-Salamaua area. On 1 July, six A-20's bombed and strafed the ground troops confronting the American infantry at Nassau Bay.¹¹ These several missions apparently had some effect on the enemy's capacity to interfere with the landings, although it is evident that he elected to direct most of his available strength against Halsey's landing operations in the Solomons.*

The first Jap attack on the Nassau Bay beachhead did not occur until 2 July, when ten medium bombers made a series of bombing and strafing runs over the Allied positions. These raids were not intercepted, but on the following day fourteen P-40's, returning to Dobo-dura after a routine escort mission, surprised six or eight bombers, escorted by Zekes, in an attack at Nassau Bay. Having changed their course, the flyers dropped belly tanks and proceeded to shoot down five Japanese planes, a victory suitably celebrated a day later with "jungle juice" on an otherwise quiet Fourth of July.¹²

Other obstacles, rather than air attack, kept the Americans at Nassau Bay from immediately advancing inland to join the Australians. The force at first felt some uncertainty as to the source from which it took

* See below, pp. 222-29.

its commands; the troops were inexperienced and excitable; above all, the supply line remained unreliable.¹³ In the absence of landing craft for seaborne supply and lacking men and construction machinery for road building, the ground forces became almost entirely dependent upon air transport for their food and munitions. Never a completely satisfactory expedient, the supply drops at first brought keen disappointment when only B rations, which required cooking, were dropped for troops who had no cooking facilities. In one instance supplies were dropped according to instructions at a point where there were no troops. Although some of these supplies were later salvaged, much of the food had to be cleared away and buried. Improvement soon came, however, and the troop carrier units took increasing pride in their "biscuit bombing."* When rations and ammunition miscarried, the transports would return with replacements again and again so long as weather and visibility permitted.¹⁴

Fed and in no small part equipped by air, the troops on the ground gradually pushed forward toward Salamaua. By 13 July elements of the 162d Regiment had joined the Australians, a junction leading to the early capture of the Japanese base at Mubo, after enemy positions in the area had been worked over on 13 July by more than forty B-25's and approximately a dozen heavy bombers in an exhibition of "faultless" bombing which permitted the capture to be made without casualty.¹⁵ Meanwhile, American troops moving up the coast reached Tambu Bay on 20 July to join an amphibious force landing the same day to secure a position for the Allies no more than five miles from Salamaua. Within a week American field artillery was firing shells into Salamaua itself.¹⁶

During these advances the Allied Air Forces had worked in close cooperation with the ground troops. In addition to the troop carrier missions, fighters and bombers were carrying out an unprecedented number of offensive and defensive sorties. The fighters not only stood through many hours on ground alert but went out often on patrol and escort and "scrambled" to meet alarms. These alarms became more frequent in July, when Japanese aircraft made sorties over Allied positions, chiefly in the Bena Bena and Salamaua areas, on at least eleven days. The fighters claimed no less than fifty-eight Japanese fighters and four bombers destroyed against a loss of six of their own planes.¹⁷ Enemy thrusts were countered also by stepped-up bomber activity.

* By late 1943 the percentage of food packages recovered had risen from 50 per cent prevailing during the Papuan campaign to 85 and even 90 per cent.

After 5 July, the bombers visited the Lae-Salamaua area almost every day. Weather blocked out the objectives on only two full days, and the month's totals included approximately 400 B-25, 100 B-24, 45 RAAF Boston, 35 A-20, 30 B-17, and 7 B-26 sorties.¹⁸ Intelligence, confirmed by aerial photography, having indicated that supplies collected at Madang were being sent overland to troops in the south, three heavy raids were laid on that target between 20 and 23 July. In these missions, B-25's accomplished "the deepest penetration by attack bombers into enemy territory" made to date, ringing up a total of from 100 to 120 sorties in the company of heavy bombers. The heavies themselves dropped more than sixty tons of bombs on buildings and installations.¹⁹

Although most of the attacks on shipping during this period were limited to interference with the enemy's barge traffic, the most successful attack against war vessels since the Bismarck Sea victory occurred on 28 and 29 July. On 28 July, fifteen B-25's pounced on two destroyers previously reported in the Bismarck Sea northwest of Cape Gloucester. They swept in at mast height, strafing with their forward firepower, and dropped 100 delayed-action bombs, with fourteen hits claimed. On the following day, the same number of planes returned to find one destroyer beached, and they bombed and strafed it until it exploded. The definite destruction of both destroyers—the *Ariake* and the *Mikatsuki*—has subsequently been confirmed by Japanese sources.²⁰

Though these July operations compared in scale and effectiveness more than favorably with any supporting operations theretofore undertaken by the Fifth Air Force, they marked no more than the beginning of the effort that would be required in support of the final conquest of Lae. Among the tasks that lay ahead, special significance attached to plans for taking out the opposing air force. Wewak, 200 miles above Madang, had been built into the enemy's major air base on New Guinea. For a time yet the Japanese would continue to direct their main air effort down into the Solomons,²¹ but they transferred some 200 army planes to Wewak during June and July and would move the headquarters of the Fourth Army Air Force there from Rabaul in August.²² As Allied intelligence clearly indicated, stiff fighting lay ahead and for this, fortunately, new strength was becoming available.

The Build-up of Forces

Kenney had been promised in March that he would receive during the summer two new fighter groups, an additional heavy group, an-

other medium group, another light group, and an observation group, in addition to a substantial increase of his transport fleet.*

Personnel of the 348th Fighter Group reached Australia on 14 June. Its P-47's began to arrive in the same month, and by the end of July its three squadrons had made the 1,200-mile flight from Brisbane to Port Moresby.²³ The 475th Group, activated in May and destined to become the first all P-38 group in the theater, was not ready for combat until mid-August. Its cadre, drawn from New Guinea, had reported on 17 June, "shivering in the winter chill of Australia." Within three weeks "fillers" had arrived from the United States, and at the close of July the unit moved up to Dobodura, the ground echelon first and the air echelon as the equipment became available. June and July had brought with them a total of 115 P-38's, which were pushed through the Eagle Farm assembly line at Brisbane in time to put all three squadrons of the new group into operation by 15 August.²⁴

Offensive fighter strength had thus been greatly increased, and this increase was almost matched by new bombardment strength. B-24's and B-25's had been reaching Australia in large numbers since April, and in mid-July the new 380th Bombardment Group (H) went into operations from Darwin. For several months past, the 319th Squadron of the 90th Group had been covering the Netherlands East Indies from Darwin, striking sharp blows against such targets as Amboina, Koe-pang, and even distant Makassar and Kendari in the Celebes. As the 380th Group took over, it gave warning to the enemy of still more distant penetrations by striking Soerabaja with six B-24's in a bombing mission which required fourteen hours of continuous flying by the crews to cover both ways the 1,200-mile distance from Darwin.²⁵

The most sensational of the early raids carried out by this group, in view of the planes and techniques available at that time, was that of 13 August against strategic Balikpapan on the island of Borneo. At 1730, eleven B-24's carrying 69 x 500-pound bombs took off from Darwin and headed out across the Timor Sea in cloudy and turbulent weather. One aircraft was forced to turn back and another failed to find the target, but between midnight and 0145, nine planes hovered over the oil refineries, tanks, and harbor installations, dropped their bombs from between 5,000 and 8,500 feet, and claimed forty-eight "hits." As the last plane turned for the long flight back to the base, two refinery areas and one medium-sized vessel were afire and seven large

* See above, pp. 151-52.

oil tanks were exploding. In just under seventeen hours from the take-off, eight of the nine aircraft had returned. The ninth, short of fuel, had crash-landed, but all crew members were safe.²⁶ Darwin-based aircraft (Australian Beaufighters, Hudsons, and Spitfires, for the most part, with a Dutch squadron of B-25's and the American B-24's) continued to maintain a necessary vigil over the enemy's NEI bases and the approaches to Torres Strait.²⁷ In addition to securing intelligence of enemy dispositions, the missions served a useful diversionary purpose as Allied forces gathered their strength for the attack on Lae.

In July, too, the recently arrived 345th Bombardment Group (M), equipped with B-25's, entered combat from its base at Port Moresby. Two additional medium squadrons had been activated in April for the understrength 38th Group, but these units would not be ready for combat until October.²⁸ The delay, no doubt, traced in part to a continuing debate over the B-25 plane to be provided for the Southwest Pacific. Kenney had doubts about the new B-25G, equipped with a 75-mm. gun in the nose, but finally agreed to take sixty-three of them on the understanding that he could modify them if necessary.²⁹ For replacements, he planned to use the still newer models H and J, the first for his strafing units and the latter for straight bombing; accordingly, he received with concern information during the summer that an early design of the B-25H, which had included eight forward-firing .50-cal. machine guns, was to be modified by eliminating the place for a co-pilot and two guns to make provision for a cabin heater.³⁰ Kenney had no need for a heater in planes which rarely fought above 1,000 feet, and he considered the co-pilot, who acted as bombardier and camera man and often had to take over from a wounded or dead pilot, as indispensable in low-level attacks. Once again the problem at AAF Headquarters was to square the general needs in most theaters with the peculiar requirements of one, and to do this without sacrifice of the advantages of mass production.³¹

When the first B-25G arrived in July, Lt. Col. Paul I. Gunn put it through a variety of tests against Japanese targets. He was pleased with the accuracy of the 75-mm. cannon, but he recommended the addition of four forward-firing machine guns.³² The first attempt to attach the guns failed; after 300 to 400 rounds had been fired, the "skin began to ripple and tear loose at the bomb bay, the leading edge of the wing cracked between nacelles and fuselage," and the blast obviously affected the adjacent primary structure. But the 4th Air Depot Group

at Townsville solved the problem of altering the fuselage in order to "beef" the structure at critical points. The work required the addition of ninety-seven separate items, fifty-two of which were fabricated at Townsville.³³ Between 25 September and 8 October the depot satisfactorily modified thirty-eight of the planes.

Delay in the delivery of A-20's had also made it necessary to continue the use of B-25's by the 3d Bombardment Group (L). Production had fallen behind anticipated goals, and lend-lease commitments to Russia held a high-priority claim on available A-20's. The prospect for a full A-20 group in the Southwest Pacific had to be postponed to December, or even January 1944.³⁴

Fortunately, the promised troop carriers came through approximately on schedule. During the first week of July the air echelons of four new squadrons reached Moresby, and two more squadrons soon followed. By September still another group had joined the Fifth Air Force to give the 54th Troop Carrier Wing a total now of fourteen squadrons, four of which were assigned for operations to the First Air Task Force.³⁵

The arrival of new units, however, did not solve the continuing problem of replacements, both of aircraft and of personnel. At this time in all combat areas many units still operated at reduced strength, and the general policy, expressed in June 1943, was to bring these units to full strength only after airplanes and crews became available "in suitable numbers to man and sustain all units of the current Army Air Forces program at reduced T/O strength." For active theaters, it was planned to provide each month replacement personnel up to 15 per cent of reduced T/O strength³⁶—a policy tied to a table of priorities which in August placed the Fifth Air Force next after the Eighth. Specific promises to Kenney in June had been to provide two heavy bombardment groups with unit strength of forty-eight aircraft, a third with unit strength of thirty-five, and a 50 per cent reserve for all; in medium, light, and fighter bombardment groups, a unit strength of fifty-seven with a 50 per cent reserve; for fighter groups, a unit strength of seventy-five with 50 per cent reserve; and for troop carrier groups, unit strength of fifty-two plus a 15 per cent reserve.³⁷

The War Department in May had fixed the level of bombers to be maintained in the Southwest Pacific at 197, noting at the time a shortage of 55 and promising to make up the deficit by 1 July. During May and June, 41 B-24's came in and five were lost. Early in July, 65 heavy

bombers were on the point of departure from the United States, but realization of the goal of 197 was now set for 15 August.³⁸ General Kenney's warning that two months' attrition would alter original estimates, that his B-17's by September would be fewer than twelve (less than enough for a squadron), and that they should be replaced by B-24's brought assurance that sufficient aircraft would be "in pipeline" to maintain actual strength at 197 bombers. But by 1 August the date again had been pushed back, this time to 15 September.³⁹

For five fighter groups, Brig. Gen. Paul B. Wurtsmith had 565 aircraft at the end of July and 598 as August closed. In other words, he had on paper the allotted unit strength plus a 50 per cent reserve, but the totals included 70 P-39's, 30 P-400's, and 118 P-40's. In these categories, more than half the planes were in depot, and few of the remainder could be depended upon for combat. John N. Gibson, technical representative of Bell Aircraft, had reported to General Kenney on 4 July that his P-39's and P-400's had averaged approximately 300 hours of combat flying. Paul V. McNamara of Curtiss Wright rendered a similar report on the P-40's, declaring they had "anywhere from three to five hundred operational hours on them, which is equivalent to about two thousand normal operating hours."⁴⁰ To Arnold, Kenney himself wrote: "With the possible exception of Chennault, I do not believe anyone else is flying stuff as old and worn out as these youngsters out here are. . . . Every time I visit an outfit I have to listen to the same old question: 'How much longer do we have to push these old crocks around?'"⁴¹

The problem of replacement personnel was no less important in Kenney's mind. In June he estimated that within three months he would require 650 combat crew members per month, an estimate based partly on his belief that "everybody who puts in three hundred combat hours should be sent home." He assumed that in his three heavy groups seven crews a month would be lost, twelve would reach the limit of 300 combat hours, and three would be counted out because of wounds, sickness, or war weariness before the 300-hour mark had been reached. In like manner, he calculated a total of twenty crews needed for the four medium groups and fifty-eight pilots for five fighter groups.⁴² Since these figures agreed almost exactly with planned replacements of 15 per cent per month, they were accepted by the War Department.⁴³

But again there were limits which forced reconsideration. In June all air forces had been informed that OTU personnel scheduled for new

units after July would be diverted to replacement crews only insofar as it was necessary to bring crew strength to two and a half crews for each heavy and medium bomber and to two crews for each light bomber, fighter, and transport plane. It was only a few days, however, before General Arnold had to inform his air commanders in the field that this could be done only at the cost of turning out no additional combat units between 15 August and January 1944. In facing "one of the most serious decisions that we have had to make," he asked for carefully considered recommendations as to the replacements that would be required.⁴⁴ Kenney requested two crews per airplane for all tactical units, with a minimum of 15 per cent a month replacement. He got the promise of this last for the coming year except for troop carrier units, which would receive a replacement flow of no more than 7.5 per cent, but any increase in combat crews beyond one for each aircraft would have to be accomplished within the replacement limits thus set.⁴⁵

Kenney protested especially over the limit placed on troop carrier replacements. To General Arnold he wrote:

In the case of troop carriers, I figure I can get five hundred hours of New Guinea operation out of them. It is asking a lot, for the figures show that between weather and Nips a man lives longer in a P-39 than he does in a C-47 flying the troop carrier supply runs in New Guinea. These kids get a hundred hours a month, so that if I replace them at the five hundred hour mark I will need twenty per cent per month for that reason alone, instead of the seven and one half per cent your staff has promised me. The replacement rate per month for troop carriers should be twenty five per cent. The troop carrier group working between Australia and New Guinea is averaging over one hundred hours per month per crew. The great part of their haul is over the 750 mile over water hop from Townsville to Moresby on schedule—which they keep regardless of weather. I don't know how much of the grind they can take but with a replacement rate of seven and one half per cent I cannot think of sending them home before fifteen hundred hours.⁴⁶

And the appeal on this and other points paid off. By 17 August it had been decided that it would be "possible to furnish sufficient replacement crews in excess of the 15 per cent during the months of January and February 1944 to bring the heavy units in the Fifth Air Force to a status of two crews per UE [Unit Equipment] airplane," that fifty-six medium bombardment crews in addition to the authorized flow could be dispatched immediately, and that Kenney's requests for troop carriers would be met.⁴⁷ Arnold emphasized that the action constituted an exception to established policy.⁴⁸ To facilitate the training and indoctrination of newly arriving crews, the Fifth Air Force had established

at Charters Towers the preceding February a replacement center which soon developed into a training school.⁴⁹

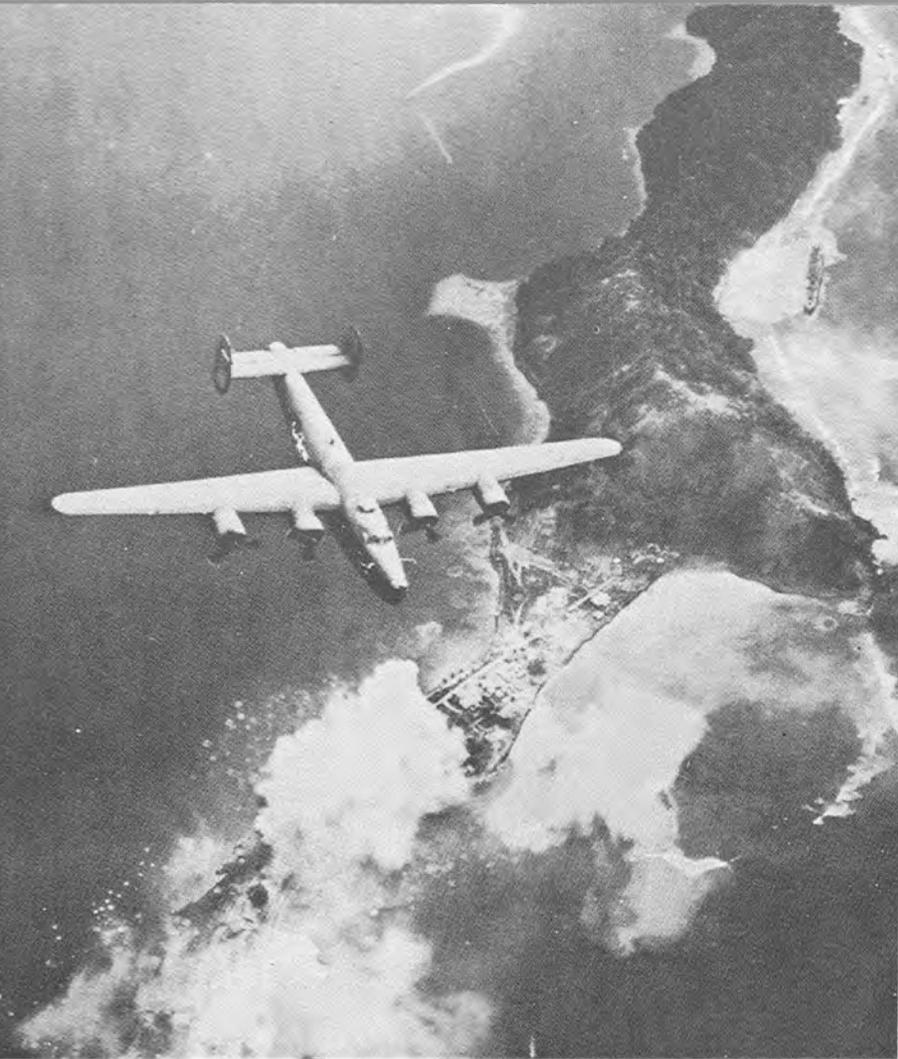
Other problems engaging Kenney's attention during the summer included the development of more deadly munitions. For some time his engineers had been searching for a fuze that would detonate standard bombs at determined altitudes above the ground, but with inconclusive results.⁵⁰ He informed Arnold in September, however, that he had a "college professor down in Sydney" whose efforts promised that the Fifth Air Force might do greater damage to planes on enemy airfields and particularly to those parked in revetments.⁵¹

The current AAF attempt to extend the range of its fighters included the development by the Fifth Air Force of a belly tank for the P-47. Kenney wrote Arnold that the early P-47 models had less range than the P-40 and warned that the "engineers back home" were developing planes with no more range than was needed "to defend London or to make a fighter sweep across a ditch no bigger than Chesapeake Bay."⁵² Early in July, the depot at Port Moresby received a rush order to convert the 110-gallon tank used on P-39's and P-40's for use on the P-47, and the depot by dint of much hard work and some improvisation soon achieved a rate of seven installations per day.⁵³ Meanwhile, at Brisbane engineers had developed by August a suitable tank of 200-gallon capacity. Manufactured in Australia, it became standard equipment in the Southwest Pacific.⁵⁴

Lae-Salamaua-Nadzab

By mid-August the time had come for the inauguration of an air offensive preliminary to the seizure of Lae. The primary task, of course, was to take out the enemy's air force, and for this purpose his airdromes at Wewak became the target of prime importance. A new advanced base had been developed at Tsili Tsili to bring Wewak within the range of escorting fighters and to provide refueling facilities for medium bombers. A Second Air Task Force for the forward control of operations had also been established on the pattern of the task force previously organized at Dobodura.⁵⁵

The location of Tsili Tsili as a potential Allied base had been the work largely of Lt. Everette E. Frazier, an aviation engineer who had been transferred from his battalion to the Fifth Air Force for this purpose back in May.⁵⁶ With orders "to locate one operational or staging fighter drome forward of Wau," Frazier had been flown to Bulolo,



Left: SALAMAUA

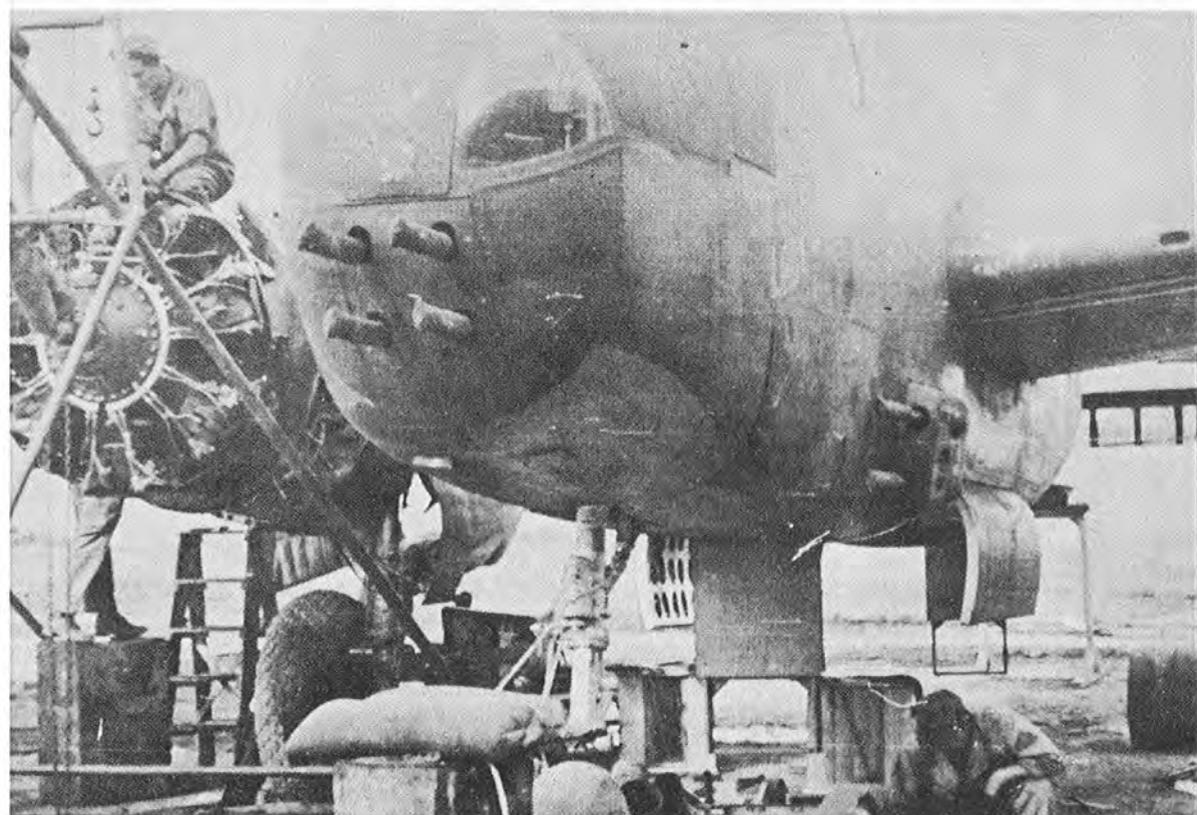
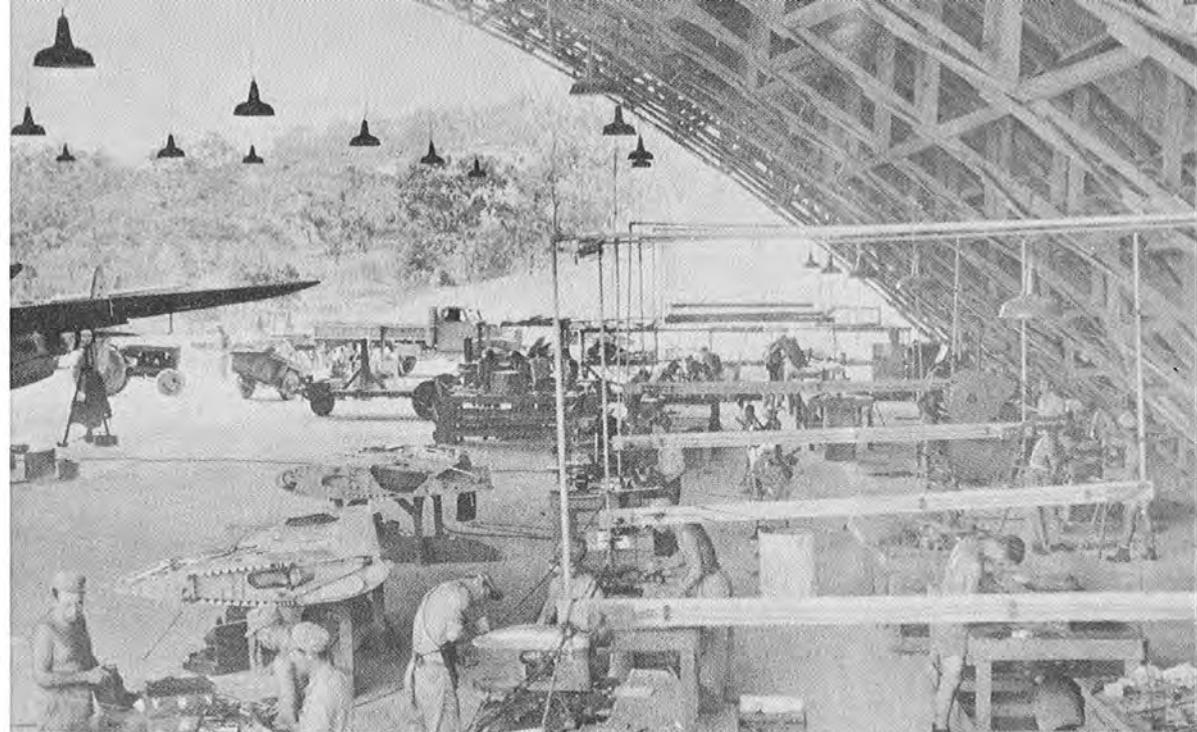
ENEMY BASES UNDER ATTACK



Right: WEV



NADZAB: PARATROOP LANDING, 5 SEPTEMBER 1943



FIFTH AIR FORCE MAINTENANCE

Above: SHEET METAL SHOP, PORT MORESBY

Below: B-25 "STRAFER"



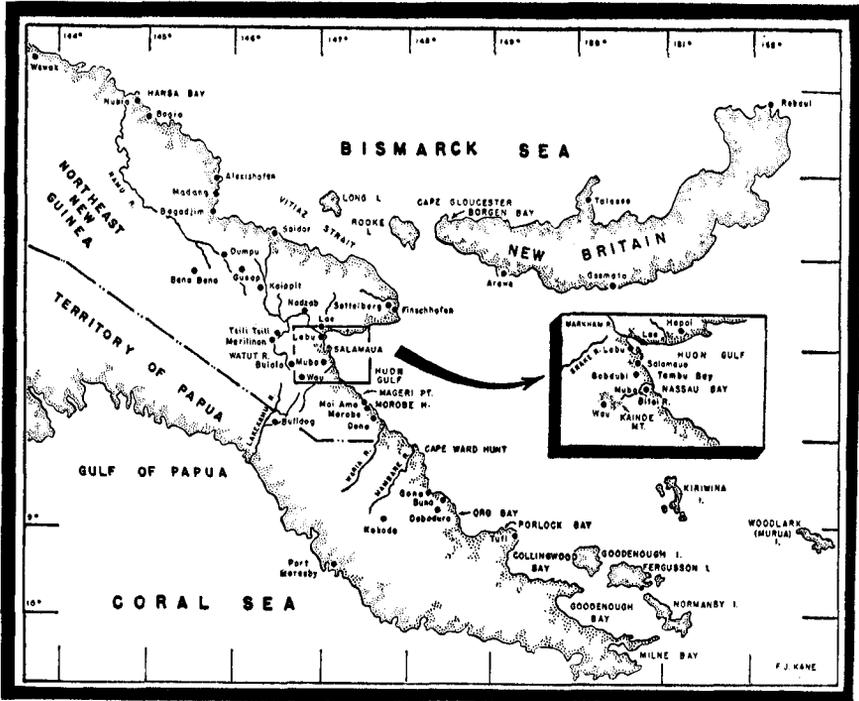
NEW GUINEA MANPOWER

Above: AS TRACTOR

Below: AS STEAMROLLER

HUON GULF AND PENINSULA

then the headquarters of the 3 Australian Division. He first penetrated enemy territory by foot almost to Salamaua without finding a suitable field. A new trek, made in the company of an Australian officer and several natives, took him through the densest jungle and rain forests to Marilinan on the Watut River, almost fifty miles west of Lae. An old



HUON GULF AREA

field at this point, though blocked at one end by a mountain, could take transport planes and, with their help in the provision of engineering equipment, could be improved for the use of fighters. The local Australian administrative officer undertook at once, with native help, to clear the field and provide camouflage. Plans to pick up Frazier by plane miscarried, and on 9 June he set out on foot for Wau, where C-47's took off regularly for Port Moresby. One week later, he reached ADVON Fifth Air Force and promptly went into conference with General Kenney and a number of his top advisers.

The question was whether Marilinan met the requirement for an advanced base in the coming operations, and Frazier had to report that it

would do only until the heavy September rains began. Then all equipment would have to be evacuated or else abandoned until the rainy season had ended. But it could be anticipated that by that time the Allied advance, plans for which included a movement up the Markham River valley, would have reached Nadzab, a site already selected on the advice of Australians familiar with New Guinea as ideal for a permanent air base. The schedule would be tight, but it was believed that preparations could be completed at Nadzab in time to make the transfer before the rains made the move from Marilinan impossible. Accordingly, it was decided that Marilinan would serve as an interim base with forward activities to be transferred as quickly as possible to Nadzab. General Wurtsmith then flew to Marilinan, where it was decided in conference with other officers of the bomber and fighter commands that an old strip at near-by Tsili Tsili would serve the purpose better.

The job of making ready the field at Tsili Tsili fell to Col. Ward T. Abbott, air engineer for the Fifth Air Force, who fortunately could count upon the ever dependable C-47's for indispensable help. By the first of July they could land at Tsili Tsili, and within the span of ten days they had brought in a company of airborne engineers equipped with specially designed miniature bulldozers, graders, carryalls, and grass cutters. Although somewhat inexperienced, this contingent had graded a 4,200-foot runway for transports and made a beginning on another that would extend to 7,000 feet on completion. For a ten-day period the weather interrupted movements intended to build the engineers up to a full battalion. Even so, when the weather cleared, sufficient progress had been made to permit the new base to handle as many as 150 C-47's a day.⁵⁷

Before the end of July the troop carriers had flown in an Australian infantry battalion to guard the land approaches to the new base and an American automatic weapons battery to provide anti-aircraft protection. On 1 August a fighter control squadron and a plotting platoon of the 565th Aircraft Warning Battalion made an uneventful flight across the Owen Stanleys. Two days later a quartermaster platoon arrived, to be joined within a few days by the 119th Quartermaster Bakery. By 11 August, a signal detachment sent forward to install communications for the Second Air Task Force (of which Lt. Col. Malcolm A. Moore assumed command on 5 August*), an air service squadron, and an airdrome squadron had also made the now almost

* He was replaced by Col. David W. Hutchison on 27 August.

routine flight to the new base. By the middle of August, a fighter control sector and radar sets had been established, forty miles of rubber cable had been dug in for local communications, a message center and radio station were in operation, and an ordnance dump and quartermaster supply room were serving the more than 3,000 troops already in the area.⁵⁸

As this story emphasizes, the Allied advance along the New Guinea coast depended upon much more than merely a series of amphibious jumps. Parallel with and at times in advance of the amphibious movements, the Allied command successfully executed a series of forward hops along a line some distance inland from the enemy's positions on the coast. Depending initially upon the daring and experience of small Australian forces, upon the knowledge and influence with the natives of some Australian administrative officer who had managed to keep beyond the reach of the Japanese, or upon such ventures as that of Lieutenant Frazier, these hops were made possible only by the speed and adaptability of the air transport plane. It was the C-47 which actually put forward the P-47 or P-38 and thus provided air cover for the ensuing amphibious movements.

By camouflage and clever flying of the troop carriers, the existence of the field at Tsili Tsili was hidden from the enemy for a time. The first attack on 15 August caught the troop carriers as they were flying in the ground echelons of the first fighter squadrons to be based at Tsili Tsili. One flight of the C-47's had just landed when twelve Sallys, escorted by an equal number of fighters and flying low enough to have avoided the Allied radar, roared in through mountain passes. Japanese shells riddled one airborne C-47 of the second flight and caused it to crash, killing all occupants; another transport vanished into the surrounding mountains and was never found. The remainder of the second flight turned back to Port Moresby, making their getaway by some skilful flying at treetop levels. Fortunately, the escorting P-39's engaged the attention of the Japanese fighters. When the fight was over, four P-39's had been lost, but three of the four pilots saved themselves and claims showed eleven Sallys and two or three of the fighter escort shot down.⁵⁹ Damage on the ground had been slight.

The Japanese followed through with another raid on the 16th, but P-47's and P-38's, which had been sent up that day on escort, knocked down approximately fifteen of the strafing fighters. Thereafter, enemy planes kept away. In fact, it became evident that the Japanese had de-

cided to conserve their strength. Except for the two attacks on Tsili Tsili, hostile raids during August were largely restricted to a few bombs dropped on Kiriwina and Woodlark Islands.⁶⁰

Meanwhile, the Allied Air Forces seemed to be studiously avoiding the rapidly developing base at Wewak. They hit at points in the Netherlands East Indies. They harassed enemy barge traffic. They bombed Gasmata and Madang. They dropped particularly heavy bomb loads in the vicinity of Salamaua—for example, 173 tons on 13 August.⁶¹ But they stayed away from Wewak, with its satellites at But, Dagua, and Boram, until Tsili Tsili had been sufficiently developed and stocked with fuel to provide a base for fighters and an emergency landing field for the assistance of medium bombers. It was also hoped that time would encourage the Japanese to build a fat target at Wewak.

Aerial photographs on 30 July had shown only nineteen light bombers on the airfield at But. Improvements on the drome, however, seemed to indicate its future use by heavy aircraft. Four days later, there were twenty fighters and several light and medium bombers at Wewak, eighteen light bombers and five fighters at But, and a total of fifty-six aircraft at Dagua. The build-up continued until on 13 August eight medium bombers, thirty-one light bombers, and sixty-nine fighters were counted at Boram and Wewak, and thirty-four mediums, thirty-four light bombers, and twenty-three fighters at But and Dagua.⁶² General Whitehead now had at his disposal two heavy groups with sixty-four bombers in commission and two medium groups with fifty-eight B-25's having a fuel capacity equal to the round trip from Port Moresby.⁶³ And on the afternoon of 16 August, final plans were made for the most decisive series of air strikes carried out by the Fifth Air Force since the Bismarck Sea action. Eight squadrons of heavies would open the assault with night attacks on the four Wewak airdromes. After this preliminary softening, five squadrons of B-25 strafers, covered by a strong fighter escort, would follow at minimum altitude to bomb and strafe every plane still on the ground.⁶⁴

Between 2 100 and midnight of 16 August, twelve B-17's and thirty-eight B-24's took off from Port Moresby. The weather was generally good, and all aircraft reached the target except for two B-24's which turned back because of mechanical difficulties. Shortly after midnight, the first heavy bombers crossed the target and from then until after 0300 the bombers divided their attention among the four Wewak dromes. Incendiaries carried by the leading planes were supposed to

light the targets, but the timing was off and the incendiaries and frag clusters fell together. Searchlights proved annoying, anti-aircraft fire was intense, and several night fighters attempted interception, but only three aircraft were lost and none apparently to the enemy fighters.⁸⁵ Results are difficult to determine. Photographs of Wewak, Boram, and Dagua, taken early on the following morning and prior to the subsequent attacks, showed "at least 18 unserviceable" aircraft out of some 204 counted. It was certain only that the heavies had accomplished their primary mission—to keep the Japanese aircraft grounded for the next attack.

Even while the pictures were being shot, three squadrons of B-25's made ready for the take-off at Dobodura and two more squadrons at Port Moresby. The Moresby-based planes, undertaking in their 500-mile flight to Wewak the deepest penetration by medium bombers into enemy-held New Guinea yet made, had trouble. Of the twenty-six B-25's taking off, only three reached the target. These three performed magnificently in their attack on Dagua. They scattered 105 x 23-pound parafrags which smashed at least seventeen aircraft on the ground, fired more than 5,000 rounds, and shot down one of fifteen intercepting Oscars, but the failure of the other planes to get through allowed But to go scot-free. Twenty-nine of the strafers from Dobodura (thirty-seven had taken off), however, dropped 786 parafrags and claimed 786 hits on Boram and Wewak. At Wewak, the 90th Squadron rather conservatively claimed about fifteen aircraft destroyed or damaged. The 8th Squadron announced that at Boram at least fifteen of forty to sixty aircraft had been totally destroyed and twenty-five to thirty left burning. The 13th Squadron, which had joined the 8th in the attack on Boram, reported that of seventy to eighty aircraft on the runway, "all [were] believed destroyed or severely damaged."⁸⁶

Except for one fighter attack, which the B-25's themselves broke up, Japanese resistance was limited to fairly heavy anti-aircraft fire. The heavy bombers which had preceded the mediums undoubtedly should be credited in part, but the Fifth Air Force had also sent with the mediums fighter escort on a scale theretofore unknown in the Southwest Pacific. All six P-38 squadrons participated; on the early morning of 17 August, 99 of the 127 fighters actually in commission took off from Dobodura and Moresby to form the escort. Of these planes, fourteen turned back because of mechanical difficulties. The remainder, with the comforting knowledge of adequate refueling facilities at Tsili

THE ARMY AIR FORCES IN WORLD WAR II

Tsili, completed what to them was an uneventful flight with "nil" interceptions.⁶⁷

On the 18th, Wewak was hit again, though the weather proved a bother. Only twenty-six of the forty-nine heavies that set out for this daylight attack reached the target, and their efforts were not particularly effective. The B-25's were more successful. Fifty-three of the sixty-two strafers taking off reached the target. Antiaircraft fire was heavy, and Japanese fighters savagely attacked the low-flying American planes. Ten to fifteen Zekes and Oscars intercepted a flight led by Maj. Ralph Cheli, an expert B-25 pilot. An Oscar riddled one B-25, but it returned safely to base. The same Oscar then attacked Cheli's plane and scored numerous hits. With flames bursting out of his right engine and wing, Cheli led his flight across Dagua drome, strafed a row of enemy aircraft, instructed his wingman to take over, and then crashed into the sea. Meanwhile, the American fighter cover of seventy-four P-38's had shot down fifteen enemy fighters, losing two of their own.⁶⁸

During the remainder of the month, the offensive continued. B-24's carried out 102 additional sorties, and B-25's added twenty-one against land targets in the Wewak area. With objectives there seriously battered, other heavy strikes were carried out against important enemy supply centers at Hansa Bay and Alexishafen.⁶⁹ From the first Wewak raid until the end of the month, American flyers ran up an impressive score: B-25 gunners claimed twenty-two enemy aircraft shot down for a loss of two Mitchells in combat and three from other causes; B-24 gunners claimed thirty-five enemy aircraft against three B-24's destroyed in combat and one in an accident; American fighters entered claims for sixty-nine enemy planes shot down. Six P-38's were lost in combat and three P-38's and four P-47's from other causes. Still larger were Allied claims of Japanese planes destroyed on the ground at Wewak: official scores showed over 200 aircraft destroyed. It is impossible to arrive at any definite conclusion as to the accuracy of this figure, and it was revised somewhat by the calculations of statisticians at AAF Headquarters. Their figure for the total number of aircraft destroyed on the ground in the Southwest Pacific Area during August is 175. In view of the fact that the largest total for any previous month was six, the record for August was impressive enough, even as revised.⁷⁰

Meanwhile, preparations for the assault on Lae went forward. American and Australian forces, since the enemy's repulse at Wau in the pre-

ceding February, had come within sight of Salamaua, and every effort was made to convince the enemy that its capture would be the next Allied objective.⁷¹ The ruse paid off, for postwar intelligence indicates that the main body of the Japanese 51st Division by September 1943 had taken positions at Salamaua with 500 naval troops for a total of 5,000 men. At Lae, the real objective, there were 2,500 men, not all of them effective.⁷²

The plan was to by-pass Salamaua, to seize Lae by a shore-to-shore amphibious movement, and to join this maneuver with an airborne landing for the capture of Nadzab, some fifteen to twenty miles inland on the Markham River.⁷³ Nadzab offered a flat, grass-covered area suitable for transport landings and well situated for the development of a major air base. When submitting his plan for the airborne operation on 16 July, General Blamey had added to the paratroop drop an overland march by a considerable force of Australians who would reach position across the Markham River from Nadzab in advance of the air drop. It was feared that the weather might interfere with an operation depending wholly upon the paratroopers. Simultaneously, the Seventh Amphibious Force would land the Australian 9 Division east of Lae near Hopoi village.⁷⁴ Blamey's recommendations served to provide the outline for the final plan.

The individual forces, however, were slow in supplying the necessary detailed information. Air and naval plans were dependent upon those of the Australian New Guinea Force, and these by the first week in August remained so nebulous that General Chamberlin, MacArthur's operations officer, feared that the New Guinea Force commander did not understand how complicated was the problem of logistics.⁷⁵ Having decided on a check of Blamey's preparations, General Sutherland at the same time urged Kenney to furnish meanwhile as much detail on general support missions as was possible.⁷⁶

General Kenney had already submitted a general plan for air operations, and further discussions tended to center around its proposal that protection for the amphibious force be provided by maintaining the fighters on ground alert.⁷⁷ The Navy wanted an "air umbrella" or, in other words, continuous coverage,⁷⁸ which Kenney argued the fighter command would not be able to provide because of an insufficient number of planes. In his reply to General Sutherland's request for information, however, he undertook "to place the maximum number of fighter aircraft in the Lae vicinity on a continuous wave basis,"

and he promised that reserve aircraft would be held on ground alert specifically in support of the Navy.⁷⁹ Although General MacArthur was inclined to accept Kenney's advice on this point, the Navy's persistence resulted in a further compromise which provided for a thirty-two-plane cover to be maintained as continuously as possible through daylight hours in addition to a constant ground alert.⁸⁰

There remained the problem of fighter control for the units thus assigned. Two Allied fighter control sectors existed on the north coast of New Guinea, one at Dobodura and the other at Tsili Tsili. But the radar coverage of the seas through which the convoy would proceed was far from complete. It was calculated, in fact, that Japanese aircraft from Wewak or Madang could fly behind the mountains toward Lae and others from New Britain could swing across Vitiaz Strait without being picked up until it was too late for an adequate warning.⁸¹ A suggestion by an RAAF wing commander that a destroyer be posted between Lae and Finschhafen for the purpose met with immediate approval. Accordingly, the destroyer *Reid*, which would serve also as a part of the antisubmarine patrol from Buna to Lae, received orders to take up its station at 45 miles southeast of Finschhafen.⁸² The controllers on the destroyer, equipped with radar and radio sets, were able to monitor the normal radio channels of the fighter sectors and thus to be apprised of warnings picked up by radar sets other than their own. In addition to the party on the destroyer and the control squadrons ashore, air liaison units were assigned to the landing forces.⁸³

As these forces assembled at the close of August for the attack on Lae, the air force initiated a series of heavy attacks on airfields, shipping, and supply points in both New Guinea and New Britain. On 1 September, twelve Beaufighters, twelve B-25's, and five B-26's struck at barges, fuel dumps, and other supply points along the southwestern coast of New Britain; on the same day, more than forty B-25's and approximately twenty B-24's started large fires in dumps at Alexis-hafen, an even larger force of B-24's attacked the Madang area, and six B-17's struck at Labu, a strategically situated warning point near Lae.⁸⁴ B-25's carried out a particularly effective low-level attack on the following day against Wewak. The strafers swept over the harbor at from 50 to 100 feet, under a cover of approximately forty P-38's. They directed twenty-nine 1,000-pound bombs against shipping in the harbor and sank at least two medium-sized vessels.⁸⁵ The bombers continued their attacks while the largest amphibious force yet to see action

in the Southwest Pacific gathered off Buna on 3 September. Gasmata, Borgen Bay, Cape Gloucester, and the Lae area were hit, and eleven RAAF Catalinas littered Vunakanau and Lakunai airdrome with bombs in an attempt to keep Rabaul-based planes on the ground.

In the early morning of 4 September, while this last operation was still in progress, the amphibious force neared its destination. The destroyer *Reid* turned to take up its position as an aircraft control ship off Finschhafen; and as the landing craft sought their assigned positions, Allied aircraft were taking off from Port Moresby, Dobodura, and Tsili Tsili to lend their support. Within a few minutes the men crouching in their landing craft watched the fighters sweep over the beaches in strafing and bombing attacks. Meanwhile, five destroyers poured their shells onto the beach area. By 0630 the first men of the Australian 9 Division had landed, and within four hours LCP's, LCI's, LCT's, and LST's had put ashore 7,800 men, together with vehicles, guns, and stores.⁸⁶ At 0705 three twin-engine bombers dived rapidly out of a cloud to attack the landing craft; one American later described the reaction of the men yet to be landed as:

first, indignation, then bewilderment, not fear, that came a little later. We fell to the deck along with the Aussies and watched tracers bounce around us. Then the Nips released their bombs, we watched them almost curiously . . . the bombs struck all about us, straddled our ship and one fell off the stern. A near miss on the LCI next to us blew a great hole in its port side and she broached. . . . Then it was all over; the bombers had flown off to the east with a pack of P-38's on their tails.

Three naval personnel were killed and nine wounded.⁸⁷ Except for this attack, enemy air interference was slight until afternoon. In a continuing attempt to neutralize Japanese airdromes, nine B-25's at 0800 bombed the Hopoi landing ground near the beaches. An hour later, two dozen B-24's dropped ninety-six tons of bombs on gun emplacements, trucks, and depots at the Lae airdrome. Gasmata and Cape Gloucester were also hit.⁸⁸

At 1400, as the ships offshore prepared to withdraw, the radar on the *Reid* picked up a large enemy formation approaching from a direction southwest of Gasmata and less than 100 miles away. One fighter squadron waited on its assigned patrol over Lae, while the *Reid* at one-minute intervals flashed grid references to the sector controls at Dobodura and Tsili Tsili. Fighter pilots taking off for interception carried with them grid maps which permitted them to plot the course as it continued to be signaled.⁸⁹ The enemy thus was intercepted by approxi-

mately forty P-38's and twenty P-47's. At a cost of one P-38, twenty Japanese planes were shot down, but other planes got through to attack the shipping off Lae.⁹⁰ Dive bombers caused superficial damage to two destroyers and scored a hit on an LST in which twenty-six Australians were wounded and one U.S. Navy officer and six seamen were killed. Twelve torpedo planes scored a hit on another LST, killing forty-two men and wounding thirty. Two of the torpedo planes were shot down by anti-aircraft fire.⁹¹

At the time of this attack, troops and supplies were still jammed on the beach. Had the bombs struck there, great damage might have resulted. But it was not until three hours later that a sharp attack by an unspecified number of planes fired an ammunition dump, killed two men, wounded twelve others, and damaged two beached LCIs. By this time, fortunately, the congestion on the beach had been somewhat relieved. Engineers had pushed something resembling a road through to Hopoi village, 400 yards inland, and priorities of travel from the beach to established positions there had been assigned.⁹²

With the action at Lae thus successfully launched on 4 September, and pretty well according to plan, attention then came to a focus on the Nadzab paratroop drop scheduled for the following day. The occupation of Nadzab, which lies northwest of Lae, would cut off the Japanese in the Lae-Salamaua area from their natural route of escape and give to the Allies control of the Markham River valley. Already an Australian pioneer battalion and a field company, having come down the Watut River from Tsili Tsili, waited almost within gunshot of the objective.⁹³

The 54th Troop Carrier Wing, charged with the transport of the paratroopers, went on alert at Port Moresby early in the morning of 5 September. Eighty-four of its C-47's warmed their engines and loaded the U.S. 503d Paratroop Regiment and associated Australian units for a drop onto the kunai-grass plains of Nadzab. At 0825, the first C-47 rolled down the runway. Within fifteen minutes three flights, totaling seventy-nine planes, were airborne. Over Thirty-Mile Air-drome, the unarmed transports met the first part of a fighter escort that would include, all told, 100 planes. The C-47's crossed the Owen Stanleys at 9,000 feet. Above Marilinan, they maneuvered into "6-plane elements in step-up right echelon, all three flights abreast," and dropped from 3,500 feet to between 400 and 500 feet. At 0948 the paratroopers

were alerted and twenty-one minutes later were given the red light. At 1022 the first paratrooper made his jump.⁹⁴

It would be difficult here to improve upon the description given by General Kenney as he wrote to Arnold two days later:

You already know by this time the news on the preliminary moves to take out Lae but I will tell you about the show on the 5th of September, when we took Nadzab with 1,700 paratroops and with General MacArthur in a B-17 over the area watching the show and jumping up and down like a kid. I was flying number two in the same flight with him and the operation really was a magnificent spectacle. I truly don't believe that another air force in the world today could have put this over as perfectly as the 5th Air Force did. Three hundred and two airplanes in all, taking off from eight different fields in the Moresby and Dobodura areas, made a rendezvous right on the nose over Marilinan, flying through clouds, passes in the mountains and over the top. Not a single squadron did any circling or stalling around but all slid into place like clockwork and proceeded on the final flight down the Watut Valley, turned to the right down the Markham and went directly to the target. Going north down the valley of the Watut from Marilinan, this was the picture: heading the parade at one thousand feet were six squadrons of B-25 straffers with the eight .50 cal. guns in the nose and sixty frag bombs in each bomb bay; immediately behind and about five hundred feet above were six A-20's flying in pairs—three pairs abreast—to lay smoke as the last frag bomb exploded. At about two thousand feet and directly behind the A-20's came ninety-six C-47's carrying paratroops, supplies and some artillery. The C-47's flew in three columns of three plane elements, each column carrying a battalion set up for a particular battalion dropping ground. On each side along the column of transports and about one thousand feet above them were the close cover fighters. Another group of fighters sat at seven thousand feet and up in the sun, staggered from fifteen to twenty thousand, was another group of C-47's [P-47's]. Following the transports came five B-17's, racks loaded with three hundred pound packages with parachutes, to be dropped to the paratroopers on call by panel signals as they needed them. This mobile supply unit stayed over Nadzab practically all day serving the paratroops below, dropping a total of fifteen tons of supplies in this manner. Following the echelon to the right and just behind the five supply B-17's was a group of twenty-four B-24's and four B-17's which left the column just before the junction of the Watut and the Markham to take out the Jap defensive position at Heath's Plantation, about half way between Nadzab and Lae. Five weather ships were used prior to and during the show along the route and over the passes to keep the units straight on weather to be encountered during their flights to the rendezvous. The brass hats flight of three B-17's above the centre of the transport column completed the set up.⁹⁵

By 1204 all transports had returned safely to Port Moresby. The paratroopers met with no resistance, and soon effected liaison with the Australians who had reached the area by crossing the Markham River in rubber boats and on a "folding boat bridge" as soon as the paratroop drop began. At the same time, a Papuan infantry company, which had also come overland, swung westward to cover approaches to Nadzab

from that direction. Within twenty-four hours the area was secured.⁹⁶

The development of the area into an air base began immediately. By 1840 on 5 September the grass had been burned off for an airstrip, and early on the morning of the 6th, it was ready to receive transport aircraft. That afternoon the troop carriers made their first landings, bringing in infantry of the Australian 7 Division, which had been previously transported to Tsili Tsili, engineer construction equipment, and an air liaison company to establish communications with cooperating air units. Within a week of the original paratroop drop, the engineers had completed two parallel strips with one dispersal loop, and by 14 September, Nadzab had acquired two parallel runways, each 6,000 feet long, and a dispersal area capable of handling thirty-six transports simultaneously. As early as 11 September, 333 plane loads had been shuttled in from Tsili Tsili and eighty-seven had come direct from more southerly bases. Ground organization permitted twenty-seven troop carrier planes to land, unload, and take off within forty-five minutes.⁹⁷

By this time, also, the ground campaign against Lae and Salamaua was rapidly and unexpectedly reaching its climax. Strong elements of the Australian 7 Division drove down the Markham valley toward Lae. The enemy offered resistance from prepared positions, but the Australian troops swiftly broke the positions and it was soon a race between 7 Division and the 9 Division advancing from the east to see which would reach Lae first. Meanwhile, the American and Australian forces outside of Salamaua were relentlessly closing in on that objective. On 11 September they had reached the airfield, and within a few hours it was under a final assault.⁹⁸ Two days later Salamaua was occupied, and on 16 September Lae, too, had fallen.

Finschhafen

The unexpectedly rapid conquest of Lae and Salamaua led to a hurried change of plans. Finschhafen, strategically located just above the Huon Gulf approximately sixty-four miles beyond Lae and destined for development as a staging area for future Allied advances and as a forward base for aircraft and light surface ships, had been originally scheduled for attack approximately four weeks after the fall of Lae. The weakness displayed by the Japanese in the general area, however, encouraged the officers of the Seventh Amphibious Force and of the Australian 1 Corps to suggest a possible acceleration of the timetable.

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On 20 September, accordingly, General MacArthur approved a plan which moved up the Finschhafen landing to the 22d.⁹⁹

There was just time to move the needed landing craft and destroyers up from Milne Bay to load the troops at Lae. While Allied bombers concentrated on Japanese airfields, supply dumps, and reinforcement routes leading from Madang to Finschhafen, the fighters covered the naval movement to Lae and the loading there.¹⁰⁰ During the night of 21/22 September the convoy moved east from Lae along the coast and rounded the tip of the Huon Peninsula. The landing was to take place at Scarlet Beach near the Song River. Although the place had been carefully chosen, the information on its characteristics available to the amphibious force left much to be desired. A small party had scouted the shore from 11 to 14 September, but Japanese activity in the area had thwarted efforts to obtain information. Useful photographs were lacking. Only one set of obliques was available to the Seventh Amphibious Force on 17 September, although special low obliques and verticals had previously been requested. Several sets of low verticals were taken and delivered during the night of 19 September, but they included only one corner of the beach and, according to the naval report, "were valueless for beach information."¹⁰¹

The landing, which occurred at 0445 on 22 September, was preceded by a sharp naval bombardment. Pre-invasion strafing of the beaches had been dispensed with, but long before dawn the air assault began against other points: B-24's and B-25's undertook to render the field at Cape Gloucester unserviceable; RAAF P-40's were sent against Gasmata; and A-20's and B-25's sought to hamper the movements of Japanese ground troops in the Finschhafen area itself.¹⁰² Meanwhile the Australians had consolidated the beachhead, broken through newly prepared positions near by, and were pushing forward toward the airstrip. An air liaison party had landed with the first waves, but at first there was little need for direct air cooperation. The landing was virtually unopposed, and within seven hours 5,300 troops and tons of supplies had been landed.¹⁰³

Shortly before noon the ships in the convoy weighed anchor and started back toward Buna. Less than an hour after the departure from the Finschhafen area, the fighter controller of the *Reid*, which served in the same capacity as at Lae, began to chart a formidable series of plots coming from New Britain and within less than seventy miles of the destroyers. Happily, the Japanese had chosen an inopportune

time, from their point of view, for an attack upon the convoy. At least three American fighter squadrons had been patrolling the Lae-Finschhafen area for several hours. They were scheduled for relief within a very few minutes, but still had sufficient fuel left for perhaps an hour of combat flying. The relieving squadrons, moreover, were just preparing to take off for patrol. Thus at least five squadrons were available for interception.¹⁰⁴ The controller crew on the *Reid* at once directed the five squadrons to positions above the convoy, and the Japanese planes, consisting of twenty to thirty bombers and thirty to forty fighters, flew unhesitatingly into the trap. In less than an hour the American fighters had shot down ten or more bombers and twenty-nine fighters. The destroyers' anti-aircraft, meanwhile, had knocked out nine of ten torpedo planes which had swept in at such a low altitude that the radar had failed to detect them. No damage was done to the Allied convoy in this attack, and out of three P-38's shot down at least one pilot was saved.¹⁰⁵

Finschhafen, meantime, had become the objective of a pincer operation. In addition to the Australians landed on Scarlet Beach, other Australian troops were working up from the earlier landings at Hopoi village. By 23 September the main force had captured one of the Finschhafen airstrips, and an air liaison party had established its radio set. The advance was still slow, however, since the Japanese had had time to establish strong ground positions south of the swiftly flowing Bumi River. Japanese air attack, too, occasionally hampered the advance. On 24 September, for example, nine enemy bombers bombed and strafed the air liaison party's headquarters. The radio set was knocked out, and three of the party, including Captain Ferrell, its commander, were killed.¹⁰⁶

But the scale of Japanese effort was insignificant when compared with that of the Fifth Air Force. Routine attacks were continued on airfields at Cape Gloucester and Gasmata and on communications in the Madang area, with the heaviest attacks, as in the previous month, reserved for air and shipping facilities at Wewak. For these missions, some of the fighters which provided the escort used servicing and refueling facilities at an advanced airfield approximately three miles from the much-bombed Australian post at Bena Bena. A service detachment had landed on that remote field, known as New Garoka, on 31 August. Within a few hours they had dispersed fuel drums, oxygen cylinders, and miscellaneous equipment around the strip. On 25 September, they

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were instructed to prepare immediately for servicing and refueling operations, and by 0830 of the following day the first planes had arrived. Within a short time forty-two fighters were being serviced on the strip.¹⁰⁷

A mission to Wewak run on 26 September had been no more than a preliminary to the big show on the 27th, when seventeen B-24's followed by almost one hundred B-25's swept over the Wewak airfields and harbor installations to drop more than 160 tons of bombs. Three B-25's were shot down by anti-aircraft, but the remainder created havoc among the tankers and merchant vessels in the harbor. At least one 2,000-ton cargo vessel was sunk. In the meantime, an overwhelming cover of 121 Allied fighters shot down eight of the twenty Japanese interceptors that ventured into the air. On 28 September, forty B-24's in a daylight attack dropped 150 tons of bombs on the main ammunition and fuel dumps, which were "considered destroyed."¹⁰⁸

The town of Finschhafen fell to the Australian veterans of the 9 Division on 2 October, ten days after the landing. The last days of the attack were marked by stiff enemy resistance that was overcome only by hand-to-hand fighting and by the close cooperation of air units.

But the capture of Finschhafen, though it placed Allied forces on the upper side of the Huon Peninsula, by no means ended the campaign for the Huon Gulf area. The enemy garrison had withdrawn, but it had not been annihilated; reinforcements were on the way to Madang; the Japanese were still able to replace destroyed aircraft; and even Wewak had been only temporarily neutralized. Much fighting lay ahead before the Markham and Ramu river valleys were under full control of the Allied forces, and much work would yet be required, even in the sections already seized, before the base facilities planned were brought to completion.

Already, Nadzab, planned since June as the home of the Second Air Task Force with eight runways and dispersal areas, was in a state of feverish activity. Seventeen days after the paratroop landing there, troop carrier planes had ferried in the first air service unit and others soon followed. On 5 October, the headquarters squadron of the 35th Fighter Group arrived from Tsili Tsili, theretofore home of the Second Air Task Force, and before the end of the month two squadrons of P-39's were providing a fighter defense; by mid-November, four air-dromes were in use. Living conditions at first were exceedingly primi-

tive, in part because of the need to depend for several months entirely on air transport for supply.¹⁰⁹

In the meantime, troop carrier planes were carrying the Australian 7 Division forward in the drive toward Kaiapit and Dumpu, considered as the logical advanced operating bases for the neutralizing of Wewak. The Australians had first planned an overland advance, but General Whitehead urged an airborne movement. Again Capt. Everette Frazier, who had shared in the choice of Tsili Tsili as an advanced operating base, was called upon to reconnoiter the Ramu valley. He landed in a cub plane on a "long-level burned off place" on the Leron River a few miles from Japanese-held Kaiapit. On 16 September Colonel Hutchison of the Second Air Task Force approved the site for troop carriers, and on the following day 250 Australians were ferried in to launch an assault on the enemy at Kaiapit. By 20 September, the Australians had rooted the Japanese out and were assisting Frazier in improving an old strip thus captured. The Kaiapit strip was soon capable of receiving transports with reinforcements, which included airborne engineers. Before the end of the month, these engineers had completed preliminary surveys for a 6,000-foot runway and fourteen miles of dispersals.¹¹⁰

Meanwhile, the Australians had continued their advance through the valley. Since they were completely dependent upon air transport for rations and supplies, engineering parties accompanied them to stake out strips where troop carrier planes could land. Before the end of the month the advance had progressed as far as the junction of the Gusap and Ramu rivers. The valley in this area seemed so admirably suited to airfield construction that Col. Murray C. Woodbury and Col. Donald R. Hutchinson, both of the newly organized Third Air Task Force, decided to limit the establishment at the swampy and malaria-ridden Kaiapit location and build the base for the Third Air Task Force at a point which they chose to call Gusap. This proved to be the most pleasant, in climate at least, of any of the advanced bases so far established in the Southwest Pacific. It was bounded entirely by jungle and mountains, with the Finisterre and Bismarck ranges on the north and the south rising at points to 14,000 feet. The prevailing winds ran parallel with the valley; the soil was well drained; and the Ramu River was wide, shallow, and swiftly flowing.¹¹¹

The plan now called for all-weather facilities at Gusap for two fighter groups and one medium bombardment group, together with

servicing facilities capable of handling 200 transports daily. Although the all-weather runway was not completed until January, after months of work on a 24-hour-a-day basis, four usable strips were speedily laid out by airborne engineers. The first service squadron arrived by troop carrier late in October, and a P-40 fighter squadron by the first of November. In the meantime a signal crew had effected a junction with the line already laid to the Leron River from Kaiapit, and on 7 November the 100-mile distance from Lae to Gusap was connected by cable.¹¹²

The new bases—Lae, Nadzab, Finschhafen, and Gusap—would bring Allied aircraft much closer to the critically important waters of Vitiāz Strait. The responsibility for base development at all, save Gusap, belonged to the U.S. Army Services of Supply, but the primary interest of the air forces was recognized by placing Brig. Gen. Carl W. Connell, previously commander of the V Air Force Service Command, in charge of much of the construction program. His headquarters was established at Lae, which was envisaged as the principal port of entry for bases in the valleys.¹¹³

On 20 September, when the first engineer troops had landed at Lae, the place had lacked any real harbor facilities. Heavy construction equipment and trained personnel were also lacking, and sunken barges and other debris littered the harbor. Before the end of the month, however, gasoline and oil in drums were arriving by sea and air, and on 20 October Lae received its first Liberty ship.¹¹⁴ From Lae to Gusap and Nadzab, materiel had at first to be moved entirely by air at the rate of about 200 troop carrier loads a day. Consequently, it was necessary to have extensive runways and hardstands as well as parking areas for fighter planes on ground alert.¹¹⁵

The problem of transportation proved indeed a difficult one. Even the most fervent advocates of air transport admitted that troop carriers alone could not develop the Nadzab area to the extent desired, and that large-scale airdrome construction would have to wait until heavy construction equipment could move by road from Lae. But the Allies had been unprepared for their sweeping victory, and although Kenney stated that nine engineer battalions were necessary if adequate roads and base facilities were to be constructed in 1943, only two were actually available. General Connell was "straining every nerve" to complete at least the Lae-Nadzab road by 1 December, but General Kenney did not think that this would be early enough. Connell diverted

one engineer battalion from airdrome construction and pushed the road from both ends, working night and day.¹¹⁶ But rain limited the number of hours that could be used. It rained on forty-six of the last sixty days of the project. The subgrade generally could be worked only in the late afternoon, when the rain usually had stopped, and work continued into the night until a new downpour began. As Connell later declared: "We literally floated that road into Nadzab and had to back-end dump surfacing materials for more than half its entire length."¹¹⁷ At long last, on 15 December 1943, "Jonah's road" was opened and the equipment began to move.¹¹⁸

With the road open, further delay was occasioned by a shortage of trucks. A considerable number of American trucks had arrived at Lae, but these had been "loaned" to the Australian 9 Division with the understanding that they would be returned when that organization moved to Finschhafen. However, when the Australians departed, the trucks left behind were described either as unserviceable or "junk." In mid-December a truck regiment arrived with 150 trucks, but they were all crated, and Connell estimated that uncrating and assembling five trucks was a good day's work for the men available.¹¹⁹

Connell also held responsibility for developing the base at Finschhafen. The task of dredging the harbor and mooring a large floating dock was well under way by November, but the construction of air facilities considered necessary before the launching of the New Britain campaign had been somewhat delayed. Differences of opinion between Whitehead and Connell slowed down the work considerably, according to the latter.¹²⁰ Moreover, nightly rains created a drainage problem which was not solved until late November, when a supply of pipe requisitioned some weeks before finally arrived.¹²¹

By this time, a general movement forward of tactical units to Nadzab, Finschhafen, and Gusap had gotten under way, with the usual discouragements attendant upon such a movement. Camps were hacked out of the jungle, and medicos sought to stamp out threatening cases of gastroneuritis, malaria, and dengue. But at Gusap two fighter squadrons were flying P-40's, movies were being shown, Special Services were offering magazines, books, stationery, phonographs, and there were in addition a radio and a piano. Thanksgiving Day at both Gusap and Nadzab was celebrated with turkey and all the trimmings. Within another month, airdromes at Nadzab received two medium squadrons sent forward from Dobodura and two additional fighter squadrons

from Port Moresby to bring the total of fighter squadrons in the Nadzab area to four. At Finschhafen, by mid-November, service squadrons, a portable hospital, a truck company, and a warning unit had arrived. A 5,700-foot runway of steel matting, two alert areas, and a parallel taxiway were almost completed by 10 December, and it was thought that two fighter squadrons could fly from there in an emergency; but Kenney and Connell pushed the men to such an extent that on 17 December the entire 348th Fighter Group with P-47's and on Christmas Day the 35th Fighter Squadron with P-40's made the transfer from Port Moresby. This sudden influx of aircraft for a time resulted in complete confusion. Aircraft warning was almost nonexistent, and the inadequacy of control resulted in numerous accidents on the runways. The tactical advantages, however, were worth the hazards. Four squadrons of fighter planes had been brought 200 miles nearer to Cape Gloucester and almost 150 miles closer to Wewak.¹²²

Plans and Resources

The question of what further bases in the general area of the Huon Peninsula might be needed for control of Vitiaz Strait and in preparation for landings in New Britain had come up as early as 3 September. At a conference of MacArthur's chief advisers, General Kenney had favored a deep penetration of the Ramu valley by dependence on airborne operations. Rear Adm. Arthur S. Carpender favored an amphibious hop along the coast from Finschhafen to some point between Saidor and Madang. In the end, agreement was reached on a combination of the two proposals: an airfield at Dumpu in the Ramu River valley could probably be seized by 1 November and developed for cover of an amphibious movement into Saidor to be undertaken simultaneously with landings on Cape Gloucester in New Britain.¹²³ Thus operations to consolidate the Allied possession of the Huon Peninsula would be bracketed with the initial move into the Bismarcks.

The development of this plan hinged in part on a continuing debate over the strategy to be pursued in the Pacific. To General MacArthur the plan for a Central Pacific offensive, authorized the preceding July,* had indicated that the Joint Chiefs were reviving the old prewar plans which had been oriented toward naval problems and culpably ignoring the advantage offered by an Australian base. A request from OPD offered him an opportunity to present his own view again in the form

* See above, p. 135.

of a revised plan—RENO II.¹²⁴ Dated 3 August 1943, this plan argued that the priority accorded the European war would permit only one route of advance. The line across the Central Pacific could gain no strategic result until it reached the Philippines, except for a possibly decisive fleet engagement. Moreover, the effort could not be supported with any considerable land-based air power and would depend upon vulnerable, or at least unproved, carrierborne support. On the other hand, the New Guinea approach would permit full exploitation of land-based aviation, and the presence of large land masses would allow a desirable flexibility in the development of the advance. The plan called immediately for occupation of New Ireland and the Admiralties by 1 March 1944, these seizures to be followed by the occupation of Rabaul. With the Pacific Fleet based on Rabaul, the way back to Luzon would lead out along the New Guinea coast, as far west perhaps as the tip of the Vogelkop, and thence north to Mindanao.

The Combined Chiefs of Staff at the QUADRANT conference in Quebec during August, however, had confirmed the plan for a Central Pacific drive. They directed seizure of objectives in the Gilberts, the Marshalls, and the Carolines as far west as Woleai and to include a fleet base at Truk. The Palaus and Yap (both in the Carolines west of Woleai), Guam, and the Japanese Marianas were also to be seized. In addition to these operations, MacArthur's plans for an advance westward in New Guinea to the Vogelkop received confirmation, but the projected Central Pacific thrust into the Carolines, with their potential bases, had suggested that it would not be necessary to occupy Rabaul. Instead, it was now proposed that Rabaul should be by-passed and neutralized, with a consequent speeding up of New Guinea operations.¹²⁵

General MacArthur saw in these decisions at first a purpose to pinch off his own effort at the Vogelkop. A directive from OPD, however, indicated that he should continue with his plans for an invasion of Mindanao, and as a result RENO III was issued on 20 October 1943.¹²⁶ This revision of plans called immediately for the occupation of bases in the Bismarcks and along the New Guinea coast northwestward of Vitiav Strait for the isolation of Rabaul. Plans had already been made for the seizure in December of positions on Cape Gloucester in New Britain, and these were to be carried through for assurance of Allied control over Vitiav Strait.¹²⁷ Subsequent occupations of the Hansa Bay area—lying westward along the New Guinea coast beyond Madang—(1 February 1944), of the Admiralties (1 March), and of Kavieng

(1 March by South Pacific forces) would complete the isolation of Rabaul, which, after the blockade had sufficiently reduced the defensive capacity of the Japanese garrison, might be occupied for an appropriate development of base facilities. Meanwhile, the westward advance in New Guinea would continue, reaching the Vogelkop by 1 October 1944.

After a preliminary plan had been forwarded to Washington by Admiral Nimitz on 1 September 1943, he had issued on 30 September a more comprehensive timetable for the Central Pacific operations.¹²⁸ He planned to capture Makin and Tarawa in the Gilberts by operations scheduled for 15 November 1943; Kwajalein, Wotje, and Maloelap of the Marshalls, for 1 January 1944; and Eniwetok in the Marshalls and Kusaie in the Carolines, for 15 February. After this last operation, Central Pacific forces might take either Ponape or Truk in the Carolines, with a target date of 1 June 1944 for the former or 1 September for the latter. Next might come either Yap and Palau in the western Carolines or Saipan and Tinian in the Marianas by the end of the year. Nimitz's schedule for the Gilberts and Marshalls bettered that originally suggested by the JCS, but later phases remained speculative.

Indeed, the whole subject of the ultimate strategy to be employed against the enemy remained subject to further debate. As General Marshall informed both MacArthur and Harmon in October, the intention was to exert unremitting pressure upon the Japanese from every side, subject to the means at the disposal of the several theater commanders. As for the question of whether the main effort ultimately should be made in the Southwest Pacific, he reminded MacArthur that disposition of enemy forces to meet simultaneous Allied thrusts would have considerable influence upon the final decision. The main point now was to apply constant pressure from all sides.¹²⁹

RENO III had made it clear enough that in the Southwest Pacific responsibility for maintaining pressure on the enemy would fall heavily on Kenney's air forces. The strategic objective of cutting off Japan from the resources of the Malaya-Netherlands East Indies area would be attained through a scheme of maneuver that gave the chief offensive role to land-based air power. The "land-based bomber line" would be advanced westward along the land mass of New Guinea toward the Philippines, with hostile forces by-passed and neutralized through air action wherever practicable in order to avoid costly and time-consuming operations. The "offensive fighter line" would move forward

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with the aid of air transport to extend the "destructive effort of bombers." Ground forces carried forward by air and water would seize and make secure an advancing line of air bases. Flank protection would be provided "essentially by air operations." Necessary naval bases would be established under the protection of land-based aviation, with carrier-borne planes making their own special contribution by close support of landings undertaken beyond the reach of previously established land bases. Thus might the length of forward movements be increased with a consequent saving of valuable time. This, in brief, was the doctrine taught by a year of successful warfare in the Southwest Pacific, and its acceptance by MacArthur gave new occasion for General Kenney to look to his planes.

As of October 1943, Kenney had the following tactical units: one light, three medium, and three heavy bombardment groups, five fighter groups, four and a half troop carrier groups, one photo squadron, and one night fighter detachment. In September, General MacArthur had been informed that within sixty days he would receive an additional dive bomber group, another fighter group, and a night fighter squadron.¹³⁰ It was also understood that a second light bombardment group, a second night fighter squadron, and a combat mapping squadron had been allotted for early shipment.¹³¹

As so frequently had been the case, however, the allocation of units to the air force did not necessarily mean an early and appreciable increase in its strength. Perhaps the most critical need was for more fighter aircraft, particularly for those with range, firepower, and speed. But these same qualities were needed in the European theater, a fact dramatically demonstrated by the losses on the Schweinfurt mission of 14 October 1943.* Consequently, in order to increase the number of long-range fighters in ETO, fewer P-38's were sent to Kenney; the number on hand in SWPA actually would decline from a high of 212 in September to 150 in February 1944. In lieu of P-38's previously allocated to the Fifth, General Arnold authorized an unprecedented flow of some 350 P-47's to the Southwest Pacific during November and December, but this number was cut down by the lack of transportation to move them. From October through December, no more than forty-five P-38's and 207 P-47's arrived in Australia, and Kenney had to be content with these, plus the promise that P-38's scheduled for the South Pacific would be sent to the Southwest instead and that his depot

* See Vol. II, 699-704.

reserve in fighters would be gradually brought up to 70 per cent instead of the previously established figure of 50 per cent.¹³²

In light bombers, commitments had been low, and only two groups would be equipped with the A-20 by February 1944; the third group, although in the theater, did not have its aircraft.¹³³ The situation with reference to medium bombardment was complicated by the fact that the B-25J, the model that Kenney particularly desired because of its provision for a co-pilot and heavy forward firepower, was not expected to be available before April 1944. The service command, accordingly, undertook to modify most of the B-25's as they arrived in the theater in order to equip them for the peculiar requirements of SWPA operations. And as a result, although the Fifth Air Force had approximately its authorized strength of 257 B-25's, most of the new planes were in the depots and tactical squadrons were considerably below strength.¹³⁴

At the same time, however, the striking power of V Bomber Command was being strengthened by the increased effectiveness of its heavy bombers. One of the most important developments of the fall was the arrival in October of thirteen B-24's furnished with blind-bombing equipment. Until this time, the PBY's of the RAAF or of U.S. naval units attached to the Fifth Air Force had enjoyed the best equipment for night attacks against Japanese shipping. But these planes were equipped with the inferior SCR-521, which guided the airplane to the ship but did not permit blind bombing.¹³⁵ General Kenney had early felt the need for better equipment, and in May 1943, he had been assured that some blind-bombing devices would be available to him in July. The new B-24's were immediately assigned, on their arrival in October, to the 63d Bombardment Squadron, pioneer antishipping squadron. The blind-bombing equipment of the new B-24's known as LAB (low-altitude bombardment) consisted of the SCR-717B Sea Search Radar, the SCR-729 interrogator-responder, and a number of other devices, including an absolute altimeter, a radar scope, and a bomb-release mechanism.¹³⁶

Kenney had been completely won over by the performance of his B-24's, and in January would win approval for converting the 22d Bombardment Group (M) to a heavy unit.¹³⁷ As he looked forward to future operations, range acquired a new importance; when Arnold during the fall requested Kenney's personal views on employment of the B-29 against the Japanese, he argued that 90 per cent of Japan's oil came from the NEI and that "every single oil field, oil well and refin-

ery" lay within reach of the B-29 operating from existing fields in northern Australia. The question was joined in Kenney's mind with the continuing discussion of Pacific strategy—particularly with the question of the priority to be given a Central Pacific offensive—and he concluded: "If you want the B-29 used efficiently and effectively where it will do the most good in the shortest time, the Southwest Pacific is the place and the Fifth Air Force can do the job."¹³⁸

The B-29 would be committed elsewhere, and the resources more immediately available for prosecuting the war in the Pacific would be divided between MacArthur and Nimitz. Even so, the scale of operations scheduled for the Southwest Pacific imposed a heavy burden upon supply and maintenance services. The V Air Force Service Command had become a veteran outfit; Australian factories turned out in increasing quantity belly tanks, tires and tubes, engine parts, vehicles, and other sinews of air warfare; large depots at Brisbane, Townsville, and Port Moresby functioned with growing efficiency; and the supply line from the United States was much more dependable than it had been earlier.¹³⁹ But problems also remained.

Newly arriving units often had been instructed by issuing agencies in the United States that T/BA equipment would be drawn in the theater, only to find the equipment unavailable at the other end of the line. At other times, difficulty arose from the loading of organizational equipment on ships docking at widely scattered ports, and frequently the equipment arrived weeks after the unit.¹⁴⁰ In October 1943, MacArthur urged that he be informed sufficiently in advance of the shipment of troops to permit him to notify the port of embarkation as to their final destination in order that they might be loaded accordingly. He asked also for unit-loading of equipment and men, or else that organizational equipment be shipped sufficiently in advance of the troops. It was not possible to meet this request fully, but renewed efforts were agreed upon for the exchange of information that might obviate some of the difficulties. With reference to air units, it had been agreed by mid-December that it would be understood that Milne Bay was the desired port of discharge unless another had been specified.¹⁴¹

Problems of supply and maintenance within the theater provided their own difficulties. Requisition channels were long, tedious, and sometimes clogged with red tape. The forward movement of tactical units increased the distances from the major depots and emphasized the need for a more flexible organization. By August 1943, a provisional

reorganization had been decided upon which called for the elimination of service group headquarters, the released personnel to be reassigned to service squadrons, and for the establishment of wing headquarters with "command and administrative control" over all service units in a given geographical area. General MacArthur approved the provisional organization; War Department authorization was secured after some debate, and on 9 January 1944 the Headquarters and Headquarters Squadrons of IV and V Air Service Area Commands were activated.¹⁴² The new commands were located, respectively, at Port Moresby and Townsville. The reorganization did not affect activities in the Darwin area, which remained the province primarily of the Australians. There were plans, however, for the development of AAF service activities there in anticipation of heavier American commitments which might include B-29 units.¹⁴³

The depots at Brisbane, Townsville, and Port Moresby continued to be marked by the variety of their activities. They not only had to overhaul engines, inspect and repair parachutes, paint aircraft, fill oxygen cylinders, and install armament but they were expected to find all sorts of short cuts and to make odd pieces of equipment from material on hand. The machine shop at Townsville produced, among other things, special propeller tools, a jig-filing machine, an indicating apparatus for hollow-steel propellers, and an electric arc welder for high-melting-point soldering on armatures. At Port Moresby, the parachute shop made such articles as canvas jeep tops, moving-picture screens, trailer covers, flags, belts, and silk panties. The sheet-metal shop manufactured rain troughs, latrine funnels, and lamp shades; and the welding shop produced washing machines, an air-cooled oven, and a dentist's drilling machine.¹⁴⁴ By September 1943, the Townsville depot had converted some 175 B-25C's and D's for low-level strafing, and then turned to the B-25G. Between November and the following April, it would add on eighty-two planes two additional .50-cal. machine guns in the nose, two more in the gun tunnel, and a stinger of twin .30's in the tail—modifications requiring 234 man-hours per plane.¹⁴⁵ During July and August 1943, the service command had designed a 200-gallon belly tank for the P-47; then, facing a failure to get the tank manufactured by Australian concerns in sufficient quantity, the command prepared the P-47 for the use of a 150-gallon wing tank from the United States, work calling for 300 man-hours per plane.¹⁴⁶ At Kenney's instance, attempts were made to extend the P-47's range still farther by installing

a leakproof tank behind the pilot's armor in the cockpit, but the end result proved not too satisfactory.¹⁴⁷

As yet no rotation policy promising relief to ground and service personnel could be worked out. In July, General MacArthur had explained to his troops:

The necessity for an indefinite period for using all available shipping for the transportation to this theater of additional units and of replacements to maintain the strength of the command will operate to prevent the return of individuals or units to the United States under any rotation policy or at the end of any specified period of duty. Except for the physically unfit, for air crew personnel returned under a special policy, and for personnel definitely unqualified for duty in the command, personnel can be returned only under the most exceptional circumstances.¹⁴⁸

A medical report of the 565th Aircraft Warning Battalion showed that the number of men on sick call promptly went up by 50 per cent.¹⁴⁹ But living conditions showed improvement, even on the advanced bases. The delivery of mail, if properly addressed, was dependable, and V-mail reached most units in New Guinea within ten to fourteen days of its posting. The men were paid promptly, although money was of such slight importance in the forward areas that it was usually not drawn more than once every three or four months. Food, too, was generally less distasteful than had been the case earlier. Fresh meats and vegetables were to be had in increasing quantities, some from gardens planted near Bena Bena and New Garoka. Fresh milk, however, was not provided in the forward area, and there was still almost universal complaining about dehydrated foods.

The health of officers and men of the Fifth Air Force varied between the two extremes, generally depending upon the length of time spent in New Guinea. Medical records showed that between 1 June and 31 August an average of 18.24 patients a day were admitted to sick report per 1,000 officers and men in the Fifth Air Force, and that an average of three men a day were evacuated to the United States for medical reasons.¹⁵⁰ Various expedients were tried to sustain the morale of aircrews, including a portion of whiskey upon returning from combat and the assurance of awards for participation in a certain number of missions. Leaves for visits to Australia now came with more regularity, and the promise of an expanding flow of replacements provided further encouragement.

SECTION II

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TARGET RABAUL

CHAPTER 7

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THE CENTRAL SOLOMONS

BY THE second week of February 1943 the enemy had been driven from Guadalcanal, bequeathing to its defenders the tedious task of rounding up sick and wounded Japanese scattered about the island. For Admiral Halsey and General Harmon, having surmounted the great crises of October and November, this was a period of preparation for the next step up the long chain of the Solomons, and for Twining's Thirteenth Air Force it was a period of adjustment within the confines of the peculiar naval command unit known as COMAIRSOLS.* Operational autonomy for Army air remained unknown in the South Pacific. Harmon and Twining had achieved administrative autonomy but there they halted; operational control rested in the first instance with the current incumbent of COMAIRSOLS.

It was only natural that this initial step toward a single unified air force would raise many problems, involving as it did the planes, pilots, and ground crews from widely diverse services and training schools. Their doctrines were dissimilar, their equipment varied, and even their nationality differed—the force would include able New Zealanders with their P-40 squadrons and Lockheed Hudson search planes.† Over a period of many months the successive staffs of COMAIRSOLS would face, and to a large extent overcome, problems of supply, administration, and differences in combat techniques which were inherent in this situation. The net result was an air organization with an amazing vari-

* See above, pp. 88-89.

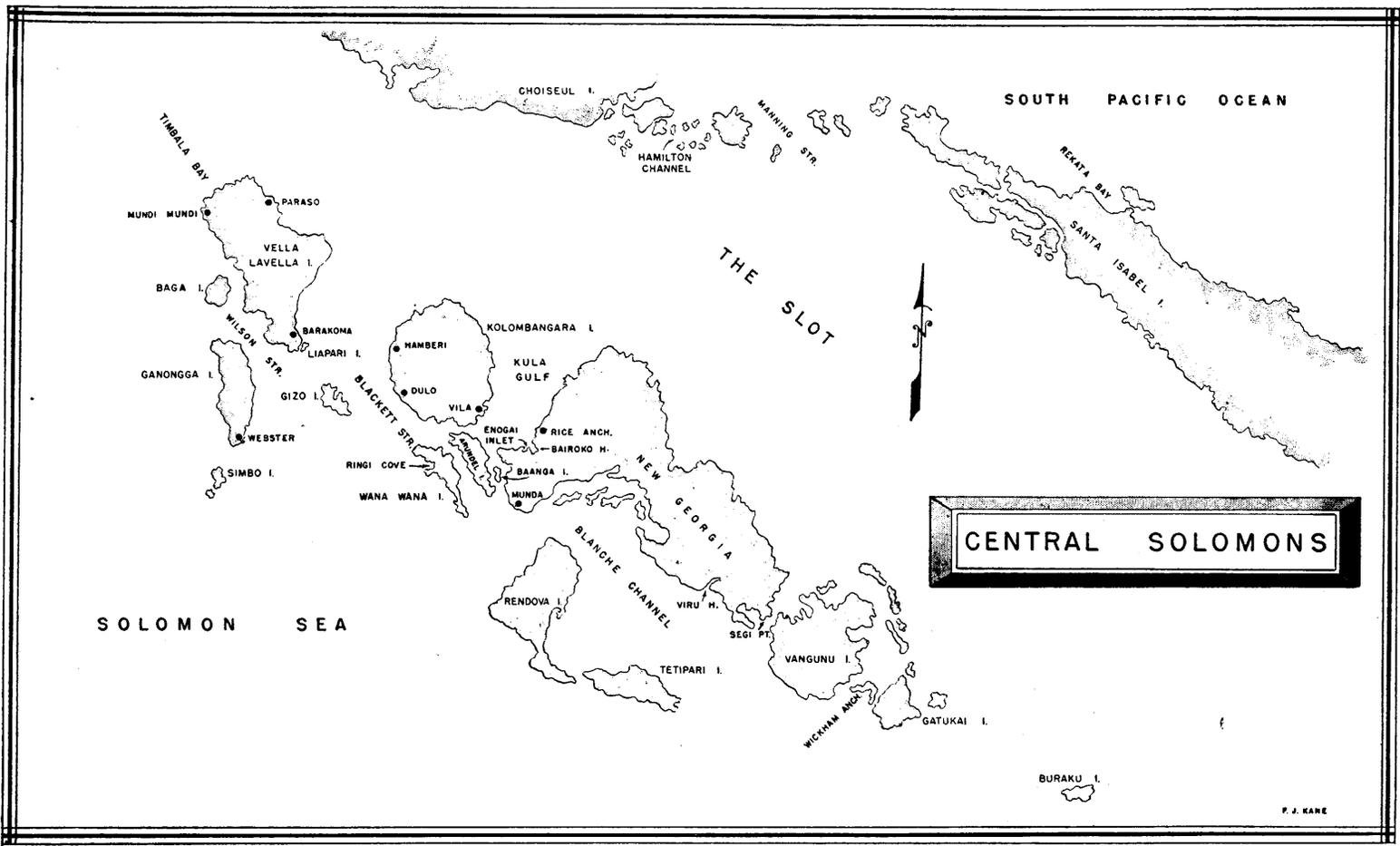
† The RNZAF No. 15 Squadron was the first New Zealand fighter unit to reach the combat zone, moving up to Guadalcanal at the end of April 1943. No. 3 Squadron, a bomber-reconnaissance unit, had opened operations on Guadalcanal with twelve Hudsons on 24 November 1942.

ety of aircraft whose effectiveness would surpass anything the enemy could put into the air against it.

Union of effort between Corsairs, Wildcats, P-40's, P-39's, P-38's, F6F's, B-17's, B-24's, SBD's, TBF's, and B-25's, plus several other types, was not achieved easily. But it was done, and a large share of the credit must go to Adm. William F. Halsey. From the outset Halsey had placed heavy emphasis upon the principle of unity of command, insisting that each commander of a task force have full authority over all components of his force, regardless of service or nationality. He sought to create what he termed a "South Pacific fighting team," and he succeeded,¹ although air force men believed that this principle occasionally did violence to proper employment of AAF units. It was improbable that all echelons and all personnel of any service could share in the enthusiasm of Halsey and Harmon for this procedure. It was not ideal and service loyalties loomed large in the minds of many lesser men, but a healthy spirit of cooperation prevailed with many others, making it possible to brigade the four flying services together. The narrative of the air campaign up the Solomon Islands thus is a skein of many threads, all leading into COMAIRSOLS. Operations of the Thirteenth Air Force were often indistinguishable from the general pattern of COMAIRSOLS—its missions were flown with the other components; heavy bombers many times struck their targets almost simultaneously with the dive and torpedo bombers of the Marines, protected in the air by fighters of all services; and in nearly every major interception of Japanese air strikes COMAIRSOLS committed fighters of every available type. This was the apparatus with which Halsey and Harmon were prepared to carve out new platforms for their air weapons farther up the Solomons.

It was immediately apparent to the theater commanders that a long and painful road lay ahead before the enemy could be evicted from all the Solomons and from Rabaul, which was the logical objective toward which the South Pacific forces were moving early in 1943. The next major goal on the road to Rabaul was New Georgia, even then under almost incessant air attack, and it was obvious that additional airfield sites were required.²

The Russell Islands provided the necessary intermediate step, and on 21 February the first waves of the 43d Division landed on the Russells to begin the long advance toward Rabaul. Southwest Pacific forces cooperated by striking nightly at Buin, Kahili, and Ballale over the period



SOUTH PACIFIC OCEAN

THE SLOT

CENTRAL SOLOMONS

SOLOMON SEA

of the invasion; Guadalcanal fighters provided the air cover, which was not opposed by the Japanese, who seemed to possess no advance knowledge of the invasion.³ Admiral Fitch (COMAIRSOPAC) had warned Admiral Mason (COMAIRSOLS) that any daylight strikes against Buin from Guadalcanal must have sufficient fighter escort to prevent disproportionate losses; he had not forgotten the two daylight strikes by the new B-24's of the 307th Bombardment Group on 13 and 14 February, efforts which had taken a heavy toll of the over-all bomber strength. No less than five B-24's of a total of fifteen in the two missions had gone down, an experience which brought a halt to all daylight bombing attacks upon this area until more adequate fighter cover could be provided.⁴

But now the Japanese did not make any real attempt to halt the Russells construction project. By wasting eight planes they destroyed some equipment but that was all; for some unknown reason the enemy was not yet ready to move down in force, confining himself to a series of ineffective night raids in March.⁵

March was relatively a quiet month in the Solomons. The enemy faced a formidable task in his attempt to maintain his position in the island chain; he must take immediate steps to strengthen what he yet held and to regain what he had lost.⁶ Allied air operations worked in such a way that each fresh base became an additional cancer in the structure of the enemy's defense line, sending out its tentacles to destroy relentlessly the equipment and personnel opposing it. Between the two forces no equilibrium could be reached, let alone maintained, for one would consume the other. There was every evidence, despite the apparent lull, that Japanese commanders intended to make a real effort to cling to their positions. No longer were they obliged to hold their Bettys and Sallys back in Rabaul and Kavieng. Intense efforts by their construction crews had prepared shelter for an estimated 461 aircraft by mid-February, and of this number 72 were for medium bombers.⁷

Strategy and Command

Amid the speculation over Japanese intentions, the commanders of all services both in the field and in Washington took stock of their resources and the methods of applying them. For the first six months of the Solomons campaign the task had been to press the enemy back from a position where he might severely damage or at least threaten the line

of communications to Australia. Now it was time to look ahead to more distant goals, of which the first major one was Rabaul. For its reduction General MacArthur had prepared an over-all strategic plan based upon utilization of the forces in both the South and Southwest Pacific. This ELKTON plan,* as it was known, regarded Rabaul as the apex of a triangle, one leg of which extended southeastward through the Solomons, the other westward along New Britain. The Allied advance would move in short steps along each leg of the triangle.

In this plan there was no interest in capture of land areas as such. The goal in each case was to establish one more rung in the ladder of air bases necessary for land-based aircraft in providing direct cover and support for the next step. For Halsey's forces this meant that New Georgia's airstrip in Allied hands would provide air cover for subsequent landings upon Bougainville, while the installation of Allied land-based aircraft on New Britain and Bougainville would permit the aerial assault upon Rabaul and Kavieng. Throughout the parallel campaigns, employment of the aviation of both forces would be coordinated by MacArthur, who could shift his air efforts in support of either force requiring the maximum assistance at the moment.⁸

MacArthur had asked for air strength greatly in excess of the forces that could be provided, calling for no less than ten groups of aircraft for Halsey's contemplated New Georgia operation.⁹ Army planners, unchanged in their original conviction that attainment of the maximum possible bomber offensive against Germany must not be jeopardized by diversions of combat aircraft to theaters of lesser strategic importance,¹⁰ agreed to no more than a modest increase in Pacific air strength. On 23 March the Joint Chiefs informed Halsey and MacArthur of changes which would increase each of the two South Pacific heavy bomber groups to four squadrons, twelve planes per squadron, for a total of ninety-six. The medium group would be augmented from forty-six to fifty-seven planes, and troop carrier strength would be raised to two full squadrons of thirteen planes each.¹¹ After examining the revised schedule of commitments, representatives of the Pacific commanders agreed that with fresh forces they could extend their advance along New Guinea to Madang and they could gain a foothold on southeast Bougainville.¹²

There remained numerous unsettled details. Ever since the summer of 1942 the South Pacific Area had functioned as a test tube of Army-

* See above, pp. 129-30.

Navy cooperation, and now that a fresh series of campaigns was contemplated, it was necessary to clarify the position each service should occupy in the general scheme. Equally important was the fact that the South Pacific was a crossroads and a point of contact between the great Southwest Pacific Area under Army direction and the vast Pacific Ocean Area under Admiral Nimitz. For more than six months it had served as the theater to which the U.S. Navy had committed the bulk of its combat strength; now it was to become one-half of a joint operation with the MacArthur-controlled theater. Admiral King was disturbed over the situation created by the proposed execution of CART-WHEEL, as the ELKTON operations were known. There was no disagreement over the decision to place all the Rabaul operations under MacArthur; COMSOPAC would control directly all the Solomons operations according to general directives prepared by the Southwest Pacific commander.¹³ But the Navy spokesmen were meticulously careful to see that the over-all directive to MacArthur was phrased so as to retain complete control over all naval forces assigned to the South Pacific. Admiral King recognized the advantage of unified control, but he regarded as impossible any attempt to view operations in the Solomons carried out by forces of the Pacific Ocean Area as separate from those under way elsewhere in the Pacific.¹⁴

Because MacArthur believed that amphibious forces would be unable to operate successfully in the New Georgia area under the threat of the enemy's air bases on Bougainville, on New Britain, and at Kavieng, he maintained that these first must be neutralized. And since their neutralization could be effected only from the Vitiav Strait area, he recommended that the assaults on the enemy bases in the Huon Gulf precede those directed against New Georgia.* MacArthur feared that large-scale operations in the South Pacific during his own period of intense activity in New Guinea would necessitate sending air forces to support Halsey just at the time when they could not well be spared. On the other hand, as Marshall pointed out, the field commanders must of necessity take full advantage of every opportunity to push ahead in areas where resistance seemed weak—and there was reason to believe the Japanese could not remain strong in both areas at once. In any case, Halsey had no intention of remaining idle. He would continue to exert pressure upon the Japanese with his land-based aviation and he would be ready to move into New Georgia and southern Bougainville if this

* See above, p. 130.

could be accomplished without bringing on a major operation.¹⁵ The final solution to the question of procedure was suggested by Admiral King: the supreme commander of the Southwest Pacific Area would submit for approval to the Joint Chiefs of Staff his general plans, including the composition of task forces and the sequence and timing of major offensive operations.¹⁶

By the end of March the debate had ended. The tasks were clearly defined; ahead lay the objectives. Whether in New Guinea, in Bougainville, or in New Britain they were much the same. Each assault would involve the isolation, neutralization, and final capture or by-passing of a small island of Japanese air strength clustered around an airstrip which had been carved out of the jungle. Experience warned that the defense would be fanatical, and if the assault were made frontally without adequate air preparation, it could prove costly. But whereas the enemy's ground forces might absorb losses, his merchant marine and naval service could not do so without seriously weakening the entire Japanese strategic plan. MacArthur's staff reasoned that as soon as the enemy reached a point where exploitation of the conquered territories had become seriously affected by shipping shortages and maintenance of outposts had become excessively costly, he would abandon the Bismarck-Solomons line and fall back upon the Japanese mandates as the main line of resistance.¹⁷ Thus if the attacks were to be executed at minimum cost, the first step must involve a continuation of the effort to isolate each successive objective, and for this task the greater burden would fall upon the Fifth Air Force in the New Guinea area and upon Halsey's land-based aviation, including the Thirteenth Air Force, in the South Pacific.

How best to employ their own units in the approaching campaigns was the problem which plagued the senior AAF commanders in the South Pacific. General Harmon had successfully activated an air force, but this had not altered the fact that operational control of all land-based aircraft in the South Pacific remained with COMAIRSOPAC. Harmon did what he could to maintain a reasonable amount of autonomy for his young air force. From the outset he had insisted to Admiral Fitch that the AAF retain direct responsibility for and control of all matters affecting administration, supply, movement, and training, and he maintained the right to insist on the observance of sound air doctrine and technique.¹⁸ But as the spring of 1943 approached, it became apparent to Harmon that observance of these precepts was less than

satisfactory, due, he thought, to lack of understanding upon the part of subordinate commanders and staff officers. His appeal to Halsey resulted in a direct conference with Admiral Fitch, where for the better part of two days Fitch and Harmon personally ironed out the difficulties, emerging on 4 March with a statement of policy which went far toward meeting Harmon's objections.¹⁹

The key to Harmon's recommendations lay in the statements that the highest degree of effectiveness would be achieved by vesting combat command of the various air forces in their respective services; secondly, that any necessary disruption of normal command channels should be held to a minimum; and thirdly, that the air forces should be employed in the function for which they had been organized, trained, and equipped. Short of over-all operational control, Harmon desired the closest possible participation by his own air commanders in planning the details of missions, and he sought a clear recognition of the right of AAF leaders to advise the local air commander (in this case, primarily COMAIRSOLS) as to proper formations, bomb loadings, escort and combat techniques. As a final request he asked for a restatement of the policy he had advocated since the earliest days of the Solomons campaign: that AAF bombardment aircraft concentrate on bombardment missions and forego search and patrol functions. Admiral Fitch received the recommendations and offered his full concurrence,* advising Harmon that in the future his own direction of activities affecting the Thirteenth Air Force would be in accordance with the principles suggested by the Army commander.²⁰

Harmon's concern was for the Thirteenth Air Force, but this unit was only one component of the South Pacific air organization. In order to clarify the function of all the air services in the area, COMAIRSOPAC on 11 March issued a new air operation plan for the Solomons air units.²¹ This plan assumed that from his defensive positions the enemy would continue his air raids upon Tulagi, Guadalcanal, and upon Allied surface forces; he would persist in his night bombardment of Allied airfields, and he might even attempt "commando" raids against exposed

* Harmon requested that the position of commanding general of the Thirteenth Air Force be reaffirmed, and that Fitch issue to Twining all directives pertaining to training and administration of AAF units. It seems probable that there was a tendency on the part of Fitch's staff occasionally to deal directly with subordinate AAF units rather than through the AAF commander. Harmon states that throughout his tenure of COMAIRSOPAC, Admiral Fitch adhered strictly to the agreement "and could not, while prosecuting the war effort, have treated the Army component of his force with greater consideration and justice . . . than he did."

positions. To check him, three tasks were assigned to the air forces. First, it was assumed that the destruction of enemy shipping constituted the most effective employment of aircraft, since this could deprive the enemy of his logistical support, thereby causing his Solomons bases to shrivel and starve. Next, the Thirteenth Air Force, the Marines, naval air units, and the New Zealanders should strike at enemy shore installations within range to reduce Japanese air strength. Finally, these units should support the operations of Allied surface forces in the Solomons.

To Bomber Command of COMAIRSOLS went the responsibility for conducting long-range day and night attacks against surface forces, airdromes, and ground installations as ordered, and also for executing necessary search and patrol missions. This involved primarily AAF heavy and medium bombers. Few AAF planes were directly concerned with instructions to Strike Command, except as fighter escorts. The function of this command was to carry out repeated dive, glide, or low-level bombing attacks upon enemy surface units and airfields; for such work the Marines' equipment was most useful. COMAIRSOLS Fighter Command was the most diverse of all the Solomons air organizations and its duties were manifold, including assault, defense, and escort, both for surface craft and bombers, as well as operation of all air warning service units, fighter directors, and all equipment concerned with the interception of enemy aircraft. COMAIRSOPAC would control by general directives the tempo of all operations, and all local unit commanders were reminded that their aircraft would operate under the operational control of COMAIRSOLS, who himself was a task group commander under COMAIRSOPAC. These constituted the rule book for AAF planes in the campaigns for the Solomons.

The month of March provided a breathing spell for both sides. The photo planes maintained their close daily check on air and shipping movements in and out of the Buin fields and anchorages; heavy bombers in light strength continued to heckle the installations at Ballale, Kahili, and Shortland Island, and Strike Command hammered away at Munda.²² Whenever profitable targets appeared, fighters moved out on sweeps, as they did on 28 March. Photos brought home by the 17th Reconnaissance Squadron indicated that the Shortland-Poporang area off southern Bougainville was the principal Japanese seaplane base in the Solomons, and here the prints revealed twenty-seven planes at rest. Fighter Command immediately ordered out a dawn strike of eight

P-38's and a like number of Corsairs. Engine trouble and weather forced out seven of the F4U's and three of the P-38's, but with his six remaining planes, Capt. Thomas G. Lanphier, Jr., of the 70th Fighter Squadron, led the flight over the Shortland and Poporang targets at 50-foot altitude, leaving eight float planes burning on the water in the two anchorages. Intense AA fire gained the Japanese gunners nothing and Lanphier's fighters turned for home. Six miles east of Shortland the flight spotted an enemy destroyer, which immediately began desperate evasive maneuvers. Again attacking at 50 feet, two P-38's silenced most of the AA fire, after which the rest of the flight followed through with four passes by each man. Ten minutes later the vessel lay dead in the water, aflame from stem to stern, and with a 15° list. The sole partial casualty was the P-38 of Lt. Rex T. Barber of the 339th Fighter Squadron, who made one pass a trifle too low, shearing off the top of the warship's foremast with his wing tip; but the resultant loss of three feet of wing caused no trouble and the P-38 made a normal landing.²³ When the month of March had ended, the score of enemy aircraft destroyed had dropped to an all-time low of approximately sixteen; not until May of 1944 was this figure again to sink to a comparable position.²⁴ COMAIRSOLS Fighter Command could report that its P-39's had shot down eight of the total, and not a loss was incurred for the entire month by any of its planes.²⁵

April provided a different story. Admiral Halsey was losing no time in preparing for a fresh offensive thrust and the Japanese knew it. Down on Guadalcanal massive stockpiles of fuel, ammunition, supplies, and equipment accumulated in dumps, despite serious unloading difficulties.²⁶ Lying off the Lunga shore were the cargo vessels and transports; across the channel at Tulagi were the warships of the task forces which moved in and out of that expanding naval base. All these offered fat targets for the Japanese Vals and Bettys if only they could break through the fighter defenses; and even if they could not reach this richer harvest, they might strike at the advanced air installations rapidly nearing completion on the Russells.

And strike they did. They tried it on the first day of the month, when Fighter Command sent forty-two fighters, six of them P-38's, up over the Russells to fend off the Zekes and Hamps coming over in two waves. For nearly three hours there was continuous air action, action which cost the enemy heavily; the final score showed twenty of his Zeros down, for a loss to Fighter Command of six planes in combat, but

three pilots were rescued immediately.²⁷ The Japanese would have to try harder to push through, and they were having trouble enough in supplying their own forward bases on New Georgia and at Vila on Kolombangara, where their small cargo vessels were frequent targets for the fighter pilots up from CACTUS. On 7 April, after a week of sporadic night bombing, they were ready for another daylight assault on Guadalcanal. This was a big one. Coast watchers on New Georgia gave first warning of the approaching enemy, reporting no less than 160 dive bombers and fighters moving down the Slot. Ahead of them lay rich targets: a convoy near Rua Suru off the east coast of Guadalcanal, shipping at Koli Point, and a task force lying at Tulagi. Ahead, too, lay the defenders. Fighter Command sent up every available fighter on Guadalcanal, seventy-six of them, and all bombers were moved to the southeast tip of the island to avoid damage.²⁸

As the enemy approached, his planes separated into smaller flights, so that fighting occurred off the Russells, near Tulagi, and over the convoy east of Guadalcanal. Up on top were the P-38's led by Captain Lanphier; spaced out below were the Corsairs, Wildcats, and P-39's. When the wild melee ended, thirty-nine enemy planes had fallen, thirteen of them to the AAF planes, and total Allied loss was seven aircraft and one pilot, Maj. Walden Williams of the 70th Fighter Squadron.²⁹

Two weeks after this aerial defeat of the enemy there occurred one of the most extraordinary interceptions of the entire Pacific campaign. Intelligence sources had discovered that none other than Adm. Isoroku Yamamoto himself would be flying down to the Kahili area on an inspection trip of the South Pacific. The decoders in Washington had precise information on Yamamoto's itinerary and they knew he was due at Ballale at 0945 on the 18th. On the 17th the message reached Halsey, who immediately informed COMAIRSOLS—the order was to get Yamamoto.³⁰

It was at once apparent that only the P-38's could reach far enough up the coast of Bougainville to intercept the admiral, but any attack upon his plane in the Buin area would prove extremely hazardous; here Kahili Field swarmed with fighters ready to cover Yamamoto's movements. Eighteen P-38 pilots—eight each from the 12th and 339th Squadrons and two from the 70th—were chosen. Four were designated the attack section under Captain Lanphier of the 70th, the remaining

fourteen were to provide cover under the command of Maj. John W. Mitchell, who was also over-all flight leader.³¹

Briefing was meticulously done, and every detail was reviewed, for the slightest error in timing would result in failure. The plan called for an overwater wave-hugging flight of 435 miles by a circuitous route which would avoid all danger of detection by land-based enemy coast watchers. If Yamamoto followed his schedule punctually—and he was known to have a passion for punctuality—then at 0935 he should be over a point some thirty-five miles up the coast from Kahili.³²

Two hours and nine minutes after take-off at 0725, as sixteen P-38's flew in toward the coast of Bougainville barely clearing the water, there ahead appeared the enemy almost as if the entire affair had been prearranged by mutual consent. Two Bettys turned to escape, while their six Zero escorts tried in vain to cut off Lanphier's attack section. Lanphier exploded one fighter, then dived on one bomber, sending it flaming into the jungle, while Barber disintegrated the other Betty. Escape of the P-38's was doubtful, since now the advantage of altitude lay with the Zeros, but by hedgehopping, skidding, and sideslipping, the attackers pulled away under a heavy counterattack. Only Lt. Raymond K. Hine failed to return from this flawlessly executed mission which had cost the Japanese their highest ranking naval officer, victim apparently of Captain Lanphier's guns and Major Mitchell's flawless timing of the flight.³³ Rear Adm. Marc A. Mitscher, COMAIRSOLS since 4 April, was delighted with the results of the mission, and his efforts gained the Navy Cross for Mitchell and the members of the attack section.³⁴

By May there was evidence that the Thirteenth Air Force was beginning to operate somewhat as its commanders desired; fresh units had reached it and there was a clearer understanding all around of the command relationships and employment of air power in the area.³⁵ General Harmon's report of 1 May to General Arnold displayed a note of optimism, and Twining, too, could share in the happier view of his affairs, notably in the field of supply and maintenance, in large part because of the authorization of the XIII Air Force Service Command, which had been activated on 14 April.³⁶ He could report substantial improvement in living conditions at all stations, and he doubted that there would be any repetition of the serious sickness rate which had laid low so many men of the 11th Bombardment Group. Nevertheless, the

malaria rate was persistently and extremely high, and would remain so until the month of June.³⁷

Air Force headquarters were at Espiritu Santo, where Twining could remain in close proximity to COMAIRSOPAC, but the operating sections of the bomber and fighter commands had moved up to Guadalcanal. By the end of April, the bomber command was establishing itself on the new Carney Field at Koli Point, while the fighter command was located at Fighter No. 2 (Kukum) near Henderson. Twining soon could count on operating two heavy groups at full strength, plus one medium group and two reduced fighter groups, and all of these were rotated through Guadalcanal.³⁸ This arrangement spread the squadrons thinly over a vast area and Twining knew it, but he believed that the advantages made it desirable. Rotation of the flying personnel helped to maintain the crews in better physical condition, and the units in the rear area were useful in training and indoctrinating new crews or for reorganizing units returning from combat.

An additional reason for holding AAF planes back from Guadalcanal was the limited number of facilities at the forward base.³⁹ Lack of proper dispersal facilities long had troubled AAF commanders and inspectors sent out from Washington, but it was only after some sharp lessons at the hands of the enemy that the situation was remedied. Presumably, Halsey's Base Planning Board, which carried responsibility for all air base construction in the area, would coordinate the needs and views of all services, but Twining had to report that the Navy had never shown much interest in dispersal and continued "to line their own planes for the slaughter."⁴⁰ On the night of 24 March enemy bombers had added their weight to the argument for better dispersion. From high altitude two or three bombers damaged or destroyed a number of heavy bombers as well as lighter aircraft, and the incident keenly disturbed General Arnold. Over 300 planes were on Guadalcanal at the time, a number which outdistanced the pace of airdrome construction, and Twining reported that even the captured Japanese aircrews refused to believe their eyes at the sight of the long rows of fighter planes parked on Fighter No. 2.⁴¹

Arnold's complaints passed to Halsey, who immediately arranged for the assignment of additional dispersal areas for AAF planes. By 21 April, Twining considered that dispersal was reasonably adequate, although there was still ample margin for improvement.⁴²

Gradually during the spring months COMAIRSOLS was able to

increase the tempo of operations against the Japanese positions on Bougainville and in the central Solomons, despite the absence of sufficient numbers of fighters to provide escorts for heavy bomber operations during the daylight hours. There was much nightly harassment of the enemy by the B-17's and B-24's, and in March COMAIRSOLS staged something new—a mine-laying operation against the Buin area. On the nights of 20 and 21 March, Marine and Navy TBF's carried mines up to Bougainville, sowing them inside the 20-fathom curve of the Buin-Tonolei area, while nine B-17's of the 5th Group and nine B-24's of the 307th Group pestered with fragmentation bombs the defending searchlight and AA crews on Kahili Field. These missions were highly successful, and with slight modifications in technique and bomb load they would be repeated again.⁴³ By mid-May air affairs occasionally moved at a fairly fast pace, with the heavies out each night and the enemy bringing his fighters down the Slot in growing force during the daylight hours. The 13th of May was a day of intense activity,* one costing the Japanese sixteen fighters of a force of some two-dozen-odd out on a fighter sweep.⁴⁴ But it was an intermittent business and the enemy's air effort would promptly subside after a period of effort, causing Allied intelligence to conclude that Japanese air strength was increasing in New Guinea as it diminished in the Solomons.⁴⁵ Perhaps the attrition was more than the enemy could support. To accelerate it COMAIRSOLS ordered a second series of mining operations, which were executed in the Buin area on the nights of 19, 20, and 23 May, once more with considerable success and very light losses, and with the heavy bombers on the third mission placing their bombs precisely at the proper place at the proper time.⁴⁶

During the latter half of May, Japanese retaliation for the aerial assaults upon their sanctuaries was sporadic and weak, but the general lull ended with the coming of June. For one thing, the new Russells strip was ready, permitting more frequent and effective fighter sweeps over the Buin area. For another, the deadly SBD's now carried 50-gallon auxiliary fuel tanks which permitted them to reach Buin from their Solomons bases.⁴⁷ These developments aroused the enemy. He

* It is of some interest to note the multiplicity of types of aircraft then available to Fighter Command. For this interception of 13 May, thirty F4U's, thirty-two F4F's, eleven P-38's, twelve P-39's, eleven P-40's (AAF), and six P-40's (RNZAF) were sent up. To fly the AAF fighters, detachments of the 67th, 68th, 44th, 6th, and 339th Fighter Squadrons and Headquarters, 347th Fighter Group were attached to the 70th Fighter Squadron on 7 April 1943. (Form 34, 5-11 Apr. 1943, 70th Fighter Sq.)

shifted more of his air strength back to the Solomons, and on 7 June he began to use it, for he could scarcely be unaware of the preparations under way on Guadalcanal. On the Rabaul airdromes air strength again rose to a high level, showing 225 aircraft. In the Rabaul harbor area lay nearly fifty ships, and the enemy's search planes were very active, increasing both in number and range.⁴⁸

On 7 June, Rabaul's air commanders began a week's air assault against Guadalcanal which surpassed anything yet attempted. The pattern was unchanged: large forces of fighters (Zekes and Hamps) would escort the dive bombers against shipping off Guadalcanal. Fighter Command's Russell Patrol normally would open the action which might extend right down to Guadalcanal itself. These attempts were costly to the attackers, twenty-three Zeros going down on 7 June, four of them to RNZAF P-40's of No. 15 Squadron, now in its first major action.⁴⁹ Moreover, every single pilot was recovered from the nine Allied planes lost by Fighter Command, which set the day's exchange at 23 to 9, a rather costly business to the enemy.⁵⁰ On 12 June came the second heavy thrust, this one costing the Japanese thirty-one planes for a loss to Fighter Command of six planes and two pilots;⁵¹ next a lull for three days, and then by the 16th the enemy was ready. Search planes counted 245 planes at Rabaul and found the other fields jammed with aircraft.⁵²

Coast watchers' reports indicated something more than a normal fighter sweep was under way, and they were right. Ships lay off Tulagi and Guadalcanal. To attack them the Japanese converged on their targets with an estimated 120 aircraft; and Fighter Command, with ample forewarning, had in the air a total of 104 defending fighters of all services.⁵³ The resulting clash constituted the greatest single Allied aerial victory of the Solomons campaign, as the air over Savo Island, Tulagi, Cape Esperance, and Koli Point was filled with enemy and Allied planes whirling about in dogfights, many of them amid the flak of ground and ship gunners. By 1403 the enemy was in full retreat, leaving behind so many of his numbers that the defenders were hesitant to believe their own results. An accurate estimate was impossible; much duplication occurred, but Fighter Command listed no less than 49 Zeros and 32 dive bombers as victims of its planes, with the F4F's claiming 30 kills and the P-40's 25—all this at a cost of 6 Allied planes. AA gunners claimed seventeen more for a total of 98 out of the original estimated force of 120.⁵⁴ Although the enemy escaped with no

more than a bare handful of planes, he left behind a reminder of his visit. Very real damage occurred on the ground and on three vessels off Guadalcanal, two of which had to be beached off Lunga. Altogether losses afloat and ashore reached twenty-five killed, twenty-nine wounded, and twenty-two missing, but they could have been far more disastrous.⁵⁵ And now the enemy would have much handier targets. The invasion of New Georgia lay only a few days away.

In his planning General MacArthur had set 15 June as a target date for initiating the dual set of ELKTON operations, which in the Solomons phase would carry the Allies up to the southern end of Bougainville and would consume the remainder of 1943.⁵⁶ But acquisition of a base on Bougainville was dependent upon the presence of adequate air cover. So long as the nearest major air base was no nearer than Guadalcanal this cover could not be provided; the jump was too long, the Allies lacked a preponderance of air superiority, and COMSOPAC did not possess a decisive superiority in naval surface forces, particularly in the all-important carrier category. The obvious intermediate step was Munda.⁵⁷

Here on New Georgia Island the Japanese had expended much effort since they were first reported in the area in August 1942. Originally using it as a staging point on the supply route to Guadalcanal, after the November defeat they undertook construction of an airdrome near Munda Point on the southwest coast, a location which made the field almost immune to an invasion from the sea. Ever since discovery of the cleverly concealed strip on 3 December, Munda had been hit almost daily by all types of aircraft, supplemented with ostensibly destructive bombardments by surface craft, but neither bombs nor shells could knock out Munda for longer than a day or two at best.⁵⁸ Nevertheless, despite the easy construction possible at Munda and Allied inability to disable the strip permanently, the Japanese never had been able to conduct major operations here or from the strip laid out late in December 1942 over at Vila on near-by Kolombangara.⁵⁹

Down on Guadalcanal all services pushed ahead in their preparations for the next advance. By July, two bomber and two fighter fields were ready, and of equal importance was the further improvement of facilities for bulk gasoline storage, including the construction of a submarine fill-line which brought aviation gasoline direct from tankers moored off Koli Point to a tank farm. As advance fields, there now were the two strips on the Russells, and it was obvious that even with the deficiencies

of Carney Field on Guadalcanal and certain operational difficulties, this New Georgia operation was to be supported far better than the original landing on Guadalcanal.⁶⁰

Admiral Halsey issued his basic operational plan for the New Georgia assault on 3 June 1943. Rear Adm. Richmond K. Turner commanded the amphibious forces; Maj. Gen. John H. Hester led the New Georgia Occupation Force, whose major unit was the reinforced 43d Infantry Division, while held back on Guadalcanal as general reserve was the 37th Infantry Division. Hester had in addition two Marine raider battalions, the 1st and 4th. It was believed that altogether these forces should be able to wrest the entire island group from the enemy within a 30-day period. In case of dire need, use could be made of the veteran 25th Division then actively engaged on Guadalcanal in a training program to rectify its errors of the first campaign. In any case, there should be enough ground force available for the task.⁶¹ To be sure, Halsey did not regard the means as sufficient to justify a frontal assault on the Vila-Munda area, an opinion which led to the decision for the Western Landing Force to capture Rendova Island first. Simultaneously the Eastern Landing Force would land at Viru Harbor, Wickham Anchorage, and at Segi Point, where a new fighter strip would be constructed.⁶² A subsidiary operation had as its objective the cutting of communication lines between Kolombangara and Munda to prevent the Japanese from reinforcing their Munda garrison. To effect this end a task force under the command of Col. Harry B. Liversedge, USMC, a force composed of two Army infantry battalions and one Marine raider battalion, was to land at Rice Anchorage, then move westward and secure Enogai Inlet, thus breaking enemy communications through Bairoko Harbor. Subsequent to the ejection of the enemy from New Georgia, the forces were directed by Halsey to capture at the first favorable opportunity the remaining enemy positions in the New Georgia group.⁶³ These were the goals for the amphibious forces whose troops were to be covered by a powerful task force of surface units and by an air force whose strength now surpassed anything yet available in the Solomons campaign.

On 18 June, COMAIRSOPAC assigned to all his air units their tasks for the New Georgia operation. As usual the fighters would be hard pressed to carry out their assignment; they would provide cover for all the forces in the Guadalcanal and New Georgia areas and all shipping between these two points.⁶⁴ Admiral Fitch warned them to guard par-

ticularly the attack transports and the supply ships moving in the Slot, and the fighters were requested as well to maintain an air cover over those surface combatant groups involved in the New Georgia operation. Furthermore, COMAIRSOLS was advised to be ready on six hours' notice to provide aircraft for dropping supplies and equipment into the New Georgia area.⁶⁵

In this advance beyond the immediate vicinity of Guadalcanal, it was necessary to devise a fresh method for controlling aircraft in the forward area. Fitch was moving forward to Guadalcanal, but he could not handle New Georgia operations from Henderson. Accordingly, there was established a new unit known as Headquarters, New Georgia Air Force (COMAIR New Georgia), composed of personnel drawn from the Forward Echelon, 2d Marine Aircraft Wing, and this was attached to the New Georgia Occupation Force. COMAIRSOPAC directed that operational control of all aircraft assigned to tasks in the immediate vicinity of New Georgia would pass upon take-off to this new organization, which would also control all direct air support of the ground operations in the central Solomons.⁶⁶ There were additional preliminary arrangements, such as establishment of four air liaison parties to advise ground commanders as to suitable targets and forces for air attacks; and there was provision for fighter control in the forward area.⁶⁷ The whole undertaking was coordinated with the Southwest Pacific, where MacArthur's forces were to seize Woodlark and Kiriwina Islands on 30 June—that is, D-day for Rendova—and General Kenney's Fifth Air Force was to strike at targets in the northern Solomons, New Ireland, and eastern New Britain areas.⁶⁸

The air and ground forces facing Halsey's task forces were considerable. It was estimated that of the 40,000 Japanese in the Solomons some 8,000 to 10,000 were on New Georgia, and of these probably one-third guarded Munda.⁶⁹ Moreover, there were advantages of distance favoring the enemy. His powerful Bougainville bases were closer, his troops had been granted time to construct coconut-log pillboxes, blockhouses of coral rock, and strong defensive positions, and once again he had filled up his air bases with replacement aircraft.⁷⁰ To overcome the air defense, on the morning of 30 June COMAIRSOPAC had ready to fly in the forward area a total of 455 combat aircraft out of an assigned total of 533.⁷¹ As D-day approached, B-17's and B-24's concentrated upon Poporang, Ballale, Kahili, and the Buin area, Marine dive and torpedo bombers struck at Munda, Vila, and Rekata Bay, while B-25's

and TBF's carried out daily low-altitude armed shipping searches up and down the Slot. Japanese aircraft and submarines did what they could to interfere with Halsey's flow of supplies into Guadalcanal, but they fell far behind in the race.⁷²

Rendova

At 0642 on the morning of 30 June, six transports lay off Rendova Harbor on the north side of Rendova Island. As the landing forces moved ashore, quickly overcoming light resistance, Fighter Command assumed its burden of defending the amphibious forces from inevitable Japanese reaction, and it entered the most active four-day period in the history of the Solomons campaign.

Thirty-two Allied fighters covered the operation from altitudes ranging from 5,000 to 20,000 feet, but they had little work until 1100 when the enemy sent down his first fighter sweep of the new offensive. Sixteen of his thirty-odd Zeros were shot down, leaving Rendova relatively quiet for four hours.⁷³ Then at 1500 came another attempt, this one by a mixed force of fifty dive bombers, torpedo-carrying Bettys, and Zero fighters. The Bettys circled the task group, concealing themselves against the island background, then swept in at minimum altitude and high speed to drop their torpedoes at 500-yard range. Corsairs and Wildcats tore into the bombers, aided by the AA gunners, and one by one every plane went down, but not before they had scored a hit. *McCawley*, the flagship, took a torpedo amidships, sinking at 2023 as the result of nine torpedoes from friendly PT boats.⁷⁴ Early in the evening the enemy was back again, this time with a motley collection of some thirty Vals, Rufes, and Daves, plane types which indicated that the enemy air commanders were dipping low in their bins to continue the assault. Eighteen more went down before the Allied fighters, raising the enemy's loss for the month to a total of 254. This was a heavy price; Allied losses for the month had run to thirty-six fighter planes and thirteen pilots, whereas the enemy had sacrificed many multiplace planes, but he seemed willing and able to pay it.⁷⁵ Next day his dive bombers were back again for another try at the shipping, but with very little success, and it was apparent that he had underestimated Allied ability to maintain adequate and continuous fighter cover 170 miles from Guadalcanal. Except for a sneak raid on the third day of the landings, one which caught the troops unloading LST's on the beaches, the Japanese had little to show for their efforts.⁷⁶

The daily patrol of thirty-two fighters, supplemented by additional planes when necessary, turned aside the best the enemy could send down, but it was no easy task for Fighter Command to maintain this patrol, which called for a commitment of 96 aircraft, leaving between 80 and 100 to meet all other requirements. Harmon doubted that it could have been achieved without the aid of the two Russells strips.⁷⁷ Certainly there was no help from the weatherman during this period; in fact it had been necessary to abandon the heavy bomber neutralization of the Bougainville bases because of the wretched weather. Over Rabaul conditions were not much better; air photo coverage during the first week of the invasion was impossible. From New Guinea, General Kenney was able to complete a few strikes against the air installations around Rabaul town, but up to 4 July it had been impossible to send so much as a single heavy bomber strike from the Solomons bases to Bougainville, and even when the weather cleared no fighters were available for escort.⁷⁸ The weather, with its low ceilings, favored the enemy pilots, permitting them to slip in close before detection, and it prevented interference at the home bases. Had the Bougainville strips been heavily damaged, it is highly probable that Japanese reaction to the landings could have been greatly diminished. Even under the prevailing handicaps General Twining found the results very encouraging, citing a loss by D plus 9 of 190 enemy aircraft to an Allied loss of 32, but by then his fighters were in a state of semi-exhaustion.⁷⁹

Twining saw one answer to his problem—more P-38's to form a full P-38 group—and Harmon passed along his request for a complete group of seventy-five aircraft plus a reserve of 50 per cent by 1 September. He stressed the nature of amphibious landings, their requirement for adequate fighter cover, and the necessity for counter-air force missions by escorted bombers which were lacking in the Rendova landings; hence, the critical need to augment the twenty-nine P-38's on hand as of 9 July.⁸⁰ There was no denying Twining's predicament. As matters then stood the fighter shortage contributed heavily to Fighter Command's inability to isolate the battlefield, but as in all similar circumstances, General Arnold was forced to weigh the request against the needs of the several theaters of war. In the current situation the sole source of P-38's lay in the commitment to North Africa, and this Arnold did not wish to weaken.⁸¹ Once more Harmon and Twining would carry on with less than they believed necessary.

Under the effective cover provided by the fighters, the Seabees of

Acorn 7 rushed construction of the new strip on Segi Point, so that by D plus 10 it was possible to report that the 3,300-foot strip was available for limited operations. Harmon was delighted. Now, he felt, there was an appreciation of air operations radically different from that encountered upon his initial arrival in the theater in July 1942.⁸² Segi had its troubles; it was an unsafe field with a high accident rate, but it is probable that this strip lying only forty miles from Munda saved many a damaged plane and worried pilot, who might not have been able to hold out for another eighty miles down to the Russells.⁸³ Despite all its shortcomings, this field offered a refreshing contrast to the original pace of construction at Henderson Field, and there were other signs of progress as well. Harmon took increasing satisfaction from the manner in which the Thirteenth Air Force was being integrated and employed as a unit in the scheme of operational control exercised by Admiral Fitch. Very soon in the future General Twining would replace Admiral Mitscher as COMAIRSOLS. It would be a trying assignment, but one which for the first time would place an AAF commander in direct operational control of all the air units in the Solomons. The shift in command was scheduled for 25 July, and to meet it Harmon attempted to bolster Twining's staff so that the rear echelon operating from Espiritu Santo would be able to carry on without distracting the Thirteenth Air Force commander from his new responsibilities as COMAIRSOLS.⁸⁴

All this represented a decisive advance over the critical months of 1942. Whereas in the early days of the struggle for Guadalcanal the enemy had commanded the sea approaches to the island and all of the air except a small area around Henderson Field, now he was unable to gain mastery of either element. Thus far he had failed to overwhelm the fighter defenses. When he tried to send down the Tokyo Express on the night of 5/6 July, he met a task force under Rear Adm. Walden L. Ainsworth, and there in the Kula Gulf occurred another of those wild night actions so typical of the Solomons naval battles. Enemy losses were judged high but later were scaled down to two destroyers, at a cost to Halsey of the *Helena* and the *Strong*. One week later came a second attempt and again Ainsworth drove off the Express, this time paying for it with his light cruiser *Honolulu* and the destroyer *Gwinn* and suffering heavy damage to several other units of the task force.⁸⁵

These clashes represented the surface counterpart of the air cover provided by Fighter Command and, although costly to Halsey, they

achieved their purpose. They removed the threat to the Allied landings on the north coast of New Georgia, and by preventing the enemy from continuing his use of the Kula Gulf route in supplying the garrisons at Vila and Munda, they forced him to send ships and barges all around Vella Lavella to the west side of Kolombangara, concealing them in anchorages along the south coast of the latter island. En route they became fair prey for ranging fighters and bombers.⁸⁶

For a few days in the second week of July the Japanese reduced the scale of the daily air assaults, and then having gathered their strength they came down on 15 July with the largest single formation since the epic battle of 16 June. Twenty-seven bombers, mostly Bettys, were covered by forty or fifty Zeros, who desperately tried to clear the air of the forty-four Allied defenders, but again with no luck. No less than fifteen of the Bettys went down in the combat which raced northwest over Vella Lavella, and they were accompanied down by thirty Zeros, or more than half their escort, at a total cost of three COMAIRSOLS fighters and pilots.⁸⁷ This was an astonishing ratio of loss: 15 to 1 in terms of aircraft and nearly 40 to 1 for personnel. Could the Japanese long sustain such attrition? If their air commanders seemed unable to learn not to bunch their aircraft in combat, they indicated no signs of weariness in filling up the fighter pens at Kahili, Buka, and Rabaul, for despite grievous enemy losses, Allied reconnaissance planes reported heavy fighter stocks available.⁸⁸

Nevertheless, there was some evidence that the Japanese were feeling the pressure of their lavish expenditure. After the 15th they virtually abandoned their attempts to attack the New Georgia positions in frontal air assault. To be sure, the beaches and ships were not left unmolested, but henceforth the enemy would use his fighters with less abandon, avoiding reckless destruction, and he would inflict all possible damage during the hours of darkness.⁸⁹ After 15 July there would be no lack of red alerts on Rendova and New Georgia as the ever reliable coast watcher upon Vella Lavella monotonously passed along his laconic report: "Hear plane bearing NE, course SE."⁹⁰

The weather, which had insulated the enemy's airfields against the heavy strikes planned against them and saved his shipping from the prowling B-25's and TBF's, could not hold forever. Counter-air force operations went on against Rekata Bay and Munda during the earliest stages of the operation, but no heavy bombers could reach the Buin area until 5 July, and even then the nine B-24's found no shipping tar-

gets, dropping on Ballale and Munda instead. But by the following day the airfields on Bougainville began to feel the weight of the heavies. Henceforth, B-24's and B-17's were over the Bougainville installations with increasing strength and frequency, both by day and by night. Furthermore, Japanese engineers had to contend with delayed-action bombs imbedded in their runways, as well as with the fragmentation clusters which shattered Zeros and Bettys parked in unprotected areas.⁹¹

B-25's of the 42d Group now entered the battle and it was immediately apparent that the long hours of training in minimum-altitude tactics conducted by Col. Harry E. Wilson down in Fiji were yielding substantial dividends. No Japanese vessel was safe from the Mitchells, and day after day as they ranged up and down the Slot they caught small cargo vessels, barges, and even an occasional destroyer, strafing and bombing from 75- to 100-foot altitude, nearly always with fatal effect.⁹² Twining was highly pleased with the B-25's, indicating only two worries: interference with their operations by the Navy, and lack of adequate parts to keep the medium bombers in the air, but despite these handicaps they continued to perform well.⁹³ They accomplished much more than the execution of shipping strikes; in fact, the majority of their missions were bombing and strafing attacks upon ground targets on New Georgia or Kolombangara, varied by an occasional mission up to Ballale or over to Rekata Bay, but when surface targets appeared, B-25's of the 42d Group were ready not only to hit them but to strike with such accuracy that the vessels either sank immediately or were left badly damaged and afire.

While medium and light bombers continued to threaten the enemy's shipping and the Tokyo Express during his attempts to keep alive the besieged garrisons, Strike Command now was able to throw far heavier forces against the harbor areas at the south end of Bougainville. Two major efforts were made during mid-July, one on the 17th and another on the 18th, of which the first was the more successful. For several days prior to the 17th the heavies had been hitting the Kahili, Ballale, and Buka areas—thirty-six were up on the night of the 13th and three nights later thirty-one more dropped forty tons of fragmentation clusters on Kahili, where the enemy's night fighters were growing troublesome.⁹⁴ Then on the morning of the 17th, Strike Command sent a carefully planned and coordinated strike against the shipping lying off Buin. It was a powerful force for the Solomons air units: 36 SBD's,

35 TBF's, and 7 B-24's, all escorted by 114 fighters. B-24's struck first, claiming hits on two cargo vessels, and their crews could see the Zeros struggle to take off from Kahili to protect the ships in the harbor from the assaults of the dive and torpedo bombers. The defenders were too late. At altitudes ranging from 300 to 7,000 feet Corsairs picked off the hapless Zeros, while over the anchorages the SBD and Avenger pilots picked their targets and made their runs. It was a fine day's work. In the air the ten-minute engagement had cost the enemy at least forty-four Zeros and four float planes; in the harbor the attackers claimed serious damage or sinking of probably three destroyers, a PC, two cargo vessels, and an oiler, and one AK had been run ashore. The total cost was five Allied planes.⁹⁵

Next day the bombers were back again, this time fewer light ones, more B-24's, and no less than 134 fighters, the most powerful escort yet sent north. Employing similar tactics, except that fifteen B-24's were detailed to hit the Kahili runway and revetment areas, the low-level bombers again inflicted heavy damage on ships in the harbor, while twenty-one Zeros fell to the escorting fighters. This time the cost was higher; nine fighters and one TBF failed to return, but since these engagements occurred over the enemy's home fields nearly 340 miles from Guadalcanal, they were the more remarkable.⁹⁶

Buin was not yet completely untenable for the Japanese surface units, but it had become highly dangerous, and it was the task of COMAIRSOLS to keep it so. Again on 22 July a strong force hit the area, damaging a number of ships. B-24's missed the warships off Buin that afternoon in an independent attack, but the implication was plain.⁹⁷ Buin was no longer a safe haven. Three times in one week striking forces involving 150 planes each had been sent against the shipping at Buin, and the lesson could hardly be overlooked by the Japanese commanders.⁹⁸ By the end of July the amount of shipping there was substantially lower than the average of previous months. Nevertheless, the enemy continued to send down surface craft, smaller ones now, and COMAIRSOLS planes continued to sink them. Unfortunately the weather interfered from time to time, as it did on the 29th, when it caused cancellation of a coordinated strike of 220 planes, but from mid-July forward the local commanders at Buin could expect a heavy assault at any time favorable weather conditions and the presence of surface targets happened to coincide.

It was apparent that the scale had tipped sharply against the enemy,

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whose daylight retaliation against Rendova was now almost negligible. By skilful timing the Japanese managed to break through on 21 July, coming in with sixty-odd planes only a few minutes after the Rendova fighter patrol had gone off station at 1700, but by placing P-39's and P-40's on Segi it was possible to put an end to these dusk attacks which the enemy had attempted on several occasions.⁹⁹ On 25 July the Japanese tried one more daylight strike, sending down thirty to forty dive bombers with thirty Zeros to strafe the beaches, but the Rendova patrol intercepted, knocking down eight of the escort and forcing the Vals to shed their bombs aimlessly.¹⁰⁰ Thereafter they subsided except for night harassments.

In pursuance of Halsey's plan, command of COMAIRSOLS passed from Adm. Marc Mitscher to General Twining on 25 July, a day which marked a milestone in the record of the Solomons campaign.¹⁰¹ COMAIRSOLS had come a long way since the early days in the Solomons when each of the services was anxious to maintain its own prerogatives, when the AAF commanders struggled to attain some modest measure of operational control over their own aircraft, and when the file of cable requests for additional planes grew fat by the end of each month. The Thirteenth Air Force even now continued as a training and administrative air force compelled by circumstances to forego all operational control over its own aircraft in the forward area, where the cutting edge of the South Pacific air units was in daily contact with the enemy. But Air Command Solomons, into which the Thirteenth had fed its men and its planes, had done remarkably well. Since 2 April the air strength at the disposal of COMAIRSOLS had more than doubled, moving up from 235 to 539 planes, and the daily average of fighter aircraft assigned had risen from 108 during February to 281 during July. In the 26-day period opening with the landing on Rendova on 30 June, Fighter Command alone claimed 316 enemy planes at a cost of 71 aircraft and 40 Allied pilots, of whom 11 were AAF men.¹⁰²

For the first time in the Solomons operations the air units were to be commanded by an AAF general. Twining brought with him his own staff, 70 officers and 200 men from all services, leaving behind him at Espiritu Santo Brig. Gen. Ray L. Owens as deputy air force commander of the Thirteenth. His chief of staff was Capt. Charles F. Coe, USN, and his Strike Command was led by Col. David F. O'Neill, USMC; but both Fighter and Bomber Commands of COMAIRSOLS

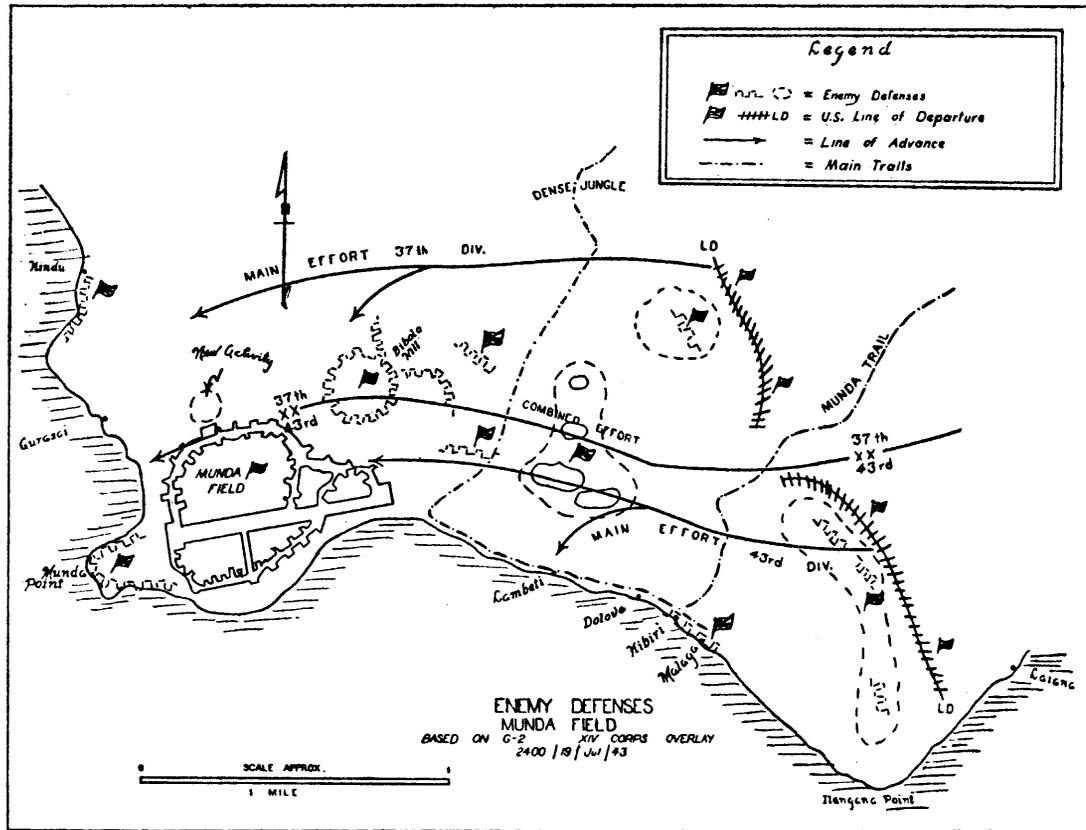
went to AAF officers. Brig. Gen. Dean C. Strother now commanded the former, Col. William A. Matheny the latter, and both retained their respective commands within the Thirteenth Air Force.¹⁰³

Twining's new command, while not exhausted, was rather well used up, especially its fighters, which had carried a very large share of operations during the first twenty-six days. Immediately he began to move the P-38's to a rear training area, retaining only a few as night fighters; the fresh P-38 unit would return by 1 September. Meanwhile, he found the performance of the mediums and heavies gratifying, although there remained the unsolved problem of congestion in the forward area. Recommended improvements had not yet occurred, the airfields on Guadalcanal left much to be desired, and the second bomber strip at Carney continued under construction and would not be ready for several weeks.¹⁰⁴ But the general outlook was bright as COMAIRSOLS faced the enemy. His pilots had inflicted appalling losses upon the Japanese, whose gunnery remained poor and whose unarmored planes, lacking self-sealing fuel tanks, blew up with pleasing regularity. No less than 267 had been claimed in July alone.¹⁰⁵ For the remainder of the year COMAIRSOLS would exceed the planned monthly average of 150 planes destroyed, but Twining would need all his strength. The enemy offered slight hope that he would abandon the field without a bitter struggle.

The Assault on Munda

The early phases of the New Georgia operation had proceeded auspiciously. Shielded by the superb fighter cover, the amphibious forces had made their landings on Rendova, then at Oleana Bay in the Wickham Anchorage area, at Viru, and finally, after some delay, at Rice Anchorage. By 5 July this last force, under Colonel Liversedge, was ready to advance south on Bairoko, whose seizure would prevent the enemy garrison from receiving reinforcements from near-by Kolombangara.¹⁰⁶

These forces represented flanking movements. Halsey and his planners had determined that should the Japanese not react too strongly to these minor landings, it would be possible to push ahead with the assault upon Munda. Since the reaction had not come, Admiral Turner and General Hester were authorized to proceed against the major objective. Accordingly, early in the dark hours of 3 July, leading elements of the 43d Infantry Division moved across the Blanche Channel to Zarena



Beach, approximately six miles east of Munda on New Georgia. By 8 July all units lay behind the Barike River, in position for the attack upon the estimated 4,000 enemy troops, who also had to face Liversedge's three battalions coming down from the north.¹⁰⁷ Thus far it was reasonable to assume that the schedule could be maintained and that within a 30-day period the entire New Georgia group could be wrested from the enemy.¹⁰⁸

Unfortunately, neither the Japanese nor the terrain permitted realization of these sanguine hopes. Here on Munda the enemy enjoyed shorter lines of supply than at Guadalcanal; his strong Bougainville bases were closer, his naval forces were at hand, and he had organized an ingenious and thorough defense system based upon numerous mutually supporting pillboxes and log dugouts, all well concealed and powerfully constructed. Even his military tactics had improved. His troops, physically fit and well fed and equipped, seemingly had access to an inexhaustible supply of ammunition, and they were prepared to die rather than yield.¹⁰⁹

New Georgia's terrain provided the enemy with a powerful ally. It is characterized by dense jungle with thick, almost impenetrable undergrowth and low ridge lines, possessing no well-defined spurs or landmarks, nor any open country such as exists on the north coast of Guadalcanal. For the ground forces all this meant jungle warfare of a type even more vicious than that encountered in the first campaign; here there were severe restrictions upon freedom of movement and visibility often was limited to a few feet.¹¹⁰ Such factors as these did not help the air forces in their attempts to operate closely with the painful advance of the ground units.

As the battle progressed it quickly became apparent that consistent close support of ground troops from the air, as originally planned, was impracticable.¹¹¹ The jungle simply did not permit it. Denseness of growth made the detection of suitable objectives impossible until friendly troops were too near the prospective target for safety; this was not the open warfare of the flat or rolling lands of western Europe, where in good weather pilots of the tactical air forces could view miles of enemy armor winding along below them. This was New Georgia, where the battalions painfully inched their way forward through the jungle, frequently under extremely heavy mortar and machine-gun fire coming from positions they could not locate, and where pilots overhead could see neither friend nor enemy. Neither the air liaison

parties on the ground nor the air observers in the spotter planes could identify enemy positions; in fact, there was not a single instance during the entire operation when aerial observers were able to report movement of enemy troops.¹¹² A part of the difficulty arose from the scarcity of reliable ground maps. The standard map for the operation was a gridded aerial mosaic which included no detail other than the coast line, and in reading it troops frequently were even unable to locate their own position on the map—much less that of the enemy. Some minor success derived from the use of smoke shells as target designators, but this method depended upon close timing and upon the maintenance of reliable radio communications between air and ground units. Both were lacking. Hence it was necessary to employ the bombers primarily against those points which were too conspicuous to permit concealment, such as bivouac areas and supply dumps, or against known artillery positions; these at least were well clear of friendly troops, and whenever possible were selected a day in advance to allow time for proper briefing of the air units involved.¹¹³ In these attacks upon the New Georgia targets, Strike Command furnished TBF's and SBD's, the former carrying 2,000-pound "daisy-cutters" and the latter a similar type of 1,000-pound bomb, but frequently both heavy and medium AAF bombers joined the Marine planes.¹¹⁴

As the twin drives pushed toward the Munda strip, it was apparent that progress was slower and resistance more stubborn than had been anticipated. On the north, Colonel Liversedge's battalions had taken Enogai on the 9th with the help of the light bombers, but thereafter this force was unable to interrupt completely the enemy's line of communications, neither denying him reinforcements nor preventing his withdrawal. Similarly, the forces advancing westward were making slow progress in the face of heavy resistance, constant nightly infiltration, and harassment amid the dense jungle; by 12 July the 169th Infantry Regiment was unable to advance farther and the 172d, which had disengaged from the main attack and turned south through the mangroves to establish another beachhead at Laiana, was without food or water or means of evacuation.¹¹⁵

Progress was slow, much too slow to please Halsey. On 13 July he orally directed General Harmon to assume full command of and responsibility for ground operations and to take whatever steps he deemed necessary to facilitate capture of the airfield. Harmon at once proceeded to New Georgia, where he relieved General Hester and

gave to Maj. Gen. Oscar W. Griswold, commanding general of XIV Corps, command of all forces on New Georgia. Henceforth, the assault progressed more favorably even though it continued at a slow pace.¹¹⁶

With the help of the light and medium bombers the ground units painfully edged toward Munda strip, which the 169th could see by 16 July. Many of the air missions were summoned by Colonel Liveredge in the Bairoko area, but the immediate Munda area absorbed increasingly heavy bomb loads as the attack troop units slowly closed in on the field.¹¹⁷

On 25 July came the final push on the Munda strip, an attack carefully coordinated with a naval bombardment by seven destroyers and with the heaviest air bombardment yet seen in the South Pacific.¹¹⁸ Against three target areas covering less than one-half square mile, a force of 171 light, medium, and heavy bombers dropped more than 145 tons of bombs within a period of slightly more than a half hour. Later in the afternoon, ten more B-24's hit Bibolo Hill, just north of the strip, to add to the morning's destruction.¹¹⁹ But even under this weight of metal the Japanese resisted, apparently determined to exact the highest possible price as they faced the 43d Division approaching from the east and the 37th driving in toward the coast north of the field. Even when the 43d had reached the outer taxiways of Munda by 1 August, cautious Harmon was reluctant to predict the date of Munda's fall or the time necessary to evict the enemy from all New Georgia.¹²⁰ But now his pessimism was overdone. On the afternoon of 5 August, less than nine months after the Japanese had landed on 21 November 1942, all organized resistance ceased around Munda field. There remained a pocket of enemy resistance at Bairoko Harbor, but when two battalions of the 25th Division occupied the east bank of the harbor on 25 August, they met no opposition. The enemy had evacuated his forces to Arundel and to Kolombangara, where he had begun work on an airstrip the previous January.¹²¹

Now it was over. The new task was to rush the Munda strip into a condition suitable for operation by the planes and crews which had aided in its capture, for possession of Munda brought all the Solomons bases within range of the light bombers and fighters. The New Georgia operation was a sharp portent of the direction in which the tide of air strength had turned; the enemy had lost his grip only 120 nautical miles from his strong bases at Kahili and Ballale, whereas Allied aircraft had worked from their major bases on Gaudalcanal, 180 miles distant, sup-

ported by the forward strips on the Russells, 120 miles down the Slot from Munda.¹²²

The air phase of the operation had been of greater magnitude than ever was possible in the Guadalcanal campaign. During the 37-day struggle Allied air units reported the destruction of 358 enemy aircraft, incurring a loss to themselves of 71 fighters and 22 bombers of all types.¹²³ Fighter cover had been superior. Both COMAIR New Georgia and the air liaison parties had called for strikes, whose execution required 1,833 bomber sorties by planes of all services, although the greatest number of these (1,649) were flown by the light bombers of the Marines; and this figure excluded the missions ordered directly by COMAIRSOLS against similar targets.¹²⁴ Throughout the New Georgia campaign the heavies continued to hit at Kahili, sometimes in coordination with the light bombers, and Allied fighters were forced constantly to remain on the alert against Japanese fighter and dive-bomber sweeps, which became troublesome in the final week of the offensive. Allied ships off Rendova provided tempting targets but all efforts to hurt them were ineffectual; on 4 August a series of running fights with Zekes cost the enemy three fighters lost to Corsairs, and eight more shot down by ten AAF P-40's, with Lt. L. B. Shuler personally accounting for four.¹²⁵

There was divided opinion over the effectiveness of the air effort. Even prior to capture of Munda, General Harmon had praised the contribution of the air forces, particularly the fighter cover. But the terrain itself had worked against close employment of the air weapon, and the Japanese once more demonstrated ability to absorb tremendous punishment. Moreover, the practical aids to useful employment of the air weapon were absent. Adequate aerial photos had not been made available, several days elapsed before any aerial coverage could be obtained, and in many instances when the negatives arrived they had not covered the desired areas.¹²⁶ Those responsible for the provision of close support for the ground troops were not entirely content with the results achieved, despite the handicap of terrain factors. The operations officer of Strike Command believed that the commander of ground troops failed to appreciate the utility of the air weapon, and because missions could not be dispatched unless specifically called for, on many days air power sat idle on the strips. Even when requests finally came through, the targets were from 1,000 to 2,000 yards in front of the lines.¹²⁷

It was apparent also that the heavy air attack upon the enemy positions at Bairoko prior to the assault by the Liversedge force had failed either to dislodge or disrupt the Japanese sufficiently to make the attack successful. Despite the very high count of enemy planes destroyed in the air and the ships and barges sunk by the B-25's and light bombers at Webster Cove, at Hamberi, up at Kahili, or out in the Kula Gulf, it proved impossible to cut off New Georgia completely from the enemy's adjacent bases. He continued to evacuate a number of his troops from Bairoko. Nor were the invaders ever able to stop the nightly harassment by light bombers, an activity which constituted probably the most effective Japanese air operation. It was particularly troublesome in the Enogai area, where almost nightly the float planes from Faisi or Vila dropped light antipersonnel bombs, inflicting a number of casualties and much loss of sleep.¹²⁸

For the first time in the Solomons campaign, excluding the improvised B-17 assistance at Mt. Austen, the air transports participated actively in the battle. Unlike the Guadalcanal experience, this time air commanders had foreseen the necessity for providing air drops, although ground commanders were informed that air transport should be used sparingly and only in the absence of all other means of transportation.¹²⁹ The emergency quickly arose when the 169th and 172d Infantry Regiments drew up along the Barike River area, where deep swamps and very thick jungle reduced progress to a snail's pace; men were exhausted and units were weakened as the result of hand-carrying supplies for distances of 2,000 to 2,500 yards. Then the 172d ran into further trouble as it turned to the beach and had to rely in part upon air drops.¹³⁰ The major problem for the C-47 pilots was to secure an adequate supply of parachutes and containers and to drop them within reach of friendly troops. Some of the materials went to the Japanese and some hung beyond recovery in the tall trees, soon making it necessary to notify the ground units to recover all possible parachutes and containers, so scarce was the supply of these items. But by 16 July more than sixty tons of supplies, including ammunition and water, had been dropped to the northern force and to the battalions east of Munda. These drops were made by C-47's of the South Pacific Combat Air Transport (SCAT) organization, to which planes of the 13th Troop Carrier Squadron were assigned as needed.¹³¹

With Munda strip in Allied hands, the immediate tasks were to defend it and to reconstruct it. Early examination of the field indicated

that damage had been lighter than originally anticipated and that a minimum expenditure of labor would be required to place the field in operation. Heavy interference by the enemy might be expected. But despite the short distance to Kahili, and despite the fact that the Japanese had nearly 500 aircraft in the Rabaul-Kavieng-Bougainville area, they were unable to execute a single effective attack against the men and equipment on and around the field—in fact they scarcely even made the attempt. One effort occurred on 10 August when an estimated fifty enemy fighters came down to make a low-level attack upon the bulldozers, but eleven P-40's and three P-39's turned them aside. Three days later they tried again but failed, and thus Munda's reconstruction moved rapidly ahead.¹³²

The 73d Seabee Battalion had inherited the task of widening, resurfacing, and regrading the original 4,000-foot runway and the two taxiways which the Japanese had added. On 9 August, Acorn 8 joined the 73d, and now as equipment arrived it was put to work. Power shovels bit into Kokengolo Hill to make the dugouts, bulldozers pushed out the roads, and rollers and dozers spread out the coral on the strip which was dry but soft. Construction went ahead with extreme rapidity, and on the afternoon of 14 August two AAF P-40's of the 44th Fighter Squadron landed at Munda to remain overnight, thus becoming the first operational aircraft to use the newly captured field.¹³³ When the Army's 828th Engineer Aviation Battalion joined the naval construction force early in September, the project forged ahead even more rapidly, and by 5 October planes were able to use the entire 6,000 feet of runway. The end of each day's labor brought rain, and each night brought down the enemy's raiders who did their utmost to disrupt the work, but it moved rapidly ahead regardless, although it was necessary to abandon night work.¹³⁴ As rapidly as possible refinements were added to Munda, new parking aprons and new wide taxiways appeared, and to all of this the 828th made a major contribution, aided on some projects by the 131st Engineer Regiment and cooperating with the 73d Seabees on others.¹³⁵

Very quickly Munda became a key installation in the Solomons chain. Its excellent coral, easily available in quantity, permitted construction of a runway capable of withstanding very heavy operational loads, and Twining used it to its fullest capacity. Before many weeks had passed, traffic at Munda exceeded that of any other field in the South Pacific; during the month of October the average daily depar-

tures and arrivals approximated 400, and on one day the peak reached 564 aircraft of every type. Its major handicap was the hill which interfered with take-off to the northeast, but despite this hazard Munda remained the best of all the fields.¹³⁶

Seizure of Vella Lavella

While the engineers tackled the coral of Munda with their earth movers, the troops of the XIV Corps faced the task of evicting the enemy from the Bairoko area on New Georgia and from the other islands of the central Solomons. Halsey and Harmon were forced to decide immediately whether to send the corps directly against the Japanese base at Vila on Kolombangara, or to move around it. Vila was too swampy for development by COMAIRSOLS, hence very quickly the decision was reached to send the assault troops entirely around Vila to seize Vella Lavella instead.¹³⁷ Accordingly, an amphibious force under Rear Adm. Theodore S. Wilkinson, consisting primarily of the 35th Infantry Combat Team, by-passed Vila, landing at Barakoma on the southeast coast of Vella Lavella early on the morning of 15 August.¹³⁸ Other units landed on Baanga, where the enemy apparently had located some artillery with which he had been shelling Munda field. From 25 August to 23 September units of the XIV Corps were engaged in clearing Arundel and the smaller islands lying near by. No immediate occupation of Kolombangara was contemplated; instead, a plan was developed whereby air and artillery bombardment alone would reduce the Vila area, and this scheme was followed until 5 October.¹³⁹

On New Georgia all organized resistance had ceased by 25 August; Baanga, Arundel (after stiff fighting), and Wana Wana all were secured by 21 September; and by 6 October all patrols sent over to Kolombangara had returned negative reports. Next day a battalion of the 27th Infantry Regiment landed here and immediately occupied Vila.¹⁴⁰ The policy of by-passing had paid handsome dividends. The enemy had lost heavily in barges and personnel as he clashed with Allied surface craft patrolling north of Vella Lavella, but the greatest gain was in the saving of Allied lives. The enemy could have made an Allied frontal assault on Vila a most costly business, for the place was studded with pillboxes, trenches, machine-gun emplacements, and coastal guns. Instead of facing the triple line of pillboxes on Kolombangara, the troops went ashore on Vella Lavella against minor opposition, gaining the site at Barakoma for an additional fighter strip and

forcing the enemy to abandon all his central Solomons positions except that over on Rekata Bay.¹⁴¹

All this ground activity was accompanied as always by a heavy drain on the air forces. The fighters had pretty well insulated the Allied bases against enemy daylight attacks, but they still could achieve very little at night, when the Japanese demonstrated increasing skill.¹⁴² Their float planes regularly heckled the PT boats operating against barges in the central Solomons, and they bombed the Russells and Guadalcanal at every opportunity and not always without damage.¹⁴³ But none of these raids could equal the effectiveness of the attacks which General Twining now could throw against the Japanese from the bases on Guadalcanal, the Russells, and latterly Munda.

The second phase of air operations in the New Georgia campaign began as soon as it was possible to operate planes from the newly captured Munda strip. On 14 August the COMAIR New Georgia command post was officially opened on Munda Point by Brig. Gen. Francis P. Mulcahy, USMC; next day, from a tunnel driven into Kokengolo Hill, Mulcahy conducted the first full day of operations, when fighters were rushed up to cover the landings on Vella Lavella.¹⁴⁴ The new beachhead lay dangerously close to Kahili; there would be no problem for the enemy to strike it. Mulcahy planned to hold a 32-plane cover over the landing operations, but he found it impossible to do better than a 12-plane patrol on the second day. On the first day his fighters had knocked down approximately twenty-five aircraft in two interceptions over Vella Lavella, and eight Corsairs had destroyed ten more at Kahili, but the enemy came right back.¹⁴⁵ Operations from Munda continued hazardous, with enemy raiders overhead nightly, and beginning on the 16th the entire area, including the 73d Seabee camp, was subjected to intermittent artillery shelling during the daylight hours. Fortunately, this last hazard disappeared on the 19th with the capture of Baanga Island.¹⁴⁶ But the night raids persisted and general operating conditions at Munda were far from satisfactory, notably communications and transportation. Plane-servicing and maintenance crews were inexperienced, spare parts were extremely scarce, and the incomplete taxiways were cramped and in poor condition, but the rapidity with which all these were overcome contrasted strongly with the slow progress of the Guadalcanal effort.¹⁴⁷

Even more critical was the difficulty encountered in securing coordination and proper operation of the fighter direction centers during the

early phases of the Vella Lavella landing. The Barakoma air warning unit had been flung together with great haste on a 36-hour notice; properly trained personnel were not available, nor were spare parts, and when one of the most essential sets suffered a direct bomb hit on 17 August, radar detection became even more awkward.¹⁴⁸ The Japanese took full advantage of the difficulties and of the weather as they continued to strike hard at the LST's drawn up along the Barakoma beach. From their Kahili base they could easily hit the area, and hit it they did—108 times in the first month, using an estimated total of 319 planes. Much of the air raid warning had to come from observation posts; warnings varied from none at all up to fifteen minutes, but with the usual four to eight minutes most men were able to reach their fox-holes.¹⁴⁹

In these Barakoma raids the enemy never consistently inflicted serious damage or casualties, and he paid heavily. In one week ending on 26 August he lost forty-three fighters, five dive bombers, and one float plane, at a cost to COMAIRSOLS of one F4U in combat.¹⁵⁰ It proved impossible to prevent all attacks from reaching Barakoma—it was too close to Kahili. Radar warning at ninety-five miles was reasonably good, scrambles were prompt, and planes were off the ground in excellent time; but in the absence of continuous air cover and adequate radar facilities at Vella Lavella to furnish Fighter Command with an earlier warning, Allied planes could not prevent the attacks. The best that could be achieved by existing facilities and by maintaining ground alert at Munda was an interception after the enemy had reached his objective, and on occasion he struck a telling blow.¹⁵¹ The heaviest attacks regularly coincided with the arrival of additional assault echelons, of which the ninth lost one LST on 10 October, with fifty-two men killed or missing. But despite all attacks on the Barakoma site, construction moved ahead, and even before the strip was ready Navy fighter pilots returning from Bougainville with crippled planes had landed on the field or in the sea near by.¹⁵²

While the fighters protected the newly won strip, medium and light bombers with their escorts were out stalking barges and having a good hunt. By August it was increasingly apparent that widespread employment of barges had become vital to maintenance of the enemy's outposts. He could move his heavier vessels from Rabaul over to Buka, thence down the east or west coast of Bougainville to Buin, or even directly to Buin from Simpson Harbor at Rabaul, although this last

route was used primarily by warships. But it was risky business to send heavy vessels down the Slot. The attempts to do so during July had resulted in disaster in the Kula Gulf, and thereafter the enemy relied very heavily upon barges of varying sizes, of shallow draft, and a fair turn of speed. They moved in groups down from Buin southeast to Timbala Bay on the north coast of Vella Lavella carrying men and supplies; then skirting the west coast of the island, they passed Wilson and Gizo straits to Kolombangara.¹⁵³ When attacked, the groups scattered, hiding in small bays and creeks where their crews covered them with branches, making them extremely difficult to spot from the air. Allied pilots derived particular pleasure from tracking them down at every plantation on the west coast of Vella Lavella, and at Kakasa and Sagigai over on Choiseul.¹⁵⁴ For the B-25's they provided a primary target. Day after day Colonel Wilson's B-25's ranged up and down the barge lanes, usually in pairs, though occasionally in larger flights with fighter escort, seeking out the hidden craft and often guided by the advice of local coast watchers who would report by radio the shifting location of the barges. At night PT's challenged them, sometimes in minor pitched battles. Fighters received instructions to strafe them as they returned to their bases upon completion of a patrol, although when heavy fighter cover was essential it became necessary to allow good targets to pass untouched. The B-25's enjoyed fewer diversions from their primary task, and by the end of August the two forward squadrons of the 42d Group had sunk or fatally damaged seventeen barges.¹⁵⁵

The antibarge campaign went well. Pilots of P-39's found their heavy nose cannon particularly useful against the light surface craft, and B-24's prowled against them at night. Halsey was impressed and pleased with this phase of the Solomons campaign, and well he might be, for on 4 October four P-39's and four Corsairs destroyed sixteen barges on a single mission along western Choiseul.¹⁵⁶

Air operations during August had cost the enemy an estimated 235 planes—55 of them went to the B-24's alone—and in the last three months no less than 781 planes had been claimed by all forces in the Solomons.¹⁵⁷ In September, Twining trebled the pace against the four Bougainville fields, including the new one spotted by Corsair pilots on 30 August near Kara, about seven miles northwest of Kahili. He sent up twenty-four bomber strikes, of which fourteen were by B-24's,¹⁵⁸ and the accelerated offensive must have stung the enemy, whose offensive and defensive operations reached a new high level by the third week

of the month. Japanese night flyers now were highly skilled and active; on the single night of 14 September, Guadalcanal, Barakoma, and Munda all were attacked, COMAIR New Georgia reporting seventy-nine alerts, all raiders coming over in flights of two or three. Searchlights probed for them, AA batteries fired 2,900 rounds, but no planes fell. The Japanese used all their tricks.¹⁵⁹ Tuned dipoles suspended from parachutes were dropped to baffle the radar operators; feints were made at Munda from one direction, then the attack delivered from another at a lower altitude; or the enemy would use Allied radio frequencies to confuse the defending fighters.¹⁶⁰

Normally, it proved impossible to prevent the Japanese from inflicting some damage on the planes and personnel at Barakoma, Munda, or Guadalcanal. P-70's had promptly proved useless for high-altitude interception and to make some use of them they were put to work with the PT's, long heckled by the night raiders. The surface craft would serve as "bogey-bait" to attract float planes, which then would be attacked by the P-70, but the results were disappointing.¹⁶¹ P-38's and F4U's enjoyed a few successes; Corsairs shot down a bomber over Munda on the night of 19 September, and the following night Lt. Henry Meigs II, flying a P-38, broke all local records by shooting down within sixty seconds two Bettys over Fighter No. 1 on Guadalcanal.¹⁶² But these exploits merely emphasized the absence of any really adequate night fighter defense. None of the enemy efforts would equal the damage caused by Allied night raiders over the Japanese bases or the success of the Black Cats, the Navy PB4Y's, or the newly arrived SB-24's in their searches up the Slot and around Bougainville.

The SB-24's represented the culmination of a low-altitude radar bombardment project undertaken in 1942 by the Radiation Laboratory of the National Defense Research Council, in close collaboration with Col. Stuart P. Wright, AAF liaison officer at the laboratory.¹⁶³ These planes were fitted with special radar-sighting devices which permitted operation of the bomb-release mechanism irrespective of visual sighting of the target below. General Arnold assigned ten of them to the South Pacific under the command of Colonel Wright, Harmon welcomed them, and on 22 August they landed at Carney at a time when it was convenient to place them as a complete unit in the 394th Bombardment Squadron (H) of the 5th Group.¹⁶⁴ Within five days pilots and radar men were ready to test their plane loads of electronic machinery against the enemy's barges and surface craft moving in the

blackness of the night. On 27 August they opened their own private campaign, and henceforth these planes were out over the shipping lanes almost nightly, bombing from 1,200 to 1,500 feet, often with surprising accuracy. Taking off from Carney Field in the evening, their flights averaged eleven hours each as they patrolled up the Slot to cover the shipping lanes leading into the Buin-Faisi area and to harass the convoys or single vessels moving down the east and west coasts of Bougainville.¹⁶⁵

Each succeeding week's operations served further to substantiate the claims made by Colonel Wright for his planes, which rapidly acquired an impressive reputation throughout the South Pacific. Perhaps their most distinguished performance came on the night of 28 September when five of the eight SB-24's aloft that night attacked a 10- or 11-ship convoy just north of Cape Alexander, sinking one destroyer and damaging other ships sufficiently to cause the convoy to reverse its course.¹⁶⁶ Both Harmon and his bomber commander, Colonel Matheny, were highly pleased with the unit, whose advance claims had now been proved and whose equipment thus far had stood up remarkably well under the rigors of nightly operations.¹⁶⁷ But the radar planes had created special problems of supply, of maintenance, and of employment, since for reasons of secrecy and because of their weak defensive armament, they could not be brigaded alongside normal B-24D's in daylight missions.¹⁶⁸ Neither could regular maintenance men be allowed to service their equipment, and to the XIII Air Force Service Command the unit represented a most awkward problem.¹⁶⁹ Harmon's solution lay in the creation of a special squadron to handle this type of equipment, and although his initial requests were turned down, his persistence—and doubtless the splendid record of the aircrews—convinced General Arnold. On 1 January 1944 the new 868th Bombardment Squadron (H) was activated, carrying on henceforth as a separate squadron directly under the XIII Bomber Command.¹⁷⁰

Meanwhile, the hybrid unit continued to operate with success. The SB-24's sank or damaged numerous surface craft, they forced the enemy to place a night fighter cover over his shipping, and they provided an almost infallible means of locating night convoys and task forces.¹⁷¹ The project proved the faith of its developers; plane for plane, its SB-24's sank or damaged more surface craft at night from low altitude than did the heavy bombers attacking in daylight. By March 1944 the rapid retreat of the Japanese and their unwillingness

to risk shipping in the Solomons area would result in technological unemployment for the "Snooper Squadron," and at this time the radar planes would be authorized to serve as pathfinders for the high-altitude bombers.¹⁷²

By the first week of October the enemy could no longer sustain his barge losses. Attempting to retrieve his surviving troops from isolated Kolombangara on the nights of 6, 7, and 8 October, he suffered severely, losing thirty-one craft to destroyers and twenty-five to the air forces,¹⁷³ with fresh disasters yet to come at the hands of Allied destroyers. On 6 October, twenty-four B-25's had introduced the Kahili defenders to tree-level attacks with fragmentation clusters, and the week's score showed twenty-six enemy planes eliminated.¹⁷⁴ These events set a hot pace, one that seemed momentarily to retard Japanese air operations; by the 9th only a handful of planes rested on the Bougainville fields, and there was a sharp drop at Rabaul as well.¹⁷⁵ Could the enemy maintain a pace in which he paid with an average of five planes for every Allied loss? He could and did. By 11 October Rabaul carried 294 planes; next day the Bougainville fields showed seventy-one, and the engineers were hard at work on Kara and the Buka and Bonis fields.¹⁷⁶ A long fight lay ahead.

Observing all this from Washington, General Arnold found the situation somewhat confusing by the end of September. He knew that steadily the strength of the Thirteenth Air Force had increased and he believed that Twining now had available notably superior forces in the air. Furthermore, combat scores indicated that for some time the enemy had been losing planes at a varying rate of 2 to 1 to 5 to 1, yet now the favorable ratio seemed to be falling off, and in some engagements COMAIRSOLS was trading plane for plane. Why? he asked. What prevented more vigorous offensive operations?¹⁷⁷

General Twining replied, basing his report upon ten weeks' experience as COMAIRSOLS. He had the planes—this he admitted; he had available bombers in numbers and types sufficient to neutralize enemy bases if only these aircraft could be employed to their full capacity, but once again it was the shortage of fighters that prevented maximum bomber employment. He controlled 200 fighters in the forward area, a number deemed adequate to furnish escort for all his bomber strikes in addition to the sundry other air tasks were it not for the air cover necessary to protect shipping into Barakoma and to protect the destroyer task forces falling back down the Slot after their nightly oper-

ations around Vella Lavella. These tasks simply consumed every available fighter, preventing the consistent heavy daylight strikes on enemy air bases which he believed were essential to fulfilment of the air mission. Recently the Japanese had begun to refuse combat in the air unless present in greatly superior numbers. Hence, Twining felt that enemy air power must be destroyed upon the ground. But because of the uncertainty of fighter employment and availability, it was impossible to execute any systematic plan of operations.¹⁷⁸

The answer lay in the dispatch of more fighters. Already he had three of the five South Pacific AAF fighter squadrons in the forward combat area, and he expressed some concern over the Navy's reluctance to increase its own contingent of one squadron during August and September.¹⁷⁹ For Twining this remained the paramount problem—not enough fighters. There was much pride in the performance of all branches. There was the great new base at Munda, and the new one at Barakoma which placed the air forces only eighty-five miles from Kahlili, bringing Buka and Bonis within fighter range.¹⁸⁰ But behind all the successes lay the feeling that there were not enough fighters to do the job. Demands upon the air forces had increased beyond any previous period because of the scattered bases and the variety of missions requested, and now Twining held a new directive ordering him to reduce the airfields in southern Bougainville by 1 November. He wanted more planes; lacking them he would “of course plug along and do it somehow.”¹⁸¹

In Washington, General Arnold fully appreciated Twining's problems. He reassured COMAIRSOLS that despite the bombardment of messages he implied no criticism of the field commander, and he passed him a “well done.” But Arnold advised him that he would have to manage with the squadrons currently available, because every fresh unit which the AAF could equip and train “must be thrown against the German until he is beaten.”¹⁸² Thus, the requirements of global war bore down hard on the men in the South Pacific.

CHAPTER 8

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BOUGAINVILLE

BY MID-OCTOBER 1943 Allied forces in the South Pacific stood on the eve of their assault upon Bougainville—the final land phase of the Solomons campaign. Both the precise date and the exact target of the forward move had been under vigorous discussion ever since the summer of 1942, shifting and varying from time to time as the conflicting requirements of the several theaters influenced the intensity of the Solomons offensive. Developments in the Solomons had been dependent not only upon the schedule for European operations but more recently for those in the Central Pacific. Although the decision to push an offensive through the latter area while continuing the Solomons and New Guinea offensives arose in large part because of the rapidly growing and reassuring naval expansion in the Central Pacific, nevertheless the decision had rested upon the assumption that forces theretofore counted upon for New Guinea–Solomons operations might be made available to Nimitz.*

Bougainville was the largest island in the Solomons. It possessed adequate harbors and a terrain favorable for the construction of airfields, it could easily be reinforced by infantry from Rabaul, and its ample air reserves rested on near-by New Britain, New Ireland, and—somewhat farther removed—upon Truk. Furthermore, the enemy had enjoyed ample time to prepare it for the attack sure to come after the fall of Munda, for Bougainville represented the sole remaining barrier between Rabaul and the Allied positions in the South Pacific.¹ At the northern end of the island were two airfields, two were on the southern end, one was on Ballale in the Shortland area, and on the east coast were one field and a seaplane base.² But the focal point of Japanese strength

* See above, p. 135.

on the island lay in the Buin-Kahili-Tonolei area, sheltered behind wooded Shortland Island.

The place was heavily defended. Any attempt to take it frontally would prove costly; yet, in spite of these facts, all the early planning foresaw just such an operation, because thus far each advance in the South Pacific had been measured in terms of fighter radius. This was MacArthur's original intention in his ELKTON plan, and as late as 16 September, Halsey had received word from Admiral King that an operation against Buin and Faisi should be conducted in the period 15 October-30 November, followed by capture of Kieta and Buka between 1 December and 31 January 1944.³ This schedule of progress at least offered the advantage of permitting fighter coverage of each step, and seizure of Buka would place the fighters well within range of their ultimate objective at Rabaul. Halsey had made his plans accordingly. On 11 July, he designated Vandegrift, in command of the I Amphibious Corps, as commander of land forces for the Bougainville operation. The assignment was heavy: capture of the airfields at Kahili and Ballale, the entire Shortland-Faisi area, and Tonolei Harbor. Infantry units tentatively available for this task were the Third Marine Division, the 25th Infantry Division, and units of the 1st Marine Raider Regiment.⁴ However, preliminary study of the problem indicated that even these substantial forces were insufficient to overcome the powerful enemy garrison, estimated at more than 20,000 men, and on 5 August, COMSOPAC altered the mission by limiting it to include capture of Shortland, Faisi, and Ballale Islands.⁵ But even this reduced plan was unsatisfactory, because fighters based in the Shortland area could not cover bomber missions to Rabaul. The enemy's vulnerability lay in the air and in his shipping resources rather than in his ground defenses, and this fact argued for seizure of some undeveloped area.

The Debate over Objectives

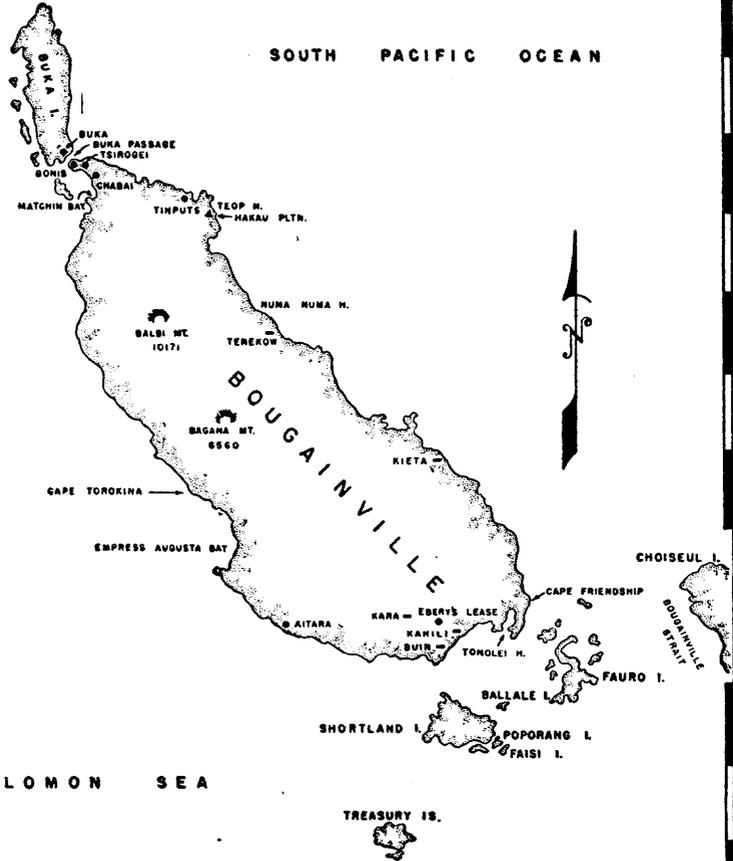
After serious discussion, on 7 September Admiral Fitch (COMAIR-SOPAC), General Harmon, Maj. Gen. Charles D. Barrett, USMC, and Rear Adm. Theodore S. Wilkinson all urged Halsey to abandon entirely the concept of a direct assault upon the Shortland area. These commanders recommended instead a simultaneous seizure of the Treasury Islands and the Choiseul Bay area on Choiseul, from which points air operations could strangle southern Bougainville, neutralize Buka, and prepare the way for a further advance either from Treasury to Em-

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CARTERET IS.



SOUTH PACIFIC OCEAN



R. J. KANE

press Augusta Bay or from Choiseul to Kieta.⁶ Even this plan quickly fell by the wayside on the grounds that it would consume too much time from the over-all Solomons campaign and would offer few compensatory advantages.⁷

Thus it came about that by mid-September, Halsey found himself in a most difficult predicament. King still insisted upon the Buin assault, regarded by Halsey as too costly for him to execute, and Nimitz had asked for five of the South Pacific's attack transports (APA's) for use in the Central Pacific. The schedule outlined by Admiral King would require the Kieta-Buka operation concurrently with MacArthur's advance into western New Britain,* and it would preclude the possibility of providing any but the most extreme fighter-protected daylight strikes and unescorted night missions against Rabaul during MacArthur's planned operation in the Cape Gloucester area. Although Halsey was eager to achieve the closest possible teamwork with MacArthur in the drive on Rabaul, he now was confused. To the Southwest Pacific commander he expressed his desire to undertake any plan deemed necessary by MacArthur, and to Nimitz he indicated his distaste for the direct attack upon southern Bougainville.⁸ Already he had offered MacArthur the Treasury-Choiseul plan, but the latter had asked for neutralization of the Rabaul airdromes during the scheduled December landings on Cape Gloucester. Hence MacArthur, fearing that any alternatives to Bougainville would delay the South Pacific air assault upon Rabaul until March 1944, requested Halsey to reconsider the problem with a view to obtaining airdrome sites on Bougainville sufficiently far north to permit fighter escorts to operate against Rabaul in December.⁹

The implications of this suggestion were clear. It would necessitate landing on Bougainville about 1 November in order to permit construction of the airstrips for operations in December; it would necessitate locating the strips on the west rather than on the east coast, and because of the limits imposed by fighter radius the site would lie some distance northwest of the Buin area.¹⁰

Halsey's forces made elaborate efforts to collect advance intelligence. Ground patrols landed from submarines, PT boats, and seaplanes at many points on Bougainville, bringing back their indispensable reports. Quickly, Halsey eliminated the less satisfactory targets. Buka lay beyond fighter range, Kahili was too strongly defended, the

* See below, pp. 328-29.

Shortlands lacked adequate beach area, while Kieta and Numa Numa on the east coast lay too far from Rabaul.¹¹ An additional factor was the phenomenal success of the Vella Lavella operation, which had completely by-passed heavily defended Kolombangara, forcing the enemy to evacuate the Vila area without any Allied loss. Perhaps the technique of by-passing could function again on Bougainville.¹²

Amid the debate, Halsey sent Harmon over to Port Moresby, where on 17 September the Bougainville question was threshed out. MacArthur rejected the Treasury-Choiseul plan, believing that it was not in fulfilment of the JCS directive for the over-all campaign and that seizure of a base on Bougainville itself was absolutely essential to operations against the Bismarcks. Whether the landings should occur on the east or the west coast was a matter for Halsey's own decision; in any case, MacArthur's own plans called for intensive air operations against the Rabaul fields during the period 15 October-15 November, which would indicate 1 November as a favorable date for initiating a landing upon Bougainville.¹³

Now that the ultimate decision lay in Halsey's hands, COMSOPAC wasted little time. All factors together pointed to a landing in the Empress Augusta Bay area near Cape Torokina, a west-coast site which was far from ideal. It was low and swampy, with a heavily timbered coastal plain, and it offered slight protection against onshore winds. There were no satisfactory anchorages for larger vessels, nor were there any roads or settled communities near by. But as compensation, there would be very little enemy ground resistance here, since the best intelligence reports indicated no more than 1,000 troops at adjacent Mosigetia.¹⁴ Halsey fully expected sharp resistance in the air and at sea; in fact, he anticipated violent enemy air reaction and regarded as the most critical task that of beating down Japanese air efforts during the landing and construction periods by smashing the enemy's Bougainville airstrips and maintaining a powerful fighter patrol over the landing areas.¹⁵ On the ground inaccessibility of the site was such that both Halsey and Harmon estimated a lapse of ten to twelve weeks before the enemy could move his artillery and major forces up to the invasion area; by that time the invaders must be braced for the attack.¹⁶

No question, then, that the plan was a bold one entailing many risks; it did not even evoke full enthusiasm in the South Pacific, but the die was cast. COMSOPAC accepted the risk, even welcoming the expected violent enemy reaction on the premise that the by-products of enemy

destruction and wastage would in themselves greatly advance the overall Pacific plan. He named 1 November as D-day and MacArthur approved, offering his maximum possible support for the operation.¹⁷

On 22 September, Halsey issued his initial warning order, canceling all previous plans and directing the seizure of the Treasury Islands and the northern Empress Augusta Bay area.¹⁸ Admiral Wilkinson would do the planning, General Vandegrift would command all land forces. To the Third Marine Division (Reinforced), under Maj. Gen. A. H. Turnage, went the Torokina assignment, while the New Zealand 8 Brigade Group, under Brig. R. A. Row, would handle the Treasury Island operation, both under General Vandegrift.¹⁹

Over in the Southwest Pacific the Fifth Air Force proceeded with its plans to render direct aid to Halsey's risky venture against Bougainville. General Kenney set aside a force of B-25 and P-38 squadrons to throw against the Rabaul air forces and shipping, but this was a continuation of efforts already under way against Rabaul. The Fifth had made numerous attacks upon the area, striking very hard on 12 October, but now Kenney was careful to coordinate his strikes directly with Halsey.²⁰ Beginning the night of 25/26 October, he scheduled nightly attacks on Buka and Kavieng to prevent the enemy from building up his strength at these two points; and if necessary, he planned to supplement these by daylight strikes. However, Halsey requested that Kenney's bombers concentrate their attention upon Rabaul, relying upon his own forces to reduce the Bougainville fields, and this was done.²¹

While the South Pacific forces gathered strength and laid their plans, the enemy furnished ample evidence throughout September that he was determined to defend with all his might southern Bougainville against a frontal assault. And Halsey made every effort to encourage the Japanese in their belief that the Buin-Shortland area was the proper target. They were aware of the reconnaissance on Shortland and on Choiseul, they observed the low-flying photo planes, and to meet the thrust which they expected against Shortland Island, they moved in fresh artillery and heavy equipment.²² However, the Allied occupation of Treasury raised a problem; since those islands lie on a direct line to the south coast of Bougainville, a landing there might well telegraph to the Japanese the true direction of the main effort. The solution lay in sending a small diversionary force of Marines over to Choiseul simultaneously with the landings on Treasury, because an attack on Bou-

gainville from Choiseul would lead logically up the east rather than the west coast.²³

In all these operations the air forces of COMAIRSOLS were assigned a familiar task involving the usual requirements of search and defensive reconnaissance, this time over the area east of 155° E. and northeast of the line Buka Passage–New Ireland, as well as over the sea approaches southwest of the Solomons. Then there was the call for maximum air coverage and support of the amphibious forces engaged on the beaches of Treasury and Empress Augusta Bay and for air defense of the area against attacks coming from Rabaul or the Buin area.²⁴ All this was the responsibility of General Twining, who as COMAIRSOLS had commanded all Solomons aircraft since 25 July.²⁵ For this critical operation Twining estimated that he could call on 60 Marine Corsairs up on his most advanced base at Barakoma, 31 Marine and AAF fighters on Munda, 103 F4U's, P-39's, and P-40's on near-by Ondonga, 48 Navy F6F's on Segi, and 22 more Corsairs and P-38's on the Russells. Back on Guadalcanal in reserve were approximately 45 more AAF fighters. So much for fighter aircraft.

For his striking force, Twining had 100 Marine and Navy SBD's on Munda, together with 48 TBF's and 48 AAF B-25's on the Russells brigaded with 27 Venturas. Guadalcanal carried the heavy bombers. In the AAF's two heavy bombardment groups 52 B-24's (4 of them SB-24's) were on this island, in addition to 27 Navy PB4Y's, 15 New Zealand Venturas, and 33 PBY's.²⁶ COMAIRSOLS forces were not large when judged by the standards of the growing air forces in Europe. But with more than 650 combat planes, they represented the highest point yet attained in the South Pacific by the heterogeneous collection of squadrons drawn from four different air services. For the Japanese, it was an uncomfortable contrast with the pathetic handful of nine planes which Colonel Saunders had led against Guadalcanal fifteen months earlier. And there were other things for the enemy to watch, too. Rear Adm. Frederick C. Sherman, commander of a carrier task force, was directed to be prepared to support the operations of the land-based planes by strikes against the enemy bases; and if the enemy should try to break through with his surface forces, it was the responsibility of cruisers and destroyers under Rear Adm. Aaron S. Merrill to intercept them and to attack any bases Halsey might direct.²⁷

In order to control directly all air operations over the beaches, a new air echelon was established. This was Air Command North Solomons

THE ARMY AIR FORCES IN WORLD WAR II

(COMAIRNORSOLS), created 1 September 1943 at Espiritu Santo and placed under Brig. Gen. Field Harris, USMC.²⁸ Drawing its personnel from the forward echelon of the 1st Marine Aircraft Wing, COMAIRNORSOLS became a part of the amphibious landings on Treasury and Bougainville and was charged with operational control of all aircraft entering the Bougainville area. This control was effected through two subordinate fighter commands, one for Treasury, the other for Torokina, and included operational control of all AA weapons and of the air warning services as well as fighter aircraft.²⁹

In addition to these tasks, there was provision for the employment of direct air support for the ground forces guarding and enlarging the perimeter. As in the case of Munda, air liaison parties were set up to advise troop commanders on the details of target selection, and when confirmed by division or brigade commanders, requests were passed on to COMAIRSOLS at Munda.³⁰

In such manner the commanders apportioned the several tasks. Troop commanders were to secure an area in the vicinity of Torokina bounded on the east by the river of the same name, on the north by high ground approximately 10,000 yards from the coast, and by the Laruma River on the west. Ultimately, the goal was a stretch of beach nearly 18,000 yards in length, protected by a perimeter of 30,000 yards, but this was an ambitious bite for the forces at hand and could not be accomplished at once. The primary concern was the airfields. The fighter strip must be rushed to completion prior to 1 January 1944.³¹

Of all the factors influencing the success of the Bougainville operation, most critical was the ability of Twining's bombers to beat down the enemy's air effort, primarily by smashing his air facilities prior to the invasion.³² Torokina lay dangerously close to the enemy's airstrips; five of them were less than 65 nautical miles distant. Kahili, Ballale, and Kara at the southern end of Bougainville lay almost squarely across the flank of the Allied bases, nearest of which was the fighter strip at Barakoma on Vella Lavella, 140 miles from Torokina. Munda, the closest bomber base, was 180 miles south of Torokina and the Treasury site only 40 miles from Kahili, Kara, and Ballale. North of Torokina, only 65 miles distant, was the well-developed field at Buka, supplemented by the newly completed strip at Bonis Plantation on the southeastern side of the Buka Passage, and only 220 miles distant were the five airfields of the Rabaul area. Clearly Torokina stood in the center of a nexus of enemy air power.

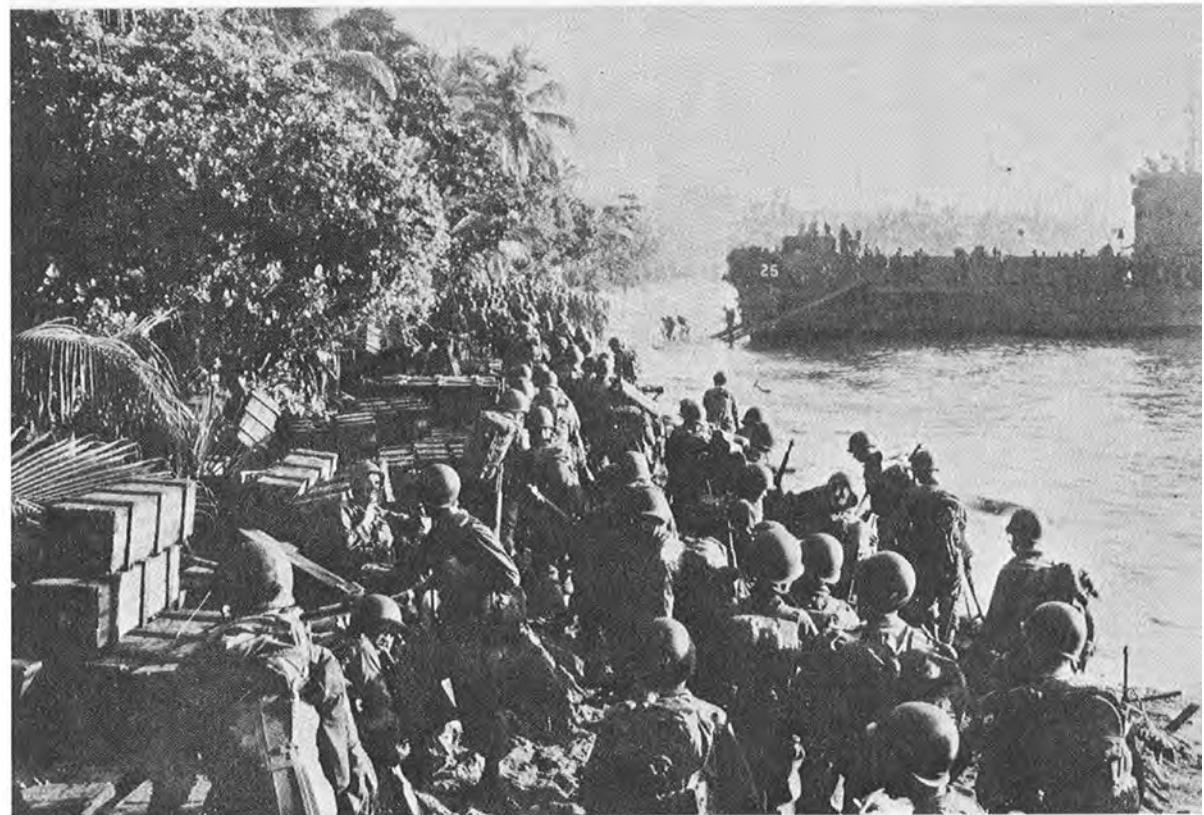
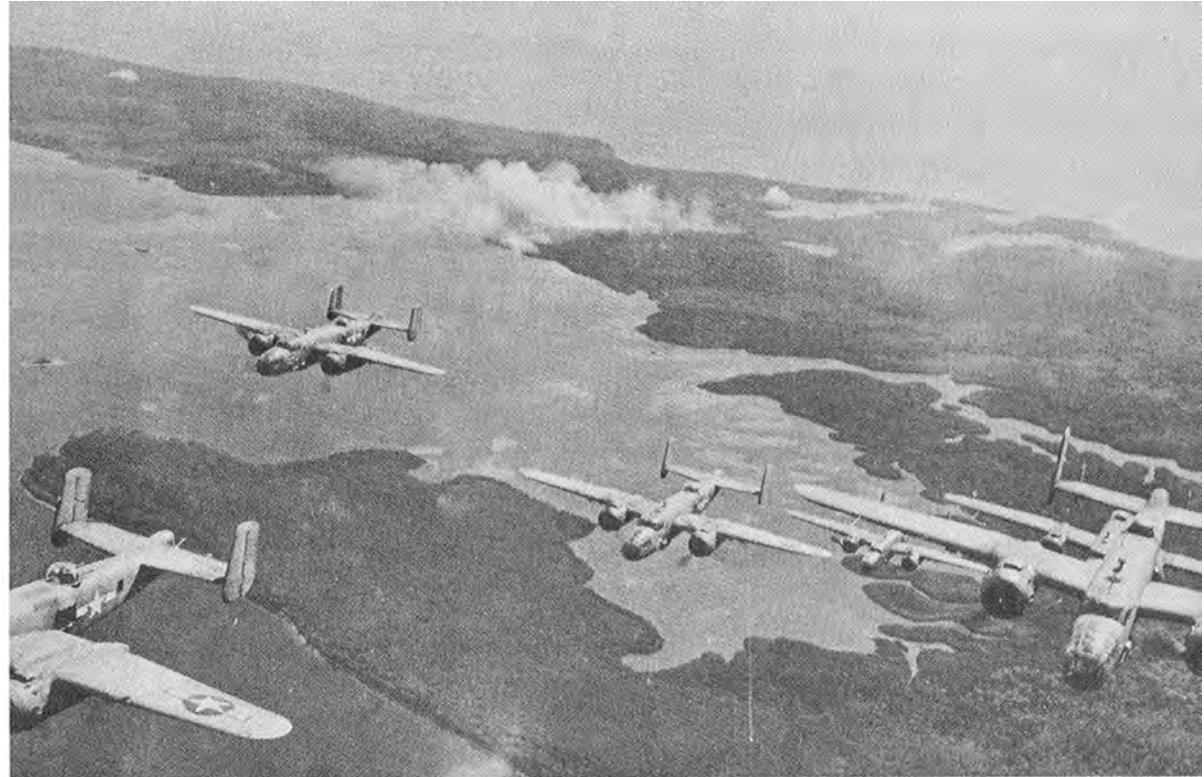
Twining's directive called for reduction of airfields in southern Bougainville by 1 November, and for this effort he could count on using five fields in the central Solomons area, including the new one on Vella Lavella. Two parallel strips had been constructed on Ondonga Island; there was one strip at Segi, and of course Munda, now 6,000 feet long and the sole field north of the Russells capable of supporting medium bombers.³³ COMAIRSOLS bore a heavy responsibility but it was not unique. Throughout the New Georgia phase his planes had struck at the Bougainville fields, the short-range bombers concentrating on the Kahili area, the heavies often covering Buka and Bonis. Adverse weather had interfered somewhat with the campaign, but by August the Japanese air commanders experienced difficulty in maintaining full air strength at Buin, and after the Allied capture of Munda it was necessary for them to withdraw the navy's CARDIV 2 back to Rabaul, away from its exposed and now untenable position at the tip of Bougainville.³⁴ Though a decision was reached, apparently in October, to commit as much strength as possible from Rabaul to the Solomons to check the Allied advance,³⁵ by mid-October when Strike Command moved to Munda from Guadalcanal, Japanese air power in the Bougainville area was on the downgrade, suffering under the constant pressure from heavy, medium, and light bombers. Now, on 15 October, when COMAIRSOPAC called for a reduction of the fields, Twining was ready to execute his maximum effort against the Japanese bases.³⁶

By late October all available air strength had been moved forward to bases within striking range of the Bougainville targets. SBD's and TBF's had advanced from Henderson to Munda, the medium bombers had moved into the space on the Russells vacated by fighters which had gone forward, and on Guadalcanal the heavies were shifted about.³⁷ Fortunately, the heavy bomber units of the XIII Bomber Command were in healthy condition. For the first time two complete squadrons of the 5th Group were operating together as a striking force, after the 23d Squadron moved up to Guadalcanal in mid-October. Another step in the systematization of the bombardment program occurred in the 307th Group when it established a regular schedule of missions on the basis of one every other day.³⁸ Furthermore, the planes of the 307th Group were moved from Carney to Koli Field, where the camp for the crews was quite close to the strip. The 5th Group had shifted from Henderson to Carney on 2 October, though this seems to have been a less happy arrangement than for the 307th.³⁹

Twining's sustained assault, actually no more than an accentuation of efforts maintained since Munda, opened on 18 October and continued on through the critical period of the landings.⁴⁰ It was intensive, aimed primarily at the airfields, and drew upon the peculiar capabilities of each type of aircraft available. Operating under Strike Command, the Marine SBD's and TBF's divided their daily attacks between Kara, Kahili, and Ballale, with Kahili regarded as the primary objective, since it was most extensively used of all the enemy strips. Occasionally the total number of Marine bombers in a single mission surpassed ninety, as against Kara on 30 October. These planes executed dive- and glide-bombing attacks, concentrating on the AA defenses and runways of the enemy airfields, under the tactical command of the SBD leader.⁴¹

To this bombardment activity the AAF contributed its B-24's and B-25's, the latter flying from the Russells after the third week of October.⁴² Normally the B-24's, with fighter escort, bombed from 17,000 to 20,000 feet, but B-25's for the most part delivered their attacks on Kahili, Kara, Buka, and occasionally Kieta from 50 to 100 feet, bombing and strafing runways, planes, and ground installations.⁴³ The normal fighter escort had averaged two fighters per bomber, but as enemy fighters declined in numbers, it had been possible since 1 October to reduce the escort to an average of one fighter per bomber.⁴⁴ COMAIR-SOLS continued to employ a broad diversity of plane types. Kahili, for example, on 26 October was the target for a single mission by 36 TBF's, 49 SBD's, and 24 B-25's, escorted by 10 P-39's, 23 P-40's, 36 F6F's, and 16 F4U's.⁴⁵

Enemy airfields absorbed very heavy punishment but they displayed astonishing resiliency under the attacks, making it very difficult to disable them permanently. So long as a portion of a strip remained unscarred, a potential threat existed, since the Japanese might send off a plane from the undamaged portion of the strip. It was possible to put a strip out of commission with ten or fifteen properly spaced bombs. But it was also possible to drop thirty bombs on a runway without rendering it unserviceable, if the bombs all landed on one side of the strip. Thus, Buka with only sixteen unfilled craters was listed as unusable on 4 November. Yet on 13 November, Kara with thirty unfilled craters still showed a smooth surface 185 x 3,500 feet and hence was regarded as operational.⁴⁶ Most helpful in this respect was the assignment of specific sections of the runway as targets for the low-level bombers, but even then prodigious energy on the part of the enemy, who labored



BOUGAINVILLE

Above: PRÉ-INVASION BOMBING

Below: BEACHHEAD



AIRFIELD DEVELOPMENT AT BOUGAINVILLE

around the clock, restored the strips to serviceability almost as rapidly as they were damaged. But it was a risky business for Japanese labor. In a surprise strafing attack on 26 October, eight P-38's swept over Buka-Bonis, leaving dead on the field approximately 200 laborers of the 2,500 estimated at work on the Bonis strip.⁴⁷

Despite the incessant hammering from the air, the Japanese continued to maintain a substantial air force in the Solomons, filling and tamping the bomb craters, and sending up their planes. Up to October the average daily number of planes in operation hovered at approximately 340, and as the aircraft fell back to Rabaul, the total at that base increased in November.⁴⁸

Twining's heavies were out daily, mostly against Kahili, and in October they carried more than twice the weight of bombs delivered the preceding month. The effects upon the enemy's capacity to resist in the air were apparent; the bombers met no interception on the last six missions of the month and the final four missions dispensed with all fighter escort.⁴⁹ By the last day prior to the landings the enemy had readied his new field at Kara, and on the morning of that day B-24's and B-25's, TBF's and SBD's had hit it with such success that it was listed as inoperative, as were all other fields in southern Bougainville on 31 October.⁵⁰ The road was clear for the Allied invasion of Bougainville.

Empress Augusta Bay

Already the scheduled landing had occurred in the Treasury group, when the New Zealand 8 Brigade Group had gone ashore on the morning of 27 October. It met no opposition on Stirling Island, but the small number of the enemy on Mono managed to inflict some damage and casualties on the New Zealanders before being eliminated. Now Treasury could fulfil its designed function—to provide protection for the convoys soon to feed the Bougainville forces.⁵¹ Although the enemy had failed to anticipate this move and to reinforce these islands from his powerful garrison in the Buin area, he now reacted to the landings in the same fashion as at Munda and Barakoma, but with less persistency. To cover the landings, Twining held sixteen P-38's on station at 20,000 to 25,000 feet; below them were sixteen RNZAF and AAF P-40's and eight P-39's. Very quickly the Japanese dive bombers arrived, seven falling to the P-38's, four to the P-40's, and one to the P-39's, but the enemy had scored two hits on a destroyer, forcing her to retire. An hour later four RNZAF pilots sighted approximately seventy

Zekes coming down from the northwest and heading toward Kahili; nine of the enemy went after the P-40's but the number was not enough. Three Zekes went down and all P-40's returned to their base.⁵²

The second preliminary to the main landing likewise had gone well. Late on 27 October the 2d Parachute Battalion, USMC, landed unopposed at Voza on Choiseul, whence it proceeded southward toward Sagigai, destroying enemy installations at that barge staging point on 31 October and apparently confusing the enemy as to the direction of the next step up the Solomons.⁵³

With all these preliminaries safely accomplished, the stage was set for the major undertaking—a landing in force on the narrow beaches at Empress Augusta Bay on the west coast of Bougainville. And in this area there could be no question about the enemy's reaction; here he would strike, and strike hardest through the air. Intelligence reports still indicated only modest enemy ground forces in the area, and although there were troop increases at the southern end of the island, many weeks would pass before they would move up to the Allied perimeter.⁵⁴

On the morning of 1 November the transports of Task Force 31, carrying the Third Marine Division, cautiously moved in to their designated anchorage area and prepared to send their troops ashore to the twelve selected landing beaches. Opposition was light, except for the beach closest to Cape Torokina, but natural obstacles were severe. Surf conditions were poorer than expected, causing the loss of eighty-six landing craft and making it impossible to land supplies on three of the beaches, but the resulting confusion quickly cleared and the landings on the narrow beach went successfully ahead.⁵⁵ Halsey expected a powerful reaction to this landing, and it came at once. Overhead a patrol of thirty-four fighters of all types awaited the dive bombers and torpedo planes sure to attack the rich harvest lying offshore, and at 0718 the first warning of approaching planes came in; as the last wave of landing craft got under way, the transports moved out to maneuver against the first of three heavy air attacks.⁵⁶

In the air cover were P-40's of the RNZAF 18 Fighter Squadron up from their forward base on Ondonga, and at 0800 eight of these planes intercepted thirty of the enemy's Zekes, promptly shooting down seven without loss to themselves. A few minutes later eight P-38's of the 18th Fighter Group, stationed at 23,000 feet, met enemy fighters and Bettys, adding seven more victims without loss.⁵⁷ Shortly before

0900, eight F4U's stopped another thrust, sending down five fighters and turning back the bombers, but still the enemy struggled to crash through. His hopes lay with his Val dive bombers; eighteen of these broke through the fighter screen to attack the convoy, but their bombs missed every target. At 0815 eight Zekes had managed to strafe the beaches but pulled away without attacking the landing craft.⁵⁸ Twice again in the early afternoon Marine F4U's contacted enemy flights, destroying two more planes, and when added to the Betty caught by P-38's near Cape St. George, COMAIRSOLS could chalk up twenty-one Zekes and one Betty, plus four Vals downed by naval AA fire, at a total cost to Allied air forces of one F4U.⁵⁹

Thus went the pattern of the enemy's reaction on the first day of the landing. The Japanese had inflicted very light damage even on the few occasions they had broken through the defending fighter screen, and they had expended an estimated twenty-six aircraft. Doubtless the record would have been less favorable for Halsey's forces had the Japanese air installations been located beyond the reach of Allied air and surface forces, but now both weapons could reach him. Shortly after midnight on 1 November a bombardment force of light cruisers and destroyers under Admiral Merrill had steamed boldly into enemy waters to shell the airfields at Buka and Bonis, then at high speed it went south to repeat the performance against the installations in the Shortland and Faisi areas.⁶⁰ Later in the morning of D-day Buka and Bonis received another assault, this one from the carrier planes of Admiral Sherman's task force. Two separate strikes went up from *Saratoga* and *Princeton*, whereupon the entire force retired, only to return for two more attacks on 2 November.⁶¹

During the critical landing period B-24's continued their attacks upon Kahili, so close to the Torokina area, and the light Marine bombers struck at Kara. F4U's strafed both fields on D-day, but despite all these missions returning fighter pilots believed that both strips were serviceable, as were Bonis and Buka.⁶² Clearly it was proving extraordinarily difficult to keep these fields in such condition that the enemy could not use them; only Ballale now seemed to be nonoperational.⁶³

Admiral Halsey foresaw a vigorous enemy surface reaction, as well as the air attack. Aware of a formidable cruiser force assembled at Rabaul, he stationed Admiral Merrill's light cruisers in a position to intercept a possible surface thrust toward the Bougainville beachhead. As had been anticipated, the Japanese task force under Rear Adm. S.

Onori moved out from Rabaul and headed for Bougainville, but the action could not be concealed from COMAIRSOLS search planes, whose excellent reports promptly reached Halsey and Merrill.⁶⁴ Very quickly two radar snoopers of the 5th Bombardment Group had located the force, which they estimated at eight to twelve ships, about fifteen miles west of Cape St. George on a course leading straight to Empress Augusta Bay, and they carried out a number of attacks.⁶⁵ One SB-24 had bombsight trouble and could claim no success as a result of three runs over the formation, but the other, attacking from 1,500 feet at 0120, dropped its six 500-pound bombs across the target visible on the radar screen, apparently striking the heavy cruiser *Haguro* with sufficient damage to reduce the vessel's speed to twenty-six knots.⁶⁶ In the ensuing night action of 1/2 November, Admiral Merrill's cruisers and destroyers drove off their more heavily gunned opponents, sank the light cruiser *Sendai* and a destroyer, thereby saving the Bougainville beachhead. The force suffered relatively minor damage despite a vicious air attack delivered by nearly seventy bombers from Rabaul.⁶⁷

The second day of the landing operation brought no relief for the harassed Japanese air commanders. Over in New Guinea, General Kenney's B-25's and P-38's had stood by for a massive assault upon Rabaul, but bad weather west of the enemy's base thus far had prevented these planes from pushing through to their objectives, although the enemy enjoyed favorable conditions east of Rabaul.⁶⁸ General MacArthur was aware of Halsey's delicate and exposed position at Empress Augusta Bay; he believed, too, that the enemy was heavily reinforcing Rabaul and Kavieng from Truk. In support of Halsey he would do everything "humanly possible."⁶⁹ Finally on 2 November, the weather cleared, permitting the Fifth Air Force to make its heaviest attack of the war against Rabaul shipping.*

At Rabaul the enemy naval and air commanders now found themselves in a most difficult position. Throughout the year they had poured large numbers of reinforcements into the successive campaigns, but despite the reckless expenditure of aircraft, one base after another had fallen. In August, nearly all the army planes at Rabaul had gone off to Wewak to operate with the ground forces in New Guinea, although this loss was restored by the addition of planes falling back from the surrendered bases in the Solomons.⁷⁰ Repeatedly the commanders had

* See below, pp. 325-26.

called for aid but Adm. Mineichi Koga, who had replaced Yamamoto after the latter's death in April 1943, was reluctant to weaken his prospects for a successful major naval engagement by such diversions of air strength.⁷¹ Koga held his forces intact as long as possible. Late in September, acting on a report that the U.S. fleet was moving out to the Marshall Islands, he sent his carriers from Truk to Eniwetok, where they prepared and hoped to challenge the American fleet. Nothing came of the move, and finally, late in October, Koga yielded, agreeing to send down from Truk a small number of carrier planes from Vice Adm. Jisaburo Ozawa's air fleet under a plan to base them at Rabaul for approximately ten days.⁷² It was a difficult decision, but to the Japanese high command the retention of Truk as a base was absolutely essential to the operation of the main fleet, and Rabaul was its southern defense post which must be held at all costs, even if it required a raid upon the experienced naval pilots of the carriers. These were regarded as the sole remaining pilot reservoir in the Japanese navy sufficiently experienced to cope with the Allied advance.⁷³ This reservoir had been drawn on before. Over the bitter resistance of carrier officers, fully trained carrier groups had been sent down in March, but after a 15 per cent loss in two weeks they were withdrawn. Again during the Munda campaign this necessity arose; on this occasion CAR-DIV 2 went down to Buin, but in the ensuing months it had been whittled down so badly it was necessary to pull it back to Rabaul. In two weeks of operations, this division had lost nearly one-third of its aircraft and pilots.⁷⁴

Now in response to the urgent appeals, down to Rabaul on 1 and 2 November went planes comprising the forces from four or five carriers, together with all the fighters from Ozawa's air fleet, numbering between 250 and 300 aircraft. Their arrival boosted the total forces on the four operational fields at Rabaul to nearly 550 planes, of which 390 were fighters, and out at the seaplane anchorages were 36 more float planes.⁷⁵ These were the aircraft which now were thrown against COMAIRSOLS fighters defending Torokina's beaches; instead of returning to Truk after a ten-day period, nearly all of them were to be sacrificed over Rabaul and Bougainville. The results of this commitment were not immediately apparent to the Japanese commanders, but they were not obliged to wait long. Soon would come the American assault upon Makin and Tarawa, but there would be no aid from the air groups at Rabaul—they were fully occupied. At least six months

would pass before the losses could be restored, and until then the carriers would remain immobilized.⁷⁶

Meanwhile, Halsey had his worries, despite the success of the initial landings and the repulse of every enemy attempt to prevent them. Intelligence reports indicated fresh cruiser strength had reached Rabaul, ships whose mission Halsey believed was to try once again to crush through to Empress Augusta Bay, which they might do unless checked by a carrier assault upon Rabaul.⁷⁷ He prepared his force, with the aircraft from *Saratoga* and *Princeton* designated to make the attack; and in order that all carrier fighters might go in with the carrier bombers, General Twining was requested to provide for the task force a continuous cover of thirty-two fighters from his resources in the Munda area.⁷⁸

The mission went off on 5 November with the TBF's and SBD's pouring down through a hole in the clouds over Rabaul's harbor, damaging five of the heavy cruisers and two of the CL's which had just arrived. There would be no attack upon Bougainville by these ships.⁷⁹ Nor was there much respite for the harassed commanders at Rabaul. Less than one hour after the carrier planes had withdrawn, twenty-seven B-24's and 58 P-38's from the Fifth Air Force struck the wharf area with eighty-one tons of bombs, encountering only weak and spiritless opposition.⁸⁰ As the Fifth Air Force's offensive against Rabaul tapered off after its great effort of 2 November,* Halsey prepared a second carrier strike on the enemy base, this one to be supported by additional planes from the carriers *Essex*, *Bunker Hill*, and *Independence*. Again Twining's forces would cover the task force from Barakoma, and he would put sixteen fighters over Empress Augusta Bay, where troops and supplies unloaded all day. In addition to these demands upon his forces, Twining somewhat reluctantly had to comply with Halsey's request to put a force of B-24's over Rabaul, with orders to attack cruisers and destroyers escaping from the harbor area.⁸¹

On 11 November all these attacks went off more or less as scheduled, but weather conspired against both naval and AAF bombardiers and pilots. Towering cumulus obscured the target area, shielding the enemy's ships, and the B-24's were unable to damage their targets racing out of the harbor at high speed. Twining was somewhat disappointed that his substantial force of heavies had been ordered to bomb maneuvering surface craft rather than fixed land installations, fully

* See below, pp. 326-28.

cognizant that the former "had never been lucrative" targets, but Halsey's order stood and the forty-two B-24's up from Koli Field did their best.⁸² Halsey was not too happy over the day's results at Rabaul, but the planes from TF 50.3 had inflicted more damage than was realized at the time, sinking one destroyer and damaging three destroyers and two cruisers.⁸³ More tangible success came during the retirement of the carrier forces which Rabaul defenders attempted to overwhelm with a powerful assault by nearly 200 bombers and fighters. As usual, the Japanese paid heavily. B-24's had already sent down five of the Zekes, and now in four separate attacks upon the carriers dozens of Vals and Kates fell to ships' AA guns, carrier fighters, and the land-based contingent sent out by Twining. Despite their imposing numerical strength, the Japanese inflicted very minor damage, hitting no vessel directly and spending an estimated sixty-four planes in the effort, while losing another twenty-one to the COMAIRSOLS force.⁸⁴

It was in this fashion that land- and carrier-based aircraft functioned together in November to protect the beachhead on Empress Augusta Bay, where with all their weapons and determination the Japanese could not break through to wipe out the narrow lodgment of the Third Marine Division. Four days after the landing the Marines had successfully anchored the beachhead to a depth of 2,000 yards, enabling troop commanders to enter upon the second phase of the operation. Their task, and that of the 37th Division which began to arrive on 8 November, now was to enlarge the perimeter before the enemy could bring up forces sufficient to oppose it—to enlarge it sufficiently to permit the construction of fields to support the fighters and bombers of COMAIRSOLS.⁸⁵

Up to 21 November progress was steady. Thereafter resistance stiffened, but by 28 November an advanced defense line had been reached extending inland at its deepest point more than 5,200 yards from the beach.⁸⁶ The advance was not easy. Directly inland from the beach lay a great swamp covered with more than six feet of slimy mud and water and dense growth. Day after day the ground troops moved ahead through the ooze, sleeping upright, with weapons tied to trees, and regarding a day's advance of 300 yards as a creditable performance. But they defeated every attempt of the enemy's ground forces to break through the line, including a sharp skirmish on 7 November when several hundred Japanese came ashore from barges along the left flank of the beachhead.⁸⁷

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The primary object of all this ground activity was the acquisition of an area upon which airfields might be constructed, but the terrain proved worse than any yet encountered in the South Pacific. Beaches were exceedingly narrow, and inland for more than a mile practically all the area lay under the water of the swamps. Such was the prospect facing the Seabee engineers when on 10 November they began construction of the fighter strip immediately behind Cape Torokina, on a site selected on the fifth day of the operation.⁸⁸ Further reconnaissance disclosed an excellent site for a major bombing base, but it lay 5,500 yards from the beach and hence required that the outer defense perimeter be driven even farther inland than originally anticipated. It was assumed that the Torokina fighter strip would accommodate 40 F4U's by 10 December, while inland there were to be two parallel strips: Piva U, which would base about 126 carrier-type light bombers plus 40 AAF fighters, and Piva Y, a fighter field designed to carry 115 aircraft.⁸⁹

While the admirals fended off enemy surface assaults, it was the responsibility of General Twining to prevent the Japanese from interfering with Torokina through the air, and for this task he had the full resources of all air services in the area. General Harmon could send in to General Arnold only the most favorable comments upon Twining's performance as COMAIRSOLS; but certainly Twining had his hands full.⁹⁰ His heterogeneous command now was operating with a full head of steam; between dawn and dusk on the single day of 11 November no less than 712 take-offs and landings had occurred at Munda alone—but there still persisted many shortcomings in the depths of the Thirteenth Air Force.⁹¹

One of the major problems was the old one of fighter aircraft, inadequate both in number and quality. Throughout the campaign General Harmon had regarded the P-39's and P-40's, while useful for certain purposes, as unequal to the heavy demands continually made upon them. The P-39 was practically useless above 17,000 feet, and Harmon believed that its poor performance reflected adversely upon the AAF fighter force as a whole.⁹² P-38's, F6F's, and F4U's all were excellent, but there were not enough of them to meet all the demands made upon Fighter Command, whose pilots even prior to the Bougainville landings were occasionally flying eight hours daily. Twining had to cover his exposed areas. He had to provide escorts for bomber missions, to conduct fighter sweeps, and on rare occasions, such as 5 and 11 November,

to assist carrier planes in defending an offshore task force. It was almost more than the force at hand could accomplish satisfactorily, and Harmon saw the solution in replacing the unfortunate P-39's with more P-38's and the new P-51's. But his modest request, like its predecessors, came up against the requirements of the bombing offensive over Germany, where there was a heavy and prior demand for long-range escort fighters. P-51's would not go to the South Pacific for "some time." General Arnold could offer P-63's in their stead, but not until February of 1944; meanwhile, Twining and Harmon would carry on with their current stock of fighters.⁹³

Even with the equipment available the defending fighters continued to inflict heavy losses on the daylight raiders coming down from Rabaul, although they were much less effective at night. So long as Twining continued to rely upon the P-70, he was unable to counter the skilful Japanese night flyers, who were piling up a fairly respectable list of successes, particularly against shipping.⁹⁴ Admiral Halsey, too, was worried, urging Nimitz to push for the development of a radar-equipped fighter capable of doing 350 knots at 30,000 feet. And in Washington, Admiral McCain even proposed that the Combined Chiefs of Staff consider sending a British night fighter Mosquito squadron out to Halsey.⁹⁵ But no Mosquitos arrived, and the night defense rested as before on improved techniques of night-flying P-38's working with searchlight teams, and upon the radar-equipped F4U's and Venturas, and the P-70's at low altitude. These gradually had a deterrent effect upon the raiders and on 26 November, for the first time since the landings were made, it was possible to pass the entire night without a Condition Red. Nevertheless, the enemy had left his mark. In addition to three ships damaged and one sunk and the destruction of a substantial amount of fuel and supplies, the ninety alerts and twenty-two bombings in November had caused twenty-four fatalities and ninety-six wounded on the Torokina beachhead.⁹⁶

During the campaign the fighters had assumed other tasks than those of defending the beachhead and escorting the bombers. On Bougainville itself TBF's and SBD's of the Marine squadrons had provided most of the air support, but after the initial landings the fighters were directed to strafe targets of opportunity as they returned to their bases. And for this kind of work, just as on Guadalcanal, the P-39's were highly useful.⁹⁷ As the Japanese relaxed their efforts to interfere with the Torokina operation during the daylight hours, it became possible

to send off part of the fighter cover to strafe enemy positions or to cover rescue missions.⁹⁸ P-38's joined in the strafing activity, ranging up and down both the east and west coasts of Bougainville. The success of these missions depended in part upon the efforts of the coast watchers, whose reports began to reach COMAIRNORSOLS on 3 November. By the 12th a coast-watcher service office was operating near the site of the Torokina fighter strip and into this center the watchers sent their invaluable reports, which served as the basis for a majority of the low-level bombing and strafing missions on Bougainville.⁹⁹ As the fighters moved up to their station over the beaches, frequently they were ordered to make careful searches of trails, rivers, and paths, always on the alert for any sign of movement in the dense green jungle below them. They strafed along the Piva, Jaba, and Torokina rivers, the trails between them, and the barge hideouts along the coast and in the river mouths, sometimes enjoying a field day at the enemy's expense.¹⁰⁰ Frequently they flew over to the east coast of Bougainville to strafe Tenekow or Porton Plantation, or to Tinputs or Tonolei Harbor, and the longer-legged P-38's did the same all around the island;¹⁰¹ canoes, huts, small groups of Japanese, all were targets for the strafers. Sometimes the pilots observed the results. More often it was nearly impossible to determine the extent of the damage, and it was almost as difficult to locate and hit a spot designated by the coast watchers. When the target was near some prominent landmark, pilots could locate it, but when it lay deep in the jungle, the pilots were fortunate to sight much more than tops of the trees.¹⁰²

Infrequently AAF pilots were called upon to provide close support for the ground troops enlarging the perimeter. Most of this work was carried on by the Marines with their dive and torpedo bombers, whose air commander, Col. David F. O'Neill, USMC, expressed confidence in the ability of his pilots to place their bombs very close to friendly troops, provided the latter used a satisfactory method to mark the front lines. But after the Army assumed full responsibility in December, the number of these support missions diminished, much to the chagrin of Colonel O'Neill, who felt that the Army's ground commanders failed to appreciate fully the accuracy of his planes. The commander of the XIV Corps, on the other hand, was reluctant to expose his front line troops to the definite risks he foresaw, and because of the dense jungle and the inherent difficulty in locating targets, he took a less sanguine view of close support by light bombers.¹⁰³ Consequently, the fighters

and medium bombers of the Thirteenth Air Force normally operated against objectives that lay well away from the area of ground fighting.

During the Munda campaign the barge traffic had provided frequent targets for marauding planes. Now the situation was repeated and on 19 November, Twining was informed that the barges were regarded as primary targets for his planes.¹⁰⁴ They were hunted down relentlessly and P-39's did well at it, but most successful of all were the B-25's of the 42d Bombardment Group, now operating three squadrons from the Russells. Day after day the medium bombers were out, hunting down Japanese surface vessels all around Bougainville, bombing and strafing them from minimum altitudes and very frequently sinking them in execution of their primary mission—to deny Solomons waters to enemy shipping during daylight hours.

Such a mission six B-25's flew on 5 November, the day of the carrier raid on Rabaul. Off early in the morning, they found targets for their 500-pound bombs all along Bougainville, from Kieta on the east around to Banui Harbor on the north. Behind them they left six barges destroyed, a 150-foot cargo vessel blown up, a 300-footer afire, a 100-foot vessel with a large hole in its side, and six more barges damaged. Three hours later they were back at Munda, where they refueled and then returned to the Russells.¹⁰⁵ Next day they repeated the performance, with even greater success, causing General Harmon to watch their record with unconcealed delight.¹⁰⁶ Frequently the B-25's assisted the heavies in the task of holding the enemy's Bougainville strips sufficiently cratered to prevent air operations. They attacked from medium altitudes with 500-pound bombs or they carried parafrags down to treetop level, strafing the fields while the bombs fell away, sometimes knocking down labor parties who were caught in the open as they struggled to keep the fields in operation.¹⁰⁷ If the Japanese air opposition now had nearly vanished, their AA fire remained effective, costing the 42d Group four planes with thirteen men on the thirty-seven minimum-altitude missions made in November.¹⁰⁸ But fortunately there was Dumbo, the Navy's lumbering PBY rescue plane, whose pilots would land within range of Japanese shore guns when necessary to recover Allied pilots. On 24 November a B-25 of the 70th Squadron, piloted by Lt. James J. Dickinson, went down at a point less than eight miles from Ballale, Kahili, and Shortland Island. Here the crew waited in their raft for three hours until a Dumbo from Barakoma with an RNZAF escort came up to rescue them. Amid intense anti-aircraft and

heavy shellfire from the coastal batteries on several sides, the PBY took off, bringing the six B-25 crewmen home in time to enjoy their Thanksgiving dinner.¹⁰⁹

The month of November had provided the medium bombers with their richest haul of ships and barges, a haul regarded locally as too good to last. So it was. The following month found the minimum-altitude attacks cut nearly in half, and the B-25's now turned their attention to medium-altitude raids on supply and bivouac areas—much to the boredom of their crews who could not see the results of their work.¹¹⁰

The pattern of all these operations—and of those of the enemy—had closely paralleled the experience at Munda, and later at Barakoma on Vella Lavella. During the initial period of the landings, the Japanese attempted a number of daylight strikes in considerable force, without achieving much success to compensate for the disproportionate expenditure, and certainly nothing that could equalize the loss of mobility for Ozawa's carriers. After the initial spurt of energy, the Japanese quickly tapered off their daylight activity and returned to night harassment and early dawn raids, often employing fighter aircraft as bombers; they also heckled the convoys carrying fresh troops and supplies up to Empress Augusta Bay. But even the night raiders now were seriously hampered by the defensive night fighters, who were able to claim an occasional successful interception by radar.¹¹¹

General Twining continued to send his heavy, medium, and light bombers against the Bougainville fields, for it was apparent that the Japanese were determined to maintain their runways in fit condition for planes. Repeatedly the photographs would reveal a strip heavily pitted with craters, and as often a subsequent photo would show the craters filled and the strip smoothed over. The Bougainville fields could be knocked out temporarily or they could be neutralized, but COMAIRSOLS bombers could not destroy them permanently if the occupants were determined to keep them in shape.¹¹² However, the enemy either was not able or not willing to use his laboriously maintained Bougainville fields. Mission after mission returned during the first half of December without ever observing an enemy plane in the air; on 11 December over 170 sorties were flown by planes of all types and not a single Japanese aircraft had been sighted. Yet it was obvious to the South Pacific commanders that fighter strength in the Rabaul fields and in the northern Solomons remained at a substantial level—certainly

enough to offer some opposition.¹¹³ Perhaps the enemy was conserving his fighters for the decisive battle sure to come, now that the Allied installations on Bougainville were nearly ready. He would need all his strength.

At Torokina, construction of the new fighter strip had moved rapidly ahead despite frequent shelling of the area by well-concealed Japanese artillery. As early as 24 November, Torokina could support the forced landing of an SBD, and on 9 December the strip was ready for limited operations, with accommodations for forty fighters and bombers and some C-47's. Next day seventeen F4U's of VMF-216 came in, SCAT set up an office on the field to handle air transport operations, and Bougainville was ready for business.¹¹⁴ Not fully, however, for back in the jungle engineers and Seabees were rushing the Piva bomber strip to completion. When this was finished, COMAIRSOLS would have three strips on Bougainville only 220 nautical miles from Rabaul, and over on Treasury, 280 miles from Rabaul, another strip was growing.¹¹⁵

By mid-December the Japanese position in the Solomons and in the New Britain–New Ireland area was most precarious. The enemy had lost most of his outposts and bases in the Solomons, and he had forfeited his mobility within the areas he still possessed. On Bougainville he could move along overland trails only with extreme difficulty, and in the waters around the island his surface ships and barges—even canoes—were harried without mercy from the air. Japanese troops still on Choiseul were an utter liability, and the bases on southern Bougainville, Ballale, and Shortland Island now were not much more than isolated prisons containing substantial quantities of men, equipment, and supplies, of little value in their current position and incapable of easy movement elsewhere. By sea the enemy could achieve little. Halsey's surface units had turned back every attempt to attack the beachhead, and the Japanese could not even evacuate their forces from their own positions. Such an attempt ended in disaster on the night of 24/25 November in St. Georges Channel when they lost outright three destroyers to a U.S. force of five destroyers, which escaped unscathed from the last of the violent night sea battles so characteristic of naval warfare in the Solomons.¹¹⁶ Allied air forces so completely dominated the entire area that enemy commanders could scarcely risk daylight movement of their troops in any manner of surface craft, and at night the PT boats, LCI gunboats, and radar snooper planes punished them

mercilessly. No aircraft could be left on bases outside of Rabaul and Kavieng, nor could air installations be repaired without continuous fear of surprise air attacks. The handwriting was plain.

On 20 November, U.S. forces attacked the Gilberts,* thereby aiming a threat at the Marshalls and the entire defense structure of the Central Pacific. On 15 December forces under General MacArthur landed at Arawe in western New Britain at a point about as distant from Rabaul on the west as Torokina was on the east,† and by this move MacArthur further threatened the defensive position of Rabaul and Kavieng.¹¹⁷ With fresh bomber bases nearly ready on Bougainville and with fighters at Torokina, the Thirteenth Air Force confidently prepared for its part in the air campaign against Rabaul, although henceforth it would act without the guidance of its experienced commander. On 12 December, General Twining left for the United States, scheduled ultimately to relieve General Doolittle in command of the Fifteenth Air Force in Italy,‡ and leaving behind him a unique air force trained to operate in closest possible cooperation with the air service of the U.S. Navy, the Marines, and the Royal New Zealand Air Force.¹¹⁸

The State of the Air Force

As Nathan Twining departed from the South Pacific and his assignment to the exacting and unique command organization of COMAIRSOLS, he could look back over sixteen months of combat in the South Pacific. It had been an enlightening experience for the AAF units. Problems never before encountered had arisen, most of them had been overcome, some altogether, many more only in part. One of the latter was morale, that delicate balance of intangibles which depends upon so many factors.

The successes achieved by all the air echelons during the months of battle had exacted a price, not only from those who fell flaming into jungle or sea with their planes but from the men who remained tied to their bases. Warfare for the average citizen soldier is an unpleasant business, even when conducted under the most favorable circumstances. In the South Pacific, AAF units were committed to a theater exceedingly unkind to men from temperate zones who entered it to live, fight, and die. Their opponent was a deadly enemy, but never after the first few weeks of the 1942 campaign could he inflict upon air and ground crews anything like the damage caused by mosquitoes bearing dengue

* See below, p. 301.

† See below, pp. 333-37.

‡ See Vol. II, 751 n.

and malaria, by bacteria-laden flies swarming into unscreened mess tents and living quarters, or by the sheer physical and mental exhaustion and boredom of men emplaced for endless months on islands lying 1,000 to 2,000 miles or more from the nearest civilized urban center.¹¹⁹

The first units to reach the South Pacific in 1942 had hacked out their own primitive living quarters on Efate and Espiritu; they flew their missions, ate their C rations, contracted malaria or dengue, and for the most part, more or less patiently awaited relief or improvement of supply conditions. On New Caledonia living conditions from the outset were somewhat better, since it was a rear area, the main center of supply, and inhabited by a permanent if sparse white population. The relatively fixed service units stationed at Oua Tom, Plaines des Gaiacs, and Tontouta were able to install themselves in fairly adequate quarters, but quite different conditions prevailed on Espiritu Santo, later on Guadalcanal, and on all the forward bases as the campaign drove up through the Solomons.

Squadron commanders and medical officers of tactical and service units alike very early faced a serious problem in their efforts to sustain morale—and morale was by no means always held at a satisfactory level, particularly among the service units and ground crews. So very many factors worked against them. Malaria was one, and in many respects the most serious drain upon the human resources of all Army units in the theater, affecting the phenomenal number of 788 men per 1,000 per annum in June 1943.¹²⁰ The dearth of antimalarial supplies during the early weeks of the campaign and the lack of adequate knowledge concerning the prevention of malaria together contributed to the very high incidence of the disease, which fortunately declined when trained personnel and needed supplies reached the theater.¹²¹

During the peak month of malaria incidence in the Thirteenth Air Force—March 1943—no less than 72.18 days per 100 flying officers were sacrificed to this malady alone, and it was not until August that the loss of time due to malarial infection fell behind that attributable directly to combat activity.¹²² To be sure, by November 1943 approximately 80 per cent of all messes and latrines were screened, but by that time the mosquitoes had wrought great havoc.¹²³

For the service units these morale problems were magnified. When first arriving at their new stations they did not settle down to work on motors and planes in great hangars or on broad concrete aprons, or in spacious repair shops adjoining 300-foot warehouses stocked with

parts.¹²⁴ Instead, they labored in improvised coral bunkers amid debilitating heat and humidity, in tents, or in huts floored with coco logs and covered with leaky canvas tarpaulins; and they labored without much recognition. In almost every instance, the service unit lived and worked side by side with the tactical unit; its functions were as essential as those of the air echelon, yet it received little credit and no public recognition when squadron or group fought its way through to a critical target against heavy opposition.¹²⁵ It was easy to forget that bombs and guns functioned because ordnance personnel had labored to maintain them or that the planes' radar and radio equipment permitted a safe return from a hazardous mission because radio technicians had spent many hot extra hours in perfecting operation of the equipment.¹²⁶

One of the major factors which served to depress Army morale was the very real difference between the living conditions of Army and those of Navy personnel living and working on the same base. From practically every island and every unit came the same report: naval personnel received better treatment. Regularly they arrived with material to floor and screen their tents or with enough quonset huts to house all their personnel. Their kitchens and mess halls were equipped with adequate refrigeration, cooling facilities, ice cream machines, and sanitary conveniences. Their cooks regularly were furnished fresh meats and vegetables, flour, coffee, and sugar, and their ships' stores were well stocked.¹²⁷ AAF organizations, on the other hand, reached their stations without refrigeration units—or with inadequate ones—without screen wire, lumber, pipe, nails, shower heads—without all the dozens of items necessary to maintain a reasonably comfortable living standard, or even health and full combat efficiency. They lived on the ground or they rustled lumber from various sources—usually the Navy—to put floors under their tents or roofs over their heads. And very often their medium of exchange in such transactions was their own slender issue of beer.

AAF units in the forward areas suffered as badly in comparison with the Navy's food standards as they did in the matter of housing. Lack of fresh meat was a major point. It could be obtained only at irregular intervals, even then only for the combat crews, and unless issued immediately it would spoil because of lack of refrigerator space.¹²⁸ Yet the Navy invariably had fresh meat and the other services knew it. Despite all the efforts of dietary experts to aid them, the AAF cooks could achieve only so much with the dehydrated eggs, Spam, Vienna

sausages, stew, and C rations which the mess halls had in abundance. When the 307th Group found Spam on the table for thirty-one consecutive days, morale was not raised; when another unit received no flour and very little bread for more than twenty days, while adjacent naval personnel had these items in excess of their own needs, it was not surprising to hear uncomplimentary references to the Army.¹²⁹

There was no doubt that vitamins and calories were in the food—men's health may be maintained for months by C rations alone—but the unvaried diet did not help their morale, at any rate not when, as on Espiritu Santo, men of the 321st Service Group could step across the road and see naval personnel living in quarters built up off the ground, sleeping in hospital-type spring beds, and provided with ample supplies of ice cream and beer.¹³⁰ It was not uncommon for men at Espiritu Santo to enter the mess halls, look at the food, and walk out. In the tactical units the mess sergeants labored hard to prepare satisfactory foods for the heavy bomber crews on their long flights, but they had a narrow choice and the crews suffered materially from their diet of fatty foods, as did the high-altitude pilots. To relieve the monotony on Guadalcanal and Espiritu, units having services or equipment to offer frequently traded either or both for fresh foods or different varieties, but occasionally less legitimate methods found favor. Personnel in rear areas were known to pilfer from food ships destined for advanced combat bases when these ships halted en route.¹³¹

As each unit settled down at a new base it did everything possible to improve its living quarters. On Guadalcanal by May of 1943 the 307th Bombardment Group had moved into tents provided with wooden floors and screening, it had its own laundry unit, and its refrigeration capacity was able to provide a daily ration of cold beer all around.¹³² Everywhere there was the struggle to maintain some semblance of comfort with equipment which suffered keenly in comparison with the Navy's, and even that little was jeopardized during the summer of 1943 when General Arnold passed on to Harmon a proposal that heavy pyramidal tents be withdrawn from the AAF. In place of pyramidal, shelter halves were to be substituted, on the assumption that it was detrimental to the morale of ground force troops to be housed in shelter halves alongside AAF troops quartered in larger tents.¹³³ Harmon, of course, immediately rejected the plan as undesirable and unnecessary. He might have added that nowhere by this time were AAF units quartered in the immediate vicinity of ground troops who were in direct

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contact with the enemy. Wherever ground and air troops were quartered on the same island, only the aircrews were in daily contact with the enemy, never the ground forces, with the possible exception of New Georgia, where small fighter detachments were held at Segi while infantry units battled their way north around Munda Field. To have reduced these air units to a pup-tent level of existence while leaving them alongside the relative luxury of the Navy would certainly have depressed morale even further.*

Throughout 1943 the scramble of officers and men for better conditions continued. COMSOPAC never did establish any official policy, but it is apparent that no ceiling was ever set upon convenience and luxury. The general tone which permeated all services was to achieve the maximum comfort possible. Each headquarters remained static in location over long periods of time, and each base was developed to a degree regarded by some as highly extravagant under the circumstances. When Maj. Gen. Hubert R. Harmon, Halsey's deputy,[†] expressed this thought to Admirals Fitch and Halsey, both countered with statements that in the terrain and climate of the South Pacific, men must be up off the ground and comfortably housed.¹³⁴ And the Navy did get its men off the ground; it fed them well and made them comfortable; and it had a generous supply of luxury items not available to the Army's units. For the Navy controlled the shipping and therein lay the difference. But in the opinion of H. R. Harmon this stress upon comfort had led to unwarranted diversion of shipping for the movement of materials for housing and utilities, to the continual wasteful employment of large numbers of men in construction and maintenance, and perhaps most serious of all, to the fostering of "slow-moving complacency" about the war.¹³⁵ This was a sharp assessment, but it is doubtful that the ground crews and service units which had

* There is evidence to indicate that this factor of daily contact with the enemy by air units was overlooked by ground commanders on Guadalcanal, as well as in Washington. In June it was necessary to defend the 307th Group from the criticisms of the XIV Corps medical inspector who had censured their living quarters. The air force (apparently Twining) informed USAFISPA: "that Fourteenth Corps has a high-power staff that has little to do, and most of that has been directed to sharpshooting at these air force units. . . . The Air Corps units are under strength, under equipped, and operating twenty-four hours a day, and there are many things that can be and should be improved." (Ltr., 13th AF, n.s., to Brig. Gen. A. J. Barnett, C/S USAFISPA, 18 June 1943.)

[†] H. R. Harmon, brother to M. F. Harmon, joined Halsey's staff in November 1943 as Deputy Commander, South Pacific. References hereinafter to "Harmon" or "General Harmon" should be understood to mean Millard F. (COMGENSOPAC).

hacked out living quarters for themselves during the spring and summer of 1943 were aware of any undue emphasis upon luxury—at any rate, not in the AAF.

The disparity in standards between the two services extended beyond the items used in normal daily living, becoming apparent in hospital facilities as well, and so created one more source of envy for the men of the AAF.¹³⁶ On Espiritu Santo the Navy hospitals were adequately furnished and provided with many items of professional equipment which had been eliminated from Army hospital lists to conserve critical material and shipping space. And so as usual, Army patients and medical department personnel found it difficult to understand “why the Army must put up with equipment and housing vastly inferior to that provided by a sister service.”¹³⁷

Hospitals were not an intimate concern of the AAF in the South Pacific, but rotation and rest for its own personnel were, and it is probable that the greatest single factor affecting morale within the South Pacific air units lay in the duration of time spent in isolation on the islands. Their bases lay on jungle islands where there was no opportunity to visit the local pub with its beer and dart games, or to be welcomed at a dance where there was opportunity for feminine companionship. From Guadalcanal it was nearly 2,000 miles to Auckland in New Zealand, and approximately the same distance to Brisbane over the prevailing air routes. Hence there could be no Saturday nights in the villages, as in England, France, or Italy.

Actually the problem was twofold: relief for the combat crews and relief for their supporting ground services. Very early in the campaign Harmon had observed the steady drain upon the bombardment crews of the 5th and 11th Groups and had made every effort to send them down to Auckland for a rest leave. By 2 November 1942 nine crews had been dispatched to the rest camp or “Aviatorium,” and Harmon hoped to hold his combat crews in action in the forward area no more than six or seven weeks for each tour.¹³⁸

The key to the rest problem lay in provision of adequate air transport. In the early phases of the campaign few C-47's were available and these yielded to the heavy demands for ferrying supplies up to Espiritu and Guadalcanal. Furthermore they were regarded as inadequate to cover the long haul between Tontouta and Auckland, and on grounds of safety, comfort, and efficiency Harmon repeatedly had requested C-87's in which he could send down three crews per trip.¹³⁹ Establish-

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ment of C-87 service to Auckland was long delayed, so scarce were these planes. General Arnold cited the production of only eight per month as inadequate to care for all the vital supply lines, and other than placing Harmon's needs in high priority, he could do very little. Hence, under these conditions it was impossible to maintain a regular schedule to Auckland.¹⁴⁰ Finally, in February 1943, Harmon was informed that a C-87 had been set aside for the South Pacific, and that the Air Transport Command had been directed to lend a hand in moving the tired crews down to New Zealand.¹⁴¹

The need was urgent. By April 1943 the flight surgeons could detect a growing number of aeroneuroses among their aircrews. The strain of constant overwater flying rested particularly heavily upon the navigators, but it was severe for all air personnel; and so long as there was no definite goal short of physical collapse, there followed a general reduction of morale and combat efficiency.¹⁴² When, in April, Twining was able to report that the first of the C-87's had been assigned to the Auckland run, he felt that it constituted a splendid contribution to morale, but he wanted to achieve even more: his policy then was based upon return of crews to the Zone of the Interior after approximately one year in the area, inclusive of five to six months in combat. And because of the high incidence of malaria and dengue, he requested that all his air organization be furnished a minimum of 25 per cent over-strength in crews, in addition to the 15 per cent monthly replacement for the air echelons proposed by the War Department.¹⁴³

As air transport became more plentiful, Twining and Harmon were able to send the air echelon of the combat units to the rest area at fairly reasonable intervals, so that by November of 1943 it had become necessary to expand existing New Zealand facilities for the accommodation of these crews.¹⁴⁴ On the average, aircrews were rested every three months, going down to Auckland for nine days immediately after a six-week combat tour, then returning to the rear echelons of their squadrons for six weeks of additional training. Six weeks of combat missions (one every other day) proved to be the average time necessary to bring on mild operational fatigue, depending more upon the condition of the plane than upon the character of the mission. Long night missions produced extreme eye strain, with a rapid development of fatigue, and crews of more than sixteen months of service were beyond restoration when held in combat longer than the normal six-week period. But for the others, the nine-day rest brought full rehabilitation. The leave was

regarded by the flight surgeons as practically indispensable, for it brought men into a temperate climate in a civilized area, and the only regret was that the shortage of air transportation precluded extension of the benefits to all personnel of the AAF.¹⁴⁵

The combat crews badly needed rest and the high priority was rightfully theirs, but efforts in their behalf did not lessen the drain upon the men who serviced the planes, built the roads to the strips, stored the bombs, changed the engines, and made it possible for pilots to fly the aircraft. For them work went on month after month in a torrid, humid climate that rotted materiel, relentlessly sapped their strength, and steadily lowered their efficiency. Many units worked steadily seven days a week over long periods; large numbers of their personnel had contracted one or more tropical diseases, and nearly all of them had been affected by the deadly monotony of island life beyond the rim of civilization.¹⁴⁶ The inevitable result was mental and physical stagnation, evidenced in a lethargic attitude toward work. As the months passed, unit commanders repeatedly called attention to the lengthening period in which it had been impossible to rest their personnel. No longer could they overlook the state of chronic fatigue. Morale and efficiency sank, while that of the air echelons improved as regular opportunities for rest in New Zealand became available.¹⁴⁷

General Harmon was fully aware of the problem, and in June he outlined it for General Arnold. But other than the rotation permitted by the monthly dispatch of 1.5 per cent filler replacement, not much could be accomplished,¹⁴⁸ and the months of unbroken island service stretched on and on. Those officers and men whose duties permitted them frequently to move about the theater were less afflicted by the boredom, but such relief was the privilege of only a few, and a survey of the Thirteenth Air Force at the close of 1943 led to the conclusion that the military effectiveness of the organization was seriously handicapped by lack of a definite policy of rest leaves and rotation of the ground personnel.¹⁴⁹ Certainly the total number of man-days lost had reached a high level by December; more alarming was the fact that of the 24,232 man-days lost in that month, no more than 219 could be charged to enemy action. Quite obviously the attrition of tropical life and work was now infinitely more serious than any effort the enemy had made thus far. And at the current rates of rotation, it would be a matter of years before AAF ground personnel could hope for relief.¹⁵⁰

The weight of fatigue was evident in nearly every activity. Various

officers reported that by the end of 1943 it required twice as long for men to accomplish a given unit of work as earlier in the year; in the shops there was a striking increase in the number of minor accidents to personnel, and in the air or on the runways the last six months of 1943 showed a total of 151 operational and 69 combat accidents. Clearly the ground echelon of the Thirteenth Air Force were tired, but throughout 1943 there was slight prospect of relief for them. The air echelon likewise tired quickly, but operation of their weapons demanded such a high degree of mental and physical efficiency that it was scarcely profitable to permit pilots or crews to extend their time in the forward areas. Fighter pilots demonstrated keen sensitivity to fatigue and the effects of prolonged combat service, but Twining was unable to relieve entire squadrons at once. When a squadron was assigned to an advanced base, its replacements came in by detaching two or three flights from another squadron based in the rear area; the relieved pilots were rested, then attached to the rear squadron for training. Unless pilots were relieved, the accident rates rose very sharply after the six-week period of combat.¹⁵¹ It was less easy to demonstrate the drag of fatigue upon ground personnel, whose accidents were less spectacular, but unit commanders possessed a ready index of fatigue when they measured the output of work.

The task of overcoming the ravages of island life fell in part upon chaplains and Special Services officers but their efforts, as most other activities, suffered throughout 1943 from the general lack of supplies and equipment. Movies very often were a wretchedly poor type of B picture, so poor that in some cases the men could not sit through them; but on the other hand, the occasional visits by professional entertainers were highly appreciated.¹⁵² Over the long run, the faithful diversions remained—as in most wars—card games, dice, “bull sessions,” and letters from home, for these required neither equipment nor external assistance. Unfortunately, very little could be done by anyone to combat a very serious depressant of morale for some soldiers—anxiety concerning the fidelity of wives at home.¹⁵³

And so the ground men of the Thirteenth Air Force had worked through the successive Solomons campaigns until now the air echelon stood on Bougainville, poised for the final assault upon Rabaul. They had come a long way, receiving scant recognition, but making possible by the sacrifice of their health and morale the high performance of the air echelons in daily contact with the enemy. Air warfare inevitably

centers around the men who fire the guns in combat, men who incur the risk of death on every mission. To them goes the major share of acclaim both in the field and at home; normally whatever comforts are available pass first to those who man the planes. But in the South Pacific two double standards prevailed. There was the omnipresent contrast of richer Navy living alongside the less favored Army; and within the AAF itself there was the broad gap between air and ground men, a gap which eventually left a deep imprint upon the mental and physical fiber of thousands of citizens.

Supply and Service Problems

Unfortunately, the records achieved in the Solomons by fighters and bombers during 1943 tend to obscure the herculean efforts produced by ground crews of the tactical units and by service personnel of the air service and depot groups. War in the South Pacific threw an inordinately heavy burden upon service personnel, particularly upon the units within the service groups and upon the airdrome squadrons emplaced on the advanced bases, for they were the chief victims of a logistical paradox. Island warfare was mobile warfare of a peculiar type; the move was from Espiritu Santo to Guadalcanal, to the Russells, and on up the Solomons; yet on the other hand, the completely insular nature of the theater cut ground mobility to a minimum. Heavy equipment of an engineer battalion could move only by surface craft; trucks could not drive on the seaways, and this led to an exasperating situation in which it was nearly impossible to concentrate the right amount of trucking at the time and place where it was needed. In face of an acute shortage in the forward area trucks would stand partially idle on nearby islands, and a similar situation prevailed for other types of heavy equipment.¹⁵⁴ Above all, the insular nature of the theater affected the flow of spare and replacement parts to the forward bases.

Any assessment of the performance of the service people must include this physiological factor, for the bases which supported the air squadrons of the Thirteenth Air Force were located in every instance on islands, both large and small but normally the latter in the forward areas. To fly planes it was necessary to hack airstrips out of virgin jungle or coconut groves, and to rest men and machines it was necessary to carve living sites, cantonment areas, supply sheds, and fuel and ammunition dumps out of the rawest kind of tropical terrain where white men never before had challenged nature on such a grandiose

scale. Here was no heritage left by decades of civilized life; no railroads, no highways, no communications—nothing. Nearly every single necessary item, excluding coral and some timber, had to be imported across the sea lanes or constructed on the spot by whatever hand labor was necessary.

As the service units came in to their stations, they quickly learned a fundamental of island operations: parts did not follow the units with the same promptness as on a continental base, sometimes lagging behind by several months and necessitating such measures as arc-welding broken axles, devising wooden linings in place of missing brake lining, trading or downright filching from Marine and naval organizations.¹⁵⁵

Another problem discovered by the service units upon arrival was that of retaining their personnel for the job at hand, inasmuch as island air command headquarters and nature combined to strip down the effective number of skilled men available. Very frequently during the first four or five months on Espiritu Santo as many as 15 per cent of the 29th Service Group were out on IV Island Command orders performing tasks which did not demand skilled men, leading the group personnel to believe that ground commanders confused the term "service group" with "labor battalion."¹⁵⁶ A long process of tactful education on the part of the group commander was necessary to explain the real mission and purpose of the group.¹⁵⁷ Sickness added another factor and a serious one; for example, during January and February of 1943 approximately one-third of the 40th Service Squadron lay sick with dengue fever in a hospital or quarters, despite the employment of available mosquito-control measures. These were problems barely foreseeable back on the mainland, but they were grim realities to the men charged with responsibility for the maintenance and repair of AAF equipment. Some relief arose as a result of activation of the XIII Air Force Service Command on 14 April 1943, but progress was handicapped by the vast distances involved, poor communications, and lack of air transport.¹⁵⁸

Despite all handicaps the service crews fulfilled their missions. Trucks carrying entire repair crews moved to the plane bunkers where, with the aid of floodlights, they labored as long as sixteen hours daily, halting only for meals, and at one time the 40th Service Squadron had thirteen B-17's under simultaneous repair, without benefit of hangar or similar shelter. It was the machinists of this squadron who, with no more equipment than that carried in the machine-shop trailer, per-

formed the initial B-24 bomb-rack modification, doubling the number of bomb stations from twenty to forty. Every fifth day this small crew turned out a B-24 with its new racks completely installed. When Madame X, a B-17 with a fine combat record and the squadron's first repair job, went down over Bougainville, the men who had restored her felt as if they had lost a part of their own unit.¹⁵⁹

Improvisation and something loosely labeled "native engineering skill" helped mightily in overcoming the shortage of parts. Tools which were authorized but not supplied were fabricated on the spot from strange sources; a brake drum lathe was designed and produced locally, 90-mm. cartridge cases became mufflers, mechanical refrigerators were manufactured, and power hoists produced for bomb-service trucks.¹⁶⁰ Even down on New Caledonia at Tontouta, close to the source of supply, where the ambitious project was under way to modify the B-25C's and D's as low-level strafers, improvisation was the normal procedure. Lacking proper materials, sheet-metal workers went to any source. With a torch they cut up truck beds to obtain sheet steel for gun mounts, welding them together and heating or fastening them on with baling wire. But despite these relatively primitive solutions the B-25's flew; by 10 July, thirty-six had been modified to carry fourteen guns each.¹⁶¹

Inevitably, the record of the South Pacific service units raises the question: how were supply and maintenance accomplished at all in the lean months of the Pacific war? The answer lay in a combination of ingenuity, skill, the application of brute strength and sweat, a talent for improvisation on the part of citizen-soldiers who themselves were products of an industrial, mechanically minded society. Many times in emergencies AAF units received help from the Navy, always more richly furnished with equipment than the Army, and to a lesser extent there was aid from the Marines. Had it not been for useful local contacts with naval personnel, many units would have been without refrigerators, ice units, dump trucks, bomb-service trucks, pontoons for hauling water, plywood lumber, paint, and a long list of additional items unobtainable from Army sources.¹⁶²

As to the reasons behind the shortages in the supply bins, the record is not complete. Many of the factors have been indicated; certainly a share of the fault lay in the impossibility of foreseeing in advance, under existing military organization, all the exigencies of air warfare on remote island bases in a tropical climate. Items whose lack created

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serious handicaps to operations simply were not produced, or were not produced in time to be available when needed.

Whatever the cause and extent of the obstacles to ideal air operations, the fact remained that by 15 December the combined air forces of the South Pacific stood emplaced from Guadalcanal up to Bougainville, poised to open their greatest air onslaught against the enemy bastion at Rabaul. When this final task had been accomplished in the spring of 1944, Rabaul had lost its significance as a Japanese stronghold.

CHAPTER 9

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THE GILBERTS AND MARSHALLS

WHILE the Fifth and Thirteenth Air Forces moved into position for the final assault on Rabaul, the Seventh Air Force helped to initiate the American drive across the Central Pacific. Except for defensive action at the time of the Japanese attack on Pearl Harbor in December 1941 and operations against the enemy fleet during the Battle of Midway, the Hawaii-based air force, designated Seventh Air Force on 5 February 1942, had seen little combat.* It had served as a holding force of decidedly limited strength; its record of operations spoke chiefly of tedious hours of reconnaissance over the vast reaches of the Central Pacific; and its units had engaged the enemy for the most part only when on loan to some other air force. In addition to serving as a reservoir to be drawn upon for emergencies in neighboring theaters, the Seventh had acted also as a forwarding agency for men, aircraft, and units en route from the United States to the more active Pacific theaters.

The Seventh Air Force

Ever since the designation of Adm. Chester W. Nimitz as Commander in Chief, Pacific Ocean Area (CINCPOA) on 30 March 1942,¹ the Seventh Air Force had operated under the control of the Navy, and not without some difficulty in the adjustment of procedures and doctrines to the demands of a unified command. Maj. Gen. Willis H. Hale, commanding the Seventh,[†] served as air officer on the staff of Lt. Gen. Delos C. Emmons, commanding general of the Hawaiian De-

* See Vol. I, 194-201, 452-62.

† General Hale assumed command on 20 June 1942 in succession to Brig. Gen. H. C. Davidson, who had assumed command following the loss of Maj. Gen. Clarence L. Tinker in the Battle of Midway.

partment; and in all matters pertaining to problems of administration, supply, and services the Seventh Air Force functioned as a subordinate echelon of the Hawaiian Department.² Operational control, however, lay with the Navy. In the case of VII Bomber Command, this control was direct and complete, for the bombers operated under the direction of the Navy's Patrol Wing 2 (Patwing 2).³ But VII Fighter Command in its contribution to the immediate defense of the Hawaiian Islands, which remained a responsibility of the Hawaiian Department, received its operational orders through General Emmons.⁴

In preparation for the Battle of Midway the Seventh Air Force momentarily had enjoyed a high priority in its claims on available planes. At the close of June 1942, it had seventy-three heavy bombers, but this was destined to be the peak of its strength in that category until the fall of 1943.⁵ In July 1942 the 11th Bombardment Group (H) had been designated as the Mobile Force, Central Pacific* and sent down to meet a new emergency in the South Pacific, where it operated until February 1943.⁶ This left VII Bomber Command with only the 5th Bombardment Group (H), which for a time did well to keep as many as twelve of its thirty-five B-17's in readiness for combat.⁷ And as the 5th Group gradually built up its effectiveness, the 11th paid the cost of arduous operations in the South Pacific. In September 1942 the War Department ordered an additional squadron of heavy bombers from Hawaii to the support of the 11th Group, and by the close of November all of the 5th Group had moved into the South Pacific.† The Hawaiian Department would then have been completely stripped of all bombardment strength had not the 90th Bombardment Group (H), en route to the Fifth Air Force for relief of the war-weary 19th Group, been held for temporary assignment to the Seventh Air Force.⁸

The assignment proved to be temporary indeed. By mid-October the 90th Group had received orders to proceed, with its B-24's, to Australia, the 307th Bombardment Group (H) having been designated as the replacement for Hawaii.⁹ But scarcely had the last elements of the 307th come in, when the group was reassigned in December to the Thirteenth Air Force.¹⁰ Although Admiral Nimitz held up the transfer until it could be coordinated with the return to Oahu in February 1943

* See above, p. 28.

† The 72d Squadron left Oahu on 21 September, the 23d and 31st Squadrons in October, and by 21 November the 394th Squadron had completed its transfer to the Fiji Islands.

of the 11th Group for rest and reconstitution as a B-24 unit,¹¹ it had been made abundantly clear that the Seventh Air Force operated at a double disadvantage insofar as claims to heavy bomber strength were concerned.¹² In addition to the low priority suffered by all Pacific forces, the Seventh was forced to yield its own interests to the prior claims of neighboring theaters. At no time between the summer of 1942 and the fall of 1943 did the Seventh Air Force have more than a single group of heavy bombardment, and this one was either an inexperienced unit destined for service elsewhere or a battle-worn outfit badly in need of rest.

It was with serious difficulty, therefore, that General Hale undertook to meet an obligation to furnish a daily minimum striking force of eighteen bombers. His plan had been to follow a threefold division of this force into units of six planes each, one to be on alert and the other two employed for purposes of training and as reserve units except for the alerts maintained at dawn and dusk.¹³ In the circumstances existing, he could only hope that casualties on the way through Oahu as replacements for the South and Southwest Pacific might provide the margin of strength required to meet a real emergency, and he had to be content with the thought that a training program, which he combined with the maintenance of daily reconnaissance patrols, would prove helpful to Generals Harmon and Kenney. Only occasionally could Brig. Gen. Truman H. Landon, commander of VII Bomber Command, mount an offensive mission. Not only were the forces at hand meager but enemy targets lay at extreme range. Wake Island, seized by the Japanese on 23 December 1941, was approximately 1,194 miles west of Oahu. The naval and air action off Midway in the following June had greatly reduced Wake's importance to the enemy except for defense of the outer perimeter;¹⁴ and after single-plane reconnaissance missions of 26 June and 31 July 1942, the Seventh Air Force took no other action against the island until December.¹⁵ Then, on the night of 22/23 December, twenty-six B-24D's of the 307th Group staged through Midway for a strike with 135 x 500-pound GP bombs and 21 incendiaries. Apparently the attack took the enemy by surprise, as neither searchlights nor anti-aircraft fire were encountered until after the bombing had begun. All planes returned safely, with only slight damage to two. Assessment of the damage proved difficult in the smoke from explosions and resultant fires, but the mission stands first among the air attacks on enemy bases in the Central Pacific.¹⁶ The long overwater

flight necessary to its execution and the use of a staging base to stretch the tactical radius of the B-24 would be typical of Seventh Air Force bomber operations throughout the war.

The next offensive mission came on 25 January 1943, when six B-24's of the 371st Bombardment Squadron staged through Midway for daylight reconnaissance and incidental bombing of Wake. The bombers flushed six to eight interceptors, but their reaction was tardy and the damage to the heavies slight.¹⁷ Again, on 15 May, seven out of eighteen planes dispatched by the 371st and 372d Squadrons struck Wake during daylight. The enemy intercepted with nineteen Zekes and three Hamps, trading four of the interceptors for a B-24, the first B-24 lost to enemy action by the Seventh Air Force.¹⁸ Finally, on 24 and 26 July the reconstituted 11th Group, now flying B-24's, sent two missions of squadron strength against the former American outpost. Diversionary in nature, these attacks had been ordered by the Navy in the hope of confusing the enemy as to our intentions in the Pacific. Japanese defenses seemed to have been greatly improved, but the returning crews claimed a total of twenty interceptors destroyed. One B-24 had crashed into the ocean after a mid-air collision with an enemy fighter falling out of control.¹⁹ Wake would not be hit again by the Seventh Air Force until March 1944. These early raids, though small and scattered, had been generally well executed and effective.²⁰

By staging down through Funafuti in the Ellice Islands, for a total distance of well over 2,000 miles via Canton, Palmyra, or Christmas Islands, it had also been possible to strike twice against enemy positions in the Gilberts during April 1943. After the Japanese had seized the Gilberts early in 1942, they had constructed a two-strip airfield and elaborate fortifications on Tarawa. In addition, they had occupied Apamama and Makin and the outlying atoll of Nauru, to the west. These atolls carried a potential threat to the Allied line of communications joining the South and Central Pacific, and as with the coming of 1943 the Joint Chiefs of Staff gave some thought to the possibility of a Central Pacific offensive,* the islands acquired a new importance. After sending two reconnaissance missions in small force over the Gilberts in January and one in February,²¹ General Hale got the green light from Admiral Nimitz for a quick one-two jab at Tarawa and Nauru. Nimitz designated for the mission the 371st and 372d Bombardment Squadrons, joining them together as Task Force 12 under

* See above, pp. 133-35.

the personal command of General Hale. Reconnaissance of all the Gilberts, for the purpose of determining the airfield potentials for either Japan or the Allies, was to be combined with the bomber strikes. The task force would return from its temporary base at Funafuti upon completion of its mission.²²

Having dispatched a small boat two weeks in advance with necessary supplies and equipment, General Hale reached Funafuti with the B-24's on 18 April. Two days later at high noon twenty-two of the B-24's droned over Nauru. Since an early morning take-off, they had carried their bomb loads more than a thousand miles, which crowded the tactical radius of the B-24D to the limit. The weather over the target was excellent for the bombing with 28 x 1,000-pound and 45 x 500-pound GP bombs plus 45 frag clusters. Despite heavy interception and antiaircraft fire, direct hits on the runway, dispersal area, and a near-by phosphate plant were achieved. An oil dump at the north end of the runway went up in flames.²³ General Hale, who had gone on the mission, returned to Funafuti in high spirits over the performance of his inexperienced crews. The heavy damage sustained by five of the B-24's forced postponement of the Tarawa strike, originally scheduled for the 21st. As it happened, this delay proved fortunate, for the enemy promptly struck back in a predawn raid on the strip at Funafuti that would have caught the American bombers just as they assembled for the take-off. Even so, the B-24's parked along the narrow runway suffered serious damage when a hit on a bomb-loaded plane resulted in its destruction and in damage to five other planes.²⁴

On the next day, however, twelve of the B-24's struck Tarawa, achieving direct hits in the gas storage and barracks areas.²⁵ This attack was to have been followed by the special reconnaissance missions, but General Hale felt that he could not risk his bombers for another night on the exposed Funafuti strip. After "the longest and fastest retreat in military history," as he described his return to Arnold, Hale reached Hawaii on the day following the Tarawa strike.²⁶ Over the ensuing weeks occasional one- to three-plane reconnaissance missions brought back much-needed information regarding the Gilberts. Nineteen B-24's, their crews inexperienced members of the reconstituted 11th Group, went down to Funafuti on 27 June for another attack on Tarawa. But the first plane to attempt a take-off crashed, and after six were airborne, still another crashed, whereupon General Landon ordered the remaining planes to stay on the ground. Perhaps it was



AIR EVACUATION OF CASUALTIES

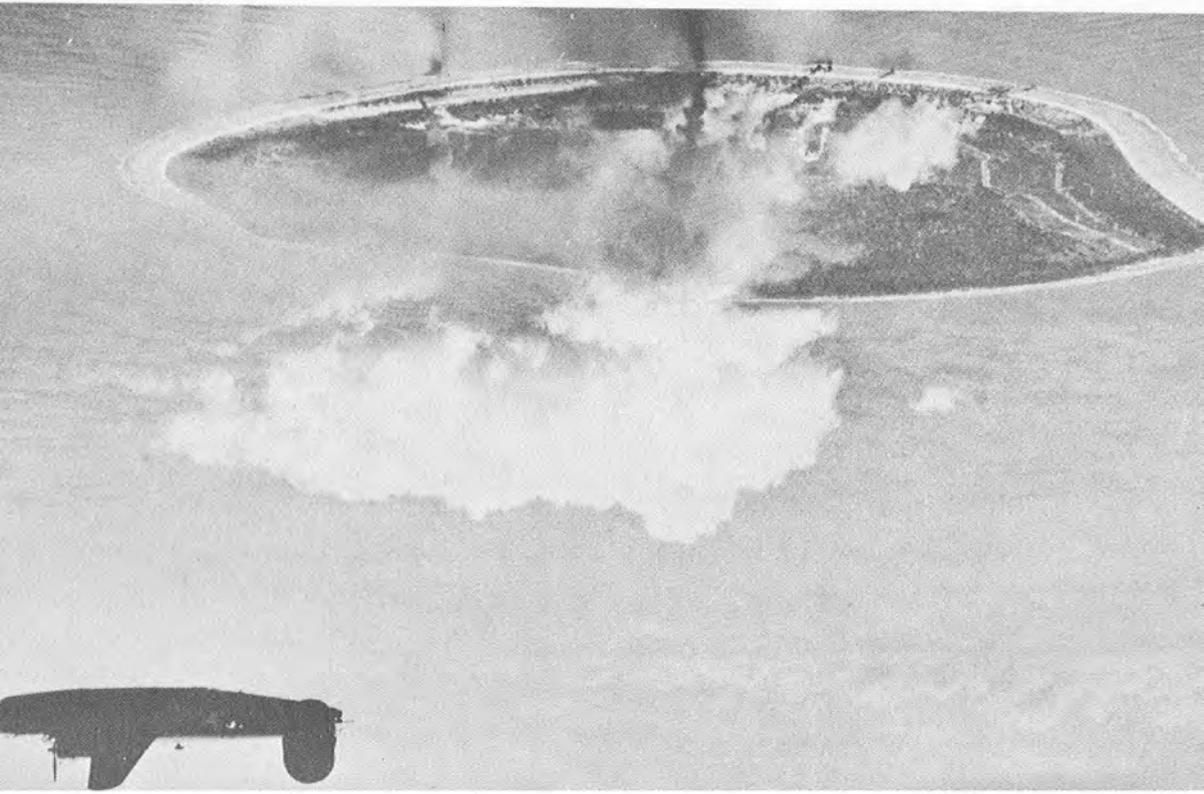
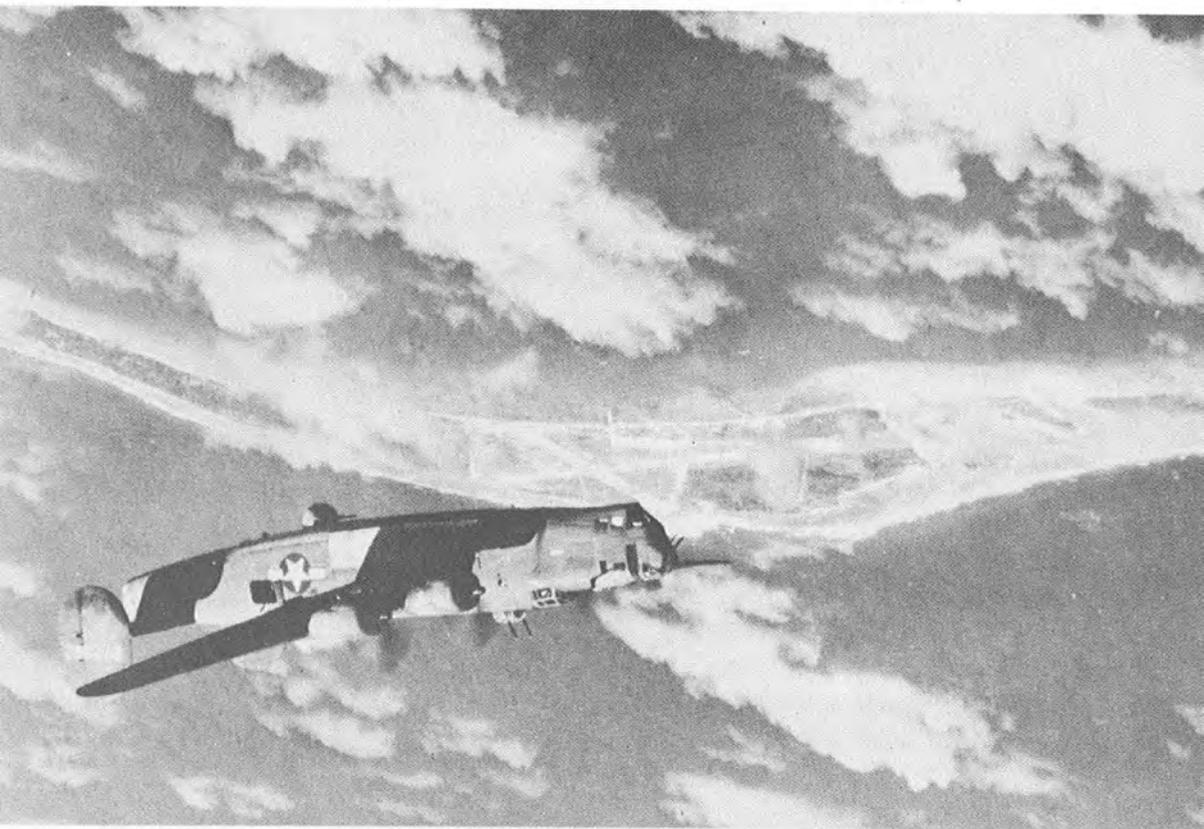
Above: By THIRTEENTH AIR FORCE C-47

Below: By LIAISON PLANE IN NEW GUINEA

Above: Nauru

SEVENTH AIR FORCE: "ONE DAMNED ISLAND AFTER ANOTHER"

Below: Wotje



just as well, for of the six planes which got off, only two found the target.²⁷

Operating thus at extreme range and through the use of an intervening staging point, Seventh Air Force bombers over the long period between the Battle of Midway and the actions preliminary to invasion of the Gilberts had been able to get in an occasional blow at Wake, Tarawa, or Nauru. Such missions served to break the tedium of routine reconnaissance, but they could have little cumulative effect on the enemy's strength and served chiefly to provide for the crews valuable experience and for headquarters no less valuable intelligence.

Meanwhile, VII Fighter Command under Brig. Gen. Robert W. Douglass, Jr., provided local defense for Central Pacific bases. Its force of some 200 fighters in August 1942 had reached a total of 319 by the following October, all of them P-40's except for one squadron of P-39's and another equipped with P-70 night fighters.* In addition to occupying several bases in the Hawaiian Islands, AAF fighters stood guard at Midway, Canton, and Christmas. The 73d Fighter Squadron had been transferred to Midway at Nimitz' request in June to take the place of the badly battered Marine unit hitherto stationed there.²⁸ The squadron's twenty-five P-40E's went from Oahu by the carrier *Saratoga*, from whose deck they flew in to the new base. The 73d provided daily air patrols for Midway until January 1943, when the 78th Fighter Squadron replaced it. In effecting the transfer, the two squadrons set a theater record for mass overwater flights of fighters by negotiating the full distance separating Oahu from Midway.²⁹ Down on Christmas Island, some 1,340 miles south of Honolulu, and on Canton, approximately 1,910 miles to the southwest of Oahu, the fighter command maintained a squadron each. The bulk of the command's planes, however, occupied bases in the Hawaiian Islands—on Oahu, Kauai, and Hawaii.³⁰

The monotony of daily patrol was broken by training exercises in interception, escort, attack, gunnery, bombing, rocket-launching, and support of ground troops.³¹ Joint Army-Navy exercises instituted in January 1942 sought improved coordination of all arms for the defense of Oahu. In these exercises, the Seventh's bombers usually played the role of an attacking force, their escort being provided by Navy and Marine fighters, while the VII Fighter Command concentrated its

* This unit, the 6th Night Fighter Squadron, had reached the theater in September, but would be transferred to the South Pacific in March 1943 except for one detachment.

efforts on breaking the simulated attack.³² As was the case with VII Bomber Command, much of the training for fighters would be put to service in neighboring theaters, for the Seventh Air Force served to no inconsiderable extent as a replacement pool for the Fifth and Thirteenth Air Forces. During the period under consideration, the Thirteenth received two full fighter squadrons and a group headquarters from VII Fighter Command, and for a year prior to the autumn of 1943 the Seventh supplied Kenney and Twining with trained fighter pilots at the rate of approximately twenty-five a month.³³ The resulting turnover in the personnel of units stationed in Hawaii sorely tried the patience of responsible commanders.

The VII Air Force Service Command (VII Air Force Base Command prior to 15 October 1942) under Brig. Gen. Walter J. Reed had its special problems too. It quartered, rationed, and supplied all casualties passing through the theater and held the responsibility for making their planes ready for combat.³⁴ Indeed, it had assumed since Pearl Harbor a key position in the logistical organization of the Pacific war, providing through the services of the Hawaiian Air Depot an intransit supply, repair, and modification center for forces scattered all the way from Hawaii to Australia. With forty warehouses on Oahu and additional supply dumps, the depot by the close of 1942 stocked thousands of items in urgent demand by combat units in the South and Southwest Pacific. The critical factor of shipping, a factor aggravated by the great distances of the Pacific, forced heavy dependence on air transport for important items of Air Corps supply. Unfortunately, the Seventh Air Force had no troop carrier unit and could provide air freight to the South Pacific only by loading to the limit all bombers headed that way.³⁵

The bombers thus pressed into service as cargo carriers had in many cases undergone modification at the Hawaiian Air Depot. During peacetime the depot had undertaken no more than the assembly, repair, and reconditioning of the Hawaiian Department's planes. But after Pearl Harbor, large numbers of P-39's and P-40's, rushed out in crates for assembly, flight-testing, and delivery to combat units, greatly expanded the activity. These had been followed in February 1942 by crated B-26's destined for service in the Southwest Pacific. The Hawaiian depot not only assembled these medium bombers, a function which was something new in the activity of an overseas depot, but undertook modifications to meet the demands of tactical experience,

marking the beginning of its development into a major modification center.³⁶

The transition to B-24's for all Pacific heavy bombardment units, a transition begun late in 1942, greatly enhanced the importance of modification as a depot function. The B-24D was sadly lacking in firepower, particularly in the nose of the plane. Japanese pilots soon discovered this defensive weakness, with the result that General Landon reported that approximately half of all early enemy fighter attacks on B-24's were made frontally.³⁷ After Lt. Col. Marion D. Unruh, of the VII Bomber Command, had designed a nose turret to correct the weakness,* it was installed by the Hawaiian Air Depot in more than 200 B-24's during 1943.³⁸ B-24 firepower was further improved by the installation of twin .50-cal. machine guns in the belly and tail of the airplane. The depot also moved the navigator's position to the flight deck and developed pilot and co-pilot blister windows to provide greater visibility. It continued to perform these modifications for the Pacific theaters until the advent of the B-24J, which included most of the changes.³⁹ Other early modifications included the installation of catapult-launching equipment and ignition pressurization systems on P-39's and P-40's for the VII Fighter Command. Much later there would be auxiliary wing fuel tanks, catapult-launching equipment, and rocket projectors to be installed on P-47's.⁴⁰

Like its counterparts on the mainland, the Hawaiian Air Depot was staffed in large measure by civilians who worked under the direction of AAF officers. Problems of recruitment, housing, and personnel management thus became quite different from those experienced by the regular AAF organization. As the war progressed, an increasingly large number of women employees were sent out from the United States. Their presence on a Pacific island crowded with soldiers, sailors, and Marines—even one so highly Americanized as was Oahu—presented problems as interesting as they were intricate, and "Hickam Housing," domicile for female employees at HAD, became an irresistible magnet for men of all ranks in all the services. Operationally, the normal difficulties of a civilian-staffed service and supply unit working under Army command were accentuated by the extreme precautions taken

* Unruh later became commander of the 5th Bombardment Group and failed to return from a strike against Rabaul on 30 December 1943. In addition to providing the design and conducting his regular duties, Col. Unruh had devoted many long hours to supervision of the initial modifications.

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by those responsible for the defense of the Hawaiian Islands after the debacle of 7 December. As the depot historian explained:

All through the early months of the war, one of the big headaches of the Depot, was the fact that most of the Generals were always yelling about dispersion. Somehow, that seemed to be all they thought about. They were willing to bring all work to a standstill in order to disperse the equipment.⁴¹

But these and other difficulties pale into relative insignificance when measured against the accomplishments of the Hawaiian Air Depot in the supply, maintenance, and modification of the aircraft used by our fighting forces in the Pacific.

These and other services rendered by Seventh Air Force agencies to neighboring theaters would be continued, but from the summer of 1943 forward the energies of the air force would be increasingly absorbed in the support of its own expanded operations. The Joint Chiefs of Staff had decided that the Gilbert Islands should be occupied, and with the mounting of GALVANIC, as that operation was known, the Seventh Air Force entered upon a new phase of its history.

GALVANIC

In the early discussions of a Central Pacific offensive,* all plans had envisioned the occupation of the Marshall Islands as the first step toward the capture of such positions in the Carolines as Ponape and Truk. The grand operation was thus conceived as a quick thrust that would bring the Central Pacific forces abreast of those who had been committed to the more difficult and tedious advance on Rabaul by way of the Solomons and the New Guinea coast, and one that would open up a direct and less encumbered line of attack on the Philippines and to the China coast.⁴² Closer study of the problem, however, had argued for occupation of the Gilbert Islands as a preliminary to the Marshall operations.

The thirty-three atolls forming the Marshall group occupy an area approximately 600 by 670 nautical miles. Mandated to the Japanese in 1920, they had long figured prominently in Nippon's plan for gaining control of the Pacific. An air base and supply facilities had been developed in the 1930's at Kwajalein, central and most important of the atolls in the group. At the war's outbreak, the Japanese also had established air facilities on Wotje and Maloelap and had begun a similar

* See above, p. 135.

development at Mille. Jaluit provided a seaplane base and fleet anchorage.⁴³ In addition to being strongly defended themselves, the Marshalls were surrounded by an effective ring of relatively well-developed positions. Six hundred miles to the north was Wake, with both sea-and land-plane facilities. Southward lay the Gilberts, with an airfield and strong fortifications at Tarawa and lesser facilities at Makin and Apamama. West of the Gilberts were Nauru and Ocean, the former containing an airstrip as well as the most important phosphate works in the Pacific. These positions all could be easily reinforced by air, and so long as the Japanese fleet enjoyed the advantage of a main base at Truk, it—*theoretically at least*—was in a position to interfere seriously with any attack on the Marshalls.

Naval planners in Admiral Nimitz' headquarters at Pearl Harbor felt the need for thorough and continued photographic reconnaissance of enemy defenses.⁴⁴ The nearest bases from which reconnaissance planes could have operated were at Funafuti and at Canton, some 1,300 and 1,600 miles, respectively, from Kwajalein—distances extending beyond the radius of both the Seventh Air Force's B-24D's and the Navy's PBV's. Carrier planes could have been used, but they were not as well suited for photographic purposes as the land-based reconnaissance planes operated by the Seventh.⁴⁵ Consequently, before launching an attack on the Marshalls, it was considered advisable to secure bases from which the necessary photographic reconnaissance could be conducted.

The reconquest of Wake offered one possibility, but the island lacked the natural facilities on which to base the number of heavy bombers necessary for support of operations in the Marshalls. On the other hand, an approach from the south through the Gilberts promised distinct advantages: U.S. forces would be advancing from an established line of communications joining the Central and South Pacific; the Gilbert atolls possessed islands on which a number of airfields already were built and on which others quickly could be built; the scope of the operation probably could be kept safely within the resources allotted; Nimitz' forces would have an opportunity to test their amphibious equipment and methods against peripheral positions before attacking the presumably well-fortified center; operations against the Gilberts would have the effect of widening the front of the Solomons operation in such a manner that the surface forces involved could be used for either or both areas; and finally, seizure of the

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Gilberts would protect Samoa and Canton while shortening and improving the lines of communication with the Southwest Pacific.⁴⁶

Accordingly, the JCS directive of 20 July 1943 to CINCPAC had ordered amphibious operations against the Gilberts and Nauru with a target date of 1 December 1943, these to be followed about 1 February 1944 with an assault against the Marshalls.* After some study, Admiral Nimitz objected to the inclusion of an assault on Nauru, arguing that the cost would outweigh the advantages. As an alternative he suggested the capture and development of Makin plus vigorous action to deny the enemy use of Nauru's strip during the operation.⁴⁷ Although General Arnold raised some question as to the advisability of substituting an island with only potential air-base facilities for one already containing an air base, the Joint Chiefs consented to the change late in September.⁴⁸

Already the preliminary operations, designed primarily to strengthen the American control of the air approaches to the Gilberts, had been launched. Early in September occupation forces and engineers had been put ashore at Baker Island, 350 miles northwest of Canton and almost due east of Tarawa, for the development of air facilities. The operation was covered by the 11th Bombardment Group, which conducted daily six-plane searches out of Canton from 1 to 14 September.⁴⁹ On 11 September, nineteen P-40N's of the 45th Fighter Squadron flew from Canton to Baker to provide local protection for the engineers.⁵⁰ Simultaneously, the development of air facilities on Nukufetau and Nanomea in the upper Ellice Islands had been undertaken, and to prevent interference with the construction crews on the three islands, it had been decided to stage a carrier strike against Tarawa in coordination with AAF attacks. For that purpose the 11th Group supplied Task Force 15, under Rear Adm. Charles A. Pownall, with two squadrons of B-24's. One of these, with twelve planes, joined the Canton Air Group, commanded by General Landon, who had six PBV's in addition to his own B-24's. The Funafuti Air Group, under Brig. Gen. Harold D. Campbell, USMC, boasted twelve B-24's, an equal number of PBV's, and ten PV-1's.⁵¹

In an effort to immobilize the airstrip for the carrier action, eighteen of the twenty-four B-24's dispatched on the night of 18 September reached the target and achieved excellent results with frag clusters and

* See above, p. 135.

GP bombs. The planes from Admiral Pownall's carriers (*Belleau Woods, Princeton, Lexington*), having worked over the island on the morning of the 19th with only slight interference, were followed over the target by twenty of the B-24's in a reconnaissance and final bombardment mission. In addition to obtaining complete photographic coverage of the island, the planes dropped thirty tons of GP bombs. The enemy fought back with anti-aircraft fire and interception by fifteen to twenty Zekes, which shot down one Liberator and damaged ten others.⁵² If the photographs promised to be very helpful in the final planning, it was also clear that Tarawa had not been knocked out, even temporarily, by the air strikes.

GALVANIC had been scheduled on the assumption that the Pacific Fleet possessed the bulk of the air forces that would be required. Indeed, a principal argument favoring the Central Pacific offensive had been the opportunity to employ profitably the fleet's growing carrier strength. But even so, it had been agreed to augment the strength of the Seventh Air Force by one heavy and a medium bombardment group.⁵³ These reinforcements, the 30th Bombardment Group (H) and the 41st Bombardment Group (M), arrived from the United States in mid-October.⁵⁴

Meantime, Nimitz had created the Central Pacific Force, United States Pacific Fleet, a formidable array of sea, land, and air power assembled under the command of Vice Adm. Raymond A. Spruance for the accomplishment of the GALVANIC mission.⁵⁵ This organization consisted of a fast carrier force, a joint expeditionary force for the landings, and a third force for the operational control of shore-based aircraft and of the bases from which they operated.⁵⁶ All shore-based aircraft committed to the operation were included in Task Force 57, commanded by Vice Adm. John H. Hoover. The Seventh Air Force was to provide Admiral Hoover with both bombers and fighters—the former to be organized as a striking group (Task Group 57.2) under the command of General Hale, and the latter to be part of the Ellice Defense and Utility Group (Task Group 57.4), commanded by Brig. Gen. L. G. Merritt, USMC.⁵⁷

GALVANIC represented a new departure in the employment of Central Pacific land-based aircraft. There had been operations conducted over long distances and from advanced bases before, but only for short periods of time; the prospect of sustained operations from tiny atolls situated 2,000 and more miles away from the main base

posed new problems. Many of the solutions agreed upon were necessarily experimental and highly tentative.

The seven squadrons of bombers and three of fighters to be committed by the Seventh Air Force would operate from five islands—Canton, Funafuti, Nukufetau, Nanomea, and Baker. Of these, only Canton and Funafuti had been developed prior to the fall of 1943. Canton had two compacted guano and coral runways, 7,200 and 9,400 feet long; and Funafuti had one 6,660-foot strip of crushed coral.⁵⁸ On the other three it had been necessary for aviation engineers and Seabees to hew airstrips out of the dense covering of coconut palms. At Nukufetau, approximately forty-three miles northwest of Funafuti, a detachment of Seabees by 16 October had surfaced 4,000 feet of the bomber strip on Motolalo, largest of the atolls, and were progressing rapidly on a fighter strip.⁵⁹ Before D-day the two strips would be lengthened to 6,100 feet and 3,500 feet, respectively, with hardstands, revetments, and parking areas provided for forty-five fighters and thirty-four bombers. There were a control tower, radio station, and weather station, but no lighting was provided for night flying.⁶⁰ Construction of the airfield at Nanomea moved somewhat more slowly, but a 7,000-foot bomber and a 3,000-foot fighter strip were usable at the beginning of GALVANIC, together with the necessary hardstands, revetments, and dispersal areas. When basic projects were complete in late November, Nanomea also provided a nose hangar and repair shops for first echelon maintenance, a control tower, and a radio station. Portable boundary lights were installed on one side of the bomber strip.⁶¹ The field at Baker, built by the 804th Engineer Aviation Battalion of the Seventh Air Force, had one 5,500-foot runway covered with steel mat, together with hardstands and parking mat to accommodate twenty-five fighters and twenty-four heavy bombers.⁶²

In planning to base air units on these outlying islands, as much in some instances as 2,000 miles from the Hawaiian Air Depot, the Seventh Air Force faced difficult problems of service and maintenance. The individual bomber and fighter squadrons could supply first and second echelon maintenance within their organization, for the ground crews would accompany the flight echelons, but they hardly could be expected to perform third and minor fourth echelon service. In the forward area, anything approaching standard service facilities could be expected only at Canton, where the 422d Sub-Depot and a detachment of the 17th Base Headquarters and Air Base Squad-

ron were located after July 1943.⁶³ To meet the need on other islands, conventional types of combat service agencies leaned too much on heavy equipment and lacked the necessary mobility. Consequently, the VII Air Force Service Command devised the air service support squadron (ASSRON), a provisional unit designed "to accomplish a specific task in a given locality."⁶⁴ By eliminating all possible administrative overhead, thereby reducing the total personnel required from 1,800 to 822 officers and enlisted men, and by replacing the heavy equipment used by the standard service center with motorized shops and easily transportable machinery, the ASSRON became a unit tailored to the size of the islands to be occupied.⁶⁵

ASSRON functions, as outlined by General Reed, included "such activities as repair, supply, evacuation, sanitation, construction, transportation, traffic control, salvage, graves registration, burials, quartering, training of service units, estimation and supervision of funds, and such other activities as may be required."⁶⁶ Actually, the duties performed in the field by the ASSRONS embraced a much wider scope of activity than even the foregoing would indicate, particularly when they were assigned to bases formerly occupied by the enemy. In those instances they went ashore shortly after the assault forces, and in emergencies even acted as infantry. In both the Gilberts and the Marshalls, burial teams for the disposition of the enemy dead were formed from the ASSRONS, and they supplied the bulk of the stevedore labor for unloading on the beaches. They also supplied details for clearing away debris and undergrowth from the areas to be occupied, and these details aided in the erection of buildings and in the construction of airfields.⁶⁷

Altogether, four ASSRONS were formed. The 1st, activated on 21 September 1943, went to Baker to service the 45th Fighter Squadron and bombers staging through from Canton; the 2d, activated the same day, was held for use in the captured Gilberts; the 3d took over the servicing of the squadrons based at Funafuti, Nukufetau, and Nanomea; and the 4th was set up for later movement into the Marshalls when those positions were captured.⁶⁸ The original concept envisioned moving these service units from island to island as the tactical organizations advanced across the Pacific, but this would never prove to be the case. The idea was abandoned altogether at Kwajalein. The 4th ASSRON, assigned there, was three times the size of any of its predecessors, and with time it assumed an increasingly more permanent

nature. Ultimately its functions were taken over by the Kwajalein Sub-Depot. The 5th ASSRON, activated in February 1944 and intended for service on Saipan, was abandoned before it got beyond the blueprint stage.⁶⁹ By July 1944, standard service groups had been assigned for the tactical squadrons in the Central Pacific.⁷⁰

Throughout their relatively brief existence the ASSRONS were subjected to an undue amount of criticism, some of it justified but much of it unwarranted. From the beginning they had operated under serious handicaps. Unconventional and hastily formed organizations, they operated without a background of precedent and regulation. Moreover, they were formed at so late a date and in such a hurry that there was no opportunity for training personnel in advance of operations. Also, inasmuch as the ASSRONS were only provisional units, all personnel were on detached service from other organizations—and by tradition in the Army, DS is a graveyard for hopes of promotion. Likewise, many commanders, in selecting men for DS with the ASSRONS, followed the hoary custom of using the occasion as an opportunity to rid their own units of undesirables. In the QM section of the 1st ASSRON, for example, fourteen men out of thirty-two had court-martial records or other evidences of poor performance,⁷¹ and ten court-martial cases developed in the unit while it was on Baker Island.⁷² Despite such instances, however, there is ample testimony to proper planning and highly creditable performance on the part of the 1st ASSRON: its radar equipment began operation on the day of landing, and the radio five days later; the unit serviced 600 aircraft staged through Baker between 15 November 1943 and 10 January 1944; and one of its ordnance sergeants devised a bomb-loading jig which cut loading time materially.⁷³ Later ASSRONS, taking advantage of the experience gained by the 1st, correspondingly increased their efficiency.

Equal in severity to the problem of servicing tactical units engaged in island warfare was the problem of supply, and once more many of the procedures were experimental in nature. In joint operations, such as those proposed for the Central Pacific, supply was apt to pose an especially delicate problem. The needs of all services had to be adjusted against available stocks and particularly against available shipping space. In matters of supply, too, a complicated command structure had its serious implications. Thus, supplies for the Seventh's tactical units were furnished by the Army Service Forces through USAFICPA

(U.S. Army Forces in the Central Pacific Area), but were moved in bottoms allocated by the Navy. With all activities operating against shortened deadlines, the opportunities for difficulty inherent in such an arrangement are obvious. The only redeeming feature of the situation was the willingness of almost all persons and agencies concerned to cooperate to the fullest in order that the job at hand might be accomplished. For example, advance information from ASF indicated that certain air force supplies would not be available in time to meet the deadline for GALVANIC, but USAFICPA depots dug into their stocks to cover the shortages on the understanding that items thus advanced would be replaced on receipt of the air force's shipment from the States. Again, there was free exchange of equipment with the Navy and Marines in order to meet the needs of all three forces. Likewise, there was full cooperation with the Navy and Marines in utilizing types of bombs and ammunition common to all services, and at each base the service with the greatest concentration of tactical and service units was designated to supply bombs and ammunition for all three.⁷⁴

All shipping from Hawaii down to the advanced bases came under the control of the Commander, Fifth Amphibious Force, with priorities for cargo space determined by the Joint Shipping Control established by CINCPAC and including in its membership representatives of all services.⁷⁵ Items of Air Corps supply were furnished through the Hawaiian Air Depot, which during the course of GALVANIC operations moved 5,319,818 pounds of Air Corps supply forward. The handling of these supplies was greatly complicated by the fact that virtually all of the items received from the mainland arrived in one huge shipment at Honolulu docks and by the necessity for dispersion throughout the island of Oahu during the period of processing for the movement forward. Aviation gasoline, an item of supply peculiar to the needs of air operations, was moved to the forward bases in tankers and stored in bulk fuel systems assembled under the direction of the Seventh's A-4. Where both AAF and Navy systems were used, as at Makin, they were interconnected and filled from a single submarine pipe line tied to a tanker anchorage offshore.⁷⁶

The personnel shortages which had plagued the Seventh Air Force since Pearl Harbor added to the problem of preparing for island warfare. Special difficulty arose from the fact that the Seventh Air Force never had been furnished a complement of labor troops. With none available from outside the theater—the early Pacific advance, it must be

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remembered, was to be conducted with resources already in the theater—the problem was solved by disbanding the air base security battalions, considered nonessential units, and forming aviation squadrons from the personnel made available, thus relieving the critical labor shortage and, in particular, making it possible for VII AFSC to meet the GALVANIC loading deadline.⁷⁷ Further demands arose from the necessity of establishing advanced headquarters for AAF organizations situated 2,000 miles and more from Hickam Field. General Hale established ADVON Seventh Air Force on 6 November at Funafuti, where it would remain until he moved it to Tarawa on 30 December.⁷⁸ In addition to ADVON Seventh Air Force, ADVON VII AFSC and ADVON VII Bomber Command functioned at Funafuti under Generals Reed and Landon.

The original target date established for GALVANIC had been 1 December but this had been pushed forward to mid-November, and the first days of that month saw the planes of the Seventh moving into position for the pre-invasion air attack on the Gilberts. Deployment on the eve of battle was as follows:

Headquarters 11th Bomb. Group	Funafuti
42d Bomb. Squadron	Funafuti
431st Bomb. Squadron	Funafuti
26th Bomb. Squadron	Nukufetau
98th Bomb. Squadron	Nukufetau
Headquarters 30th Bomb. Group	Nanomea
27th Bomb. Squadron	Nanomea
38th Bomb. Squadron	Nanomea
392d Bomb. Squadron	Canton
531st Fighter-Bomber Squadron	Canton
46th Fighter Squadron	Canton
45th Fighter Squadron	Baker
1st ASSRON	Baker
3d ASSRON	Funafuti
Detachment 3d ASSRON	Nanomea
Detachment 3d ASSRON	Nukufetau
Detachment 17th AB Squadron	Canton
422d Sub-Depot	Canton

It will be noted that fighter squadrons stood guard over Canton and Baker Islands and that the bomber units had been sent to the Ellice Islands to serve as a striking force. Admiral Hoover's headquarters was aboard the aircraft tender *Curtiss*, now anchored in the harbor at Funafuti. Direct communications between the *Curtiss* and ADVON Seventh Air Force were maintained by telephone, teletype, and FM radio. A radio net linked all bases.⁷⁹

Plans called for the seizure of Tarawa, Makin, and Apamama by the amphibious forces. By far the most important and best defended of these was Tarawa, a triangular-shaped atoll composed of a series of islands on a reef about twenty-two miles long and inclosing a lagoon some seventeen miles long by nine wide at the south end and by less than a mile at the north. The largest and most important island on the atoll is Betio, a narrow strip of land approximately two and one-fourth miles long and less than half a mile wide. The Japanese had first landed at Tarawa on 10 December 1941, but had delayed its development until September 1942, when the atoll was placed under the same administration as the Marshall Islands group. Subsequent to that date, Tarawa had become the principal Japanese air base in the Gilberts. Its two rolled-coral runways could serve defensively as a reconnaissance base to screen larger Japanese concentrations in the Marshalls, or offensively as an advanced base for operations against Allied positions in the South Pacific.⁸⁰ Naval air reconnaissance revealed that the enemy had repaired the damage caused by the September strikes and constructed additional defenses.⁸¹

Makin and Apamama promised less trouble. No serious resistance was expected at Apamama.⁸² Evidence indicated, however, that since an August 1942 raid on Makin by the Marines, the Japanese had prepared new defensive installations and were conducting patrol operations from the seaplane base located there.⁸³ D-day at Makin for the 27th Infantry Division was 20 November; for the Marines at Apamama, 26 November; and for the Marines at Tarawa, 20 November.

The air attack began on 13 November 1943 (D minus 7) when eighteen B-24's of the 11th Group took off from Funafuti to bomb Tarawa. They dropped 126 x 20-pound frag clusters and 55 x 500-pound GP bombs from 8,500 and 15,000 feet, respectively. Returning to Funafuti, the crews for sixty miles could observe fires burning. One airplane did not return, cause unknown.⁸⁴ All through the following week the Liberators carried out their assigned missions, going back in comparable force to Tarawa on D minus 6, D minus 3, and D minus 1, this last time in coordination with the carriers. But Tarawa and Makin (hit by B-24's on D minus 1) got a worse pounding from carrier strikes on D minus 4 to D minus 1. For Seventh Air Force planes, the important enemy bases were not so much those scheduled for occupation as those from which enemy aircraft might interfere.

The enemy's bases in the Marshalls and at Nauru could be reinforced

by air from the Carolines, from Wake, and even from the Japanese homeland. Chief of his bases was Kwajalein Atoll, defensive and administrative center of the Marshalls and already marked for subsequent occupation by U.S. forces. There was a major air base on Roi Island, and one under construction on Kwajalein Island. A well-equipped seaplane base was located on Ebeye Island, and there were large concentrations of military stores of all categories on Kwajalein, Namur, and Bigej Islands.⁸⁵ Other islands in the Marshalls which constituted a threat to GALVANIC were Jaluit, Mille, and Maloelap. Jaluit was the site of a large seaplane base, the center for Japanese air and surface patrols in the southwestern Marshalls, the submarine base for the area, and an important supply base.⁸⁶ Mille, supporting a two-runway airfield, was the southern anchor of the eastern Marshalls defense zone.⁸⁷ Maloelap, formed by more than sixty low-lying islands along a reef thirty-two by thirteen miles, boasted a particularly well-developed air base, located on Taroa and equipped to handle all types of Japanese land-based aircraft. Centrally situated on the rim of the Marshalls, it was the most important enemy base in the entire area except for Roi Island in Kwajalein Atoll.⁸⁸ Finally, there was Nauru, originally slated for occupation by GALVANIC forces. Strategically linked with the Gilberts and easily reinforced from the Carolines, its newly constructed airfield, in addition to constituting a serious threat to GALVANIC, provided a base from which Japanese patrol planes could cover completely the area between the Gilberts and the Solomons.⁸⁹ Though it later became a target for planes of the Seventh, during the assault phase of GALVANIC it was assigned to the Relief Carrier Group.⁹⁰

The B-24's struck Mille as well as Tarawa on D minus 6, hit Jaluit and Mille on the next day, and devoted D minus 4 to Kwajalein and Maloelap. Tarawa and Mille were substituted for Jaluit and Maloelap on the 17th (D minus 3); and on the 18th unfavorable weather forced the bombers headed for Wotje to drop their loads on Mille and Tarawa.⁹¹

Although the enemy proved unable to put up effective resistance to these attacks, the Liberators met opposition of sorts every time they went out. There was antiaircraft fire, varying in intensity and accuracy, over every target; over Kwajalein, Jaluit, and Maloelap, fighters were up to meet the bombers.⁹² Enemy aircraft contributed to the difficulties of both air and ground crews by raiding Nanomea on the night of 11 November and Funafuti on 13 and 17 November.⁹³ As was

true of much of the air war in the Pacific, however, operational difficulties proved more serious than enemy opposition. Chief among these was the remoteness of enemy targets from the widely dispersed operating bases. Missions were flown at ranges rarely attempted before the advent of the B-29, with a maximum round trip from base to target and return of 2,408 nautical miles.⁹⁴ These distances were over water with few if any intermediate landmarks, and both bases and targets were mere pinpoints virtually lost in a vast expanse of water. Hence, the greatest premium was placed on accurate navigation. The weather also caused trouble. It was difficult in the extreme to forecast conditions at a precise time over a small target a thousand miles or more away, and all too frequently the heavy bombers found their assigned targets completely obscured from view. The VII Bomber Command attributed the generally unsatisfactory nature of the weather reports to the lack of wide and efficient dissemination of information and the brevity of Navy forecasts, on which the Seventh generally depended.⁹⁵ Another difficulty, and one which had a direct bearing on the quality of the weather reports, was the unsatisfactory manner in which communications facilities functioned, particularly at Funafuti. The tower there used unpublished transmission frequencies, and the erratic and unstable operation of the range and homing stations made them unreliable as aids to navigation.⁹⁶

Despite these handicaps, the Seventh's heavy bombers had completed thirteen strike missions for a total of 141 sorties when the Marines went ashore at Tarawa on 20 November. The Liberators had dropped 375 x 500-pound GP bombs, 455 x 100-pound GP bombs, and 5,634 x 20-pound frag bombs, destroying five enemy aircraft, probably destroying five others, and damaging two. Two B-24's had been lost in combat, two had been lost operationally, two had been destroyed on the ground, and one had been lost at sea, cause unknown. Personnel losses included six dead, nineteen wounded, and eleven missing.⁹⁷

Any attempt to assess the effectiveness of the Seventh Air Force in GALVANIC, as in its other operations, is complicated by the fact that in joint operations success is achieved by the sort of teamwork and cooperation which makes it difficult to assign credit to any one specific element of the team for any single phase of the operation. In GALVANIC the aerial strength of Navy carriers operated against many of the targets hit by the planes of the Seventh Air Force; and at Tarawa the island was subjected to heavy bombardment from sur-

face vessels as well. The U.S. Marines, in seventy-two hours of bitter fighting before the enemy garrison was overcome, found reason to feel that the pre-invasion bombardment of Tarawa had been woefully inadequate.

Subsequent analysis tended to support the view that too much reliance had been placed on surface bombardment and too little use made of bombardment from the air. Over 80 per cent of the fire directed at Tarawa's defenses had been delivered by surface vessels, and approximately 10 per cent each by the B-24's of the Seventh and carrier aircraft.⁹⁸ The Japanese positions, well dug in on the flat surface of the atoll, offered a difficult target to naval gunfire of high velocity and flat trajectory and were probably more vulnerable to bombardment from the air. It has been argued that had more time been allowed for the preassault air attack, Japanese resistance might have been considerably weakened. The importance of surprise, dictating a time schedule which was calculated to minimize the chance of enemy reinforcement or interference from the Japanese fleet, and the assignment of available bombers to attempted neutralization of widely scattered enemy airfields precluded this possibility. That the best use of the B-24's had been made is certainly open to question. They were too few in number to carry out over such distances any really effective neutralization of the enemy's bases.⁹⁹ Perhaps it would have been more realistic to concentrate their effort against Tarawa, relying upon a preponderance of carrier strength to protect the assault forces.

Whatever faults of assignment there may have been, GALVANIC had been executed with expeditious success. The cost to the Second Marine Division had been unusually heavy, but the survivors, having won their fight, could be evacuated for rest during the last week in November. Makin had been won in one day. The landing at Apamama on 26 November met no opposition. And all operations had proceeded with negligible air opposition from the enemy. Before November had reached its end, preparations for a forward movement by U.S. air forces into bases on the Gilbert Islands had been begun.

FLINTLOCK-CATCHPOLE

Operations against the Gilberts had been envisioned as merely a preliminary to the main thrust into the Marshalls, which would follow immediately. Target date for FLINTLOCK, the occupation of the Kwajalein and Majuro Atolls, had been set by the Joint Chiefs at

1 February 1944. CATCHPOLE, as operations for the occupation of Eniwetok Atoll had been coded, would take place three months later.¹⁰⁰ The ease with which Kwajalein and Majuro were occupied, however, prompted a speed-up in timing which resulted in a decision to mount CATCHPOLE immediately, and by 19 February, Eniwetok, north-westernmost of the Marshalls, also had been captured against light enemy resistance.

So far as air operations were concerned, the campaigns in the Gilberts and Marshalls were continuous. On 21 November 1943 (D plus 1 on Tarawa), B-24's of the 38th Bombardment Squadron escorted Navy PB4Y photo planes over Nauru, while Liberators of the 431st and 42d Bombardment Squadrons conducted daylight bombing raids on the same target.¹⁰¹ During the remainder of November and most of December, Seventh Air Force Liberators, staging through Baker and Nanomea from their bases at Canton and in the Ellices, continued to pound Nauru, Mille, Jaluit, and Maloelap, in tactical support of the base-development phase of GALVANIC and in preparation for CATCHPOLE. Beginning on 16 December, Wotje, site of a strongly fortified and well-defended airfield and extensive seaplane facilities, came under the sights of the B-24's.¹⁰²

Meanwhile, Seabees and Seventh Air Force aviation engineers prepared the newly won positions in the Gilberts for use. Tarawa had been scheduled for development as the most important of the new bases. The task of preparing two airfields, one on Betio Island in the southwest corner of the atoll and the other on Buota Island at the southeast corner, became the responsibility of the Seabees who landed shortly after the fighting ceased. Construction proceeded slowly, and though two squadrons of the 41st Group's B-25's, on Oahu since October, reached Tarawa on 15 December, per schedule, it was not until 23 December that either of the two fields could be considered operational.¹⁰³ When completed, Hawkins Field on Betio consisted of a single coral runway, 6,450 feet by 300 feet; parking space for 72 heavy bombers; and hardstands for 100 fighters, plus service facilities. Mullinix Field, on Buota, had two runways—7,050 x 200 feet and 4,000 x 150 feet—both of compacted coral, plus dispersal areas for 76 heavy bombers and the usual service facilities. Boundary lights and floodlights were installed for night flying.¹⁰⁴

The Seabees had also undertaken the construction of O'Hare Field at Apamama, but progress was even slower than at Tarawa. The two

squadrons of mediums scheduled for arrival on 15 December had to be delayed a month, until the field became ready even for limited operations.¹⁰⁵ O'Hare Field, on its completion, consisted of an 8,000-foot runway of compacted coral, a dispersal area for seventy-two heavy bombers, field lights for night flying, and limited maintenance and repair facilities. At Makin, Seventh Air Force aviation engineers brought to prompt completion facilities at Starmann Field which included a 7,000-foot runway partially covered with steel mat, dispersal areas for seventy-eight fighters and twenty-four heavy bombers, and third echelon maintenance facilities.¹⁰⁶

The Seventh Air Force deployed its units forward into the Gilberts as rapidly as the bases became available. The 46th Fighter Squadron, whose P-39's had been kept at Canton for defensive purposes during GALVANIC, was reinforced with new airplanes from Oahu and moved to Makin during the period 14-27 December. Another P-39 organization, the 72d Fighter Squadron, came down to Makin from Oahu, the pilots and planes arriving aboard a carrier on 14 December. The P-40's of the 45th Fighter Squadron, having been assigned to the air defense of Baker during the initial phase of GALVANIC, moved to Nanomea on 28 November, and in January divided into a rear echelon stationed at Apamama and a forward echelon at Makin. The 531st Fighter-Bomber Squadron, equipped with A-24's, assembled on Makin from Oahu and Canton on 22 December 1943.

Liberators of the 27th Bombardment Squadron, staging through Tarawa on 23 December to escort Navy photo planes over Kwajalein, marked the first use by the heavies of the new facilities there. Tarawa continued to serve as no more than a staging base until early in January, when headquarters of the 11th Group and the 26th, 98th, and 431st Squadrons moved into Hawkins and Mullinix. Also in early January, headquarters of the 30th Group and the 392d Squadron moved to Apamama from Nanomea and Canton, respectively. The 27th and 38th Squadrons were retained at Nanomea, and the 42d returned from Funafuti to Hawaii.¹⁰⁷ To round out the movement into the Gilberts, ADVON Seventh Air Force and the forward echelons of VII Bomber Command and VII AFSC moved from Funafuti to Tarawa during the last week of December and the first week of January.¹⁰⁸

Thus, by mid-January the Seventh Air Force—still a part of Admiral Hoover's Task Force 57, which, in turn, remained a part of Admiral Spruance's Central Pacific Force—was in position to carry out its mission in the occupation of the Marshalls. General Hale remained strike

commander, and only in the inclusion of fighters as a part of Hale's striking force did the task organization differ from that used in GALVANIC.¹⁰⁹ In general, the Seventh's mission remained the same: search and reconnaissance, the performance of strike missions to deny the enemy use of his bases, and attempts to destroy his shipping. Specific targets included enemy air facilities at Mille, Jaluit, Roi, Wotje, Taroa, Kwajalein, and Kusaie. The defense of the Ellice and Gilbert Islands and support of the Kwajalein invaders on D-day rounded out the Seventh's assigned duties.¹¹⁰ During the CATCHPOLE phase of the operation, the Seventh would continue its neutralization of bases in the Marshalls and, in addition, undertake, to knock out enemy air facilities at Ponape and Wake in coordination with strikes from Midway, as directed by CINCPAC.¹¹¹

The targets—except for Wake, which actually would not be hit by Seventh Air Force planes, for Tarawa, which had become a U.S. base, and for Ponape and Kusaie in the eastern Carolines, where airfields assumed importance as a threat to the occupation of Eniwetok—remained thus unchanged from those hit during GALVANIC. The primary difference in the new operations lay in the increased air strength which now could be brought to bear from the more forward bases. No longer did the heavies have to assume responsibility for all of the targets; those at closer range could be turned over in part to B-25's, A-24's, and fighters. Moreover, the shortened distances between the forward bases and B-24 targets (the average B-24 sortie was reduced from 13.7 hours in December to 9.6 hours in February)¹¹² permitted the Liberators to carry heavier loads and to operate more frequently, with less fatigue for their crews.¹¹³

As the assault forces assembled for the attack on Kwajalein (Majuro was expected to be occupied without resistance), the diminutive Seventh—"Hale's Handful," it came to be called—threw everything it had against that atoll and against Mille, Jaluit, Maloelap, Wotje, and Nauru, with heavies, mediums, and fighters keeping up an almost round-the-clock pounding of the already battered bases, supplementing heavy and decisive strikes by Rear Adm. Marc A. Mitscher's carriers.*¹¹⁴ The six squadrons of Liberators carried the heaviest burden.

* Task Force Mitscher, including twelve carriers, eight battleships, six cruisers, and thirty-six destroyers, was charged with the primary mission of obtaining and maintaining control of the air in the Marshalls and providing air support for the assault and capture of Kwajalein. It began its attacks on 29 January, striking airfields at Roi, Kwajalein, Taroa, and Wotje, continuing through the 30th.

Having flown a total of 365 sorties in December from their bases at Canton and in the Ellices, with concentration on Mille and Maloelap, in January the Liberators began softening up Kwajalein for the invasion. They dropped a total of 200.3 tons on the atoll in addition to conducting heavy strikes against Wotje and Maloelap.¹¹⁵ Mille and Jaluit now had been turned over to the light planes, and were hit by the heavies only as alternate or last-resort targets. From D minus 3 to D-day, the B-24's were used in nightly harassment of Kwajalein, Wotje, and Maloelap. In performing this mission they were over their targets from dusk to dawn in small elements, dropping 500-pound, delayed-fuze GP bombs. On D-day (1 February) six B-24's of the 392d Squadron furnished part of the ground support for the assault troops of the U.S. 7th Division at Kwajalein. Coming in at from 4,000 to 4,600 feet, they dropped 1,000- and 2,000-pound GP's and strafed the island with .50-cal. machine guns. As they left the target, the entire northwest part of the island appeared to be on fire.¹¹⁶

With the Liberators concentrating on Kwajalein, the 41st Group's B-25's struck principally against nearer Maloelap and Wotje, with Mille and Jaluit as secondary targets, for a total of 215 sorties in January.¹¹⁷ Carrying a 75-mm. cannon in the nose, in addition to a complement of .50-cal. machine guns, the B-25's specialized during the Marshalls campaign in low-level bombing, cannonading, and strafing attacks against both shipping and shore installations. This gave them certain tactical advantages over aircraft using medium- and high-level techniques: avoidance of radar detection, added precision in bombing, and ability to strafe their targets effectively with both machine guns and cannon.¹¹⁸ But the operations proved costly. The 41st Group lost a total of seventeen B-25's between 28 December and 12 February, in addition to suffering damage on 114 sorties.¹¹⁹ When, beginning 19 February, the B-25's switched to medium-altitude attacks, the number of aircraft destroyed and damaged was greatly reduced.

During most of FLINTLOCK-CATCHPOLE, neutralization of Mille and Jaluit, nearest of the Marshalls, was accomplished by A-24's, P-39's, and P-40's. A-24's of the 531st Fighter-Bomber Squadron had started hitting installations on Mille and Jaluit from Makin on 18 December. Usually armed with 2 x 500-pound GP bombs, the Dauntless dive bombers flew 367 sorties against those two targets between that date and the invasion of Kwajalein.¹²⁰ Except for forty-one unescorted sorties over Mille, the A-24's were accompanied on all missions by

P-39's of the 46th and 72d Fighter Squadrons, P-40's of the 45th Fighter Squadron, or F6F's of the Navy. Occasionally Navy SBD's (Army A-24) flew with them. The Seventh's P-39's, in addition to furnishing escort for the A-24's, undertook a variety of strike and patrol missions. They made regular fighter sweeps over Mille, 220 miles from their base at Makin, and on 6 February, twelve P-39's made a successful fighter sweep over Jaluit, a distance of approximately 303 miles from Makin. During their period of operation from Makin (18 December-12 February) the P-39's flew a total of 635 sorties, plus 114 abortives. In similar fashion, the P-40's were used on a variety of missions: escort, bombing, strafing, attacks on shipping, and combat patrol. Altogether, from 16 January to 11 March, they flew a total of 501 sorties, plus 80 abortives, dropping 163.9 tons of bombs on Mille and Jaluit.¹²¹ In support of the landings on Kwajalein, the 45th, 46th, and 72d Fighter Squadrons conducted continuous daylight combat patrols over Mille from 29 January through 1 February.¹²²

With the occupation of Kwajalein and Majuro completed by 6 February and the decision having been made to use the Reserve Assault Force for the immediate occupation of Eniwetok, the principal emphasis of the Seventh's heavies shifted to attacks on Ponape and Kusaie in the eastern Carolines. Ponape, the largest island in the mandated group, had one medium-sized airfield, a second airfield under construction, and a well-established seaplane base. Its anchorage was suitable for six medium-sized and a number of small vessels but not for a fleet base.¹²³ Although only some 400 miles from Eniwetok, and thus a serious potential threat to landing operations there, Ponape was approximately 1,085 miles from the Seventh's forward base at Tarawa, and missions against it averaged around 2,200 miles of nonstop, overwater flying.¹²⁴ Ponape was first hit on 14 February, and during the remainder of the month 121 B-24 sorties were flown over it. Kusaie, the easternmost of the Carolines, lies approximately 300 miles east of Ponape. Since the island supported little military activity, it usually served as an alternate target for missions against Ponape.¹²⁵ The commanding general of the Seventh Air Force later described the reduction of Ponape as "the most interesting phase, and certainly the most important" of the CATCHPOLE operation. In four raids against Ponape, during which approximately 140 tons of GP and incendiary bombs were dropped, the town was practically destroyed and the seaplane base pounded into uselessness.

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Though deployment into the Gilberts had shortened the distance from the Seventh's bases to some of its targets, most of the operations pushed the planes near the edge of their tactical radius—and sometimes beyond it. Navigation, as always under such circumstances, was of the utmost importance. As the S-2 of one of the fighter groups pointedly warned the pilots, "214 miles over water with a single prop out in front is a long way and no sensible place to get lost."¹²⁶ The weather continued to make trouble, though not so much as in the earlier operations. The planes always found a weak to moderate weather front with 2/10 to 10/10 cloud coverage in the central and eastern Marshalls, but this caused little or no interference with operations inasmuch as at least one of the major targets usually was clear. The weather en route to Ponape and Kusaie, however, was generally difficult to forecast. Flights got split and some of the planes frequently had to bomb alternate targets; occasionally missions were canceled because of adverse weather conditions. In addition, daytime cloud cover over Ponape and Kusaie made observation and photo reconnaissance difficult.¹²⁷

Conditions under which the men of the Seventh Air Force lived and worked at their bases in the Gilberts were primitive, as they had been in the Ellice Islands. There were flies and mosquitoes, the seemingly everlasting C rations, and for the ground crews especially, the monotony of life within the limits of a tiny coral atoll. The fierce fighting and heavy bombardment had left a mass of stripped and uprooted coconut palms and burned and smashed blockhouses filled with the heaped-up bodies of the decaying, stinking dead. Moreover, for days after Tarawa had been declared secure, and even after Seventh Air Force planes were operating from its airfields, the dugouts, in addition to their unbearable stench, could often produce a number of fierce, fighting defenders who would charge or shoot anyone venturing near them. "But even on coral atolls," as the historian of VII Bomber Command put it, "life can become more or less routine with the passing of time, and obstacles which seemed virtually insufferable at first are either eliminated or soon become every-day matters accepted as a part of daily life."¹²⁸

To U.S. forces, the enemy seemed in the initial stages of FLINT-LOCK to be resisting with a vigor and effectiveness he had not demonstrated during GALVANIC. Antiaircraft fire increased in volume and accuracy over what it had been in the Gilberts campaign, and enemy fighters began appearing in larger numbers.¹²⁹ During December, re-

turning bombardment crews reported interception over Kwajalein, Wotje, Mille, and Maloelap; but only over the last-named did the enemy make a sustained effort to put fighters into the air against the Seventh's formations, and only over that target was interception encountered after December.¹³⁰ After the B-24's shifted to night attacks on 2 January, the 41st Group's B-25's, flying low-level, daylight attacks, continued to encounter stiff opposition over Maloelap, with as many as fifty fighters up to meet them on occasion. Gunners on the B-24's claimed fifty-four fighters shot down, sixty-one probably destroyed, and fifty-five damaged. Enemy losses from Mitchell gunfire were twenty-four aircraft shot down, seventeen probably shot down, and thirty-nine damaged, in addition to an undetermined number destroyed on the ground. U.S. losses included eleven B-24's and seven B-25's destroyed, with damage to sixty of the former and forty-eight of the latter. The back of Japanese fighter activity at Maloelap was broken on 26 January, when nine B-25's of the 47th Bombardment Squadron, being pursued by aggressive, experienced fighters, were met at a rendezvous over Aur Atoll by twelve P-40's of the 45th Fighter Squadron. This surprise attack accounted for at least eleven enemy fighters destroyed and two probably destroyed; no Seventh Air Force planes were lost, although eight B-25's were damaged, one of them seriously. On 28 January, a formation of seven B-25's was intercepted by five fighters, but this was the last time enemy aircraft were encountered at Maloelap or any of the Marshall Islands.¹³¹

For a short time, too, Marshall-based enemy bombers menaced the Seventh's positions in the Gilberts. During December and January, Tarawa and Makin each were raided fourteen times and Apamama, twice. The number of aircraft participating in these raids varied from one to fifteen, but normally not more than five or six appeared. Though these raids caused considerable damage, they did not interfere appreciably with the Seventh's operations.¹³² Indeed, the most serious damage resulting from the enemy's attacks on U.S. bases was inflicted during the last of his raids, and the only one he attempted after the landings on Kwajalein. On 12 February, some twelve to fourteen enemy planes made a night attack on our newly occupied base at Roi Island. Coming in from 20,000 feet the Japanese bombers dropped most of their bombs in the lagoon. Their one hit, however, was on a bomb storage area containing 83 x 1,000-pound bombs, and the resulting explosion caused widespread damage, with 20 to 25 men reported killed and 130

wounded; 80 per cent of the supplies on the beach were destroyed, and 20 per cent of the construction equipment damaged. Two LST's in the lagoon were struck and burned out.¹³³

Postwar investigation of enemy sources has revealed that the Japanese were in no position to make a serious effort to hold either the Gilberts or Marshalls. A serious shortage of air strength, a shortage imposed by the heavy losses sustained in the Solomons and New Guinea operations, together with the continuing demand of operations in those two areas, limited the Japanese effort to making the U.S. advance as costly as possible. Reinforcements sent into the Gilberts and Marshalls in advance of GALVANIC were chiefly ground forces. At the beginning of the operation, the Japanese apparently disposed only about 100 aircraft in the entire Marshalls-Gilberts area. Reinforcements up to 135 planes were sent in during November and December,¹³⁴ but the continuing attrition suffered over Rabaul and in the Solomons made it impossible to send significant reinforcements thereafter. Against this meager strength, the occupation of the Gilberts was supported by approximately 900 carrier-based aircraft, the Marshalls by approximately 700. By D-day on Kwajalein, there was not an operational Japanese aircraft east of Eniwetok.¹³⁵ Throughout the operation the U.S. Navy dominated the air over the Gilberts and Marshalls. The planes of the Seventh Air Force, flying long overwater missions, maintained the neutralization of bases initially knocked out by planes from the fast carriers. Continued bombardment from the air reduced the by-passed atolls to impotence; their garrisons, cut off even from communication with other positions, were occupied in a struggle merely to keep alive.

CHAPTER 10

* * * * *

RABAUL AND CAPE GLOUCESTER

BY THE fall of 1943 the two-pronged counteroffensive begun by the South and Southwest Pacific forces in 1942 moved toward its culmination in the neutralization of Rabaul. SWPA forces under General MacArthur, with rear bases in Australia and Port Moresby and advanced bases at Dobodura and in the Markham-Ramu valleys, were getting set for a jump across Vitiav Strait to Arawe and Cape Gloucester on New Britain. The SOPAC forces of Admiral Halsey would soon move forward from recently conquered bases on New Georgia onto Bougainville. In both theaters it had been a tough war of attrition in which Allied superiority in men and materiel gradually gained the ascendancy. With the attainment of air superiority, it had been possible for both MacArthur and Halsey to neutralize certain enemy strongpoints rather than attempt costly assaults, and now it had been decided to apply the tactic to Rabaul itself.

The isolation and neutralization of the Bismarck Archipelago—accomplished within the six-month period extending from October 1943 through March 1944—offers an excellent example of the acceleration and effectiveness of joint air, ground, and sea operations, once aerial superiority has been achieved. Attacks on Rabaul by SWPA air forces kept the Japanese off balance while Halsey's forces went into Bougainville. South Pacific-based aviation returned the favor by sustained assault on Rabaul as SWPA forces went into Arawe and Cape Gloucester. Mass bombing of the invasion areas at Cape Gloucester by the Fifth Air Force virtually eliminated a potentially strong Japanese ground opposition. Nissan, one of the Green Islands, was occupied by SOPAC forces in February 1944 almost under Rabaul's nose, without any strong resistance. Aerial reconnaissance led MacArthur to gamble on the 29th of February with the successful "reconnaissance in force" of

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Los Negros in the Admiralties. The later occupation of Emirau Island by SOPAC forces completed the circle around Rabaul and provided bases for further operations as well as for the continued aerial neutralization of Rabaul and Kavieng. Thus the CARTWHEEL operations of the ELKTON plan came to completion, securing MacArthur's right flank for the advance up New Guinea toward the Philippines and securing the left flank of Nimitz' advance into the Marianas and the Carolines.

Although the Japanese, underestimating the strength of the Allied forces, at first had been slow to improve the facilities and defenses of Rabaul, the place by the fall of 1943 was well prepared and heavily defended. Lakunai and Vunakanau airfields, two prewar Australian strips, had been improved despite repeated bombings by Fifth Air Force planes extending back to early 1942; the first had an all-weather surface of sand and volcanic ash, the second was surfaced with concrete. Rapopo, fourteen miles southeast of Rabaul, had been completed by December 1942 with concrete strips, barracks, and other facilities for operations, communications, repair, and supply. Tobera's concrete-surfaced airfield, inland midway between Vunakanau and Rapopo, had been completed in August 1943. On these four fields around Rabaul* were revetments for 166 bombers and 265 fighters, besides extensive unprotected dispersal parking areas. Across the St. Georges Channel on New Ireland were the additional facilities of Borpop airfield, completed in December 1943, which formed the fifth of the operational dromes protecting Rabaul.¹

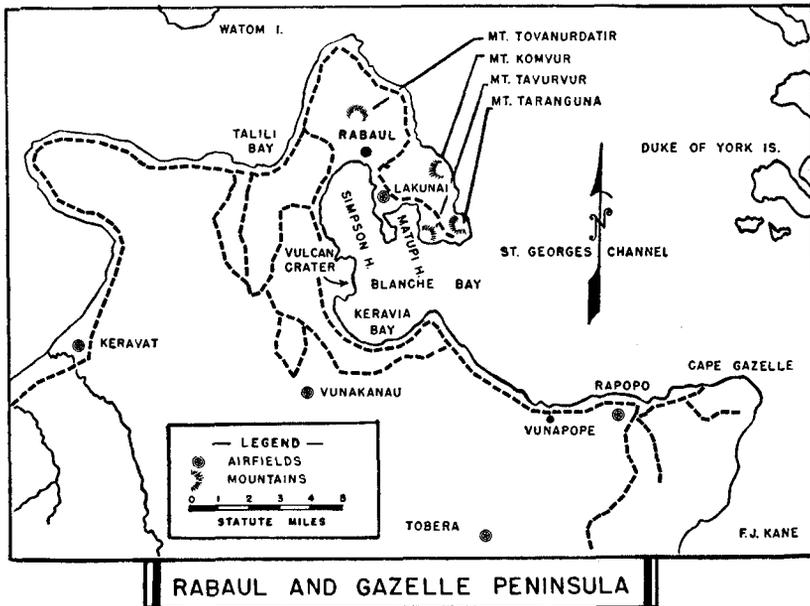
The docking facilities of the port of Rabaul included seven wharves, which the Japanese supplemented by building new piers in Simpson Harbor and by using floating cranes. On the north shore of Blanche Bay, where the many inlets were well covered by heavy foliage, the Japanese dispersed their repair facilities and harborage for small boats and barges. In the same area they also located their submarine fueling and handling facilities. The Japanese were well supplied in all classes of stocks, since the Eighth Supply Depot of the Southeastern Fleet and the supply section of the Eighth Area Army each maintained a six-month inventory of all supplies for the army and naval units in the Bismarcks-Solomons-eastern New Guinea areas. Until February 1944

* The Japanese had started construction on two other fields in the vicinity, one at Keravat, thirteen miles southwest of Rabaul, and the other at Rakada on Duke of York Island, but these fields never became operational.

RABAU AND CAPE GLOUCESTER

most of these supplies were in warehouses in Rabaul township or stored in dumps above ground.²

To protect all this, high priority had been given to anti-aircraft defenses during 1943. The organizational setup was a combined army and naval defensive establishment which was well coordinated and integrated. Of the 367 anti-aircraft weapons, 192 were army operated and 175 naval operated. The army units were used around Rapopo airfield and around army dumps and installations; they also participated jointly



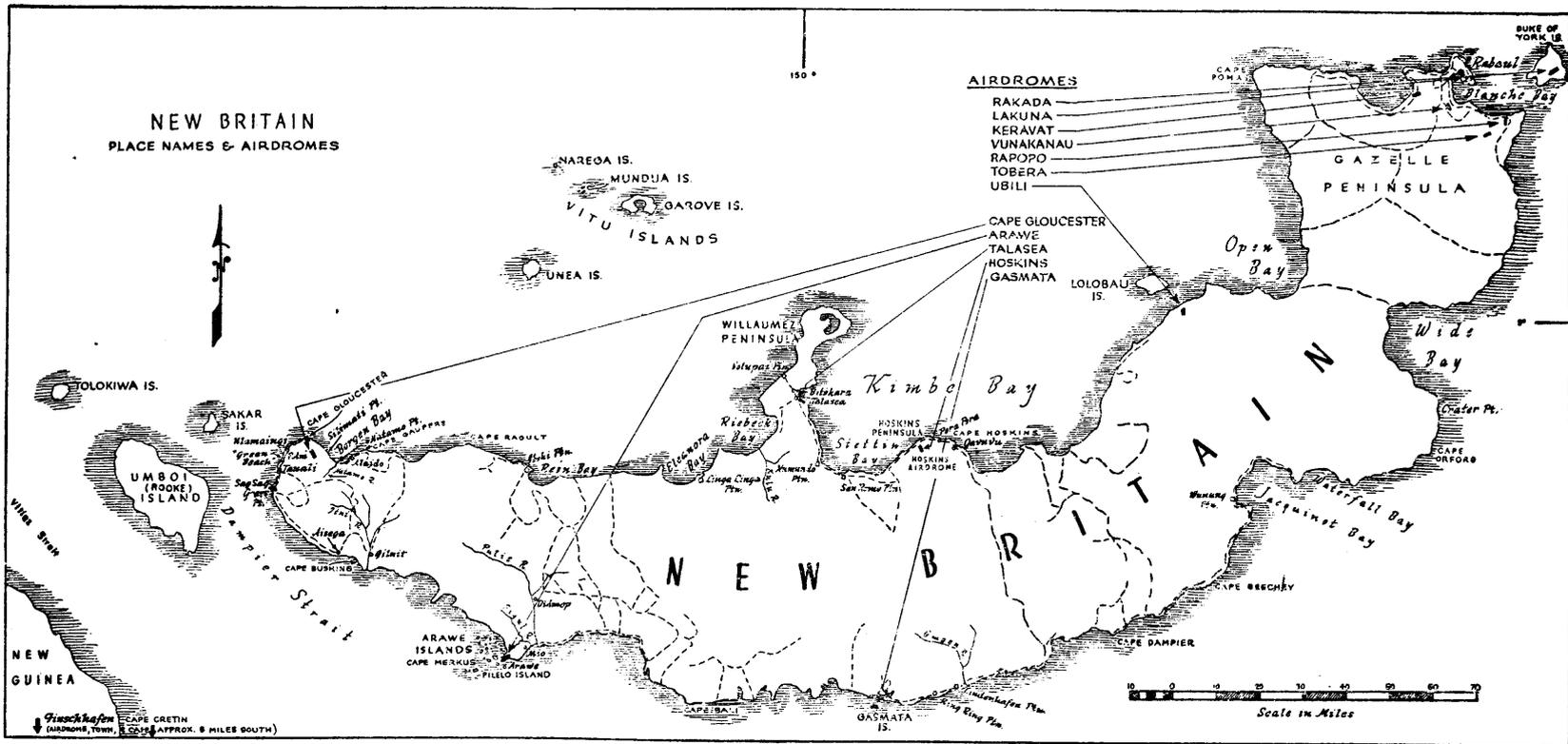
in the defenses lining Simpson Harbor. The naval units guarded Simpson Harbor and its shipping and the three airfields of Tobera, Lakunai, and Vunakanau. The Southeastern Fleet had built up an extensive and efficient early warning radar system. Besides the sets at Rabaul with ninety-mile coverage, there were radar sets to the southwest on New Britain, at Kavieng and Cape St. George on New Ireland, and at Buka. These sets would pick up Allied strikes and would radio warning to Rabaul from thirty to sixty minutes ahead of the attack. Surrounding Rabaul, the Japanese had also established strong beach and coastal defenses as well as heavily fortified ground defense zones.³

Though Rabaul was the keystone of the Bismarck Archipelago, the Japanese held many other strong and potentially strong supporting

positions. On the north was Kavieng with a large airdrome operational since August 1942; its satellite field at Panapai was finished in April 1943. To the west on New Britain, Gasmata had been developed from an existing runway captured in February 1942. Because of poor dispersal facilities, it soon became nonoperational once sustained Allied attacks could reach it. To replace Gasmata, the Japanese began development of a strip at Cape Hoskins in September 1943. It was used as a satellite airfield for the defense of Rabaul and for the protection of convoys in the Bismarck Sea. The two strips at Cape Gloucester were potentially dangerous to Allied fields on near-by New Guinea. Talasea provided another emergency landing strip. To the northwest, there were two airdromes in the Admiralty Islands. Lorengau, on Manus, was developed from the civil landing ground in April of 1943 but was never used extensively. On Los Negros, however, the large airdrome of Momote, complete with dispersals and revetments, had been constructed in October 1943.⁴ In New Guinea, the field at Madang, operational in March of 1943, was little used after the two Alexishafen strips were completed in May and August of 1943. These latter were heavily bombed throughout August and September and were too far forward to be of much operational use. Nubia and Awar, in the Hansa Bay area, were farther back but also under Allied attack, with the Nubia strip more or less abandoned in favor of Awar, which was finished in November 1943. The five strips of Boram, Wewak, Dagua, But, and Tadjji, though under heavy attack since August 1943, were still capable of mounting a serious threat to the Allies.⁵ Tadjji and the Hollandia strips were staging and dispersal areas for the Wewak and Madang dromes.⁶

As early as the spring of 1943, Southeastern Fleet headquarters at Rabaul had experienced serious difficulty in maintaining its air garrison at the desired strength. Army strength of approximately sixty fighters and forty bombers—all belonging to the Fourth Air Army—moved from Rabaul to Wewak in August 1943. The severe losses sustained by land-based units of the Eleventh Air Fleet during the Munda operations had forced recommitment of the air group of Carrier Division 2 from Truk,* and by November, it was necessary to send down the air group of Carrier Division 1.⁷ After its move to Wewak, the Fourth Air Army assumed responsibility for the New Guinea area east of longitude 140° E.; but in addition to the destructive Fifth Air Force attacks of August and September, the army was further weakened by the necessity to

* See above, p. 253.



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return the 7th Air Division to the Celebes in November 1943 for replacement of naval units depleted by constant reinforcement of Rabaul. Losses over the ferry routes to Wewak were high (approximately 30 per cent), maintenance was poor, and Allied interdiction of shipping forced the grounding of many planes for lack of parts. Army units in New Guinea were in no condition to aid the hard pressed naval air units at Rabaul, and vice versa.⁸ But Japanese commanders, though forced by the fall of 1943 to contemplate withdrawal of their outer defenses to the Marianas and the Carolines, were determined to hold Rabaul at all costs for protection of the fleet base at Truk.⁹

The Fifth Air Force, which in October launched an intensive air offensive against Rabaul that marked the beginning of the final effort to neutralize enemy power at that point, now disposed the overwhelming bulk of its forces at forward bases. Port Moresby, though still important, had become almost a rear base. ADVON Fifth Air Force, the V Bomber and Fighter Commands, and the 54th Troop Carrier Wing were all located there. The four active airdromes—Jackson, Wards, Schwimmer, and Durand—based two heavy bombardment groups, four fighter squadrons, and the 8th Photo Squadron. The troop carrier groups and a few additional fighter and night fighter units were also based at Port Moresby.¹⁰ At Milne Bay was the supply terminus of the Directorate of Air Transport, which transshipped here for air supply to the island garrisons and to troop carrier groups for air supply in the forward area. Headquarters of New Guinea Force and of the Seventh Amphibious Force of the Seventh Fleet of the Allied Naval Forces were also at Milne Bay. At near-by Samarai was an advanced base for Patwing 10, flying PBY's in night search and reconnaissance missions. In addition to Milne Bay, ALAMO Force* and its Sixth Army units had a headquarters and staging area on Goodenough Island. Also on Goodenough was RAAF's 9 Operational Group with 71 Wing (three Beaufort squadrons, one Boston squadron, and one of Beaufighters) and with operational control over 73 Wing on Kiriwina Island. Woodlark Island served primarily as flank protection and was not heavily manned, but on Kiriwina, RAAF engineers had finished two airstrips with four alert areas, parallel taxiways, and 107 dispersed hardstands by 15 October. Approximately 325 miles from Rabaul, these strips pro-

* This headquarters, established in June 1943 under Lt. Gen. Walter Krueger, controlled U.S. and Allied ground units in the forward area. It was responsible directly to GHQ.

vided a staging base from which the B-25's could reach Rabaul with adequate bomb loads. P-38's by staging or basing on Kiriwina could provide fighter cover over Rabaul for either the heavy or medium bombers.¹¹

The staging base for the heavy bombardment groups attacking Rabaul was Dobodura. It was the headquarters of the First Air Task Force (responsible for operational control of the Rabaul attacks) under Col. Frederic H. Smith, Jr. Under the organizational setup of the Fifth Air Force, the operational strength of the air task forces varied with the size of the mission assigned, being augmented from one of the other task forces or V Bomber or V Fighter Command as necessary.* On 30 September, the units of the First Air Task Force consisted of the 22d Bombardment Group with B-25's and B-26's, the 3d Bombardment Group with one squadron of A-20's and three of B-25 strafers, and the 475th Fighter Group and part of the 49th Fighter Group equipped with P-38's.¹²

The main base for future New Guinea operations was to be at Nadzab.† Since its capture on 5 September, it had become the headquarters of the Second Air Task Force, commanded by Col. Jarred V. Crabb, and functioned as a major air base, even though destined to be completely supplied by air until mid-December, when the road joining it to Lae was finally completed. The advanced base at Gusap, where Third Air Task Force had its headquarters, filled a vital role in that the single-engine P-47's could reach Wewak and the shorter-range P-40's and P-39's could cover the Madang and Alexishafen dromes, thus enabling Whitehead to pull out his long-range P-38's for the Rabaul attacks.¹³ Finschhafen, where Whitehead wanted facilities for fighters and for troop carriers to cover and supply the Cape Gloucester operations, was in preparation and would be ready for operations on 17 December.¹⁴

The Fifth against Rabaul

Since the first in a long series of air attacks dating back to 25 January 1942, Rabaul had been kept under constant surveillance by Moresby-based reconnaissance and photo planes. Fifth Air Force planners, therefore, had at hand photographic and reconnaissance reports for almost a year and a half of constant coverage when they made their plans to "knock out" Rabaul. With long-range forecasts from the weather

* See above, pp. 156-57.

† On the development of forward bases during the fall of 1943 see above, pp. 189-93.

services and assurance that staging facilities for the P-38's would be ready on Kiriwina, the opening of the attack was set for 15 October 1943.¹⁵ It was agreed at a meeting of representatives from the South and the Southwest Pacific at Brisbane on 10 September that SWPA air forces during the last two weeks of October "would attack airfields and shipping at Rabaul with the object of destroying shipping and neutralization of enemy air."¹⁶ These attacks having served, among other things, as partial preparation for Halsey's landing on Bougainville on or about 1 November, the Fifth Air Force from 1 to 6 November would protect the landing forces by neutralization of enemy operations from Buka and thus assist SOPAC in the establishment of a forward base from which fighter cover could be provided for daylight bombardment attacks from the Solomons on Rabaul.* During the latter half of November, SWPA forces would seize the Cape Gloucester area on New Britain for purposes which included the establishment of bases for neutralization attacks on Kavieng. The landing would be covered in part by air attacks from the South Pacific on Rabaul. To this outline Halsey agreed, except that he indicated to MacArthur that his own forces could take care of Buka and the Fifth Air Force might better expend its effort on Rabaul.¹⁷

Reconnaissance by the 8th Photo Squadron on 1 October showed a heavy cruiser, one light cruiser, ten destroyers, five submarines, and twenty-six merchant vessels in Simpson Harbor. On the Rabaul airdromes were eighty-seven medium bombers, thirty-seven light bombers, and fifty-nine fighters. By 11 October, the fighter estimate had jumped to 145.¹⁸ Plans for the initial strike, meanwhile, were worked out, and weather predictions pointed to 12 October as the target date. That was jumping the gun a bit on the planned date of 15 October, but with the northwest monsoon due shortly, advantage had to be taken of any good weather. To Arnold, General Kenney confidently wrote:

By the time you get this letter you should have read some headlines about the show on Rabaul which according to our long range weather forecast will take place on October 12th. This is the beginning of what I believe is the most decisive action initiated so far in this theater. We are out not only to gain control of the air over New Britain and New Ireland but to make Rabaul untenable for Jap shipping and to set up an air blockade of all the Jap forces in that area. The attack will be opened by 120 B-25 strafers, each with eight forward firing fifty calibre guns and carrying approximately a ton of either parafrag or 100 pound frag bombs. The targets are the three Jap airdromes around Rabaul. Following them between 84 and 96 B-24's will attack the shipping in the harbor from

* See again, pp. 245-50.

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20,000 ft. altitudes concentrating three plane element pattern bombing on between twenty and thirty of the largest ships. Each B-24 is loaded with six one thousand pounders. In the past we have averaged around five percent of direct hits on shipping from high altitude. Our daylight bombing during the past three months on Salamaua, Lae, and Wewak has improved our accuracy tremendously. I expect to sink between twenty and thirty ships in this attack. As the Jap has plenty of radar warning he should be able to put in the air between sixty and eighty fighters, so we will have between one hundred and one hundred twenty P-38's as top cover for the show. The P-38's will take off from Dobodura and stop in at our new airdrome at Kiriwina for refueling after the combat. I have told the kids that in addition to the ships sunk, I expect forty or fifty Nips shot down in combat and a hundred or so destroyed on the ground. You can compare these guesses with the headlines when you read them.¹⁹

The mission went off much as General Kenney had planned. Weather aircraft, taking off shortly after midnight, reported good weather along the route to Rabaul, and thus was launched the largest air attack yet made in the Pacific. All crews had been carefully briefed on approach routes, antiaircraft positions, and their individual targets. The B-25 groups had assembled at Dobodura. The 3d Bombardment Group was using three squadrons and a P-38 escort to attack Rapopo airdrome with strafing and parafrags. The four squadrons of the 345th Group and two of the 38th Group were to attack Vunakanau in the same manner. In all, 113 B-25's took to the air, Lt. Col. Clinton U. True, group commander of the 345th in the lead; six planes turned back because of mechanical difficulties. The B-24's, seven squadrons of the 90th and 43d Groups, got off from Port Moresby and made their rendezvous after some delay because of an accident on one of the take-offs. Carrying six 1,000-pound bombs each and briefed for selected targets in the harbor, they were met over Kiriwina by two squadrons of P-38's, the 80th and 39th. Twenty-five Liberators and nineteen P-38's were forced by mechanical trouble to turn back. One RAAF Beau-fighter squadron, out of Kiriwina, had as its targets the Tobera and Rapopo airdromes and was scheduled to go in between the B-25 and B-24 attacks.²⁰

Hoping for surprise and apparently achieving it (this was one of the few times that surprise was attained at Rabaul), the mediums flew at 1,000 feet from Oro Bay to Kiriwina, dropped down to minimum altitude as they went up the St. Georges Channel, then turned sharply inland at the mouth of the Warangoi River, and still at treetop level the formation split, with the 3d Bombardment Group's forty planes headed toward Rapopo and the other sixty-seven planes headed toward Vuna-

kanau. The 3d Group formed in "shallow Vs of squadrons, 12 to 15 planes wide and followed each other by about one mile." Opening up long-range fire with their eight forward-firing .50's on the antiaircraft positions, they toggled their 20-pound parafrags over the bomber dispersal and revetment area. Explosions, dust, and smoke made damage assessment uncertain, but the 3d Group claimed fifteen to twenty-five planes destroyed on the ground and three in the air.²¹

The same tactics were used by the B-25's in their attack at Vunakanau. Only light and inaccurate antiaircraft fire was encountered. However, intercepting fighters began making attacks as the fifth and sixth squadrons came over the target. One Zeke was shot down, but the fighters had flamed the right engine of the B-25 piloted by Lt. Sidney W. Crews. His landing gear dropped and a tire fell off as some six Zekes moved in on the damaged plane. His crew shot down one of them before he radioed his flight leader, "I'm going in," and hit the water. The fighters escorting the mediums had met little opposition. They got one Betty bomber and one Oscar over Vunakanau without loss to themselves. Within ten minutes and with loss of only the one B-25, the two attack groups were away from Rabaul and headed home. The fighters and a few damaged bombers landed at Kiriwina for refueling and repairs; the B-25's reached Dobodura about 1300. The twelve Beaufighters made their attacks on Tobera and Rapopo just after the B-25's had cleared the area.²²

The B-24's, having picked up the fighter escort over Kiriwina, headed directly toward Wide Bay on the east coast of New Britain and across New Britain to Rabaul. They had no need to bother with surprise, for the B-25's had preceded them and it was hoped that the mediums had already destroyed enough enemy fighters on the ground to make the relatively meager escort of twenty-eight P-38's sufficient. At 1205, the 400th Squadron led the six-plane flights of the 90th Group over Simpson Harbor. A destroyer was claimed sunk, two tenders badly damaged, two large merchant ships in flames, and three other ships sunk or badly damaged. An estimated forty enemy fighters, mostly Zekes, followed the 400th and 321st Squadrons in a running fight for forty minutes after the attack. Two B-24's were shot down but AAF gunners claimed at least ten fighters. The escorting fighters, busy keeping the heavies under watch, did not get into much action themselves.²³ The three squadrons of the 43d Group followed the 90th over the target, just as the last bomb strings were hitting. The crews

reported much confusion in the harbor: fires, ships circling or headed out to sea, and heavy, intense, but inaccurate anti-aircraft fire from all types of weapons. The 90th Group had pulled most of the interceptors off with them, so the 43d was hardly bothered. Claims were confused—mostly damage only—except for the 65th Squadron, which reported the marvelous score of forty-eight hits out of forty-eight bombs dropped. Fuel was low in the 43d's tanks—the planes had circled waiting for the 90th at rendezvous—and one plane landed in the water near Kiriwina. Others had to land at Kiriwina, but most of the planes made Dobodura.²⁴

In its preliminary estimate, ADVON Fifth Air Force listed 100 enemy planes destroyed on the ground, 51 badly damaged, 26 shot down in the air, heavy destruction to airdromes and the wharf area, 3 large merchant vessels, 3 destroyers, 43 small merchant vessels, and 70 harbor vessels sunk or destroyed, with other vessels damaged.²⁵ According to these figures, General Kenney's predictions were amply fulfilled. Actually, the estimate was apparently conservative as to the damage done to grounded planes on the airdromes, but it was extremely optimistic in regard to damage to shipping in the harbor. Photo interpretation revised the preliminary estimate downward. Yet the first raid had been a conspicuous success and augured well for the "knock-out" of Rabaul.²⁶

Within three hours after the planes landed at Dobodura, ground crews had 108 B-25's ready for another mission; by the next morning, 70 B-24's were ready. The RAAF 71 Wing sent out twelve Beauforts which hit shipping in Simpson Harbor near dawn on the morning of 13 October, but the weather gods were not planning to let General Kenney make an easy job of Rabaul. Seventy heavy bombers took off at 0800 and rendezvoused with 100 fighters from Kiriwina before they ran into a heavy weather front 150 miles from Rabaul. The fighters turned back; three were lost in the storm and one crashed in landing. Gradually the bombers gave up and turned back—twenty-seven planes hit targets on western New Britain. Not until 18 October did the weather permit further attacks on Rabaul. The Fifth Air Force not only lost flying days, but it lost the cumulative effect of continuous mass raids.²⁷

The Japanese, however, managed to get in several strikes at New Guinea ports. Evidently figuring the Rabaul attack of 12 October as preliminary to an invasion, they sent bomber and fighter missions

against Oro Bay on 15 and 17 October, and against Finschhafen on 17 and 19 October. Allied planes claimed over 100 planes shot down for a loss of 10, and no shipping suffered hits. The use of Val bombers and the fighter types indicated that these attacks had been mounted from Rabaul.²⁸

The Fifth set up another big strike on 18 October. The 528th and 531st Squadrons had been borrowed from the 380th Group at Darwin to augment the squadrons of the 90th and 43d Groups. Eight squadrons of Liberators and two groups of strafers took off soon after 0700 to hit Vunakanau, Lakunai, and Tobera. Over Kiriwina, the formations picked up a three-squadron escort of P-38's, but the formations again ran into a "cumu-nimbus" front and the P-38's turned back. The heavies flew west along the coast of New Britain looking for a break. Fifteen planes hit targets on western New Britain; six hit Sio on New Guinea; and the rest salvoed their bombs and returned to base. The B-25's ran into the same front, but by skimming the waves were able to get under the weather. Fifty of the Mitchells got through and split up as they went inland over Cape Gazelle. The 38th Group achieved surprise at Tobera, claiming sixteen planes destroyed with their 100-pound demolition bombs.²⁹

Three squadrons of the 345th did even better in two runs over Rapopo. They claimed twenty-five planes on the ground and ten to twelve planes of an estimated sixty interceptors. The 501st Squadron—often called the "five o last"—was assigned shipping off Vunapope. Most of its planes had turned back, and only six reached the objective. Spraying supply and camp areas with .50-cal. fire on the approach to the targets, the first flight of three planes capsized a 5,000-ton freighter and demolished a corvette. The second flight had strafed a 6,000-ton freighter-transport and lifted it out of the water with bombs when enemy interceptors came in. Lt. Ralph G. Wallace's right engine was hit; he had to feather the propeller and resort to single-engine operation while the other two planes dropped back to protect him. Lt. Harlan H. Peterson's plane was hit and went into the water to be strafed by the Japanese. Some forty to fifty Japanese fighters continued to attack as the two remaining B-25's tried to get away. One enemy pilot even eased in between the two planes and for a time flew formation with them, with neither U.S. plane daring to fire for fear of hitting the other. Lieutenant Wallace's plane had a severed fuel line, which the enlisted men tried to hold with only partial success, and his co-pilot was wounded. Flying

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on the deck, Wallace was able to maneuver at least four Japanese into the water as they miscalculated their passes, and he brought his plane into Kiriwina. But Capt. Lyle E. Anacker's plane had been hit and, having turned away still under attack, was lost.³⁰

Whitehead took advantage of the continuing bad weather over Rabaul to get in some strikes against New Guinea targets—Sattelberg, Wewak, and other targets were bombed. But photographs taken on 19 October which indicated that the Japanese had rebuilt their fighter strength at Rabaul to 211 planes, together with a forecast of clearing weather on the 23d, led him to plan another big strike for that day. The plan called for a fighter sweep of three P-38 squadrons prior to a heavy bomber attack on Lakunai and Vunakanau. A force of 57 Liberators and 100 P-38's arrived over the targets only to find them blocked out by cloud cover, but in the absence of a specified secondary target, they found Rapopo open. The change of target caused some confusion in the bomb runs and some of the planes failed to drop, but good coverage was secured on the runways and dispersals. The P-38 escort shot down thirteen planes and lost one, though the pilot escaped to live with natives on New Britain for some time before his rescue. The bombers shot down four interceptors and claimed twenty planes on the ground.³¹

On the next day, heavy bomber crews rested while the mediums worked over Tobera, Rapopo, and Vunakanau. According to plan, the mission should have reached Rabaul at 1000, but slow take-offs and scattered formations delayed the arrival until approximately noon, when Japanese interceptors customarily had patrols up. The leading squadron of the 3d Group was heavily attacked and, though it called down the fighters, lost one B-25 before the Japanese were driven off. The group spotted only four planes on Tobera, but it claimed twenty-one destroyed on the ground at Rapopo. The 345th claimed twenty-seven at Vunakanau. The B-25's shot down eight interceptors and lost two planes, one in a sea crash from which the crew was rescued. "In the hottest battle yet encountered," the escorting P-38's accounted for thirty-seven Japanese planes and lost none in the air. Two planes crash-landed at Kiriwina, fortunately without injury to the pilots.³²

The weather forecasters on the 24th were again "pessimistic about tomorrow's weather," but Whitehead sent out another strike on 25 October. The plan called once more for a two-squadron fighter sweep to be followed by a two-group heavy attack, and again the force, this

time sixty-one Liberators and eighty-one Lightnings, ran into increasingly bad weather. Announcing on the command frequency a purpose to turn back, the fighter leaders returned with seventy-three P-38's to Kiriwina. Eleven B-24's also turned back, but the bomber leaders apparently did not hear the announcement and the other B-24's continued on instruments toward Rabaul, as did Maj. Charles H. MacDonald and his flight of eight P-38's of the 432d Fighter Squadron.³³ After struggling through the storm, the bombers were met at Rabaul by fierce resistance. Cruisers and destroyers in the harbor joined the land batteries to put up a heavy barrage, and some sixty Zekes, Hamps, Oscars, and Tonys attacked as the bombers started their run. MacDonald, who had his eight P-38's over the lead squadron, hoped that "the Nips seeing us would be discouraged and perhaps figure that there were lots of us," and for forty-five minutes the eight P-38's maintained a weaving patrol over the target area. With this help, the bombers covered Lakunai well, though the following squadrons had to bomb through the dust caused by previous bombs. One plane in the last squadron, the 403d, was badly damaged and promptly set upon by Japanese fighters. Two bombers, dropping back to box it in for protection, shot down eight enemy planes before they had to pull off. Then, for fifteen minutes the Japanese lined up to make their passes, but the plane still flew. Not until after the enemy had given up did the two remaining engines cut out and the plane break up after ditching. The pilot and co-pilot were trapped, but eight of the crew got out and were picked up by a Catalina.³⁴

Whitehead had scheduled a low-level attack on shipping for the day following this attack on Lakunai.³⁵ Accordingly, eighty-two B-25's took off on 26 October, but forbidding weather building up over Kiriwina kept the fighters on the ground, and the Mitchells returned to base. On the night of the 26th, three RAAF Catalinas initiated a series of harassing attacks on Kavieng, and three days later, 71 Wing of the RAAF took on the job of maintaining a nightly harassing of the Rabaul airdromes. On the same day, 8 Squadron, with its torpedo-carrying Beauforts, was assigned to continuing attacks on shipping in the mouth of Simpson Harbor.³⁶

Full-scale assaults on Rabaul were resumed on 29 October. Forty-six Liberators hit Vunakanau airdrome with frag clusters and 500-pound demolitions. The crews claimed only nine planes on the ground, but photos indicated that eighteen would have been nearer right. Total

claims, including those of the fighter escort, for planes shot down ran to twenty-five, and returning pilots and crews summed up their estimate of the Japanese interceptors as follows: "The eager pilots were not experienced; and the experienced not eager." It was perhaps fortunate that this should have been the case, for the fighter cover of P-38's was badly mixed up in its stations during the attack.⁸⁷

A low-level attack against shipping was slated next, and for the first good day. Planned partly to aid South Pacific forces who had gone into the Treasury Islands on 27 October, the mission could not be flown until 2 November. The crews had been alerted on both 30 and 31 October and again on 1 November, only to receive from the weather plane an unfavorable report. A similar report came in on the morning of 2 November and the mission had been canceled, but two F-5's of the 8th Photo Squadron, sent out subsequently, reported clearing skies and good flying weather. At Rabaul they found seven destroyers, one tender, and twenty merchant vessels in the harbor and a total of 237 planes on the airfields. The mission having been hurriedly rescheduled, eighty B-25's and the same number of fighters were headed toward Rabaul by 1100. Two squadrons, the 39th and 80th, had orders to make a fighter sweep of the harbor; the four squadrons of the 345th Group were to blanket the land batteries; and five squadrons of B-25's—two from the 3d Bombardment and three from the 38th Group—were to hit shipping.⁸⁸

The 39th Fighter Squadron reported little opposition as it led the attacking planes over Lakunai and Simpson Harbor, but the 80th Squadron, which followed, reported between 60 and 100 interceptors. The strafers of the 345th met both intense antiaircraft and eager interceptors (postwar interrogations indicate these were pilots of the newly arrived CARDIV I); eight Mitchells in the lead were hit, three of which failed to return to base. In exchange, the unit claimed seventeen enemy fighters shot down, as did also their escort from the 431st and 432d Fighter Squadrons. Photo reconnaissance showed sixteen aircraft destroyed on Lakunai airdrome, and leaders of the shipping strike credited the effective neutralization of shore antiaircraft as mainly responsible for their success. It was this neutralization which enabled the striking squadrons to come in from the east over Crater Peninsula, circle north of the North Daughter volcano, pass over Rabaul town, and then make their runs over Simpson Harbor—a route normal-

ly protected by heavy antiaircraft fire. It should be noted, however, that fire and smoke made target selection in the harbor difficult.³⁹

Maj. John P. Henebry, commander of the 3d Group, led the forty-one B-25's attacking targets in the harbor with 1,000-pound bombs. Two destroyers off the mouth of the Warangoi River, directly in the path of the approaching planes, caused some confusion as their fire, together with that of intercepting fighters, forced the B-25's to break formation and attack in two-plane or individual bombing and strafing runs. Cruisers and destroyers in the harbor not only threw up anti-aircraft fire but fired their big guns into the water, throwing water-spouts up in front of the low-flying attackers. Maj. Raymond H. Wilkins, 8th Squadron commander, having led the squadron through the fire of "those damned cruisers," went down, as did another of his B-25's. Major Henebry's plane was also hit, but he managed to get close to Kiriwina before ditching.⁴⁰ Despite the confusion, smoke, and heavy enemy fire, this low-level bombing attack by the Mitchells had been remarkably accurate. Hits and near misses were scored by almost all planes. In all, forty-one ships were attacked, of which twenty-four were bombed and seventeen strafed. Accurate damage assessment was difficult. The official communiqué claimed three destroyers, eight large merchant vessels, and four coastal vessels sunk—a total of about 50,000 tons—and damage to two heavy cruisers, two destroyers, two tankers, and seven large merchant vessels. A later Fifth Air Force report cut the tonnage sunk to 13,000 tons, with damage to twenty-two other vessels. The Japanese after the war admitted to USSBS interrogators damage to a 10,000-ton oil tanker and the loss of three merchant vessels aggregating 8,000 tons, a minesweeper, and two smaller boats.⁴¹

Nevertheless, it was an expensive attack for the Fifth Air Force. Forty-five pilots and crew members were listed as killed or missing. Eight bombers and nine P-38's were lost. Others were so badly damaged by antiaircraft that they cracked up on landing. On the credit side of the ledger, the Mitchells shot down twenty-six enemy fighters, destroyed sixteen on the ground at Lakunai, and destroyed ten flying boats or floatplanes in the harbor. The fighters claimed forty-two enemy planes shot down; they also reported that the caliber of the Japanese pilots was considerably better than anything they had recently encountered.⁴²

RAAF Beauforts got through on the night of 2 November to bomb Tobera, but then the weather closed down and only the reconnaissance

planes went out. Their reports gave cause for worry to General Whitehead, who wrote Kenney on 4 November:

For the past twenty-four hours we have been watching the movement southward of the Nip heavy cruiser, light cruiser, destroyer, troop transports and freighters. At 1000 this morning I ordered a concentration of the 345th Attack Bombardment Group and 475th Fighter Group at Kiriwina while the 43d Bomb Group is moving into Dobodura. At this time it appeared that the Nip Task Force, that is the first echelon which was made up of 3 heavy cruisers, 2 light cruisers, and 9 destroyers would reach Rabaul between 0300L and 0700L November 5th. Later reports indicate that this force has rendezvoused with a very large whaler and some merchant vessels and cannot reach Rabaul before 0800L November 5th.⁴³

Regular reconnaissance reports on this movement from Truk went to Admiral Halsey, whose forces had established a beachhead at Empress Augusta Bay on 1 November,* and Whitehead was prepared to expend maximum effort at Rabaul or on the Japanese task force should it sortie toward the new Torokina beachhead. Admiral Halsey, however, did not propose to let this Japanese force put him on the defensive. He made his plans to check it at Rabaul with a carrier strike,[†] and requested General Kenney to flatten Rabaul town and cover the airdromes while the carrier planes worked over the shipping.⁴⁴ The mission was accomplished according to plan on 5 November, catching the Japanese cruiser and destroyer force just after it entered the harbor. The Fifth Air Force supported the carriers with twenty-seven Liberators of the 43d Group and fifty-eight P-38's in a bombing attack on the wharf area against very light opposition.⁴⁵

A heavy bombardment mission was airborne from the Fifth Air Force on 6 November but was called back because of poor weather. A group of heavies covered by sixty-four P-38's got through on 7 November to hit Rapopo airdrome, where it ran into heavy and experienced opposition. There were about sixty enemy fighters attacking; the covering P-38's claimed twenty-three shot down while losing five of their own number. Sixteen planes were destroyed on Rapopo airdrome. Again on 10 November, a heavy bomber mission hit Rabaul while the other groups prepared for a big mission in coordination with another carrier raid to be carried out on Armistice Day.⁴⁶ Admiral Halsey had specifically requested that all attack bombers be assigned shipping targets in Simpson Harbor. Accordingly, it was planned that after a heavy bomber force, taking off at midnight, had hit Lakunai in the early

* See above, p. 256.

† See above, p. 260.

morning hours, mediums covered by P-38's would hit shipping while the heavies, flying without escort, would strike again at airdromes.⁴⁷

On the night of 10/11 November, Whitehead sent up an RAAF attack group of Beauforts and followed through with twenty-three Liberators, which were over Lakunai in the early morning. The main effort got under way at 0700 with the take-off of additional formations of heavies, but photo and weather planes out ahead soon reported a front from sea level to 35,000 feet which cut off the target. At 0900, Whitehead was forced to call the planes back.

And so ended, except for a continuing photo and reconnaissance coverage, the Fifth Air Force campaign against Rabaul. It was anticipated that further attacks might have to be mounted during the interval before South Pacific forces were scheduled to take over the job in December, but events proved that the Fifth's attacks, in conjunction with the carrier strikes,* already had neutralized Rabaul as a major threat to the American beachhead on Bougainville and thus had provided assurance that Halsey's land-based planes could be brought forward in time. Meanwhile, there was much to be done in preparation for the landings on Cape Gloucester.⁴⁸

DEXTERITY

Although it had been decided to neutralize and isolate Rabaul in lieu of occupying it, Allied plans still required a foothold on the western end of New Britain for control of the Vitiaz Strait. The operation had been included in the ELKTON plan of February 1943, with a view at that time to the ultimate occupation of Rabaul, and, as a sequel to the seizure of the Huon Gulf and Peninsula, it had been among the operations specified for 1943 by the Joint Chiefs in July.^{†49} The JCS directive assumed that the purpose was to "prepare for the ultimate seizure of the Bismarck Archipelago," but tactical plans were drafted in September on the assumption that instead Rabaul would be by-passed.⁵⁰

Planning conferences had gotten under way in July, and GHQ Operations Instruction 38 on 22 September 1943 allocated to the ALAMO Force for the Cape Gloucester landing the First Marine Division, the 32d Infantry Division, the 63d Tank Destroyer Battalion, and the 503d Parachute Infantry Regiment.⁵¹ ALAMO Force forwarded its plan on 29 September to GHQ, which promptly approved

* The carrier raid on 11 November went off as scheduled. (See above, p. 260.)

† See above, pp. 129-35.

it but with the admonition that "future plans now under preparation necessitate great flexibility in the employment of troops in order to take advantages of favorable opportunities for more rapid advance." Reserve units, therefore, should not be committed unless absolutely necessary.⁵²

The approved plan for DEXTERITY was then issued as ALAMO Force Field Order 4 on 18 October 1943. This order directed the Allied Air Forces to provide a preliminary blockade and aerial bombardment of western New Britain, to furnish convoy cover and ground support for the landing forces, and to mount a paratroop drop of regimental strength.⁵³ ADVON Fifth Air Force on 28 October issued its own plan, which in addition to the usual assignments, called for the movement of the 475th Fighter Group to Cape Gloucester "as soon as suitable airdrome facilities are available, including air warning, communications, and service elements." If a 5,000-foot, all-weather runway could be constructed, it was planned also to bring in the 58th Fighter Group. ADVON would supervise the establishment of these airdrome facilities.⁵⁴ For seizure of the airfield at Gasmata the orders set up the LAZARETTO Task Force under Brig. Gen. Clarence A. Martin, and for Cape Gloucester proper the BACKHANDER Task Force under Maj. Gen. W. H. Rupertus, USMC. Over-all command fell to Lt. Gen. Walter Krueger, commander of the Sixth Army and of the ALAMO Force. The major landing, at Cape Gloucester, would be made by the First Marine Division, and the Army's 32d Division under Maj. Gen. William H. Gill would be held as reserve.⁵⁵

General Whitehead had doubts about the whole operation. Intelligence indicated to him that the south coast of New Britain offered poor possibilities for aerial operations. Gasmata had an average rainfall of 245.2 inches per year; moreover, while the coral runway was good, it was located on an island so small as to limit the strip to a length of 3,200 feet. Even Cape Gloucester, where the possibilities for airfield development were better, held no appeal for Whitehead. The place was actually no closer to Rabaul than Kiriwina, and he felt that the Vitiaz Strait could be well enough controlled from New Guinea bases. On this last point, however, the Navy disagreed, insisting upon coverage for their convoys from both sides of the strait. In a letter to Kenney, Whitehead wrote on 11 November: "I realize that the Commander-in-Chief has probably been committed to this operation by the Joint Chiefs of Staff. If that is the case perhaps nothing can be done about it. . . . From our

standpoint, however, any effort used up to capture any place on the south coast of New Britain is wasted unless an airdrome suitable for combat airplanes can be constructed there."⁵⁶ Kenney himself had already indicated to GHQ that airdrome facilities at Cape Gloucester were no longer required. But Maj. Gen. Stephen J. Chamberlin in a memo to Sutherland had disagreed and re-emphasized the importance of the Gloucester-Gasmata area to plans for 1944 operations.⁵⁷

The original schedule had set up the Gasmata landing for 14 November and that at Cape Gloucester for the 20th. But Halsey's forces, which were to cover Rabaul during MacArthur's New Britain operations, did not go into Empress Augusta Bay until 1 November, and Torokina would not be ready until 15 December.* Furthermore, it was estimated that needed facilities for troop carriers at Finschhafen would not be ready before 17 December. Whitehead also wanted all-weather facilities for one fighter group and two A-20 squadrons at Gusap before going into Cape Gloucester, but indications were that the Lae-Nadzab road would not be ready for heavy construction equipment to move over it before 1 December, that it would be 15 December before the equipment could be used on the airdrome, and that the earliest completion date would be 8 to 17 January 1944. He accordingly recommended on 13 November "that the Dexterity Operation be postponed until these minimum facilities are available."⁵⁸

Already the dates had been changed, and this constituted a recommendation for a second postponement. Because of the Japanese penchant for night raids, task force operations were normally mounted in periods of the dark of the moon, and a conference at GHQ late in October had selected 27 November for Gasmata and 4 December for Cape Gloucester. If postponement beyond these dates became necessary, the next favorable phase would fall between 22 and 27 December. Because of the onset of the northwest monsoon, the surf and weather conditions at Cape Gloucester could be expected to worsen with time, and so the conferees in October had agreed on a recommendation that the target date be the earliest practicable one in December. It had also been agreed to put the maximum tonnage into Lae and Finschhafen by extending the responsibility of the amphibious forces to supply Lae. In addition, the 864th and 1913th Engineer Aviation Battalions were to be dispatched to Lae to increase the engineering force there, pending their departure for western New Britain.⁵⁹

* See above, p. 267.

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In a letter on the same subject to MacArthur, General Krueger pointed out that the tentative date of 4 December at Gloucester would require that Gasmata be secured by 28 November, and that the loss of any shipping at Gasmata would hinder the Gloucester operation. He recommended 2 December for Gasmata and 26 December for Gloucester, and these dates were approved by MacArthur on 14 November.⁶⁰ A conference among Krueger, Kenney, and Admiral Barbey within a week brought still another recommended change. The Navy was interested in the establishment of a base for PT boats on the south coast of New Britain for protection of Vitiav Strait, and available intelligence indicated that Arawe, a good distance west of Gasmata, offered the best location. And since intelligence also estimated the enemy force at Arawe as much less than that at Gasmata, where a build-up of Japanese strength was reportedly under way, it was decided to recommend substitution of Arawe for Gasmata.⁶¹ If the Arawe landing took place at least eight days before Gloucester, Kenney was sure that he could supply limited air cover. MacArthur approved, and on 22 November, GHQ issued Annex 15 to Operations Instruction 38 eliminating Gasmata and substituting the seizure of Arawe peninsula with a target date of 15 December.⁶²

Krueger on 30 November set up for Arawe the DIRECTOR Task Force under Brig. Gen. Julian W. Cunningham. The assault echelon consisted of the 112th Cavalry Regiment; 148th Field Artillery Battalion; 59th Engineer Co. (C); Headquarters and Headquarters Battery, 236th Antiaircraft Artillery Searchlight Battalion; and Batteries C and D, 470th Antiaircraft Artillery Air Warning Battalion.⁶³ On 12 December, the 2d Battalion, 158th Infantry Regiment was designated as the reserve. The substitution of Arawe released forces originally scheduled for Gasmata, making possible their use under Brig. Gen. Clarence A. Martin's command for a landing at Saidor.* A final change in the plans for DEXTERITY eliminated the paratroop landing at Cape Gloucester. Kenney's director of operations on 8 December queried the G-3 section of GHQ on the proposed drop, pointing out that its mounting would take space at Dobodura which might better be used by a heavy bombardment group. MacArthur and Krueger agreed, after conferring at Goodenough Island on 14 December.⁶⁴

All this planning had depended heavily on aerial reconnaissance, with the main burden falling on the 8th Photo Reconnaissance Squadron,

* See below, p. 345.

which flew daily missions over New Guinea, New Britain, and New Ireland. The First Marine Division sent in two patrols for detailed beach data near Tauali and west of Silimati Point on Cape Gloucester, and other patrols reconnoitered the Arawe area. The information they secured, besides furnishing planning data for the ground troops, supplied target data for air force strikes.⁶⁵ But the exchange was no more than fair. Aerial photography, though limited by its inability to penetrate jungle foliage, showed up bridges, clearings, gun positions, supply dumps, new trails, and beach defenses. The Seventh Amphibious Force used aerial photos as the basis for its navigational charts, the First Marine Division in the selection of landing beaches. Gridded mosaics were used by the artillery as firing charts, and gridded obliques served for designating ground support strikes.⁶⁶ Heavy and medium bombers often supplemented the efforts of the 8th Photo, and photo interpreters at the several headquarters put in many long hours. Overwater reconnaissance covered the Bismarck and Solomon seas and the approaches to Truk. Though the assignment was shared with Patwing 10's PBY's and RAAF Catalinas, Fifth Air Force heavies flew no less than 192 B-24 reconnaissance sorties during November.⁶⁷

Between 11 November and 19 December, when SOPAC laid on its first Rabaul bomber strike, SWPA efforts against Rabaul were restricted to missions flown by RAAF planes. A total of thirty-two Beauforts were over Lakunai airfield and Simpson Harbor on the nights of 3 and 4 December, and these were followed on 7 December by a night strike of twenty-six Beauforts against Borpop airdrome on New Ireland.⁶⁸ The Fifth Air Force gave its support to Australian ground forces in their hard fight along the coast of the Huon Peninsula and in the Ramu valley, and extended this activity to include repeated blows against Wewak and other New Guinea air bases.* These blows, while protecting Allied bases at Nadzab, Gusap, and Finschhafen,⁶⁹ served also to neutralize enemy air power by way of preparation for DEXTERITY.

Pre-invasion bombing of western New Britain began on 13 November, when nine of the B-25's brought forward to Kiriwina for the Rabaul strikes and an escort of eighteen RAAF P-40's bombed, strafed, and photographed the area from Gasmata to Lindenhafen. A P-40 strike followed on 17 November; and in the four-day period 20 to 24 November, 133 B-24's and 63 B-25's dropped 432 tons of bombs on

* See below, pp. 338, 345-46.

RABAU AND CAPE GLOUCESTER

personnel and supply areas as well as on the defenses of Gasmata and Agur Island. Aside from regular RAAF patrols which hit Gasmata three times, there were no more attacks in November. On 6 December, eighteen B-25's of the 345th Group were weathered out of Borgen Bay in the Gloucester area and hit the Arawe Islands; two days later six A-20's attacked Cape Merkus on the Arawe peninsula. None of these targets on western or southern New Britain was strongly defended by antiaircraft weapons, and in this period few Japanese fighters could be spared from protection of the main bases at Rabaul and Wewak.⁷⁰

On the north coast, where the principal targets were supply dumps, coastal installations, shipping, and airdromes, small-scale missions, using B-25's, B-26's, and A-20's for the most part, were sent over the area through October and November. On 13-14 October, when weathered out of Rabaul, twenty B-24's and twenty-four B-25's hit the airdrome and coastal area at Cape Gloucester.⁷¹ On 19 November the aerial preparation for the invasion began in earnest. The Japanese were reported to be sending merchant vessels from Rabaul to Garove Island (seventy-five miles north of Borgen Bay) and running men and supplies by barges at night to Borgen Bay. There was also supposed to be a barge route along the north coast from Rabaul to the Rai coast in the Saidor area of New Guinea. Strikes were set up to cut down this traffic as well as to knock out any potential defenders in the invasion area.⁷² From 19 November to 25 December (D minus 1), a period of thirty-six days, there were only nine days in which light, medium, or heavy bombers were not over the northwest coastal areas of New Britain, and on many of these days fighter sweeps or night coastal patrols also covered the area.* The cannon-mounted model of the B-25 received a thorough testing during the period, using 1,253 rounds of 75-mm. ammunition. This effort was chiefly centered on the Gloucester airdrome and the antiaircraft concentrations there. The dump area between the two airstrips received full attention, as did Target Hill back of the strips. The beach defenses of Borgen Bay were thoroughly worked over as well as all suspected bivouac areas. The Cape Hoskins airdrome was hit by thirty-seven B-24's on 18 December to make sure it would be inoperable during the landing.⁷⁸

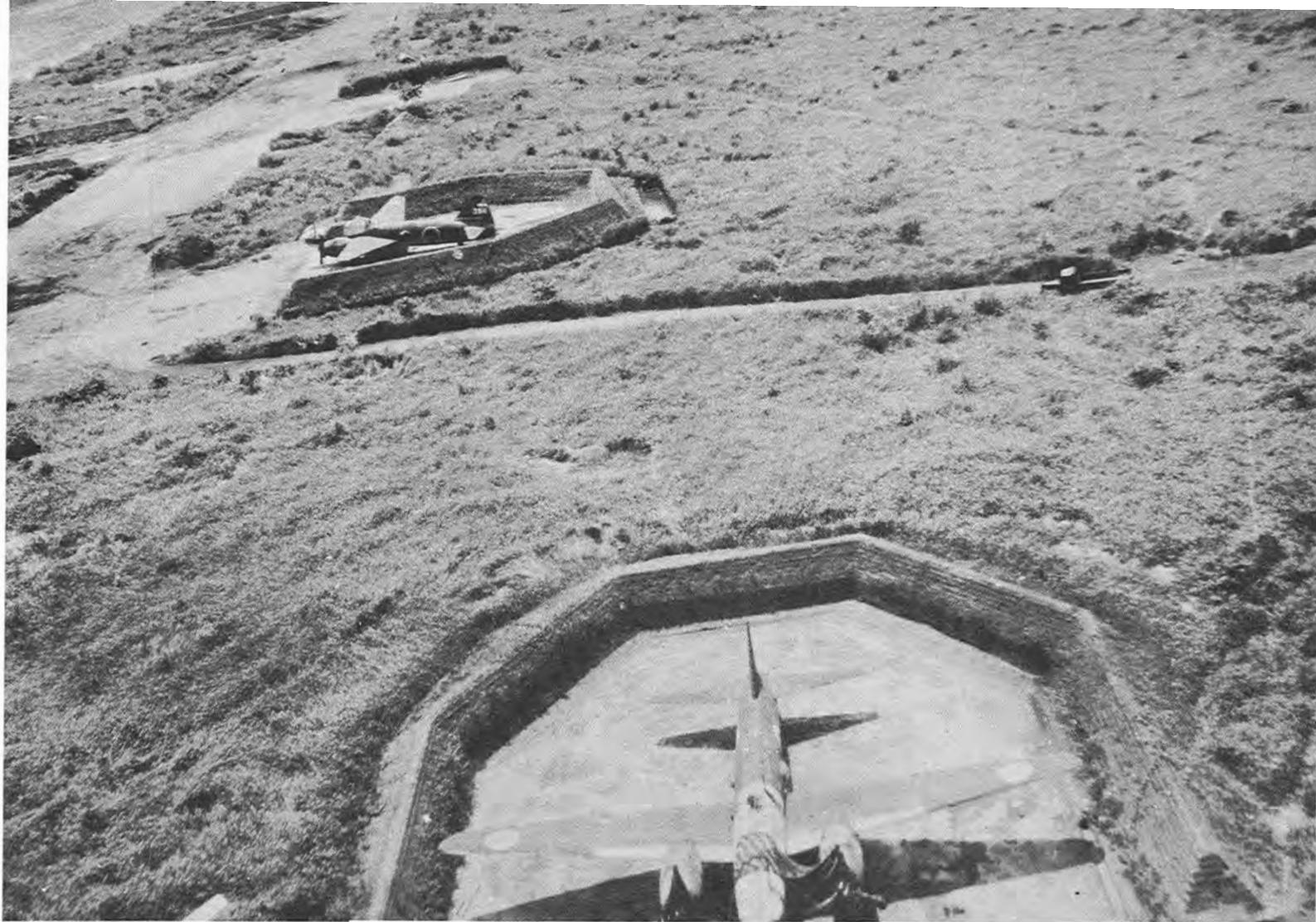
* The total sorties for the period amounted to 1,845, the bomb tonnage 3,926. The A-20's dropped 65.4 tons, the B-25's dropped 49.5, the B-26's of the 22d Bombardment Group put in 542.1 tons, and the heavy groups using quarter-, half-, and one-ton bombs unloaded a total of 3,269 tons. A total of 2,095,488 rounds of .30- and .50-cal. ammunition was expended in strafing.

By this bombing on a scale unprecedented for SWPA, the Fifth Air Force hoped to enable the Marines to walk ashore standing up, and in effect this happened. GHQ had estimated that there were 4,000 troops in the Gloucester area. The First Marines more accurately figured 9,000, with an additional 5,000 in the Cape Hoskins area and potential reinforcements from the estimated 80,000 troops in and around Rabaul.⁷⁴ The defensive responsibility belonged to the Japanese Eighth Area Army, with headquarters at Rabaul, and the troops employed were veterans. Around Cape Hoskins the coast was defended by the 17th Division; at Cape Gloucester by the 65th Brigade, reinforced by the 53d Regiment of the 17th Division. The 141st and 142d Regiments of the 65th Brigade were veterans of Bataan and the Philippines campaign,⁷⁵ and the Fifth Air Force found much satisfaction in later reports of prisoner interrogations which showed these veterans dazed from the heavy aerial effort as well as weak from short rations imposed by the aerial blockade of the barge supply lines.

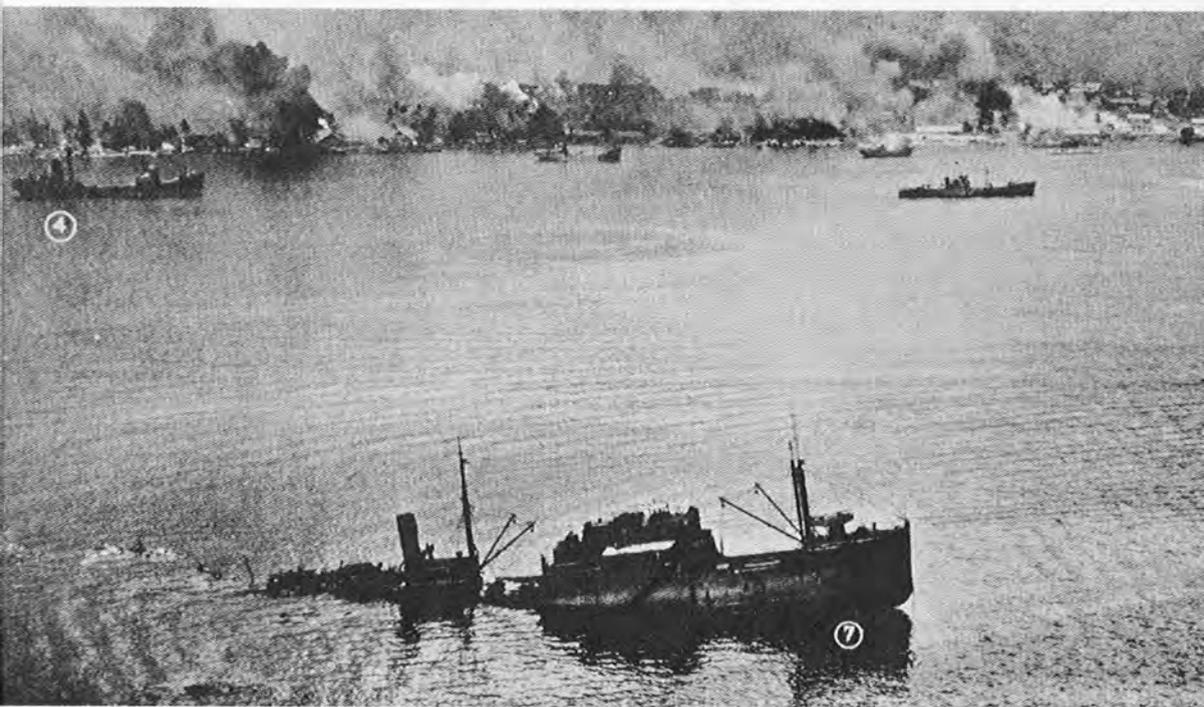
But during the pre-invasion period the effects of the bombardment were hardly apparent. Except for the airfields and a few other points, the area was densely covered with jungle growth, and much of the bombing had to be done by reference points with results as obscure as was the target. One squadron reported: "Our bombs, bursting through-out the [target] area, started no fires and it seems doubtful that anything of value was destroyed. For sheer tree-splitting, however, the mission was magnificent."⁷⁶

Arawe

Most of the preliminary bombing for the south-coast operation had been directed at Gasmata, Ring Ring, and Lindenhafen before the GHQ instruction of 22 November changed the target area to Arawe, and it was then decided to continue the main weight on those areas in the hope of gaining tactical surprise for the Arawe landing.⁷⁷ On 13 December, thirty-four B-24's, two squadrons of the 380th Group and two from the 43d, were weathered out of Cape Hoskins and hit Lindenhafen with 1,000-pound bombs. In the afternoon, twenty-six B-25's worked over the same area from minimum altitude with bombs and .50-cal. ammunition. On that day, too, twenty-six B-24's of the 90th Group with twenty-four B-25's of the 345th Group hit Ring Ring Plantation. On 14 December, the 22d Group with nine B-26's and thirty-one B-25's was assigned the Gasmata airdrome. Using 1,000-pound bombs

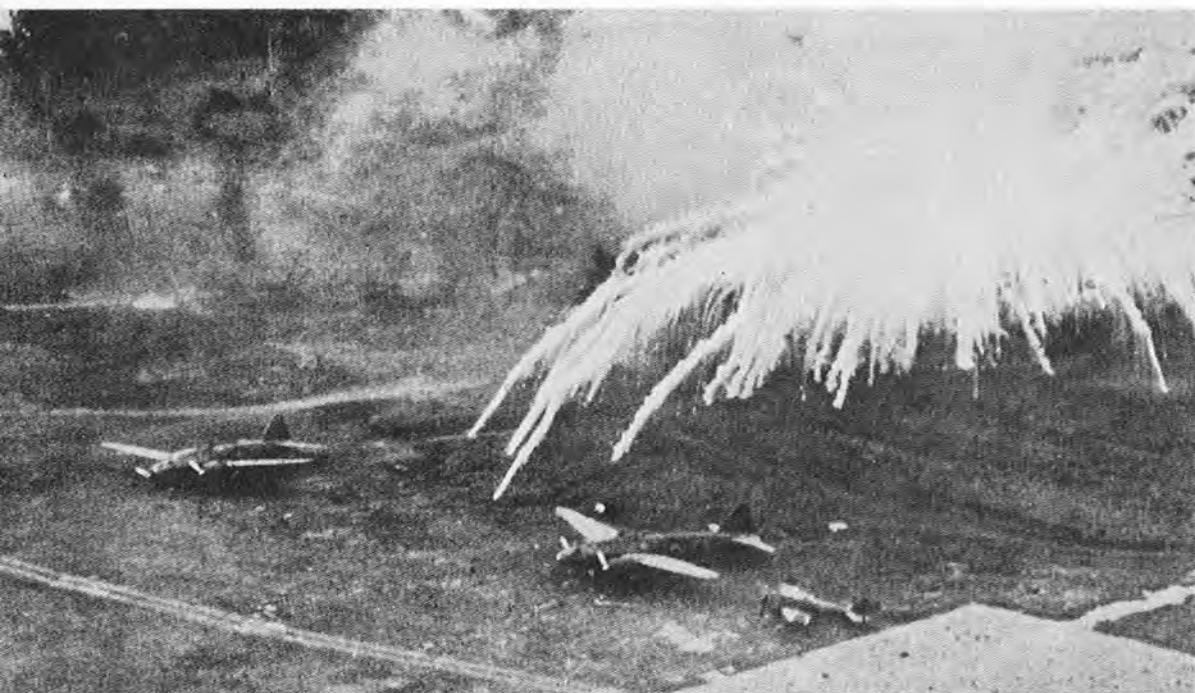
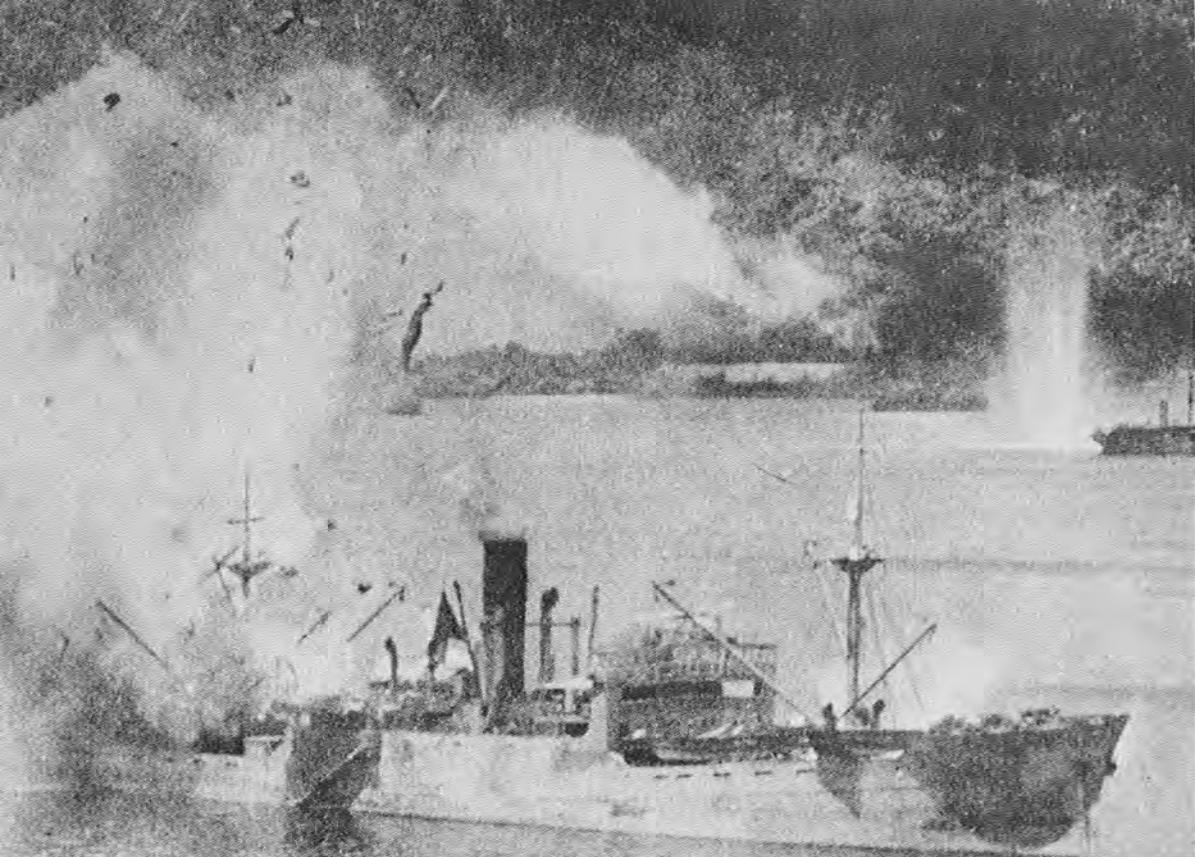


RABAUL: REVETMENTS, VUNAKANAU AIRFIELD



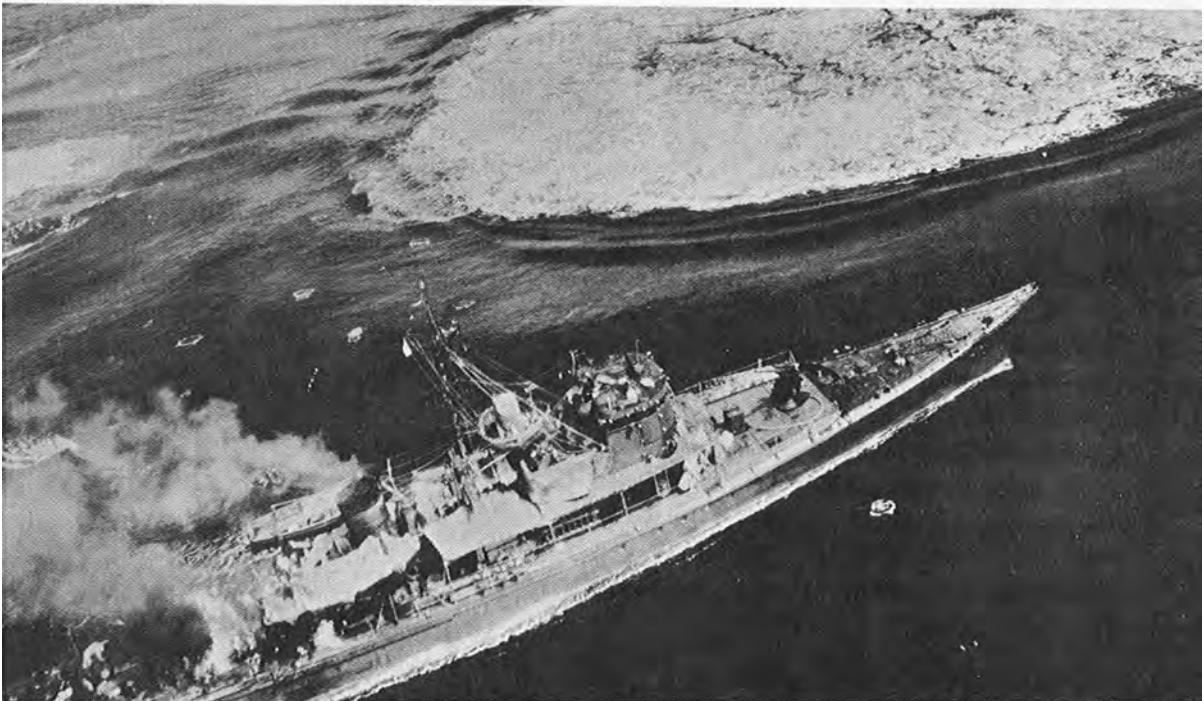
Upper Left: PARAFRAGS ALONG THE DOCKS
Lower Left: ONE Maru DOWN

RABAU,



2 NOVEMBER 1943

Upper Right: DIRECT HIT
Lower Right: PHOSPHORUS BOMBS ON AIRFIELD



ISOLATION OF KAVIENG

Above: ATTACK ON CONVOY OFF KAVIENG

Below: DIRECT HIT ON DESTROYER OFF KAVIENG

from medium altitude, the group scored only 30 per cent hits, but this was adjudged to be enough to protect the invasion force from Gasmata-based attacks. The bombers, accordingly, now switched to the invasion area—the Amalut Plantation on the Arawe peninsula and near-by Pilelo Island. A total of 273 sorties were flown on 14 December against the south coast, while the north coast was given a day's rest.⁷⁸

The air plan for Z-day,* 15 December, provided for attacks on the bivouacs and supply areas at Cape Gloucester, direct support for the amphibious force at Arawe, fighter protection for naval forces, and preparation for support of the ground forces. RAAF 9 Operational Group was to give fighter cover along the south coast, strike Lakunai airdrome with a maximum force of Beauforts during the night of 15/16 December, dispatch Catalinas to work with the night bombardment squadron of the 43d Group in barge sweeps along the coast east of Arawe during the night of 15/16 December, and hold one squadron of Bostons alerted to hit enemy naval forces. On the 16th, eight bombardment squadrons would go on alert at Dobodura: one squadron of B-25's on air alert from 0615 to 0900; two squadrons of A-20's on ground alert throughout the day; five heavy squadrons of the 43d and 380th Groups on ground alert until 1000, at which time they were to be dispatched over Gloucester if not called for at Arawe.⁷⁹

The DIRECTOR Task Force, meanwhile, had embarked at Good-enough Island on the night of 13/14 December, its landing force of 1,700 men supplied by the 112th Cavalry Regiment.⁸⁰ Apparently undetected en route, the convoy arrived off the beaches at dawn of the 15th and after a destroyer bombardment the landing began. Troop B of the 1st Squadron landed on Pilelo Island, where a radio station had been reported to exist—mistakenly, as events proved. Troop A, attempting to land at the base of Arawe peninsula to cut off enemy troops retreating from Amalut Plantation, ran into heavy opposition. Twelve of the fifteen boats were sunk with a loss of twelve killed, four missing, and seventeen wounded, along with all of their equipment. It was decided then to abandon the effort, and General Cunningham requested complete resupply by air. The new equipment, packed by the Provisional Air Supply Company at Dobodura and loaded into nineteen B-25's and one B-17, would be dropped on Amalut Plantation between 1300 and 1500 on 16 December.⁸¹

* The landing date at Arawe was labeled "Z-day" to avoid confusion with the specified "D-day" for the main landing at Cape Gloucester.

The main landing party of the 2d Squadron, having shifted from an LSD into Buffaloes and Alligators headed toward House Fireman Beach in the company of two rocket-firing DUKW's. Reefs and a misunderstanding of the fire support schedule caused some delay, and the reserve (1st Squadron minus Troops A and B, but reinforced by engineers and service units) landed thirty minutes ahead of the main force. There was fortunately little opposition. The artillery and antiaircraft units arrived from Cape Cretin in LCT's and LCM's at H plus 2 hours. By 1430 the troops had advanced three miles to the final objective for Z-day. The Air Liaison Party had landed with the 2d Squadron, and within twenty minutes it had established contact with ALAMO Force headquarters, ADVON Fifth Air Force, and the First Air Task Force. Because of the lack of opposition only one air strike was called for on Z-day. One three-plane flight of the nine B-25's on air alert was ordered to bomb targets just north of Cape Merkus. For good measure, five planes instead of three dropped bombs and strafed.⁸²

In contrast to the bombers, the fighters had a busy day. A Japanese reconnaissance plane was over Arawe at 0700, before the first patrol of nine P-38's arrived. It apparently radioed Rabaul the sighting of the convoy, for at 0900 from thirty to forty Vals and Zekes bombed and strafed the beachhead. One LCV was destroyed, and the attacking force got away without loss. During the day a total of eighty-two P-38's and forty-six P-47's patrolled the Arawe area, and the Japanese sent in an estimated seventy to eighty fighters and dive bombers. But there were only two fights: one at 1115, when four P-38's shot down a Zeke, and another at 1800, when four P-38's drove off thirty Zekes plus twelve Bettys and Sallys.⁸³

After Z-day the enemy's luck ran out. He continued to send heavy attacks against Arawe, but they lost heavily to the Allied fighter cover and seldom broke through the fighter screen to do any significant damage. Nevertheless, the beachhead area felt the need of heavy antiaircraft guns, since Japanese attackers could remain outside light antiaircraft range. From 15 December to 31 December the Japanese lost at least twenty-four bombers and thirty-two fighters, and after 1 January enemy planes made most of their attacks at night. There were few even of these after 90-mm. antiaircraft guns were brought into the area on 1 February.⁸⁴

Calls made upon the Allied bombers remained few. A-20's contributed the major effort, bombing and strafing reported Japanese con-

centrations between Gasmata and Arawe or breaking up enemy concentrations in front of Allied ground positions. The direction of flight of some of the Japanese planes indicated that they were coming from Madang. Accordingly, that airdrome was hit on 19 December by the 33d Bombardment Squadron with forty-five tons of bombs. The Allied ground troops had held their line on the peninsula and limited their offensive action to sending out forward patrols. When these patrols were driven in on 21 December, giving evidence of Japanese concentrations in front of the cavalry positions, General Cunningham requested reinforcements. Company G of the 158th Infantry was sent first, followed by the rest of the 2d Battalion and by a company of light tanks of the First Marine Division in January.⁸⁵ On 16 January, Cunningham launched an attack to clear this area. At 0830, eighteen B-24's dropped 136 x 1,000-pounders on enemy positions, followed by twenty B-25's strafing and bombing. Artillery and mortar barrages further softened the enemy, after which the light tanks spearheaded a drive which advanced about a mile. Following this attack, patrols found evidence that the enemy was withdrawing; they steadily ranged farther until 10 February, when Arawe patrols contacted the Marine patrols from Cape Gloucester which had reached Gilnit. Patrols reached and occupied Gasmata airdrome and Lindenhafen Plantation by 17-18 March. Thereafter, there was little except routine patrolling until 8 June 1944, when the 108th Infantry, 40th Division relieved the original DIRECTOR forces.⁸⁶

Cape Gloucester

Three days after the Arawe landing, the air assault on Cape Gloucester had been stepped up in preparation for the landing there. Two Japanese fighters having been seen taking off from No. 2 strip at Gloucester on 17 December, the 90th Group struck the field with eighty 2,000-pound bombs the next day to put it back out of condition. The 380th and 43d Groups used half-ton bombs to give the Cape Hoskins airdrome the same treatment, and neither airfield was reported operational thereafter. On 19 December two squadrons of the 380th Group flew two missions from Dobodura. The 43d Bombardment Group flew double missions on each day from the 21st through the 25th. The highest number of bomber sorties was reached on 24 December, when the seven bombardment groups flew 280 bomber sorties. The double missions were unusual for the heavy bombardment groups, though com-

mon enough for the B-25's. In addition to the daylight attacks, night-flying B-24's were over the area with bombs, grenades, beer bottles, and anything else that would bother the Japanese and keep them awake.⁸⁷

As the bomber effort reached its peak with the approach of D-day, every target of importance was hit. The 345th Group, scheduled for beach attacks on D-day, sent its strafing Mitchell bombers over the course on 24 December to make sure of their timing. There were no fighters and very little anti-aircraft to interfere with this rehearsal. Beginning on 19 December, the Second and Third Air Task Forces used their fighter bombers and such mediums as were available to make sure that no opposition to the Gloucester landing came from the New Guinea fields at Madang, Alexishafen, and Wewak. The RAAF Beauforts, after a short break, resumed nightly harassing attacks on Rabaul on 13 December. On 17 December, SOPAC put seventy-six fighters over Rabaul; and two days later, P-38's and RNZAF P-40's escorted six Thirteenth Air Force B-24's to Rabaul. The B-24's mounted three more attacks—on 23 December when they were accompanied by another fighter sweep and on the 24th and 25th—and a SOPAC carrier force attacked shipping in Kavieng Harbor with bombs and torpedoes on Christmas Day.* The usual reconnaissance was maintained, with RAAF Catalinas nightly covering the Kavieng area. In all, the enemy was being hit by a coordinated air attack which he hardly knew how to handle.⁸⁸

The air plan for D-day was carefully timed to give maximum support to the landing. To insure no disruption from enemy air attacks the plan provided for one fighter squadron to be over the area from 0630 to 0700, three squadrons from 0700 to 1400, and one squadron from 1400 to 1830. From 0700 to 0720, five squadrons of Liberators were to neutralize by high-level bombing all defense positions covering the landing beaches. Fleet units were to bombard the entire area from 0600 to 0727; and from 0728 to 0743, three B-25 squadrons were to bomb and strafe the beaches, while another squadron covered rear positions with white phosphorus bombs. Squadrons of A-20's would be on air alert from 0745 (H-hour) to 0915, with designated targets if they were not called for. To catch enemy concentrations gathering for counterattacks, four squadrons of heavies were to drop 1,000-pounders from 0900 to 0915, and at 0930 four squadrons of mediums were to bomb and strafe along the coast east of the beachhead. Other heavy

* See below, pp. 350-51.

and medium strikes were set up during the day to eliminate any effective enemy reaction.⁸⁹

The northwestern tip of New Britain is dominated by three volcanic mountains. On the west, from Cape Gloucester south to Cape Bushing, lay an ideal beach area with good anchorage and no reef offshore; but the Japanese, of course, had concentrated their defenses there. To the east of the mountains was a comparatively low valley running from Borgen Bay south to the mouth of the Itni River. After study, the Marine planners selected two beaches, Yellow 1 and Yellow 2 in Borgen Bay northwest of Silimati Point. Interpretation of aerial photographs and the SWPA terrain study noted swampy area back of the beaches, but the Marines seem to have overlooked this, for the fact came as a surprise and caused some disruption in the early stages of the landing.⁹⁰ Combat Team C (7th Marine Regiment reinforced) was to seize and consolidate the beachhead; Combat Team B (1st Marine Regiment reinforced) was to pass through and attack northwest toward the airdrome. On D-day also Battalion Landing Team 21 of Combat Team B (1,500 troops and their supplies) was to land at Green Beach near Tauli at H-hour for the purpose of cutting off any withdrawal southwest from the Gloucester area. The reserve force, Combat Team A (5th Marine Regiment reinforced) was to move on D-day from Milne Bay to Oro Bay.⁹¹

Escorted by cruisers and destroyers, Task Force 76, carrying the BACKHANDER troops, left Buna harbor at 0300 on 25 December. Fifth Air Force fighters provided cover along the New Guinea coast. A Japanese reconnaissance plane was shot down east of the convoy early in the afternoon, but no attacks occurred during the 25th of December. After dark, the Tauli force under destroyer escort separated from the main force.⁹²

The landing was favored with good weather—ceiling and visibility unlimited. The naval and air bombardments went off as scheduled. Five squadrons (forty-three B-24's) dropped 112 tons on the Target Hill area beyond Yellow 2. The mediums (thirty-eight B-25's) worked over the beaches and smoked Target Hill, pulling off when the landing craft were 500 yards offshore. Two LCI's and two DUKW's put a rocket barrage on the beaches. The landing craft reached shore on schedule, and the 7th Marines began organizing the beachhead without opposition. The beaches were not strongly defended, and the bombardment preparation had caused the abandonment of guns and equipment

by enemy troops assigned to the area. The 1st Marines landed at 0900 and began advancing toward the airdrome. Meanwhile, the A-20's on air alert were not called for; and so at 0815 they bombed a previously assigned target and were followed in their attack by twenty-four Liberators. Just before 1100 the 38th Group's mediums bombed and strafed the coast southwest of Cape Gloucester.⁹³ Documents captured at the beachhead indicated a strength of 5,000 or more enemy troops in the Borgen Bay area. General Rupertus requested General Krueger to release Combat Team A to reinforce his command. During the afternoon, twenty-four Mitchells of the 345th Group hit Hill 150 and Natamo Point. The 43d Bombardment Group put sixty-three tons on Hill 660; the 380th Group dropped another sixty-seven tons on Target Ridge.⁹⁴

Battalion Landing Team 21 was equally successful in its landing on Green Beach, north of Tauali. The escorting destroyers *Reid* and *Smith* began bombardment at 0716, and at 0736 eleven B-25's of the 13th Bombardment Squadron thoroughly worked over the beach area. The enemy had again abandoned defensive positions, and the ground troops soon had the beachhead organized with patrols out to contact the enemy. The thick jungle was the biggest obstacle, forcing troops to leave much equipment along the coast exposed to enemy air attack.⁹⁵

Brig. Gen. Frederic H. Smith, Jr., of the First Air Task Force was charged with control of all aerial operations. Air force representatives controlled aerial activity from the headquarters ship during the landing at Borgen Bay. The 1st Air Liaison Party with First Marine Division headquarters landed at 0930 and moved to the division command post by 1100. It established contact with the Finschhafen relay station and, because of the failure of Marine communications, relayed Marine traffic to ALAMO Force headquarters through Finschhafen and the First Air Task Force at Dobodura. It controlled bomber strikes by messages direct to the pilots. The fighter controller remained afloat on a destroyer.⁹⁶

There were no morning air attacks on the beachhead. The expected attack came, however, between 1430 and 1510 in the afternoon. The presence of Vals—naval dive bombers—made Rabaul the likely base of the attack. An estimated twenty-five Vals escorted by thirty to sixty Zekes, Oscars, and Tojos made up the attacking force, which was first plotted at 1420 and again at 1425. The destroyers' radar lost the plot, however, and the two squadrons sent for interception were out of posi-

tion when the attack came in. Although there were forty-nine P-38's, sixteen P-47's, and sixteen P-40's in the area, the dive bombers got through to the convoy and sank one destroyer, damaged three others, and damaged two LST's. The aerial combat began at about 1445; and by 1510 the Japanese had lost twenty-two out of the twenty-five dive bombers and probably more than twenty-four of their fighters against an Allied loss of two P-38's and two P-47's. Unfortunately, the Vals made their attack just as the B-25 group was going in to strafe Hill 150—in fact, the Vals flew through the B-25 formation. The ships' anti-aircraft opened up on both groups and scored more heavily on the B-25's (two shot down and two badly damaged) than it did in getting one Val.⁹⁷

In a second attack at 1715, fifteen torpedo-carrying Bettys tried to reach a convoy of LST's. The 341st and 342d Fighter Squadrons, covering the area with twenty-six P-47's, intercepted the two attacking waves and destroyed fourteen of the Bettys and two Tojos, and claimed the other Betty as probably destroyed. Again, ships' anti-aircraft shot down one P-47 of the 342d Squadron. On 31 December, patrolling P-47's and P-40's shot down eight Vals and four fighters, claiming two additional probables off Cape Gloucester. Between 15 and 31 December, over Arawe and Gloucester the Japanese lost an estimated 163 destroyed and 22 probables—a loss they could ill afford when their own base at Rabaul was being hard hit by South Pacific air forces. So succeeding raids were made usually at night in small strength, and Allied air action became that mainly of ground support and aerial supply.⁹⁸

In the ensuing days of the campaign, the Marines had to fight both the Japanese and the weather. Day after day heavy rain and deep mud hampered all activity. Yet the advance was steady. After consolidating their beachhead on the first day, the Marines on 27 December advanced about six miles without opposition. When patrols located machine-gun positions near the airdrome on 28 December, they requested an aerial attack, which was carried out by nineteen A-20's of the 3d Bombardment Group. The enemy still had to be routed out by close combat, and progress was slow. The first battalion of the reserve Combat Team A reached Gloucester on 29 December, and reinforcements were started up to the line for the final assault on the airdrome. A Fifth Air Force strike was also called for, to soften the main enemy defenses on Razor Back Hill south of the airfield and in woods and grass areas southeast of Strip 2.⁹⁹

THE ARMY AIR FORCES IN WORLD WAR II

In an excellent example of ground support by heavy bombers, fifty-four Liberators at 10,000 feet dropped 156 tons of 500-pound bombs in the target areas with none short of the bomb line. They pulled off the target area by 0905 to be followed by the mediums of the 22d and 345th Bombardment Groups, which dropped 300- and 500-pounders—79 tons in all—and made numerous strafing runs until 0923. Contrary to plan, however, the Marine ground troops waited for their reinforcements before moving out at 1515. Despite the delay, the Japanese had had enough from the air, and the advancing forces were able to overcome the dazed enemy. By noon of 30 December, both strips were occupied. The continuing air attacks had knocked out all the artillery as well as the antiaircraft guns which might have been used as artillery. An observer reported prisoners as stating that the air bombardment was more than they could stand and as a consequence reinforcing troops had been withdrawn into the hills overlooking the Cape Gloucester area.¹⁰⁰ In miserable weather, the next two weeks were devoted to establishing the airdrome area and getting engineering units to work on the airfield while Marine patrols kept contact with the retreating enemy.

On 3 January the 1913th Engineer Aviation Battalion began work on the Cape Gloucester airfield. The 864th Engineer Aviation Battalion came in on 13 January, and one week later the 841st Battalion for work on the roads. By the end of the month, 4,200 feet of pierced plank had been laid and the first plane, a Beechcraft, had landed. A C-47 landed safely the next day. The engineers had worked to good effect and under very difficult conditions. There had been only five clear days between 26 December and 1 February, with heavy rain on all others. General Whitehead was anxious to get the field operational to supply single-engine fighter cover for strikes on Kavieng in support of Halsey's landing on Nissan Island; he also wanted an emergency field for his planes attacking the Admiralties. Generals Krueger and Smith inspected the field on 9 January and estimated that one group of fighters could move in on the 15th.¹⁰¹

The field was not ready until 30 January, however, and for another fortnight troop carriers bringing in badly needed supplies severely taxed the limited facilities. Not until 13 February did the 35th Fighter Squadron (P-40's) with aid from the transports begin its move to Cape Gloucester. The 80th Fighter Squadron brought its P-38's in on 23 February. The muddy subbase of the field was such that it came up

through the planking after heavy rains. This did not bother the P-40's but made it very difficult for P-38's to land without overrunning the strip. The surprise move into the Admiralties on 29 February would give Whitehead another base from which to hit Kavieng. Whitehead needed all Fifth Air Force units at Nadzab, so he decided to move the 35th and 80th Squadrons back to New Guinea and replace them with RAAF units equipped with P-40's moving up from Kiriwina. On 11 March, the necessary moves began.¹⁰²

While the 1st Marines and the reserve forces of the 5th Marines had moved northwestward toward the airdrome, the 7th Marines held the beachhead against possible Japanese counterattacks from the east. Probing Marine attacks began to expand the beachhead on 30 December, by which time the Japanese were making ready their own counter-attack. On 3 January a strong Japanese effort was made to regain Target Hill; starting at 0545 and supported by artillery, it lasted until noon and cost the enemy over 200 casualties.¹⁰³

The Allies followed this victory with an effort to break out of the beachhead for the purpose of driving the Japanese back along the northern coast of New Britain. As their drive got under way, the Marines were forced to fight in an area heavily covered by forest or kunai grass, and the aid that could be expected from the air forces was limited. In most instances, opposing positions were too close for bombing. When attacks were called for, the targets were fixed by coordinates or marked with smoke shells. At times both methods were used, as on 4 January when the Marines moved toward Hill 150. A formation of B-25's on call sent planes first against a map target, then responded to a smoke shell 200 yards southwest of the initial target, and finally bombed and strafed on a shell burst 500 yards northwest of that target.¹⁰⁴ The Marines, assisted by other bombings on 6 January, took Hill 150 by nightfall. The Japanese were still strongly entrenched on Aogiri Ridge—just southeast of Hill 150—and on Hill 660. The Aogiri Ridge positions were too close to Hill 150 for air strikes, but eighteen B-24's were called in to put 216 x 500-pound bombs on Hill 660 on 7 January. By 9 January, the Marines had occupied Aogiri Ridge, repelling all enemy attempts to retake it. Another strike hit Hill 660 on the 10th of January, as the Marines prepared to take it.¹⁰⁵

The 3d Battalion, 7th Marines opened the attack on Hill 660 on 13 January but the advance was stopped near the crest by dug-in, 20-mm. guns that had survived both aerial bombardment and artillery fire.

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It was necessary to bring up tanks despite the difficult terrain; and on 14 January, the position was taken with their aid. The Japanese fell back toward Magiarapu village, which was worked over by A-20's. The Japanese of the 141st Infantry made a last unsuccessful counterattack on 16 January, after which they withdrew from the area toward Talasea and Hoskins Plantation.¹⁰⁶ Succeeding phases of the Marine advance were tough. There were occasional air strikes called for on particular targets, but most of the air missions were barge sweeps or patrols over the enemy's rear areas, hitting any targets of opportunity that were presented.

The campaign for possession of the western tip of New Britain ended with the junction of patrols from Arawe and Cape Gloucester on 10 February. Already, however, Operation APPEASE, an exploitation to extend the area under Allied control to Talasea and Hoskins Plantation on the northern coast, had gotten under way. The first action, an attempt to seize Iboki Plantation, started on 1 February. After strikes by fifty B-24's and forty-two B-25's on 21 and 22 February, an amphibious landing took the place without opposition on 25 February. Another amphibious jump, this time to Talasea, constituted the second phase of the operation. It had been anticipated that opposition might be strong and RAAF units at Kiriwina had been assigned for support, but weather cut them off on D-day. Fortunately, the 80th Fighter Squadron, which had moved onto Cape Gloucester on 23 February, was able to cover the landing, and the Japanese force, though strong, chose not to put up a stout resistance. Landing on Volupai Plantation on 6 March, the 5th Marines occupied the Talasea airdrome on 8 March and lost contact with the retreating Japanese on 15 March.¹⁰⁷ Hoskins Plantation was occupied by patrols of the 185th Infantry of the 40th Division on 7 May. This division, under Maj. Gen. Rapp Brush, had moved into New Britain in April, relieving the First Marine Division, and was, in turn, relieved by the Australian 5 Division on 27 November 1944.¹⁰⁸

A review of the operations at Cape Gloucester gave Allied leaders much cause for optimism as to the success of future operations. Perhaps the diversionary effort at Arawe could have been better managed, but the main show at Cape Gloucester had been well executed by all arms. There had been mistakes, it is true. For example, the recognition training of both naval and air forces was shown to be poor. Naval anti-aircraft crews would fire on "anything that was not a P-38." P-47's shot down a Catalina, and even made passes on an A-20 formation. Small

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Allied surface craft, such as PT boats, were attacked more than once under conditions where recognition should have been certain. But at least partial remedy for these failures could be provided by additional training.¹⁰⁹

Limited by the nature of jungle warfare, air units had made their chief contribution by pre-invasion bombing—so intense that the term “Gloucesterizing” thereafter served in Fifth Air Force circles to describe the complete obliteration of a target—and by the continuous isolation of the battle area. Barge hunts and attacks on roads and supply dumps not only denied adequate reinforcement for the enemy but reduced him in time to half rations. It also resulted in so many desertions by native carriers that the Japanese were forced to divert combat troops to serve as bearers.¹¹⁰ Admiral Barbey described the air support given the Navy as “superb.”¹¹¹ To Arnold, General MacArthur wrote: “The Air Force here has been magnificent and is the very hub of our success.”¹¹²

Saidor

In planning for the invasion of New Britain, the Allied command had given consideration to the possibility of a third amphibious operation, against Saidor on the New Guinea coast opposite Cape Gloucester. But it was not until 16 December, the day after the landing at Arawe, that Brig. Gen. Clarence A. Martin received formal notice of a decision to activate under his command the MICHAELMAS Task Force for the occupation of Saidor.¹¹³

Located midway between Blucher Point and Madang, Saidor promised an area for the development of additional forward airfields and a good harbor for small naval craft. Its occupation, moreover, would speed the liquidation of enemy forces along the coast above Finschhafen. Capture of the coastal points of Lae, Salamaua, and Finschhafen in September had been followed by more or less continuous fighting in the Allied effort to consolidate and extend the positions seized in these major operations. Inland along the Markham River and then across the watershed into the Ramu River valley, the burden of pushing back the Japanese or cleaning out pockets of enemy resistance had fallen chiefly to Australian troops; along the coast a similar task had been assumed by the Australians with aid from American forces. Both assignments involved some exceedingly tough fighting against an enemy who was usually inclined to accept annihilation in preference to the abandon-

ment of hopeless positions. Not until 8 December did the Australians manage to occupy Wareo, an important trail junction only a few miles inland from Finschhafen; and from Wareo, it took two more weeks, with aid from artillery and the air, to work ten miles across rivers and deep gorges to Fortification Point on the coast. The longer distance up the coast to Blucher Point was then negotiated within four days, but meanwhile the malaria-ridden Aussies in the interior had even been forced to withdraw from some of the more forward positions in the Ramu valley. During the remainder of the month, Allied bombers almost doubled their rate of attack on supply and LOC (line of communications) targets in an effort to limit the enemy's capacity.¹¹⁴

On 20 December, Generals Whitehead and Martin met with Admiral Barbey to go over a plan for the Saidor landing that had been drafted by ALAMO Force.¹¹⁵ Whitehead received general concurrence on his plans for air support, except that both Barbey and Martin felt that the advantage of surprise argued for an H-hour too early for some of the bomber support scheduled.¹¹⁶ Final preparations were rushed to a rather precarious state of readiness within the next ten days. On 22 December, D-day was tentatively set for 2 January 1944, and General Martin was advised to hold his command, already on Goodenough Island, in a state of readiness that would permit the operation to be mounted "on or after 2 January on 48 hours notice."¹¹⁷ To meet this date, at first, seemed impossible. Continual rains and a lack of transportation hindered the movement to the embarkation areas; orders from higher echelons were confusing as to the employment of landing craft; and some units had arrived on Goodenough without equipment. But the loading was completed and a brief rehearsal of the landing-boat formation had been held by late afternoon of 31 December. On the next day the landing craft had met their destroyer escort in Oro Bay.¹¹⁸

In the meantime, the details of air participation in the operation had not been made entirely clear to General Martin. Immediately following the preliminary conference on 20 December, an air liaison party and the task force staff discussed the original air plan, prepared a revised plan, and submitted it to General Whitehead at Port Moresby, who assigned the air phase of the MICHAELMAS operation to the First Air Task Force. The final air plan and operations order did not reach General Martin until he had left Goodenough. Fortunately it was almost identical with earlier drafts, although one small change caused considerable anxiety. The final operations instruction assigned an

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alternate target which proved to be inside the bomb line. By the time this had been discovered, the convoy was on the way, radio silence was in effect, and nothing could be done to correct the situation until the landing had occurred. Fortunately the air liaison after the landing managed to make contact with the alerted planes before any damage had resulted.¹¹⁹

The extensive air operations which had preceded and followed the landing at Arawe served also as preparation for the Saidor landing. Likewise, low-level bombing attacks at Wewak on 22 and 23 December, together with increased pressure on Madang and Alexishafen during the last week of December, had greatly reduced the risk of enemy interference. And as the landing force moved northward on 1 January, sixty B-24's and forty-eight B-25's littered the coast line at and near Saidor with 218 tons of demolition bombs.¹²⁰

The convoy, consisting of sixteen LCI's, approximately nine APD's, six LST's, and six destroyers, after passing through a tropical storm in the Huon Gulf, arrived on time off the three landing beaches, which had been chosen after a careful study of aerial photographs. Naval bombardment, because of continuing unfavorable weather, began some fifteen minutes behind schedule. When the heavy bombardment ceased, several LCI's covered the landing assault with rocket fire. About 7,000 troops,* 300 vehicles, and approximately 1,800 tons of other equipment and supplies were put ashore in good order, and almost without opposition.¹²¹

The weather had prevented the scheduled air support. Forty-two B-25's taking off at first light for a Saidor mission were unable to bomb. Somewhat later, three B-25's succeeded in breaking through the storm front and swept over the Saidor airstrip and other inland points to lay a smoke screen, and shortly thereafter, forty-two B-24's dropped almost 100 tons of bombs on assigned targets behind the beachheads. These were followed by forty A-20's, which at a tree-scraping altitude dropped an additional thirty-six tons.¹²²

It had been assumed that the landing might provoke an attack by 60 to 100 Japanese planes and that attacks on that scale would probably

* The principal units assigned to the MICHAELMAS Task Force included the 126th Infantry Regimental Combat Team, 121st Field Artillery Battalion, Hq. and Hq. Battery of the 191st Field Artillery Group, 808th and 863d Engineer (Aviation) Battalions, plus medical and service units. Later the 128th Infantry RCT (less two battalion combat teams) was added to the troop complement. (Report of MICHAELMAS Operation, 16 Dec. 1943-10 Feb. 1944.)

continue. Consequently, a strong fighter cover had been provided in the air plan and every attempt made to provide adequate air warning and fighter control. The previously tested plan of using a destroyer to house fighter controllers was again employed, and an aircraft warning company was promptly landed by LST on D-day.¹²³

Actually, Japanese resistance to the Allied landing was "pitiable." For more than eight hours, no enemy aircraft appeared, by which time all landing craft had unloaded their cargoes and were heading back toward Oro Bay. The first raid came shortly after 1600, by nine Helen bombers escorted by perhaps twenty Zeke and Tony fighters. The enemy pilots were not particularly enthusiastic, and when twelve P-40's approached, several of the bombers jettisoned their bombs and with some of the fighters beat a hasty retreat. A number of bombs were dropped, however, and one American enlisted man was killed and another wounded. In the combat that had meanwhile developed overhead, one P-40 was seen to go down in flames, and two Helens and three enemy fighters were destroyed.¹²⁴ During the night of 2/3 January, there were three small bombing attacks. Two bombs, which seriously wounded two men, were dropped during the following night. On 5 January, four American P-47's strafed two American LCM's but caused no casualties. That evening the Japs struck twice with no success and lost one plane from anti-aircraft. Two nights later there were five small raids, unpleasant but not damaging. After the first week and until the end of the campaign there were numerous red alerts, but on only one occasion were bombs dropped.¹²⁵

Meanwhile, as the infantry gradually enlarged its perimeter against sporadic enemy opposition, the air service units were organizing a base on the airstrip. By 10 January, a fighter subsector had established communications with related sectors. Despite soaking rains, elements of the three aviation engineer battalions assigned to the task force had smoothed out a runway on the Saidor airfield, an Australian commercial strip before the war. The 3d Airdrome Squadron arrived on 9 January, and two days later a flight of twelve C-47's loaded with ammunition landed on the reconditioned field.¹²⁶

The base was envisaged as a forward supply depot and as a key point in the fighter defense network. It was estimated, however, that it would take several months before extensive base facilities could be developed. In mud, rain, and a confusion of orders, camp sites were cleared, fox-holes dug, and tents pitched on one location after another, with some

units playing the old army game of "hurry up and wait." But order began to appear, and by 21 January, Saidor had officially become the key point in the 21st Fighter Sector.¹²⁷

Meanwhile, Allied infantry was rapidly eliminating Japanese resistance along the coast. The Australians, in their drive from Finschhafen, were now fighting in less difficult country and had reached the important barge center at Sio by 14 January. The Americans at Saidor, fanning out in all directions, encountered little but sniping Japanese patrols. Ten days after the landing, the battalion which was spearheading the American advance could claim only forty-seven Japanese killed since the beginning of the operation. In view of the light Japanese resistance, there was little need for air support.¹²⁸

The advances along the coast were rapid when compared with those of the Australian 7 Division in the Ramu valley. Throughout December and most of January a virtual stalemate had existed there. The principal obstacles confronting the Australians trying to reach the Bogadjim road and the approaches to Madang were the enemy defenses on Shaggy Ridge, six miles north of Dumpu and approximately forty miles south of Madang. The Japanese, holding the high north end of the ridge, dominated the path along which the Australians had to advance. This approach to the "pimple" was from two to three feet wide with drops of 300 to 500 feet on either side and was honeycombed with enemy machine-gun nests and foxholes. The infantry supported by mountain guns had made several unsuccessful attempts to take this position by late December, and an unusual effort by the air units was deemed necessary.

Detailed preparations were made by the Third Air Task Force. The plan was for the RAAF Boomerang, a slow, Australia-manufactured plane, to guide dive-bombing P-40's to the objective, no more than 150 yards from the nearest Australian troops. After meticulous preparations, a series of attacks was carried out by P-40's, each of which carried one 500-pound bomb. These attacks were conspicuously successful. Boomerang pilots, knowing intimately the battle area, guided the P-40's to the target; and the dive bombing, generally executed from 1,000 feet, was accurate. After a heavy attack of 27 December, the infantry easily captured the strongpoint.¹²⁹ This, however, proved to be only a key link in the chain of strongpoints held by the Japanese. Shaggy Ridge itself seemed to extend almost indefinitely north and south, and its crest and sides were a maze of foxholes and trenches. The Third Air

Task Force again undertook to blast the enemy out of these positions and planned a coordinated B-25 and P-40 attack in what was known as the "Cutthroat Operation." For three days, 18 to 20 January, B-25's from Nadzab and Port Moresby plastered the ridge itself, near-by stores, and ground installations with 500-pound bombs. P-40's then struck on 21 January, and on the following day returned again. Just before the infantry advanced, the artillery opened up on the same positions. By 23 January, the Australians were in possession of the strongest enemy positions in the Shaggy Ridge area.¹³⁰

While the light and medium bomber squadrons were exerting every effort to clear the path of advance for the ground forces, other medium and heavy units were increasing their assaults on the principal Japanese bases in New Guinea, from Madang to Hollandia. Madang and Alexishafen as the natural havens for defeated Japanese fleeing from the Saidor area, Hansa Bay as a communications and supply center, and Wewak as the home of the Japanese Army Air Force in New Guinea were logical points of attack for Allied bombers. Alexishafen and Madang received the heaviest tonnage of bombs. During January a total of 308 B-24, 107 B-25, and 9 B-26 sorties were carried out against Alexishafen and Madang, in which more than 1,100 tons of bombs were dropped.¹³¹ By 13 January, Allied intelligence had decided that Alexishafen had been abandoned as an important supply and distribution center, and it was attacked for the last time in the month on that date. From then until the end of January, attention was turned toward Hansa Bay and Wewak, with 525 tons of bombs dropped in the course of 130 B-24 and 121 B-25 sorties against Hansa Bay and 350 tons in three strikes employing 127 B-24's against Wewak.¹³² As Allied air efforts progressively increased, Japanese reaction progressively declined.

The conquest of Saidor, together with the Australian advance in the upper Ramu River valley, brought to an end the Allied campaign for possession of the Huon Peninsula. Japanese troops cut off by the Saidor landing did their best to withdraw to Madang. But at the mercy of jungle disease—not to mention Allied air attacks—and with their supply lines severed, few more than half of them made good their escape.¹³³ The consolidation of the advanced base area thus achieved would count for much in the ensuing operations of 1944.

The Reduction of Rabaul

Meanwhile, Admiral Halsey's South Pacific air forces had launched a sustained effort to knock Rabaul out of the war. There had been

some delay in completing necessary facilities on Bougainville, but Maj. Gen. Ralph J. Mitchell, USMC, who in November had succeeded the AAF's General Twining as COMAIRSOLS, managed on 17 December to send up to Rabaul a fighter sweep of seventy-six planes under the lead of Maj. Gregory Boyington, ex-AVG pilot and now commanding officer of Marine Fighter Squadron 214. The sweep failed in its purpose to entice the full defending force into the air for a fight. Claims showed only seven planes shot down against a loss of three, and the experience argued for use of a smaller number of aircraft thereafter in the interest of more effective control.¹³⁴ Nevertheless, a beginning had been made.

Because of the weather, a heavy bomber mission scheduled for 18 December was diverted to Bougainville targets. The weather interfered again on the 19th, when only six of forty-one B-24's dispatched were successful in bombing Rabaul. P-38's and RNZAF P-40's provided the cover. On 23 December, the Liberators returned to drop 1,000-pound bombs on Lakunai and Vunakanau airfields, and the bombers were followed by a fighter sweep which caught the enemy defenders in the air with resulting claims of thirty shot down. Twenty-four B-24's hit Vunakanau on the next day, while six Liberators bombed Lakunai. Escorting P-38's claimed eight interceptors. On Christmas Day, when carrier planes attacked Kavieng, only five Liberators got through to Lakunai and two P-38's were lost while warding off interception. The next strike, on 30 December, met tough opposition. Ten B-24's hitting Tobera airdrome were opposed by approximately fifty-five experienced and eager fighters. Eleven Liberators whose target was the town of Rabaul had a running fight with an estimated forty to sixty fighters. As the month closed, the record showed a total of 617 sorties, 197 tons of bombs dropped, and claims of 113 enemy planes against the loss of 19 aircraft.¹³⁵

The burden of these early bombing attacks had been carried by the 5th and 307th Bombardment Groups of the Thirteenth Air Force. Seven Marine F4U, two Navy F4U, three Navy F6F, and four RNZAF P-40 squadrons supplied the bulk of the fighter effort, with help from the AAF's P-38's. The P-38's usually flew "high" cover; the New Zealand P-40's were favorites with the bomber crews for "close" cover. Formations mixed types and services in a pattern long familiar in the South Pacific.

During January the development of advanced bases made it possible to bring forward new strength for the continuing assault on Rabaul.

On 1 January 1944, fifteen B-24's out of a scheduled twenty-one from the 307th Group reached Lakunai with an escort of forty-eight F6F's and twenty-five P-38's. They were met by heavy and accurate anti-aircraft fire, and some eighty to ninety fighters attempted interception. One B-24 crashed after dropping out of formation, and two others were so badly damaged that they crash-landed at Torokina. But the bombers alone claimed twenty of the enemy, and reported good patterns on the target with their 20-pound frag clusters.¹⁸⁶ Small fighter missions swept over Rabaul on 2 and 3 January.¹⁸⁷ The RAAF, continuing its operations from Kiriwina, on the night of 2 January put thirty-nine Beauforts over the airdrome and followed this with a twenty-one plane attack on the night of 4 January. During the preceding day, SOPAC fighters after failing to rendezvous with B-24's of the 307th Group went on to Rabaul for a sweep resulting in claims of ten planes destroyed. The Piva strips at Torokina could be used for staging purposes by 5 January, and 150 SBD's (dive bombers) and TBF's (torpedo bombers) were flown up from Munda in preparation for a big strike against shipping and anti-aircraft defenses in Simpson Harbor, but the weather proved unfavorable. Navy and Marine bombers were over the Rabaul area on the 7th, but they found their targets weathered over and, as a result of faulty briefing, they failed to hit other targets which were open. Consequently, the new bombing weight was not felt by the enemy until the 9th. Three days later, the B-25's of the 42d Bombardment Group (M) staged their first mission through Treasury from their base in the Russells to add the weight of the AAF's medium bombers.¹⁸⁸

Thirteenth Air Force fighters had performed an outstanding mission on 6 January. Sixteen P-38's of the 44th Fighter Squadron rendezvoused with thirty-two F4U's and twenty-six F6F's for a fighter sweep over Rabaul. Because of the poor weather which developed, all of the F6F's and all but eight Corsairs turned back, but the other planes reached the target, where they were intercepted by an estimated thirty to forty Zekes and Hamps. In a running fight that ranged back and forth over Cape Gazelle, nine Japanese fighters were shot down with the loss of two of the P-38's.¹⁸⁹ At the suggestion of General Harmon, it was decided that the heavies should be used principally on night missions, and on the night of 10/11 January the 5th Group put twenty of its bombers over Lakunai with 500-pounders and frag clusters. During the next two weeks, the heavies flew eleven night missions which varied

in size from six-plane harassing attacks to the full-scale attack by thirty-three B-24's and six B-25's on the night of 22/23 January. Bad weather frequently interfered, but a total of 115 Liberators reached targets in the Rabaul area and unloaded their 500-pound bombs, frag clusters, and incendiaries. In these night missions, the planes usually made individual bomb runs spaced at ten-minute intervals.¹⁴⁰

The B-25's of the 42d Group having flown their first mission against Rabaul on 12 January returned to targets in that area on eleven additional days before the month was out. In these missions, the number of planes varied from six to thirty-four, and the targets were chiefly airdromes. After 11 January, the SBD's and TBF's gave their primary attention to shipping targets in Simpson Harbor.¹⁴¹ Fighters from all services continued to fly on escort duty and on independent sweeps designed to beat down defending forces. It was arduous work and at times it was costly. Antiaircraft fire was heavy and accurate; the interception was frequently sharp. But the combined effort sent against Rabaul kept a steady pressure on the dwindling resources of the enemy's 11th Air Fleet, to the advantage, among others, of the U.S. Marines as they moved into the Marshall Islands. At the end of January, the heavy bombers had flown during the month a total of 263 sorties against Rabaul, the Mitchells 180, the SBD's 368, and the TBF's 227. Eight B-24's, fourteen B-25's, eight SBD's, and five TBF's had been lost to enemy antiaircraft and fighters. Approximately 1,850 fighter sorties had been chalked up with the loss of seventeen P-38's, thirty-seven F4U's, five F6F's, and six P-40's.¹⁴²

As the attack continued unabated through the first nineteen days of February, the B-24's flew 256 sorties, the B-25's 263, the TBF's 244, and the SBD's 573. Fighter sorties fell off to 1,579 as the enemy's defenses weakened. Shipping targets became rare in Simpson Harbor, and the SBD's and TBF's turned their attention to antiaircraft positions. AAF heavies and mediums continued to devote their attention chiefly to air installations, for airdrome maintenance crews kept the runways under constant repair and enemy interception, though weakening, remained a factor that could not be ignored.¹⁴³ A standard schedule of morning, afternoon, and night missions gave Rabaul's defenders little respite, except when the weather interfered. The tempo of the attack was stepped up during the week preceding 15 February, when South Pacific forces landed virtually without interference on Nissan in the Green Islands, which is only a little more than 100 miles from Rabaul.¹⁴⁴ The

last enemy interception of any significant size occurred on 19 February, the date subsequently selected by the South Pacific command to mark its victory in the air battle of Rabaul.

The air assault on Rabaul actually continued for weeks thereafter, but there was justification enough in the selection of 19 February as the day of victory. After U.S. Navy carriers had struck two hard blows at Truk on 16 and 17 February, all but a few of the remaining planes at Rabaul were called back to Truk and the 11th Air Fleet for practical purposes had come to its end. Japanese commanders at Rabaul hoarded the handful of planes left to them for necessary reconnaissance and courier service. Construction had been begun in November 1943 on underground facilities into which the Japanese started moving their stocks and supplies in January. The task had been virtually completed before intensive attacks were directed against the town and other storage areas in March.¹⁴⁵ Indeed, had General Mitchell shifted the priority of targets from the airfields to the town at an earlier date, the change apparently would have added greatly to the enemy's embarrassment.¹⁴⁶

Free now of the necessity for guarding against interception, the fighters gave their attention more fully to the destruction of ground targets. The P-38's drew their first dive-bomber assignment over Rabaul on 23 February. By 17 March, it was estimated that 67 per cent of the 1,400 buildings in the town had been destroyed; by 20 April, all but some 120 had been flattened or burned. The completion of an airstrip on recently occupied Nissan made it possible even for the short-legged P-39's to get into the show. Their first mission against Rabaul was flown on 8 March. After March the B-24's turned their attention to new and more distant targets. Already, ground units had moved onto Emirau Island, above Kavieng, on 20 March in accordance with plans that did not even call for the maintenance of a fighter patrol to cover the beginning of base construction there. The reconnaissance patrol of the snooper B-24 868th Squadron was considered sufficient protection, and it was.¹⁴⁷ With May, patrol and reconnaissance missions became the regular assignment for the Rabaul area.

A long-feared center of enemy power had been effectively neutralized by air attack and then by-passed. The long and bitter struggle which had its beginning at Guadalcanal had reached its end. Appropriately, the final victory was shared by the Marines, the Navy, the AAF, the New Zealanders, and the Australians.

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Kavieng had been a responsibility of SWPA, but until February 1944 the weight of air attacks against that base had been limited. With Finschhafen as a base for fighter escorts and Cape Gloucester airfield for emergency landings of battle-damaged planes, Kenney now told Whitehead to concentrate the Fifth Air Force's efforts against Kavieng until 15 February.¹⁴⁸ Whitehead's attacks would cover the right flank of the Admiralties operation and support both Halsey's landing on Nissan Island on the 15th and CENPAC's carrier raid against Truk on the 16th and 17th. The first mission was set up for 5 February, but a weather front diverted the planes to their secondary target, Hoskins airdrome on New Britain. On 11 February forty-eight B-24's of the 43d and 90th Groups escorted by P-38's reached Kavieng to catch planes warming up on the apron; 170 tons of bombs were dropped on the airdrome and revetment area.¹⁴⁹ The same groups followed up on 13 February when thirty-five B-24's escorted by thirty-two P-38's left Kavieng runway unserviceable. Next day the Kavieng drome was hit again, but the main effort of the forty-three Liberators attacking was put on Panapai, the other airfield on the tip of New Ireland.¹⁵⁰

On 15 February, as Halsey's forces were landing on Nissan Island, the Fifth struck Kavieng in a well-executed mission. Seventeen of the heavies were diverted to Talasea, the secondary target, and nineteen hit Panapai. Four squadrons of A-20's from the 3d Bombardment Group attacked shipping in the harbor and the floatplane base and main wharf on Nusa Island. Seven squadrons of B-25's from the 38th and 345th Groups bombed Kavieng town and stores along the harbor front. No interceptors rose to test the escort of sixty-one P-38's but the accurate antiaircraft batteries around Kavieng Harbor shot down eight of the low-level strafers. In one of the "most striking rescues of the war," a Navy Catalina picked up fifteen crew members, making five separate landings and take-offs under Japanese fire. The Dumbo, piloted by Lieutenant Gordon and covered by four P-47's, landed twice to pick up nine men while Maj. Chester A. Coltharp and Capt. Anthony N. Chiappe of the 345th Group strafed the Japanese gun positions to keep the fire down. The PBY was headed home when Coltharp spotted first one man down and then two rafts; he called the Dumbo back. Despite heavy seas and a damaged plane, Lieutenant Gordon made three more landings and finally returned home with the fifteen men. Coltharp and Chiappe, low on gasoline, barely made Cape Gloucester.¹⁵¹

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The appearance of low-level strafing and skip-bombing artists at Kavieng was apparently enough of a warning for the Japanese. There was a sudden flurry of shipping activity. A fourteen-ship convoy off New Hanover was first worked over by ten Navy Catalinas, then by the Mitchells on 16 February. Other convoys of five to seven ships were sighted clearing Rabaul and Kavieng. Mitchells were back to hit the ships on the 17th and again on the 19th, assisted on the latter day by A-20's of the 3d Group. The Liberators, which had pounded Kavieng and Panapai on the 16th and 17th, joined in the antishipping strikes on 20 February; they claimed two ships sunk. The final attack came on 21 February, when the 345th and 38th Groups sent out their B-25's. Weather turned back all planes but those of the 500th and 501st Squadrons. Their sixteen Mitchells found a convoy of five ships and sank two, the *Kakai Maru* and *Kowa Maru*. These were the last large ships to clear Rabaul Harbor; significantly, they had been evacuating ground personnel of the air units which had flown to Truk. Destroyers from SOPAC came in to hunt down those ships still afloat, and the Fifth turned to concentrate on the Admiralties.

On 6 March the areas of responsibility were redrawn and Kavieng was assigned to SOPAC. Shortly thereafter, on the 12th, the JCS decided that Kavieng, like Rabaul, would be isolated rather than occupied.* When Halsey went into Emirau on 20 March the New Ireland base was indeed effectively encircled. But already, in the attacks of 13 to 21 February, Kavieng had been flattened and the Japanese had lost thirteen ships totaling 16,465 tons.¹⁵²

* See below, p. 573.

SECTION III

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THE NORTH PACIFIC

CHAPTER 11

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THE ALEUTIANS CAMPAIGN

ON 3 JUNE 1942 planes from the Japanese carriers *Ryujo* and *Junyo* bombed Dutch Harbor; after a two-day attack the 2d Mobile Force, which they spearheaded, withdrew. Thus, six months after Pearl Harbor, war had come to the North Pacific, and in the same guise. Yet here the element of surprise had been lacking; forewarned, the Eleventh Air Force and Navy air units had struck back. Damage to U.S. installations had been slight, casualties few.*

But Army and Navy air forces had not foiled a full-scale invasion of Alaska as was once popularly believed. It is now known that the enemy's thrust in the North Pacific was subsidiary to his main stab at Midway; his occupation troops, never destined for Dutch Harbor, were set down at Kiska and Attu to forestall any American advance across the Aleutians. Forces involved on either side were small; air combat activities were severely hampered by weather; the objective of both the Japanese and the Americans was essentially defensive; and the crucial area was the Aleutian chain, not mainland Alaska. In all these respects the action of 3-4 June set a pattern for war in the North Pacific which was to remain pretty constant until V-J Day.

Northern apex of the Panama-Hawaii-Alaska defense triangle, Alaska had been strengthened only as war grew imminent, and when the Japanese attacked Pearl Harbor, forces and installations on the peninsula were inadequate even by existing standards.† Since the days of Billy Mitchell airmen had been especially interested in the area, and eventually the War Department had come to believe that the most serious threat to Alaska was from the air and that its defense required

* For an account of the attack, see Vol. I, 462-69.

† On preparations for defense of Alaska, see Vol. I, 166-70, 272-77, 303-9.

numerous air bases, properly defended, and an effective air striking force. This change in concept enhanced the strategic significance of the Aleutians. With the advent of war the prospect of a carrier raid came to be regarded as highly probable and Japanese seizure of a base area as possible; such strengthening of defenses as was then feasible was effected, both in new base construction and in deployment of combat units. Though chances of attack seemed great, the strategic risks seemed less grave than in other areas and in the fierce competition for the limited forces and supplies then available, Alaska suffered from a low priority. Even when reinforced by units hastily dispatched in late May after Japanese plans for the Dutch Harbor attack became known through U.S. familiarity with enemy codes, the Eleventh Air Force was still woefully weak.

Its striking force included: one heavy bomber squadron (36th); two medium bombardment squadrons (73d, 77th); three fighter squadrons (11th, 18th, 54th); and one transport squadron (42d). The bomber squadrons were organized into the 28th Composite Group. In anticipation of the strike at Dutch Harbor, these units had been disposed for the most part in that area at bases hastily prepared and barely usable. There were also in the theater U.S. Navy and Royal Canadian Air Force planes.*

These AAF units operated at the end of a complicated chain of command. The Eleventh Air Force (Brig. Gen. William O. Butler) was assigned to the Alaska Defense Command (Maj. Gen. Simon B. Buckner, Jr.), which in turn was under the Western Defense Command (Lt. Gen. John L. De Witt), designated a theater of operations at declaration of war. Because of the Navy's special defense mission, Admiral Nimitz in the emergency of late May had placed all Army, Navy, and Canadian forces in the Alaska theater under Rear Adm. Robert A. Theobald, and it was under his over-all strategic command that the Eleventh was to operate during the succeeding months.†

Alaska was like other Pacific theaters in that its role in mid-1942 was strictly defensive; unlike other areas, it was so to remain. Seldom questioned seriously among the Joint Chiefs of Staff, this concept was not always appreciated by the armchair strategists. The Aleutians, jutting out like a dagger aimed at the heart of the Japanese Empire, seemed to provide convenient steppingstones along a ready-made "short-cut to Tokyo." But an all-out invasion—or even a sustained air attack—along

* See Vol. I, 307, 464-65.

† See Vol. I, 307, 464.

this route in either direction would have involved difficulties incommensurate with the strategic gains. Military operations, inevitably conditioned by geographical factors, had to be conceived in terms of distance, terrain, and weather. For the airman, repeat weather.

Distances within the theater were of continental dimensions. Alaska itself contained some 586,000 square miles and had 25,000 miles of coast line to be defended. Its important bases lay hundreds of miles from industrial cities in the States—sources of supply or targets, depending on the point of view. Air bases were widely scattered. From the Eleventh's headquarters at Anchorage to the advanced base on Umnak it was over 800 miles, and the Aleutian chain stretched far to the west—its tip some 2,400 miles from southeastern Alaska; Attu was closer to Tokyo than to Ketchikan.

The terrain of much of continental Alaska was rugged, with mountain ranges separating inhabited regions and rendering large-scale troop movements impracticable. The Aleutians, where most of the fighting was to occur, were rocky islands of volcanic origin whose few level areas were covered with a thick layer of tundra or muskeg, incapable of supporting a runway.

This sprawling and inhospitable area was not self-supporting. Even before the war its sparse population of 70,000 imported roughly 90 per cent of what it consumed, and now practically all supplies for its rapidly expanding installations and 150,000 troops had to be brought from the States. Transportation facilities were inadequate. Ports on the southeast coast were suitable, but those in Bering Sea were icebound from October to April; the Aleutians offered few good harbors.¹ In 1940, Alaska had only 652 miles of railroads and about 11,000 miles of roads and permanent trails. Distance, isolation, and terrain had long since given the airplane a prominent role in this frontier transportation system, and war needs had accentuated the importance of air transport. But air transport—like air warfare—was hampered by distance, terrain, and weather.

During the war each theater tended to think its weather the world's worst, but certainly none had a more just claim to that dubious honor than Alaska. There is of course a considerable variety within the area. The mainland coast of the Gulf of Alaska has weather comparable to that of the Middle Atlantic States, though foggier; even as far north as Anchorage, winter temperatures colder than 10° below zero are rare.² The Fairbanks area, inland, suffers from hot summers and extremely

sive. And so war in that theater, after beginning dramatically at Dutch Harbor, tapered off into anticlimax. Planes and military reputations could be lost in the fog; honors and promotions were hard to find. But however hard it may have been to persuade combat crews or ground crews that their part of the war was important, it was a job that had to be done and they did it with such grace as they could.

Dutch Harbor to Amchitka

After the attacks of 3-4 June, the Japanese force retired to a position some 600 miles south of Kiska, cruising about for some ten days or so to intercept any U.S. carriers which might come up from Midway to contest the Japanese landings on Kiska and Attu. U.S. patrols sought in vain for the fleet, but the landings could not be easily hidden; shipping in Kiska harbor offered a profitable target for Eleventh Air Force planes.

On the night of 10 June, pilots of five B-24's were briefed at Cold Bay. Taking off early next morning, they bombed up at Umnak and headed for Kiska. There the leading B-24, piloted by Capt. Jack F. Todd, was hit by AA fire and exploded. The four other heavies bombed from 18,000 feet but were unable to observe results.⁶ Later in the day, Col. William O. Eareckson took five B-17's over the harbor in a high-altitude attack. Crews "believed" they had hit two cruisers and a destroyer.

Next day the heavies were over again, this time claiming two direct hits on a cruiser and a near miss on a large destroyer. Claims could not be authenticated with any assurance. Now and throughout the Aleutian campaign much of the bombing was through holes in the overcast, and in the seconds between "bombs away" and impact the cloud pattern might change to blot out or obscure the target. In attacks on the 13th and 14th, results were again indeterminable.

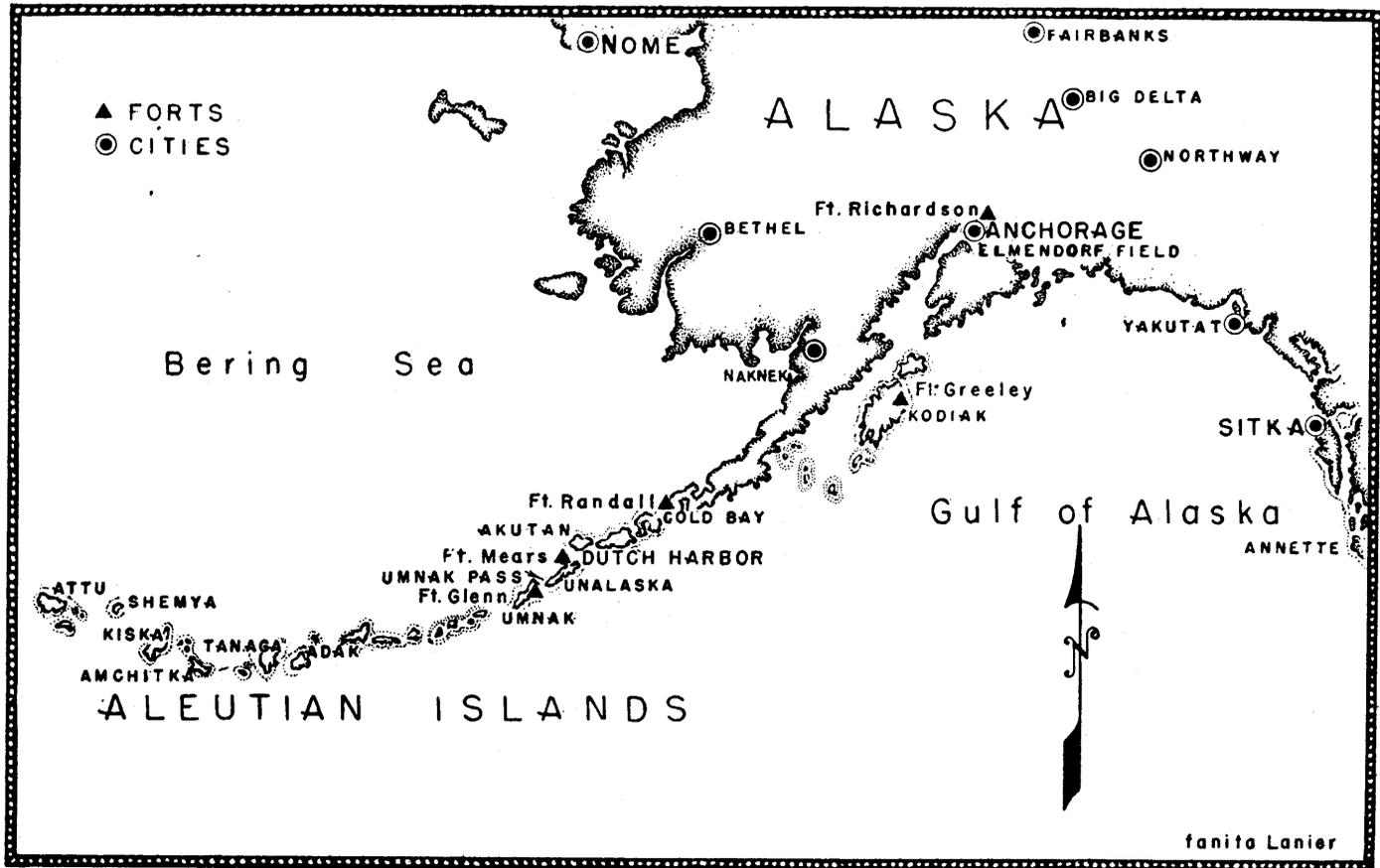
By this time the pattern of long-range attacks on the enemy had begun to emerge. At early morning a B-17 would go out on a weather mission, reporting current conditions at half-hour intervals. If weather at target and base was favorable, the handful of heavies at Umnak would take off for an attack. More frequently, the daily report would read "Mission canceled due to weather." Between 11 and 30 June only six successful missions were run. Three times the heavies sortied but had to turn back short of the target. Once, trying desperately to best foul weather, a flight of three planes bombed through overcast after

cold winters. Along the Bering Sea coast, where the Eleventh's planes had to fly constant patrols, icy gales and very low temperatures are encountered during much of the year.

In the Aleutians, the weather is characterized by persistent overcast conditions.³ Pilots found forecasts of limited value since weather is extremely local and exhibits varying conditions within a small area. Occasional breaks in the overcast occur in spots, but clear weather over large areas is most rare. Attu may enjoy in a whole year no more than eight or ten clear days. Gusty winds blowing across from the great Siberian land mass accentuate difficulties in air navigation caused by fog. The irregular topography of the Aleutians aggravates the unsteadiness of the winds. A special hazard of the region is the "williwaw," a wind of hurricane velocity which sweeps down from the naked hills along the north fringe of the islands. Though high winds and fog are an unusual combination elsewhere, they frequently persist together for days in the Aleutians. And always—wind or no wind—there is fog, mist, and overcast to plague pilot, navigator, and bombardier alike.

Such weather discouraged naval operations—General Buckner had written earlier that "the naval officer had an instinctive dread of Alaskan waters, feeling that they were a jumping-off place between Scylla and Charybdis and inhabited by a ferocious monster that was forever breathing fogs and coughing up 'williwaws' that would blow the unfortunate mariner into uncharted rocks and forever destroy his chances of becoming an admiral."⁴ But the same weather also imposed strict limitations upon air warfare, for Japanese as well as for Americans. Perhaps the enemy enjoyed a certain advantage in that North Pacific weather generally moved from west to east, though it is doubtful that the Japanese—as was once believed—could follow a weather front in from the Kurils.⁵

Perhaps it was the weather, in the last analysis, that relegated the Alaska-Aleutians area to the place of a relatively inactive theater. As it was, no strategic offensive was attempted by either side. That was not wholly for lack of an objective; either side might have found some objective (though probably not of first rank) had sustained air operations been possible. But whereas the advance of the Japanese and the counterthrust of the Americans along the Aleutians bore some superficial resemblance to those in the South and Southwest Pacific—it was in each case island-hopping to secure ever more-advanced air bases—the tempo of air operations in the North Pacific was slow and indeci-



making a time-distance run from Kiska volcano.⁷ Over Kiska harbor the bombers usually found the flak uncomfortably intense, with shore batteries reinforced by guns on ships. The vessels were sometimes moored close together to gain maximum firepower and their gunners usually aimed at breaks in the overcast through which bombing was done.

The tactics employed by the heavies bore little resemblance to doctrines of precision bombardment upon which crews had been nourished, nor were operational conditions reminiscent of training command days. For the 1,200-mile round trip between Umnak and Kiska, B-17's and B-24's had to carry bomb-bay tanks, and bomb loads were thus reduced to 3,500 pounds. Air bases at both Umnak and Cold Bay were unsatisfactory. Umnak had a strip only 150 feet wide and scant parking space; B-17's used the runway like a carrier deck, each plane landing and taxiing back to park with wheels on the strip's edge so that another bomber might follow in. Cold Bay had a wider strip but little room for dispersion.⁸ Such conditions might be tolerated since there were hopes that they would be remedied; the weather showed little sign of improvement.

Charged in Admiral Theobald's directive to inflict "strong attrition" upon the enemy at every favorable opportunity, the Eleventh found few such occasions. During July, bombing missions were dispatched on fifteen days. Seven times the planes were turned back by solid overcast. On one of the eight "successful" missions hits or near misses were claimed on an enemy transport and destroyer, but in no other case could the results of the attack be seen.⁹ Postwar interviews with Japanese officers indicate that U.S. bombing interfered somewhat with base development at Kiska and sank at least one transport in June.¹⁰ Early in the campaign, however, it became obvious that Japanese installations at Kiska and Attu could not be neutralized by long-range bombardment as currently conducted. Finally Admiral Theobald ordered the Eleventh to discontinue bombing through overcast, asserting that "calculation bombing" hardly repaid bomb expenditure.¹¹

While striking ineffectively at Kiska, the Eleventh had run reconnaissance and patrol missions. Photographic missions were flown over the Japanese-held islands and those lying between Kiska and Umnak in search of enemy activities.¹² Heavy bombers at Nome and Naknek patrolled the long stretches of Bering Sea coast. Entailing overwater flights of eight to ten hours in persistently bad weather, these patrols

taxed the endurance of pilots and crews.¹³ Along the Aleutian chain, P-38's of the 54th Fighter Squadron flew patrols from Umnak. Though long and tedious, these searches were not always uneventful. In summer the Japanese patrolled eastward out of Kiska in Kawa 97's—four-engine flying boats. On 4 August two of these were shot down over Atka.¹⁴ But in general it was war against nature, not against a rival air force.

When air attacks failed to shake the enemy's hold in the western Aleutians, Admiral Theobald decided to try naval bombardment. Kiska was to be shelled on 22 July, with the Eleventh Air Force providing daily reconnaissance from B minus 4, harassment of the Kiska area during the attack, and air coverage for the fleet during withdrawal.¹⁵ Forced back by fog on the 22d, the surface task group tried again on the 27th and the 28th, only to meet the same weather obstacle. The group then retired for refueling. It approached Kiska a fourth time on 7 August and in spite of fog maneuvered into position with the aid of radar and a spotting plane. The ensuing bombardment lasted half an hour. It was strictly Navy day; weather kept the Eleventh out of the show. Damage reports were indecisive, and Rear Adm. William W. Smith, task group commander, concluded that results from naval guns hardly justified the risk to big ships (there had been two collisions during earlier sorties) and that with good visibility a squadron of bombers might do more damage.¹⁶

Good visibility, however, was not to be had and the failure of both aerial and surface bombardment gave more point to a view currently held in the theater—that the Japanese should be ejected from the Aleutians by a joint operation. As early as 14 June, General De Witt had requested the War Department to set up a joint expeditionary force for that purpose. Stressing the danger of permitting the enemy to consolidate his holdings, he had repeatedly urged that the Eleventh Air Force be augmented.¹⁷ For any major operation, such augmentation must be along generous lines.

Already the War Department had done what it could, reasonably, to reinforce the Eleventh. Soon after the Dutch Harbor attack the 406th Bombardment Squadron (M) had flown its B-25's into Elmendorf. On 1 July the Provisional XI Bomber Command, comprising the 28th Composite Group and its assigned squadrons, was activated with Colonel Eareckson in command. A week later the 404th Bombardment Squadron (H) arrived. Its B-24's, originally designated for Africa and

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daubed with desert camouflage ("Pink Elephants"), were sent to Nome for the Bering Sea patrol.¹⁸ The 54th Fighter Squadron, sent up for temporary duty in the emergency of May, was attached to XI Fighter Command, which had been established on 15 March.

The new tactical units were supported by an increased flow of supplies, equipment, and service personnel. In both June and July, AAF technical supplies delivered practically doubled the previous month's receipts. Additional transport aircraft arrived. Six radar sets, with appropriate personnel, were added to the ten originally planned—this in an effort to correct deficiencies in the warning system glaringly demonstrated at Dutch Harbor. General air force personnel were earmarked for Alaska in increasing numbers.¹⁹ The sum of these reinforcements was far from satisfactory. With only a handful of combat units to operate, the Eleventh was nevertheless short on assigned aircraft and crews, service units, experienced officers, and technical supplies. Such shortages, of course, existed in other theaters and would continue everywhere until production and training schedules reached peak loads. Some of the logistical difficulties in Alaska could be mitigated by a more efficient organization.

Intratheater distances and poor transportation handicapped distribution of supplies to and within the Eleventh Air Force. Plans had to be formulated and supplies and personnel delivered months ahead of actual use. On 20 March 1942, General Butler had recommended creation of a base service command to provide central control for the administration of the half-dozen bases scattered from Annette, in southeastern Alaska, to Umnak. The Japanese attack in June had highlighted the need of a unified logistical control. Informed of the impending attack, Butler had been able to satisfy his emergency requirements only by turning to a variety of agencies—the Alaska Air Base, G-4 of Alaska Defense Command, A-4 of the Eleventh Air Force, and the weather officer. Pending War Department approval of his request of 20 March, Butler on 21 June set up a provisional service command.²⁰

His logistical needs were recognized in Washington. The Chief of Air Staff wrote on 3 July that "our units in Alaska are perilously close to failure in combat due to the inadequacy of senior personnel in Air Service activities," and directed the immediate transfer to Alaska of Col. Robert V. Ignico to head up the "Alaska Air Service Command."²¹ On the 18th, Colonel Ignico arrived in Alaska and set out at once on a personal inspection of key bases at Cold Bay and Umnak.

Activation of the XI Air Service Command, announced on 8 August, gave promise of a more efficient use of means at General Butler's disposal.²²

The organizational changes and the small reinforcements of June and July could not make an effective offensive force of the Eleventh. Nor was it likely that its strength would be greatly increased soon: Rommel was threatening Alexandria; Roosevelt wanted an autumn offensive against Germany, whether in Normandy or North Africa; the Japanese had to be stopped in the Solomons and New Guinea—and in each area air units would be needed more desperately than in Alaska. For the Combined Chiefs of Staff, the North Pacific was strictly a defensive theater; General Arnold, fervent supporter of the principle of concentration of power in decisive theaters of action, was looking toward Europe. On 30 June 1942, Operations Division of the War Department committed to Alaska for the period to 1 April 1943 the following Army air strength: two heavy bombardment squadrons (24 aircraft) and two medium squadrons (32 aircraft); one fighter group (100 aircraft); one observation flight (4 aircraft); and one transport squadron (13 aircraft). On 24 July, Arnold expressed strong distaste for any increase in this allotment. "Due to the great distances involved, the continuously bad flying weather, and the fact that approach must be made by sea," he wrote, "Alaska is a primary theater for surface naval craft, supported when weather permits, by long range bombers." Any additions to OPD's commitments "would be wasteful diversion from other theaters which are air theaters."²³

If these sentiments seem not wholly consistent with earlier views as to the defense of Alaska, they were reasonable enough in view of combat experience at and since Dutch Harbor. The nub of Arnold's argument lay not in air failures in Alaska; rather he was anxious to prevent further dispersal of air strength, now threatened by the imminent TORCH operation and by the Navy's effort to divert fifteen combat groups to the Pacific. Alaska he singled out as a typical example of wasteful diversion to a theater where no decisive action could be expected. "Here," he said on 21 August, "the total number of aircraft the Japanese had at any time was probably less than 100. Further due to the weather and few landing fields Alaska can in no sense be classed as an air theater. In spite of these things, today we have over 215 aircraft in that theater, being contained by less than 50 Japanese aircraft."²⁴

In view of these strategic and logistical considerations it was not sur-

prising that the War Department was unwilling to accept General De Witt's suggestion of 14 June for a joint expedition against the western Aleutians. In fact, Brig. Gen. Laurence S. Kuter, the air planner, had on 5 July recommended that the Joint Chiefs apprise De Witt of their strategic plans for the North Pacific. As an aggressive commander De Witt properly wished to carry the war to the enemy, but with the North Pacific rated a defensive theater, attrition was all that could be expected, and attrition must be inflicted within normal replacement rates.²⁵

Modifying his original request, De Witt on 16 July suggested as the best alternative the establishment of an airfield and garrison on Tanaga Island.²⁶ On the 25th the Joint Chiefs directed him to investigate the relative merits of Tanaga and Adak Islands as air-base sites.²⁷ Army and Navy judgments differed here. De Witt had named Tanaga on the assumption that an airfield could be developed more rapidly there—in three or four weeks as against as many months for Adak. The Navy favored Adak because of the superior harbor facilities offered by Kuluk Bay.²⁸ No agreement was reached for several days, but on 21 August General Marshall advised the Army to accept Adak. Next day a formal directive fixed 30 August as D-day for assaulting that island.²⁹

The occupation of Adak was unopposed—as indeed were all such operations in the Aleutians by either contestant save when the Americans took Attu in May 1943. But in August 1942 U.S. intelligence of the enemy's order of battle in the Aleutians was spotty; whether he had garrisoned Adak, Seguam, Atka, Amchitka, and the Pribilofs was unknown. On D minus 2, Col. William P. Castner took ashore at Adak a reconnaissance party of two officers and thirty-five enlisted men.³⁰ They found no Japanese; FIREPLACE, as the island had been coded, was not even warm.

Plans had called for a maximum concentration of P-38's and heavy bombers at Umnak by D minus 5. They were supposed to attack shipping and shore installations at Kiska and to provide daylight defensive coverage for landing parties.³¹ Aleutian weather vetoed these plans. From D-day through D plus 2 a terrific storm kept the Eleventh's heavies pinned down—and, fortunately, Japanese planes as well. Sailing from Cold Bay, the first assault wave went ashore according to schedule on 30 August. Next day a motley collection of craft—tugs, a yacht, barges, and fishing scows—put in at Kuluk Bay.³² Aboard were units of the 807th Engineer Aviation Battalion and their construction equip-

ment. Debarking, the engineers immediately set to work on an airstrip, prime purpose of the invasion.

The island had never been properly surveyed or mapped; apparently the best source of information was a sourdough trapper familiar with local terrain and weather. With the time factor paramount, improvisation played an important part in the operation. After hurried surveys, the engineers adopted an ingenious but practical scheme for siting a fighter strip in a tidal basin in the lower valley of Sweeper Creek. By dint of tremendous effort during the next ten days, they diverted the course of the creek and installed a drainage system, thus eliminating both tide and creek water. The creek bed itself was leveled off, and on 10 September, Colonel Eareckson landed a B-18 on the tidal flats.³³ When steel mat was laid, the Eleventh had an advanced base within 250 miles of the enemy at Kiska bay.

During construction of the Adak strip, B-26's, P-38's, and P-40's gave a continuous air coverage by day. Whether from their jealous guardianship or Aleutian weather, the entire operation went off without enemy interference.³⁴

Adak offered new possibilities to the Eleventh. On 13 September, the last Umnak-to-Kiska raid was run when an LB-30 and two P-38's photographed and strafed targets on the latter island. They shot down a float-type Zero, but the LB-30 and one Lightning, damaged by AA, had to make emergency landings at Adak.³⁵ On the same day a more powerful force was assembling at the new forward base for a surprise blow at Kiska.

Tactics involved a low-level attack by both bombers and fighters. Twelve B-24's and crews, six each from the 21st and 404th Squadrons, were selected and given some training in deck-level bombing. Uncertain as to the most suitable armament, responsible officers loaded six Liberators with 1,000-pound GP bombs (eleven-second-delay tail fuzes) for attacking Kiska-harbor shipping and the other six with demolition and incendiary bombs for hitting ground installations in the main camp and submarine base.³⁶

The twelve heavies with twenty-eight fighters took off from Adak early on 14 September. Though they flew at minimum altitude to elude Japanese radar, they did not effect a complete surprise. Enemy coastal batteries opened up at a range of eight to ten miles, and returning pilots reported the harbor had been "lit up like a Christmas tree." In spite of heavy AA fire, fighters of the 42d and 54th Squadrons found good

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hunting. They strafed shore installations and batteries; P-39's from the 42d shelled three submarines with their 37-mm. cannon and fired a four-engine flying boat. Bombers obtained hits on three vessels in the harbor and apparently sank two mine sweepers. Other B-24's set large fires in the camp and submarine base areas with their bombing. Claims included four Zero float planes and one twin-engine float fighter destroyed.³⁷ U.S. combat losses were limited to two P-38's, which, hot after the same Zero, collided and fell into the water off North Head. This first mission from the new base, highly successful—and especially so by comparison with earlier futile efforts—did much to remove the sense of frustration built up in combat units since Dutch Harbor. A fighter pilot observed in his private narrative that the “morale of the 42 Fighter Squadron is now terrific.” But it was to prove difficult to repeat the success of the mission or to maintain the high morale.

For ten days after the low-level attack on Kiska, the Eleventh's planes were grounded by weather. A favorable report from a weather plane on 25 September sent out a force of nine B-24's, one B-17, and one B-24 photo plane, escorted by eleven P-39's and seventeen P-40's—including eleven Kittyhawks from the 11 Squadron, RCAF. Bombers reported hits on one transport and near misses on other vessels. A thorough strafing of Little Kiska caused fires and explosions in the camp area; claims included two Rufes destroyed and five to eight float biplanes probably destroyed in the water.³⁸

Mediums made their first attack since Dutch Harbor on 14 October when three B-26's attempted to torpedo a ship supposedly beached in Kiska harbor. In spite of favorable weather, no hits were registered either on this run or in a second attack on the same day.³⁹ Two days later a PBY reported position on two Japanese destroyers. Six B-26's found the ships and dropped twenty 300-pound bombs; returning crews (one B-26 was shot down) claimed direct hits on both destroyers, which were thought to have sunk.⁴⁰ No more medium missions went out in October. Fighters were weathered in and even the heavies were able to make only a few strikes at Kiska.

The increased weight of U.S. blows in September and October made it difficult for the enemy to maintain an air force on Kiska. Lacking facilities for land-based planes, he had only a few single- and twin-float planes for defense; these he found it difficult to keep at strength in the face of attacks. During the period 3 June to 31 October 1942, the Eleventh's claims included thirty-two planes shot down and thirteen

destroyed on the water.⁴¹ According to their own accounts, the Japanese also lost heavily from noncombat causes.⁴² This was likewise true of U.S. forces. During the same period, the Eleventh lost seventy-two planes, of which only nine were destroyed in combat.⁴³ Aleutian weather was the great killer, weather abetted by lack of radio and navigational aids and by lack of a familiarization program for pilots and crews entering the theater.

The Eleventh Air Force had been built around a handful of pilots experienced in Alaskan flying. In the emergency of late May this nucleus had been reinforced by hastily assembled pilots and crews who were dispatched from the States without administrative or squadron operations personnel and without sufficient equipment. They had been rushed immediately into combat with little or no chance for training under field conditions. Originally sent to Alaska on "temporary duty" which dragged on into months, combat crews of detached units began to think of themselves as forgotten men. Early enthusiasm tapered off perceptibly. A squadron commander summed up the prevalent gripes in a letter to a Fourth Air Force friend:

Since I arrived the target hasn't been visible. The weather is getting worse. The thing we can't understand is why we continue to send our men out into this god awful stuff against a target which can't be seen one tenth of the time and if hit isn't worth the gas burned up to get it. . . . I think everyone would like to have us remain in Alaska permanently. . . . God forbid. Don't let us stay up in this place.⁴⁴

The *ad hoc* arrangements for units on detached service enhanced difficulties in organization inherent in the wide dispersion of bases. The commanding officer of the 28th Composite Group was charged with tactical and technical control over detached units, but had administrative control only over units actually assigned. This meant that he lacked, among other powers, that of making promotions or changes in duty assignments; the resulting inequities hampered operations and hurt morale.⁴⁵

The complicated command setup aggravated difficulties in internal administration. Practically all combat had been in the air, yet the Eleventh was submerged beneath a tangle of commands and headquarters: the Navy's Task Force 8 (whose influence, properly for strategic control, extended in practice to tactical as well)⁴⁶ and the Army's Alaska and Western Defense Commands. Routine matters as well as policy-making decisions were bucked haltingly along the in-

volved chain of command.⁴⁷ To cite a concrete example, a recommendation that a certain bomber be sent to the States for overhaul was turned down because securing permission for this simple operation would eat up a month of valuable time. The Eleventh Air Force would have to request permission to transfer the bomber through, first, the Alaska Defense Command; second, the commander of TF 8; and third, the Western Defense Command—which, in turn, might coordinate the request with the commander of the Pacific Fleet!⁴⁸

Whatever the command situation in the Aleutians, it was evident at the end of October 1942 that such operations as were conducted in the near future would be largely by AAF units. With a crisis approaching in the Solomons, the Navy had borrowed from TF 8 two cruisers, a tender, and five Canadian ships; twelve F4F-4's had also been transferred from the North Pacific.⁴⁹ Believing that the Japanese had moved their Attu garrison to Gertrude Cove, Kiska, the Eleventh now conceived the isolation of the latter island as the primary task. This was the gist of Field Order 8 of 1 November, which directed also that daily reconnaissance of the outer Aleutians, fighter defense of key stations, and patrols in Bering Sea and the Gulf of Alaska were to continue.⁵⁰

November blew in with a terrific storm. With eighty-knot winds howling and a foot of water on the Adak strip, nothing flew.⁵¹ By 7 November a weather plane was up and over Attu, saw float-type Zeros in a creek bed—presumably washed in by the storm—and added what damage it could by strafing and bombing.⁵² Two days later four P-38's with a B-17 as guide found Holtz Bay. The Lightnings strafed eight float planes, left them burning, and went on to shoot up a small base camp. On the same day two B-26's bombed ineffectively at a freighter in Gertrude Cove; their escort of four P-38's strafed freighter and shore installations.⁵³ Then the weather closed in again and through the rest of November and most of December the Eleventh was practically immobilized. One important chance was missed on 4 December. On reports of a surface force southeast of Amchitka, the Eleventh commander was ordered to attack with every available plane. This proved to be seven B-24's, nine B-26's, and sixteen P-38's, which sortied but never sighted the convoy.⁵⁴ The enemy was busy on Kiska and was bringing small air reinforcements, but with the prevailing weather, he could not be stopped.

AAF units on Adak got back into the air on 30 December when three B-25's covered by fourteen P-38's attacked two large transports

and three submarines in Kiska harbor with undetermined results. One Mitchell was shot down, and when nine float fighters intercepted, they took two Lightnings for a loss of one enemy plane. A second attack on the same day by five heavy and nine medium bombers reported hits on shipping in the harbor.⁵⁵ On 31 December, six B-24's escorted by nine Lightnings damaged one small vessel.⁵⁶ The new year opened foul but by 5 January the fog lifted enough to allow a weather plane over Attu to spot and bomb a 6,500-ton freighter in Holtz Bay. Mediums on the same day caught a freighter making for Kiska; they claimed to have sunk it. On the 6th and 7th, bombers struck at Kiska's submarine base through scattered overcast but could not see the results. Next day weather grounded Adak planes.

The operational record of the fall and winter months showed a noticeable improvement over that for the summer, with Adak proving a valuable base, weather consenting. But the frequent groundings pointed up the need for a field within an hour's flight of Kiska, whence momentary breaks in the weather might be exploited. Amchitka, some 200 miles west of Adak and only 80 miles short of Kiska, was a logical choice. In his Op-Plan 14-42, issued late in November, Admiral Theobald listed the early capture of Kiska and Amchitka as his primary strategic objectives, with Attu, Agattu, and Tanaga occupying a secondary place.⁵⁷ Fear of enemy occupation of Amchitka, fanned by reports of Aleutian-bound Japanese convoys believed destined for the island, led the commander in chief of the Pacific Fleet (CINCPAC) to advise its early occupation.⁵⁸

On 18 December the Joint Chiefs approved the move to Amchitka if reconnaissance should indicate suitable airfield possibilities.⁵⁹ That same day a Navy PBY landed Lt. Col. Alvin E. Hebert and a small party of Army engineers on Amchitka. After a two-day survey, the engineers reported that a steel-mat fighter strip could be thrown down in two or three weeks; sites existed for a main airfield with some dispersion on which a runway 200 by 5,000 feet could be built in three or four months.⁶⁰ On the 21st the Joint Chiefs formally directed the invasion, with D-day "as near as possible to 5 January 1943."⁶¹

The air plan for the operation provided that bombardment aircraft, divided about equally between Adak and Umnak, should strike at Japanese naval forces and shipping at Kiska and at specific targets as designated by TF 8's commander (Rear Adm. Thomas C. Kinkaid replaced Theobald on 4 January), while running a daily reconnaissance

westward to Attu. From D-day, XI Fighter Command was to maintain continuous daylight coverage at Amchitka with four or more fighters.⁶²

This air plan aborted. Brig. Gen. Lloyd E. Jones landed his Army troops in Constantine Harbor on 12 January with no enemy opposition.⁶³ Engineers, the 813th Engineer Aviation Battalion and a detachment of the 896th Company, piled ashore and immediately went to work on a runway and base facilities.⁶⁴ Bad weather which had fouled up the landings by grounding Jones' ship kept air operations to a minimum—a few P-38 patrols over Amchitka and no strikes at Kiska by the heavies.

The first break proved deceptive—and disastrous. On the 18th the weather appeared to lighten. Seven heavy and five medium bombers flew out of Adak with a six-fighter escort. Before they reached the target, the fog closed in and the planes turned back. The mediums and fighters were fast enough to reach Adak before the base was completely "souped in." Four of the slower Liberators had to seek an alternate landing field; the nearest possibility was Umnak, two and a half hours east of Adak. Two B-24's disappeared in the fog and were never heard from. A third, crash-landing on Great Sitkin, was damaged beyond repair. One reached Umnak and landed by the light of flares, but overshoot the runway and crashed into two P-38's, destroying them. Six planes were lost, no bombs were dropped, and no enemy was encountered—save fog.⁶⁵

Bad luck continued. On 21 January two B-17's, out of Umnak for Adak, collided in mid-air; one disappeared, the other landed, badly hurt. A P-40, out of control, crashed into Kuluk Bay the same day. On the 23d two B-25's tangled in a fog and went down.⁶⁶

This was worse than the enemy's reaction, which began a fortnight late (24 January) with a futile attack on Amchitka by two planes. U.S. interception from Adak arrived too late. A Japanese strafing raid on the 26th cost U.S. troops three casualties. Again the enemy met no fighter opposition; Adak was closed down by weather. These raids, small-scale though they were, spurred on air-base construction on Amchitka.⁶⁷

The task was not easy. Bulldozers and graders had to hack away hills and fill gullies to level a landing ground. When the 464th Base Headquarters and Air Base Squadron arrived on 4 February to take over the field, about 500 feet of runway—plus huts and other buildings—had been completed. The squadron historian, with a flair for the man-bites-dog sort of news, recorded that it was a "beautiful, clear, sunny day,"

adding reflectively that "perhaps the thing most appreciated by the group were the P-38's flying patrols above our ship."⁶⁸ Appreciation turned out to be premature, for five enemy planes bored in for an ineffective raid soon after the patrol left.⁶⁹ But fighters covering construction operations had little to do when U.S. bombers were able to harry Kiska. On 8 February and again on the 10th, heavies and mediums from Adak, enjoying P-38 escort, bombed the main camp area, AA positions on North Head, and a fighter strip now under construction. Fighter pilots estimated that the strip, southeast of Salmon Lagoon, was about half finished; with no heavy machinery showing up on photographs, thirty days' work might be required for completion.⁷⁰ February missions seldom met fighter opposition. As an exception, five Zeros were up to intercept fifteen mediums on the 13th; three fell to the escorting Airacobras, one to a B-25.⁷¹

On 16 February, thirty-five days after the first troops had waded ashore, Amchitka's fighter strip received its first plane. Later that day seven additional P-40's and a transport landed, and the field was declared safe for limited operations.⁷² Within a week, P-40's were running reconnaissance patrols over Kiska, gathering local weather data and spotting and strafing minor installations. On 3 March the P-40's on Amchitka made their first bombing run at Kiska installations, but without observable results.⁷³ The 18th Fighter Squadron's P-40's were joined on 12 March by ten Lightnings of the 54th—more effective as fighter-bombers with their twin engines and greater bomb load.⁷⁴

Meanwhile, Adak-based bombers continued, weather permitting, to strike at Kiska's main camp, submarine base, radar positions, and gun sites. This was with negligible interruption from fighters. An attempt by the Japanese to intercept an attack on 16 March cost them two planes, and this was their last such effort until the battle for Attu in May.⁷⁵

Occupation of Amchitka, while producing no immediate spectacular results, helped make the Japanese hold on the Aleutians eventually hopeless. Systematic supply of the enemy garrisons by surface craft became hazardous, requiring a powerful task force to drive a convoy through the air and naval blockade. Just such an effort was foiled by the Navy on 26 March, and the Japanese doom was sealed.⁷⁶

Two cargo vessels with heavy escort were contacted by a smaller Navy task group on that day south of the Komandorskie Islands. After a long engagement, the enemy withdrew, leaving the *Salt Lake City*

and the DD *Bailey* wounded.⁷⁷ Enemy sources later listed shortage of ammunition and fuel and fear of air attack as reasons for their flight. On the last score, unfortunately, there was little to fear: the Eleventh Air Force, though informed of the enemy's approach, had failed to contact him.

In Washington, General Arnold wanted to know why six hours had elapsed between sighting of the Japanese fleet and the fruitless take-off of planes.⁷⁸ Maj. Gen. William O. Butler's reply disclosed a series of hapless incidents.⁷⁹ When the contact report came in, all bombers on Adak were armed with GP bombs and poised for a mission to Kiska. Air officers, the Navy command concurring, decided on a coordinated attack by heavies at medium altitude and mediums at deck level. This required that armor-piercing projectiles be substituted for GP bombs and that the mediums have bomb-bay tanks installed. Men had to be rounded up from other jobs, and bombs had to be gathered from temporary storage places where they were frozen to the ground. Four hours were spent in these tasks; then a snow storm hit, bringing zero ceiling and visibility. After nearly two hours the squall had passed and the bombers took off. They found the U.S. fleet, but the Japanese were gone, and with them a golden opportunity. The horse stolen, Butler locked the door with an order that six B-25's equipped with bomb-bay tanks and AP bombs be kept on shipping alert. That alert was to bear no fruit, but the failure of 26 March could soon be forgotten in new offensive operations.

Attu and Kiska

In the months after Dutch Harbor, Washington had curbed the offensive designs of commanders in the Alaskan theater. Projects for the recapture of Kiska and Attu had been vetoed because they would divert troops from more decisive areas; approval of the occupation of Adak and Amchitka had been contingent upon the completion of those tasks with forces locally available. By autumn 1942, however, the War Department had consented to the drafting of plans for clearing out the Aleutians—in fact, the JCS directive of 18 December which had set up the Amchitka show indicated that the island was to provide an advanced base for an assault on Kiska, and General De Witt of Western Defense Command was ordered to train a force for the operation. A joint Army-Navy planning staff had assembled in San Diego and the 7th Infantry Division was undergoing amphibious training at Fort Ord

when Roosevelt and Churchill met with their chiefs of staff at Casablanca in January to formulate Allied strategy for 1943.⁸⁰

The JCS had approached the conference intending to announce their plan of ejecting the Japanese from the Aleutians. Marshall, however, came to fear that such a declaration might be misconstrued by the British to imply large-scale operations in Alaska, to the detriment of their understanding of U.S. over-all strategy in the Pacific.⁸¹ The Joint Chiefs agreed therefore to limit their North Pacific activities to "operations to make the Aleutians as secure as may be."⁸² This phrase was included in the final report of the CCS to the President and Prime Minister.⁸³ Its connotations and rationale had already been explained by the Joint Chiefs in their paper on conduct of war in the Pacific in 1943: because offensive operations in the Aleutians had been—and would probably continue—profitless for both Japanese and Americans, such operations should not be undertaken in 1943 unless the U.S.S.R. joined in the war against Japan. By their formula, the JCS meant that the Japanese should be kept from further expansion or consolidation of holdings and that attrition against them should be continued and intensified. Meanwhile preparations should be made to aid the Russians if they entered the war.⁸⁴

In accordance with this conservative attitude, the JCS informed Admiral Kinkaid that ships required for the Kiska campaign would not be available and that preparations other than planning and training should be delayed.⁸⁵ The joint planning staff at San Diego proposed as a temporary expedient a heavy air offensive against Kiska. This was not enough for the field commanders. On 3 March, Kinkaid recommended that available forces be used to by-pass Kiska, capture Attu, and occupy the Semichi Islands. He believed that the small garrison and light fortifications of Attu could be handled by available forces and shipping; the move would isolate Kiska from Kuril bases and provide the Eleventh Air Force with an excellent airfield site on the flat-topped island Shemya.

The Joint Chiefs liked this plan, if conducted with the promised economy of forces, and on 11 March, CINCPAC informed Kinkaid that he might proceed, but only with planning and training.⁸⁶ Four days later Task Force 8 became Task Force 16 and Admiral Kinkaid, as commander of North Pacific Force, was put in charge of the projected operation. General Butler's shore-based air group was redesignated Task Group 16.1 and his field headquarters was moved from

Kodiak to Adak.⁸⁷ On the 24th, the JCS gave final approval to the Attu operation. CINCPAC and the commanding general of the Western Defense Command added details in a joint directive of 1 April. D-day was set for 7 May. The objectives were those previously outlined by Kinkaid, with a forward-looking clause that the force occupying the Near Islands (Attu and Agattu) should "create a base of operations there for possible future reduction and occupation of Kiska."⁸⁸ With Admiral Kinkaid in supreme command, Rear Adm. Francis W. Rockwell of Amphibious Force, Pacific Fleet would control landing operations and Army troops would be led by the commanding general of the 7th Division.⁸⁹ The Eleventh Air Force was charged with harrying enemy installations on Attu and conducting photographic reconnaissance.⁹⁰

During the next six weeks or so, the Eleventh reached its highest peak of operational activity. In an exceptionally good stretch of weather in April the force, with an average of 226 aircraft in commission, flew 1,175 sorties.⁹¹ Kiska was the chief target. In part this choice derived from the desire for tactical surprise and the need of preventing Attu's reinforcement from the east. But weather played its part; bombers sent to Attu frequently found the island closed in and unloaded on Kiska on their return trip, so that in April only about thirty sorties were actually against Attu. These did important work, however, in getting pictures of the Massacre Bay shore line and beaches adjacent to enemy-occupied areas; aerial photographs constituted almost the sole source of intelligence of the Japanese troop strength.

Air operations against Kiska were most intense during the fortnight 8-21 April, with an average of sixty planes per day over the island.⁹² On the 15th, in attacks spread out over a twelve-hour working day, 112 planes dropped 92 tons of demolition and fragmentation bombs. These April scores were made possible by the use of P-38's and P-40's as fighter-bombers. With Amchitka only eighty-five miles from Kiska bay, seven or eight fighter missions a day could be dispatched, weather permitting. Loads varied: Lightnings would carry two 500-pound bombs, and P-40's a single 500-pounder and six 20-pound frags or incendiaries tucked under their wings. Occasionally 1,000-pound or 300-pound bombs were used. Employing glide-bombing tactics, fighter-bombers bored down through moderate AA fire to score direct hits on small scattered buildings of the camp, radar, and hangar areas—sometimes when low ceilings prevented high-altitude bombing. After

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the bombing runs, fighters usually strafed gun positions and camp and runway areas. In some 685 April sorties, fighter-bombers dropped 216 tons of bombs, as compared with 506 tons in 288 medium and heavy bomber sorties.⁹³ No enemy air opposition was met in this period. One P-40 and one B-24 fell to Japanese flak, and nine fighters were listed as operational losses.⁹⁴

Admiral Kinkaid's Operation Order 1-43, issued on 21 April, provided the over-all plan for Operation LANDGRAB. The naval attack force (TF 51) included the old battleships *Pennsylvania*, *Idaho*, and *Nevada*, the carrier *Nassau*, and several DD's. The Southern and Northern Covering Groups were cruiser forces. Two submarines were to land scouts on Attu before the main assault. Training for the scouts was handicapped by late arrival of the subs, and for the *Nassau's* thirty planes—largely F4F-4's—by rough weather.⁹⁵

Carrier-based planes were to be used primarily for cover and observation, and ship-based observation planes for spotting naval gun-fire. Butler's shore-based air group included the air striking unit (Eleventh Air Force) and the air search unit (Patrol Wing 4). Coordination of the Eleventh's air support of the landings would be maintained by the AAF member of the joint staff, airborne over the battle.⁹⁶ Field Order 10, 25 April 1943, provided a detailed plan for the Eleventh's participation. Its missions for the ten days preceding D-day were to intercept and destroy shipping, to photograph BOODLE (Kiska) and JACKBOOT (Attu), to harass enemy garrisons, to destroy key installations (beginning D minus 5), and to destroy enemy air forces.⁹⁷ All P-38's would move out to Amchitka during the period D minus 10 to D minus 6 and lay it on Attu. (The 54th Fighter Squadron was told that Attu was its "meat.")⁹⁸ The 11th and 18th Squadrons on Amchitka, flying shorter-range P-40's, would concentrate on Kiska.⁹⁹ On 1 May, XI Bomber Command moved its advanced command post to Amchitka.¹⁰⁰

During the preparatory period, planes on Adak and Amchitka were maintained on shipping alert but no enemy sightings were reported. During the first days of May, the Eleventh continued to photograph Attu. Its vertical and oblique photographs, still almost the sole basis of intelligence on the enemy's installations and order of battle, made possible an estimate of Japanese forces which proved substantially correct.¹⁰¹ With no enemy air opposition developing, counter-air force operations were practically nil—one float-type fighter destroyed on the

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water being the only score.¹⁰² The main weight of the pre-invasion attack was directed at garrisons and installations, the 10-day total including 155 tons of bombs dropped on Kiska, 95 tons on Attu.¹⁰³ During the last four days before the assault, weather canceled all attack missions, and while previous bombing had probably hindered enemy efforts to improve defenses, the Eleventh's softening-up program was far from decisive.

The tactical plan for LANDGRAB called for two widely separated main landings: the larger, by Southern Force, in the Massacre Bay area; a lesser, by Northern Force, in the west arm of Holtz Bay. Subsidiary landings were to be made by parties of scouts and reconnaissance troops—one at Alexai Point, east of Massacre Bay, the other in the north. The last-named party, sailing independently of the main convoy, was to be landed by the submarines *Narwhal* and *Nautilus*. Stripped of detail, the plan contemplated that the two main forces would effect a junction and advance eastward to drive the enemy from the island.¹⁰⁴

For this task the Americans had a comfortable margin of force, employing about 11,000 troops in the assault against a Japanese garrison of about 2,200.¹⁰⁵ The disproportion of air forces was even greater. Against a probable maximum of fifteen Japanese planes in the Aleutians (and the possibility of air attacks from the Kurils), the Eleventh Air Force had in May an average of 229 aircraft in commission,¹⁰⁶ deployed chiefly at the forward island bases.* In spite of this predominance of power, Attu proved a hard nut to crack. Weather minimized the advantages of overwhelming air superiority, and the invasion evolved into a stubborn infantry battle between a fanatical Japanese garrison and U.S. forces trained in the sunny end of California and not yet inured to Aleutian weather and terrain.

The landing force, out of San Francisco, arrived at Cold Bay on 30 April.¹⁰⁷ There bad weather delayed its final sailing and D-day was postponed from 7 May to the 8th. Nearing Attu the convoy again met adverse winds, which prevented a landing, and the naval force steamed

* On 11 May, the forward disposition was as follows:

	<i>P-40's</i>	<i>P-38's</i>	<i>B-25's</i>	<i>F-5A's</i>	<i>B-24's</i>	<i>Total</i>
Umnak	35	1	1			37
Adak	22	1	10		12	45
Amchitka	23	24	20	3	16	86
TOTAL	80	26	31	3	28	168

northward into Bering Sea to escape detection. On the basis of weather forecasts, D-day was finally set for 11 May.¹⁰⁸

The initial landings early on the 11th were on Beach Scarlet, where scouts debarking from the submarines met no enemy resistance—the Japanese, alerted from 3 to 9 May, had apparently been deceived by the Americans' enforced delay and had left the beaches unsecured.¹⁰⁹ Fog, not predicted for D-day, shrouded Attu, delaying the main landings; it was late in the day before Northern Force got ashore and pushed southward against small enemy patrols. Similarly Southern Force, putting its main strength ashore on Beaches Blue and Yellow, advanced some 2,500 yards up Massacre Valley before encountering light enemy resistance.¹¹⁰

A detailed air plan for D-day assigned various duties to the Eleventh Air Force, laying emphasis on softening up enemy defense positions in the key areas and on rendering close support for ground troops as directed by the commander of the assault force. This support would be provided by Amchitka-based Lightnings of the 54th Squadron, which were to maintain a constant daylight patrol over Attu—working in flights of six with a B-24 “mother ship” to afford liaison with ground and naval forces and to relay messages to the fighters.¹¹¹

Once more, in a fashion already traditional for Aleutian D-days, best-laid plans went a-gley. Colonel Eareckson, air coordinator for the operation, got off first with a reconnaissance mission. During the morning, planes from the *Nassau* made a brief attack against a Japanese observation post near Holtz Bay.¹¹² In the afternoon one B-24 from the 36th Bombardment Squadron made a successful drop of supplies to a scout company at Beach Scarlet. But this was accomplished under difficult circumstances, the pilot, Lt. Martin J. Brennan, reporting the weather as “ceiling 0, top 2,000 with an overcast at from 8 to 10,000.”¹¹³ Close support was impossible, and of nine B-24's and eleven B-25's dispatched to bomb Attu, only two Liberators dropped on the primary target—all others unloading over Kiska.¹¹⁴

With weather clearing sporadically on D plus 1, air support went according to schedule, with Colonel Eareckson flying the air-ground liaison plane.¹¹⁵ Almost all action was in support of Northern Force. Four flights of six P-38's each dropped 500-pound bombs and 23-pound parafrags on targets between Holtz Bay and Chichagof. Bombing from low altitudes (100 to 1,000 feet), the fighters followed through with strafing attacks. Four were damaged by heavy AA fire and one was

knocked into Chichagof Harbor, where the pilot was rescued by a friendly DD.¹¹⁶ One flight of six B-25's dropped 38 x 300-pound bombs on the runway and gun positions in the east arm of Holtz Bay while another flight expended 48 x 300-pound bombs on gun batteries beyond the west arm. Six Liberators dropped 250 x 100-pound bombs on AA batteries in the same general area, and another B-24 parachuted supplies.¹¹⁷ *Nassau* planes also got off one bombing-strafting mission at Holtz Bay.¹¹⁸

On the 13th, Colonel Eareckson, up again for his liaison job, found Attu weather too bad for observation of either friend or foe. The sole support mission sent out that day, a flight of six B-24's, was ordered to divert to Kiska; two planes, failing to receive the message, bombed the Holtz Bay area.¹¹⁹ Next day weather also prevented direct support. Six B-24's and five B-25's were dispatched to Attu; of these only a single Liberator dropped on that island. The first air casualties of the Attu campaign occurred on the 14th when the supply Liberator smashed into a mountain ten miles west of its dropping zone.¹²⁰

Little could be done in the air on the next two days. Mediums and heavies went out to find ceilings too low and to circle for hours fruitlessly waiting for a hole in the overcast. P-38's got in limited blows. Six of them dropped parafrags around Holtz Bay on the 15th and two flights came in at mast-height on the following day to obtain hits on barges and installations.¹²¹ Weather canceled all air support missions on the 17th and 18th.¹²²

Meanwhile the ground forces, after wading ashore unchallenged, had run into stiff resistance on all fronts. Southern Force, attempting to move up Massacre Valley, walked into well-organized defensive positions. Between D-day and 16 May, the force made five unsuccessful attacks on Jarmin Pass; the Japanese main line was hardly dented. Maj. Gen. Albert E. Brown, commanding the landing forces, recommended calling for reinforcements—specifically, the 4th Infantry, trained in Alaska. Admiral Kinkaid, terming progress of the ground forces “unsatisfactory,” relieved Brown on the 16th and appointed in his stead Maj. Gen. Eugene M. Landrum.¹²³

Northern Force had made better progress. By the 16th it had cleared the high ground around Holtz Bay's west arm, forcing the enemy to withdraw to the east arm. Fearing an attack from the rear, the Japanese commander opposing Southern Force withdrew, and the Americans

walked through Jarmin Pass unhindered to join Northern Force on the 18th.¹²⁴

On the 19th, air operations were resumed on a small scale. Six B-24's bombed installations in Chichagof Harbor, with a Navy Kingfisher reporting some hits in the target area. Two flights of B-25's dropped 87 x 300-pound bombs from altitudes of 4,000 to 4,500 feet on enemy positions in Sarana Valley.¹²⁵ On the 20th, weather prevented even limited support operations.¹²⁶ By this time, all Japanese troops were concentrated in the Chichagof Harbor area, and in that restricted field of operations bombing had to be visual and accurate to avoid hitting friendly ground forces. On the 21st, weather improved enough to allow fighter operations. Under direction of Col. John V. Hart, air liaison officer for the day, eighteen P-38's in three flights swept in at minimum altitudes to lay parafrags on Attu village and installations south of Chichagof. Several hits and large fires were observed. B-24's were less fortunate; six of them hovered over Attu for four hours vainly waiting for a break in the overcast and then turned back to unload blindly but hopefully on what they "believed" to be the submarine base at Kiska.¹²⁷

Next day, the 22d, came the first Japanese air reaction. A dozen or more Mitsubishi bombers roared out of the fog in a torpedo and strafing attack on the *Charleston* and *Phelps*, patrolling the entrance to Holtz Bay. The torpedoes missed, strafing caused only minor damage, and Navy AA knocked down one bomber.¹²⁸ Actually the enemy had done well even to find a target—the Eleventh's operational headquarters had judged weather at Adak and Amchitka too bad to allow any U.S. planes to take off.¹²⁹

The Mitsubishis were over again on the 23d. A Navy PBY sighted a flight of sixteen west of Attu and contacted the air liaison plane.¹³⁰ Five P-38's on patrol found the Japanese over the center of Attu. The bombers jettisoned their loads and closed formation as the Lightnings came in. Five enemy planes were destroyed; Lt. Col. James R. Watt and Lt. Harry C. Higgins each got one, and Lt. Frederick Moore shot down three. Seven bombers were claimed as probables.¹³¹ Two P-38's were lost. Lt. John K. Geddes belly-landed in Massacre Bay and was rescued by a Kingfisher from the *Idaho*.¹³² After twenty-five minutes of combat the flight leader, Colonel Watt, radioed that he was hit and would return to the base. He was never seen again.¹³³ Captured docu-

ments later indicated that the enemy had scheduled another mission for 29 May but had to scratch it because of weather.¹³⁴

Northern Force, starting up the steep mountain slopes to Chichagof on the 19th, made slow progress against strong opposition. Southern Force, after cleaning out Massacre Valley and surrounding heights, pushed off on 21 May, forcing a high point (Sarana Nose) at the junction of Sarana and Chichagof valleys next day.¹³⁵ General Landrum, continuing his tactic of seizing surrounding ridges before moving along the valleys, next threw one battalion against Fishhook Ridge, between Chichagof and the east arm of Holtz Bay. This attack, on 23 May, was stopped cold. So was another on the 24th, though the assault troops were reinforced by a battalion from Northern Force which had pushed through after several days of hard fighting.¹³⁶

The attack on the 24th had received some direct air support. Colonel Hart in the weather plane, after scouting Kiska, Buldir, and the Semi-chis, dropped 6 x 500-pound bombs on enemy strongpoints near the front line. Five B-24's in a number of bombing runs at 5,600 to 6,000 feet bombed positions west of Lake Cories with 100-pounders, then strafed enemy trenches without drawing AA fire. Five B-25's dropped 40 x 300-pound bombs on enemy strongpoints and AA positions.¹³⁷ During one run (presumably by a B-24) some bombs fell on U.S. front-line positions; this error, the only one of its kind charged to the Eleventh, happily caused no casualties.¹³⁸ Fighters, patrolling on the 24th against expected enemy air attacks, got in a little strafing.¹³⁹ They repeated the same program the next day, when continued good weather brought out one flight of B-24's and two of mediums which dropped eighteen tons of bombs in the battle area.¹⁴⁰ Even heavier air action followed on the 26th, with the air liaison plane directing the activities of eight B-24's, two flights of B-25's, and two of patrolling P-38's.¹⁴¹

By 28 May, U.S. ground forces had crowded the enemy into a small pocket of flat ground around the Chichagof Harbor base. Landrum, with his superior forces perched on the surrounding heights, determined to wind up the campaign with a full-scale attack next morning. During the night a PBY dropped surrender leaflets among the Japanese lines.¹⁴² It was not a fruitful mission.

Rather than surrender or wait to be pushed into the sea, the Japanese commander, Col. Yasuyo Yamasaki, elected to stake all in a desperate counterattack. He could hardly have been optimistic, but if he could penetrate the valley under cover of darkness and seize American gun

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positions, he might destroy the U.S. main base at Massacre Bay and force a general reembarkation. Such at any rate seems to have been his reasoning, and on the 29th he ordered the counterattack.¹⁴³

A thousand shrieking Japanese rushed along the valley, pushed aside a surprised infantry company, and swept headlong toward Massacre-Sarana Pass. There engineers and service troops, with ten minutes' warning, hastily organized defense lines and in desperate hand-to-hand fighting broke the force of the attack. A few enemy detachments won through the pass but were brought up just short of a battery of 105-mm. howitzers. Fighting continued in isolated pockets throughout the day, but the banzai attack had failed.¹⁴⁴ By afternoon of the 30th the Japanese, with the exception of a few scattered groups, had been wiped out—many killed in a nasty orgy of suicide and murder.¹⁴⁵

Captured documents indicated something of the fanatical spirit of the enemy. So also did casualty lists, for the enemy's smaller force had killed 550 Americans and wounded 1,140. Exposure had also taken its toll: the GI's leather combat boot gave little protection against frost-bite.¹⁴⁶

U.S. planes were back over Attu on 30 May but Colonel Eareckson, air-ground liaison officer, was able to inform them that there was "no need for bombing or strafing and no indication of a visit from the west."¹⁴⁷ The Attu campaign ended, as it had for the most part been throughout, a doughboy's war. The Eleventh had carried out missions under hazardous conditions and with some success. When supported by air attack and artillery, ground forces had made substantial gains with few losses; deprived of such support, they had been pinned to the ground and punished severely. Unfortunately, persistent fog and high winds had hampered air operations each day, and on eleven of the twenty critical days had prevented any effective support.¹⁴⁸ Navy flyers, unfamiliar with Aleutian weather, also found the going tough. Rarely could the *Nassau* operate more than four planes and never could it launch an all-out attack.¹⁴⁹ The Navy lost seven planes and five pilots, the Eleventh three planes and eleven men.¹⁵⁰

U.S. forces began to cash in immediately on their new possessions. On 30 May, Brig. Gen. John E. Copeland landed troops and engineers, unopposed, on Shemya, thirty-five miles east of Attu. By 21 June they had completed a fighter strip. Dissatisfied with the location of the Japanese airfield on Attu, U.S. engineers began construction at a better site

on Alexai Point, and on 7 June, barely a week after organized resistance had ended, the first C-47 landed to evacuate the wounded.¹⁵¹

Victory on Attu confirmed earlier designs against Kiska. When operations had taken a favorable turn on 18-19 May, General De Witt asked CINCPAC to join him in a request to the Joint Chiefs for approval of the Kiska operation.¹⁵² The JCS reply of 24 May directed that planning and training begin at once but reserved final decision pending review of a detailed plan.¹⁵³ Such a plan was provided and was found acceptable. Target day was 15 August, with the choice of D-day left to Admiral Kinkaid's discretion.

The Kiska attack (COTTAGE) was planned on a larger scale than LANDGRAB since the Japanese garrison was estimated at 7,000 to 8,000 troops, enjoying strong defensive positions. The invading army included 34,000 ground force troops, including some 5,000 Canadians. The assault convoy was supported by three BB's, one CA, one CL, and nineteen DD's. In light of Attu experiences, Kinkaid laid down a realistic training program for Army and Navy personnel which included acclimatization to Aleutian weather.¹⁵⁴

Aerial and naval bombardment were to be used to soften up enemy defenses, with the Eleventh giving priority to gun positions and the airstrip on Kiska. By mid-June apparent cessation of work on the runway lessened its significance as a target, but post-invasion inspection of the island justified the earlier concern for gun positions. Coastal defense guns (up to 6-inch bore), AA, and machine guns were plentiful in the several Japanese base areas. Many gun positions and buildings possessed heavy blast walls which offered protection against anything but a direct hit.¹⁵⁵

For its task the Eleventh Air Force had been reinforced. The average number of aircraft on hand rose from 292 in June to 352 in July and reached an all-time high of 359 by August.¹⁵⁶ About 80 per cent of the planes were operational. Besides combat planes, these figures included transports of the 42d and 54th Troop Carrier Squadrons, which in intratheater flights landed a monthly average of 7,500 tons of freight and 15,000 passengers.¹⁵⁷ New strength in planes was bolstered by new bases; fields on Attu and Shemya offered alternative landing facilities when Amchitka and Adak were closed in.¹⁵⁸ Weather stations recently sited in the Near Islands promised more accurate forecasts for Kiska.

The weather, incidentally, was execrable during June, and sorties for the month dropped to only 407.¹⁵⁹ But in spite of low-hanging sum-

mer fogs which concealed targets, the Eleventh expended 270 tons of bombs. On occasion, radar-equipped PV's from the Navy led AAF bombers in for area bombing through overcast.¹⁶⁰ Japanese documents captured later suggested that strikes with 600-pound demolition bombs with long-delay fuzes were effective in keeping enemy personnel holed up for long periods. Flak in June was plentiful but ineffective, knocking down no U.S. plane and damaging only thirteen.¹⁶¹

Somewhat better weather came in July, and U.S. bombers began to find more holes in the overcast. On the 2d, eighteen B-24's and as many B-25's, plus bomb-loaded P-38's and P-40's, dropped some fifty-five tons of explosives.¹⁶² Heavy but inaccurate flak wounded two officers and damaged three planes but scored no kill. Navy Venturas that had guided the AAF in by radar also bombed.¹⁶³ Four days later when the Navy sent in a cruiser force to lob a hundred tons of shells against suspected coastal and AA batteries, six B-24's bombed the main camp area in support.¹⁶⁴

Medium bombers stationed at the new Alexai Point runway on Attu now maintained an antishipping alert. The new field brought those planes within striking distance of the northernmost of the Japanese home islands, the Kurils (Chishima Retto), some 750 miles westward. With Japanese air power in the Aleutians practically nil, the invading force might expect a repetition of the May raids from the Kurils. The Eleventh Air Force planned therefore to carry the war to the enemy with the first strike at the Japanese homeland since the Doolittle raid of April 1942.

With weather breaking right on 10 July, seven B-24's and eight B-25's were preparing to take off for the first Kurils strike when a Navy Catalina reported sighting a four-ship Japanese convoy. Since shipping held priority over other targets, the B-24's were sent after the convoy. Eight B-25's of the 77th Bombardment Squadron, led by Capt. James L. Hudelson, went on for the Kurils. Solid cloud over the target balked their design for a minimum-altitude attack. Making dead-reckoning runs at 9,000 feet, the Mitchells dropped 32 x 500-pound bombs presumably on the southern part of Shimushu and the northern part of Paramushiru. No enemy planes or flak were encountered and all the B-25's returned safely after a nine-hour flight.¹⁶⁵

Meanwhile six B-24's (36th Bombardment Squadron) and six B-25's (73d Bombardment Squadron) went after the convoy off Attu. Laid on target by two Catalinas (which had relieved the original sighting

patrol), the Mitchells chose the two largest ships and let go their bombs at deck level. Pilots of the Navy Catalinas reported that one ship sank; the other, burning and in a sinking condition, they had strafed and depth-bombed and felt certain that it eventually went down. Following the mediums in, the B-24's attacked the two other Japanese ships with 500-pound bombs and machine-gun fire; only near misses were claimed.¹⁶⁶ Attempts to contact the two vessels on the following day failed.

On 18 July the Eleventh hit at the Kurils again, this time with six Liberators drawn from the 36th, 21st, and 404th Bombardment Squadrons. For a change, they found CAVU (ceiling and visibility unlimited) weather over target. Three planes dropped 18 x 500-pound bombs at the Kataoka naval base on the southwest coast of Shimushu. The other heavies attacked shipping anchored in the strait between Kataoka and Kashiwabara on Paramushiru. Near misses, but no direct hits, were reported. The bombers secured an excellent and much-needed set of photographs which vastly extended the meager information gleaned from P/W interrogation at Attu. The photos showed a considerable amount of military activity, with two airfields and a sea-plane base on Shimushu and one airfield on Paramushiru in various stages of construction.¹⁶⁷

On 22 July the Navy and AAF joined in another bombardment of Kiska. The Navy sent in two task groups, one containing a couple of battleships, for a twenty-minute pounding of key installations.¹⁶⁸ Eighty planes—heavies, mediums, and fighters—struck before and after the Navy attack, dropping eighty-two tons of bombs on coastal defense, AA, and other installations.¹⁶⁹ Intense, accurate, heavy flak damaged several planes and knocked down one Mitchell, whose crew was rescued by a Catalina. General Butler, after an afternoon flight over Kiska, reported that the entire area from north of Salmon Lagoon to south of Gertrude Cove was on fire as a result of the joint Navy-AAF attack.¹⁷⁰

An exceptionally clear day on 26 July brought out every combat plane the Eleventh could fly. They dropped on Kiska 104 tons of bombs, their heaviest load so far, and lost one plane to flak but saved the pilot. Next day twenty-two tons of bombs were released over the main camp area. Four idle days followed.¹⁷¹ The Eleventh was back in the air with a moderate-scale mission on 1 August. On the 2d, eight Liberators, nine Mitchells, and eight Lightnings cooperated with

another naval bombardment by attacking targets on North Head and Little Kiska.¹⁷²

The climax of the air offensive was reached on 4 August with 134 sorties and 152 tons of explosives. The 407th Bombardment Group (Dive),* sent to the Aleutians especially for the Kiska campaign, flew its first combat mission to drop 46 x 500-pound bombs on two AA batteries in the main camp area.¹⁷³ Results of the day's bombing were generally rated excellent. Most returning crews reported only meager and inaccurate AA and small-arms fire.¹⁷⁴ This fact was of more than passing importance. On 6 August the Eleventh Air Force issued a bomb-damage report based on photos taken from 27 July to 4 August. The Japanese had made no attempt to fill some thirty-odd craters in the Kiska runway but had moved both radio stations from previous locations. In the submarine-base area nine buildings had been destroyed or moved; in the main camp area twenty-three buildings had been destroyed, five severely damaged, and both radar stations had been damaged or were being dismantled. "It is significant," the report added, "that most of the buildings affected show no evidence of having been bombed or shelled. . . . It is also significant that the photographs of 2 August and 4 August show all the trucks in identical positions and show 10 to 12 less barges than usual in the Kiska harbor area."¹⁷⁵

The weather closed in to interrupt both bombardment and reconnaissance, and for four days all missions from Aleutian bases were canceled. Then on 10 August the Eleventh began its final phase of softening-up operations. On the next day nine B-24's went out in a third attack on the Kurils, dividing nineteen tons of bombs between the Kataoka naval base and the Kashiwabara army staging area. This time the bombers encountered intense flak and stirred up a hornets' nest of fighters—some forty Zekes, Rufes, and Oscars, of which five were reported shot down for a loss of two B-24's destroyed and three damaged.¹⁷⁶

On 12 August the Navy moved in a task group for the last pre-invasion bombardment, which spotting planes reported had covered the target well. The Eleventh was still busy, dropping 355 tons of bombs between the 10th and D-day. On the 15th, troops went ashore on the north side of the island.

Once more D-day turned out foul, with planes grounded at Amchitka and Shemya. One B-17, with the alternate air coordinator

* Redesignated 407th Fighter-Bomber Group on 15 August 1943.

aboard, took off from Adak but returned after an hour and a half over Kiska during which overcast completely blanketed all ground operations.¹⁷⁷ Initial assault parties had made no contact with enemy forces. Landings set up for D plus 1 were dispatched according to schedule, but again without air support; combat planes were weathered in. The Kiska air campaign ended in anticlimax on D plus 2 when a single Liberator flew out of Shemya carrying the air coordinator who reconnoitered such areas on Kiska as were visible. This was to prove the last mission flown in August.¹⁷⁸

Fortunately no air cooperation was needed. Such aircraft as had been over Kiska since D-day had seen no enemy forces nor had ground troops made any contacts, even in occupying key positions. This inactivity, certainly not customary with the Japanese, might seem to have confirmed earlier suspicions of a general withdrawal, but Navy commanders persisted in their assumption that the enemy had merely moved to prepared positions on the high ground back of the beaches.¹⁷⁹ This proved a false estimate of the situation. Not a single Japanese was ever encountered by ground forces on Kiska. The enemy had vanished silently into the fog.

It is now known that Vice Adm. Tetuo Akiyama had issued on 8 June the original order for the evacuation of Kiska.¹⁸⁰ About 700 persons were moved out by submarine, but when this method proved too slow and hazardous, the job was assigned to surface ships. A light surface force sallied out of Paramushiru several times but drew back because the weather was not thick enough. Finally on 28 July (Tokyo time) the force ran for Kiska under friendly clouds, unloaded the garrison of 7,000 in two hours, and was back at Paramushiru on the 31st.¹⁸¹

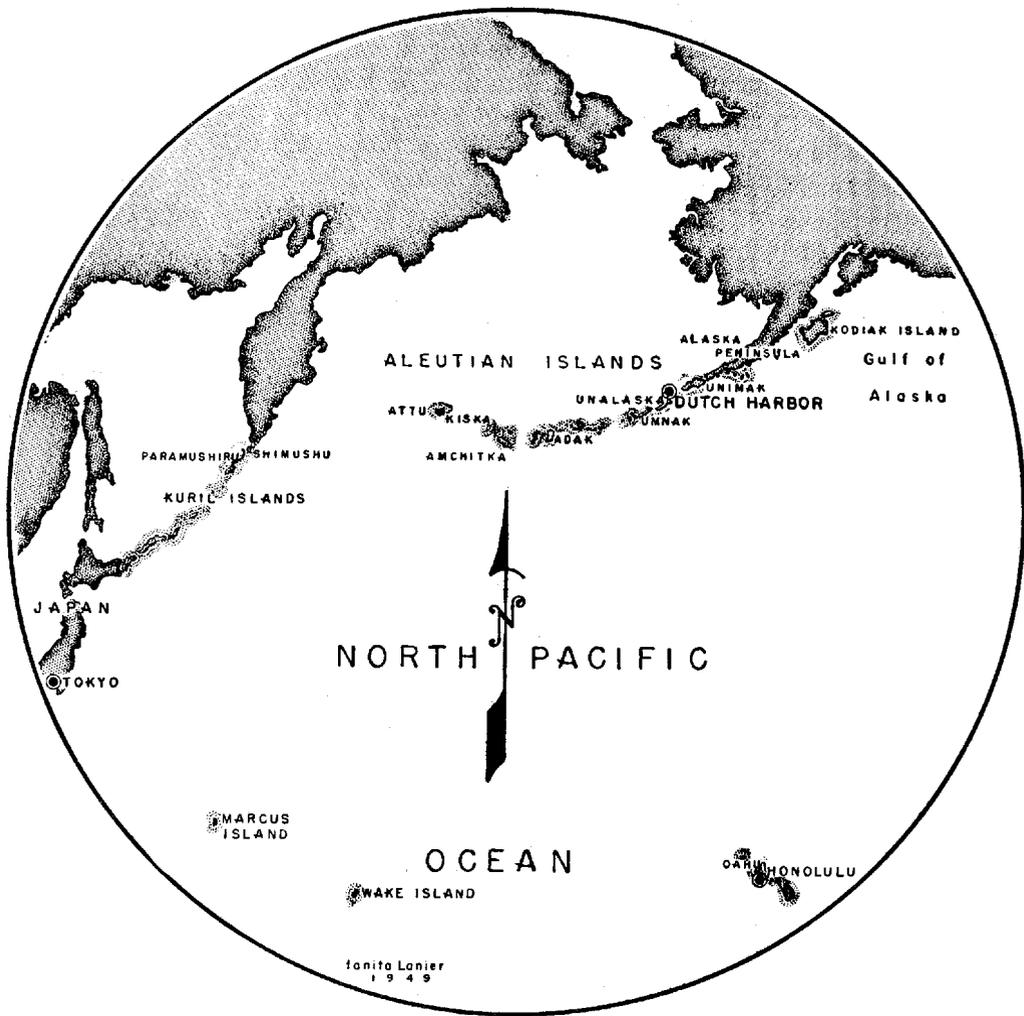
Kiska had come cheap (though cases of mistaken identity had cost twenty-six casualties)¹⁸² and, remembering Attu, Americans had reason to be thankful. But responsible commanders in the North Pacific gained little prestige by combat-loading over 30,000 men to send them against an island, vigorously bombarded, which had been deserted for a fortnight. Evidence of some important changes in the Japanese situation had been abundant (though undoubtedly it has seemed more significant in retrospect). Against such intelligence was balanced the stubborn fact that, with Attu athwart the escape path and with surface and air patrols giving what coverage the weather would allow, no evacuation fleet had been sighted.¹⁸³ Radio transmission from Kiska

had ceased after 27 July. This was considered at first to indicate only a change in station, though possibly something more important.¹⁸⁴ Aerial photos in the period 27 July to 4 August showed extensive demolitions and alterations in the island's defenses.¹⁸⁵ After the former date flak had been noticeably less severe, with none reported by a bombing mission on 1 August and only a small amount thereafter—perhaps the work of a rear guard later evacuated by submarine. Eleventh Air Force pilots had said repeatedly that the island looked deserted, and indeed formal reports had suggested wholesale or partial evacuation. Air intelligence had discharged its responsibility by pointing out these possibilities, but it had not stated conclusions forcefully. Navy and ground force commanders, discrediting the possibility of mass evacuation by surface ship, adhered to the theory of changes in position on the island itself. The question might have been solved by commando patrols landed on the island, but no such action was taken.¹⁸⁶

Aftermath

The total expulsion of the enemy from the Aleutians left North Pacific forces without an immediate mission. From Dutch Harbor on, American policy in the area had been dictated by the presence of Japanese forces in the archipelago. There they constituted a menace to the northern U.S. flank, and for political as well as military reasons it was expedient that the Japanese be chased from American soil, even though it was only tundra and muskeg. Now that the enemy had pulled out, the way was less clear. The Aleutians dominated a region which had strategic possibilities, of interest alike to Japan, the United States, and the U.S.S.R. Experience had shown the difficulty of military operations in the area. Japan was hardly likely to attempt another invasion, and on the past record it seemed probable that the United States could utilize available resources more profitably elsewhere. But so uncertain were Soviet intentions in the North Pacific, either as a possible ally in the war or a possible rival after the war, that the region retained an importance in strategic planning wholly out of proportion to the fighting which occurred there. Fighting indeed was to be sporadic and on a minuscule scale; not so the discussions of strategy.

In a meeting of the Joint Chiefs on 7 September 1943, General Marshall broached the practical problem of future commitments to the Alaskan theater. He questioned the continuing justification for the large garrisons built up under impact of the Japanese invasion. Dis-



cussion indicated that the AAF would welcome retrenchment in that theater (this had been Arnold's desire a year earlier) but that the allocation of troops must be contingent upon agreed strategy—specifically, according to Rear Adm. Charles M. Cooke, Jr., upon a decision as to whether the United States should mount an operation against Paramushiru. Consequently, the Joint Planning Staff was directed to review the problem and make recommendations as to the proper size for Alaska-based garrisons under current conditions and for a task force if the Paramushiru assault were set up.¹⁸⁷

Representatives from the theater commands came in to consult with the JPS in Washington on 15 September. They elaborated on operational and logistical difficulties inherent in the theater's geographical features, and while the Army's General Buckner stressed the need for air units and air bases, both he and Navy officers discounted the probability of any strong offensive by the Japanese. Actually it was an exaggerated view of the enemy's capabilities which had allowed him to tie up, with a force of only 10,000, well over 100,000 U.S. troops and a strong naval task force. As to a westward expedition out of the Aleutians against Paramushiru, that would have to be followed by further advances to accomplish decisive results.¹⁸⁸

Armed with these theater views, the Joint War Plans Committee (to whom the problem had been referred for consideration) came up with a recommendation on 18 September. After paying tribute to the strategic importance of the area and the need for its early organization for defense and offense, the report got down to brass tacks. With Japanese offensive capabilities in the area slight, U.S. defense forces might be cut to pattern. The Eleventh Air Force had already felt the scissors: since Kiska it had lost two heavy bomber squadrons (36th and 21st), two medium squadrons (73d and 406th), one troop carrier squadron, and three signal air warning companies—about 2,400 bodies in all. This left only one heavy and one medium squadron, a fighter group (four squadrons), and one troop carrier squadron. These units would meet minimum defense requirements and might serve as a nucleus for an expanded offensive air task force, but they could hardly support a regular bombing program against Paramushiru. Approximately 10,600 air force service personnel would be needed in support. Should no offensives be planned, ground troops should be reduced from the existing force of 121,345 to 80,000 by 1 July 1944 and further thereafter. Of 31,382 Navy personnel now assigned, 21,330 were Seabees,

most of whom were scheduled to return to the States by 1 March 1944. The Seabees should be detained in the theater if they could expedite work on the Adak base; and other current Navy personnel schedules should be continued.¹⁸⁹

As for the force required for the seizure of Paramushiru, that question was less readily answered. Investigation of the possibilities of such an operation had been directed by the Combined Chiefs of Staff at the recent QUADRANT conference (Quebec, 12-24 August 1943).¹⁹⁰ The planners had set two possible target dates for the attack—spring of 1944 or spring of 1945. If the former date were chosen, the current Alaska garrisons should be maintained without diminution; if the latter, they should be reduced according to the schedule outlined above and the operation be staged with a task force made up of fresh troops drawn from the States.

In contrast with this policy of probable retrenchment in the near future, the JWPC argued for a long-term strengthening of the area regardless of the progress of the war—whether the Paramushiru operation jelled, whether Russia entered the war against Japan, or whether indeed “Russia or Japan or both are strong or weak, friendly or unfriendly in the post-war period.” Specifically, the committee recommended development of an Army base at Adak and of VLR bomber bases in the area. At QUADRANT the AAF had announced the early combat readiness of the B-29, with four groups probably available early in 1944, and the planners suggested that two groups constitute the first—though not the ultimate—VLR contingent.¹⁹¹

When on 20 September the theater representatives again met with the JPS, they found the JWPC paper not to their liking: General Buckner felt that four heavy bombardment squadrons should be kept in the Aleutians, Rear Adm. John W. Reeves that the Alaska sector should be kept active to capitalize on expenditures already made, either by a spring 1944 assault on Paramushiru or by air operations out of Attu with current types of aircraft.¹⁹² These comments went on to the JCS with the basic paper but without concurrence by the planners, who were inclined to favor a 1945 date (if any) for the Paramushiru show and who pointed out that recent reductions of air strength in the Aleutians precluded any substantial bombardment program.¹⁹³

Before approving the JWPC proposals, the Joint Chiefs, at Admiral King’s suggestion on 21 September, referred them to the Joint Strategic Survey Committee for review.¹⁹⁴ The committee in general favored

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retrenchment in the North Pacific. In respect to garrisons, it recommended that the defense classification¹⁹⁵ of the several pertinent areas be downgraded,* with a corresponding reduction, on or before 1 July 1944, of their troop bases. Target date for Paramushiru should be no earlier than spring 1945, and base construction for that operation should be restricted to providing staging areas and supply facilities. Air bases to accommodate two or three groups of B-29's should be ready for operations by spring 1944.¹⁹⁶

Discussed by the JCS on 28 September, these recommendations were approved on 5 October with an amendment sponsored by Arnold that the number of B-29 groups contemplated for the Aleutians be not specified.¹⁹⁷ Any theater hopes for large-scale operations in the North Pacific were further dampened by a report on the Adak base development submitted by the JPS on 30 September.¹⁹⁸ In agreement with a partially completed study of the Combined Planning Staff, it assumed that a main attack against the Kurils was unlikely unless Russia entered the war against Japan, and that task forces should not be retained in the Alaska-Aleutian area against that contingency. The base at Adak, the JPS report concluded, should be of a size to support some 50,000 troops with a three-month level of selected supplies. Only the B-29 project, then, offered much hope of a return to the offensive, and that was to prove an illusory hope.

As for immediate air operations, nothing more than harassing raids against the northern Kurils had been intended for the one B-24 and one B-25 squadron remaining to the Eleventh. This token force was further diminished by heavy combat losses sustained in a mission on 11 September. Finding CAVU weather over the target area, seven Liberators and eleven Mitchells dropped twenty tons of bombs on the Kashiwabara staging area, on northern Shimushu installations, and on enemy shipping. Excellent photos were secured. Strikes were observed on Kashiwabara and on shipping. One freighter and one large transport were believed sunk; one transport, one small and one large cargo vessel were reported damaged, and smaller vessels were strafed. The bombers ran into intense and accurate flak and brought up a swarm of Japanese fighters, a score of them attacking the B-25's and about forty going for the B-24's. After a running fight which lasted some fifty

* Recommended reclassifications: continental Alaska, change from B (minor attacks possible but not probable) to A (no attacks probable but requiring a nominal defense for political reasons); Adak subsector, from D (may be subject to major attacks) to C (minor attacks probable); Unalaska subsector, from D to B.

minutes, U.S. crews claimed twelve enemy aircraft destroyed and three probables. But the cost was great. Of nineteen U.S. bombers which reached the target area, seven B-25's and three B-24's failed to return. Seven of these planes got to Petropavlovsk in Soviet Kamchatka, but seven of the planes returning to base were damaged.¹⁹⁹ In a single mission the Eleventh had lost about half of its striking power and it recuperated slowly. Five months were to elapse before another mission would be dispatched against the Kurils.

In the meanwhile, air forces in the Alaska-Aleutian area had been reorganized in a fashion more suited to their current strength and mission, and efforts had been made to improve operational efficiency. On 11 September, General Butler, who had led the Eleventh Air Force through the whole of the Aleutian campaign, was transferred to the European theater, and two days later Maj. Gen. Davenport Johnson assumed command.²⁰⁰ He was placed in charge of shore-based aircraft, newly designated Task Group 90.0 in Vice Adm. Thomas C. Kinkaid's Op-Plan 9-43 of 23 September 1943. His force included: the air striking unit (Task Unit 90.1), composed of one heavy and one medium bombardment squadron and one group of fighters; and the air search unit (Task Unit 90.2, Cdre. Leslie E. Gehres), with two squadrons of Venturas and as many Catalinas.²⁰¹ These forces seem small, even for purely defensive purposes, but in an estimate of 27 December, Japanese aircraft in the Paramushiru-Shimushu area were listed as thirty-seven fighters, thirteen seaplanes, and six patrol bombers.²⁰²

During autumn and winter strenuous efforts were made to reduce operational hazards, which between 3 June 1942 and 30 September 1943 had claimed 174 aircraft, as opposed to only 40 lost in combat.²⁰³ Inadequate facilities were responsible for some of the losses—steel-mat runways which buckled under the weight of bombers and a complete lack of radio ranges, lighting facilities, and other navigational aids west of Umnak.²⁰⁴ Part of the difficulty lay in training, for in the early part of the war there had been no time—and for that matter, no real provision—for instrument flying training in AAF schools. General Butler took the first corrective step in Alaska by charging Capt. John G. Coulter on 1 September 1943 with the organization and development of Link-trainer departments in all Eleventh Air Force bases and with making a survey of range facilities and let-down procedures. By the end of 1943 standard procedures had been established at all bases, a number of radio range stations were functioning, and fourteen Link

trainers were in service in the Aleutians.²⁰⁵ An Instrument Flying Training School (Prov.) was set up in November 1943 at Elmendorf Field for four months, but it proved so successful that its life was extended. Captain Coulter and his instructors indoctrinated pilots in various aspects of instrument flying as adapted to Alaska weather. Eventually all pilots, whether old hands in the theater or newcomers, were required to take a two- or three-week course at the school.²⁰⁶

During the fall and winter of 1943-44 crews of the Eleventh trained for operations against the Kurils. Navy Catalinas and Venturas carried out photographic reconnaissance missions over Japanese islands. In January four missions were completed, and fifteen tons of bombs were dropped by radar.²⁰⁷ But it was 5 February 1944 before the Eleventh got back into action with its first combat mission since the costly attack of 11 September. Sixteen P-38's and six B-25's in relays covered the retirement of the North Pacific Force after it had attacked the Kurils with gunfire. No enemy aircraft appeared, but two P-38's were lost.²⁰⁸ On 24 February the 404th Squadron sent six B-24's against the Kurils. Five aborted and the only one to reach the target had to jettison its bombs because of overcast. Other efforts to bomb the Kurils were similarly foiled by weather on 2 and 3 March. By the end of that month, B-24's had been over the Kurils on eight occasions, but with uniform lack of results. In the meanwhile, B-25's and fighters were active only on local patrol. April brought somewhat better weather and eighteen missions were executed, twelve by the Liberators and six by Navy Venturas. For the most part they were night reconnaissance missions, entailing in all only sixty-five aircraft dispatched and twenty-eight tons of bombs expended.²⁰⁹

The tempo of operations increased only slightly during the spring. The mediums got back into combat on 18-19 May by sinking two small picket boats west of Attu. They went farther west to sink a picket boat and a patrol boat off the Kurils on 22 and 29 May. The month's seventy sorties included two very successful reconnaissance missions: one over Matsuwa by Lt. Seymour B. Weiner's plane on the 12th, and one by Capt. Lorenzo E. Dixon's which on the 19th reached Buroton Bay, the Eleventh's deepest penetration down the Kurils.²¹⁰

In June, Task Group 90.0 dispatched twenty-five missions, ten from the Eleventh, the others from the Navy contingent. But they were small, averaging about three sorties per mission and were for the most part armed reconnaissance flights. One photographic mission was par-

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ticularly successful. In April four specially equipped B-24's (F-7's) of the 2d Photo Charting Squadron had been directed to photograph all islands in the Kurils group.²¹¹ After completing the theater's instrument flying course, the four crews with their F-7's ("Blue Geese" because of aquamarine camouflage) were sent to Attu for familiarization flights.²¹² On 14 June they got over the Kurils to find CAVU weather and take some 2,000 photos. In spite of this fine start, it was late August before the task had been finished. Interpretation of the photographs merely served to confirm previous impressions—that there were a number of minor installations but only three comparable in size to U.S. bases in the Aleutians: the Kataoka-Kashiwabara area, the Kurabu Cape airfield on Paramushiru, and Tagan Point airfield on Matsuwa.²¹³

As for AAF installations and organization, there had been further reduction during 1944. This process, affecting all the Eleventh's bases east of Adak (save Elmendorf), had begun in December 1943, when Yakutat, Annette, Fort Greeley, Naknek, and Atka were reduced to the status of airdromes and Juneau, Cordova, Gulkana, McGrath, Port Heiden, and Ogluiga were designated AAF airways stations. Naknek, the largest of these, had an allowance of twelve officers and ninety-five men; some garrisons had been reduced to one officer and ten men. By fall 1944, the Eleventh had been reduced from 17,000 to 11,000 men.²¹⁴

With these reductions came corresponding changes in the command structure. As the center of gravity shifted westward, the Eleventh Air Force headquarters became less attached to Elmendorf and command activities increasingly centered at Adak. Much of the administrative work of the XI Air Force Service Command was divided between the Eleventh's own headquarters and the Alaskan Air Depot, and on 3 August the service command headquarters was abolished.²¹⁵ Months earlier, on 3 March, the XI Fighter and XI Bomber Commands had met the same fate, with their headquarters personnel being absorbed by the 343d Fighter Group and the 28th Bombardment Group (C), respectively.²¹⁶ For operational control over all combat units in the Near Islands, the XI Strategic Air Force had been activated at Shemya on 1 March—a small headquarters without administrative duties.²¹⁷

Amid the gloom of this general contraction there had remained one cheerful prospect—the B-29. Commanders in Alaska, as in every other theater, had special reasons why the assignment of the VLR plane

would be particularly appropriate, and like commanders elsewhere they had no fields answering minimum specifications for the huge bomber. Aleutian airfields were, indeed, notoriously bad, and as early as 19 August 1943 the Eleventh had outlined a general paving program. When on 5 October the Joint Chiefs had approved the possible assignment of VLR units to the Aleutians, they had suggested that appropriate fields be ready by spring of 1944. Early in December authorization was given for paving Adak, Shemya, and Amchitka according to B-29 specifications, and construction was begun.²¹⁸ In January, theater authorities tried to obtain from Washington a definite statement as to contemplated deployment, that they might shape construction plans accordingly.²¹⁹ It was a question being posed by other theaters and it was not an easy one to answer. Tentative commitments for the earliest VLR groups had been made at the SEXTANT conference in Cairo in December, but those were not acceptable to all interested headquarters in Washington and in the several theaters, and the JWPC had been directed to prepare a study on the optimum use and deployment of B-29 units.²²⁰ The debate over the committee's findings continued through the early months of 1944.

There was never serious consideration of assigning the early B-29 units to the Aleutians—only of whether any groups should be deployed there later. In a mid-February conference in Washington, representatives of the Alaskan Department were informed that although the first eight B-29 groups were allotted elsewhere, some VLR units would eventually be assigned to the Aleutians, and they were encouraged to expedite work on installations to accommodate four groups.²²¹ A week later this promise was withdrawn; no future commitments, however tentative, could be made since deployment would depend upon the strategic situation when the units were ready.²²² When the joint planners finally presented their study on optimum deployment of B-29's on 2 March, they recommended that the first twenty groups be based in India and the Marianas. Consideration might be given for use of the next two groups in the Aleutians.²²³ This formula the Joint Chiefs accepted on 10 April and with it the Alaska theater had to abide.²²⁴ This meant effectively that no VLR units would be sent to the western Aleutians before the spring of 1945 at earliest, and that even thereafter the chances would be slim. Airfield construction was continued, with the prodigality demanded by global war, on the off-chance that the future might bring some need for runways capable of handling VHB

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planes. By early summer 1944 the North Pacific area was inactive, practically moribund; with the Marianas under siege and MacArthur's plans for his return to the Philippines taking shape, there was little reason to hope for any revival of activity in the north.

Yet the western Aleutians had achieved at least a considerable nuisance value. With their seizure and the turn of affairs elsewhere, the initiative in the north had passed from Japan to the United States. The tables were turned. It was now a reduced U.S. force which contained, through threat of attack or invasion, a considerable enemy force in the northern islands—Hokkaido and the Kurils. Japanese reinforcements had moved northward with the loss of Attu; their extent may be indicated in a list of approximate totals of the garrisons:²²⁵

	<i>1943</i>	<i>1944</i>	<i>1945</i>
Kurils	8,000 to 14,200	41,000	27,000
Hokkaido	17,000 to 28,000	34,000	17,000

Even more important was the disposition of enemy air strength. In spite of desperate needs elsewhere, the Japanese kept over 400 aircraft (army and navy) based in the Hokkaido-Kurils area against the possibility of an invasion.²²⁶

No invasion would come, only raids by light U.S. surface forces and by Army and Navy planes out of the Aleutians. The planes would keep pecking away in harassing raids and reconnaissance missions. The long flights were wearing and hazardous on crews and the results negligible. Whether the crews could take comfort in the knowledge that Japanese forces were immobilized in the northern islands is uncertain. Early in the war, General Arnold had deplored the dearth of combat units in the north, saying, "This is one hell of an air force you have up in Alaska." In 1944 the crews might have retorted, "This is one hell of a war we have up here too."

SECTION IV

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CHINA-BURMA-INDIA

CHAPTER 12

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THE TENTH AIR FORCE

THE southward thrust of Japanese forces leading to the conquest of the Netherlands East Indies and the Malay Peninsula in February 1942 had driven a wedge between the positions remaining to the Allies in the Pacific and in the China-Burma-India area. While hope continued that Burma might be saved, there had been some thought among American military leaders that the major effort against Japan might be made through Burma and China. The Burma Road, joining the railroad from Rangoon at Lashio and leading northeastward to Kunming, provided a line of supply supporting Chinese resistance to Japanese forces on the Asiatic mainland, and China herself offered air bases from which attacks might be mounted on the enemy's most vital sea communications and even on Japan itself. Several projects, including the Doolittle raid on Tokyo, are suggestive of an early inclination among American planners to take advantage of Chinese bases for air operations.* The preceding pages of this volume have indicated also a continuing disposition to regard a base in China as fundamental to plans for the final assault on the Japanese homeland.† But these plans looked to the establishment of a lodgment on the China coast by amphibious forces crossing the Pacific or moving up from Australia by way of the Philippines, and thus they lend emphasis to influences, geographical and political, which quickly made of CBI operations a distinct and almost separate phase of the war against Japan—a phase, moreover, that was subordinated to the accomplishment of more immediate objectives both in Europe and in the Pacific.

American policy continued to rest upon the assumption that China's resistance to Japan must be supported, but implementation of that

* On the early history of CBI, see Vol. I, 484-513.

† See above, pp. 133-35.

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policy proved to be one of the more difficult tasks confronting U.S. leaders. The capture of Singapore had been followed by the Japanese conquest of Burma during the spring of 1942. Rangoon had fallen in March and, after the loss of Myitkyina on 8 May, only an unproved air route across the Himalayas, at elevations reaching up to 18,000 feet, remained to join China to her western allies. The development of that air route depended upon the provision in India of necessary bases by a British ally whose interests in Asia were often in conflict with those of our Chinese ally. Loss of Burma had forced the use of western ports of entry in India, with the result that an imperfectly developed transportation system across India added greatly to the difficulty. Moreover, such aid as could be spared for China had to be delivered over a line of supply extending back from India across or around Africa to the United States. Not only was this the longest of all U.S. supply lines but it was subject to the peculiar hazards resulting from the uncertain prospects faced by British troops in North Africa and the Middle East. As early as March 1942 the Combined Chiefs of Staff, in recognition of the military interdependence of the Middle East and India-Burma, had directed that air units assigned to the latter area should be on call for assistance in the event of an emergency threatening the Allied position in the Middle East.

China, Burma, and India had been linked together for the purposes of American strategy since February 1942, when Lt. Gen. Joseph W. Stilwell had been sent out to command the China-Burma-India Theater of Operations.* A ground officer by training and experience, he had no U.S. military force under his command except for a handful of men and planes belonging to the recently activated Tenth Air Force, and CBI, as an American theater of operations, would remain predominantly an air theater.† Stilwell's headquarters was located at Chungking, but the Tenth Air Force, thrown first into the defense of Burma, charged next to assist the British in the defense of India, and committed finally to the defense primarily of the air route from India to China,

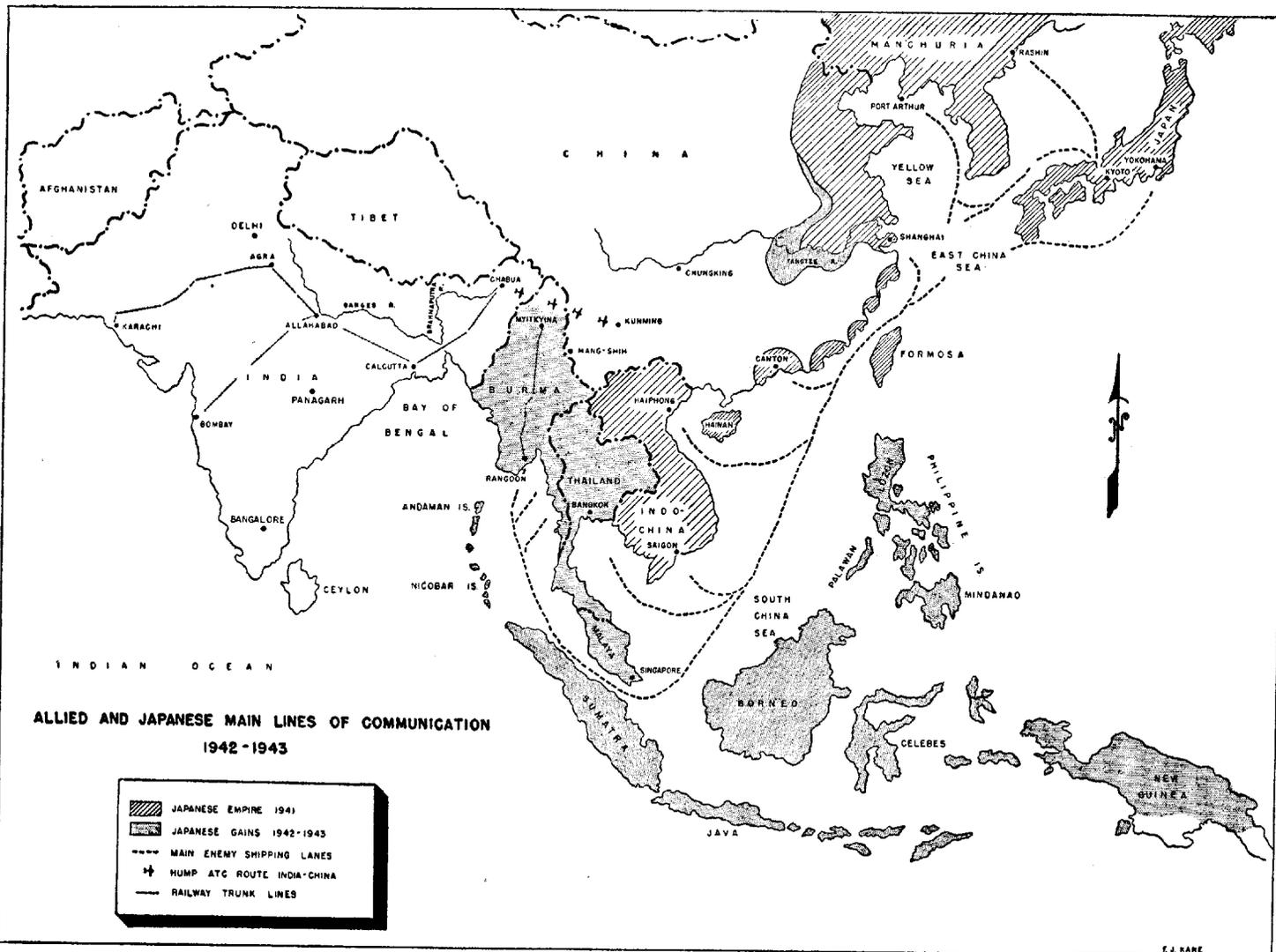
* He was instructed also to serve as chief of staff for a combined staff that Generalissimo Chiang Kai-shek planned to head as supreme commander of an inter-Allied China theater, to represent the United States at all international conferences to be held in China, and to take control, directly under the President, of lend-lease materials in China prior to their actual delivery to Chinese organizations.

† When General Stilwell reached India in May 1942, after the defeat in Burma, air personnel in CBI numbered 3,000 officers and men against a grand total for ground forces of 94. In October 1944, when Stilwell was relieved of command, air force personnel in the theater had reached the total of 78,037 and ground forces 24,995.

had its headquarters at New Delhi. During the unsuccessful defense of Burma, General Stilwell had commanded the Chinese Fifth and Sixth Armies. Thereafter, he hoped to train an effective ground force of Chinese troops equipped by the Americans, but plans for a limited build-up of the Tenth Air Force and the incorporation into that force of a reinforced American Volunteer Group constituted his only prospect for the early commitment of U.S. military units.

The AVG had been organized in the summer of 1941 for the assistance of the Chinese at the instance of Claire L. Chennault, a retired Air Corps officer who since 1937 had served as special adviser to the Chinese Air Force. The Volunteers were thrown into the battle in defense of the Burma Road and the airfields of southwest China during December 1941, and, for all practical purposes, the AVG had quickly become a part of the armed forces of the United States. It was anticipated at first that the AVG would be taken into the AAF as the 23d Fighter Group, which then would provide an experienced nucleus for a task force in China, but when it became apparent that few of the AVG pilots could be retained, it was necessary to wait until the 23d Group, activated in March, could be built up as a replacement. During the spring of 1942 plans were completed for the change-over in July, when Chennault, recalled to active duty in April and promoted to brigadier general, would assume command of the China Air Task Force, composed of AAF fighter and bomber units operating in China but assigned to the Tenth Air Force. Failure to secure the continued services of more than a few of the experienced AVG pilots argued for the forward deployment of additional units of the Tenth, and that air force, though India-based, would for a time do most of its fighting in China.

The Japanese occupation of Burma had virtually reduced the Chinese nation to a state of siege that called into question its capacity for continued resistance to the enemy. It was true, of course, that occupied Burma constituted a broad salient thrust far within Allied positions and thus presented inviting targets for attack by either India- or China-based planes, with certain obvious advantages in matters of supply to favor an India-based attack. Especially vulnerable was Japan's line of communication with its troops in Burma—a line extending 4,000 miles through the East and South China seas to Singapore and thence up the Malay coast to ports joined by railway to terminals in the interior of Burma. The occupation of the China coast, of Indo-China, and of



Malaya, together with the seizure of the Philippines, Borneo, Java, Sumatra, and of the Nicobar and Andaman Islands, had given the Japanese a water route well protected except for its vulnerability to air attack. But the resources for an effective attack were lacking, and the bulk of such forces as were available had to be deployed in China for reasons that were more political than military.

Indeed, the history of the Tenth Air Force in India during the summer and early fall of 1942 was to be in no small part the story of an effort simply to keep alive. In addition to its commitments to China, the Tenth at the very outset of summer was forced to send help to the Middle East, where Rommel threatened to break through the British lines to Suez. Maj. Gen. Lewis H. Brereton, who had commanded the Tenth Air Force since March, received orders on 23 June to move to the Middle East with all available heavy bombers, personnel necessary for staffing a headquarters, and such cargo planes as were required for his transportation.* And having acted promptly on these orders, he left in India hardly so much as the skeleton of an air force.

The Situation in India

To Brig. Gen. Earl L. Naiden, Brereton's former chief of staff, fell the unenviable task of trying to build anew a combat air force in India.¹ The transfer of key officers to Brereton's new command in the Middle East created vacancies in important staff positions for which there were no qualified replacements. The movement of transport planes and pilots out of the theater was a severe setback to the development of the air supply line into China, and authority granted to Brereton to appropriate Tenth Air Force supplies passing through the Middle East promised to make the acute supply shortage even worse. Furthermore, Brereton and other officers who had left India were still assigned to the Tenth so that the possibility of their return made Naiden's tenure uncertain enough to discourage him from giving full play to his own initiative.

On paper the Tenth Air Force consisted of the 7th Bombardment Group (C), with two heavy and two medium squadrons, and the 23d and 51st Fighter Groups with three squadrons each. But only six of the ten squadrons were equipped to participate in combat, one of these (the 9th Bombardment Squadron) being with Brereton in the Middle

* On the crisis in the Middle East resulting in Brereton's transfer, see Vol. II, 11-18.

East and the other five with Chennault in China. In India the 436th Bombardment Squadron (H) and the 22d Bombardment Squadron (M) were scattered from Karachi to Calcutta, incapable of combat operations until planes, spare parts, and personnel fillers had been received. The 11th Bombardment Squadron (M) was in China. The two squadrons of the 51st Group left in India had given up personnel and equipment to enable its third squadron (the 16th) and the 23d Fighter Group to undertake operations with Chennault. A small detachment from the 51st was stationed at Dinjan but the group itself remained at Karachi, awaiting aircraft and personnel.²

Comparative safety from enemy attacks because of monsoon weather temporarily relieved Naiden of one major worry but left him with more than enough problems to occupy his time and thought. Protection of the air supply line which he had helped to establish had become the major mission of the Tenth Air Force, and as soon as the monsoon lifted, the Japanese were expected to attempt to sever this last communication with China. The China Air Task Force under Chennault was capable of protecting the eastern end of the route, but defenses of the western terminal in upper Assam were still woefully inadequate. It was expected that two squadrons of the 51st Fighter Group would be ready to operate from Assam bases by the end of the summer, but effective defense was impossible until the makeshift air warning system in the area was improved. Naiden made repeated requests to Washington for men and equipment for this purpose. He also asked that a fully trained and equipped weather squadron be sent out to replace the provisional unit already set up in the theater. Approval was immediately granted but the date for departure of the squadron from the United States was left undetermined. Requests for additional antiaircraft batteries received the same treatment. Four months of experience in India had shown that commercial telephone and telegraph services were so undependable as to be practically worthless for military purposes, and radio service was frequently interrupted by weather and enemy jamming. Naiden therefore proposed the establishment of a land-line telephone system, requisitioning the necessary equipment.³ He was asked to revise downward his requisition because of shortage of shipping space to India, and after this was done, he received information that communications equipment and personnel were being prepared for service in the theater but that no definite commitments could yet be made.

General Naiden and Col. Robert C. Oliver, who was in charge of the X Air Service Command in the absence of Brig. Gen. Elmer E. Adler, also attempted to clarify the situation regarding basic equipment for organizations in the theater. Neither the units transferred from Australia in March nor those still arriving from the United States had yet received their equipment. As a result eight squadrons were at one time attempting to operate with organizational equipment sufficient for only two. Many lesser items could be procured locally, but heavy equipment, especially motor transport, was not obtainable. Oliver thoroughly reviewed for Naiden the effects of these shortages, and Naiden in turn made a direct appeal to the War Department that all T/BA equipment be shipped in the same convoy with the organization to which it belonged.⁴

Meanwhile Naiden continued to struggle with the build-up of the air freight line to China. Responsible at the outset for planning the service, as commander of the Tenth he was now responsible for the operations as well, and the supply of the five AAF squadrons recently moved to China was dependent upon his success. In order to keep China defense supplies flowing and at the same time enable the China Air Task Force to continue operations, tonnage figures had to be increased greatly, but on almost every side Naiden was balked in his efforts. Removal of twelve transports with their crews to serve with General Brereton was a serious handicap. The planes remaining in India soon showed the results of constant use under unfavorable conditions. Tires were worn out and engines needed overhauling or outright replacement, but spares were not to be had. Engines for Chinese P-43's were adapted for use by the C-47's, but the supply of these engines was limited. The inevitable result was frequent grounding of planes.⁵ Although eight of the transports were returned from the Middle East within six weeks, their usefulness was hampered by the necessity of constant overhauling.

The shortage of aircraft was only one of many difficulties confronting Naiden. During the months after the first surveys of the Hump flights were made, the defeat in Burma had increased the perplexity of the transport problem. As long as the airfield at Myitkyina remained in friendly hands the flight from Assam to Kunming could be made at a reasonably low altitude, but the loss of Myitkyina had necessitated the use of the more northern line of flight over the Himalayas. This flight placed a greater strain on pilots and planes and increased gasoline con-

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sumption. The sudden change in temperature from the steamy Brahmaputra Valley to the subfreezing conditions over the mountains was hard on men and craft, and especially serious was the danger of ice forming on the wings. Poor visibility made blind flying necessary for a great part of the time, and some of the planes were not equipped with the proper instruments. From May to October the heavy rainfall added to the numerous hazards and handicapped the men in their routine activity on the ground. During the torrents which frequently fell unceasingly over periods of days, landing strips took on the appearance of lakes. Landings were perilous and any planes removed from hard-surfaced sections were likely to be hopelessly mired.⁶ The Dinjan-Kunming flight gained the reputation of involving more hazards than any other regularly used route over a comparable distance.⁷

Aside from shortage of aircraft and unfavorable flying conditions, inadequacy of airfields in Assam probably would have prevented any considerable increase in the airlift to China during the summer of 1942. The British from the first had been skeptical of meeting the American construction demands, which included thirty-four airdromes in addition to other installations.⁸ The British were dependent upon cheap, unskilled native labor and upon materials locally available. At Chabua, Mohanbari, and Sookerating the workers, many of them women, laboriously broke stones by hand and moved soil from place to place in baskets upon their heads. On occasion they refused to work while rain was falling, and absenteeism was common on the numerous religious holidays. The whole construction program fell far behind and when expected aid from the United States in the form of heavy machinery and labor troops did not materialize, it became apparent that other air cargo fields would not be ready for occupation before late autumn.⁹ Consequently, in spite of the high priority given airfield construction in Assam, the overcrowded Dinjan airdrome remained the chief transport station throughout the summer.

Here at Dinjan morale among American personnel became a serious problem. Pilots cracked under the strain of long hours of hazardous flying without relief, while the monotony of existence in Assam became almost unbearable to ground personnel. Living conditions, by far the worst in the theater, showed no signs of improvement. Inadequacy of quarters, rations, mail service, hospital care, and recreational facilities were sufficient causes for discontent, but, when it was learned that personnel and materiel intended for the 1st Ferrying Group were

being diverted to combat units, the *esprit de corps* built up during the first weeks of ferrying operations died, morale dropping to a dangerous point.¹⁰

Apparent lack of progress in development of the air cargo route in July led to consideration in Washington of a plan whereby the China National Aviation Corporation (CNAC) would have full control over all flights from India to China.¹¹ General Stilwell conceded that CNAC had a fine reputation for efficient operations but advanced serious objections to the plan. He considered it unfair to have military personnel working beside civilians who were drawing more pay for identical work; nor did he believe it wise to place military personnel under civilian control in a combat area. Furthermore, he felt that the Chinese Ministry of Communications, to which CNAC was responsible, was more concerned with maintenance of nonessential Chinese commercial air routes than in transportation necessary to the prosecution of the war. He considered it desirable that CNAC continue to operate over the Hump if its activity could be confined to hauling of essential materials, but he maintained that giving it operational control of the Hump flight would be an admission that the USAAF had failed and would permit CNAC to take credit for the difficult planning, organization, construction, and development which the AAF had already done on the Dinjan-Kunming route.¹² To press his point further, he later recommended that he be allowed to make an arrangement with the Chinese for lease of all CNAC planes to the AAF to assure that they would be used only in furthering the war effort. If the Chinese refused, he advocated that no more transport aircraft be allocated to them.¹³ The soundness of Stilwell's reasoning was inescapable, and he was authorized to go ahead with his plan although there was some doubt that he would be able to obtain Chinese permission for leasing CNAC planes. In August, however, he was able to announce that Chiang Kai-shek had agreed in principle to leasing of the CNAC transports, and late in September he notified the War Department that the contract had been signed.¹⁴

While many of the unsatisfactory conditions in Assam and other parts of India were unavoidable, Stilwell felt that some improvement could be brought about by clarification of the administrative problem resulting from Brereton's departure for the Middle East. Believing that there was no prospect for an early return of Brereton and his staff, General Stilwell argued that these men should be relieved of assign-

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ment to the Tenth Air Force and that suitable replacements should be provided. He suggested to Generals Marshall and Arnold that Naiden should be relieved of command of the Tenth Air Force and allowed to devote his full time to the air cargo line. For command of the Tenth, Stilwell recommended Brig. Gen. Clayton L. Bissell, currently air adviser on his staff.¹⁵

On 18 August, General Bissell assumed command of the Tenth, but Naiden's services with the air cargo line were lost when he was returned to the United States for hospitalization.¹⁶ Ferry operations then devolved upon Col. Robert Tate. Although Stilwell had been notified that Brereton and Adler would not return, at the end of August neither Brereton nor the personnel who had accompanied him had been officially relieved of duty in the CBI theater. Stilwell reminded Marshall that no orders had been received and asked for a clarification of the status of the staff officers, combat crews, and transport crews of the Tenth then serving in the Middle East. Eventually, in September, a message came from Marshall stating that the staff officers would be permanently assigned in the Middle East and that orders were being issued to relieve them from duty with the Tenth. The air echelon of the 9th Bombardment Squadron and the transport crews would continue on temporary duty in the Middle East for some time, but the ground crews would be returned to India within a month.¹⁷

Meanwhile, Bissell had made a careful survey of the staff of his air force, and he promptly appealed for additional personnel to replace officers reassigned to the Middle East. In preparation for operations at the close of the monsoon season, he decided to organize all combat units in India into an air task force comparable to the one then operating in China, and to designate Col. Caleb V. Haynes to command it.¹⁸ When the activation of the India Air Task Force (IATF) should be accomplished, the Tenth Air Force would consist of the CATF under Chennault, the IATF under Haynes, the X Air Service Command under Oliver, the India-China Ferry Command under Tate, and the Karachi American Air Base Command under Brig. Gen. Francis M. Brady.

It had been the failure of the air cargo line to come up to expectations that indirectly led to Bissell's appointment to command the Tenth Air Force, and from the beginning of his incumbency he was constantly reminded that his most urgent task was to prevent this lone remaining supply line to China from bogging down entirely. The monsoon, lack of spare parts and maintenance facilities, loss of transport

bases in Burma, and transfer of cargo planes to the Middle East combined to prevent even an approximation of the desired 800 tons a month to China.¹⁹ In fact, deliveries during the summer months fell below those of April and May. Having spent several months in CBI, Bissell knew how important it was to keep supplies moving to the Chinese and to the CATF, and was familiar enough with conditions in Assam to know that he was being asked to accomplish a nearly impossible task. Accepting the challenge, he transferred service troops to Assam, gave highest priority to maintenance of transport planes, placed every available craft on the Assam-Kunming flight, and did everything possible to speed up construction of airdromes.²⁰

By September, in spite of the continuing rains, rising tonnage figures began to reflect the effects of his efforts. By 6 October he was able to announce that construction on fields at Mohanbari, Sookerating, and Chabua had so far progressed that the 1st Ferrying Group was prepared to operate seventy-five transports from India to China.²¹ Additional aircraft were not immediately made available to him, but during October the airlift was increased again. Late in the month, however, just as it seemed that the Tenth Air Force might find a solution to the problem, Stilwell was notified that on the first of December the entire Hump flight would be taken over by the Air Transport Command.*²² This change would obviously relieve the commander of the Tenth of one of his most trying problems but, since ATC operations were controlled by a Washington headquarters, the already complex command structure of CBI would be made more complicated than ever.

Relief from command of the Hump flight did not relieve the Tenth Air Force from responsibility for its protection, and there could be no letup in the efforts being made to improve and expand the existing makeshift air warning net for Assam. Since proximity of high mountains to airfields made it impossible to establish an orthodox radar net, Brereton had placed small detachments with light radios and portable generators in the hills to the east of Assam. He had enlisted the aid of loyal natives and used almost every conceivable means of transportation to set up a few outlying stations, so isolated that they had to be supplied by air.²³ Because of the great expanse covered by these few detachments the system was relatively ineffective. Planes could slip through without being sighted, and those sighted could get over pro-

* The reasons behind this decision will be discussed in connection with the history of air transport in Vol. VII. For the early history of ATC, see Vol. I, 349-65.

spective targets almost by the time the warning was received. Before the system could be made dependable enough to assure at least a minimum of warning, the existing gaps had to be filled and other stations placed farther out. Neither Brereton nor Naiden had been successful in obtaining the additional detachments necessary, but Bissell had enlisted the aid of Stilwell by convincing him that Assam would be in grave danger if some immediate action were not taken to perfect the net and to provide adequate antiaircraft defenses for major bases. Stilwell reminded the War Department of the danger of enemy air attacks at the end of the monsoon, maintaining that the stakes in the Assam-Kunming freight service were too high to make its success subject to a gamble.²⁴

As soon as the monsoon lifted, the Japanese made several damaging attacks on Assam bases,* fully demonstrating the inadequacies of the existing net. A few additional outposts had been established from theater resources, but immediately after the enemy raids Bissell urgently appealed for enough men and radios to set up fifteen more warning stations. He got approval for only five, the men and equipment to be sent out by air. The personnel arrived in due time, but as weeks passed without arrival of the promised equipment Bissell asked that the shipment be traced. The radios were eventually located at Natal, where they had been unloaded and left unnoticed for several weeks. They finally arrived in March 1943, hardly in time to deploy the new detachments before the next monsoon set in.²⁵

Meanwhile, Bissell was becoming acquainted with the many difficulties peculiar to the Tenth Air Force. Within ten days of his assumption of command there arose in India a crisis which for weeks threatened to wreck all the plans for American military operations in that country and which, as months passed, placed a multitude of obstacles in the way of attempts to develop American air power in the theater. Indian agitation for political autonomy, fanned by German and Japanese propaganda and encouraged by British reverses during the first months of the war, seemed at the point of turning into widespread civil strife. Gandhi's "quit India" policy and the failure of Sir Stafford Cripps's mission in the early months of 1942 had led to an impasse. On 9 August, British authorities arrested Mahatma Gandhi, Jawaharlal Nehru, and other Congress Party leaders. Riots immediately broke out in most of the urban centers.²⁶ Before these abated, organized saboteurs

* See below, pp. 431-33.

began a campaign which disrupted transportation and communications in large areas.²⁷ Strikes brought many large construction projects to a standstill. British officials insisted that the situation was not serious and that the trouble would soon blow over, but as the disorders and strikes continued American officers became alarmed at the gravity of the general political outlook. While they took every possible precaution against sabotage to their own supplies and equipment, they avoided involvement by keeping their men out of the areas of greatest disorder. By the end of the year conditions had improved slightly, but the danger was by no means passed.²⁸

That no serious troubles involving American troops occurred is a credit both to the men and their leaders. When the first Americans arrived in India, propaganda leaflets had been covertly distributed to them by the natives in an effort to enlist their sympathy in the cause of Indian independence. The soldiers had been cautioned to avoid involvement in the affairs of the country, and few were inclined, whatever their sympathy for the Indians, to favor obstructionist tactics at a time when Japanese invasion of India still remained a possibility.²⁹ The Japanese and Germans attempted to create ill feeling between the natives and the Americans by propaganda broadcasts in native languages, charging that the Americans were in India to stay and that they would follow a policy of exploiting the country and its people.³⁰ When rioting was at its worst many American station commanders restricted the troops to their camp areas to avoid trouble. As a result of a strict policy of neutrality, unpleasant incidents were avoided and the relationship between American soldiers and the natives continued on a friendly basis.³¹

Meanwhile Bissell had undergone the unpleasant experience of having the commanding general of the AAF review for him in detail the shortcomings of his new command. The first inkling of what was in store came in a message from General Arnold received by Bissell less than a month after he assumed command. The message stated that a representative of the Inspector General's Department, recently returned from India, had reported that promotion of junior officers in the Tenth was so slow as to create a serious morale problem.³² Bissell replied that promotion of junior officers had been governed entirely by T/O vacancies and that promotions had been made as rapidly as vacancies appeared. Activations in other theaters had accelerated promotions to an extent not possible in CBI. Furthermore, the policy of

sending out replacement officers in higher grades had denied promotion to many deserving second lieutenants.³³

The War Department, unwilling to permit promotions beyond T/O limitations, suggested that second lieutenants with combat experience could be returned to the United States and promoted there, thus raising the level of experience in operational training units in the Zone of Interior.³⁴ General Stilwell believed that men deserving of promotion should be rewarded in the combat zone rather than after their return to the United States,³⁵ and Bissell shared with Stilwell a conviction that an exchange of experienced second lieutenants for inexperienced first lieutenants and captains would be detrimental to the combat efficiency of the air force.³⁶ Fortunately, opportunities for promotion were soon provided through activation in the theater of four bombardment squadrons.

General Arnold's cable concerning promotions was followed in a few days by a letter noting in greater detail many flaws in the Tenth Air Force disclosed recently by the Inspector General's Department.³⁷ In reply, Bissell called attention to the fact that the inspection had been made prior to his assumption of command and assured Arnold that unsatisfactory conditions were being corrected.³⁸ The Tenth Air Force, he affirmed, could be forged into a first-rate fighting unit if only the materiel necessary for operations were supplied. Many difficulties were attributed to poor transportation in a theater of great distances. In a particularly forceful passage, he said:

From the base port of Karachi to the combat units in China is a distance greater than from San Francisco to New York. From Karachi, supplies go by broad gauge railroad, a distance about as far as from San Francisco to Kansas City. They are then transshipped to meter gauge and to narrow gauge and go on a distance by rail as far as from Kansas City to St. Louis. They are then transshipped to water and go down the Ganges and up the Brahmaputra, a distance about equivalent to that from St. Louis to Pittsburgh. They are then loaded on transports of the Ferrying Command in the Dinjan Area and flown to Kunming—a distance greater than from Pittsburgh to Boston. From Kunming, aviation supplies go by air, truck, rail, bullock cart, coolie and river to operating air-dromes—a distance about equivalent from Boston to Newfoundland. With interruption of this communications system due to sabotage incident to the internal political situation in India, you can readily appreciate that regular supply presents difficulties.³⁹

If morale was low among enlisted men, it was because of an almost complete lack of mail for many months, language difficulties in an alien land, absence of newspapers and books, lack of feminine com-

panionship, bad radio reception, excessive heat and humidity, weeks of terrible dust conditions, unfamiliar foods, poor initial housing conditions, and failure of organizational equipment to arrive along with the troops. In spite of the fact that cigarettes and tobacco had been requisitioned repeatedly, they had not been supplied in sufficient quantities. Irregularity of payment to men among early arriving units, resulting from inadequate finance arrangements, had been corrected. Earlier messing conditions had been unsatisfactory owing to seasonal dust storms and the use of British rations in an effort to save shipping space, but messes now were cleaner and better. The inexperience of some officers had caused additional trouble, but in this, as in other particulars, the general situation already showed marked improvement.⁴⁰

Like his predecessors, Bissell sent periodic requests to the War Department for personnel and materiel necessary to transform the Tenth from a skeleton organization into a fully operational air force, and as the end of the monsoon approached the urgency of his requests increased. On 24 August he had given notice that the depot at Agra, now equipped to overhaul combat aircraft, was impeded in its work by lack of spare parts.⁴¹ A fortnight later he reported that five B-17's and five P-40's were out of commission and could not be repaired until spare parts arrived.⁴² In mid-September he stated that the combined capacity at Agra and Bangalore for overhauling engines could be increased from the current rate of 60 per month to 200 per month if personnel, equipment, and supplies already on requisition were received, and he asked also for information on the status of an air depot group previously promised the Tenth.⁴³

In the same week, Bissell reported that because many incoming pilots had done practically no flying for several months prior to their arrival in the theater numerous crashes of combat aircraft had resulted. Recognizing that training at overseas stations was uneconomical, he nevertheless felt that a brief period of transitional training at Karachi was necessary to save lives and prevent destruction of valuable aircraft. Through Stilwell he requested authority to activate a composite OTU squadron at Karachi and to divert to it eight twin-engine advanced trainers from Chinese allocations.⁴⁴ The wisdom of this plan was readily admitted, but activation was denied because personnel and equipment could not be spared from the training program in the United States nor could diversion of the trainers be accomplished without prior consent from Chiang Kai-shek.⁴⁵

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In setting forth his ideas on aircraft requirements, Bissell echoed many of Brereton's suggestions. He considered the B-17E unsatisfactory because of its insufficient range and its excessive oil consumption—the latter trouble deriving in part at least from the theater's all-pervasive dust. The current B-25 model had insufficient gasoline capacity for missions flown from India bases, and the "cash register" bombsights with which they were equipped had proved unsatisfactory. Moreover, leaking hydraulic fluid, together with mud and dirt, had so obscured visibility from the bottom turret that it was not worth the weight and drag on the plane. Inadequacies of the P-40 were also reviewed, and the need for fast-climbing fighters in the Dinjan region stressed.⁴⁶

When the monsoon weather finally began to break, the aircraft situation in the CBI was far from reassuring. In June an agreement had been reached between General Arnold and Air Chief Marshal Sir Arthur Portal of Great Britain on the size of the U.S. air force which was to serve in Asia. This Arnold-Portal-Towers agreement* stipulated that by October the Tenth Air Force would consist of one heavy bombardment group equipped with 35 planes, one medium bombardment group with 57 planes, and two fighter groups with a total of 160 aircraft.⁴⁷ In preparation for reception of these aircraft certain shifts in organization were made. The 7th Bombardment Group (C) again became a heavy group, composed of the 9th, 436th, 492d, and 493d Squadrons, the two latter activated in the theater. The 11th and 22d Squadrons (M) formerly of the 7th Group were joined with the newly activated 490th and 491st Squadrons to form the 341st Bombardment Group (M). Organization of the two fighter groups, 51st and 23d, remained unchanged.

Although the 9th Bombardment Squadron (H) had returned from the Middle East by 3 November, it was not until December that the Tenth finally received a total of 252 aircraft, per the Arnold-Portal-Towers agreement. At the end of 1942 there were 259 combat aircraft on hand but the distribution of types was not according to specifications. There were present 32 heavies instead of 35, and 10 of these were nonoperational B-17's; only 43 medium bombers were on hand although 57 were due; and in fighters there was an overage, 184 being present as against 160 designated. In the case of fighters, however, the

* See Vol. I, 566-69.

figures are misleading, for four were P-43's which were used only for reconnaissance, and more than a score were old, worn-out P-40B's which were unfit for combat. The fighter squadrons had full components of planes albeit many were practically useless, but two heavy and two medium bombardment squadrons were still in the cadre stage.⁴⁸

In December a convoy arrived bringing three service squadrons, two depot squadrons, two quartermaster companies, one ordnance company, seven airways detachments, and fillers for the 23d Fighter Group and the 490th and 491st Bombardment Squadrons (M), but as usual much of the organizational equipment had been left behind. This brought forth another protest in which the general supply situation in the Tenth was again reviewed. General Bissell was particularly anxious to stop the pilfering of air cargoes along the ferry route to India. Since the freight consisted of critical supplies with priorities high enough to merit air transportation, these appropriations by units in other theaters resulted in acute shortages in the CBI and, as no notification of seizures was ever given to consignor or consignee, accurate record-keeping was impossible. Protests did little more at this time than to direct attention to the irregularities and the possibility of serious consequences, but corrective action eventually was taken.⁴⁹

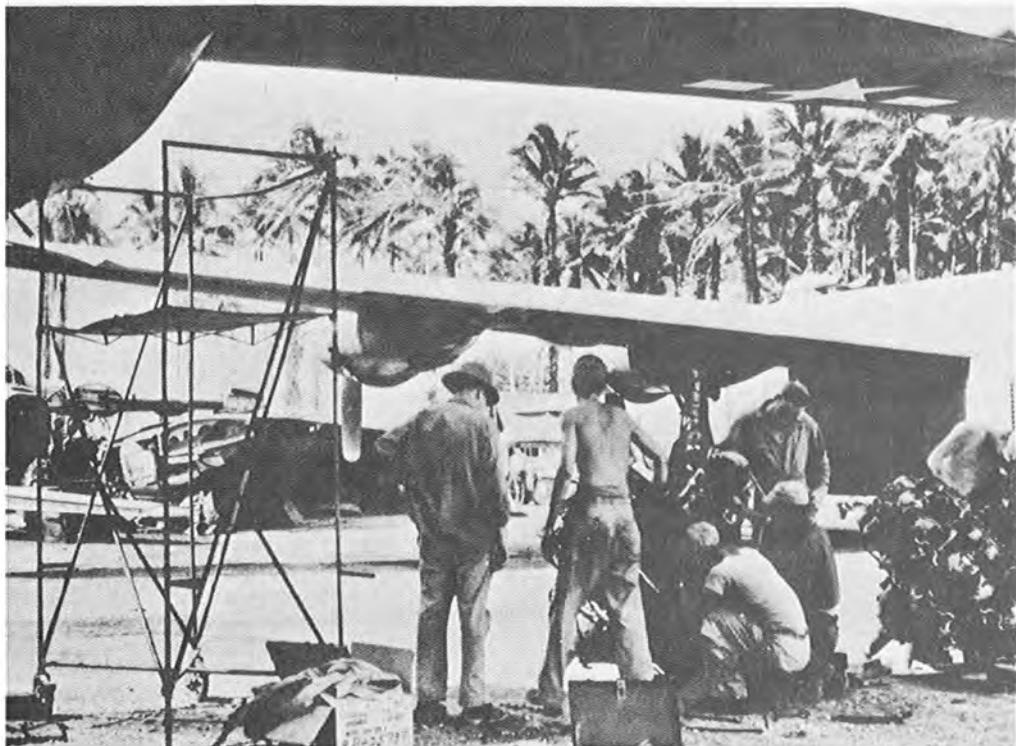
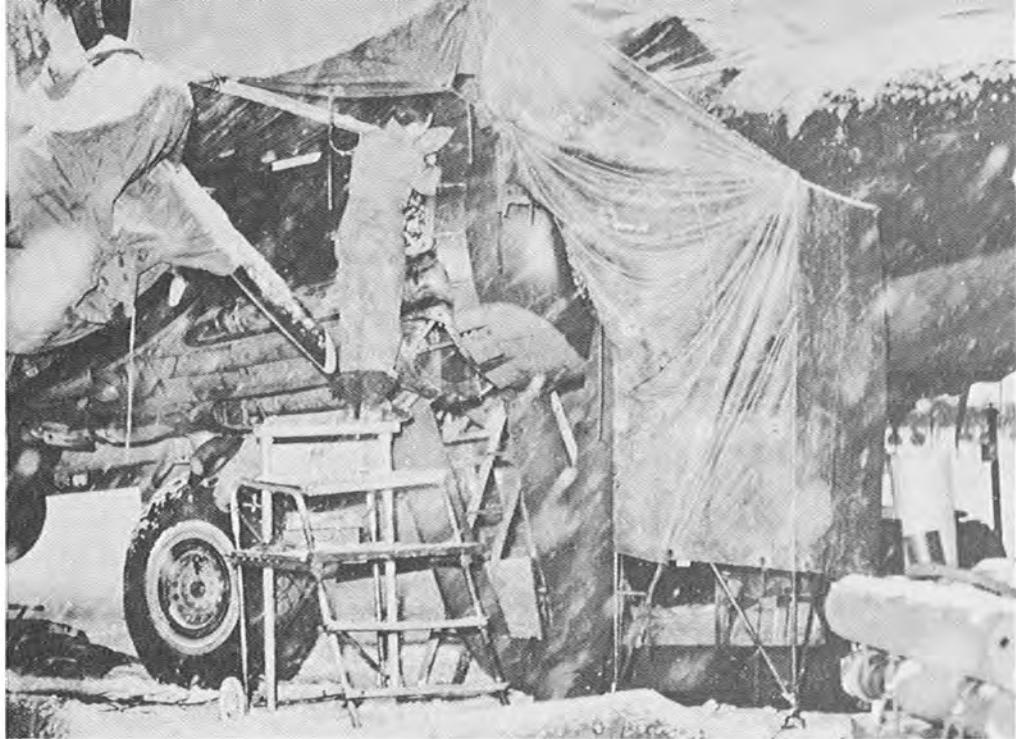
Bissell also urged that the T/O for the Headquarters and Headquarters Squadron of the Tenth Air Force and Headquarters and Headquarters Squadron for the X Air Service Command be approved, employing an argument recently used by General Arnold in his letter concerning unsatisfactory conditions in the theater—that promotions were being held up and morale adversely affected.⁵⁰ The T/O for Headquarters and Headquarters Squadron, Tenth Air Force was immediately approved, but no action was taken on the X Air Service Command organization.⁵¹ Bissell also suggested another organizational change, which he thought would not only open the way for promotions but make for better administration. The 16th Squadron of the 51st Fighter Group had been in China operating as part of the 23d Fighter Group for some months, and since no likelihood of an early return to India existed, he proposed that it should be formally transferred to the 23d Group. To fill the gap in the 51st Group he would activate in the theater two additional fighter squadrons, thereby providing India and China each with a four-squadron fighter group. The two new squadrons could be activated without receiving additional personnel or equipment from the United States.⁵² The proposal was

refused on the ground that maintenance and supply had been planned on the basis of two three-squadron fighter groups; furthermore, despite the fact that there would be no immediate demand for aircraft or personnel, ultimately there would be calls for filler personnel and replacement aircraft in excess of current allocations. The peculiar organizational arrangement should be allowed to continue until a more substantial reserve had been built up in the theater.⁵³

Shortly before the end of the year the Tenth Air Force received attention in another report from a member of the Inspector General's Department, but in contrast to the one submitted during the summer the comments were almost entirely favorable in tone. The most serious faults noted in CBI were in the method of keeping lend-lease records and inadequacy of the defense for the docks at Calcutta, but neither responsibility belonged to the Tenth. Particular approval was expressed for the successful execution of the policy of living off the land. In spite of the fact that the bulk of lethal supplies was received from the United States, more than 50 per cent of the total supplies for American forces had been obtained in the theater.⁵⁴

China Air Task Force

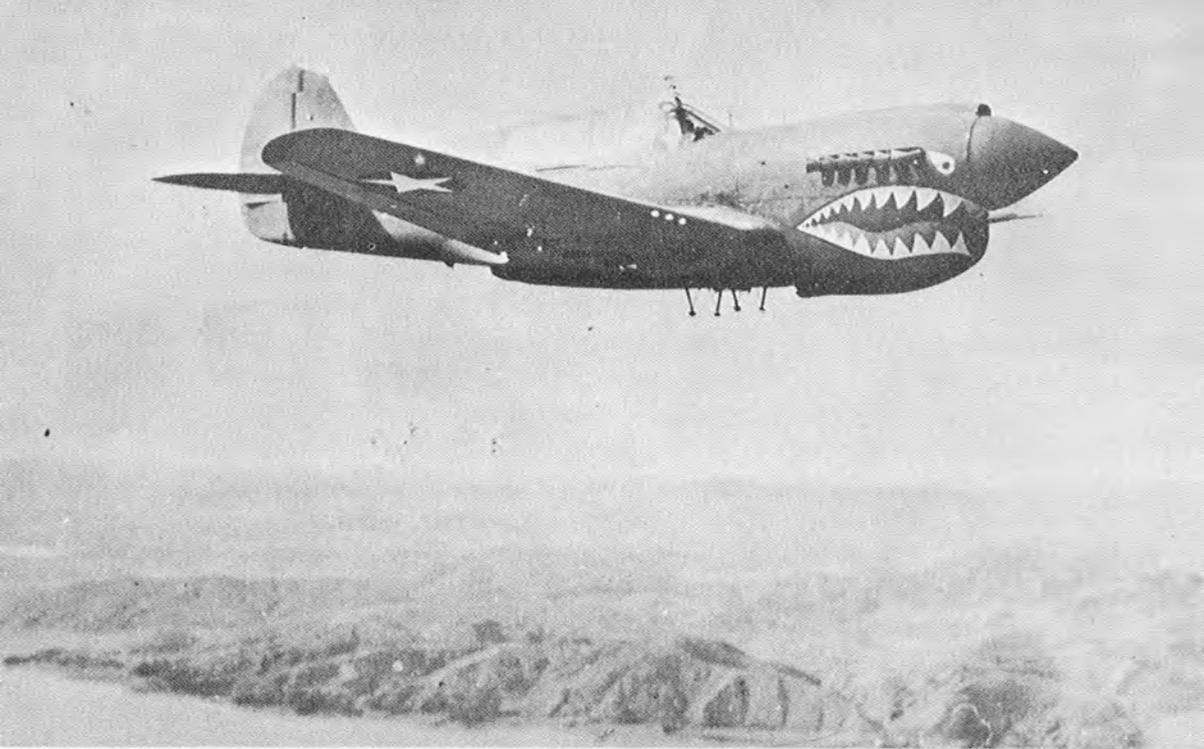
During the incumbencies of Naiden and Bissell, significant developments had taken place in China. On 4 July the 23d Fighter Group, the 16th Fighter Squadron, and the 11th Bombardment Squadron (M) had become the China Air Task Force under the command of Chennault.⁵⁵ Wholly dependent on air supply, this small force, with headquarters at Kunming, operated in a region almost completely surrounded by the Japanese and defended only by the disorganized and poorly equipped Chinese ground forces. Under ordinary circumstances this deployment would have been considered tactically unsound, yet in this instance there was ample reason for the apparent gamble. Because this was the only possible way at that time to fulfil American promises of air aid to China, the risk involved was overbalanced by the importance of encouraging Chinese resistance. Furthermore, while it was generally recognized that the Japanese could occupy any part of China they desired, it was believed that they would be unwilling to divert from other combat theaters a ground force sufficient to conquer southwest China, where the CATF was based. Having studied Japanese strategy for several years, Chennault was convinced that no serious ground effort would be made against the Kunming-Chungking area. Protection



MAINTENANCE: HEAVY BOMBERS

Above: LADD FIELD, ALASKA

Below: LOS NEGROS



FIGHTERS FOR CHINA

Above: FLYING TIGER OVER CHINA

Below: CHINESE AND AMERICAN PILOTS

THE TENTH AIR FORCE

of American bases from enemy air action was a major tactical consideration, yet with the aid of the air warning system which Chennault himself had planned, the AVG had fully demonstrated that a small number of American fighters could prevent the enemy from bombing out their airdromes. Ultimately, success of the new task force hinged upon the ability of the Tenth Air Force to fly in the tonnage required for efficient combat operations.

As a result of the limitations of air supply it was necessary that the CATF depart from orthodox Army practices and utilize to the fullest the labor and materials already at hand. To keep to a minimum the number of Americans in China, normal housekeeping functions were turned over to the Chinese. The Chinese War Area Service Corps, which had served the AVG, agreed to a new contract by which they would feed the Americans, as largely as possible from produce obtained in China. Many Chinese workers who had learned much about maintenance and repair of aircraft during AVG days were employed and a few of the former volunteer ground men had been inducted, but some signal, ordnance, quartermaster, engineer, and assorted air base personnel had to be added. In brief, at the outset the CATF functioned much the same as had the AVG.

With the CATF, Chennault hoped to achieve far more than he had with the Volunteers. Aside from the part CATF would play in protection of the eastern end of the air supply line, he set forth the following objectives which he hoped to attain:

- (1) To destroy Japanese aircraft in much greater numbers than total strength of CATF.
- (2) To destroy Japanese military and naval establishments in China and encourage Chinese resistance.
- (3) To disrupt Japanese shipping in the interior and off the coasts of China.
- (4) To damage seriously Japanese establishments and concentrations in Indo-China, Formosa, Thailand, Burma, and North China.
- (5) To break the morale of the Japanese air force while destroying a considerable percentage of Japanese aircraft production.⁵⁶

In the light of obvious logistical difficulties, limited personnel, rudimentary repair facilities, and the vast expanse of territory over which operations would have to be carried out, it would seem as if Chennault aimed at objectives completely beyond the capabilities of his tiny force. Yet certain factors tended to bring his ambitions within the realm of the attainable. Four of the five squadrons were equipped with Allison-powered P-40's with which Chinese craftsmen and former

AVG ground personnel were thoroughly familiar. Maintenance was made still simpler by availability of former AVG shops, while the presence of unserviceable P-40's which could be cannibalized eased the problem of spare parts.

Operationally the CATF also enjoyed advantages. The somewhat unorthodox air warning system was so efficient that the Americans almost invariably were able to intercept approaching enemy planes from favorable positions. On the other hand, American pilots who became lost over any part of the huge territory covered by the network could be directed back to their bases by ground outposts. The entire system was simple in principle. Around each strategic city or airdrome were concentric circles of warning stations at distances of one hundred and two hundred kilometers. Beyond these were hundreds of other outposts. By devious means reports from these outlying spotters reached the outer circle, where they were studied and transmitted to the inner circle. Eventually they reached the plotting room in some cave or operations shack. By the time an enemy formation reached a prospective target, the defenders generally knew the numbers and types of planes approaching and were in position to make advantageous interception.⁵⁷

The American forces enjoyed also the advantage of interior lines of communications between airfields so located as to make many major enemy installations accessible. In unoccupied China there had been built numerous airfields in a roughly elliptical area including Chengtu and Chungking to the northwest and north, Hengyang, Ling-ling, and Kweilin on the east, Nanning to the southeast, and Kunming and Yunnan to the south and west. From these bases American aircraft could operate over Hankow, key to the enemy supply system along the Yangtze, the tremendously important Hong Kong-Canton port area, Haiphong and other objectives in northern Indo-China, Chiengmai in Thailand, and all parts of northeastern Burma. By switching squadrons from base to base, Chennault could keep the enemy guessing where the next mission would originate and where the blow would fall. Since there were not as many squadrons as airdromes, some fields had to be left undefended, but in the case of important bases in the east—Hengyang, Ling-ling and Kweilin—planes based at one could give some protection to the others. In the same way Yunnan and Kunming were interdependent. Only the remarkably effective air warning system made some of the bases tenable, and in spite of the net and the

clever shuffling of squadrons it was inevitable that Japanese formations would sometimes be able to bomb American-held airdromes without aerial opposition. In several instances, only inaccuracy of Japanese bombardiers prevented almost total destruction of important installations. Of paramount importance also to the American units was the almost uncanny ability of Chennault to outguess the enemy. Much of the lore which he had picked up during his long service in China had been passed on to airmen of the AVG, and this, in addition to their own combat experience, made those who remained with the CATF of inestimable value for training new pilots in methods of fighting the Japanese.⁵⁸

Late in June 1942, as the day approached when the AVG would be dissolved and the CATF would come into being, there was a distinct air of uneasiness at American bases in China. Headquarters organization of the new force was complete, Col. Robert L. Scott having assumed command of the 23d Fighter Group and Col. Caleb V. Haynes of the bombers. The fighter squadrons, however, could not be brought to full strength by 4 July, and if only a few AVG pilots enlisted in the AAF, a determined enemy onslaught might succeed in wiping out the CATF before it had a chance to spread its wings. In fact, rumors were current that the Japanese, fully aware of the approaching change-over and greatly disturbed by the appearance in China of the B-25's, were planning to attack American bases in full force on 4 July.⁵⁹

In order to circumvent the enemy, Chennault planned to strike first, using about twenty of the AVG pilots whom he had persuaded by offering special inducements to remain on duty for two weeks after expiration of their contracts.* By striking out at the Japanese before actual activation of the CATF and by retaining enough seasoned fighter pilots to frustrate attacks on American bases, Chennault hoped to take the initiative and gain time for further replacements to arrive.

The deployment worked out for the coming campaign was simple but ingenious. It provided for adequate defense of all major bases while at the same time making it possible to run offensive missions over widely separated targets. To Hengyang he sent the 75th Fighter Squadron under command of Maj. David L. Hill, former AVG ace, with about half the volunteer AVG pilots attached. The 76th Fighter Squadron under another ex-AVG ace, Maj. Edward F. Rector, was dispatched to Kweilin along with the other volunteer pilots. Yunnani,

* One pilot, John Petach, lost his life while on this unofficial tour of duty.

about 150 miles west of Kunming, was manned by the 16th Fighter Squadron under Maj. George W. Hazlett. The 74th Fighter Squadron under Maj. Frank Schiel, still another ex-AVG flyer, was left at Kunming for defensive purposes and to assist in training incoming pilots. Headquarters of the single medium bombardment squadron remained at Kunming, but detachments were to shuttle between the home station and the eastern bases at Kweilin and Hengyang from which they were to fly most of their missions. If the necessity arose, they could also run missions from Kunming and Yunnani.⁶⁰

Under this plan the three vital bases on the east had two fighter squadrons, while the two other squadrons were left in the Kunming and Yunnani area. The Chengtu-Chungking region, less likely to be attacked, supposedly was to be protected by what remained of the Chinese Air Force. Defensively sound, this plan of deployment also offered innumerable offensive possibilities. Medium bombers based at Kunming, with escort provided by the 74th Squadron, could range southward to objectives in Indo-China, Thailand, and Burma. By staging at Yunnani, where the 16th Squadron could act as escort, they could penetrate even farther into Burma. Their most remunerative targets, however, lay to the east. From Hengyang and Kweilin they could reach Hankow, Canton, and Hong Kong, and the 75th and 76th Squadrons could share responsibility for escort and air-base defense.

After everything was in readiness the first offensive strike was held up for several days by inclement weather. But on 1 July, Maj. William E. Basye, commander of the 11th Squadron, led a flight of four Mitchells covered by five P-40's to bomb Hankow's dock installations. Poor visibility so handicapped the inexperienced bombardiers that the effects of the bombardment were inconsequential, but the following day a similar raid on the same target brought gratifying results. On the night following the second Hankow raid the enemy retaliated by bombing Hengyang, completely missing the field. The following day Americans from Hengyang attacked the airdrome at Nan-chang, probable base of the preceding night's raiders. The bombs fell at the intersection of two runways, probably destroying several parked aircraft, but before damage could be properly assessed enemy interceptors made contact. One P-40 and two Japanese fighters went down in the ensuing fight but the American pilot was saved. That night, 3 July, the enemy again lashed out at Hengyang, but again missed the target.⁶¹

As 4 July dawned, all American airdromes were on the alert for

expected enemy attacks, but except at Hengyang and Kweilin the day passed quietly. At Hengyang the Americans, spurning a completely defensive course, planned a second counter-air force mission, selecting Tien Ho airdrome at Canton as their target. Tien Ho's location made it a potential threat to all American bases in the east, and its destruction would be an excellent defensive stroke. Recalling that considerable damage had been done at Nan-chang and that the Japanese radio had claimed the destruction of Hengyang, the Americans reasoned that if enemy attacks materialized during the day they would originate from Tien Ho, with Kweilin rather than Hengyang as their objective. Furthermore, the Japanese air warning net at Tien Ho was poor, and if the American raid could be timed so as to catch the base with most of its aircraft away on an offensive mission the attack could be made without serious risk. Fully aware of the gamble they were taking by leaving Hengyang practically undefended, five B-25's and their escort took off. Finding no enemy planes in the air at Tien Ho they brought heavy destruction to buildings, runways, and parked aircraft.⁶²

Meanwhile, just as the Americans had hoped, the enemy had selected Kweilin rather than Hengyang as the target for the day. When Japanese bombers escorted by new twin-engine fighters boldly came in, they were jumped by P-40's waiting above. With negligible damage to themselves the Americans prevented effective bombing of the airdrome and destroyed thirteen enemy planes. As no further attacks came during the day it was felt that perhaps the most critical point in the career of the CATF had been passed.⁶³

In the two weeks following this four-day flurry of activity the Americans ran four offensive missions, and on only one occasion did the Japanese attempt to retaliate. On 6 July, Canton water front was successfully attacked; two days later one Mitchell bombed an enemy headquarters at Teng-chung in southwest China; on the 16th a large fire which burned for three days was kindled in the storage area at Hankow; and on the 18th, Tien Ho airdrome was hit. After the attack at Hankow on 16 July the B-25's had just landed at Hengyang to gas up before returning to Kweilin when they were warned of approaching enemy planes. They took off hastily for Ling-ling, but the Japanese formation turned back without attacking. Unfortunately, during the confusion an American pilot mistook a B-25 for an enemy bomber and shot it down, but the entire crew was saved.⁶⁴

On 19 July in answer to repeated appeals from the Chinese, who

were conducting a desultory siege at Linchuan, south of Po-Yang Lake, American bombers attacked the city. The next day the Chinese reported that the bombers had broken the deadlock, making it possible for them to enter the city.⁶⁵ On 20 July the Americans ran their last mission of the month, hitting Kiukiang, where they destroyed a cotton-yarn factory.⁶⁶ Quiet prevailed until 30 July, when the enemy made a determined effort to dislodge the CATF from Hengyang, the base from which the Yangtze Valley was being harassed. Japanese planes came over time after time in attacks extending through thirty-six hours, but efficiency of the warning net and the stubborn defense put up by the fighters prevented major damage to the base. Seventeen of the estimated 120 attacking planes were shot down, while the defenders lost only three aircraft. Four of the Japanese planes were shot down at night.⁶⁷

The action during July set a pattern which aerial combat in China followed closely for the next six months. In the B-25, Chennault had for the first time a satisfactory offensive weapon, and while he was rarely able to send out more than four or five at a time, he repeatedly directed them against heretofore untouched enemy installations. Almost invariably P-40's accompanied the Mitchells, frequently carrying bombs to supplement the efforts of the bombers. After the B-25's were safely through the bomb run the fighters swooped down to strafe targets of opportunity, the strafers sometimes bringing more damage to enemy installations than did the bombers.

Shifting rapidly from one sector to another, the Americans struck out at supply bases, airdromes, and docks and shipping, rarely encountering aerial resistance. On the other hand, Japanese raiders in pursuing their futile efforts to knock out eastern bases continued to run into bitter resistance and consistently suffered higher losses than did the American defenders. When the score for July was tabulated, Chennault's claim that the CATF would destroy Japanese aircraft in greater numbers than its total strength seemed less extravagant. At the expense of only five P-40's and one B-25, the Americans had destroyed approximately twenty-four fighters and twelve bombers. Moreover, American personnel losses were negligible.

In August, while the fighters from Hengyang continued to harry the Japanese at Linchuan, Yochow, Nan-chang, and Siening, the Mitchells struck Hankow, Canton, and Tien Ho. On 9 August the B-25's brought a new set of targets under their sights when they under-

took their first mission over Indo-China. Topping off at Nanning, only a few minutes' flying time from enemy lines, they did considerable damage to docks and warehouses at Haiphong and sank a freighter in the harbor.⁶⁸ In the middle of the month, shortage of gas at advanced bases and need for rest and repairs brought offensive missions to a halt for two weeks. Meanwhile, at Kunming two administrative changes had been made in Chennault's staff. Lt. Col. Henry E. Strickland arrived from New Delhi to serve as adjutant general, and Col. Merian C. Cooper became chief of staff.⁶⁹ Colonel Cooper, formerly in China in connection with the Doolittle project and more recently with Colonel Haynes in Assam, had served with the Polish air force following World War I and became invaluable to Chennault in laying plans for what the Japanese called the "guerrilla warfare" of the CATF.

When the crews had been rested and the aircraft reconditioned, some of the B-25's were moved to Yunnani preparatory to running bombing missions over Burma. In the face of heavy interception on 26 August they successfully bombed Lashio, important rail center, road junction, and air base. Two days later the Mitchells in the east resumed offensive operations by flying an eight-plane unescorted mission into Indo-China without being challenged. The following day the Yunnani-based bombers again hit Lashio, and on the last two days of the month made successful attacks on Myitkyina.⁷⁰

In September eastern bases once more became the center of activity of the CATF. Fighter sweeps over the Yangtze Valley south of Hankow were interspersed with bombing missions to Hankow and against the Hanoi-Haiphong region in Indo-China.⁷¹ On 19 September an unsuccessful B-25 mission to Lung-ling in west China discovered unusual activity in that area which further reconnaissance revealed as part of a heavy movement of enemy troops and supplies along the Burma Road from Lashio toward the Salween front. As Japanese penetration east of the Salween would further endanger the already hazardous air route from Assam to Kunming, the CATF gave support to the Chinese ground forces by attacking depots, dumps, and barracks areas. In eleven missions the air task force did extensive damage at Teng-chung, Mang-shih, Wanting, Che-fang, and Lichiapo.⁷²

In October heavy bombers from India carried out a mission which marked the first use of this type of craft in China and the first offensive strike north of the Yellow River. Using B-24's with which the 7th

Bombardment Group (H) was being re-equipped, a small flight of the 436th Squadron flew to Chengtu, northwest of Chungking. Led by Maj. Max R. Fennell, who had been borrowed from the Ninth Air Force because of his familiarity with the region to be attacked, the bombers took off from Chengtu on the afternoon of 21 October. Winging northeastward to Hopeh Province, they loosed their bombs over the Lin-hsi mines of the Kailon Mining Administration near Ku-yeh (beyond Tientsin), hoping to destroy power plants and pumping stations. Had the mission been successful, the mines which produced 14,000 tons of coal per day would have been flooded and rendered useless for several months, but while the bombs struck in the target area they failed to destroy the objectives.⁷³

Four days later, the CATF executed one of its most successful missions. Having learned that Japanese convoys en route to Saigon and points in the southwest Pacific frequently put in at Hong Kong, Colonel Cooper had worked out a plan to attack Kowloon docks while the harbor was crowded. On 25 October when news came through that Victoria harbor was packed with enemy ships, twelve B-25's and seven P-40's took off from Kweilin. Ineffectiveness of the enemy air warning net enabled the CATF planes to blanket the dock area with 30,000 pounds of demolition and 850 kilograms of fragmentation bombs before they were jumped by some twenty-one interceptors. Enemy pilots pressed their attacks with unusual determination, finally succeeding in destroying one B-25, the first they had shot down in China. They also downed a P-40, but these successes were exceedingly costly, for in the long running fight that developed the Japanese force was virtually annihilated. The pounding of Hong Kong continued that night when six unescorted B-25's ran the first night mission of the CATF, attacking the North Point power plant which provided electricity for the shipyards. Hardly had these bombers returned to Kweilin when three others were heading for Tien Ho airdrome, where they hoped to destroy a gasoline dump. Failing to locate the primary objective, they loosed their bombs on the warehouse area of Canton. Large explosions resulting in fires gave evidence of their accuracy. These Mitchells were intercepted by night fighters, which they successfully evaded, though the light from their exhausts enabled enemy planes to follow them for more than a hundred miles.⁷⁴

The medium bombers then moved to western China to carry out

an order from General Bissell to neutralize Lashio.* In their absence P-40's continued the assaults on the Canton-Hong Kong area, using dive-bombing attacks for the first time.⁷⁵

During the first three weeks of November, CATF activity consisted largely of routine missions in support of Chinese armies along the Siant-siang, but on the 23d, nine mediums and seven fighters, after feinting at Hong Kong, flew southward undisturbed to sink a large freighter and damage two others on the Gulf of Tonkin. Later the same day six Mitchells and seventeen fighters reached Tien Ho without being detected and executed a devastating bombing and strafing attack on the airdrome. Hangars, barracks, and storage tanks were riddled, while an estimated forty-two planes were destroyed on the ground. So complete was the surprise that no airborne enemy aircraft were sighted. Two days later a similar force crippled three freighters on the Pearl River near Canton.⁷⁶

On 27 November, Chennault sent out the largest mission of the CATF to that date. Ten bombers and twenty-five fighters took off from Kweilin and flew northward toward Hankow. After some minutes they suddenly swung to the southeast to attack shipping and harbor installations at Hong Kong. Again surprise enabled them to complete their bomb run before having to counter enemy interceptors. After the Americans were ready to return to base they were met by a large formation of enemy fighters, but once more the P-40 pilots succeeded in protecting the bombers while destroying several enemy aircraft.⁷⁷ Following these successful missions in the Canton-Hong Kong sector, missions for which the CATF received from General Arnold a special message of congratulations,⁷⁸ the task force brought one of its best months to a close with attacks at Hongay and Campho Port on the Indo-China coast.⁷⁹

India Air Task Force

As autumn brought clearing weather to India and Burma, it was realized that the India Air Task Force, activated on 3 October, would face serious responsibilities. There were signs of Japanese preparations to move northward from Myitkyina toward Fort Hertz,⁸⁰ and it was believed that the enemy would make a determined effort to bomb the vitally important but highly vulnerable air installations in Assam. Col.

* See below, p. 433.

Caleb V. Haynes (soon to be promoted to brigadier general) was given command of the new task force, which comprised all combat units then in India, with the dual mission of defending Assam and doing everything possible to check the enemy drive toward Fort Hertz.⁸¹

On paper the IATF had nine squadrons, but not one was fully prepared for combat operations.⁸² Of the four heavy bombardment squadrons of the 7th Group, the 9th had not yet been returned from the Middle East, the 436th was just receiving its component of aircraft, and the other two, the 492d and 493d, were mere cadres. The recently activated 341st Bombardment Group (M) had only three squadrons in India, and two of them, the 490th and 491st, were without aircraft. The 22d Squadron was just receiving its planes and had not completed training.⁸³ A detachment of the 26th Fighter Squadron had moved to Dinjan, but the other squadron of the 51st Fighter Group, the 25th, was in training at Karachi.⁸⁴

During the summer months the defense of Assam had consisted largely of monsoon weather. As the end of the rainy season neared, Haynes moved the remainder of the 26th Fighter Squadron to Assam and alerted the partially trained 25th Squadron,⁸⁵ but before the defenses of Assam could be greatly bolstered, the long-expected Japanese assault took place. On 25 October flights of enemy bombers and fighters appeared over targets in Assam almost before warning of their approach was received. Fortunately three American fighters were already airborne and six others managed to take off, but the element of surprise made it impossible for them to throw up more than a token defense. The attack obviously was planned with full knowledge of conditions at the several fields. Dinjan, Chabua, Mohanbari, and Sookerating were all hit, but only the important airdromes at Dinjan and Chabua were heavily bombed. In all, approximately one hundred planes took part in the mission, the bombers releasing their bombs at 8,000 feet to 12,000 feet and the fighters dropping down to 100 feet to strafe. Severe damage was done to runways and buildings, but the most serious loss was in parked aircraft. Five transports and seven fighters were completely destroyed, while four transports and thirteen fighters were badly damaged. Enemy losses consisted of six fighters, two reconnaissance planes, and one bomber.⁸⁶

On the following day a number of enemy aircraft estimated at from thirty-two to fifty made strafing sweeps over the same area, concentrating on Sookerating. Again the interval between reception of the alarm and appearance of the attackers was too short to permit inter-

ception. On this occasion no planes were lost on the ground, but a freight depot containing food and medical supplies intended for China was burned. Two enemy planes were destroyed by ground fire. A third raid on 28 October, thought to be largely for the purpose of reconnaissance, did little damage.⁸⁷

Expecting enemy attacks from Myitkyina, the Americans had kept the airdrome there under close surveillance, but the enemy had achieved surprise by using belly tanks and mounting the flights from more distant bases.⁸⁸ General Bissell believed the missions originated from Lashio and ordered Chennault to bring his B-25's from eastern China to destroy that airdrome. Because CATF reconnaissance sorties had revealed no unusual number of planes at Lashio, Chennault believed that the missions had been flown from bases in southern Burma. Consequently, he expressed reluctance to divert his small bomber force from lucrative targets in the east to bomb what he thought was an empty airfield. When Bissell repeated his order, Chennault complied, but the incident widened a rift between the two American commanders which had existed since the time of the AVG.

Immediately after the raids on Assam all available fighters in India were rushed there. The 26th Fighter Squadron was established at Dinjan, while the 25th Squadron arrived from Karachi on 31 October to take up its duties at Sookerating.⁸⁹ Additional anti-aircraft batteries arrived on the day after the first raid, but ground defenses were still inadequate. Moreover, the air warning net could not be improved until more equipment arrived. Bissell took advantage of the occasion to repeat his appeal for the return from the Middle East of all Tenth Air Force personnel and aircraft.⁹⁰

There was no recurrence of the October raids on Assam, and fighters of the India Air Task Force were able to increase gradually the size and frequency of their incursions into northern Burma. The bomber arm, however, was yet incapable of accomplishing more than harassing missions. It proved possible to reinstitute a regular run to the Rangoon area with raids on 5 and 9 November, and on the 20th, eight B-24's dropped bombs in the midst of some 600 to 700 units of rolling stock in the marshalling yards at Mandalay. Two days later the attack was repeated by six Liberators.⁹¹ On 28 November the Liberators again demonstrated their long-range striking power when nine craft under Lt. Col. C. F. Necrason made a 2,760-mile round trip to Bangkok, where they seriously damaged an oil refinery.⁹² Two days later the heavies extended their attempted interdiction of the water approaches

THE ARMY AIR FORCES IN WORLD WAR II

to Burma by beginning a series of raids on Port Blair in the Andaman Islands.⁹³ On the night after Christmas the mission to Bangkok was repeated by twelve B-24's.⁹⁴

Either fearing to risk their aircraft or unable to make interceptions, the Japanese offered no aerial resistance to these heavy bomber missions. They did, however, begin a counteroffensive bombardment late in December. In the face of ineffective interception by RAF fighters, they repeatedly attacked docks and shipping at Calcutta and Chittagong and damaged airfields at Dum Dum, Alipore on the southern outskirts of Calcutta, and Fenny. As the year came to an end the exchange of bombing attacks continued with neither offensive effort meeting effective resistance.⁹⁵

By January 1943 headquarters of the IATF had been established at Barrackpore near Calcutta, and the following deployment of combat units was completed: the 25th and 26th Fighter Squadrons were at Sookerating and Dinjan, in Assam; the 436th and 492d Bombardment Squadrons (H) were at Gaya; the 9th and 493d Bombardment Squadrons (H) at Pandaveswar; the 22d and 491st Bombardment Squadrons (M) at Chakulia; and the 490th Bombardment Squadron (M) at Ondal. The newly activated squadrons, though not yet at full strength, were ready to participate in combat, and it appeared that for the first time the Tenth Air Force was in position to challenge Japanese air supremacy in Burma.⁹⁶

Although deployment and training had advanced to a stage permitting combat operations, other fundamental problems had to be worked out before the IATF could hope to achieve success comparable to that of the CATF. The Tenth Air Force as a whole was a fairly well-balanced organization, with one heavy group, one medium group, and two fighter groups.* Yet requirements of the task force in China, where many fighters were necessary and only a few bombers could be supported, had left a badly balanced task force in India. Responsibility for carrying out the major phase of the Tenth's mission, protection of the Hump operation, was divided between the two task forces, but enemy deployment and the geography of the theater made it inevitable that the IATF should bear the greater part of this burden. Assam installations were larger and thus more inviting to the enemy than those at Kunming, and while there was a fine air warning system protecting Kunming, the one serving Assam was still rudimentary.

* See above, p. 420.

CHAPTER 13

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PROBLEMS OF COMMAND

WHEN the Combined Chiefs of Staff assembled at Casablanca for their historic meeting of January 1943, they faced a problem in the CBI which was intrinsically complex and had been rendered more so by much acrimonious debate.

General Stilwell had persisted in the belief that it would be necessary to reopen a land route to China. To accomplish this purpose he would depend upon Chinese armies trained and led by himself. At Ramgarh, in northeastern India, he assembled during the summer and fall of 1942 some 45,000 Chinese troops for training as the X Force. In Yunnan Province, another force, which he hoped to increase to twenty-seven divisions, was put in training as the Y Force for collaboration with X in a pincer movement that would force the Japanese out of northern Burma. He planned to build a new road behind the X Force as it advanced southeastward from Ledo in India until land communications could be re-established with China by the juncture of the two forces.¹

This strategy was bitterly opposed by General Chennault, who had been in China a long time and was convinced that Stilwell had overlooked a unique opportunity for employment of the air weapon. The reconquest of Burma and the building of a new road across the mountains, in Chennault's opinion, could only prolong the war by devouring materiel and manpower which otherwise might be used for the construction of additional airfields in Assam and China and for the build-up of an effective air force in China. As an alternative to Stilwell's plan, Chennault promised that, with 500 aircraft deployed from Chinese bases, he could destroy Japanese air power in China. The enemy's position on the Asiatic mainland, he argued, was peculiarly vulnerable to air attack. Occupied areas, stretching along the coast and serving as a flank for protection of vital sea communications, not only lacked depth

but were at all points virtually equidistant from central China, where American air units could be advantageously deployed. With a small but properly equipped air force, he could jab at will anywhere along the enemy's perimeter and thus piecemeal destroy Japanese air strength. This would speed the advance of American forces in the Pacific and permit their approach to the China coast without fear of land-based aviation. And if the Japanese chose to meet this threat by commitment to the mainland of enough forces to extend the occupied zone in China, their strength at other points would be seriously weakened. In other words, a modest investment of men and aircraft could not fail to pay off.²

Chennault's proposal necessarily rested upon the assumption that an expanded airlift from India to China could solve the problems of logistics. Stilwell, strongly supported by Marshall, had no such faith and proceeded with plans for a ground offensive that he hoped to launch by February 1943.³ In this hope, however, he met with little luck. The British objected to proposals for enlarging the Chinese army at Ramgarh and thus gave offense to the Generalissimo, who lost his enthusiasm for the proposed attack. Chiang Kai-shek had placed a condition on the cooperation of his Yunnan force, which was that the ground offensives should be coordinated with naval operations in the Andaman Sea, a possibility eliminated by the decision to invade North Africa in November 1942.⁴ As it became increasingly evident that Stilwell could not undertake his offensive for a long time, General Chennault enjoyed the advantage of promising more immediate results at a relatively slight cost.

A Separate Air Force for China

A significant part of Chennault's plan was the demand that he be given a free hand in the employment of air forces in China. Chennault disliked his subordination to the Tenth Air Force. Friction had developed between him and General Bissell,⁵ who came to the theater originally as Stilwell's air adviser and later became commanding general of the Tenth, purposely having been given one day's seniority over Chennault in the promotion to brigadier general.⁶ General Chennault enjoyed the special confidence of Chiang Kai-shek and the applause of the Chinese people. The Generalissimo had been disappointed by failure of the Americans to place a larger air force in China, and he was suspicious of British influence over the India-based Tenth Air

Force. He seems also to have anticipated that he might make use of the proposed change in command arrangements to resurrect the moribund Chinese Air Force, which had a number of trained pilots but no aircraft.⁷ And so it was that issues rooted basically in differing concepts of strategy tended to come to a focus toward the close of 1942 on the question of an independent air force for Chennault.

The War Department, under Marshall's leadership, had given its support to Stilwell's concept of the appropriate strategy.⁸ But Chennault had a unique advantage which enabled him to by-pass both the theater commander and the General Staff in Washington. The Generalissimo, aware that China perhaps held the key to future air operations against the Nipponese homeland, was prepared to use diplomatic pressure in Chennault's behalf. The latter had only to persuade Chiang, who then passed on the word to the Chinese Embassy in Washington or to Dr. T. V. Soong, his brother-in-law, who was also at that time in Washington. In addition to the normal diplomatic channels of approach to the White House, Dr. Soong enjoyed the personal friendship of Harry Hopkins, confidant of the President.⁹

When the decisions reached at Casablanca proved, as had been anticipated, extremely disappointing to China's hopes, the pressure in behalf of Chennault became stronger. Confirmation of an over-all strategic plan to give first call on Allied resources to operations against Germany, plus the tentative conclusion that operations against Japan in the Pacific Ocean areas might be prosecuted on a larger scale than theretofore had been considered possible,* left very little indeed for the CBI. It was agreed that British forces would continue operations in southern Burma for the recapture of Akyab, thus advancing Allied air bases closer to the main centers of Japanese control in Burma, and would establish bridgeheads across the Chindwin River as a threat to Mandalay. But it was decided that the major operations proposed by Stilwell for northern Burma could not possibly be undertaken before November 1943, if then. Meanwhile, the recently established India-China Wing of the Air Transport Command (ICWATC) should be reinforced.¹⁰

After the adjournment at Casablanca, Arnold took a plane, in the company of Lt. Gen. Brehon B. Somervell and Field Marshal Sir John Dill, for India and China. They arrived at New Delhi on 30 January 1943 and were joined there by Stilwell on 1 February.¹¹ Shortly,

* See above, pp. 130-31.

Arnold and Dill went on to China with Stilwell. Long before the time of his arrival in China, Arnold had been made aware of the desire on the part of Chennault and the Chinese government to have the CATF become an independent air force. It was maintained that distance forbade continued attempts at tactical control from New Delhi of air units located in China. The probable increase in the importance of the Chinese zone of operations and the past success of the CATF argued for its establishment as a separate air force.¹²

But Arnold did not want an independent air force under Chennault, and said so to Marshall in a radiogram from China on 5 February.¹³ The controlling factor, said Arnold, in all air operations from China bases was the supply of fuel, which had to come by airlift from India. The lack of needed services in China and the delay which had been imposed on logistical support from the United States made air operations in China so dependent upon the base in India that complete independence of the CATF was impossible. While acknowledging his mastery of tactical operations, Arnold expressed the opinion that Chennault was weak on administration and advised that the CATF should be continued as part of the Tenth Air Force.

Though opposing the establishment of a second air force in CBI, Arnold promised substantial help for Chennault's command. The 62 transports currently operating with the India-China Wing of ATC would be increased to 137 by 15 March; furthermore, C-47's would be replaced by the larger C-46's as rapidly as possible. Ground and air crews should be well enough oriented by the end of March to keep a minimum of ninety aircraft operating at all times, and Arnold estimated that each of the operational craft would be able to make twenty round trips over the Hump per month. Since twelve of the new planes would be four-engine C-87's, he believed that by April the ATC lift into China could be raised from the 1,263 tons of January 1943 to a monthly rate of 4,000 tons, of which Chennault should get 1,500 tons. Arnold also promised that the 308th Bombardment Group (H), equipped with B-24's, would leave the United States within a few days for attacks from China against Japanese bases, ports, and shipping. He hoped that a light bombardment group could be added by 1 November 1943, and expressing the view that U.S. personnel in China should be kept at a minimum because of the logistical problem, he approved the idea of supplying aircraft for use by Chinese pilots.¹⁴

With these plans in mind, Arnold conferred with the Generalissimo,



AIRLIFT TO CHINA

Above: C-87 RETURNS FROM CHINA TO TEZPUR

Below: C-46 OVER THE HUMP



"By command of
Lt. Gen. J. W. Stilwell"



"The Supreme Commander
desires it immediately!"



"As directed by
Gen. George C. Marshall!"



"Generalissimo
Chiang Kai Shek
wants it now!"



"Ordered by the
Commanding General,
U.S. Army Air Forces!"



"By the suggestion of
Air Commander in Chief,
Sir Richard Peirse."

"The President of the
United States directs——"

"Gen. Daniel I. Sultan
requests——"



CAPT. R. G. LEFFINGWELL

GENERAL STRATEMEYER'S BOSSES

who demanded an independent American air force in China with a strength of 500 planes and an increase in the airlift to 10,000 tons monthly.¹⁵ Stilwell has quoted Arnold as saying after the conference: "I'll be God-damned if I take any such message back to the President."¹⁶ He did, however, take just such a message in the form of a letter, dated 7 February 1943, from the Generalissimo to Roosevelt.¹⁷ In this letter, Chiang repeated the demands made in person to Arnold. Chennault was presented as a man of genius who enjoyed the confidence of the Chinese people and with whom Chiang Kai-shek could work in complete cooperation. He should have an air force of his own. Expressing pleasure at the prospect of a 4,000-ton airlift, the Generalissimo insisted that the Burma offensive tentatively scheduled for November could not proceed on less than a lift of 10,000 tons monthly and that nothing of great value could be accomplished by Chennault with less than 500 aircraft.

The President seems to have determined very quickly after receipt of the Generalissimo's letter, despite Marshall's already expressed opposition,¹⁸ that Chennault should be allowed to have his way on the question of a separate air force. Wendell Willkie had laid the proposal on the President's desk as early as the preceding fall, when he returned from his round-the-world trip as special representative of the President bearing a letter from Chennault which set forth the general's concept of CBI strategy and his desire for complete freedom of action.¹⁹ Harry Hopkins too had taken an active interest in the proposal, and in November 1942 sent an agent to China for periodic and direct reports on the situation, by-passing the War Department. Hopkins thereafter regularly presented the President with appreciative evaluations of Chennault's plans and strategy. Indeed, Hopkins has been credited by some with having been largely influential in persuading the President to activate the Fourteenth Air Force.²⁰

Though opposing the establishment of a second air force in the CBI, Marshall on 19 February informed Stilwell of a decision to organize AAF units in China into an air force that would be independent of Bissell's command but would remain under Stilwell as theater commander. Additional personnel to supply Chennault with a competent staff would be provided, and both Bissell and Chennault would be promoted. Chiang should be informed of these developments.²¹ A War Department draft of a reply to the Generalissimo's letter of 7 February restated the conviction that the opening of a land route through Burma

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carried the real hope of delivering a death blow to Japanese forces in China, and promised the early arrival in India of 10,000 service troops and 25,000 tons of equipment for work on the Ledo Road.²² The President kept this in his final draft, but he added his own assurance of a purpose to increase the equipment of the new air force to 500 planes as soon as possible. In repeating Arnold's promise regarding an early increase in the Hump airlift, Roosevelt also expressed the belief that other aircraft could be provided eventually to bring the lift up to a goal of 10,000 tons per month.²³

From a purely military point of view, the activation of the Fourteenth Air Force on 10 March 1943²⁴ was patently premature. The CATF, though not formally assigned to the Fourteenth until 24 April, became an independent command with its operational sphere extended to include the area north of the Yangtze, but responsibility for its supply remained with the Tenth Air Force, while extension of the offensive action of the fledgling air force depended upon the ability of ATC to increase its Hump traffic. On the other hand, Chennault had won a greater freedom of action in reward for his outstanding operational successes, and this, together with the promise of a substantial increase in Hump tonnage, of the early arrival of a heavy bombardment group, and of planes for the Chinese Air Force, brought a badly needed boost to morale in China. The action served also to bolster the prestige of the Generalissimo.²⁵

The AAF moved promptly to carry out its own promises. The 308th Bombardment Group completed its movement to China in March.²⁶ It was anticipated that its operations would impose no additional strain on the air transport line, for the group's B-24's would double as transports, hauling from India their own bombs and fuel. This group, plus the four fighter squadrons, one medium squadron, and a photo reconnaissance detachment already on hand, would represent the full strength of the Fourteenth Air Force until late in the following summer.

In February, when Arnold was in China, Chennault had asked for a bomber command composed of one heavy and one medium group, a fighter command of two groups, an air service command, and steps eventually to provide Chinese combat units under American leadership. In a letter of 4 March 1943 to Arnold, Chennault urged that the bomber and fighter commands be authorized immediately for later activation and that two fighter squadrons and a medium squadron

should be promptly activated in China with fillers to be provided later from the United States. Need for the air service command was not immediate and that could wait, but the fighter and medium squadrons, plus a fighter group headquarters and a medium group headquarters, represented urgent needs. He wanted also the immediate formation of one fighter and a medium or light bombardment squadron for Chinese pilots, these units to be expanded into full groups as soon as trained pilots and planes became available. For leadership in the development of these Chinese units, he urged the prompt return to China of AVG and CATF veterans in the United States. As for planes, he asked for a build-up to the minimum of 150 fighters, 32 medium bombers, and 8 photo reconnaissance planes in addition to the 35 heavy bombers of the 308th Group.²⁷

Arnold's reply early in April indicated that the build-up of the new air force would have to proceed more gradually.²⁸ No combat squadrons were to be activated in the theater, and a possible transfer of units from the Tenth Air Force to China constituted the only immediate promise of further reinforcement.* AVG and CATF veterans could not be returned in the near future. Convinced that the most pressing need of the new air force was high-caliber administrative personnel, Arnold listed for Chennault several officers being sent out and suggested assignments to fit their capabilities. Among them were Brig. Gens. Edgar E. Glenn and Julian B. Haddon for chief of staff and leadership of the service command, respectively.

The project for increase of the airlift to China proceeded approximately on schedule, so far at least as the delivery of aircraft was concerned. By 23 March there were 120 transport planes assigned to the India-China Wing of ATC, and on 27 March, 133 transports were either on hand in the theater or en route. By 8 June, moreover, a total of 46 of the 50 C-46's scheduled to leave the United States by 1 June already had been received.²⁹

Meantime, while the reinforced ATC wing failed badly in its effort to raise the total airlift to the promised 4,000 tons[†] and with operations in China brought practically to a standstill for the want of fuel,³⁰ the goal of 4,000 tons had been raised to 10,000. Activation of the Fourteenth Air Force had represented only a partial victory for the Gen-

* Stilwell objected to such a transfer until the Chinese government fulfilled agreements for the construction of certain bases.

† See below, pp. 443-48.

eralissimo's effort to strengthen air operations from China, and he evidently regarded the President's general promises for the future as insufficient. In the midst of preparations for the TRIDENT conference, which met in Washington during the first week of May, the President received a request from Chiang that General Chennault be called to Washington to explain a plan for an aerial offensive from China. In response, the War Department summoned both Chennault and Stilwell to appear before the Combined Chiefs of Staff in their May meeting.³¹

At TRIDENT the perplexities of the CBI received a thorough airing. Stilwell and Chennault, in presentations broken at points by bitter exchanges, agreed only insofar as they both expected aerial operations of gigantic proportions to be mounted eventually against Japan from bases in China. Stilwell continued to argue that the Hump flight could never be developed to a point removing the basic necessity for a land supply line to China. Until the Ledo Road had been completed, Chinese land forces in Yunnan should be given the bulk of the air freight in support of their part in the reconquest of northern Burma, an operation which retained first claim on available resources.³² Chennault argued that the Burma campaign would be long drawn out and that China might collapse before its completion. Taking a cue perhaps from certain proposals currently under discussion for a counterstrategy to that set forth for the Pacific in MacArthur's RENO plan,* Chennault also argued that the seizure of a port city on the China coast would be a more practical approach to the problem of getting forces into China for the final destruction of Japan. Every effort, therefore, should be made to build up the airlift for support primarily of the Fourteenth Air Force, which was in position not only to aid the Chinese immediately but to make extensive inroads into enemy merchant shipping and to do great damage to land supply, aerial installations, and troop concentrations. Development of air bases in Assam should be given priority over the Ledo Road. He had no fear that the Japanese might capture American bases in China, and he looked forward to a successful aerial offensive preparing the way for an Allied landing on the China coast.³³

British leaders at TRIDENT agreed that development of the Assam air bases, for which they held responsibility, should have precedence over the Ledo Road. Influenced perhaps by their interest in long-range plans involving Bangkok, Malaya, and Singapore, and being not

* See above, pp. 133-34.

yet ready for large-scale operations in CBI, the British were inclined to favor delay in Burma. Chinese views, presented by Dr. Soong, recognized the desirability of the Ledo Road, but China could not wait on its completion. Chennault should be reinforced immediately and Hump tonnage greatly increased. The War Department admitted that the immediate problem was to keep China in the war, but it argued for continuance of plans for the Burma offensive, especially as against new ventures south of Burma. In the end, development of the air cargo route was given the highest priority and Chennault was promised the bulk of the freight. But Stilwell's Burma offensive was scheduled for the end of the monsoon in the fall, with coordinated amphibious operations now limited to efforts to retake Akyab and Ramree Island.⁸⁴

An annex to the final paper of TRIDENT set forth the projected strength of the Fourteenth Air Force. Chennault was to have in addition to the 308th Group a medium bombardment group, but it would not be provided until ATC tonnage over the Hump reached 10,000 tons per month. The strength of his fighter command would be brought to two groups. Moreover, the Chinese would receive eighty fighter planes and forty medium bombers for operation under Chennault.⁸⁵ As plans went forward, Arnold in July suggested to Stilwell a desirable shuffling of units between India and China. The 80th Fighter Group had been scheduled for India, and Arnold suggested that on its arrival the whole of the 51st Group might join the 16th Squadron in China. When the 311th Bombardment Group (311th Fighter-Bomber Group after 30 September 1943) became available for India, the India-based squadrons of the 341st Bombardment Group (M) could join the 11th Squadron in China.⁸⁶ Thus would units long divided be reunited, and Chennault would have experienced personnel.

Failure over the Hump

Plans for the immediate assistance of China fell through because of failure in the operation which had received the highest priority at TRIDENT—the effort to increase greatly the airlift. During the month of June, the India-China Wing of ATC with more than 140 transport planes on hand, including 12 C-87's and 46 C-46's, lifted just above 2,200 tons into China; the existing schedule called for more than twice that figure. In July, when Chennault's share alone was to have been 4,790 tons, the total lift was about 4,500 tons. In September, when the

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Fourteenth was to have received 7,128 tons, ICW moved no more than 5,000 tons for all purposes.³⁷

This low tonnage cannot be attributed to failure in the delivery of planes. On 14 September 1943 the ATC wing had 230 transports, almost a hundred more than in June, and the number included 43 C-87's and 105 C-46's. The remaining 82 were C-47's and C-53's.³⁸ To explain the failure requires consideration of many different factors; the record offers an excellent illustration of how far awry a plan can go when it depends upon exact coordination of many projects, not only among the several agencies of the armed forces of one country but among allies with diverging policies. The full story of ATC, including that of the India-China Wing, will be told later in this history,* but it is necessary here to go into one chapter of that story in some detail for an understanding of major developments in the theater.

The achievement on schedule of the goal set by TRIDENT could be said to have depended upon the accomplishment of four subsidiary tasks: (1) the provision of the requisite number of aircraft; (2) an increased flow of supplies along the Calcutta-Assam line of communications; (3) sufficient personnel and equipment in Assam for the processing and loading of freight; and (4) adequate airdrome facilities in Assam. As for the first of these, the planes were delivered on time, though there was serious trouble with many of them. The movement of supplies by rail from Calcutta to the Assam bases proved disappointingly slow, but rarely was there any acute shortage of supply in Assam, nor was there ever any paucity of freight on hand to be flown to China. However, heavy equipment needed for construction of airdromes did not arrive according to schedule, partially because of inefficiency along this LOC. Also motor transport and loading equipment destined for airdromes in Assam was frequently tied up either in Calcutta or en route thence. As a result, handling of freight at the Assam airdromes was not as efficient as it should have been and tended to slow down operations.³⁹ The lack of proper airdrome facilities in Assam was, in all probability, the greatest single factor which doomed the program to failure, especially during its first few months.

There were no difficulties with regard to airdromes in China, as commodious fields were already available.⁴⁰ In Assam, however, the picture was entirely different. The British had assumed responsibility for having five forward and three rearward fields ready by May and three

* See Vol. VII.

additional fields by the first of October.⁴¹ Rainfall, excessive even for a region notorious for its rains, greatly impeded construction; native laborers, panicked by Japanese bombings, fled the area in droves; construction equipment and vital materials failed to arrive on time.⁴² On the eve of the date for completion of the eight fields, there were only two serviceable airdromes, with fourteen hardstandings, available to ATC in all Assam.⁴³ Of these two, Jorhat could not be used by the heavy four-engine planes because its taxiways were not yet paved. This meant that all B-24's of the 308th Group, which hauled its own supplies to China, and eighty-odd other planes were using Chabua.⁴⁴ So crowded was this field that ATC had been forced to park more than fifty C-47's, C-87's, and B-24's on the airdrome in daylight hours, with an estimated 147 enemy aircraft based within two and one-half to three hours' flight.⁴⁵ Two other fields, Mohanbari and Sookerating, were unpaved and were not usable because of the very heavy rains. The drome at Dinjan was occupied by the China National Aviation Corporation and the fighters which protected the area.⁴⁶

Handicapped as they were, the British continued their work, obtaining the services of 4,500 additional native laborers. They asked, however, that three American engineer battalions with full equipment be sent to Assam to help in maintenance of completed fields and to assist in construction of the remaining ones. It was believed that the addition of American troops would help morale in case Japanese air attacks were repeated and also would give a much higher proportion of skilled labor. British authorities also requested that delivery of machinery and vehicles which had long been on order from the United States be expedited.⁴⁷

On 22 June, Brig. Gen. Howard C. Davidson, on a theater tour of inspection, reported that the airdrome situation was slowly improving, even though the lightly constructed Chabua runway was going to pieces under the heavy four-engine planes and in the future would be used only by the two-engine craft. Dinjan, which could not stand up under the heavier transports, was still being used by CNAC and by fighters; Sookerating had been completed with a good concrete runway suitable for all types of aircraft; Mohanbari was still under construction but would be ready for use by 1 July; Jorhat had a good runway suitable for heavy aircraft but had to be shared with the RAF.⁴⁸ By 13 July, Brig. Gen. Edward H. Alexander of ICW reported fifty-nine hardstandings with connecting taxiways available, chiefly

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at Chabua, Sookerating, and Jorhat, and with none yet completed at Tezpur or Mohanbari.⁴⁹ On the whole, the progress was reassuring and promised a marked improvement in the airlift during August.

For the continued disappointments, serious bugs in the new C-46 offered one explanation. Eventually all of the C-46's had to be grounded for modifications. The extra maintenance problem occasioned by the defects in the C-46 aircraft was aggravated when overhauls made at depots in India proved unsatisfactory. The effort to handle the maintenance and repair in Assam, moreover, completely overwhelmed the personnel there.⁵⁰ During the month of August, an average of more than 100 ICWATC planes were grounded per day. This month was also marked by an increasing diversion of ATC planes for trans-India flying and for food-dropping missions in northern Burma.⁵¹

Meanwhile CNAC, an efficient and well-organized commercial line manned by personnel of long experience in the theater and equipped with flying instruments not always available to ATC planes, gave some indication of what could be accomplished. In a four-week period during June, ATC, with 146 planes assigned, delivered 2,219 tons to Kunming, while CNAC with only 20 small Douglas craft moved 761 tons to the same destination. Within that period, in other words, CNAC transported 38 tons per plane while ATC moved only about 15 tons per plane. In the four weeks ending 28 September, CNAC moved 1,134 tons with 23 planes on hand, while ATC lifted 5,198 tons with more than 225 planes on hand. At that time, it should be noted, ATC had 43 four-engine C-87's and more than a hundred C-46's, both models having a larger capacity than the types being flown by CNAC, in addition to 82 craft of the same models as those of CNAC. Yet CNAC was lifting 49 tons per plane over the Hump while ATC was moving 23 tons per plane.⁵² Regardless of the difficulties which ICW had with the C-46 and with diversion of planes to duties other than flying the Hump, ATC operations were obviously less efficient than those of CNAC. And as if to point out more clearly that there was something wrong with the ICW which did not meet the eye, newly arrived troop carrier squadrons, inexperienced in the theater, carried out more efficient operations in their first month than ATC squadrons.*

Authorities in Washington had been concerned with the peculiar

* The troop carrier units then with the Tenth Air Force were the 1st and 2d Troop Carrier Squadrons which had arrived in the theater the previous spring.

problems of the ICW for some time, and reports from Maj. Gen. George E. Stratemeyer, Chief of Air Staff, and Edward V. ("Eddie") Rickenbacker after visits to the theater in the spring made it clear that the situation in Assam was serious.⁵³ Stratemeyer's report evoked a reply from Maj. Gen. Harold L. George of the Air Transport Command, in which he pointed out that ICW was a relic of the 1st Ferrying Group which in the spring of 1942 had been assigned, over the protests of Brig. Gen. Robert Olds of the Ferrying Command, to the Tenth Air Force.* ATC had not been able to overcome all the inheritances from past mistakes.⁵⁴ There was something in this argument. Supplies and equipment for the ferrying unit had gone into a theater pool; personnel and aircraft had been regularly given assignments which had no connection with ordinary transport activities; and in other ways, customs at variance with the principle of ATC independence had carried over. The ferrying group had done well in developing the aerial cargo line on a shoestring, but bad living conditions, outrageous mail service, scarcity of supplies, slow promotions, and absence of replacements had caused the initial high morale to deteriorate until, in the autumn of 1942, it had reached a dangerous point. In December, ATC had taken over the India-China Ferry from the Tenth Air Force. Under Alexander there had been marked improvement in morale, but the transition was not easy and relations between the Tenth and ATC at times became quite bitter, each calling the other "robber."⁵⁵ As for the difference in operational efficiency between troop carrier units and ATC squadrons, General George argued that troop carrier materiel sent to CBI was inviolable, while ATC supplies were still being appropriated by other organizations in the theater.⁵⁶

With a wealth of experience in civilian aviation, Rickenbacker was able to put his finger on other weaknesses. He rejected the explanation that the difference in efficiency of CNAC and ATC was the result of vast difference in pay for the same work but called attention to the comparative inexperience of many of the ATC pilots. The limited number of airdromes, a shortage of expert weather, communications, engineering, and maintenance personnel, and the lack of radio aids and direction finders received mention. Rickenbacker shared with General Bissell the opinion that control of ICW should be returned to the theater commander.⁵⁷ This last, of course, ran counter to a basic concept

* See Vol. I, 507.

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on which the Air Transport Command was built,* and neither Stratemyer nor Davidson shared Rickenbacker's view.

It is easy enough, however, to understand Bissell's feeling that control should be returned to the Tenth Air Force, for the independence of the ICW could appear as one more step toward division of responsibility in an operation already marked by many such divisions. The construction of fields in Assam was planned by Americans and accomplished by Indian labor under British supervision, using materials supplied by the British. Later, American engineer troops would be brought in to aid in construction and to share maintenance duties. Flying of cargo ships into China was done by the ICW, troop carrier units, and CNAC—in other words, by American military organizations and a Chinese-American civilian concern—but the responsibility for moving freight into Assam from Calcutta was British. The fields in Assam were used by American, British, and Chinese aircraft. Ghurkas guarded the equipment on these fields, as did Chinese soldiers at Kunming, but antiaircraft defenses were largely American.⁵⁸ Functions which were strictly American also suffered from separation of responsibility and authority. The Air Transport Command did not control loading and unloading of aircraft, a function of SOS and theater troops. ICW policies were determined in Washington, but priorities on its freight were controlled by a theater board which sat in New Delhi, hundreds of miles from Assam. Chennault's force, whose very existence depended upon the air supply line, had no representative on the priorities board. Aerial protection for the terminal bases, a responsibility once shared by the British, was now divided between the Tenth and Fourteenth Air Forces.⁵⁹

Stilwell had been aware of the difficulties inherent in such an organizational setup, and he had tried in April 1943 to clarify for Bissell the exact responsibilities of the Tenth Air Force with reference to Assam. The outcome of subsequent discussions, during which the observations of Stratemyer, Davidson, and Rickenbacker were considered, was a decision to create for the Assam area a new command, which, in addition to its defensive responsibilities, would act as a coordinator of all air activities. Accordingly, the Assam American Air Base Command (later American Air Base Command 1) was projected. Because of his experiences in the theater with ferrying and combat responsibilities since early 1942, General Haynes was peculiarly fitted for this new

* See Vol. I, 364-65.

assignment; he was soon relieved of his post with IATF and given command of the new organization.⁶⁰

On 13 June, Bissell personally outlined to Haynes the mission of AAABC and his responsibilities as its commander. The primary mission was active defense of ICWATC, and the secondary mission was destruction of the enemy. Haynes was to coordinate in Assam the activities of the Tenth Air Force with ICWATC, X Air Service Command, CNAC, AAF Weather Service, Army Airways Communications System, and elements of the Fourteenth Air Force operating there. The new command was to be composed of the 51st Fighter Group (less 16th Squadron), 679th Air Warning Company, 2d Troop Carrier Squadron, all antiaircraft batteries in the area, the Anti-Smuggling Detachment, and any other Tenth Air Force units which might be assigned later. A B-25 with full combat crew was placed at the disposal of Haynes, who arrived at Dinjan and assumed command on 16 June.⁶¹

On the day of his arrival, Haynes submitted a table of organization calling for twenty-one officers and sixty-seven enlisted men, and he specifically requested the assignment of certain officers who had served with him in IATF. Approval of the table of organization was granted only after its reduction to sixteen officers and twenty-five enlisted men, and Bissell also refused to approve the request for the individual officers. Many of the personnel were not immediately reassigned, and for two months Haynes faced his peculiarly difficult assignment with insufficient personnel.⁶² Before the new command was given a fair chance to make improvements in the Assam area, a new theater organization changed the entire setup, and Hump tonnage continued to lag through the months of another major reorganization.

Reorganization

It was evident enough that the American military organization in Asia, shaped partially by the exigencies of war and partly by political necessity, was not ideal. All U.S. Army forces in CBI were under the command of Stilwell, who maintained a forward echelon headquarters at Chungking, where he spent most of his time, and a rear echelon at New Delhi. The Tenth Air Force, operating from Assam and Bengal, had headquarters at New Delhi. The Fourteenth's headquarters was at Kunming, some distance from Chungking. The India-China Wing of ATC had its headquarters at Chabua.

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The majority of the American troops in the theater were AAF, and the principal function of ASF troops had been support of air operations. The approaching ground offensive in Burma could be expected to alter this situation, however, and Stilwell's emphasis on the importance of the Ledo Road caused apprehension among AAF leaders that the air effort might suffer from diversions to that project. Accordingly, it seemed to them advisable that a high-ranking AAF officer should be placed on Stilwell's staff.⁶³ For different reasons, Stilwell himself had made a similar suggestion as early as March 1943. Anticipating an effort to gain for Chennault the command of all CBI air forces, he had suggested the appointment of some other officer as theater air commander.⁶⁴ It is altogether possible that this suggestion had some effect on the decision to send General Stratemeyer on a special mission to the Far East in the spring, and that even this early Marshall and Arnold had him in mind for the proposed command. In any case, Stratemeyer, following his return to Washington early in June, possessed firsthand information regarding the problems of CBI which made of him a logical choice. On 28 June 1943 the President informed the Generalissimo that General Stratemeyer would be sent with a small staff of air officers to straighten out the movement of personnel and supplies through India and Burma to China.⁶⁵

As senior air officer in the theater, it was to be expected that Stratemeyer would have command control over the Tenth and Fourteenth Air Forces. The Generalissimo had previously objected to such an arrangement, however, and the President's communication of 28 June gave assurance that the new commander would be instructed not to interfere with the special relations between Chennault and Chiang. Stilwell quickly protested the concession to Chiang, asking permission of Marshall to withhold the President's message from the Generalissimo until the whole question could be reconsidered.⁶⁶ But General Marshall informed Stilwell on 1 July that the question had already been discussed with the Generalissimo by Dr. Soong, and that the condition stated in the President's letter represented the only one upon which Stratemeyer could be appointed.⁶⁷ Stratemeyer would have only advisory authority over the Fourteenth Air Force. This decision led to a division of the AAF in CBI into the India-Burma Sector (IBS) and the China Sector, with Stratemeyer given little more than control of the Tenth Air Force. Taking advantage of the organizational changes pending in CBI, the Generalissimo also sought to end the Chennault-

Bissell friction by requesting on 17 July that the latter be removed by the President.⁶⁸ Three days later the decision was made to replace Bissell, and on 20 July, Davidson was appointed commanding general of the Tenth Air Force. Davidson assumed command on 19 August, and the next day Stratemeyer assumed command of Headquarters, USAAF IBS, CBI.⁶⁹

Patience and tact were of the highest importance in the ticklish position Stratemeyer assumed. The Air Adjutant General on 28 July had authorized activation of "The Headquarters of the Commanding General, Army Air Force Units, India-Burma Theater and Air Adviser to the Asiatic Theater Commander," and directed that it be activated at the earliest possible moment by the commanding general of the United States Army Forces in China-Burma-India. The letter did nothing to clarify the situation, for at that time there was neither an "India-Burma Theater" nor an "Asiatic Theater"; nor was Stratemeyer to be vested with command of all air force units in the CBI. Nevertheless, on authority of the above letter, Stilwell announced on 20 August 1943 the activation of Headquarters, United States Army Air Forces, India-Burma Sector, China-Burma-India, under the command of Stratemeyer.⁷⁰ At the same time Stilwell announced activation of Headquarters and Headquarters Squadron, China-Burma-India Air Service Command (Prov.) and asked authority to inactivate the X and XIV Air Service Commands, the latter of which had been activated on 19 May. He notified the War Department that the Karachi American Air Base Command, which since early 1943 had engaged in the training of Chinese pilots, was to be inactivated and announced the activation of Headquarters, China-Burma-India Air Forces Training Unit (Prov.) at Karachi under Brig. Gen. Julian Haddon. Thus training of the Chinese-American air units, control of which theretofore had been exercised indirectly by Chennault, passed to the theater air adviser.* Stilwell also announced that the headquarters of the Tenth Air Force would be moved to Calcutta as soon as possible, at which time the India Air Task Force would be inactivated. Meanwhile, the following units were assigned to Stratemeyer's command: Tenth Air Force; Headquarters and Headquarters Squadron, China-Burma-India Air Service Command (Prov.); China-Burma-India Air Forces Training Unit; 10th Weather Squadron; 10th AAC Squadron; and 22d Statisti-

* See below, p. 529.

cal Control Unit. Included with these, of course, was the air base command in Assam.⁷¹

Stratemeyer's duties, then, included direct control of the Tenth Air Force and the CBI Air Service Command. Furthermore, he was responsible for the supply and maintenance of the Fourteenth Air Force in China and for protection of the Hump route. In addition, he was expected to coordinate activities of the India-China Wing, ATC with theater operations, assist Stilwell in over-all planning for air warfare, and supervise the air training of Chinese personnel at Karachi.⁷²

Because of geographical and political considerations it was contemplated that Stratemeyer's headquarters should be small and highly mobile.⁷³ Consequently, on 21 August 1943 a selected group of officers reported for duty, and on 23 August were given their new assignments. These included: Col. Charles B. Stone, III, Chief of Staff; Col. Edward P. Streeter, Deputy Chief of Staff; Col. Alvin R. Luedecke, Assistant Chief of Staff, Plans, Operations, Training, and Intelligence; Col. James H. Higgs, Assistant Chief of Staff, Administration; Col. W. Frank DeWitt, Surgeon; Lt. Col. Joseph S. Clark, Jr., Management Control; Lt. Col. Frank R. Schneider, Deputy Chief of Management Control. Personnel of the Tenth Air Force and X Air Service Command were used to round out the staff.⁷⁴

Despite this economical utilization of personnel, it soon became evident that an organization different from that originally contemplated was required. Lack of adequate communications and the necessity for Stratemeyer to have ready access to various administrative and policy-making agencies with which he had to work were important considerations. The location at New Delhi of British and Indian authorities, of the U.S. Services of Supply, of Stilwell's rear echelon, of the British army's GHQ, and of Air Headquarters, India Command, RAF made this the only logical location for Stratemeyer's staff. Plans for a mobile group had to be abandoned in favor of a permanently located headquarters, and hope for establishing the headquarters in a forward area near the actual scene of combat was given up. After it was seen that mobility of headquarters was impracticable and that doing double duty was working hardships on officers serving in dual capacities, Stratemeyer asked that allotment of personnel for his headquarters be increased.⁷⁵ On 1 October 1943 approval was granted for 302 officers, 16 warrant officers, and 1,004 enlisted men; but even this substantial increase represented only 75 per cent of the personnel requested.⁷⁶

Almost simultaneously with these changes in the American military organization came plans determined upon at the QUADRANT conference, meeting at Quebec in August 1943, for even more far-reaching organizational changes in Asia. As the time for offensive action in Burma approached, the need for closer cooperation between the Allies became more acute. The creation of a unified command with a supreme allied commander was an obvious procedure, but selection of a commander acceptable to the United States, Great Britain, and China, not to mention the fixing of geographical limits for such a command, presented almost insuperable obstacles. A British commander for the entire theater would not be acceptable to the Chinese. An American commander might satisfy the Chinese, but the British could not agree to such a plan because of the necessity for bolstering the Empire's prestige. A Chinese commander was not seriously considered.

Once more the political situation was the governing force which led to further confusion of an already complicated organizational setup. At Quebec the Southeast Asia Command (SEAC) was established, and Lord Louis Mountbatten was designated Supreme Allied Commander-in-Chief, with Stilwell as Deputy Supreme Allied Commander. From the operational sphere of SEAC, however, China, Indo-China, and India were excluded.⁷⁷ Mountbatten would have no control over American-trained Chinese ground forces except through Stilwell in his capacity as chief of staff of the Chinese army, which meant, of course, that ultimate authority rested with the Generalissimo. Although SEAC did not include India, the major part of its assigned forces would have to be based there. Mountbatten's command did not include the large Indian army.

Meanwhile, Stilwell continued in his capacity as commanding general of United States Army Forces in China-Burma-India and as such was in direct command of all American troops, whether in India, Burma, or China. The position to be occupied by Stratemyer in this new organization was not immediately clear. It was contemplated, however, that he would be in command of all AAF units assigned to SEAC. The difficulties were recognized, and on 28 August 1943, General Arnold wrote letters to Stilwell, Stratemyer, and Chennault, asking each to do his best to make the unwieldy organization function.⁷⁸ To Stratemyer he said: "This new command setup and your relationships with Generals Stilwell, Mountbatten, and Chennault are somewhat complicated and will have to be worked out to a great ex-

tent among yourselves. We feel that it can be made to work efficiently. The success of this complicated command setup depends in a great measure on personalities. If a true spirit of cooperation is engendered throughout this command, it will work. If the reverse is true, it is doomed to failure." In his letter to Stilwell he wrote: "We feel here, however, that best results can be achieved by designating you as senior representative of the War Department in India, China, and in the Southeast Asia Command. . . . The attitude the Generalissimo will take toward this new organization has caused us some concern. You and Chennault can do much to allay his fears." Arnold's misgivings about the Generalissimo also appeared in the letter to Chennault: "Mountbatten's relationship to the Generalissimo is that of two neighboring commanders engaged in fighting a common enemy. . . . In your association with the Generalissimo you can . . . impress upon him the purpose for which this new command was organized."

The exact place that Stratemeyer was to have in relation to his fellow commanders became more and more vague, although it was clear enough that his responsibilities as a quasi-ambassador would be expanded. It was apparently incumbent upon him to work out from the most general instructions his more specific duties, and in spite of vigorous efforts to carry out the terms of his assignment as he understood them, the process of clarification dragged on for weeks.

In the organization of Mountbatten's command, selection of the air commander of SEAC was of the highest importance. The Americans felt that Stratemeyer's background of administrative experience eminently fitted him for the position and that the major role to be played by American air units in the theater justified appointment of the senior American air officer as air commander of SEAC. At the request of Brig. Gen. Benjamin G. Ferris, commanding general of Stilwell's rear echelon at New Delhi, Colonel Stone prepared a memorandum setting forth reasons for Stratemeyer's selection. The memorandum cited his long and varied experience and followed with quotation of figures to show that the AAF had been more actively engaged in the theater against the enemy than had the RAF. In the preceding three months, May, June, and July, Stone reported, the AAF had dropped more than 2,200 tons of bombs while the RAF had dropped less than 600 tons, and this in a period when the RAF had 502 planes compared to 237 for the AAF. A recent decision that the AAF would be responsible for maintenance and supply of all American-built aircraft used by both

the RAF and AAF and the responsibility of Stratemeier for training Chinese and American airmen in the theater were also advanced as arguments for his designation.⁷⁹

Meanwhile, Stratemeier and his staff were also concerned about the place of the USAAF IBS in the new command. In working out an operational plan, the staff assumed that the two operational spheres, China and India-Burma, "must out of necessity be coordinated and integrated into one unified command." The plan was predicated upon certain other assumptions which were not acceptable. It assumed that operations in the theater would be combined as distinguished from joint; that China would accept the principle of a combined command; that there would be an integration of units and staff personnel; and that the senior American air officer would be SEAC air commander and equal in stature to the SEAC naval and ground commanders. It also contemplated the establishment of "staffs and commands—composed of allies working as one and the same team against one and the same enemy, as distinguished from various national teams working on a project in which there is mutual self interest." It was felt that there should be "unity of purpose, a unity of organization and a unity of command whose sole mission is the destruction of a dangerous enemy."⁸⁰

China, however, had not been included in the SEAC, and the British were unwilling to grant the top air position to an American lest the action be construed by the enemy and malcontents in India and Burma as a British admission of weakness. British wishes prevailed, and Air Chief Marshal Sir Richard Peirse was named Air Commander South-east Asia, with Stratemeier as his deputy. Once this question had been settled, the problem of the integration of staffs was attacked. On 26 October, Stratemeier recommended that his headquarters provide certain officers for the staff of Air Commander SEAC and that Air Commander SEAC in turn send certain British officers to serve on the staff of the commanding general of USAAF IBS. Similar integration of American and British officers for combat units was also recommended, but because of the peculiar functions of the CBI Air Service Command, and because the Air Transport Command was primarily concerned with China, Stratemeier did not feel that integration of these commands was necessary or desirable.⁸¹

During the morning of 28 October 1943 the subject "Integration of American and British Air Forces within South East Asia Command" was discussed at a meeting held in the office of the supreme commander

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and presided over by Mountbatten. A proposed organizational diagram was discussed, the stated purpose of which was "to set out the ideal organization for command and administration of the American and British Air Forces within the South East Asia Command, regardless of the decisions at the Quadrant Conference on this subject, and regardless of directives that may have been issued by the Air Commanders." American officers immediately made it clear that they could not afford to ignore previous decisions and directives. Neither Stilwell nor Stratemeyer was willing to subscribe to a proposal which failed entirely to take into consideration the primary American commitment to China, a commitment which admittedly complicated the problem of an organization for SEAC but could not be ignored. In view of these objections, Mountbatten ordered that the chart be completed with certain minor changes but that a note be prepared suggesting amendments to certain existing agreements so that there would be no conflict. He declared that he would write to Air Chief Marshal Sir Charles Portal and to Marshall and Arnold in an effort to obtain clarification.⁸²

When the minutes of the meeting were sent to Stratemeyer for comment, he stressed the point that Stilwell might be forced to withdraw the Tenth Air Force from the SEAC to protect commitments to China. And in view of plans then being formulated for the employment of the new B-29 from Chinese bases,* Stratemeyer desired that the American air commander be in a position to concentrate all available American air forces in China without the embarrassment of definite commitments to the SEAC. He also thought that he should be sufficiently independent of British control to be able to insist upon obtaining adequate facilities and equipment for the B-29 project in India, and that he could achieve these results more effectively if he were not personally responsible to Peirse for all air operations over Burma. Stratemeyer again recommended separate AAF and RAF units fighting on a cooperative basis. He was willing to go along with Mountbatten's plan, however, provided it was made clear that the Americans reserved the right to withdraw any or all American forces for the purpose of protecting commitments to China. In the exchange of communications during the next several days, he stood firm on the point that he could not agree to any plan which ran counter to his previous directives or which would in any way prejudice prior American commitments.⁸³

* To be discussed in Vol. V.

The relationship of AAF IBS to the supreme commander was still not clarified as late as 10 November. Certain conclusions, however, had been reached by American officers: the supreme commander had no control over the Air Transport Command, for the coordination of which Stratemeier was responsible directly to the commanding general of USAAF; Mountbatten also had no control over the supply and training establishments of the Fourteenth Air Force in India, for which Stratemeier was responsible through Stilwell to the Generalissimo; nor could Mountbatten control units assigned to defense of the air cargo route and the Indian air transport terminals, for which Stratemeier was responsible through Stilwell to the American chiefs of staff. Stratemeier was responsible, again through Stilwell, to the supreme commander for operation of AAF units committed to the SEAC, but the only unit thus committed at that time was the 1st Air Commando Group.⁸⁴

Many of the difficulties encountered in these attempts to define command relationships are traceable to the somewhat vague instructions issued from QUADRANT. As previously pointed out, the immediate problem was to keep China in the war, a major consideration in evolving any system designed to obtain maximum support for operations in Burma. Mountbatten, described soon after QUADRANT by Somervell as occupying an "unenviable position,"⁸⁵ necessarily had to take his title of Supreme Allied Commander-in-Chief with a certain degree of seriousness. Despite sincere efforts to arrive at a workable agreement, little was accomplished before the SEXTANT conference at Cairo in November and December 1943, at which Mountbatten and Stratemeier were present.

By that time, Stratemeier was able to inform Arnold of a general agreement in the theater that all AAF and RAF units assigned to SEAC should be integrated, with Stratemeier holding operational control under Peirse.⁸⁶ Brig. Gen. Laurence S. Kuter, AC/AS, Plans gave his indorsement to the idea,⁸⁷ and on 3 December 1943, Arnold by letter informed Mountbatten of a CCS decision that the supreme commander should have command responsibilities for all operations and all Allied forces—land, sea, and air—operating in SEAC, except for ATC and certain agreed elements of the British navy.⁸⁸ The supreme commander's authority over U.S. and Chinese forces in operations against Burma, however, was limited to operational control. Mountbatten was

to accept responsibility for defense of all ATC facilities in SEAC and leave responsibility for supply with U.S. commanders.

Upon his return from Cairo, Mountbatten issued a directive integrating the Tenth Air Force and the Bengal Command of the Royal Air Force under the ultimate, unified control of Air Chief Marshal Peirse, the purpose being to form within the administrative organization of Air Command, South East Asia a well-integrated operational unit. The combined forces thus merged were formed into a unit subordinate to Air Command, South East Asia and designated Eastern Air Command (EAC), for command of which Stratemeyer was chosen. In effect, the British, while retaining the top-ranking position in the air organization, had relinquished operational control of all combat units to Stratemeyer.⁸⁹

Ever-present complications, strategic and political, made the organization of EAC a problem demanding careful planning and mature decisions. There were fighters and bombers in both the Tenth Air Force and the Bengal Command. It seemed logical, since the forces were to be integrated, that for operational purposes they should again be divided, forming a tactical and a strategic force, one under command of an American and the other under a Briton. Subsequently, Air Marshal John Baldwin of the Bengal Command was selected for the tactical force and Davidson of the Tenth for the strategic.⁹⁰

On 15 December 1943, Stratemeyer assumed command and issued General Order 1,⁹¹ announcing the appointment of Air Vice Marshal T. M. Williams as assistant commander of EAC and giving the general organizational plan. EAC was to be divided into four components: a strategic air force, composed of AAF and RAF heavy and medium bombers, under Davidson, who continued in administrative command of the Tenth; a tactical air force, composed of fighters and fighter-bombers of RAF and AAF, under Baldwin; a troop carrier command, composed of AAF and RAF troop carrier units, under Brig. Gen. William D. Old; a photographic reconnaissance force, under a commander to be announced later.⁹²

It was specifically stated in the order that in exercising operational control the respective commanders would retain the integrity of AAF groups and RAF wings. Administrative control and responsibility for maintenance and supply were to remain under the respective AAF and RAF commanders, but operational staffs of the four components were to consist of both RAF and AAF personnel in such proportions as the

commanders deemed necessary. American staff officers were immediately assigned to Baldwin's staff and RAF officers to Davidson's. The other components were subsequently organized along similar lines.⁹³

General Stratemeyer addressed to his new command an appeal for the closest cooperation in carrying out the mission of the new command:

We must merge into one unified force in thought and in deed—a force neither British nor American, with the faults of neither and the virtues of both. There is no time for distrust or suspicion. I greet the forces of the Bengal Command, and their Commander, Air Marshal Baldwin, as comrades in battle, as brothers in the air. A standard of cooperation which we must strive to surpass has been set by the inspiring examples of joint achievement of our colleagues of the Northwest African Air Force. We must establish in Asia a record of Allied victory of which we can be proud in the years to come. Let us write it now in the skies over Burma.⁹⁴

American contribution in December 1943 to the Eastern Air Command was much greater than would have been possible a few months earlier. Since Davidson assumed command of the Tenth Air Force in August, the 80th Fighter Group and the 311th Fighter-Bomber Group had arrived and gone into action. The 51st Group had finally moved to China, and movement of the remainder of the 341st Bombardment Group (less the 490th Squadron) was imminent. An additional medium bombardment group was en route to take the place of the 341st in India. Thus the AAF contributed one heavy bombardment group (the 7th), one medium group, one fighter group, and one fighter-bomber group to the Strategic and Tactical Air Forces which were to take over operations in the India-Burma Sector. In addition, the 5306th Photographic Reconnaissance Group was assigned to the Photographic Reconnaissance Force, and four AAF troop carrier squadrons, the 1st, 2d, 27th, and 315th, were integrated with the Troop Carrier Command. Other AAF units were added to EAC early in 1944. The entire command setup in the CBI remained most complex, and final arrangements for the organization of EAC and SEAC were still in progress as 1943 drew to a close.

CHAPTER 14

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THE PATTERN OF INDIA-BURMA OPERATIONS, 1943

THE elaborate plans formulated in 1942 for the reconquest of Burma in the spring of 1943 had, for the most part, been laid away by January with a promise from the CCS at Casablanca that the offensive might be undertaken the following November. The amphibious operation in the south had been canceled by the British, the Y (Yunnan) Force had then been withheld from participation in the offensive on orders from the Generalissimo, and Stilwell was compelled by circumstances to postpone commitment of the X (Ramgarh) Force. Other British operations planned for central and southern Burma were then emasculated, and though some activity was attempted, it proved ineffectual. Brig. Orde Wingate did lead the 77 Brigade into Burma in February and got 200 miles behind the Japanese lines. But Wingate was without strategic objectives, and after his forces suffered heavy losses, he withdrew in June. The plan to have the 4 Corps at Imphal in Assam advance to the Chindwin River and establish positions between Kalewa and Sittaung was whittled down by January 1943 to mere offensive patrols. Farther south the advance down the Mayu Peninsula toward Akyab had gotten under way on 16 December. By March 1943 the British were in Rathedaung, twenty-five miles north of Akyab, but at that point the enemy infiltrated behind their positions and the British forces began retirement to the lines held by them in December.

There was, however, one phase of Stilwell's plan for 1943 that was begun and continued with success—the construction of the Ledo Road. From the time Stilwell escaped from Burma in May 1942 he had proclaimed the necessity of a military pincer movement from upper Assam and Yunnan for the reconquest of northern Burma to gain control of a

road trace from India to China. Early in 1941 the British had begun a road leading from Ledo to Myitkyina and had constructed the first five miles of the course eastward from Ledo. Stilwell's plan called for resumption of this work by Americans, and work began on 25 December 1942. By midsummer of 1943 the road had been pushed across the frontier into Burma and was approaching Shingbwiayang.

Aside from the work done on the Ledo Road, the weak offensive movements of the British toward Akyab and in the region of the Chindwin, and the expedition under Wingate, military operations in Burma until the fall of 1943 were limited to the activities of the RAF and the AAF. On 1 January 1943, RAF operations in India and Burma were conducted by four groups. The 222 Group and 225 Group, located respectively at Colombo and Bangalore, were under Air Headquarters, India Command. The 221 Group at Calcutta and 224 Group at Chittagong were under Air Headquarters, Bengal, Air Vice Marshal T. M. Williams in command. The 222 and 225 Groups were responsible for general reconnaissance and for the defense of their areas. Coordination of RAF and AAF activities against the Japanese was through headquarters of the India Air Task Force, located at Barrackpore, and the RAF Bengal Command. Relations were most cordial, and "operations conferences" between the two forces were held each day to plan for activities throughout the following twenty-four hours.

Although the Americans and the British had been gathering strength throughout the second half of 1942, neither the Bengal Command nor the IATF was sufficiently strong in January 1943 to challenge seriously the Japanese air superiority over Burma.* Nevertheless, the Allies had the courage to assume the offensive against the enemy, and before the end of the year they had grown both in experience and in newly accumulated strength to gain supremacy early in 1944.

The British, of course, were engaged against the enemy in giving ground support to troops in the Akyab offensive and in the activities east of Imphal. The RAF also did its share in defense of Allied airfields and in offensive attacks on the Japanese bases. The pattern of operations followed by the Tenth Air Force was almost identical with that of the RAF except that the Americans were not involved in the land battles which were fought during the first three or four months

* In January 1943 the British had a total of some fifty squadrons in the whole India Command, of which about thirty-five were operational and deployed. Deployment outside the Bengal Command was concentrated chiefly around Ceylon and in northwest India.

of 1943 and thus were able to concentrate their attention upon three objectives. First, they sought to defend their airfields in Assam while challenging the Japanese air force in northern Burma in protection of the Hump route. Second, by heavy bomber operations in the south, the Americans attempted to cut off Burma from Japanese supplies and reinforcements coming in ships through the Andaman Sea or crossing overland by rail or road from Thailand. Third, an effort was made by medium bomber operations in central Burma to disrupt Japanese communications between Rangoon and the battle front in the far north.

Defense of the Assam Airfields

Immediately following the Japanese bombing and strafing attacks on installations in Assam during October 1942, all available American fighters had been rushed to that vital area. Only two fighter squadrons were then in India, the 25th and 26th Squadrons of the 51st Group, and upon this small force was to rest the responsibility for aerial defense until late the following summer.¹ Protective weather of the monsoon season promised some relief in May, but prior to that time the group commander, Col. John F. Egan (vice Col. Homer L. Sanders, 23 March 1943), faced a nearly impossible task. With only forty planes, inferior in many respects to the Japanese fighters then in the vicinity, he was expected to fend off further bombing attacks and at the same time provide protection for Hump-flying transports. Formation flying by the transports was impossible because of inadequate airdrome facilities, so that fighter planes had to be airborne over the paths of the single transports to give them even a modicum of safety from enemy raiders. Similarly, because of the shortcomings of the air warning net, planes had to be aloft constantly over Assam to prevent repetition of attacks such as those of October. Patrols, then, were necessarily small, far too small to be effective against a determined enemy air offensive.

Meanwhile, an enemy movement north from Myitkyina, begun in January in connection with a similar drive toward Yunnan, had advanced sufficiently to threaten Fort Hertz in northern Burma. Fort Hertz represented the last vestige of British authority in Burma, and its loss could easily alienate those Burmese who had remained loyal. Among these, the Kachins were especially valued as allies, having demonstrated their ability as guides, scouts, intelligence agents, and jungle fighters. To Americans, Fort Hertz was no mere symbol. It was a forward emergency base for patrols protecting Hump flyers, an

important weather and radio station through which information from air warning posts cleared, and a center of native intelligence activities which were providing vital military information. Moreover, its loss might result in establishment of an enemy fighter base from which the whole Hump operation could be interrupted. More important yet, perhaps, was the fact that once enemy troops were in Fort Hertz they could flank the entire route of the Ledo Road.²

Since protection of Fort Hertz might be interpreted as coming within the compass of defense of ICWATC, the Assam fighters took on another duty. Providing a defense now would be less expensive than mounting an offensive later, and all agreed that Fort Hertz must be held. Some 750 Kachins and a company of Ghurkas were astride the enemy line of advance, but they needed reinforcements, and the only troops then available were American-trained Chinese at Ramgarh. Protection of the Ledo project was deemed more important in the immediate future, however, and the Chinese troops were deployed to check a possible advance up Hukawng valley. Consequently, it was months before any reinforcements reached Fort Hertz. Meanwhile, it fell to the 25th and 26th Squadrons to help the British forces in their delaying tactics.³ The Japanese, moving forward toward their goal, dug in as they went, establishing supply dumps, repairing roads, building bridges, and in general strengthening their position north and west of Myitkyina. In answer to desperate calls for air assistance, the small Assam force increased its offensive missions as much as resources would permit. In the areas north of Myitkyina enemy camouflage discipline was excellent, making it almost axiomatic that any target spotted from the air was too insignificant to be attacked. With the aid of exact information from the ground defenders, however, the Americans successfully bombed and strafed many well-hidden targets. Eventually the 51st Group evolved a five-point program to help stem the enemy advance, meanwhile preventing the Japanese ground forces from benefiting from direct aerial support. The program included: (1) persistent strafing and "fragging" of trails north of Sumprabum, in close support of British colonial troops; (2) making Sumprabum untenable by demolition and incendiary bombs; (3) persistent fighter sweeps against motor convoys, troop concentrations, and supply dumps along the road from Myitkyina to Sumprabum; (4) dive-bombing assaults against bridges at those points which would create most formidable difficulties to the enemy line of communication; (5) bombing attacks in

strength against main bases and nerve centers at Myitkyina and Mogaung.⁴

In this program the fighters received some help from bombers. The B-24's of the Fourteenth Air Force sometimes bombed the key points in the area on their freight-hauling trips to and from Assam, and B-25's occasionally struck targets in upper Burma. The burden, however, fell to the fighters. The results of their missions could seldom be assessed, but pilot morale was kept high by frequent reports from ground forces on successful missions.⁵

In the face of the best Allied efforts, however, Japanese ground forces edged northward. At the same time the enemy's most vital supply line, the railway into Myitkyina, continued to function. Only by destroying several bridges could the Americans hope to stop traffic over the rail line for any appreciable length of time, and P-40's were not then equipped to carry bombs large enough to accomplish this objective. Plans were made to interrupt the campaign against communications in central Burma long enough for B-25's to bomb out these bridges; but Yankee ingenuity stepped into the breach, and it was never necessary to bring in the bombers. Lt. Col. John E. Barr, executive officer of the 51st Group, proved by a series of daring experiments that the P-40's could be modified to carry the 1,000-pound bombs that had been imported for the B-25's to use.⁶ Once the new technique was mastered, the P-40's regularly carried this size of bomb, twice their previous bomb load. The new "B-40's" soon became accurate and destructive dive bombers, and the attacks against bridges were far more successful. While they still were not able to block the railway entirely, they did break it with enough frequency to make strafing of stranded rolling stock particularly rewarding. Bombings of railway bridges at critical points were effective enough to induce fast-working Japanese construction crews to take the precaution of building by-pass bridges.⁷ Before the monsoon came, the American fighters had forced the enemy to restrict troop and supply movements to the hours of darkness. The dive bombers also found their new bomb to be quite effective against enemy airdromes and kept the crews at Mogaung and Myitkyina busy repairing damage. In May torrential rains multiplied the inconveniences provided by the American fighters so that the Japanese were forced to halt their drive just north of Sumprabum.⁸

As anticipated, the monsoon ruled out all flying in Assam and northern Burma for weeks at a time, but as the summer of 1943 dragged on,

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the 51st ran missions as often as weather permitted. Work was pushed on additional fighter fields, and training of replacement pilots made some progress. In July a brief clearing of the weather allowed a short flurry of missions, but in August the monsoon closed in again. Infrequent reconnaissance flights, however, revealed that the enemy was still stalled above Sumprabum.⁹

In September arrival of the 80th Fighter Group from Karachi and the transfer of the two remaining squadrons of the 51st Group to the Fourteenth in China broke the monotony of the rainy season in Assam. Originally trained on P-47's and scheduled for movement to Europe, the 80th had been forced to go through operational training at Karachi to become accustomed to the P-40's which they were to fly in combat.¹⁰ When they finally arrived in Assam there was a wholesale shuffling of personnel between this new group and the 51st so that the Assam defense would not be left entirely in the hands of inexperienced pilots. The 80th Fighter Group, comprising the 88th, 89th, and 90th Squadrons under the command of Col. Ivan W. McElroy, was equipped with P-40N's, which were better climbers than the heavier models used by the 51st.¹¹

In the few remaining weeks of the monsoon, men of the 80th became accustomed to their surroundings and adopted much of their predecessors' routine. They flew patrols, made reconnaissance flights and weather checks, escorted transports on food-droppings, and occasionally bombed and strafed enemy-occupied areas. They also adopted the 1,000-pound bomb as the standard weapon for use against major targets. Rarely did they see enemy aircraft; and antiaircraft fire encountered was generally light and ineffective.¹²

Meanwhile, General Haynes, after long service in the theater, had been returned to the Zone of the Interior, Brig. Gen. W. D. Old assuming command of American Air Base Command 1 (formerly AAABC) and Col. Torgils Wold taking over command of the IATF. Old, having served with the Assam-Burma-China Ferry and as chief of staff of the Tenth Air Force, was of course well informed on the situation in Assam, and Colonel Wold as commander of the 341st Bombardment Group had long since become familiar with operating conditions in Bengal and Assam.¹³

Before the monsoon had entirely disappeared the situation in Assam was further improved by the arrival of the 311th Fighter-Bomber Group under Col. Harry R. Melton, Jr. One of its squadrons had been

inactivated upon arrival in the theater and much of its personnel transferred to the 459th (P-38) Fighter Squadron, whose flight echelon had recently arrived from the Mediterranean theater. The 459th, assigned to the 80th Fighter Group, was sent to Kurmitola in Bengal, where it operated in conjunction with the B-25 squadrons. The other three squadrons of the 311th Group—the 528th, 529th, and 530th—were equipped with A-36's and P-51A's. Thus the fighter strength of the Tenth Air Force was greatly increased in the space of a few weeks. The number of squadrons jumped from two to seven, and instead of having old-model P-40's for every conceivable kind of mission, P-40N's, P-51A's, A-36's, and P-38's were available, and all had superior altitudes. For the first time there could be a division of labor among the fighters in the Tenth.¹⁴ Versatility of the fighter force promised to make it more effective in countering enemy moves in Burma. P-38's of the 459th in the south soon gave bombers their first long-range fighter escort, while in Assam the P-40N's took over patrol duties, interpolating an occasional bombing and strafing mission. P-51A's and A-36's engaged largely in air support to ground forces moving down from Ledo in advance of the road-builders, but they frequently flew reconnaissance and patrol missions. Late in November 1943, the 530th Squadron was pulled down into Bengal to fly escort to bombers on a series of special missions against Rangoon.¹⁵

Before the new fighter and fighter-bomber squadrons had time to be lulled into a feeling of security by enemy inactivity, the Japanese again challenged American air ascendancy over northern Burma. During the wet season they had repaired many old airfields and had built several new ones, and on 13 October their fighters appeared over Sumprabum in strength to harass the Hump flyers. Probably aided by ground radio-men, they easily evaded American patrols and attacked passing transports. During the day they shot down one CNAC transport, one ATC C-46, and one ATC C-87, while damaging one B-24 of the Fourteenth and two C-47's of a troop carrier squadron. American fighter patrols were increased from four to eight planes but with little effect. On the 16th, three A-36's of the 311th failed to return from a mission over Sumprabum. On the 20th, another C-46 was lost and three days later three others were missing. On the 27th, still another C-46 was shot down and two formations of freight-hauling B-24's of the Fourteenth Air Force were attacked. The B-24's, perhaps mistaken for C-87's, destroyed eight fighters and damaged several others.¹⁶

Meanwhile General Old, consulting with Tenth Air Force and ATC, put into effect a policy which was designed to save the transports from further attacks. In spite of the greater altitude at which they would have to fly, henceforth all transports were to cross well north of Sumprabum. A radio control station was set up at Fort Hertz to keep in constant contact with transports and fighter patrols, while immediate attention was given to destruction of all enemy airfields in central Burma from which the fighters might be operating. As an example of the treatment accorded these airdromes, the field at Myitkyina was attacked on 13, 18, 21, 27 October, on 3, 8, 9, 25, 30 November, and on 2, 4, 11, 18, and 28 December 1943, most of the attacks being carried out by P-40's bearing variously fuzed thousand-pounders. Strafers worked over the fields, giving special attention to anti-aircraft positions.¹⁷ It is impossible to determine which of the precautions was most effective in stopping depredations on the Hump flyers, but in November no transports were shot down, and in December only two were lost to enemy action. In the latter month, however, enemy air activity resulted in the loss of a B-25 and four troop carrier C-47's in a single day.

The Japanese once more attacked Assam, on 13 December 1943. They had tried to confound the defenders by entering the warning net almost daily for several weeks without coming in to attack. Then on the appointed day, twenty twin-engine bombers escorted by twenty-five fighters appeared over Dinjan only twelve minutes after the alert was sounded. Bombs were away before interceptors made contact, but their aim was poor and little damage resulted. They were caught by American fighters before they could get out of the area and suffered heavy losses. And just after they had shaken off the original interceptors the enemy formation ran into other American fighters returning from a mission to Bhamo. Again the Japanese suffered losses. In all, twelve of twenty bombers were shot out of the air and five of the escort were lost. Bad bombing and the enemy's accidental meeting with returning American fighters turned the mission into a fiasco, but the Japanese had once more demonstrated that they could slip through the Assam warning net and drop their bombs before they could be intercepted.¹⁸

Enemy Communications in Burma

While the relatively few fighter planes over north Burma were carrying out the primary mission of the Tenth by protecting the China

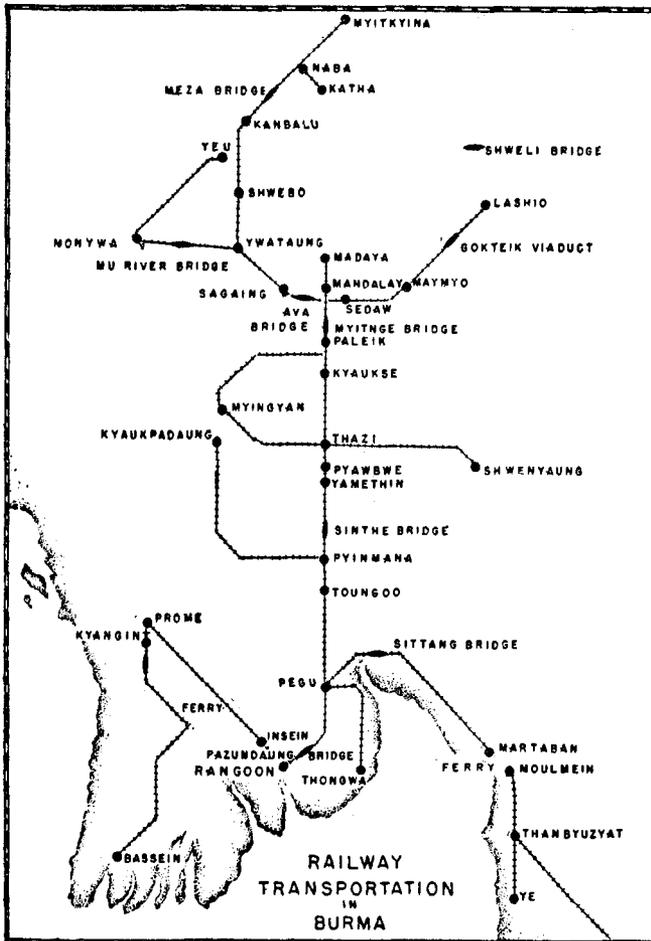
ferry, the remainder of the force, medium and heavy bombers, was engaged in the secondary but nonetheless important task of attempting to destroy enemy installations, supply routes, and lines of communications into and across Burma.¹⁹ Thus, indirectly, they sought to aid the fighters by preventing a build-up of Japanese forces in the critical northern region. In view of the rather unusual circumstances under which the bombers had to operate, it may be well to consider in detail the transportation system of Burma.

Nearly as large as Texas, Burma has been likened to a giant wedge driven between India and China. On three sides the country is locked in by a massive ring of mountain ranges which form most of its 3,200 miles of land frontier, and prior to the completion of the Burma Road, it had no rail or road connection with China or India. Branching off from the Himalayas at the northern tip of Burma, the Patkai-Naga Hills, with peaks rising to approximately 20,000 feet and valleys of extremely dense jungle, interposed an effective bar to transportation between Assam and northern Burma. It was over this range that the Assam fighters had to fly daily. Farther to the southwest an extension of that range, the Arakan Yomas, with peaks up to 10,000 feet, stretches to the shores of the Bay of Bengal, preventing land communications between India and lower Burma. On the China-Thailand side the Himalayan range branches out into numerous parallel north-south chains, extremely high along the China border, tapering gradually in the Shan States, and stretching far down into the Malay Peninsula. So on the east, too, Burma was long isolated from its neighbors by rugged and forbidding mountains.²⁰ In shape and contour Burma itself resembles a slightly cupped hand, a tumbled mass of parallel ridges running north and south giving the palm a corduroy-like appearance. This central basin, its ridges dwindling in altitude toward the middle, extends from Fort Hertz in the north to the Bay of Bengal, varying in width from 100 to 150 miles. North-south ranges hinder lateral traffic, but the valleys between have developed into heavily traveled routes. Upon the southward-flowing rivers, most important of which is the Irrawaddy-Chindwin, and upon motor roads and rail lines closely paralleling their courses, normally passes the bulk of freight. After the Japanese victory of 1942, this system became the lifeline of enemy occupation forces.²¹

The Japanese did not take full advantage of the system of motor roads, having chosen to use most of their motor transport to move sup-

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plies from terminals of the railway system to the outlying posts and stations. Under Japanese occupation, river traffic also was reduced. The British had destroyed numerous river craft during their retreat, and subsequently the RAF had attacked all types of craft plying the Irra-



waddy-Chindwin.²² Naturally the rail system from Rangoon to Mandalay and Myitkyina became the chief LOC of enemy armies in northern Burma and along the Salween front.

The Burma rail net consisted of some 2,000 miles of meter-gauge, single-track lines, extending from Ye on the Malay Peninsula to Myitkyina on the upper Irrawaddy and completely isolated from rail systems of neighboring countries to the north and west. A line from Ye

led through Thanbyuzyat, western terminal of the Bangkok-Moulmein line which the Japanese had recently started, northward into Moulmein. Broken by ferries over the Salween estuary and the Sittang River farther north, this line joined the Rangoon-Mandalay trunk line at Pegu.²³

From Rangoon a branch line moved northwestward to Promé on the Irrawaddy and thence southward to Bassein. The line of chief importance, however, was that stretching north from Rangoon past Pegu, where it was joined by the line from Ye and Moulmein, northward along the Sittang valley toward Mandalay. This backbone of the entire rail net of the country continued from Mandalay, following the upper Irrawaddy valley to the extreme northern terminal at Myitkyina.²⁴

Lateral spurs branched off the Rangoon-Mandalay-Myitkyina trunk to serve various parts of the central basin. North of Pegu, at Pyinmana, a track ran northwestward almost to the Irrawaddy, stopping at Kyaukpadaung, not far from the oil fields at Chauk and Yenangyaung. Farther to the north on the main line was Thazi, most important junction between Pegu and Mandalay. Here one spur extended east to Shwenyaung, near the Shan capital of Taunggyi, giving a rail outlet to the Shan States region and connecting with trails from Thailand. Westward from Thazi a second spur through Meiktila reached Myingyan on the Irrawaddy and then rejoined the main line at Paleik, thus providing an alternate connection between Thazi and Paleik. On the short run from Paleik into Mandalay, however, all northbound traffic converged into a single line.²⁵

At Myohaung yards in Mandalay all rolling stock was rerouted for ultimate destinations. One vitally important line moved out northeast to Lashio where supplies for the Japanese Salween armies were processed and transshipped to motor conveyances. A short track also ran from Mandalay northward to Madaya, a small mining town, but the heaviest traffic flowed west and north toward Yeu and Myitkyina. Just out of Mandalay this line crossed the Irrawaddy via ferry, by-passing the Ava bridge which the British had demolished, entered Sagaing and passed thence a short distance into Ywataung. Here the line divided, one branch winding west over the Mu River to Monywa on the Chindwin and northward to Yeu. The main line continued from Ywataung north through Shwebo to Naba, where a short spur joined it to Katha on the Irrawaddy. Beyond Naba the line passed through Mogaung and thence to Myitkyina on the Irrawaddy.²⁶

Frequently touching chief waterways, the Sittang, Irrawaddy, and Chindwin rivers, and winding throughout the central basin, the railway net provided a great variety of widely dispersed potential targets. Rangoon, Thanbyuzyat, Pegu, Henzada, Pyinmana, Thazi, Letpadan, Paleik, Mandalay, Ywataung, and Naba were railroad junctions where rolling stock might be found in sufficient number to justify bombing attacks. Prome, Bassein, Moulmein, Martaban, Myingyan, Mandalay, Monywa, Katha, Mogaung, and Myitkyina were points where the rail and river traffic systems joined. Here were likely to be found docks, switching yards, and warehouses. Scattered along the many spurs were industrial centers such as Toungoo, Meiktila, Maymyo, Shwebo, and Yamethin. A few river ports, Bhamo, Magwe, Yenangyaung, Pakokku, Thayetmyo, and Allanmyo, also had industrial areas of some importance. Towns like Lashio, Myitkyina, and Yeu, terminals of certain lines, contained warehouses where goods being transferred to other means of transportation were stored.²⁷

Aside from depots, marshalling yards, warehouses, and rolling stock, the railways offered numerous bridge targets whose elimination would go far in disrupting the flow of supplies through Burma. Ava bridge across the Irrawaddy near Mandalay and the Sittang River bridge on the Pegu-Moulmein track had not yet been repaired after British demolition, but several others were so strategically located that they were naturally earmarked for the earliest possible destruction. On the Rangoon-Mandalay trunk line, Pazundaung bridge south of Pegu and Myitnge bridge over which all goods from the south funneled into Mandalay were important control points. The Mu River bridge presented the most likely target on the Yeu branch. On the Lashio line the Gokteik viaduct, frequently called the engineering marvel of Burma, spanned an enormous gorge. As by-pass bridges and ferries were out of the question at that point, elimination of the viaduct would break rail connections to Lashio. This would have been doubly effective, for in addition to carrying practically all supplies to the Salween front, this line bore the products of the important mines in the Namtu area.²⁸ These four bridges, Pazundaung, Myitnge, Mu, and Gokteik, were destined to receive many bomb showers.

Thus in Burma there were two phases of enemy transport offering strategic objectives to the bombers. The first included the movement by sea and the landing, processing, and transshipment of goods from the coast. To interfere with these activities became the chief objective

of the heavy bombers of the Tenth. The second phase was movement of materiel over the interior transportation system from the port of entry to troops in the field. Both heavy and medium bombers ran many missions to break this flow of supplies, the mediums being confined by lack of range to targets in central Burma and the heavies concentrating largely on southern Burma.

Rangoon, Bangkok, Moulmein, Tavoy, Mergui, Singapore, Saigon, and other coastal towns served as ports of entry for the Japanese in southeast Asia, but only Rangoon was both located within operational range and linked closely enough with the internal transport system of Burma to become a regular bombardment objective.²⁹ Hence, it was to Rangoon and over its water approaches that most of the heavy bomber missions of the Tenth were flown. But because of the great distance involved, unpredictable weather in the Andaman Sea, and paucity of intelligence on movement of enemy bottoms, American bombers had not stopped goods from moving in and out of Rangoon. At the beginning of 1943, Tenth Air Force intelligence estimated that 30,000 to 40,000 tons of shipping passed weekly along the Rangoon River.³⁰ Thus far the Japanese had not reconditioned the oil fields of Burma, so that an important part of this tonnage consisted of gas and oil for the air units in Burma.* Denial of this port therefore could curtail all types of military operations, but would be particularly damaging to the enemy air effort.

For some months the Tenth had desired to supplement sea searches and bombing of dock installations by mining the Rangoon River, but it was not until January 1943 that the air force obtained suitable mines and necessary technical assistance. Mines and information as to moon phases, tides, and the harbor channels were obtained from the RAF, and after coordination with the commander of the Eastern Fleet of the Royal Navy and other British authorities, mining operations began. Liberators were modified to carry the mines. Selecting a time when there would be a low tide and full moon, and accompanied by a diversionary mission over Mingaladon and Rangoon, the B-24's dropped forty magnetic mines in the Rangoon estuary on 22 February.³¹ Mining became a more or less regular routine for the remainder of the year.³² No information was available on the number of ships actually sunk as a result of the mine-laying missions, but it was certain that the enemy

* Later in 1943, when the Japanese began serious work on the oil fields at Chauk and Yenangyaung, a series of bombing missions was run against those targets.

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was kept busy sweeping the river and that the number of ships docking at Rangoon was drastically reduced.

Liberators also struck at rail targets, largely in the area south of Thazi, although they occasionally lent aid to the B-25's which assumed responsibility for rail targets in central Burma. Toungoo, Pyinmana, Yamethin, Prome, Pyawbwe, Letpadan, and Henzada were the most important targets attacked on the rail system. Pazundaung bridge also received considerable attention from the B-24's.³³

In central Burma the Liberators hit Ywataung rail yards and Monywa on 22 June and struck Mandalay on 20 July and 1 September. A second strike at Monywa on 19 September was followed the next day by a mission to Sagaing and another to Naba on the Mandalay-Myitkyina line. The latter was the northernmost point hit by the Liberators during the year. In October, Sagaing and Myingyan were hit once and Kanbalu twice. On 17 October, Liberators collaborated with Mitchells to give Naba a thorough going-over, and on 30 December twenty B-24's almost completely knocked out Monywa.³⁴

Among the bridges which the heavy bombers attempted to destroy were Sinthe, Myitnge (and Myittha just to the south), Meza, Gokteik, and Shweli. Some damage was done to nearly all these targets, but always the Japanese were able to make them usable in a short time.³⁵ Because of its peculiarly strategic location, Myitnge was the most frequently visited bridge target. On the ten occasions when the heavies bombed it, they could claim only superficial damage. One of the most interesting, and perhaps most desperate, attacks on this vital structure was a minimum-altitude attack by two old B-17's which had only recently been made flyable after many months of inactivity. This experimental mission, too, brought no success.³⁶

Sea searches continued throughout 1943 but with questionable results. Undertaken as the first effort to cut off supplies from Burma in 1942, the activity eventually became only a supplement to the heavier effort to knock out port facilities and close Rangoon by mining.³⁷ The water expanse of the Andaman Sea was too great for anything approaching complete coverage by the limited force available, so that missions were in reality reconnaissance sorties sent out on the chance that enemy surface craft might be located. Should a convoy be spotted, additional aircraft could be directed to attack. Many of these sorties were thwarted by weather which provided cover under which Japanese ships could reach their destinations undiscovered. But in spite of

the many flights which clouds and fogs made fruitless, the chance of sighting enemy craft was better in monsoon weather than in clear periods, for when they had no protection from clouds the Japanese stayed outside the range of the B-24's, hugging the Malay coast and moving only at night. Yet the regular sweeps over open sea were not entirely fruitless. Experiments with radar equipment were carried on with enough success to promise great rewards when sufficient radar-equipped aircraft were obtained. Furthermore, it was customary for planes returning from unsuccessful searches to fly over points in southern Burma where alternate targets had been selected. Several times they did heavy damage to enemy installations on these return missions.³⁸

Aside from shipping, all strategic targets worthy of attack by, and in range of, the B-24's lay in the vicinity of Rangoon, and the weightiest effort of the 7th Group was directed at objectives in that region. The distance flown by American aircraft on these missions was greater than that required for planes based in Britain to strike Berlin, but it had long been a "milk-run" for India-based Liberators. Moreover, the Japanese had built up their AA defenses at Rangoon until that city became one of the most heavily fortified areas in all southeast Asia. Heavy anti-aircraft and batteries of searchlights were concentrated at vital points, while the larger part of enemy fighter strength in Burma was based at Mingaladon and other near-by airdromes. A majority of missions to Rangoon therefore met resistance, and as the Tenth had no long-range fighters until arrival of P-38's and P-51's late in 1943, all missions were flown without escort. Once the enemy discovered that the current-model B-24 lacked adequate defense against frontal attack, he exacted an alarming toll. In October, B-24J's with better frontal firepower arrived, but these new planes with their front turrets were a distinct disappointment in early operations. Over Rangoon on 1 December they suffered heavy losses from frontal attacks. Inexperience in handling the new turrets was given as a possible explanation of the losses. But in spite of serious handicaps, the Liberators flew many successful daylight missions and brought damage to Rangoon.

From the first of 1943 until the monsoon closed in, heavy bombers attacked key targets in the Rangoon sector with some degree of regularity. Several of the most frequently bombed objectives during this period received priority in the program of rendering the city useless as a port and storage area for materials awaiting shipment to the interior. Among these were ships anchored at docks, the docks them-

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selves, and adjoining warehouses. As part of the general plan for upsetting the land transportation system the Central Railway Station, Mahlwagon roundhouse and rail yards, and the Pazundaung railway bridge were given a generous showering of bombs. Destruction of Pazundaung bridge would have delayed all rail traffic northward to Mandalay, but the bombers were able to do no more than make it unserviceable for short periods. Damage to railway repair facilities and trackage at Mahlwagon yards and Central Station probably was more vexing to the occupying forces. Other heavily bombed targets prior to the monsoon were Syriam oil refineries, Thilawa oil storage area, and the large airdrome at Mingaladon.³⁹

Rain and fog cut down the number of missions to Rangoon during the summer, but in July, weather permitted a flight to bomb Syriam refineries, and in September both the refineries and Sule Pagoda docks and storage area were bombed. With better weather in October regular missions were resumed. Just before the combined effort of the Tenth and Fourteenth Air Forces and the RAF to give Rangoon a knockout blow in late November and early December 1943, Liberators visited the most important fields where interceptors might be based, dropping heavy loads of bombs.⁴⁰

When General Stratemeyer arrived in the theater he was eager to promote closer cooperation between the AAF and RAF, and in November he projected one of the most significant series of missions ever executed in the CBI theater. He proposed to Air Chief Marshal Peirse that the two air arms collaborate in a series of attacks intended to destroy completely the most vital installations in the Rangoon vicinity. Possibly influenced by the danger of attacks on Calcutta and the Assam line of communications by a growing enemy air force in southern Burma, Peirse readily agreed. Stratemeyer then proposed to Chennault that the air echelon of the 308th Bombardment Group be temporarily moved to India to add weight to the effort. Heavy bombers in China at that time were hamstrung by shortage of gas, and one advantage of participation in the missions was that their return to China could be utilized as a ferry mission. Moreover, destruction of any considerable part of enemy air strength in Burma might relieve pressure on the air ferry across the Hump and forestall any impending air attacks on Assam where stores for the Fourteenth were massed.⁴¹ Chennault agreed to the transfer.⁴²

The operational procedure was to be worked out by the Bengal

Command and Tenth Air Force, from whose bases all aircraft would operate. After giving close study to damage resulting from previous bombings, specific targets were given a tentative priority.⁴³ Only a limited number of targets could be designated and hence great care was given to their selection. The locomotive works at Insein stood out as probably the most remunerative target in the region and was eventually given top priority. Strafing and bombing along the railways had done considerable damage to locomotives, placing a strain on workshops, and Insein was the only place in Burma having necessary machinery for repairs to railway engines. Elimination of this single plant therefore would supplement the continuing campaign against rail transport. Railway stations were passed over as being too hard to hit and to damage permanently. Mahlwagon marshalling yards and engine sheds were selected as good night targets, easily spotted because of their distinctive position between two bends in the river. Docks at Rangoon had always been considered lucrative targets by the Tenth, and its bombers had flown some very successful missions against them, though never with a decisive weight of attack. This was an opportunity to cripple the whole water front at one time, so in addition to the Insein locomotive works and Mahlwagon marshalling yards, the wharves were chosen as a third major objective.⁴⁴

All attacks by night were to be flown by Wellingtons and Liberators of the RAF, and all AAF missions were to be flown by day. Thus there was collaboration between the two forces, but no integration on specific missions. Heretofore all American bombardment missions in the area had been flown without escort, but as the projected attacks constituted an outright challenge to the increasing Japanese air power in Burma it was thought advisable to provide escorts. Preliminary plans were laid with the assumption that the only fighters available would be the recently arrived P-38's of the 459th Squadron. At the last moment, however, the 530th Fighter-Bomber Squadron brought its P-51's from Assam to aid the P-38's.⁴⁵

The 490th Bombardment Squadron (M) was to participate in the attacks along with the heavy bombers of the 308th and 7th Groups. When the flight echelon of the 308th arrived, half of it went to Pandaveswar and half to Panagarh where the 7th Group was located, giving each base two squadrons from each group. Thus the ground men of the 7th could give the 308th aid in maintenance.⁴⁶ Arrangement for the fighters and mediums was not so easy. Neither had sufficient range to

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make the flight from their base at Kurmitola, so forward staging fields had to be used. It was decided that the medium squadron would stage at Chittagong, 485 miles from Rangoon, and the fighters at Ramu, near Cox's Bazar and 430 miles from Rangoon. A number of 750-gallon refueling trucks were sent to the staging areas to service the aircraft.⁴⁷ Fighters, of course, were equipped with belly tanks.

The operational plan adopted was as follows: on D-day, 25 November, the maximum strength of B-24 and B-25 aircraft of the AAF, escorted by the fighters, was to attack in two waves. The 7th Group, forming the first wave, was to hit Insein locomotive shops; the 308th Group and 490th Squadron, or second wave, would bomb fighter fields in hope of destroying aircraft on the ground, including fighters being reserviced after they had intercepted the first wave. That night, maximum strength of RAF bombers would attack Mahlwagon marshalling yards, with the AAF following up with an attack on the same target the next day. Beginning the night of D plus one, the RAF and AAF would strike by night and day against the wharves, starting at Ahlone wharves and moving east on each successive raid. The whole series of missions, including those on Insein and Mahlwagon, was expected to last six days and five nights. It might be necessary to divert part of the daylight effort against airfields if results of the first attack were not adequate. On approximately D plus 8 the AAF was to mine the shipping lanes at Rangoon and Moulmein. Exact timing of these mining missions would be governed by the moon phase should they be undertaken at night.⁴⁸

Weather was entirely unfavorable on 25 November when the combined operation was supposed to begin, but as the 308th would be in India for only a short time it was believed best that the set schedule be followed. Misfortune set in from the take-off of the first mission when two B-24's crashed, killing all on board. When the heavies passed the point at which they were to pick up their escort from Ramu, overcast prevented the fighters from making contact, leaving the bomber formation to proceed to the target alone. The primary target at Insein was completely closed in by weather and the first wave was unable to attack. The second wave encountered the same conditions at its Mingaladon objective, and this second major target also was abandoned. While circling to find an opening through the overcast one B-24 sustained a flak hit which later caused it to crash. On the return some of

the bombers hit Akyab airdromes with indifferent or undetermined results.⁴⁹

The only part of the first day's task to be accomplished was performed later by the 490th Squadron accompanied by P-51's of the 530th Squadron. Flying at lower altitudes than the heavies, the B-25's bombed Mingaladon with some success. Damage was done to buildings and the revetment area, and two aircraft were believed to have been destroyed on the ground. Enemy fighters rose to intercept, and in the ensuing battle the P-51's claimed one enemy aircraft destroyed and four probably destroyed. Two P-51's were shot down and two others damaged. Gunners on the Mitchells shot down one plane, damaged two, and claimed three as probables, the mediums escaping without damage.⁵⁰

The result of the initial effort was extremely disappointing. Three heavy bombers and two fighters were lost and the major target at Insein was untouched. Nor was the anticipated blow at enemy air power successful. Furthermore, the element of surprise, heavily depended upon to cripple enemy interception for succeeding missions, was gone; the general schedule of missions was upset and plans had to be revised. The Japanese were now well aware that two heavy groups were operating from India; the enemy would be on the alert for double blows such as were planned for the first attack, and would probably offer a determined resistance.

On 26 November all flights were called off because of weather. With two days gone and nothing accomplished, the planned schedule was thrown aside, and on the 27th, AAF Liberators accompanied by Lightnings, and Mitchells escorted by Mustangs, struck at Insein. Despite determined interception by a large number of enemy fighters just prior to the bomb run, results of the attack were excellent. In a subsequent report General Davidson, in command of the Tenth Air Force since August, estimated that at least 70 per cent of the buildings and installations of the locomotive works were destroyed.⁵¹ In the aerial fight which developed from the interception, Japanese pilots pressed their attacks home time after time. After the mission returned, it was found that four P-51's, two P-38's, and three B-24's had been lost. One of the Mustangs shot down was piloted by Colonel Melton, commander of the 311th Group, who was seen to bail out and land in territory where natives were generally friendly. One of the B-24's landed in water off the coast and nine of the crew were rescued. Thirteen enemy fighters

were claimed destroyed, seven probably destroyed, and four others damaged.⁵²

An attack on Botataung docks was set for the following day, the 28th. Since the provision of escort for B-24's at approximately 18,000 feet and mediums operating at about 9,000 feet was too great an undertaking for the few fighters left, the mediums on that day attacked Sagaing instead of flying with the heavies to Rangoon. Over the targets the Liberators encountered far less resistance than on the preceding day and no American aircraft was lost. Four interceptors were shot down and five more claimed as probables. Heavy damage was done to the dock area and results of the mission were considered very good.⁵³

The 29th and 30th of November were set aside for maintenance, but on 1 December the B-24's revisited Insein while the B-25's bombed Myitnge bridge. All available fighters, now only ten P-51's and fifteen P-38's, were assigned as escorts to Insein. Delayed in taking off from Kurmitola by heavy fog and unable because of poor communications to warn the bombers, the P-51's failed to finish refueling at Ramu in time to make the rendezvous. The mission went out with only the fifteen P-38's to protect it.⁵⁴

Japanese fighter strength in the Rangoon area apparently had been at a low ebb on 28 November, but in the two intervening days they must have brought in heavy reinforcements from neighboring regions. When the bombers made their run from north to south in order to avoid heavy antiaircraft fire, the sixty-odd enemy fighters already aloft were able to make head-on attacks out of the sun. The first assault was as devastating as it was surprising. Enemy aircraft were in firing distance before they were sighted, concentrating on the formation leaders. The 7th Group, forming the first wave, bore the brunt of the attack. On the first pass the group leader, his left wingman, and a squadron leader were knocked out. Three planes pulled up to close the gaps in the formation and soon afterward one of the three was lost. Three others tried to cover the group leader, who was losing speed and altitude, and thus did not complete the bomb run. The P-38's could give little direct assistance, as they had their hands full with other fighters still above the bomber formation.⁵⁵

When the planes of the 308th Group arrived and were ready to begin their bomb run, the attacks were repeated by a slightly smaller number of aircraft. Sometimes enemy fighters came in three abreast, all concentrating on a single plane. At other times they approached in a

string, each plane making a pass and pulling away to allow the next in line to come in. The lead plane of the 308th was shot down on the first pass, just before the bomb run, and the plane which took its place was badly hit during the run. Attacks persisted after bombs were away, enemy pilots singling out cripples; but the P-51's finally arrived in time to offer some protection on the return, losing one ship in their brief participation.⁵⁶

Bombing results of the costly mission were largely unobserved because of the continuing fighter attacks during the bomb run, but the pattern was believed good. American losses, however, were appallingly high—six B-24's and one P-51 destroyed and five B-24's seriously damaged.⁵⁷

The American phase of the operation came to a close on the afternoon of 4 December when AAF bombers ran successful mining missions to Rangoon and Moulmein without encountering resistance or suffering losses. The AAF missions on 25, 27, and 28 November and 1 December resulted in the loss of twelve B-24's, eight P-51's, and two P-38's, while many other craft of various types were temporarily unusable because of damage sustained.⁵⁸

Meanwhile RAF missions were flown on the night of 28 November against Insein, and on the night of the 30th against Mingaladon and Zayatkwint airdromes and the Rangoon dock area. After the last bombing effort of the AAF on 1 December, the RAF flew night missions on 2, 5, and 6 December, striking at Bassein, Heho airdrome, and Moulmein. Its forces on all these missions were relatively small, and in all only sixty-six sorties were flown at the expense of three Wellingtons.⁵⁹

The many factors involved make it almost impossible to reach an objective evaluation of these combined missions. Due to the limited time the 308th Group was available the plan could not be flexible in timing, and when bad weather intervened, the alternatives were either to call the whole operation off or try to carry it out in the face of undesirable flight conditions. Once the element of surprise was taken away by an abortive mission, each succeeding mission was more risky. It must be remembered, however, that on all previous missions the Liberators had flown to Rangoon without escort and without heavy losses from fighters. Hence it was not unreasonable to expect that the small escort provided would be sufficient to minimize losses from hostile aircraft.

The operation was an expensive one in a small air force where loss of every plane was felt. Reckoning on a percentage basis, on the other

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hand, the loss was less alarming. While serious, loss of eight P-51's in a series of some sixty sorties where interceptors were numerous and very determined was not unreasonably high. The rate of loss among B-24's was even lower—twelve in 205 sorties. Only on the mission of 1 December did heavy bomber losses exceed 10 per cent of the participants.⁶⁰

The objectives of the operation were not fully accomplished. Serious damage was done in the dock area, but it was not so extensive as to paralyze the water front. Enemy aircraft losses were probably upwards of fifty; but owing to arrival of reinforcements during the operation, Japanese air strength was greater at the finish than on the first day. Some damage was done to major enemy airfields in southern Burma. Communications targets such as Mahlwagon marshalling yards were not attacked.

On the credit side of the ledger were the great destruction at Insein and a very successful mining mission which affected both Moulmein and Rangoon. Photo intelligence as well as ground intelligence coming in later indicated that in the face of limited successes elsewhere destruction at Insein alone might have justified the whole undertaking. Several vital parts of the locomotive works were completely obliterated and many others were so badly battered as to be utterly useless. A Tenth Air Force photo intelligence report of 1 December stated: "The functional capacities of the Locomotive Work Shops have been seriously and effectively checked. The complete destruction of certain vital departments . . . makes it extremely doubtful whether this Works will be able to operate for a considerable time."⁶¹

Less tangible results are not easy to assess, but the fact that RAF, Tenth Air Force, and Fourteenth Air Force units had participated in a jointly planned series of missions was a good omen for the theater. British effort was smaller than anticipated, consisting of only sixty-six sorties instead of the anticipated maximum of some 175. Cooperation between the 7th and 308th Groups was beyond reproach.⁶²

Several important operational lessons were learned which would be of value in planning for the future. Staging medium bombers from Chittagong and fighters from Ramu was entirely feasible, but it was believed that in subsequent operations the fighters should arrive at the staging fields the night before the mission, thus permitting a refueling in ample time to make the rendezvous with the bomber formations. Both P-38's and P-51's showed their value as escorts, but the P-51 with

greater belly-tank load per engine was better for close support, while the P-38 was superior as high-altitude top cover. Gunners on fighters and bombers were stale and needed additional training. And, perhaps most significant of all, fighter escorts would probably be required for all subsequent daylight missions to Rangoon.⁶³

After this series of attacks, Rangoon was left alone for a few weeks, but meanwhile the potentialities of another target had greatly increased. Throughout the year intelligence agents had reported that the Japanese were expanding docking facilities at Bangkok and building a railway to connect this port with the Ye-Moulmein railway, and thus to the railway system of all Burma. In December its reported completion made Bangkok an increasingly important bombardment objective in the Burma campaign. A year before, B-24's of the India Air Task Force had flown to this port and dropped a few bombs, and in April another such mission had been attempted. On this latter mission most of the planes failed to reach the target, and those which succeeded in dropping bombs did little appreciable damage.⁶⁴

On the night of 19 December, twenty-one B-24J's of the 7th Group took off to bomb the newly expanded Bangkok dock area. One failed to reach the target, but shortly after midnight the remaining Liberators began to rain their bombs on the water front. Some of the heavies were singled out by searchlights which followed them through their bomb runs, blinding crew members so that they could not assess the accuracy of their bombardment. Flak was ineffective and no interceptors appeared. For more than an hour the various flights dumped their bombs, most of which were believed to have fallen within the assigned target area. In all they dropped 100 x 500-pound bombs, but mechanical failure of bomb racks caused them to withhold ten incendiary clusters. Although no fires were reported, it was thought that substantial destruction had been wrought.⁶⁵

On the night of 23 December a second attack was made on Bangkok, this time with the railway terminal as the aiming point. Twenty-one Liberators took off, with two aborting. The remaining nineteen scattered upon the target 110 x 500-pounders, of which fifty-nine were incendiaries. Upon this occasion there was no doubt that the chosen objective was hit effectively. All squadrons sighted huge fires, and one reported heavy explosions three minutes after the bomb run. Again flak was not effective, and the two enemy aircraft sighted failed to attack.⁶⁶

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These two Bangkok missions did much to raise morale of the 7th Group after its heavy losses at Rangoon. Two successful fourteen-hour night missions had been flown within a four-day span, with only three abortive sorties and without loss of a single ship. Bangkok and the Bangkok-Moulmein railway were destined to be important objectives for the Tenth during the coming year.

Medium Bomber Operations in Central Burma

While heavy bombers of the 7th Group concentrated on the more distant targets, B-25's of the 22d, 490th, and 491st Squadrons of the 341st Group carried out a second phase of the interdiction program by attacking the enemy's communications farther north. Enemy airdromes, whenever they were found to be occupied, also received attention. Governed by the limited range of their aircraft, these squadrons concentrated on the Mandalay region of central Burma, operating in the general area between Thazi and Myitkyina.*

Nature was kinder to the pilots of these mediums than to fighter pilots in Assam or to the heavy squadrons in the south, for even during the summer monsoon the dry area in middle Burma was not closed over by the mists and fogs so characteristic during the season on the southern coast and in northern Burma and Assam. Consequently their missions were less frequently abortive, and they could adhere rather closely to operational plans. Nor did they encounter objectives so well defended by anti-aircraft batteries and enemy interceptors as at Rangoon, or so well concealed as those in the northern area.⁶⁷

Nevertheless, the 341st Group had its share of operational problems. Objectives were widely scattered though lightly defended, and few were large enough to allow area bombing. As a result a very high degree of precision was required on practically every mission. Furthermore, when an objective was of such proportions as to justify area attacks, the medium force was too small to saturate the target in a single mission.⁶⁸ Two consecutive missions to the same place frequently resulted in the same portion of the area being twice blanketed while other parts remained entirely untouched. But nothing caused more headaches among medium crews engaged in transportation interdiction than the difficulties of "bridge-busting." Try as they might, the per-

* In May the 490th moved to Kurmitola, where it could operate without dependence on a forward staging field. The other two squadrons, however, continued to use staging fields.

centage of hits on these narrow targets remained pitifully low; and if they were difficult to hit, they were infinitely more difficult to destroy. Experimentation throughout 1943 on methods of approach, altitude of bomb release, and bomb fuzing failed to produce a suitable method of attack, and destruction of a bridge was more or less the result of luck.⁶⁹

On top of the technical problems involved in pinpointing these small targets, crews were confronted with several ingenious devices which the Japanese used to multiply the complexities of that type of operation. In some instances, smoke pots were installed so that the target could be screened; if no natural barriers hindered minimum-altitude approach, heavy concentrations of antiaircraft were strategically placed; in some instances where bridges spanned deep gorges, cables were strung across the gorges to stop approaches at or below bridge level. Flak positions were shifted frequently, and when antiaircraft guns were scarce, attempts were made to outguess the bombers by concentrating the guns at the next probable objective.⁷⁰

Three types of internal transportation were of enough importance to justify consideration—river, rail, and motor. The central dry region contained control points of northbound traffic over all three systems. Destruction of river craft by the British during their 1942 retreat, however, had been far more extensive than destruction of railways, locomotives, and rolling stock, and the volume of goods moving along waterways had dropped off considerably during Japanese occupation. Since RAF aircraft had assumed the role of destroying all types of river craft plying the Irrawaddy and Chindwin, attacks on river traffic by American bombers were infrequent.⁷¹ When other targets were closed over, however, the mediums sometimes ran river sweeps, attacking tugs, barges, and ferry boats. Once during the summer they planted magnetic mines in the Irrawaddy for a stretch of fifty miles, but with questionable results. Motor transport in general also provided few targets appropriate for medium bombers. Consequently, efforts to interfere with motor traffic most often took the form of bombing motor pools, strategically located highway bridges, and cuts in highways where landslides might be caused. In a few instances motor convoys were bombed and strafed.⁷² But the main targets lay along the rail system from Rangoon to Mandalay and Myitkyina which served as the main supply artery of the Japanese armies in Burma.

Had a large force of the proper type of aircraft been available, inter-

ference with rail transportation in middle Burma would have been a minor undertaking, but the Tenth Air Force had neither sufficient strength nor the various types of aircraft needed for the operation. Instead, only three undermanned B-25 squadrons were assigned to the task, and before the end of the year this force was to be reduced to a single squadron. The only reinforcement was the 459th Squadron (P-38) which operated in the same area in the autumn. Blowing up bridges, ripping out trackage, burning stations, blocking tunnel entrances, destroying workshops and roundhouses, and causing landslides in deep cuts gave promise of favorable returns, and all were tried with varying degrees of success. But the Japanese became amazingly adept at making repairs and unsnarling traffic. Hence it was ultimately recognized that these methods were achieving little permanent damage, and that only by destroying locomotives and rolling stock could progressive and cumulative dividends be realized. This was no small undertaking. It was estimated that 113 locomotives and 9,602 rail cars of all types were available to the enemy. They were practically irreplaceable, however, and although it would take months to make appreciable inroads into the supply, the mediums accepted this part of their assignment with alacrity.⁷³

So-called marshalling yards in Burma frequently were merely storage areas for idle locomotives and rolling stock. It was here then that chances were best for wiping out railway equipment. Juxtaposition of rail yards and warehouses gave frequent opportunities for double destruction; and if yards were clear of rolling stock, the storage areas were excellent alternate targets. At a few points docks adjoined switching yards, again making better the chances for material destruction. On rare occasions bomb damage to bridges caused congestion of traffic and made normally poor targets into profitable ones.

Consequently, although the Mitchells of the 341st bombed bridges, barracks, and other enemy installations, their heaviest and most rewarding effort was against rail centers and storage areas. Guided by day-to-day information provided by reconnaissance pilots and intelligence agents in Japanese-held territory, they attacked wherever concentrations of rolling stock were reported. Striking as near to the source of supply as range permitted, they bombed Thazi no less than twenty-two times from late March to 1 October, the missions totaling 179 sorties. Against Kyaukse, Myingyan, Pyawbwe, and Meiktila, all of which are also south of Mandalay, they flew more than 175 sorties

during the year. Over a dozen missions of approximately 100 sorties attacked Mandalay itself, but as anti-aircraft there was perhaps the heaviest in central Burma it was believed more desirable to strike other objectives in the immediate vicinity. On the Lashio road, Sedaw reversing station and Maymyo were attacked seven and fifteen times, respectively.⁷⁴

Beyond Mandalay the Mitchells gave Sagaing and Ywataung rail yards the most severe treatment of all. Some 240 planes in 23 missions showered their explosives on the tracks over which were moving heavy shipments to the northern battle area. Farther up, Monywa on the Yeu branch suffered five attacks, while on the main line Kanbalu, Naba, and Shwebo were hit hard and often. Dozens of other points along the tracks were also blasted, some as alternates when assigned targets were closed over.⁷⁵

Interspersed with these heavier attacks were lighter ones against trains and against cranes and other repair equipment and repair crews. When the newer model B-25's equipped with 75-mm. guns appeared late in the year, they were sometimes used to knock out strategically located flak emplacements. Any locomotive caught outside defended areas was subjected to strafings.⁷⁶

For many months the Japanese proved a worthy foe in the transportation contest; repairs were prompt and thorough. But as the attacks became more frequent and devastating, reconstruction lagged. Burned-out rolling stock, wrecked locomotives, and bomb-pitted sidings remained untouched for long periods while workers made feverish efforts to keep main lines open. As the tide slowly turned against him, the enemy became more wary and depended heavily upon guile. Camouflage and dispersal became his guiding principles. Locomotives were disguised as box cars and placed in the middle of trains; cars on sidings were uncoupled and well-spaced revetments were constructed to protect locomotives when not in use; massing of rolling stock was avoided whenever possible; trains rarely made runs during daylight hours.⁷⁷ Against these precautions medium bomber missions became less fruitful, but efficiency of the railways also diminished. Accumulated combat mission and photo reconnaissance reports telling of explosions, riddled locomotives, burned warehouses, and wrecked rolling stock indicated that heavy damage was being done.

The medium bomber campaign against railroads was severely curbed, however, when in October two of the three squadrons, the 22d and

491st, were alerted for transfer to China. Though the move did not actually take place until late December, the two squadrons flew practically no combat missions during the last two months of the year. The effect of their imminent transfer was only partially offset by the greater proficiency of the P-38's in their cooperation with the Mitchells and by the fact that Liberators of the 7th Group began to run a few missions to central Burma.⁷⁸

Meanwhile, attacks on bridges, a special responsibility of the 341st Group, had failed to keep pace with the destruction of rail centers. Although there were in Burma nearly a hundred bridges of a length of 200 feet or more, certain considerations made the selection of those to be attacked comparatively easy.⁷⁹ Pazundaung, Sittang, and Sinthe were out of range. Ava was still in a state of disrepair. In the Myitkyina area several important bridges were within range of fighter-bombers from Assam, where crews had developed their own effective methods for bridge destruction.* Myitnge, Gokteik, Mu, Meza, and Myittha railway bridges, together with the Shweli highway bridge on the road from Bhamo into China, were the logical targets for the Mitchells.⁸⁰

All the difficulties of the bridge campaign in Burma during 1943 are illustrated in the story of attacks on one bridge—Myitnge. Located just south of Mandalay this four-span, truss-type, steel structure bore all rail traffic from the south into that city. The demoralizing effect to be expected from its destruction was obvious, and aside from Rangoon, it became the most bombed target in Burma. On 10 January 1943 the bridge was reported “destroyed”; but later reconnaissance showed that while damaged and unserviceable, it was far from irreparable, and in early February B-25's and B-24's collaborated in a series of missions designed to place it beyond repair. On 4 February, six Mitchells bombing from 6,000 to 6,500 feet and seven Liberators from 14,500 feet accomplished only slight damage to the south approach. The following day six more B-25 sorties at 12,000 feet failed to smash the bridge. Heavy bombers on 6 and 12 February had no better luck, on the latter occasion claiming twenty-three hits in the target area but doing the main structure no appreciable harm. The attacks continued on 14, 15, and 23 February, and on the latter date the Liberators battered the roadbed and tracks on the south approach.⁸¹ From 8 to 18 March the 341st Group ran six missions of fifty-three sorties, releasing bombs at altitudes varying from 1,000 to 16,000 feet without doing visible

* See above, pp. 464-65.

damage. On 19 March, eight Mitchells scored at least four direct hits, rendering the bridge temporarily unserviceable. This, however, did not deter the bombers in their efforts to destroy the structure completely. Heavies of the 7th Group attacked in full strength on 24 March but made no hits. The same day two B-17's, flying over the target at fifty feet, dropped four 1,000-pounders without effect.⁸²

Throughout April, May, and June the attacks continued, mediums scoring four hits on 17 April and two on 15 June. On 3 July the southernmost of the four spans was knocked from the piers into the riverbed, but regular attacks continued until 23 August, when Mitchells knocked out one of the two center spans and heavily damaged two others. No further attacks were made until 1 December, when the 490th was diverted from the Rangoon missions to hit the newly repaired structure. Two direct hits seriously damaged the northernmost span, and again the bridge was unserviceable. Two more attacks in December, however, indicated that regardless of its temporary uselessness the bridge remained high on the target-priority list, and on 1 January 1944 the bridge was again in use.⁸³

These 1943 Myitnge bridge attacks left the basic problems of bridge destruction still unsolved. Successful B-25 attacks had been accomplished from 6,200 to 13,500 feet, with varying formations, aiming points, and angles of approach; but unsuccessful missions still overwhelmingly outnumbered successful ones.⁸⁴ Cumulative statistics on this target indicate the failure of bridge bombardment from medium and high altitudes. In 39 missions of 337 sorties, Liberators and Mitchells dropped 1,219 bombs (542.8 tons), registering 18 hits on the bridge—an accuracy score of a little less than 1.5 per cent. The record of the B-25's, however, was far better than that of the B-24's, for the latter scored only 1 hit in 81 sorties while B-25's made 17 hits in 254 sorties.⁸⁵

Antiaircraft was regularly encountered over Myitnge but was relatively ineffective. Two B-24's were shot down there and two others damaged, but no Mitchells were destroyed and only eight were damaged. Enemy aircraft encountered on three occasions inflicted no injury on any of the bombers. On the other hand, the constant showering of explosives had not wrought any permanent damage to the bridge. All piers were still intact at the end of the year, and as long as they stood, repairs were relatively simple. Hence the only material value of the campaign lay in the fact that for perhaps two-thirds of the year the bridge was partially or entirely unserviceable.⁸⁶

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Gokteik viaduct was probably the second most important bridge target of the Tenth Air Force. Built by American engineers in 1900-1901, this structure across a gorge 2,260 feet wide was mounted upon latticed steel piers rising 320 feet from a natural bridge which spanned a small stream 550 feet below. Thus the over-all height of the bridge platform from the bottom of the gorge was 870 feet. On the north side the railway entered a tunnel only a short distance from the end of the bridge.⁸⁷ Reconstruction of this span or unblocking the tunnel entrance would present major engineering problems which might induce the Japanese to abandon the rail line stretching beyond. This line was doubly important, for besides carrying supplies from Mandalay to Lashio for the Salween army, on the return it hauled from Bawdwin mines and Namtu smelters lead and zinc, critical items in Japanese war economy.⁸⁸

Upon reported destruction of Myitnge bridge early in 1943, American strategists made plans for dealing out similar treatment to Gokteik. Because of the problem of reconstruction after the war, the British at first were reluctant to grant permission to bomb this objective, but when it was pointed out that the enemy undoubtedly would destroy it before he withdrew from Burma, they finally consented.⁸⁹ On 20 February mediums failed to score on the target. Four Mitchell missions of forty-two sorties and one Liberator mission of fourteen sorties during March were equally ineffectual.⁹⁰ After a letup of more than a month eighteen Mitchells on 30 April claimed minor damage at the north end. No attacks took place during the summer months, but on 7, 8, and 10 September the mediums again ran missions against the viaduct. On 7 September three hits at the base and two or three near misses on one pier did minor damage but left the viaduct and approaches intact. Five hits at the base on the 8th and direct hits on approaches on the 10th further damaged the structure but still did not make it unusable. Plans for the move of the two squadrons to the Fourteenth Air Force* so curtailed activities of the Mitchells during the remaining months of 1943 that no further attacks were made on Gokteik. Like Myitnge, this structure was intact at the end of the year.⁹¹

On the Mandalay-Myitkyina line the Meza railway bridge, just below Naba, was another important target over which Japanese reinforcements poured into northern Burma. This 700-foot, three-span, truss-type bridge with five short approach spans at each end was

* See above, pp. 487-88.

mounted on concrete and brick masonry abutments. It was attacked less frequently but more successfully than either Myitnge or Gokteik. The first 1943 attack was made by nine Mitchells on 13 June, when one hit did minor damage. No further assaults were made until October. On 10 October seven Liberators in javelin formation at 8,000 feet made five hits with 1,000-pounders, destroying three eastern approach spans and dropping one end of a main span into the river. While repairs were still in progress, Mitchells attacked on 20, 23, and 31 October, straddling but missing the bridge on two occasions, yet doing serious damage to approaches. The bridge was unusable and no subsequent attacks took place during the remainder of the year.⁹²

On 12 December, Myittha bridge, not attacked heretofore, was given a saturation bombardment by twenty-eight Mitchells and thirteen Liberators. This four-span, 240-foot structure had been adjudged by Tenth Air Force intelligence as one of the most important targets in Burma because of the volume of Japanese goods then flowing northward through that area. Five hits were claimed for the day, but later photo reconnaissance brought the sad news that the only damage was to the approach spans. Flak damaged one B-24 on this mission, but enemy interceptors encountered did the bombers no harm.⁹³

The only highway bridge of enough importance to attract the attention of bombers during 1943 was Shweli, 250-foot, suspension-type structure seventy feet high, on the motor road between Bhamo and China. Shweli presented peculiar difficulties to the bombers, since direct hits on the platform would not cause heavy damage and the cables were so securely anchored in huge concrete blocks as to make it almost impossible to dislodge them. The towers over which the cables were strung were the most vulnerable parts, but making direct hits upon them was more than the bombardiers could accomplish. Attacks by heavy bombers on 31 April and 4 July and by mediums on 24 June were completely unsuccessful. On 19 July, B-25's damaged approaches, and on 1 August, in the last attack of the year, eight Mitchells hit the eastern approach, slightly damaging the cable anchorages and pylons but leaving the bridge usable.⁹⁴

On the Yeu spur, a bridge of four 100-foot, steel-girder, deck-type spans crossed the Mu River between Ywataung and Monywa. This was the one bridge which was exclusively a B-25 target. On 7 April the mediums scored two direct hits and on 9 July registered two more, each attack temporarily knocking the bridge out. On 29 July two more

flights attacked. The first reported heavy damage to the two east spans; the second reported the bridge "destroyed," with the east span dropped and submerged in the river. By 22 September, however, the structure was again in use, and raids on that date and on 22 October failed to do any damage. These ended the 1943 assault on this particular target.⁹⁵

A survey of attacks on the six major bridge targets in central Burma during the year shows how expensive the operation was, and also how ineffective. Against these bridges, Myitnge, Gokteik, Shweli, Meza, Mu, and Myittha, 696 sorties were run from 4 February through 31 December. During these missions 2,398 bombs, ranging from 300 pounds to a ton but mostly 500- and 1,000-pounders, were dropped. They totaled almost 1,100 tons and represented approximately 17 per cent of the bomb tonnage which fell on Burma during the period. Of the 2,398 bombs only 34 struck bridges, making accuracy less than 1.5 per cent. Actually, of the 1,100 tons of bombs, only 17 tons were effectively placed, and with the exception of Myitnge, none of the bridges were rendered useless for extended periods.⁹⁶

Although the record of the mediums for accuracy was far poorer than that of the fighter-bombers from Assam, it was better than that of the B-24's, which were obviously misused in attacking bridges.⁹⁷ Morale was lowered among the men of the 490th Squadron, which was left with the responsibility for bridge attacks when the 22d and 491st Squadrons were transferred to China, and they began to look with dread upon such missions. Lt. Col. Robert D. McCarten refused to be discouraged and instituted a training program to solve this problem. It was this program which eventually led to success. On 1 January 1944, Maj. Robert A. Erdin, pilot of the lead Mitchell bombing the Mu River bridge, discovered by accident the secret of successful bombing. Avoiding a tree on the bomb run, he dumped his bombs as he suddenly pulled up, and to his surprise they toppled two spans of the bridge into the river. Further tests in the training program proved that the correct method of angling the bombs had been found, and after refining this method of attack the 490th became so proficient as to merit the title "Burma Bridge Busters." But the success came in 1944, after a year of relatively futile effort.⁹⁸

In summary, the interdiction program in central Burma had not succeeded by the end of 1943. Goods and equipment still moved into northern Burma, although on a reduced scale; the Burma railroad system was still usable. On the other hand, the campaign was not a com-

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plete failure. Some irreplaceable locomotives and rolling stock had been destroyed, warehouses full of goods burned, railway yards damaged, and certain key bridges closed for varying periods. But the real measure of success achieved was scarcely discernible to the flyers. Upset train schedules, delays caused by damage to bridges and trackage, loss of supplies, and necessity of employing so much equipment and so many laborers in repair work affected the enemy war effort. Repaired bridges could no longer bear normal loads, and rebuilt locomotives were not up to standard. Possibly, if considered as a campaign of attrition, it could be called successful, for the enemy had at least begun to feel the effects of the regular bombings. But as a preparation for an all-out ground attack to reconquer Burma, it was a failure.⁹⁹

CHAPTER 15

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THE ALLIED OFFENSIVE IN BURMA

THROUGH the discouraging months which followed the Allied loss of Burma in the spring of 1942, General Stilwell had labored to increase the effectiveness of the Chinese armies and to perfect plans for the reconquest of northern Burma in the hope of re-establishing overland communications with China. The Combined Chiefs of Staff in May 1943, though according an immediate priority to the needs of Chennault, had nevertheless given Stilwell the promise of support in his effort to free the trace of the Ledo Road.* This promise included the assurance that diversionary British offensives in central and south Burma would be undertaken in support of the coordinated advances of Chinese forces from Yunnan and Assam.¹ Meeting at Quebec in August, the CCS reaffirmed these commitments and assigned to the newly established Southeast Asia Command of Lord Louis Mountbatten a mission to capture northern Burma and increase the flow of supplies to China.²

The plans adopted at this time included a proposal to use "long range penetration groups" for ground operations behind enemy lines according to a pattern tested under the leadership of Brig. Orde Wingate during the spring of 1943. Wingate's "First Expedition," though without important accomplishments, had been acclaimed because of the daring of its personnel and because it offered a new means of striking the enemy. It was accordingly decided to organize another expedition under Wingate with a special force raised from British imperial reserves, this force to be joined by 3,000 American ground combat troops in operations supporting the advance of Allied forces from Ledo, Yunnan, and Imphal. Wingate's original force having depended

* See above, p. 443.



AIRFIELD CONSTRUCTION, CBI

Above: CHENG-KUNG, CHINA

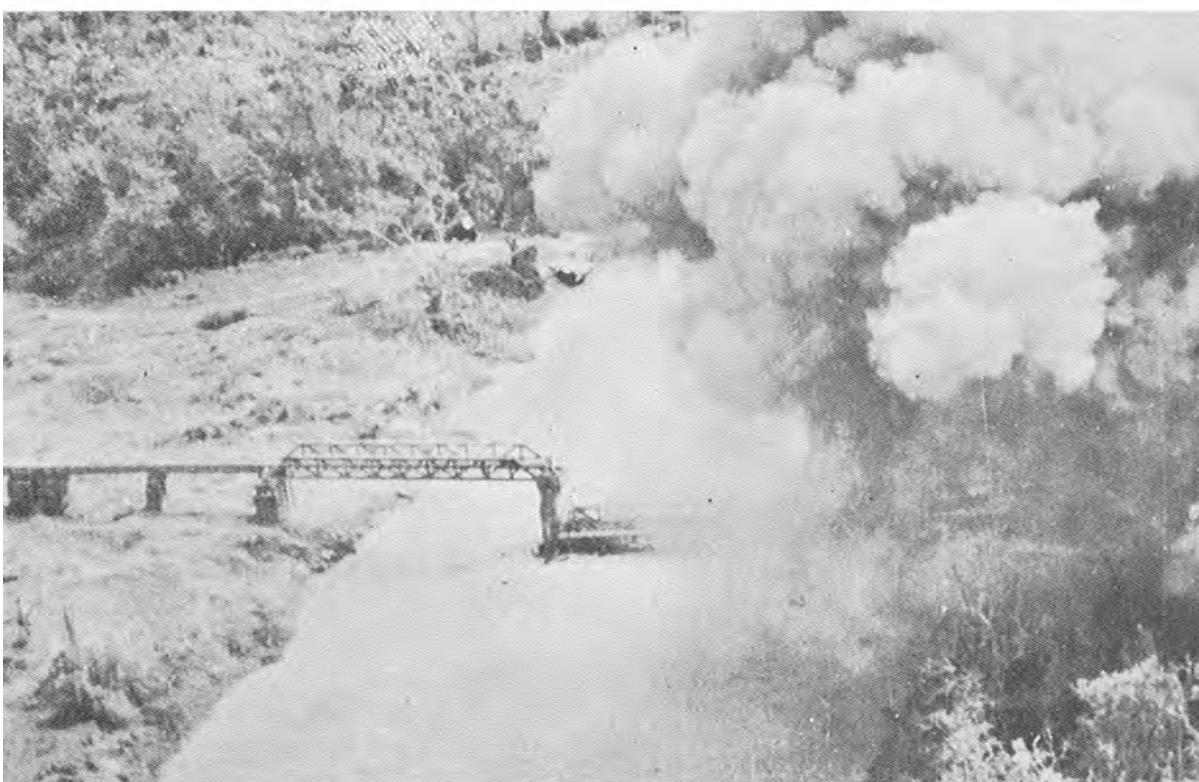
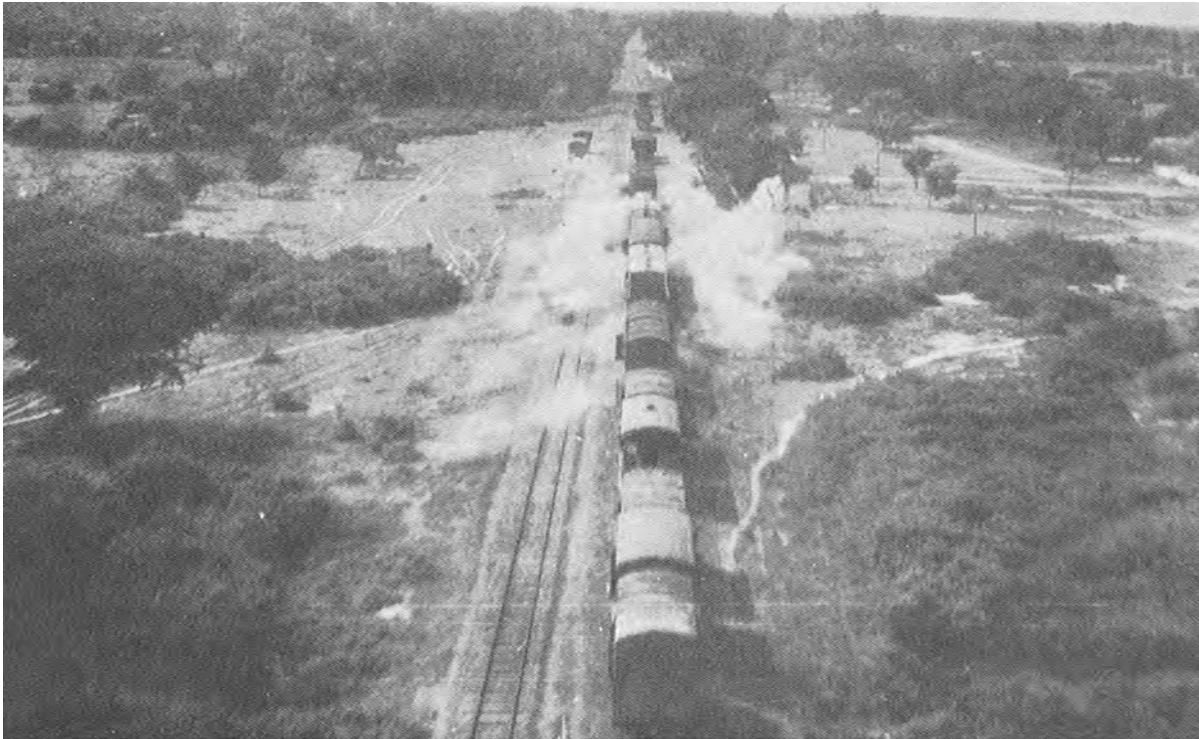
Below: INDIA BASE



CONTROL TOWERS, CBI

Above: KUNMING, CHINA

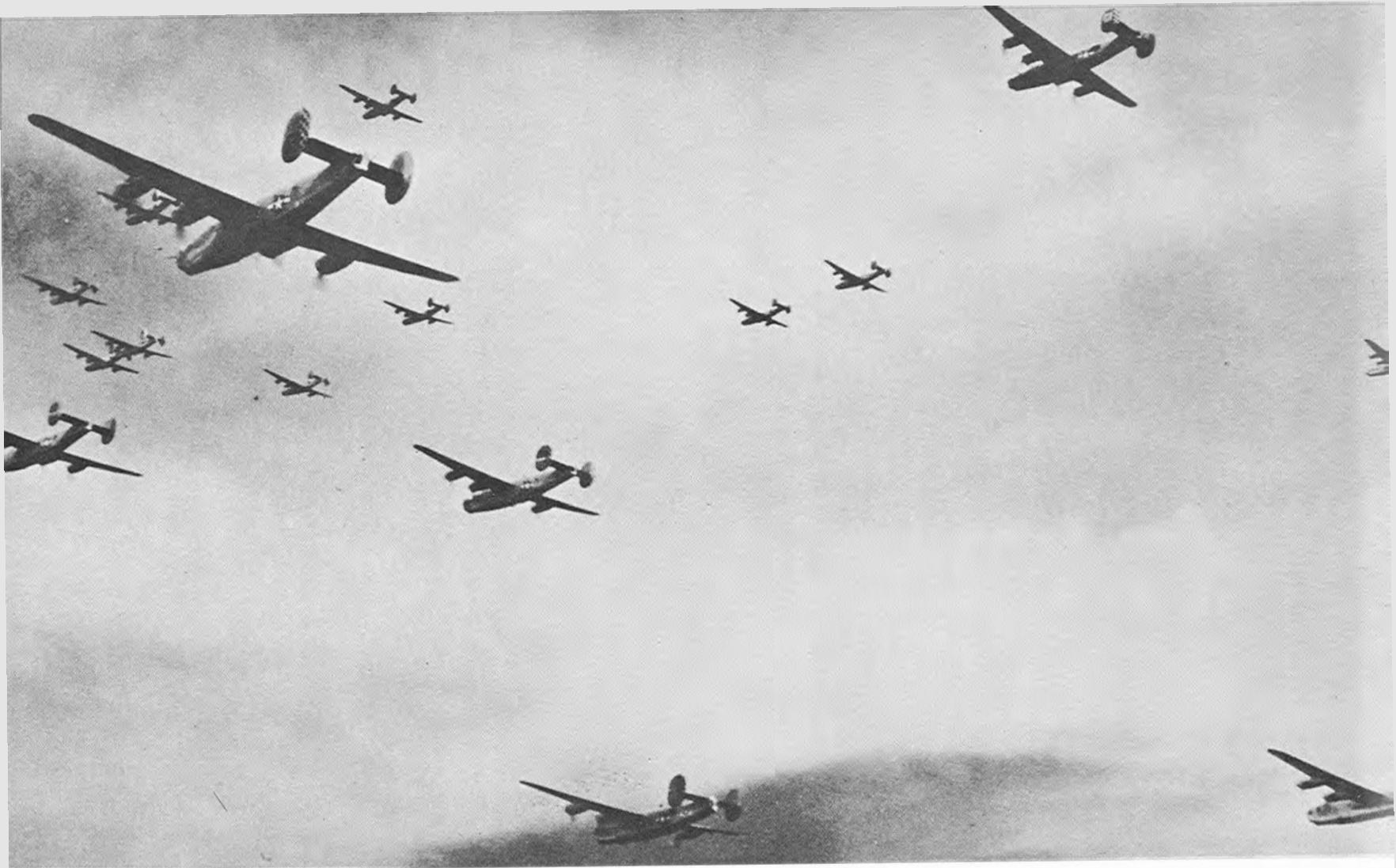
Below: JORHAT, INDIA



ENEMY COMMUNICATIONS IN BURMA

Above: ATTACK ON TRAIN, MANDALAY-YEU RAILWAY

Below: BOMBING MEZA BRIDGE, 30 JANUARY 1944



7TH BOMBARDMENT GROUP EN ROUTE TO BURMA TARGET

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heavily upon air supply, the new plans assigned an even larger role to air transport and Arnold promised a special unit for the purpose.³

Though Mountbatten did not arrive in the Far East until 6 October 1943 and did not activate his command until 16 November, the decisions at the QUADRANT conference immediately stirred British and American staffs in CBI to a new enthusiasm,⁴ and the prospect for a time continued to be hopeful. Within ten days of his arrival in India, Mountbatten went to China for conferences with the Generalissimo which established relations between SEAC and the Chinese government on a cordial basis, although the Generalissimo was careful as usual to safeguard his independence. When Mountbatten returned to New Delhi, where he first set up his headquarters (incidentally, outside the boundaries of his own command), he was accompanied by Stilwell. Together they drafted plans to be submitted to the President, the Prime Minister, and the Combined Chiefs at the forthcoming SEXTANT conference at Cairo.⁵ These plans rested upon the assurance given Mountbatten by Churchill that he would have sufficient support from British fleet units to undertake serious amphibious operations in southern Burma,⁶ thus meeting a condition placed by the Generalissimo on the commitment of his Yunnan force. The plans retained diversionary overland offensives toward Mandalay and Akyab in central Burma and extensive operations by long-range penetration groups.⁷

While these larger plans were being perfected, the Allied offensive got under way on 31 October 1943, when Stilwell launched a drive south from bases in the Brahmaputra valley with the immediate aim of seizing the Mogaung-Myitkyina area. The Chinese 22d and 38th Divisions were already heavily engaged in combat with elements of the Japanese 18th Division as Mountbatten and Stilwell took their plans for final approval to Cairo late in November.

At Cairo the reaction to the proposed strategy was favorable. The Generalissimo, who was present, received the assurance of the President and the Prime Minister that forces would be made available for the scheduled amphibious operations, and Chiang, after some vacillation, agreed to commit his Yunnan force. When he and Mountbatten left Cairo for India, where they reviewed the Chinese troops at Ramgarh, they had reason to believe that adequate plans had been agreed upon to guarantee a major success in Burma during 1944.⁸ But CBI fortunes, having thus reached their high point, faced an immediate and

precipitous decline. On 27 November the President and the Prime Minister left Cairo for Tehran, where they met Marshal Joseph Stalin in the EUREKA conference. There the situation was drastically altered by Stalin's promise to join the war against Japan after the defeat of the European Axis provided British and American resources were meanwhile concentrated against Germany. Roosevelt and Churchill thereupon reversed some of the decisions they had made in Egypt, including the plans for Mountbatten's amphibious offensive. After his return to Cairo, the President informed the Generalissimo, by radio on 6 December 1943, that large-scale amphibious operations would have to be foregone.⁹

Seeking to hold Chiang Kai-shek to the commitment of his Yunnan force, Mountbatten promised to undertake a small amphibious operation to land 20,000 men behind the Japanese positions on the southern part of the Mayu Peninsula. The Generalissimo, however, considered himself to have been released from his promise of a Yunnan offensive* and, although he agreed to permit the Ledo force to continue the offensive which it had already begun, he would have nothing to do with Mountbatten's scheme.¹⁰

It seemed apparent to Mountbatten that without the Yunnan force there was little chance of securing the trace of the Ledo Road prior to the opening of a Chinese port by U.S. Pacific forces. He himself could assist Stilwell's drive with no more than three small operations: a thrust across the Chindwin River, a limited offensive in the Arakan against Akyab, and the employment of long-range penetration groups in the heart of Burma.¹¹ The attempt to build the Ledo Road thus promised a waste of effort and materials which probably could be put to better use. Mountbatten accordingly turned his attention to possibilities toward which he had been inclined personally from the first, proposing an immediate concentration on the construction of additional airfields in Assam to provide the Fourteenth Air Force with the means for a stepped-up attack on the enemy air force in China and on Japanese shipping down the China coast. As a substitute for Stilwell's Burma campaign, Lord Louis proposed an attack on Sumatra and Singapore to be mounted after the defeat of Germany in coordination with the developing Allied offensives in the Pacific.¹²

These proposals brought Mountbatten into conflict with Stilwell, who stood fast for the advance across Burma as the surest and swiftest

* The situation was similar to that of January 1943. See above, p. 460.

means of establishing satisfactory communications with China. In an effort to win CCS support for the argument that offensive efforts should be concentrated south of Burma, Mountbatten sent representatives to Washington and London in February 1944.¹³ Stilwell countered by sending representatives to Washington, where the Joint Chiefs of Staff, who had rejected British proposals for an attack on Sumatra as early as May 1943, recommended to the CCS that Mountbatten be directed to undertake the offensive in upper Burma during the current dry season.¹⁴

The Burma offensive had thus been launched with the highest hopes, had then been whittled down to a scale that raised serious doubts as to its effectiveness, and was continued under circumstances in which responsible commanders were divided as to its wisdom.

Thrusts into Burma

Meanwhile, as the year 1943 drew to its close, the military situation was not encouraging. After several weeks of heavy fighting, Allied forces had made no important gains. The Japanese held strong positions in the hills and mountains that formed the Burmese frontier with India. Though their lines of communication were elongated, they were in general adequate except for the last link. The dirt roads over which supplies had to be transported from the railheads to the battle front could not support the requisite traffic during the rainy season. The Burmese railway system in 1942 had had the sea at Rangoon as its only practicable contact with the outer world, but by 1944 it had been tied in with the railway systems of Thailand and Indo-China.¹⁵ Allied lines of communication were less satisfactory. Sea and air transportation from the United States and Britain to India and the air and rail transportation across India reached a final bottleneck in Assam. There were not enough fields to take care of the air traffic; river traffic up the Brahmaputra was slow and tortuous; and the Assam railway had been designed to meet the needs of tea gardens. Attempts to improve the rail line and increase its capacity dated from 1942, and though by May 1943 its daily tonnage had been raised from 600 to 1,000 tons, it was still far below requirements. Mountbatten and General Somervell wanted the line taken over by American railway troops. At first the Indian government objected strenuously but gave its consent in November 1943. An improvement was soon noticeable, but the tonnage fell far short of what had been promised. From Assam there were

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still no all-weather roads crossing the mountains into Burma in 1943, and it was evident that advancing Allied armies would have to depend upon air supply for their success.¹⁶

In December 1943 there were four points at which the Allies were in contact with the enemy within the Burma area. The British 15 Corps was just over the Burma frontier in the Arakan, and the 4 Corps was in Assam. These two corps constituted the Fourteenth Army under Lt. Gen. William Joseph Slim. In north Burma there was the Northern Combat Area Command under Stilwell, who controlled the Chinese 22d and 38th Divisions with 30th Division held in reserve. In the region of Fort Hertz there was a small garrison of Kachins under British officers, and on 1 February 1944 they were transferred to Stilwell's NCAC. In India at Hailakandi and Lalaghat, to the rear of the Allied positions, Wingate was preparing his Special Force for long-range penetration operations in Burma. In opposition to the Allied forces the Japanese had the 55th Division in the Arakan and four divisions of the Fifteenth Army in Assam and north Burma, which gave the enemy a total of 135,000 troops. Reinforcements were arriving by the end of 1943, and by March 1944 the Japanese would have in Burma eight divisions and an independent brigade.¹⁷

Having failed in the attempt after his return from Cairo to persuade the Generalissimo to commit the Yunnan force to the fight, Stilwell left Chungking for the Burma front, where he arrived 21 December 1943. Undaunted by the cancellation of the amphibious operations and the collapse of plans for an offensive from Yunnan, Stilwell held to his convictions that he could take Myitkyina. Supported by a right-flank column from Taro, his main forces had to advance up the Hukawng valley and cross the relatively low mountain barrier at Jambu Bum into the valley of the Mogaung River, which flowed southeastward to join the Irrawaddy below Myitkyina. The distance was 170 air miles from Ledo, and it was more than doubled by devious trails which were steaming with moist heat, often choked with jungle growth, and dangerous with fever-bearing insects and poisonous reptiles—and defended by a wily enemy who was holding strong positions.¹⁸

General Stilwell had planned for his north Burma campaign since May 1942. Once he arrived in the battle area he sought to put aside the responsibilities of the paper war being waged in Delhi and Chungking. Though he was severely criticized for "disappearing in the jungles" when he was needed for important theater decisions,¹⁹ he put his heart

and soul into the fight as it was fought by the Chinese soldier, and within five months he had accomplished a victory which had generally been regarded as impossible. Throughout January the advance was slow, being bitterly opposed by the enemy over difficult terrain. By the end of the month the Ledo force was less than twenty miles from its position of 21 December. The offensive remained unimpressive, except for the fact that Chinese troops, well fed, clothed, equipped, and trained, had taken the initiative and forced back the Japanese army. Stilwell was rightfully satisfied with the accomplishment, for it was the first successful sustained Allied offensive in Burma.²⁰ But before the momentum of his advance could achieve the spectacular, operations in the south distracted attention from the Ledo region.

The Japanese had planned an offensive against the Allied positions along the frontier of India as extensive as that which Stilwell had hoped to launch against the enemy. The main Japanese effort was to be aimed at Imphal and it was hoped that northern Assam could be occupied, thereby completing the isolation of China. The campaign was to be opened by a diversionary advance in the direction of Chittagong to draw off British reserves from the central front at Imphal. Lacking the means to supply their armies by air and without normal lines of communication across the mountains, the Japanese expected to maintain their forces from captured British stores.²¹

By the time the Japanese were ready to strike, the British had moved down the Arakan coast in a small salient toward Akyab, which actually gave the enemy an advantage. The Japanese attempted to repeat the tactics of infiltration which had won them victories in 1942 and 1943, and once again the method worked against the British ground forces. On 4 February the British found themselves outflanked on the left by strong Japanese forces, possibly as many as 10,000, who established road blocks to the Allied rear.²² The Indian 7 Division was cut off from other units, and the Japanese had every right to expect the British forces to attempt a full-scale retreat toward Chittagong. But the situation had changed since 1942 and 1943. The Third Tactical Air Force had the fighter strength to challenge Japanese air superiority above the Arakan battle area, and there were also at hand the transport planes to maintain the beleaguered Allied forces by air supply. At the same time sufficient reinforcements were brought in by air from Imphal to turn defeat into victory by 29 February.²³

Up to the point of the Arakan crisis in February 1944 the Japanese

failed completely to understand the possibilities of air supply. On the other hand the Allies, probably through necessity alone, had slowly come to see its significance as a new line of communications. Air supply in the India-Burma area had begun quite modestly on the northwest frontier of India in 1941 when the RAF 31 Squadron gained valuable experience by transporting an army battalion to Iraq. Later, during the first Burma campaign the 31 Squadron was employed to fly supplies to Rangoon and evacuate refugees and casualties.²⁴ Still later in the Burma retreat the American 7th Bombardment Group also participated in an impromptu effort at air transportation and air supply. Between 22 April and 15 June 1942, the Tenth Air Force used its planes to evacuate from Burma to India 4,499 passengers and 1,733,026 pounds of freight, and the RAF evacuated 4,117 persons and dropped 155,652 pounds of supplies to the armies below.*²⁵ Air supply continued to be used throughout the late spring and summer of 1942 to assist Chinese troops still operating in north Burma in a protracted retreat. After the Japanese invaders of Burma halted their advance some distance south of Fort Hertz, British efforts to supply the garrison by ground transport failed and air supply was adopted. Still later, when air warning stations were established in the Burmese hills, these too were supplied by air. Again, early in 1943 it became apparent that some of Stilwell's Chinese troops in the Naga Hills could not be supplied by native porters or by pack mules throughout the coming monsoon period. Knowing that troops in the Markham River valley in New Guinea had been supplied by air for brief periods, Stilwell decided to use air supply for his otherwise isolated units. The first successful mission was flown from Chabua 6 March 1943, with packing and loading being done by the 3477th Ordnance Company and the 60th Laundry Company.²⁶

It is significant that in March 1943, a year before Wingate's second expedition, serious thought was given to an effective organization and to the development of procedures for the requisitioning, storing, and packing of supplies to be airlifted. These functions eventually came to be one of the keys to American success in air supply and their growth and evaluation are historically important. As it turned out, they were never a direct AAF responsibility, but they were such an integral part of air supply that they cannot be overlooked here. A new organization was set up under the Services of Supply consisting of a

* See Vol. I, 493.

detachment to pack and drop supplies and seven detachments, composed of one officer and nine enlisted men each, located in the forward areas to receive and issue supplies. This arrangement was functioning by 14 April 1943. The center of operations at first was Sookerating, later it was shifted to Chabua, and by 1 July 1943 it was in Dinjan.²⁷

By the end of 1943, the potentialities of air supply were widely recognized. As plans for the reconquest of Burma developed at the TRIDENT and QUADRANT conferences, the conviction was held by leading figures in the theater that the advancing armies would have to be supplied by air. Thus in September 1943, Stratemeyer wrote Maj. Gen. Barney McK. Giles that "the only way we can supply any force that advances into Burma is by air. We *must* have troop carrier squadrons."²⁸ When Stilwell planned his offensive southward from Ledo for the autumn of 1943 he knew he would have to rely on air supply for his advancing troops. At the same time the Joint Planning Staff was advocating an advance by the British eastward of Imphal, knowing that the forces would have to be supplied by air "during the monsoon."²⁹

With the creation of the Eastern Air Command on 15 December 1943, it was decided to bring all air supply activities of the AAF and the RAF under one command. As a consequence, EAC established as one of its four subordinate components the Troop Carrier Command, an integrated organization containing AAF and RAF units. Brig. Gen. William D. Old was designated commander and instructed to "provide air transportation for airborne and air transit forces in the support and training of the Army Group and other land or air forces involved in operations in Burma." On 2 January 1944, General Old established his headquarters at Comilla, and during the first few weeks of its existence there was the usual shifting incident to becoming organized for operations.³⁰ Though the original concept of TCC's role was not one of air supply, the force of events at once threw it into the business of transporting and supplying contingents of ground forces. The 1st and 2d Troop Carrier Squadrons were already engaged in this activity in north Burma when the British began their move into the Arakan in January 1944, and from mid-January until early February the British troops advancing toward Akyab received more than a thousand tons of supplies delivered by air.³¹

By 8 February, four days after the Japanese isolated the British force, the situation had become acute, with 22,000 troops having only two days' rations. To meet the emergency twenty-five C-46's were

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temporarily transferred to TCC from ATC. Despite serious opposition from the Japanese both by antiaircraft fire and by attacks of fighters on the air transports, the mission was accomplished with protective cover for the transports supplied by fighters of the Third TAF. The most acute needs had been met by 10 February, but supplies continued to be flown to the troops throughout the remainder of the month,³² and by the end of February the situation had been saved. With sufficient supplies and some reinforcement, the British troops beat back the Japanese in defeat. As Stratemeyer wrote Arnold, "All in authority here are convinced that General Old's Troop Carrier Command . . . was to a large extent responsible for the success of the battle."³³

At Imphal the British felt themselves to be in a strong position, with substantial stores there and with smaller dumps at other near-by towns to meet the emergency needs of the 170,000 troops, civilian specialists, and laborers concentrated in the region.³⁴ The city and its area were occupied by the 4 Corps, which had its 17 Division based at Tiddim, a hundred miles to the south, and its 20 Division located along the road to Tamu. The 23 Division had one brigade at Ukhrul, which guards the road about thirty-five miles northeast of Imphal.³⁵ In India, west of Imphal, Wingate's Special Force was completing its training and final preparations for its glider flights over the Japanese lines to land far east of the Burma border. By 1 March it was a question which would strike first, the Japanese infantry gathering east of Imphal, or Wingate's Special Force in a test of its strength west of Imphal. As it happened, Wingate struck 5 March 1944, and five days later, 10 March, the Japanese broke through the British positions north of Tiddim.

The Special Force was made up of the Indian 77 Brigade, the Indian 111 Infantry Brigade, and the British 70 Division re-formed into 14, 16, and 23 Independent Brigades.³⁶ Arnold, fulfilling his promise, committed the 5318th Air Unit under Col. Philip G. Cochran. This organization became an air task force allotted to the Third TAF for operational control, but it was strictly limited in activity to facilitating the forward movement and the supply and evacuation of the long-range penetration columns under Wingate. The task force, which was also instructed to provide the Wingate columns with an air covering and striking force, was equipped with the following aircraft:³⁷

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13 C-47 transports
12 C-64 transports
150 CG-4 gliders
100 L-1 and L-5 aircraft

75 TG-5 gliders
6 YR-4 helicopters
30 P-51A fighters
12 B-25H medium bombers

When General Marshall had called for the 3,000 volunteers to meet his promise to the long-range penetration groups, there were brought together some 950 veterans of Guadalcanal and New Guinea, 950 men from the Caribbean Defense Command, and approximately 1,000 from highly trained units in the United States. Organized into the 5307th Composite Unit (Prov.) and known by code as the GALAHAD Force, the unit had reached India in the autumn of 1943 and immediately had gone into training under Wingate. Presumably Marshall had intended these first American ground combat troops in CBI to serve under Wingate, but in the end they were assigned to Stilwell for use with the Ledo force in north Burma. Placed under the command of Brig. Gen. Frank D. Merrill and popularly known as "Merrill's Marauders," they played a vital part in the development of Stilwell's campaign from late February.³⁸

Despite previous plans to have the Special Force transported and supplied by Cochran's "Air Commando" force, Old's TCC received responsibility for supplying the expedition by air. As a practical matter, however, both organizations shared in the work, and on the question of control, it was agreed in the end that the task force should retain direction of all glider operations and TCC have charge of transport aircraft operations.³⁹

Three points were selected behind the Japanese lines for landing the Special Force gliders:

96° 45' E—24° 45' N designated Broadway
96° 46' E—24° 29' N designated Piccadilly
96° 24' E—23° 57' N designated Chowringhee

The 77 Brigade, with an attached battalion, was scheduled to be flown into Broadway and Piccadilly, and the 111 Brigade was to be put down into Piccadilly and Chowringhee. All troops were to be lifted from the sod strips at Hailakandi and Lalaghat, with the exception of six columns of the 111 Brigade which were to be lifted from the Imphal area and the 16 Brigade which was to march into Burma from Imphal.⁴⁰ Because Wingate objected to reconnaissance flights over the area he hoped to occupy, and even prohibited tactical flights within the vicinity, preparations for the expedition were completed without

knowledge of the condition of the strips. D-day was set for 5 March and the first take-off scheduled for 1740 hours, which would place the first gliders over Broadway and Piccadilly just after dusk. At the appointed time eighty loaded gliders were ready for the tow, when it was discovered in photographs taken a few hours before by the Air Commando photographic officer that large trees had been dragged across Piccadilly, making the field unusable, but that Broadway was apparently still in good shape. The photographs, of course, had been taken without the consent of Wingate, but they saved his expedition from a major disaster.⁴¹

It was decided to put all the gliders down on Broadway, and the take-off began. At first the tug aircraft took up a double tow of two gliders, which proved to be an unsatisfactory load. Frequently tow-ropes broke in take-off. In other instances the consumption of gas was so great that some tugs and gliders had to return to home base or else the tugs had to cut loose their gliders, some over friendly bases and some over enemy territory. The first gliders to land at Broadway found that the field was ditched in several places and contained a number of water-buffalo holes. Early arrivals had their landing gear wrecked and could not be moved from the field before the second group of gliders came down to crash into them. As soon as possible, word was radioed to Lalaghat that no more gliders could be received because of the condition of the field.⁴² In summary, of a total of sixty-seven gliders dispatched on the night of 5 March, thirty-two reached Broadway. Nine of the remainder landed in hostile territory; nine others landed in friendly country; two were unreported; and fifteen were turned back after Broadway warned that no more gliders could be received at the field. Almost all the gliders reaching Broadway were wrecked or damaged, and only three could later be towed out. Thirty-one men were killed and thirty injured. Nevertheless, great achievements were recorded in the history of air transportation that first night. All told, 539 men, 3 animals, and 65,972 pounds of stores had been safely put down, including such heavy items as bulldozers and lighting apparatus, and within twenty-four hours an airstrip, 300 by 5,000 feet, was cleared and prepared. During the next five days additional men, animals, and supplies were landed by C-47's and more gliders.

Chowringhee was opened the evening of 6 March by twelve single-tow gliders, with less difficulty than had been encountered at Broad-

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way, and an airstrip was immediately prepared. As the troops of the Special Force advanced eastward, Chowringhee lost its usefulness as a landing field and was abandoned at 0800 on 10 March.⁴³ Ten hours later the Japanese attacked the field by air. But Broadway did not receive an aerial attack until 13 March. Thereafter the enemy was frequently over Broadway but with little effect. On 27 March, Japanese ground forces made a frontal attack on the field, only to be driven back by the garrison.⁴⁴

The initial phase of Wingate's second expedition ended by 11 March. The accomplishment should be measured by the number of sorties made and the persons and tonnage moved. The figures here presented are those sent by Old to Stratemeyer and differ slightly from those compounded by other agencies. Such differences are easily understood, because of the pressure under which all work was done, and it is doubtful that exact statistics will ever be obtained.⁴⁵

C-47 sorties	579
Glider sorties	74
Persons moved	9,052
Animals moved	1,359
Stores moved	254.5 tons

Immediately upon landing, the brigades were split into twenty-six columns of 300 to 400 men each. By 20 March some of the columns were twenty miles west of the Indaw-Mohnyin railway, and others were in the Indaw area. All these columns were entirely sustained by air, as was the garrison at Broadway. An air officer was attached to each column to help arrange for dropping zones and to advise on matters of ground cooperation. Requests for air supply originating with the columns were radioed to brigade headquarters and from there to Special Force headquarters, which placed demands on TCC.⁴⁶

Between 13 and 19 March, the 27th Troop Carrier Squadron completed 156 sorties and dropped 816,200 pounds of supplies. Separate figures for the 315th and 117 Squadrons are not available for the same period, but the records for the three squadrons between 20 March and 5 April are as follows:⁴⁷

	<i>Completed Sorties</i>	<i>Pounds Dropped</i>
27th Troop Carrier Squadron	106	530,000
315th Troop Carrier Squadron	95	475,000
117 Transport Squadron (RAF)	179	895,000

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All flights were at night and without escort, the transports maintaining radio silence except in emergency. Targets were located and identified by fires and flares and by homing signals on GP 1083 sets, which began operating fifteen minutes before the estimated arrival time of the transports.

During the night of 24 March the first part of the 14 Brigade was flown in, landing by transport planes at Aberdeen, a recently prepared strip about fifteen miles north of Mawlu. The fly-in was not completed until 4 April.⁴⁸ During early April the West African 3 Division was flown in, thus completing the air movement of major ground units into Burma for the Special Force. The 16 Brigade, meanwhile, had marched in from Ledo to Mohnyin, having begun the trek in February, thereby bringing the Special Force in Burma to full strength.⁴⁹

While the Special Force was still in process of being transported into Burma, the expedition suffered a grievous loss in the death of General Wingate, who was killed 25 March 1944 in the operational crash of a B-25 en route from Broadway to Imphal. He was succeeded as commander of the long-range penetration groups by his top-ranking subordinate, Maj. Gen. Walter D. A. Lentaigne, former commander of the 111 Brigade. It would seem that Lentaigne was almost entirely responsible for the operational record of Wingate's second expedition. However, the point is open to debate in view of the evidence that Wingate, probably hoping to strike as far east and south as Mandalay, had given his subordinates a plan which they assumed to be part of the over-all strategy of the theater but which was at variance with the plan held by Stilwell, Slim, and Mountbatten. At any rate the Special Force did not achieve the success anticipated, namely the complete isolation of the Japanese 18th Division, which victory would have led to the demoralization of the enemy. Failure to place a strong force across the Bhamo-Myitkyina road allowed the Japanese to bring in important reinforcements to Myitkyina which helped to hold up Stilwell's advance for many months. Withdrawal of the Special Force began 29 April when the 16 Brigade showed signs of fatigue. Other columns of the Special Force continued to operate in the north, assisting the Chinese-American drives on Mogaung and Myitkyina, and the fly-out of the Special Force was not completed until August.⁵⁰

Scarcely had the first units of Wingate's second expedition been landed behind the Japanese lines when the enemy struck with force

against the British positions before Imphal. Although the Wingate columns were then to the rear of the Japanese, the latter did not permit this threat to interfere with their own plans, since success of the enemy offensive was predicated upon use of British supplies and a quick victory. On 10 March reports came in from Tiddim that enemy patrols had penetrated beyond British positions, and four days later, 14 March 1944, the road was cut north of Tiddim, isolating the 17 Division.⁵¹ It was clear that the enemy would press the offensive as far as possible. The 17 Division, finding its line of communications cut, sought to escape capture by a retreat through the jungle to Imphal, which was reached 1 April 1944, but of course the reserve supplies at Tiddim were lost to the Japanese. The enemy hastened to take Tamu airfield while also pushing west and north, and by the end of March besieged the garrison at Kohima, thereby cutting ground communication between Dimapur and Imphal. Both Kohima and Imphal were thereafter dependent upon air supply.⁵²

The Allies immediately sought to remedy the situation by concentrating the British 33 Corps at Dimapur and sending reinforcements and supplies by air to the besieged forces at Imphal. Obviously the TCC could not meet the new demands as well as fulfil its obligations to the Special Force. In the emergency a full American troop carrier group was borrowed from the European theater, along with the RAF 216 Transport Squadron. With the promise of these transport reinforcements, SEAC regained confidence and settled down to the job of retrieving the situation. The entire British 5 Division was flown to Imphal from the Arakan, and the British 50 Parachute Brigade was brought in to fight a rear-guard action west of Ukhrul. On 6 April the fly-in of the 7 Division from the Arakan began. By 8 April the 64th Troop Carrier Group arrived from the Mediterranean, containing the 4th, 16th, 17th, 18th, and 35th Troop Carrier Squadrons. Based on this augmented strength, schedules were revised at meetings held 17 and 18 April at Fourteenth Army headquarters, Comilla. Although there was considerable success in maintaining the flow of reinforcements and supplies, deliveries still fell short of plans and the needs were mounting sharply. Increased Japanese fighter activity and the deterioration of the weather added to the problem. The most disheartening of all the difficulties was the word received on 4 May that the 64th Group with its five troop carrier squadrons and the RAF 216 Squadron would have to return to their European stations on 8 May.

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The Fourteenth Army hurriedly recomputed its needs and found that with the withdrawal of the 64th Group, TCC would be seventy-nine aircraft short of the number necessary to meet requirements.⁵³

The pressure was somewhat relieved when more than 25,000 administrative personnel were flown out of the besieged area, thereby reducing considerably the rations demanded of air supply. Moreover, it was then decided that the 64th Group and the 216 Transport Squadron could remain in SEAC until 1 June, and in addition, Wellingtons and B-25's of the Strategic Air Force were pressed into service. In June the weather unexpectedly became better. The 64th Group and the 216 Transport Squadron were given a second extension, this time until the arrival of the 3 Combat Cargo Group. As a result of these good fortunes, the rate of airlift rose rapidly and actual deliveries began to exceed planned schedules.⁵⁴

As the British forces in Imphal and Kohima gained in strength, they took the offensive from the Japanese and fanned out in all directions. On 22 June the 5 Division, which had been advancing north from Imphal toward Kohima, made contact with the 33 Corps coming down from Dimapur. The next day the first truck convoy got through to the plain and the siege of Imphal was over.⁵⁵

Army figures for supplies, reinforcements, and evacuation of casualties flown for the 4 Corps between 18 April and 30 June 1944, only, are as follows:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Army stocks (short tons)	2,210	5,545	12,370	20,125
Nonessential personnel (out)	550	26,970	2,190	29,710
Casualties	742	4,259	5,264	10,265
Reinforcements	1,480	5,101	6,041	12,622

Although the above figures are not exact, they are sufficiently accurate to suggest the magnitude of the work accomplished. Because of the rapid development of the Imphal emergency, the TCC was called upon suddenly to add an enormous burden to its existing responsibilities, but its commitments elsewhere were not lessened. In addition to its other tasks the TCC made it possible for 28,000 British and 30,000 Indian troops to maintain combat for three months entirely by air supply while at the same time transporting and supplying the Special Force. Even the Japanese, in their contemporary accounts of the battle, admitted their defeat as a result of Allied air supply. "Our . . . difficulty in operating on . . . [the Imphal] front lies in lack of supplies

and air supremacy," said a Tokyo broadcast. "The enemy received food supplies through the air route" explained the reporter, "while our men continued in battle eating a handful of barley or grain."⁵⁶

Air Combat Operations

It is obvious, of course, that neither air supply nor air transportation of troops could have been successfully executed without Allied control of the air.* Although the Americans and British had increased considerably their air power in India during the first part of 1943, it was not until the end of the year, with the establishment of the Eastern Air Command on 15 December, that they seriously threatened enemy air superiority in the area. When EAC was activated the Japanese had an estimated 250 aircraft in the Burma region, a total increased to 277 during January 1944.⁵⁷ Possessing well-equipped bases relatively far to the rear and scores of forward-area strips, the enemy had extreme mobility. He based his aircraft in lower Burma and in Thailand, then staged them forward to central and north Burma and struck quickly. The Japanese aircraft were manned by pilots and crews who were experienced and resourceful fighters, and they were regarded as a courageous and a worthy foe.⁵⁸ But the tide had turned by January 1944, and American industry was producing planes in numbers which not only met the requirements of the European theaters but also outmatched the enemy in Asia. To begin his fight against the enemy, Stratemyer had under his command in EAC during January 1944 some 532 RAF and 287 AAF aircraft, or a total of 819, of which 576 were fighters, 70 medium bombers, 79 heavy bombers, 10 reconnaissance, and 84 transports. There are, however, certain deductions to be made which decrease somewhat the preponderant strength of EAC. Thus a hundred fighters were held back from counter-air force operations to defend the air installations in Assam and the Hump route, and there were all told at least another hundred aircraft in January 1944 which were nonoperational. Nevertheless, 400 British-American fighters against an estimated 100 on the Japanese side gave an overwhelming advantage to the Allies.⁵⁹

The work of counter-air force operations was the responsibility of the Third TAF, which had been activated 18 December 1943 as a subordinate command of EAC. Third TAF was commanded by Air

* Fighters operated from fields in north and south Assam; the medium bombers were located in south Assam; and the heavy bombers were in the vicinity of Calcutta.

Marshal Sir John Baldwin, who set up headquarters at Comilla. When the Japanese opened an air offensive in January 1944 against the Hump route, they ran head-on for the first time against the Third TAF. The enemy next shifted his efforts to the Arakan in support of his current infiltration and offensive against the British thrust toward Akyab. There were vicious sweeps over Allied ground and air installations during the first week in February 1944, but again the enemy ran up against the Third TAF. As in defense of the Hump route, the TAF, this time using newly arrived Spitfires, inflicted serious losses upon the Japanese, who were denied local air superiority.⁶⁰

In March the intensity of the struggle for air supremacy increased. In the early part of the month the Japanese moved up a large number of aircraft to the forward fields in central Burma, presumably for use in their attempt to take Imphal. The enemy aircraft were soon spotted by TAF and 61 were destroyed and 11 damaged on the ground. In attacks on Allied installations the Japanese suffered further losses. It has been estimated that during March the enemy had 117 planes destroyed, 18 probably destroyed, and 47 damaged. During the same period, EAC lost 38 planes destroyed or missing and 32 damaged.⁶¹

The effect of the counter-air force operations was definitely noticeable in the reduced number of enemy aircraft involved in action. By the end of March, estimated enemy combat aircraft strength in the theater had dropped to 216, and enemy operations became more and more defensive in character. But EAC exerted mounting pressure against the enemy in April and claims showed 107 enemy planes destroyed, 15 others probably destroyed, and 61 damaged. The EAC in turn lost to enemy action 34 planes destroyed and missing and 35 damaged.⁶²

The enemy then made a last attempt to keep control of the air over Burma by bringing up large numbers of replacements, and in spite of losses during the first four months of 1944 Japanese combat aircraft available to the Burma region as of 7 May was estimated at 348—198 in Burma, 18 in the Bangkok area, and 132 in Malaya and Sumatra. Nevertheless, even with these reinforcements the enemy could gain no more than local air superiority of a temporary nature. During May EAC's records indicated that the enemy had lost 85 aircraft destroyed, 24 probably destroyed, and 86 damaged. During the same period the EAC lost 33 destroyed, 12 missing, and 62 damaged.⁶³ By June 1944 Allied air superiority in Burma was no longer challenged.

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The creation of EAC also gave an impetus to "strategic bombing" never known during the first two years of the conflict. The Strategic Air Force under the command of General Davidson had its headquarters at Belvedere Palace in Calcutta, once the winter residence of the viceroys. Originally the SAF consisted of the U.S. 7th and 341st Bombardment Groups and the 175, the 184, and the 185 Wings of the RAF 221 Group, redesignated on 1 January 1944 as the 231 Group. The 7th Group was heavy bombardment, flying B-24's, and the 341st Group was medium, using B-25's. One British wing, the 175, was medium, using Wellingtons; the other two wings, the 184 and 185, were both heavy, using Liberators.⁶⁴ In January 1944, within a month after the creation of the SAF, there were within SAF's possession forty-eight AAF B-24's, thirty-seven B-25's, thirty-one British Liberators, and thirty-three Wellingtons, making a total of seventy-nine heavy and seventy medium bombers. In January, however, the 341st Group, except for the 490th Squadron, was transferred to China, and the number of SAF B-25's was reduced from thirty-seven to sixteen. Then by mid-April the 12th Bombardment Group (M), recently transferred from the Italian front, began service with SAF, and the number of B-25's increased from sixty-six in April to eighty-five in May.⁶⁵

The main function of SAF was to disrupt the transportation system upon which the enemy's forces in Burma depended. There was a marked tendency, evident early in 1944, to accept as first-priority targets, naval and merchant vessels. Second-priority targets were communications leading into Burma and those within the country, with particular attention being paid to locomotives and rolling stock. Third-priority targets were enemy air installations. Fourth priority was given to ports and shipping facilities. Depots, dumps, and military installations were accepted as fifth-priority targets.⁶⁶ The purpose was to injure the enemy in two ways. First, it was intended to sever Japanese long-distance water communications with the homeland and thus partially to blockade enemy forces in Burma. Second, it was planned to destroy Japanese power of resistance to the Allied armies within Burma by disorganizing railway and roadway communications in Burma and razing military dumps, stores, and native industrial areas.⁶⁷

The attack by SAF on the waterways communications was not particularly fruitful. Even in 1942 Japanese sea traffic west of Singa-

pore was not as heavy as it was in the China seas. Consequently, SAF found that enemy merchant vessels were not sufficiently concentrated within the radius of its bombers to justify an intensive search for them while in transit. As a result, the actual tonnage sunk by SAF in the Gulf of Siam and the Andaman Sea was negligible. The SAF struck its heaviest blows at enemy shipping by aerial mining of essential water areas and by raiding harbors and port facilities.⁶⁸

Aerial mining was conducted in accordance with three principles. First, there were persistent attacks on enemy-held ports in regular use. Second, the enemy's mine-sweeping problems were made as complicated as possible by using an assortment of mines. Third, there was use of delay-arming mechanism in mining where weather or extreme range prohibited frequent remining.⁶⁹ In this way strategic areas could be mined when most advantageous to the aircraft employed, and the mines would not become active until a much later date. The more important areas thus mined were Port Blair, Rangoon, Ye, Moulmein, Tavoy, Mergui, Bangkok, Sattahib Bay, and ports of the Malay Peninsula. During the monsoon period these harbors were blocked by mines with a 30-day-delay period, making the waters suddenly dangerous a month after the raid as though subjected to new mining.⁷⁰ Mining operations in the theater remained on a relatively small scale—the primary purpose being to inhibit the use of the harbors and incidentally to sink any ships attempting entry.⁷¹ The success of operations against ports by mining and bombing should be judged not by the number of missions flown nor by the number of ships destroyed but by the absence of shipping from mined waters and from ports subject to bombing. Because of the air superiority enjoyed by the EAC, at least after May 1944, large Japanese vessels were excluded from the Andaman Sea, not so much because of actual sinkings as because of the risk they would have faced had they appeared.⁷²

Meanwhile, operations against communications within Burma and Thailand were concentrated against railways. The best targets were bridges, because they were especially vulnerable in view of new "bridge-busting" techniques developed in January 1944.* In selecting the bridges to be attacked, an attempt was made to isolate segments of the lines and thereafter to destroy the stranded locomotives and rolling stock.⁷³ The Burma-Thailand railway system had three inherent weaknesses. There was a lack of side lines over which the traffic might

* See above, p. 492.

be run if the yards of such centers as Bangkok, Pegu, and Mandalay were incapacitated. Second, there was a long stretch of 420 miles between Bangkok and Pegu which, if broken at any point, would sever the Thailand and Burma systems, an increasingly important consideration in view of the exclusion of Japanese shipping from the ports of the Andaman Sea. And finally, there were in Burma alone 126 bridges over one hundred feet long and 176 other bridges more than forty feet long.⁷⁴ The successful bombing of any two successive bridges therefore isolated the intervening track and opened to destruction the trapped rolling stock. The enemy then had to effect a transfer of material by detours around the breaks, a slow process, with a long delay in supplying the front.⁷⁵ The destruction of the larger rail installations was assigned to British Liberators and AAF B-24's, which carried out missions against marshalling yards, repair depots, and turntables. In these operations the emphasis was given to the three important railway centers of Bangkok, Rangoon, and Mandalay. Night operations against rail stations and yard facilities were performed by Wellingtons, and B-25's were employed in daylight sweeps on rail lines and in attacks on bridges.⁷⁶

Attacks on bridges were constant, but as in 1943 many of those damaged during the day were overnight made serviceable again by the Japanese. Such repairs, of course, were makeshift, and in many cases the reconstructions were washed away with the coming of the monsoon. Moreover, reconnaissance revealed the progress of repair work, and its completion called for new attacks and new destruction. As a consequence bridges were always out somewhere along the main lines. Between February and May the movement of military supplies on the Mandalay-Myitkyina line was largely interrupted, and though there were alternative supply routes, they could accommodate only a small part of the traffic normally carried by rail.⁷⁷

The attack on inland communications lines included attacks on roadways as well as railways. Two of the more important roads were those leading toward the Imphal sector of the front, one coming from Yeu and the other from Wuntho. Attacks on these roads began on 18 April 1944 and continued daily. Bridges were destroyed and the medium bombers strafed motor and animal traffic. Wellingtons carried out night sweeps to drop their loads on convoys, and bombs were also dropped at the base of precipitous cliffs to cause impeding landslides.⁷⁸

Industrial targets too were struck. In late 1943 the refinery at Yenangyaung was producing an estimated 5,000 gallons of gasoline per day. Concentrated bombing reduced this output to 1,680 gallons per day. In April the Chauk gasoline plant, with an estimated production of 3,500 gallons per day, was severely damaged and, in addition, many thousands of gallons of stored gasoline were destroyed. Yet, it must be said that, while these attacks probably created a shortage of gasoline for Japanese military operations, the enemy always succeeded in meeting his minimum requirements.⁷⁹

The intelligent conduct of these bombing operations depended, of course, quite largely upon air photographic reconnaissance, as did the operations of the Third TAF and TCC. The Photographic Reconnaissance Force under the command of G/C S. C. Wise, EAC, gave excellent service to the combat units. Photographic liaison officers at headquarters of SAF, TAF, and TCC received requests for missions which were then assigned to the proper reconnaissance squadrons. First-phase interpretation of the photographs was made at once and copies of the photographs were sent to the Bally Seaplane Base near Calcutta, where second- and third-phase interpretations as well as mosaics, controlled mosaics, and photographic or lithographic prints were made on a production basis.⁸⁰

Stilwell's Advance on Myitkyina

While the Japanese offensives were being defeated in the Arakan and checked before Imphal and Wingate's Special Force was being maintained through the power of air supply and air transport, Stilwell's troops in the north, also supplied by air, were increasing the speed of their advance on Myitkyina. The Chinese soldiers fighting their way up the Hukawng valley were aided by Wingate's raids in the south and by Merrill's Marauders to the north, the latter once outflanking the enemy in the Hukawng valley. On 19 March the Ledo force took Jambu Bum and broke into the Mogaung valley where the Marauders outflanked the Japanese for the second time. Myitkyina then seemed within reach, but with the approach of the monsoon Stilwell felt the time had come for very drastic action to hasten the advance. He therefore decided to have most of the Chinese continue down the Mogaung valley and to send the Marauders and some Chinese across the high Kumon range to the north and east, directly into the Irrawaddy valley for a surprise descent upon the airfield at Myit-

kyina. This necessitated getting more troops out of China for reinforcements in Burma and Chiang Kai-shek agreed to let Stilwell have the 50th Division; by mid-April he had promised to commit the Yunnan force. The decision to fly in the 50th Division from China imposed another burden on the airlift system in the north during April. ATC brought the troops as return loads from China to Sookerating in Assam, whence they were lifted to the front in Burma by the 1st Troop Carrier Squadron.⁸¹

The 1944 winter-spring campaign then drew to a dramatic climax. On 28 April Merrill's Marauders, reinforced with the Chinese 150th Regiment of the 50th Division and 300 Kachins, began crossing the Kumon range and headed downhill toward Myitkyina. The movement was executed with considerable secrecy, and before the Japanese knew that the city was imperiled the Marauders, on 16 May, were within four miles of their goal. The airstrip, more important than the city, had facilities for landing transport aircraft, and supplies could be flown in across the entire length of the drive from Shingbwiyang to the Irrawaddy. Without the airstrip the Allied troops would lack an efficient line of communications since the monsoon would soon make supply-dropping less dependable.⁸²

The attack on the airstrip was set for 1000 hours 17 May, as it was known that the Japanese took cover in the scrub some distance from the field during daylight to escape the strafing which had recently been given in good measure. The assault on the strip was made by the Chinese 150th Regiment. The Japanese were completely surprised, their defense was weak, and by 1530 hours Stilwell received word that transports could land. He immediately ordered prearranged reinforcements flown in from India. By 1600 he could see the transports and gliders going overhead.⁸³ It looked as though Stilwell had achieved a magnificent victory, with Myitkyina, Japan's chief base in north Burma, about to be occupied and the Japanese already withdrawing rapidly from the Fort Hertz area. But at this point things began to go wrong.

First of all, Stilwell and Merrill, the latter having established his headquarters at the Myitkyina strip as soon as it was occupied, wanted and expected the 89th Regiment of the Chinese 30th Division to be flown in as planned to afford the infantry strength for an attack on the city before the Japanese could dig in and get their own reinforcements. Meanwhile Air Command, South East Asia, in conjunction

with EAC, had concluded that Merrill needed AA units to ward off Japanese attacks on the newly acquired positions. EAC therefore had prepared to fly in first certain British AA units unrequested by Stilwell and then later on to fly in the 89th Regiment. The result was confusion on the Myitkyina airstrip plus the absence of the needed infantry.⁸⁴ Second, trouble developed with Merrill's Marauders, whose numbers had shrunk in the course of the campaign, because of casualties and disease, from 3,000 to approximately 1,000 by the time Myitkyina was reached. Unfortunately, the Marauders believed that their mission would not exceed three months, and the sudden realization that they would be required for further service after the occupation of the airstrip broke their morale. Third, the Chinese 150th Regiment had not been blooded in battle prior to Myitkyina. In the attack on the Japanese the night of 20 May when Merrill hoped to take the city, the Chinese troops became confused, fired on their own men and ran away in panic.⁸⁵ Thereafter there was little chance of an early occupation of the town of Myitkyina. The enemy's strength was constantly increasing and soon rose from an estimated 500 troops on 17 May to more than 3,000, and they held strong defensive positions.

General Stilwell was then faced with the responsibility of conducting a long siege of Myitkyina while his own armies had no lines of communication other than air supply, the efficiency of which was already threatened by the approaching rainy monsoon. Stilwell was disappointed and ill with worry.⁸⁶ Yet in retrospect it is easy to see that he had won an impressive victory and, what was probably more significant, his faith had been justified in the military qualities of the Chinese soldier when given proper training and equipment.

As for the future, unquestionably the most significant feature of the campaigns in Burma during the first half of 1944 lay in the air transport of large bodies of troops and their sustenance by air supply in the Arakan, at Imphal, in central Burma, and in the advance on Myitkyina.⁸⁷

CHAPTER 16

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FOURTEENTH AIR FORCE OPERATIONS JANUARY 1943-JUNE 1944

EACH time the desirability of expanding American air strength in China was discussed, Hump tonnage was recognized as the barrier. In January 1943, Arnold had felt that an additional squadron of medium bombers was the only aid to the Chinese effort which prospects for the Hump lift would permit, and Chennault agreed that the mediums would be the most effective instrument for increasing the striking power of his China Air Task Force. With the decision to activate the Fourteenth Air Force, however, came an upward revision of the projected strength of Chennault's command. But a significant increase in Hump traffic was yet to be achieved, and the 308th Bombardment Group (H), which arrived in March, plus the four fighter squadrons, one medium squadron, and a photo reconnaissance detachment already on hand were to represent the entire strength of the Fourteenth Air Force until late in the summer.

Meanwhile, the American air force in China fought a battle of survival. Since 1 December 1942, the few medium bombers available to Chennault had almost ceased operations because of a fuel shortage. Fighter squadrons had to be pulled out of such advanced eastward posts as Kweilin, Ling-ling, and Hengyang for aircraft maintenance and repair and to rest pilots, leaving those outlying bases practically without defense. At length it became impracticable even to continue the token assistance to the Chinese troops in western Yunnan.¹

B-24's Join the Fight

The Fourteenth Air Force thus began its operations under conditions somewhat less than favorable. Because of bad weather, the fuel shortage,

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and a long-standing need for complete overhauling of equipment, none of the squadrons could be immediately returned to the eastern bases but remained in the vicinity of Kunming and Yunnani. For a while, only minor operations against transportation in Burma and against Japanese ground forces along the Salween were undertaken. A series of unopposed missions to Indo-China, flown in the latter part of March, largely by bomb-carrying P-40's, damaged phosphate mines in the Lao Kay area and warehouses, rolling stock, and river transportation from Lao Kay to Haiphong and Hanoi.²

On 1 April an enemy attack on Ling-ling was turned back by the 75th Fighter Squadron, which had just established itself there. Bad weather restricted air activity for three weeks, although on 8 April the 16th Fighter Squadron, recently moved to Kweilin, ran a successful mission of ten planes to Fort Bayard. Meanwhile the 74th Fighter Squadron from Yunnani was running regular offensive reconnaissance along the Burma Road from Lung-ling to Lashio, and on 24 April mediums from Kunming hit the Namtu mines in Burma. On that day a light attack at Ling-ling was averted, but two days later the Japanese executed a surprise attack on Yunnani. For days the enemy planes had feinted at Yunnani without attacking, thereby forcing the Americans to use precious gasoline on abortive alerts. On this particular day the warning net reported that the enemy planes were turning back as usual and the defenders remained on the ground. Shortly, the Japanese caught twenty P-40's on the field, destroying five and damaging all the others.³

Two days later the enemy tricked Kunming with the same ruse. A high wind and interference from two defending fighters which chanced to be airborne perhaps saved the base from serious damage. Most of the bombs fell to one side of the main installations. Brig. Gen. Edgar E. Glenn, who had recently arrived to become Chennault's chief of staff,* was slightly wounded. The Japanese, having twenty bombers and a like number of fighters, did not escape without injury, however, as 75th Squadron aircraft, brought over from Ling-ling in anticipation of just such an attack, shot down ten of the fighters before they escaped to the southwest. Meantime, the Japanese hit Ling-ling in the absence of the 75th at Kunming, but their aim was poor. When they attempted to repeat the attack on 2 May the 75th had returned, and the P-40's drove the attackers away with serious losses.⁴

* See above, p. 441.

While Chennault was in Washington for the TRIDENT sessions, Col. Eugene H. Beebe prepared his 308th Bombardment Group for its debut in China. Gasoline and bombs having been stocked, on 4 May, eighteen B-24's and twelve B-25's accompanied by twenty-four fighters ran the heaviest bombing mission from China up to that time; the mission gained further significance from the fact that Chinese aviators acted as co-pilots in the Mitchells. Taking off from Cheng-kung, Yankai, and Kunming, they proceeded to Lao Kay, thence along the Red River to Hanoi where they separated, mediums and fighters veering off toward Haiphong and the heavies continuing across the Gulf of Tonkin to Sama Bay at the southern tip of Hainan Island. At Haiphong, clouds protected the cement works, the primary target, and prevented close observation of the results obtained when bombs rained on harbor installations. At Sama Bay the Liberators hit the airdrome, a coalyard, docks, an oil refinery, and a fuel dump. Opposition from the air did not appear and antiaircraft fire was surprisingly light and inaccurate. One B-24, however, was abandoned near Lao Kay on the return, with one crewman killed. The first heavy bomber mission by the Fourteenth Air Force was a success.⁵

Four days later the Liberators, again accompanied by Mitchells and fighters, struck the Tien Ho airdrome at Canton. The mediums took the airdrome itself while the B-24's attacked the barracks and storage areas. No interception took place until completion of the bomb run, although a B-25 exploded just as it opened its bomb-bay doors. Bomb patterns were good. The main hangar was completely wiped out and smoke from gas and oil blanketed the area for two days. After the bombing some twenty enemy fighters intercepted, pressing their attacks with unusual determination, but their eagerness enabled the fighters of Col. Clinton D. Vincent* to destroy some thirteen of them in the running fight which developed.⁶

After the Tien Ho raid, the Liberators turned to the Hump flight to stock materiel for future missions. Early in the month a typical fighter squadron shift was made to give the worn-out pilots from the east a chance to recuperate on less active duty at Kunming. On 10 May fighters from Kunming ran the last mission of importance during the month, a bombing and strafing mission against targets of opportunity in northern Indo-China. Meanwhile, 2-14 May, the enemy was content to feint

* Commander of the fighters at eastern bases, which were designated Forward Echelon.

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at American-occupied dromes. On 15 May the Japanese struck at Kunming with the heaviest assault yet made on an American base in Asia. Thirty twin-engine bombers, escorted by some forty Zeros, dropped their bombs without interference save from four P-40's which happened to be airborne and in position. Nearly all the bombs fell short, but considerable damage was wrought, including destruction of a B-24 and a B-25. Again a strong force of P-40's was unable to make contact until after the bombs had dropped, but once more the fighters exacted a heavy toll of enemy planes. Twice in a month, however, the Japanese had slipped through the customarily dependable air warning net to strike at Kunming. Only inaccurate bombing had saved the nerve center of the Fourteenth Air Force.⁷

The motive behind the intensification of attacks on American bases late in April, coinciding almost to the day with Chennault's departure for Washington, was made clear early in May, when the enemy launched a ground offensive in the Tung-ting Lake region. Accompanied by radio announcement of their intention of moving up the Yangtze to take Chungking, Japanese forces fanned out and began pushing the feeble Chinese defenders from the Tung-ting "rice bowl." Spearheads soon developed toward I-chang and beyond, and toward Changsha, dangerously close to Hengyang, an invaluable American listening post in the past.⁸

Aerial activity which accompanied the unfolding campaign followed no definite plan, the vicissitudes of battle bringing on both sides a day-to-day selection of targets. The Japanese tried strenuously to gain air ascendancy in the battle zone by attacking all American-used bases within range of the land operations, and the Americans, strengthened by the arrival of fifty-odd fighters during May, attempted to turn the Changsha and Chungking drives, at the same time taking counter-air force action to prevent being driven from their precariously held forward positions. They bombed and strafed enemy ground positions, fought off raiders when possible, and attacked every airdrome within their reach. The outcome was undecided for many days, and when the enemy drive toward Chungking reached a point out of the range of fighters at Hengyang, the Japanese seemed on the way to a successful campaign.

At this point, however, the Fourteenth Air Force was able to give some weight to the statement made by Chennault at TRIDENT that Japanese penetrations into the interior of China must be made along

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ivers and could be checked almost entirely by air power. When the Chinese became unduly alarmed at the enemy advance on their provisional capital, they appealed for air support. The battle area by that time being out of the range of all American fighter bases, the B-24's were thrown into the breach. Flying from a Chengtu field and escorted by Chinese fighters, they ran missions against ground forces in the Yangtze gorges until the enemy began to fall back. Perhaps these attacks crippled the supply line of the advancing columns, and they certainly raised morale among the Chinese defenders, but it is doubtful that they were the deciding factor leading to the Japanese withdrawal. Nevertheless, the retirement from advanced positions along the Yangtze was followed by similar withdrawals on other parts of the offensive front. On 2 June, Radio Tokyo announced the end of offensive operations west of Tung-ting, claiming full attainment of objectives. Later intelligence from Japanese sources indicates that the real purpose of the Tung-ting Lake campaign was to open the river to I-chang so as to release river steamers from that area for use nearer the coast.⁹

After bombing the Japanese ground forces before I-chang, the B-24 squadrons on 8 June turned to the task of destroying shipping. On that day their primary target, Haiphong, had to be abandoned in the face of heavy overcast, but bombing of secondary targets at Hanoi and Hongay was rewarded by the sinking of a freighter estimated at 7,000 tons. Continuing rainstorms and heavy overcasts prevented further missions to Indo-China in June, and the Liberators turned to the laborious and uninspiring chore of hauling freight over the Hump.¹⁰

Chennault had returned to the theater early in June to find the threat to Changsha and Chungking gone, with the Americans in the east enjoying temporary air ascendancy. Dive-bombing and strafing P-40's were finding numerous remunerative rail and river targets in the regions where the enemy was retreating, while Mitchells continued to pound lightly defended airdromes. Sweeps over the Yangtze from Yochow to Hankow paid big dividends, while Yochow, a key railhead and port which served as a collection and distribution point for enemy forces and as guardian of rail, river, and lake traffic between Hankow and I-chang, proved an especially fine target. These raids came to a halt, however, because of insistent rumors of enemy air reinforcements and of an imminent assault on American bases. Extensive reconnaissance of enemy airdromes discovered no concentration of aircraft

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in the area, but on 23 July the predicted assault began. For three days the Japanese made a supreme effort to wipe out the eastern bases, delivering attack after attack from the north and from the Canton area. Spreading their well-coordinated assaults over most of the American-used fields along the Hankow-Haiphong railway line, they apparently hoped to divide and weaken interceptor strength, preventing any concentrated opposition by the two fighter squadrons available for defense of the region. Fighting desperately, the Americans warded off numerous raids, inflicting heavy losses on the invaders, but wave after wave of enemy planes came over and their bombing tactics were wily and effective. Hengyang runways were rendered useless on the first day of the offensive. On the second day, after feinting at Kweilin, the enemy delivered another blow at Hengyang as well as a strong attack on Lingling. Hengyang sustained further damage and Lingling was heavily hit. Meanwhile lesser attacks were launched at the undefended and rarely used fields at Kienow, Kanchow, Chih-chiang, Shao-yang, and Sui-chuan, all of which suffered severe damage. After three days of constant fighting, the Americans, in desperation, mounted a counter-attack on the airdrome at Hankow, from which some of the attacks presumably had been directed. They damaged the base in an unopposed attack, but when they returned the next day in a follow-up raid, they met stubborn opposition from a large number of Japanese fighters. In a long, running fight, the enemy suffered severe losses. Few American planes were shot down, but many of the aircraft were so badly riddled that they had to be temporarily grounded for repairs. The raids on Hankow, and the bad weather which followed, probably saved the fighters another ignominious withdrawal from their eastern bases, an event that doubtless would have seriously lowered the morale of the Chinese ground forces before Changsha.¹¹

By the end of July attrition had reduced the fighter strength in China to a dangerous low of sixty-four planes for four squadrons, with only thirty-three at the eastern bases. P-40K's and P-40M's had arrived during May, June, and July, and July brought six P-38's which were sent immediately to the east, but the accelerating tempo of combat operations accentuated the need for more and more aircraft. None of the new squadrons promised at TRIDENT for July delivery had arrived in China. The P-38's were a welcome addition, but their greater fuel consumption made them somewhat less desirable than would otherwise have been the case. The newest model P-40's were rugged and

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possessed great firepower, but they were slow climbers and still had limited ceilings. All the while, there was a steady influx of new-model Japanese fighters, planes which could dive with the P-40 and almost equal it in level-flight speed. The U.S. planes had one superior quality: they could absorb tremendous punishment and return to base to fight again, but the outlook at eastern bases on 1 August was dark.¹²

While the fighters were clinging to their forward bases and hoping for reinforcements, significant plans were being made for use of the bomber arm. During May and June, Brig. Gen. Howard C. Davidson, soon to command the Tenth Air Force, studied in China the possibilities for using China-based American planes against Japanese commercial shipping. On the basis of his studies, he agreed with Chennault that the Fourteenth Air Force could help immeasurably in weakening Japan's tenuous hold on its wartime empire.¹³ Much of the shipping between the homeland and conquered territories to the south passed along the China coast within easy reach of long-range planes operating from existing bases in China. American submarines were already reported to be sinking ships off the China coast at a rate greater than the replacement capacity of the enemy, and it was argued that air attacks, in addition to direct destruction of shipping, would aid the submarine campaign by driving enemy vessels eastward into deeper waters. On the lakes and rivers of central China fighter-bombers had already begun to make heavy inroads on inland merchant shipping through dive bombing and strafing. A more ambitious effort against the enemy's merchant marine promised to be a logical and fruitful development of the Fourteenth's operations.

Hoping to put this suggestion into action immediately, Chennault forthwith advised the heavy bomber group and the medium squadron that shipping and harbor installations would have first priority for the month of July. Inauguration of the program had to wait, however, until the weather cleared in the second week of the month. Then, capitalizing on every subsequent break in the overcast, the bombers struck again and again at their assigned targets. The B-25's were moved to Kweilin, whence they began to search the seas in the vicinity of Canton and Hong Kong, while the B-24's, still based in the Kunming area, struck at shipping farther south. On both heavy and medium missions the bombers were regularly escorted by fighters, but Japanese air forces at that time apparently were concentrated in more northerly areas and most of the forays went unopposed. In spite of the two-week

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delay at the outset, the bombers claimed 41,000 tons of shipping sunk and 35,000 tons damaged during the month of July.¹⁴

For the first twelve days of August air activity was at a standstill because of heavy rains and low-hanging clouds. On the 13th, however, the Yunnani-based 16th Fighter Squadron, which had been reinforced by replacement pilots, once again resumed offensive patrols over western China and Burma, dropping bombs with regularity on Mang-shih, Lung-ling, Teng-chung, and other likely targets that could be located through occasional breaks in the overcast. These patrols, flown at above 20,000 feet, revealed that the new pilots had received insufficient altitude testing in their operational training unit (OTU). Some were found to be unsuited to the job and were transferred to transport and low-altitude flying.¹⁵

Meanwhile, over eastern China the fighter pilots were having trouble with an altitude problem of a different type. Taking advantage of the break in the weather, new Japanese fighters initiated a series of attacks from such high altitudes that the P-40 pilots found it futile to try to make contact. On the morning of 20 August, enemy fighters, avoiding the P-38's at Ling-ling, turned the tables on the P-40's at Hengyang and Kweilin by employing tactics identical to those used successfully for so long by Chennault. Maintaining an altitude above the ceiling of the P-40's until a good opportunity presented itself, the Japanese planes dived on the Americans below, made one pass, and then climbed back to safety. The American pilots claimed two fighters shot down, but in exchange three P-40's had been lost. That afternoon eight B-25's and eleven P-40's from Kweilin struck at Tien Ho airdrome, from which part of the morning raiders had probably come. The attacking planes had little or no time for checking the results of their bombardment, for they were intercepted and given another demonstration of the improved performance and tactics of Japanese fighter aircraft. The American airmen faced the unpleasant realization that the P-40 was outmoded and that unless more and better fighter aircraft could be provided, the eastern bases might become untenable.¹⁶

The heavy bombardment arm, which had flown no combat missions since 29 July, on 17 August attacked an encampment south of Hai-phong with some success. A mission set up for 21 August called for fourteen B-24's of the 374th and 375th Squadrons, flying from Chengkung, to be joined at Hengyang by seven B-25's and a P-40 escort for an attack on Hankow, but it was one of those days when nearly every-

thing went wrong. Shortly before the Liberators were scheduled to arrive over Hengyang, Col. Bruce K. Holloway, commander of the 23d Fighter Group, had to send his fighters aloft to meet an incoming flight of enemy planes. After the Japanese aircraft withdrew, Holloway called the P-40's in for servicing, but time was pressing and only six of the twelve could be made ready for the scheduled rendezvous. The Liberators failed to rendezvous and, in fact, missed Hengyang altogether. Accustomed to flying unescorted missions over Indo-China, the B-24's continued without fighter protection to the target, where they unloaded their bombs on the dock area. Immediately, they were attacked by a cloud of fighters, estimated at from sixty to a hundred planes. The defenders pressed home their attacks with unusual daring and determination and, on the first series of passes, shot down the plane of the squadron leader, Maj. Bruce Beat, and wounded the pilots in each of the lead planes. For twenty-seven minutes the unequal fight continued. A second B-24 crash-landed with three of the crew dead and two seriously wounded; and a third was so badly shot up that it was forced down at Ling-ling. The others reached Kweilin. Of the fourteen Liberators, two had been lost and ten badly damaged. On the surviving planes one tail gunner was killed and three pilots and one copilot were wounded. The heavy bombers had inflicted great losses on the enemy attackers but no accurate tabulation was possible.¹⁷ Meanwhile, the B-25's, coming in later from Kweilin to Hengyang, had picked up the full escort of twelve fighters. Arriving at Hankow some time after the B-24's, the Mitchells made their run over the airdrome without mishap, apparently catching on the ground some of the fighters which had engaged the B-24's. The timing of the enemy attack on Hengyang, plus the readiness of fighter planes at Hankow, raised some speculation as to whether the Japanese had known in advance of the coming attack. There was some question, also, as to the advisability of allowing the Liberators to bomb without escort.¹⁸

Immediately, the other two squadrons of the 308th prepared for a second raid on Hankow, this time with the airdrome as the objective. Then, on 24 August, seven B-24's from the 373d Squadron and seven from the 425th took off from Kunming to meet six B-25's from Kweilin and an escort of fourteen P-40's and eight P-38's at Hengyang, preparatory to another attack on targets at Hankow. Again, misfortune attended the mission. The 373d bombers ran into bad weather and

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returned to their base, leaving the seven planes of the 425th to push on to the rendezvous alone.¹⁹

After the other elements rendezvoused on schedule, all went well until the bombs were away. Several of the planes had mistaken Wu-chang airdrome for Hankow and dropped some of their bombs, but saw their mistake in time to save something for Hankow. Heavy and accurate antiaircraft fire could not prevent major damage to the airdrome, but forty enemy fighters then attacked, concentrating their attacks on the Liberators. For forty-five minutes the battle continued, and one by one the B-24's went down. When the Japanese planes finally turned back, only three of the seven heavies remained in the air. These three reached Kweilin, where it was found that all planes were badly crippled, that one pilot and one crewman were dead, and that a co-pilot and five crewmen were wounded. Tragedy still stalked the 425th Squadron as one of the three surviving planes crashed on the return to Kunming the following day, killing ten and injuring two. Of the seven planes which had left Kunming, only two returned; and of the seventy men on the B-24's, more than fifty were killed, wounded, or missing. A whole squadron was rendered impotent for some time to come. Again, surviving B-24 crews claimed heavy enemy losses, and again the B-25's and fighters escaped without loss.²⁰

For several days the Americans turned their attention to the Canton-Hong Kong area, attacking shipping and docks without serious opposition. A Liberator mission to the Kowloon docks was highly successful, and an ensuing brush with enemy interceptors showed that the fighters in this area were not of the caliber of those at Hankow. The Liberators escaped without damage, while five enemy planes were shot down. Mitchells of the 111th Squadron, P-38's of the newly arrived 449th Squadron, and P-40's of the 76th Squadron continued their missions to the north, striking with excellent results a variety of targets in the Tung-ting Lake area. The 308th ran one more mission in August; escorted by twenty-two P-40's and two P-38's which also participated in the bombing, the bombers attempted to damage and flood the Gia Lam airdrome at Hanoi. Although the dikes were hit, the water level was too low to flood the field; but considerable damage was done to runways and buildings. Eight P-40's lost their way on the return and ran out of gas, causing six pilots to bail out and two to make forced landings. Seven of the planes were totally destroyed and one pilot lost his life.²¹

Operations in September were in general a mere continuation of a previously established routine, with only minor deviations. Arrival of the 25th Fighter Squadron from India made it possible to send the 16th Squadron from Yunnani to Kweilin, for the first time giving the forward echelon enough fighters to afford some measure of security to the bases without seriously interfering with offensive action. Thus, despite the uneasiness which accompanied full knowledge of the superiority of Japanese fighter aircraft, the mediums and fighters from Kweilin, Lingling, and Hengyang gradually extended their attacks on river boats, coastal shipping, enemy-controlled industries, warehouses, troop concentrations, and major air bases throughout the Hankow-Kiukiang-Amoy-Swatow-Hong Kong-Fort Bayard sector. The Japanese were unable to provide sufficient anti-aircraft artillery for so wide an area, and their fighters enjoyed little success against the Americans on the few occasions when they made contact. Furthermore, increasingly accurate information from outposts established in enemy-held territory, especially along the Yangtze, enabled the Americans to give missions flown against specific objectives the appearance of sweeps in search of targets of opportunity. Chinese guerrilla activity frequently supplemented the air effort. Undoubtedly, the strikes were more damaging to the Japanese than they had been previously, and so effective were the milk-runs around the arc from Tung-ting Lake to Poyang Lake that the Yangtze between Hankow and Kiukiang was almost wholly interdicted to enemy shipping.²²

The Liberators, devoting most of their time during September 1943 to hauling supplies, broke the monotony of flying the Hump by taking on extra bombs in India and dropping them on targets in Burma and along the Salween. Their only regularly scheduled missions were undertaken on the 14th and 15th. On the first day an unescorted flight to Haiphong in unsettled weather brought indifferent results. The next day five unescorted B-24's ran into trouble in the same area. Enemy fighters, which had not shown themselves the day before, attacked the formation in force, shooting down three of the planes and crippling the other two, again pointing up the fact that while fighters and medium bombers were generally left to their own devices, the Japanese seemed determined to check the work of the B-24's.²³

During September, the enemy left the reinforced airdromes in the east alone, although they attacked several unoccupied fields in the vicinity early in the month. But while the eastern bases had been reinforced,

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those in the west had only two fighter squadrons present, and it was to that region that the Japanese sent their major striking force. On 20 September, twenty-seven bombers strung their bombs across the field at Kunming, doing considerable damage. Fighters of the 16th and 75th Squadrons soon made contact, easily evading an inept fighter escort, and claimed fifteen bombers destroyed. But there were no other attacks on American bases, and Japanese fighters were active chiefly in northern Burma. During the third week in September, the Fourteenth flew numerous fighter sorties from Yunnani to protect the Hump flyers.²⁴

The Chinese-American Composite Wing

The arrival of additional reinforcements, the development of better antishipping techniques by the medium bombers, and unmistakable signs of impending Japanese land offensives from the north, east, south, and west made of October 1943 a memorable month in the history of the Fourteenth Air Force. The 26th Fighter Squadron arrived from India, and for the first time since activation of the China Air Task Force more than a year before, the 51st Fighter Group was reunited. Perhaps more meaningful for the future, however, was the arrival of the first increment of the Chinese-American force from Karachi. This took place too late for the squadrons to go into action during the month, but it represented a partial realization of hopes and plans for use of Chinese combat air personnel under American supervision which dated from the earliest days of American air activity in China.

After approval had been given to Chennault's proposal for incorporating Chinese-American composite wings into the Fourteenth Air Force,* General Davidson took up the task, on special assignment, of implementing the plan. It was not easy to find either the equipment or the American personnel that would be needed, for these new requirements came over and above the accepted AAF program. Some aircraft could be obtained from previous allocations to China Defense Supplies, and the men were scraped together from a variety of sources. By 5 July 1943, Davidson was in position to report satisfactory progress.²⁵

Chennault had proposed that an operational training unit be established in India and operated by the Fourteenth Air Force for the purpose of preparing partially trained Chinese fighter and bomber crews for combat operations. He had also suggested that Chinese Air Force

* See above, pp. 438-43.

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mechanics, under AAF supervision, assemble the aircraft to be used, and that Chinese combat and maintenance crews train at the OTU with the units to which they would be assigned. On completion of the training of a complement, the plan called for the American and Chinese officers who had acted as instructors to serve then as group, squadron, and flight commanders of the combat unit, which made it necessary to maintain a continuing flow of officer personnel to the OTU.²⁶

Malir airdrome at Karachi having been selected as the site for location of the Chinese-American OTU, the assembling of personnel and equipment began. Old-model P-40's and B-25's no longer useful for tactical employment were brought in for use as trainers. Additional short-range B-25's from the United States and P-40's from North Africa were eventually assigned. Early in July, Chennault reported to Arnold that Chinese and American personnel were arriving at Karachi and that the OTU would be ready on 5 August. According to the schedule which had been set up and approved, the OTU by 15 March 1944 should turn out eight fighter squadrons and four medium and light bombardment squadrons, together with three group and one wing headquarters. The training program began as scheduled and by 1 September it was well under way.²⁷

The formal activation of Headquarters, Chinese-American Composite Wing (CACW) took place at Malir Field early in October. The wing consisted of the 3d and 5th Fighter Groups and the 1st Bombardment Group (M), each group having four squadrons and receiving its numerical designation from the Chinese Air Force. The first increment to move to China, one bombardment squadron and two fighter squadrons, got its movement orders on 17 October. These constituted the heaviest reinforcement received by the Fourteenth Air Force since the arrival in the preceding spring of the 308th Bombardment Group.²⁸

Ominous information which seeped in from numerous sources indicated that additional air strength in China would be needed very soon. Reinforcements had arrived in the Canton-Honk Kong area and in Indo-China, while enemy activity around Hankow and farther north had suddenly increased. Already Japanese reinforcements in Burma and western China were making themselves felt in a twin drive from Myitkyina and Teng-chung toward the north and east. Should offensives be launched simultaneously in all these sectors, the beleaguered Fourteenth would be hard put to cling to its sphere of operation. Drives

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south toward Changsha, northwest from Canton-Hong Kong, and northeast from Indo-China might jeopardize the eastern bases, and if a drive across the Salween succeeded or if a northwestern drive from Indo-China materialized, Kunming itself would be in peril. Enemy land offensives had been checked in the past, but if several of them should come at the same time, the small air strength of the Americans would be spread too thin; and with or without air support, Chinese armies were hardly capable of stopping determined Japanese drives. In the immediate future, air operations would be largely dictated by a changing tactical situation.²⁹

Meanwhile, the increasing effectiveness of the mediums of the 11th Squadron against shipping provided one source of encouragement at least. Adopting a low-level, skip-bombing method of attack on individual targets, the B-25's worked in pairs, the lead plane strafing and the trailer bombing, and then they exchanged positions for the next attack. Gaining greater range by a reduction in bomb load, the 11th Squadron under Lt. Col. Morris F. Taber struck at shipping from Shanghai to Haiphong. When Sui-chuan, a new base farther east, became available, the planes ranged far out over the waters of Formosa and Hainan straits.³⁰

While the medium bombers were harassing the shipping lanes to the east, enemy activity in the west largely determined the course of action taken by the heavies and fighters in the Kunming area. In an attempt to slow the movement of materiel to Burma via Indo-China, the B-24's struck at Haiphong six times, once on a night mine-laying mission, and they flew a few sorties in the neighborhood of Hainan Island. Enemy advances toward the Salween offered further opportunity to combine tactical missions with the boredom of hauling supplies from India. The shuttle ferry-bombing missions became a regular routine, with such points at Teng-chung, Mang-shih, Lung-ling, Kunlong Ferry, Lashio, and Sumprabum receiving attacks from both fighters and B-24's on the 16th.

By the end of October 1943 the Japanese, established on the west bank of the Salween for roughly a hundred miles, seemed to have no intention of moving across the river, and the immediate threat was over. Meanwhile, the B-24's had gained some measure of revenge for the maulings they had received at the hands of enemy fighters some weeks before. About mid-October Japanese fighters again began to attack cargo planes in the Myitkyina-Sumprabum vicinity. The B-24's, flying

in loose formation and hoping to be mistaken for C-87's, continued to use the southernmost route while the regular transports flew farther north. The ruse succeeded so well that in two days the 308th heavies reported having destroyed eight attackers. Enemy fighters became more cautious in their attacks on the Hump flyers.³¹

At the eastern bases, after a flurry of Japanese attacks early in the month, when poor bombing saved the American fields from serious damage, the fighters continued the routine of sweeps to the Yangtze when weather permitted. From the 7th to the 28th, weather conditions were of the worst, reducing the offensive efforts of the fighters almost to zero. News continued to come in of Japanese preparations for an offensive in the Tung-ting Lake sector, and the weather cleared sufficiently in the last three days of the month to permit several devastating sweeps over the Kiukiang area, but the enemy had accomplished much in preparation for the drive under cover of the bad weather.³²

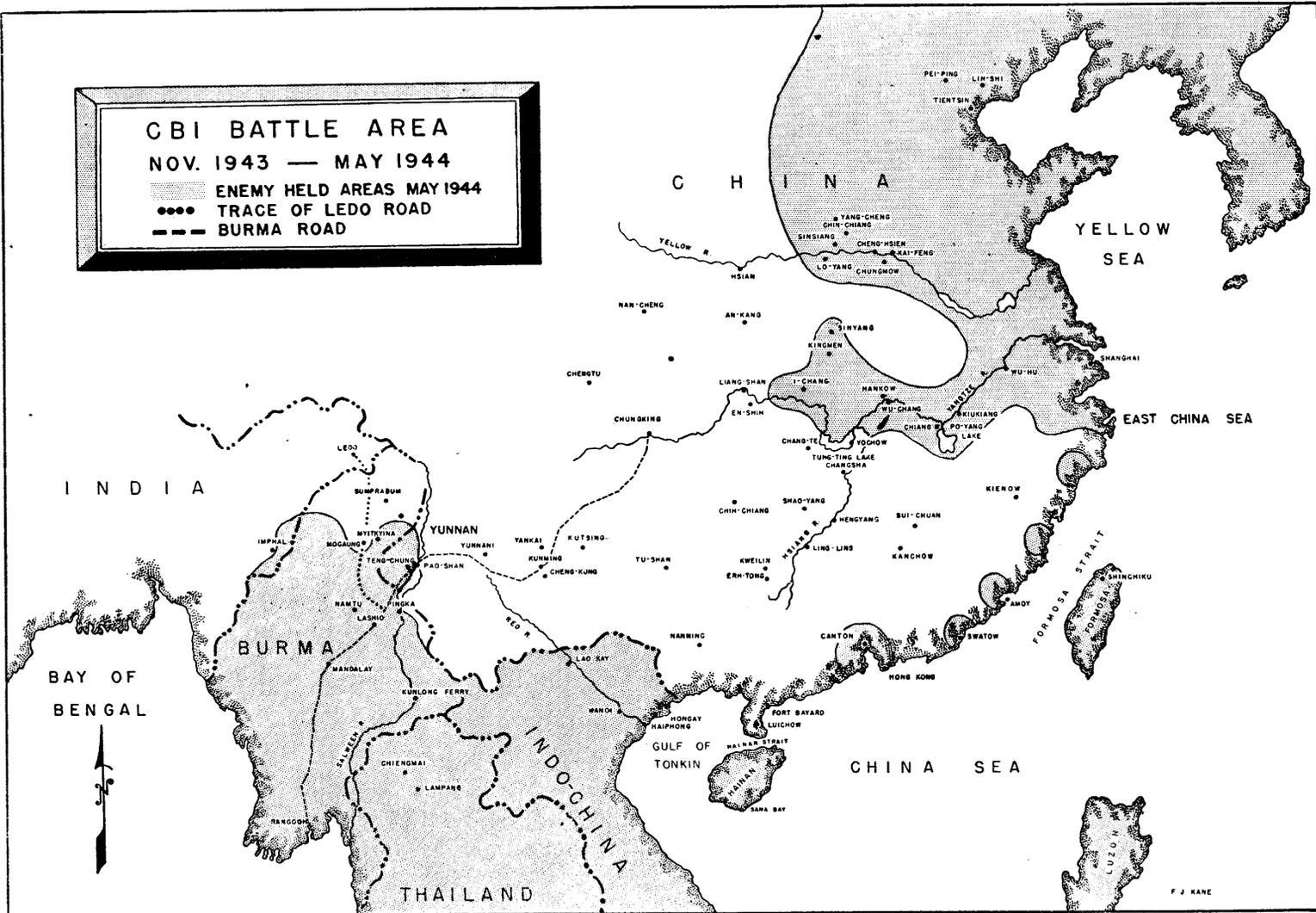
In all sectors of China the threat of enemy aggressiveness which had marked the closing days of October continued during November. On the Salween front fighting became less severe, but the fighters and Liberators continued to answer calls for aerial assistance by the Chinese ground forces. The heavy bombers also ran a few routine bombing and mining missions to Haiphong and Hong Kong, but on 18 November they were ordered to India, where they participated in a combined attack with the Tenth Air Force and the RAF on Rangoon, returning to China early in December.* Meanwhile, in east China the long-rumored offensive in the Tung-ting Lake area was becoming a reality, so that units of the forward echelon were allowed little time for operations other than those directed toward aiding the Chinese in turning back the enemy drive. Mediums of the 11th Squadron and CACW's 2d Bombardment Squadron, however, found time to run enough sea sweeps to sink three times as much enemy shipping as the 11th Squadron alone had accounted for in October.³³ But the most significant, and perhaps the most rewarding, mission of the month came on 25 November, when Formosa was subjected to its first attack by the Fourteenth Air Force. Reconnaissance over a period of months had revealed that Shinchiku airdrome offered a most inviting target where enemy bombers could nearly always be found parked wing to wing. Shortage of bombers and lack of long-range fighters, as well as lack of bases farther east, had made such a strike impossible during the summer.

* See above, pp. 476-82.

CBI BATTLE AREA

NOV. 1943 — MAY 1944

- ENEMY HELD AREAS MAY 1944
- TRACE OF LEDO ROAD
- BURMA ROAD



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Soon after Colonel Vincent returned from temporary duty in the United States early in November to resume command of Forward Echelon, he found that the obstacles to this long-dreamed-of mission had been removed. With the first forces of the CACW had come another medium squadron; the P-38's, present since August, had been joined by sixteen old and worn P-51A's; and the base at Sui-chuan was ready for operations. Vincent planned a low-level, daylight raid, knowing that its success depended almost entirely upon surprise. Photographic coverage throughout the first three weeks of the month permitted thorough briefing, and when on 24 November 1943 seventy-five bombers were found at the Shinchiku airdrome, the mission was set for the next day. Eight P-51's, eight P-38's, and fourteen B-25's were to make the flight under Col. David L. ("Tex") Hill, a former AVG and CATF leader who had just returned to China to command the 23d Fighter Group.

All aircraft were in readiness at Sui-chuan by evening of the 24th. On the next day, which was Thanksgiving, they flew at very low level across Formosa Strait to avoid radar detection. When the shore was sighted, the P-38's took the lead to knock out enemy air opposition. Perfect surprise enabled the Lightnings to claim fifteen of the twenty-odd planes which were airborne. The B-25's followed in at 1,000 feet, dropping frag clusters on the airdrome. The P-51's protected the tails of the bombers until they were safely on the bomb run, then strafed installations and parked planes. Lightnings, after their first engagement, also dropped down to strafe. Only one pass was made by each unit before it headed for home. The brief encounter resulted in claims of forty-two enemy planes destroyed, most of them on the ground, without loss of an American plane or life. Once more the Fourteenth had gambled and won, and had carried the war still closer to the Japanese homeland. Enthusiasm among American personnel in China rose accordingly, but the success was not permitted to affect other operations. The Mitchells resumed attacks on shipping the following day.³⁴

By the middle of November 1943 the Japanese offensive in the Tung-ting Lake region had taken shape in a series of enveloping movements northwest of the lake, threatening Chang-te and, indirectly, Changsha. Units at Hengyang were instructed to give all support possible to Chinese ground forces, and as the ring about Chang-te tightened, the Chinese called for more and more aid. Fighters of the 23d Group and of the 16th and 449th Squadrons of the 51st bore the brunt

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of direct support, while bombers of the 11th Squadron and of CACW's 2d Squadron lent aid on several occasions. Even the Liberators of the 308th Group were called in to make counter-air force strikes at major Japanese bases in the rear of the land action when Japanese airmen offered too much opposition. Chang-te was surrounded late in November and fell to the Japanese on 3 December. For the next few days Fourteenth Air Force planes regularly attacked the city, and on 9 December the Chinese reoccupied it as the Japanese began a general withdrawal. The withdrawal provided many opportunities for prowling P-40's, and they made the most of them. Constantly harassed on the ground and in the air, the Japanese withdrew until by the end of the year they were back in the positions they had occupied when the offensive began.³⁵

Throughout November, Japanese planes had kept away from American bases, but often had intercepted American planes over Japanese-held territory. In December they counterattacked, striking in the east and west. As the Japanese retreated from Chang-te, under daily poundings by the Americans, the enemy attempted to draw off the attackers by bombing the bases at Hengyang and Ling-ling, while keeping the fighters at Kweilin alerted almost constantly. The fields at Hengyang and Ling-ling were damaged, but enemy losses were severe, and after 12 December the attacks were discontinued. Never did the Japanese catch the bases without airborne fighters. On 30 December, Sui-chuan was bombed and strafed by twenty fighters. In the west, enemy counter-air force activity was resumed when on 18 and 22 December, Kunming was bombed and on the 19th, Yunnani. As in the east, some damage was done, but defending fighters exacted such a heavy toll of attackers that the offensive moves were soon stopped. Renewed attacks on the Hump flyers in December made necessary an increased number of fighter sorties from Yunnani.³⁶

With constant calls for support of ground troops at Tung-ting Lake, there was a considerable decrease in shipping strikes and in the tonnage sunk. Targets were more scarce, leading to the belief that Japanese shipping was being detoured around Formosa. In the west the situation remained practically unchanged. Major attention was given to support of ground troops, but fighters from Kunming also struck at targets in Indo-China and Thailand. The latter area had assumed greater importance with the completion of the Bangkok-Moulmein railway by the Japanese, and the Liberators added weight to attacks in that sector.

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Chiengmai and Lampang suffered from heavy attacks on several occasions.³⁷

These operations had been accompanied by some administrative reorganization. The immense area over which the Americans had to operate, together with the arrival of additional air units in China, had led to establishment of a provisional forward echelon under Vincent, but no comparable organization existed in Yunnan. Transfer of the full 51st Fighter Group to the Fourteenth, the imminent arrival of the remainder of the 341st Bombardment Group (M), and the presence of three CACW squadrons (with three more due shortly) made the need for regular lower echelons of command imperative. The necessity to keep both bombers and fighters in each of the two main combat areas ruled out the possibility of using a bomber and a fighter wing. Consequently, on 23 December 1943, the 68th and 69th Composite Wings were activated, the 68th under Vincent to operate east of the 108th meridian, and the 69th under Col. John Kennedy to the west. CACW units were attached to the 68th Wing for operations, and the wing missions assigned were substantially the same as the objectives previously assigned to the eastern and western forces. At about the same time, it was decided that after 1 March 1944 responsibility for airfield construction and maintenance in China would pass from SOS to the Fourteenth Air Force.³⁸

Plans for 1944

From the beginning, the American air force in China had been confronted with a multiplicity of tasks which far exceeded its resources and made impossible the use of available aircraft in sustained operations against obviously desirable targets. Late in 1943, Allied successes in other theaters encouraged the hope that in the not-too-distant future more resources might be concentrated against Japan. Accordingly, Chennault drew up a comprehensive plan for the use of an expanded air force in China.

He recognized that any plan for expanded air operations in China would depend upon an increased tonnage over the Hump and improvement in the supply line from Kunming to Kweilin, but he believed these could be accomplished in time. His plan called first for continued but much heavier strikes against merchant shipping and the enemy air force; the climax would be reached through long-range bombing attacks on the enemy home islands from bases in eastern China. From

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January through June 1944, action would largely be confined to the western sector, where strength would be concentrated during that part of the year when weather frequently rendered eastern bases inoperational. At the same time, improvements would be made in the internal supply line for the build-up of supplies in the east. Then, from July to the end of the year, the attacks would be intensified from eastern bases. For these offensive efforts, Chennault estimated that he would need six fighter groups, two medium groups, and three heavy groups.³⁹

When the plan was submitted to Stratemyer in November, he immediately expressed doubt that ATC Hump tonnage could support it. Furthermore, he revealed that details were already being worked out for sending very long-range (VLR) bombers to China with fighters to support them, these new aircraft to be controlled directly from a headquarters in Washington. Implementation of the VLR plan would take precedence over the claims of the Fourteenth, but the VLR program would approximate the last phase of the offensive planned by Chennault. Minor portions of Chennault's plan, such as improvement of the Kutsing-Tu-shan bottleneck on the Kunming-Kweilin supply line, were approved. Doubtless Chennault found keen disappointment in the news that the crucial blow against Japan would not be made under his direction, and he was displeased that the basing of B-29's in India under a plan to stage them through Chengtu would plunge the Fourteenth into a new program of airdrome construction and still more complicated problems of supply. Moreover, in spite of the assumption that the B-29's were to haul their own bombs and gas over the Hump, it could be anticipated that the Fourteenth would have a portion of its Hump quota diverted to a fighter wing tied to Chengtu for defense of the B-29 bases.⁴⁰

The disappointment was offset somewhat by reinforcements for the Fourteenth Air Force early in 1944. In January, the 341st Bombardment Group, less the 490th Squadron, made the move to China which had been pending since the previous summer. But this added only two combat squadrons, the 22d and 491st, the 11th Squadron of this group having been in China since activation of the CATF in July 1942. A second contingent of the CACW, composed of the 1st Bombardment Squadron (M) and the 7th and 8th Fighter Squadrons, arrived in February. But with these three medium squadrons and two fighter squadrons came only eighteen P-40's and thirty-three B-25's. The CACW units went to Erh-tang, where they were attached to the 68th

Wing for operations. The newly arrived squadrons of the 341st were assigned to the 69th Wing in Yunnan.⁴¹

During January, February, and March, weather in east China was so bad that, in spite of reliable information that the Japanese were continuing to mass troops and supplies at several key points, the 68th Wing could do little to interfere. January was a month of relative inactivity, giving rest to those squadrons which had been so badly overworked in the recent Tung-ting Lake campaign but at the same time permitting coastal shipping to reinforce Canton-Hong Kong without interference. The elements relented to such an extent in February that the Mitchells enjoyed their best month thus far in tonnage of shipping sunk, but in March shipping targets were so rarely sighted that sea sweeps in daylight hours seemed about to reach the point of diminishing returns. Flights sent to the Yangtze were rewarding but too infrequent to dislocate transportation. Enemy aircraft were also handicapped by weather, but they did manage to bomb Sui-chuan, Ling-ling, Hengyang, and several satellite fields. Few aircraft attempted to intercept American flights to the north until March, when air resistance greatly stiffened. It was observed that enemy pilots showed signs of inexperience and were unable to take advantage of the superiority of their aircraft.⁴²

Enjoying more favorable weather, the 69th Wing in Yunnan was more active, although a gas shortage in Assam severely restricted the 308th's Liberators. Using the advanced base at Nanning extensively, fighter-bombers added weight to the continuing assault on northern Indo-China, so that by the end of March that part of Japan's "co-prosperity" sphere threatened to become a liability. Months of pecking away at specific targets had almost paralyzed shipping and industries along the Tonkin Gulf coast. Furthermore, the natives were becoming restless under the poundings, which brought a severe shortage of consumer goods. Bangkok, Lampang, and Chiangmai in Thailand suffered less severely, yet destruction of railway yards, bridges, and warehouses seriously hampered movement of supplies to Burma and the Salween front. A few strikes at enemy concentrations along the Salween were sandwiched between the missions farther south.⁴³

Meanwhile intelligence which had accumulated for several weeks foreshadowed the sternest test the Fourteenth had ever faced. In the bend of the old Yellow River course the enemy troops and supplies were massing, and similar concentrations were noted in the Hankow

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area, at Canton–Hong Kong, on the Luichow peninsula, and in northern Indo-China. It had long been recognized that while the combination of Chinese troops and American air units had stopped enemy stabs of a local nature in the past, they could not stop a large-scale, determined drive by the enemy. The Japanese could go anywhere in China they wished if they were willing to put forth the effort and absorb the losses. All evidence now pointed to the most ambitious military operations they had ever undertaken in China. The appearance in China of ground forces long kept in Manchuria foreboded a campaign with far-reaching objectives. As pointed out above, simultaneous drives from the Yellow River bend southward, from Hankow toward Changsha, from Canton westward, and north from Luichow and Indo-China would catch the entire operational sphere of the 68th Wing in a vise. If successful, it would permit the establishment of an overland transportation route from Peiping to Indo-China, eliminate the Fourteenth Air Force bases from which antishipping strikes originated, and establish military dominance over the China coastal hinterland which later American amphibious operations from the Pacific might want to penetrate. It also could eliminate the Chinese army as a possible offensive military force and perhaps lead to the downfall of the Chinese National Government under Chiang Kai-shek.⁴⁴

With these dire possibilities in mind the Fourteenth Air Force in April made all possible preparations to meet the challenge to its position in eastern China. CACW units were prepared for a move to Chinese Air Force bases in the north, from which they could operate against the Japanese in the Yellow River bend, and the remaining squadrons with the 68th Wing were deployed for possible attacks from north, east, and south. Meanwhile, certain squadrons of the 69th Wing were earmarked for support of an imminent offensive by the Chinese forces in Yunnan against the Japanese along the Salween River. Never in accord with Stilwell on the question of operations in Burma, Chennault now recommended that the offensive be postponed so that 69th Wing units could be used to reinforce the 68th. The ground offensive was launched as planned, however, thus tying down at least three squadrons for the next several months, during which the 68th fought a losing fight against overwhelming odds.⁴⁵

The Salween drive was a part of the British-Chinese-American effort to reoccupy Burma and push through a land supply line from

Assam to Yunnan.* Chinese-American forces in northern Burma were making progress down the Mogaung valley while a British campaign was in progress farther south. The mission of the Yunnan force was to drive down the Burma Road, taking Teng-chung, Lung-ling, Mang-shih, and Pingka, and eventually to meet with the other attacking forces in central Burma. The mission of the 69th Wing in this campaign was to give close tactical support to the attackers, isolate the battlefield, and provide air supply. Final word on selection of targets was to be given by Brig. Gen. Frank Dorn, commander of the Yunnan force, from his headquarters at Pao-shan. A forward echelon headquarters of the 69th Wing was set up on 2 May at a new field near Yunnani, with Maj. A. B. Black in command. Air support was to be provided largely by the 25th Fighter Squadron and the 22d Bombardment Squadron.⁴⁶

On 11 May 1944, with the monsoon upon them, Chinese troops crossed the Salween in force at two places north of Teng-chung and made two lesser thrusts across the river opposite Pingka. The Japanese had been in possession of some of the area for more than two years and had skilfully taken advantage of the terrain to develop strong defensive positions dominating every avenue of approach. Although they were numerically inferior to the Chinese and were completely without air support, they were deployed so as to exact the heaviest possible casualties among the attackers. Moreover, they possessed superior lines of supply. On the other hand, the Chinese were short of artillery and, with an unbridged river at their backs, had to depend on mules and coolies to bring up supplies after they had been brought across the stream.

Reduction of each strongpoint was dependent upon heavy air attack, and by the end of May none of the major objectives had been taken. The recently arrived 27th Troop Carrier Squadron was attached to the 69th Wing for air dropping, but advanced Chinese troops continued to run short of food and ammunition. Numerous bombing and strafing missions to enemy staging areas and supply dumps were successfully carried out, and the 308th's heavy bombers were called on to add weight to the bombing of rearward supply lines, but the small Japanese forces held on tenaciously. By the end of June, Teng-chung, Lung-ling, Mang-shih, and Pingka were still in enemy hands. The campaign continued throughout the summer, and when Myitkyina finally fell to the

* See above, pp. 515-16.

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Chinese-Americans from northern Burma in August the Salween drive was still stalled.⁴⁷

As early as February 1944, the possibility of a Japanese offensive to capture the Chinese-held link on the Peiping-Hankow railroad between the Yellow River and Sinyang was apparent to both the Chinese and the Americans. Reports on enemy strength, deployment, facilities, and equipment north of the Yellow River were conflicting, but early in March it was determined that additional enemy troops were moving into the Sinsiang-Mang-shan area north of the river and others were being concentrated along the Peiping railway. Some sixty fighter aircraft were reported at Tientsin at about the same time. Further evidence of the seriousness of enemy preparations came in reports that the Yellow River bridge above Cheng-hsien was almost completed and construction of two additional bridges in the same vicinity was well under way. By the end of March a strong force had gathered around Sinsiang, Kai-feng, and Yang-cheng, with modern artillery, tanks, and other mechanized equipment not ordinarily seen in China.

Chennault appealed to Stilwell on 8 April for additional supplies, but was told that the crisis in Assam caused by the Japanese invasion of India in the Imphal area precluded any increase at that time.⁴⁸ Nevertheless in spite of the growing threat of Japanese air power at Hankow and Canton, Chennault prepared to put into operation a plan which had originally been drawn up in early March for combatting the enemy move in the north. This plan involved moving four fighter squadrons and one medium squadron of the CACW to Chinese Air Force (CAF) bases at Liang-shan, En-shih, Nan-cheng, An-kang, and Sian, where they would operate with two fighter squadrons of the CAF. They were to defend Chinese cities and airdromes within range of enemy aircraft; attack key rail junctions, enemy airfields, and traffic on the Yellow and Yangtze rivers; destroy the railroad from Hankow north to Sinyang; and knock out the Yellow River bridges. Further, they were to interdict Hankow railway yards and give support to Chinese ground forces when possible. The squadrons were to be at their bases ready to attack a few days before the enemy drive started.⁴⁹

Since Chinese Air Force bases were inadequately equipped, some improvements had to be made, but when the squadrons finally arrived they found operating conditions bad. Heavy rains and lack of air transportation delayed the transfer of squadrons to the north, and for some unexplained reason Chinese intelligence failed to give notice of the

imminence of the attack. Chennault had estimated that it would commence about 1 May 1944, but skirmishing began on 17 April and large-scale river crossings were accomplished on the 19th. The CACW squadrons were not yet ready for action, and the offensive got well under way without interference from the air. Thus a fine opportunity to strike before the enemy could disperse was lost. Greatly disturbed by developments in the north, Chennault flew to Chungking on 22 April for a conference, but found the primary interest there centered on the impending Salween offensive.

Finding that he could not draw on his resources in Yunnan, he hurriedly ordered Liberators of the 308th and the few Mustangs of the 23d Group to Chengtu for a try at knocking out the Yellow River bridges. On 25 April, after having failed in an attempt to bomb Sinyang on the way to Chengtu bases, twenty-seven Liberators, led by Lt. Col. James C. Averill and escorted by ten Mustangs under Col. "Tex" Hill, struck at the rail and highway bridges north of Cheng-hsien, a vital rail junction recently fallen to the enemy. Bombing from high altitude in deference to heavy antiaircraft defenses, the B-24's caused slight damage to both bridges, so slight that the Japanese could repair them with ease. The next day twenty-four Liberators escorted by ten P-51's, and also accompanied by twelve of the first P-47's (Thunderbolts) to appear in China, attempted to bomb the other bridge northeast of Chungmow. The entire flight was forced to return to base because of bad weather. After this abortive mission the Liberators and Mustangs returned to their home bases, and the Thunderbolts retired to Chengtu. By this time the CACW was almost ready to take over.⁵⁰

The task force selected for this first important CACW project was composed of the 2d Bombardment Squadron (M) and the four squadrons of the 3d Fighter Group. The wing's commander, Col. Winslow C. Morse, headed the force, with Col. T. Alan Bennett in command of the fighter group. At the main base at Liang-shan were stationed the medium squadron and the 7th and 8th Fighter Squadrons. The 32d Fighter Squadron was sent to Nan-cheng and the 28th to En-shih. The CAF squadrons were to be based at An-kang and Nan-cheng, and Sian was to be used as an advanced base.

Meanwhile, the Japanese forces in the north, spearheaded by light and medium tanks and aided by dive bombers and fighters, moved rapidly, fanning out over a broad area from several distribution points. Where mechanized columns were unable to move, cavalry units were

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active. At the same time a northward advance began from Sinyang. Except in a few well-fortified localities, the Chinese offered practically no resistance to either the northern or southern drive. Nor were the CACW units permitted to operate without interference after their arrival. On 30 April and 1 May, before the fighter squadrons had arrived, the B-25's had to desert their Liang-shan base and fly to a rearward base to avoid bombing attacks. An attempted Mitchell mission to Sinsiang on 30 April was abortive, but on 3 May the B-25's scored eleven direct hits on the Yellow River bridges which the 308th had recently damaged. On the way home they and their escorts dropped down to strafe columns along a road to Lo-yang and caught the Japanese completely by surprise. Obviously enemy ground forces had felt secure from air attacks, for they had taken no precautions. For the next few days strafing missions by the fighters and the B-25's played havoc with similar columns, until finally the Japanese became more careful. They dispersed and camouflaged, and when strafing planes came over they met them with heavy fire from small arms. Newly equipped with rocket launchers before the month ended, the strafers attacked and destroyed more imposing targets. Throughout May there was occasional opposition from enemy aircraft, but in aerial combat the CACW pilots held their own with the Japanese. Night bombings of CACW airfields were frequent, but En-shih was so located that the 28th Squadron there was generally able to intercept bombers heading for the CACW bases during daylight hours. Perhaps the most successful offensive action of the month was an unopposed B-25 attack on the Sinyang rail yards and supply area. Both the bombers and their escort were able to strafe at will after the bomb run, bringing severe damage to enemy installations.⁵¹

By June 1944 the Japanese had closed the rail link from Sinyang north to the Yellow River and were rapidly rebuilding the tracks. At the same time, they were consolidating their positions between the rivers, but they showed no signs of extending their corridor to the west. Tanks, armored cars, and trucks were less in evidence. The CACW task force, whose mission originally was scheduled to last one month, continued its operations into June and, as it turned out, never moved back south. Having failed to prevent occupation of the rail corridor, the squadrons now harassed the enemy in the newly occupied area. Japanese activity to the south, however, soon diverted their attention to the Yangtze sector, and a Chinese campaign directed at I-chang

required a concentration of effort on that battleground as well as on the river approaches to the east. Acquitting themselves well in aerial combat with enemy planes, the CACW fighters suffered heavy losses on the ground from enemy bombings and operational mishaps. Consequently, the four squadrons on many occasions practically merged for combat operations. The B-25's suffered the loss of one plane in a taxiing accident and four more which flew into a fogged-up mountainside. In June a detachment of eight P-51's from the 26th Squadron arrived to fly missions in the area. Their first mission was their most successful one. Striking at railroads, and rolling stock more especially, they reported destruction of twenty-two locomotives on their first sweep. The Mustangs remained at Liang-shan until the end of the month, when the Honan campaign could be said to have ended.⁵²

The Chinese effort at I-chang was perhaps as much a diversionary action as anything else, for it had neither the ground strength nor air support to give it a chance of success. CACW fighters, aided by CAF craft, served as artillery, but bad liaison frequently led to mistakes in targets bombed and to failure by the ground forces to attack on the heels of an air attack for which they had asked. Enemy aircraft were met regularly in this small campaign, and here the CAF gave no help to the CACW. Their pilots had been ordered to give support to the ground forces but not to engage in combat with enemy aircraft, and while they flew missions with the CACW they invariably fled at the first sight of Japanese planes. I-chang was never seriously threatened, and apparently the attacks had no effect on enemy plans for a major campaign against the Changsha-Kweilin railway zone to the east.⁵³

The CACW in itself, of course, could not have saved the railway above Sinyang. But this inexperienced task force had caused the enemy to slow down the advance and to restrict his ground movements toward the west, thereby perhaps preventing the occupation of a wide corridor which would have secured the railway from too frequent Allied air attacks after it was rebuilt. The force had also destroyed much enemy materiel and had caused many casualties to ground troops. It had been proved too that Chinese pilots, trained by Americans and operating under their supervision, were probably the equal of the current crop of Japanese pilots. In the months that followed, CACW pilots would give enemy transportation many heavy blows, and thus reduce the effect of the defeat in the campaign by denying the Japanese full use of their objective after it was won.

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Meanwhile, on 26 May 1944, what proved to be the major phase of the Japanese summer offensive began with enemy columns moving south from the Yangtze at points extending from I-chang eastward to Wu-hu. In contrast with earlier thrusts at limited objectives in this region, this was a general offensive by a force exceeding by at least a hundred thousand any other offensive force the Japanese had employed in China. The very magnitude of the advance seemed to confuse the Chinese. They guessed that the focal point of the attack would be Changsha, where terrain would favor the defenders, but they could not commit themselves to a definite plan until enemy intentions were more clearly revealed. When it was seen that Changsha was actually in the line of the main drive, it was too late to set the defense firmly.

Moving southward in at least six distinct lines of attack the Japanese refused to pile up before fixed points of resistance, by-passing each prepared position of the Chinese and leaving only enough strength behind to contain the defending garrisons. They used almost every conceivable means of transportation in their advance, and their speed and tactics tended to throw the defenders into a panic. Within a few days the various penetrations had consolidated into three main drives, one directly southward from Yochow toward Changsha, and one on each side, directed at points south of Changsha on the Hsiang River.

As the summer approached, it was all too evident that a crucial battle was at hand, a battle upon whose outcome hung the future of air operations in east China.

SECTION V

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PACIFIC JUNCTION

CHAPTER 17

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THE ADMIRALTIES

WHEN the Combined Chiefs of Staff assembled at Cairo in the SEXTANT conference of November and December 1943, the question of the strategy to be pursued in the Pacific remained a subject of debate. It had been agreed that unremitting pressure should be exerted upon the Japanese from all sides, subject to the means available in the several theaters, and thus authorization had been given both for the continuance of MacArthur's drive along the coast of New Guinea and for Nimitz' thrust across the Central Pacific.* As the CCS convened, Southwest forces already had seized the Huon Gulf and stood poised for an early invasion of Cape Gloucester and the occupation of Saidor. Admiral Halsey's South Pacific forces were on Bougainville, and in the Central Pacific, Nimitz had advanced to the Gilberts on the way to the Marshalls. The general plan called next for CENPAC to move against the Carolines while SOPAC took Kavieng in coordination with MacArthur's seizure of Hansa Bay in New Guinea and of the Admiralty Islands to complete the isolation of Rabaul by late April. Beyond that date tentative schedules for further operations both as to objectives and timing depended upon some clarification of the over-all strategy.

In preparation for SEXTANT the Joint Staff Planners had in effect recommended the continuation through 1944 of the policy of implementing simultaneous drives from the Southwest and Central Pacific Areas. Following RENO III closely, the JPS foresaw an advance in SWPA to the Vogelkop by early fall and the establishment of air bases in the Halmaheras and on Amboina by the close of 1944. This schedule would bring SWPA forces into the southern Philippines early in 1945.

* See above, pp. 135, 193-95.

Meanwhile, in the Central Pacific, Ponape should be seized on or about 1 May 1944, Truk in July, the Marianas in October, and the Palaus by the close of the year. The proposals called for intensification of operations in CBI, and during JCS discussion General Arnold had added the initiation of VLR bombing of the Japanese homeland from Chinese bases for 1 May 1944 and from the Marianas by the close of that year. He agreed also to a clause calling for VLR bombardment from the SWPA against NEI oil resources, effective on 20 July 1944, but made the reservation that this should be for planning purposes only. Strategic bombardment of the enemy's home islands should have priority in the use of the B-29. At Admiral King's suggestion, the Palaus were deleted from the objectives specified for CENPAC.¹

The decisions reached at SEXTANT authorized operations for the capture of the Japanese-mandated islands, these operations to progress concurrently with an advance along the New Guinea-NEI-Philippines axis. The two campaigns were considered as mutually supporting, but it was also felt "that operations in the Central Pacific promise at this time a more rapid advance toward Japan and her vital lines of communication; the earlier acquisition of strategic air bases closer to the Japanese homeland; and, of greatest importance, are more likely to precipitate a decisive engagement with the Japanese fleet." The immediate aim of the two converging offensives was the acquisition of bases which would permit a major assault in the Formosa-China coast-Luzon area ahead of the typhoon season in the spring of 1945. Operations in the North Pacific, South Pacific, China, and southeastern Asia would be conducted in general support of the main Pacific campaigns.² The schedule of operations indicated for 1944 followed closely that already agreed upon by the U.S. Joint Chiefs.³

Further Debate over Objectives

Of necessity all decisions on the scheduling of operations, and even on the objectives themselves, were tentative. As the Joint Logistics Committee soon pointed out, it was highly doubtful that all of the objectives scheduled for 1944 could be achieved unless it be assumed that a defeat of Germany by 1 July might release the shipping and forces required.⁴ Moreover, plans for the Central Pacific rested as yet upon very inadequate intelligence as to the enemy's strength, particularly in the Mandates. It was assumed that Truk, near the center of the Carolines, was a strongly fortified fleet base, but exact information was lack-

ing. There remained also problems of coordination among the several commands that would affect the order and timing of all operations.

On 13 January 1944, Admiral Nimitz published for the Central Pacific a basic plan of operations, which received the code name GRANITE. Though intended to serve only as the basis for further discussion and for the build-up of forces, GRANITE proposed the following operations after capture of the Marshalls: HAILSTONE, a carrier raid on Truk, designed both to support SWPA-SOPAC invasions of the Admiralties and Kavieng and to feel out Japanese strength, about 24 March; CATCHPOLE, capture of Eniwetok and Ujelang Atolls in the western Marshalls, 1 May; GYMKHANA-ROADMAKER, capture of Mortlock and Truk in the Carolines, 1 August; FORAGER, capture of the Marianas, 1 November 1944. If it was found that Truk could be by-passed, the plan substituted STALEMATE, capture of the Palaus for 1 August.⁵ And having laid down this tentative schedule, Nimitz went into conference with representatives of MacArthur and Halsey at Pearl Harbor late in January 1944. SWPA was represented by Sutherland, Maj. Gen. Stephen J. Chamberlin, and Kenney; SOPAC by Rear Adm. Robert B. Carney (Halsey being grounded in the United States); and POA by Nimitz, his staff, and Lt. Gen. Robert C. Richardson, Jr., commander of Army forces in the Central Pacific.⁶

In opening the conference, Nimitz advanced the proposition that Japan could be defeated only with the aid of bases in China and indicated that his own purpose was to move the fleet as rapidly as possible to bases on the China coast. Although apprehensive about Truk, he expected the carriers to dislodge the Japanese fleet units there and drive them back to waters west of the Philippines. It was his feeling, at the moment, that it would be necessary to reoccupy the Philippines as a preliminary to some landing on the China coast. General Sutherland, speaking for MacArthur, presented again the arguments for RENO and found support from Richardson, who urged that SWPA forces were nearing a point where they could unhinge the Japanese defenses in the Central Pacific without a fight. Richardson believed that, after the completion of the Gilberts and Marshalls engagements, remaining enemy strength in the Carolines and Marianas could be contained by carrier raids while a concentrated drive was executed on the SWPA front. This suggestion that Truk and the Marianas could be by-passed received support from other representatives of CENPAC; indeed,

Nimitz soon thereafter found it necessary to remind his subordinates that the decisions reached at SEXTANT were still binding.⁷ The general consensus seemed to point to the following strategy for 1944: completion of the Marshalls campaign, including the capture of Eniwetok, together with the Kavieng and Admiralty operations for the isolation of Rabaul, these to be followed by an advance of CENPAC forces to the Palaus, Truk being by-passed, and by concentration on the SWPA drive up the New Guinea coast.⁸

Having been called on for up-to-date information regarding his plans for the Hansa Bay and Kavieng operations and for advice on the disposition of South Pacific forces and bases after Kavieng, MacArthur on 2 February urged that all SOPAC forces be assigned to SWPA and asked for Halsey as commander of his fleet units. Even with all SWPA-SOPAC resources, the movement into Geelvink Bay and the Vogelkop would not be possible before 1 October 1944, making re-entry into the Philippines impossible before March 1945. Arguing that all B-29's should be employed from SWPA bases and that the Marianas possessed no strategic value, he charged the Washington planners with having set up for 1944 two weak thrusts by divided forces that could serve only to delay by some six months his own return to the Philippines. For the further elaboration of these views, he was sending Sutherland to Washington.⁹

When Sutherland appeared before the JCS on 8 February, Rear Adm. Forrest P. Sherman, Nimitz' chief planner, was also present. Referring to the recent conference at Pearl Harbor, Sutherland began by indicating that both Nimitz and MacArthur concurred upon the necessity of seizing a naval base on the coast of China. Both agreed that the Philippines would have to be retaken. Sutherland speculated that after HAILSTONE the Japanese fleet would abandon Truk, thus obviating the need for its capture, and so would leave the way clear for a concentrated attack, mounted with the aid of a fleet base in the Admiralties, along the New Guinea-Mindanao axis. The timetable in RENO III could be accelerated enough to put American forces into Mindanao by 1 December 1944. After the invasion of Mindanao, SWPA forces would move on through the islands to Luzon, and thence to the China coast. Sutherland insisted, even though closely questioned, that Nimitz and MacArthur could operate together without friction and with neither in command of the other. Admiral King pointed out that Nimitz' strategy was aimed directly at Luzon, and Leahy sug-

gested that a long campaign in the Philippines would delay movement to the China coast. Sherman, in discussing the GRANITE plan, emphasized that it envisaged an attack on Luzon in early 1945. By June 1944 the speed of the SWPA advance along the New Guinea coast would be sufficiently clear to determine whether POA forces should invade the Marianas or the Palaus first. Truk would be by-passed if possible; but if it were to be by-passed, Nimitz would require an augmented Seventh Air Force to bomb it from the northeast and the Thirteenth Air Force to strike it from the south, obviously (although he did not say so) from bases in the Admiralties. Sutherland quickly rejoined that his own arguments were strengthened by Sherman's statement that future movements of Central Pacific forces depended upon the speed of advance along the New Guinea axis.¹⁰

After this meeting, King, obviously rankled by MacArthur's message of 2 February, indicated quite tartly in a memo for Marshall that MacArthur should have presented his plans instead of continuing to question the CCS strategy. He considered MacArthur overly optimistic concerning his rate of advance up the New Guinea coast, an area both unhealthy and heavily garrisoned by the Japanese. As for the Marianas, either Truk would have to be taken or else at least a part of the southern Marianas would have to be seized to isolate Truk from the north. This decision, however, must await the exploratory raids. To Marshall, the JCS discussion had indicated that both Nimitz and MacArthur were planning to use SOPAC forces. He observed a general agreement that the strategic objective was the coast of China, and he personally thought that Luzon would have to be the steppingstone in that direction.¹¹

The JSSC studied these conflicting opinions and submitted another report on 16 February. After review of RENO III and GRANITE, the committee was still of the opinion that the major effort in the Pacific should be a thrust across the Central Pacific aimed at the seizure of Formosa. The committee noted the importance attached by SWPA to Mindanao, but it felt that SWPA's route of advance lay in the area of heaviest opposition from Japanese ground troops. The POA scheme of maneuver, on the contrary, proposed fewer and longer moves, took advantage of superior American naval power, promised capture of the Marianas for B-29 bases, effectively cut Japanese lines of communications, and offered the possibility of a decisive fleet engagement at an early date. The committee recommended that the JCS clarify the

SEXTANT decisions to provide first priority for POA attacks. As to specific objectives, the committee recommended the seizure of the Admiralties as planned, capture of either the Marianas or the Carolines according to later estimates of Japanese strength at Truk, capture of the Palaus, and an advance to Formosa, either direct or via Luzon. Mindanao would be seized as an intermediate objective in case a direct attack on Formosa or Luzon proved impracticable. SWPA accordingly, though relegated to a position of secondary importance, should progress along the New Guinea-Mindanao axis.¹²

This report, written for the most part by Vice Adm. Russell Willson, in Sutherland's opinion presented no more than "a biased argument to support a predetermined decision" and disregarded "the views of both responsible commanders in the Pacific."¹³ The discussion by now had waxed warm, and General Sutherland is reported to have used even stronger language in informal conversations with OPD representatives.¹⁴ By way of rebuttal, Lt. Gen. Stanley D. Embick, Army representative on the JSSC, asserted that operations through the Central Pacific offered the greatest chance of quick success. Admittedly, he was not fully convinced that long jumps such as those from Guam to Formosa or Luzon would be possible, but future developments might make them so; and it would be well to proceed in such a direction, maintaining a high degree of flexibility, and with the JCS, in effect, functioning in the over-all command.¹⁵

Marshall was in no hurry to commit himself until he had more information about Truk, but this information was speedily forthcoming. The Pacific Fleet's carriers, covering landings at Eniwetok, raided Truk on 16-17 February 1944, Jaluit on the 20th, and the Marianas on the 22d. These strikes caused the Japanese fleet to flee Truk and demonstrated that the base was not invulnerable; they also demonstrated once again that Japanese land-based aviation on the Pacific islands was no longer strong enough to prevent effective operations by the greatly superior carrier forces that the United States could now bring against the enemy. King promptly urged the JCS to direct immediate preparations for the capture of the Carolines. He proposed to transfer the First Marine Division, committed to Kavieng, to Nimitz and recommended that the entire Thirteenth Air Force be given to Nimitz for employment against Truk from Admiralties bases. Marshall, with Arnold concurring, was still not ready to accord blanket approval to the JSSC strategy but, instead, pointed out that the committee had

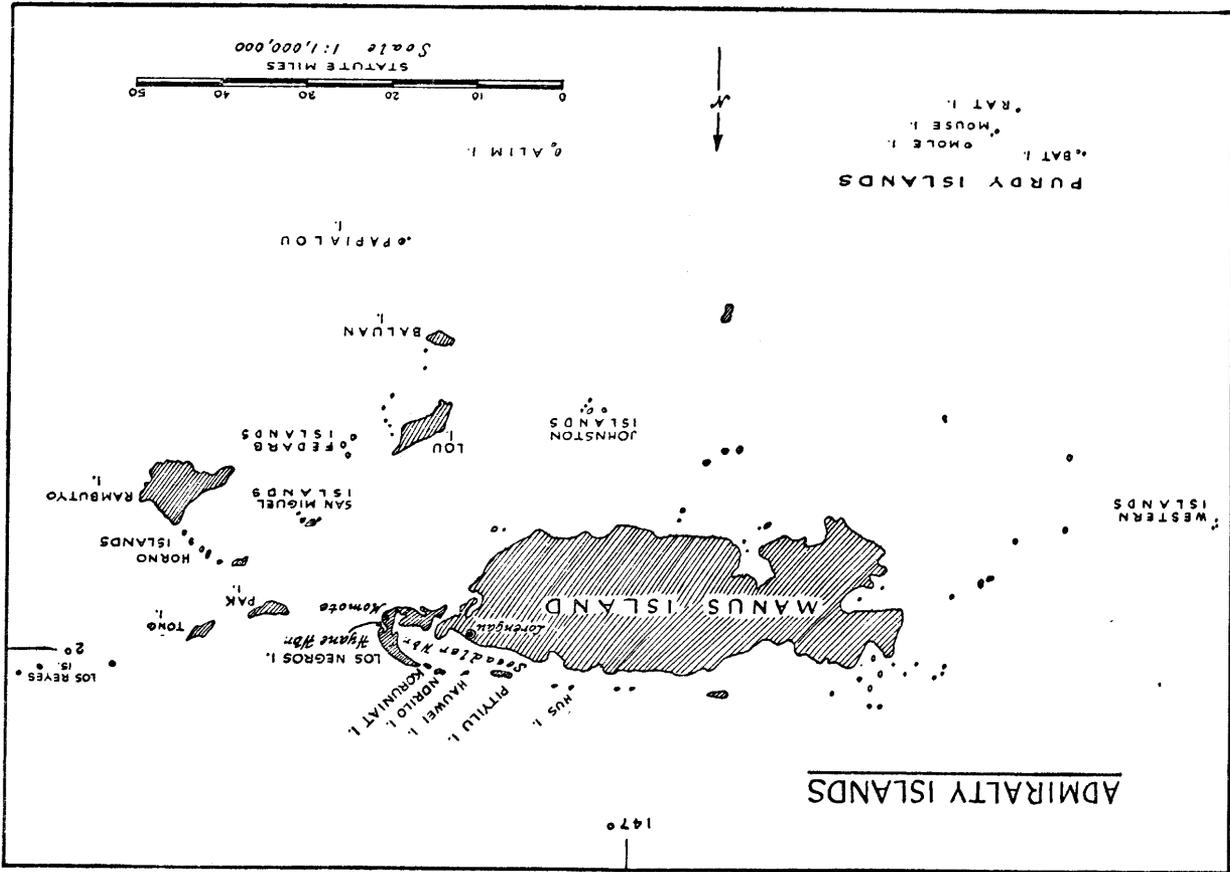
not discussed any allocation of means between POA and SWPA, had not properly considered employment of land-based air, had not indicated any timing of interrelated operations, and had not indicated the degree to which POA operations (especially the long movement from the Marianas or Palaus to Luzon or Formosa) would depend upon SWPA operations.¹⁶ Sutherland, still on temporary duty in Washington, found encouragement in this support but there were reasons also for his continued apprehension. He soon received encouraging news from the theater.

Los Negros-Manus

The competing strategies of the Central and Southwest Pacific posed a critical question as to the disposal of available forces, among them the Thirteenth Air Force. General MacArthur, receiving frequent reports from Sutherland as to the progress of discussions in Washington, could not fail to recognize that a major advantage enjoyed by the proponents of the Central Pacific strategy was the promise of the time to be saved by a direct thrust into the inner defenses of the Japanese empire. The risk, from the point of view of Brisbane, was that this promise might tip the scale against the proposals of SWPA in such a way as to enforce a slowing down of its own schedule, with further disadvantage to the theater's claim on additional resources. MacArthur was thus in a receptive frame of mind when on 23 February, he received proposals from Kenney for an earlier move into the Admiralties that might speed up the whole schedule of planned operations along New Guinea.

The Admiralties had been scheduled at SEXTANT for occupation on or about 20 April, following by a month the seizure of Kavieng and, in turn, to be followed by a landing at Hollandia in Netherlands New Guinea on 1 June. Named in honor of the British Admiralty, settled by the Germans in 1884, occupied by the Australians in 1914, and mandated to Australia in 1921, the Admiralty Islands had been held by the Japanese since January 1942. During 1943 the enemy had improved Lorengau airfield on Manus, largest of the islands, and had developed for staging purposes en route to the Bismarcks and New Guinea another field at Momote on Los Negros. Defensive preparations had been stepped up in January 1944 under direction of the Eighth Area Army's headquarters at Rabaul.¹⁷

Manus is separated from Los Negros, next of the islands in size, by no more than a narrow, creeklike strait. Los Negros, with its horseshoe



curve from the eastward end of Manus, incloses the natural Seeadler Harbor, which finds further protection in a string of small islands running parallel to the northern shore of Manus. The harbor itself, approximately six miles wide and some twenty in length, affords anchorage for large vessels and had been considered as an alternative to Rabaul for use by the American fleet. Warning Instruction 3, issued by GHQ SWPA on 23 November 1943 in connection with plans for the reduction of the Bismarck Archipelago, had directed ALAMO Force to prepare for seizure of Seeadler Harbor and the establishment of "an airdrome and light naval facilities for the support of subsequent operations along the north coast of New Guinea."¹⁸ A conference with Admiral Halsey and his staff early in January set a new target date, bracketed with that for Kavieng, at 1 April.¹⁹

Elaborate plans for air support to be supplied chiefly from Nadzab and Dobodura proved in the event unnecessary. The carrier attacks of 17 and 18 February on Truk, continuing SOPAC attacks on Rabaul, and Fifth Air Force missions against Kavieng quieted enemy air in those areas, while, for some reason, the Japanese did not throw in their New Guinea-based planes. The continuing attacks on the Wewak group of airdromes was of no small help in keeping the Japanese pinned down. A coordinated attack on 3 February by fifty-eight B-24's, forty B-25's, and escorting P-40's, P-38's, and P-47's had destroyed an estimated eighty planes in aerial combat and on the ground. A new crisscross technique was worked out in which the heavy bombers would render all but one of the Wewak runways unserviceable, forcing the enemy planes to land for refueling on the serviceable runway only to have a low-level strafing attack hit them as they were refueling. This technique was used to knock out all the Wewak fields, and the attacks there were followed by low-level attacks on the Tadjip strip at Aitape. Between occasional heavy and medium attacks during February and March, fighter sweeps over Wewak kept the Japanese air strength cut down. Two of the Fifth Air Force's leading fighter aces, Col. Neel E. Kearby with twenty-two kills and Lt. Col. Thomas J. Lynch with twenty, were lost on 4 March and 8 March, respectively, over the Wewak area. This was a sore loss, not only of excellent fighter pilots but also because both men were developing into outstanding unit commanders.²⁰

While the BREWER Task Force, its combat elements representing chiefly the 1st Cavalry Division under Maj. Gen. Innis P. Swift, pre-

pared for the landing, the Fifth Air Force undertook to complete a much-needed photographic coverage of the islands. Efforts of the 8th Photo Reconnaissance Squadron were blocked by weather in early January, but on 22 January two F-5's (photo P-38's) photographed Lorengau and Momote, where they found a good deal of activity. On that same day eleven of the 345th Group's B-25's, escorted by P-38's, bombed and strafed shipping in the harbor to open the pre-invasion air attacks.²¹ The 345th put thirty-eight more Mitchells over the Admiralties two days later in a low-level bombing and strafing mission which resulted in claims that eight or nine fighters—incidentally, the last enemy planes reported on Admiralty airfields—had been destroyed or damaged at Momote in addition to other destruction done to shipping and an ammunition dump. The 38th Group joined the 345th on 25 January to send out sixty-four planes. Two of the Mitchells were lost to more accurate anti-aircraft fire than had met the previous missions, and a third plane had to make a water landing south of Manus.²²

Forty-one Liberators from seven squadrons of the 90th and 43d Groups hit Momote airfield and its dumps with 500- and 1,000-pounders on 26 January. Forty-two B-24's followed up on Lorengau airfield and the town on 27 January. Both airfields were left temporarily unserviceable. Reconnaissance on 29 January revealed the airdromes to be still unserviceable with no effort being made to repair them. Bad weather turned back another heavy mission sent out on 1 February. Again on 6 February, the weather diverted the 90th Group's B-24's to Madang; but twenty-four planes of the 43d Group, accompanied by twenty-four P-38's, flew through the front to find good weather over Los Negros. There was neither aerial opposition nor anti-aircraft fire on this or subsequent missions. This caused much speculation at the time. A document captured after the landing revealed that Col. Yoshio Ezaki, local commander, had prohibited all firing at Allied planes and had allowed no movement in the open until after 1700. His intention apparently was to give the impression that the Admiralty defense forces had evacuated. To some extent he succeeded.²³

Weather and other operations kept Allied planes away from the Admiralties until 13 February, when the two medium groups were sent over Momote at medium altitude. This type of mission being unusual for the low-level specialists of the 38th and 345th Groups, they were especially pleased with the accuracy of their bombing, the 38th

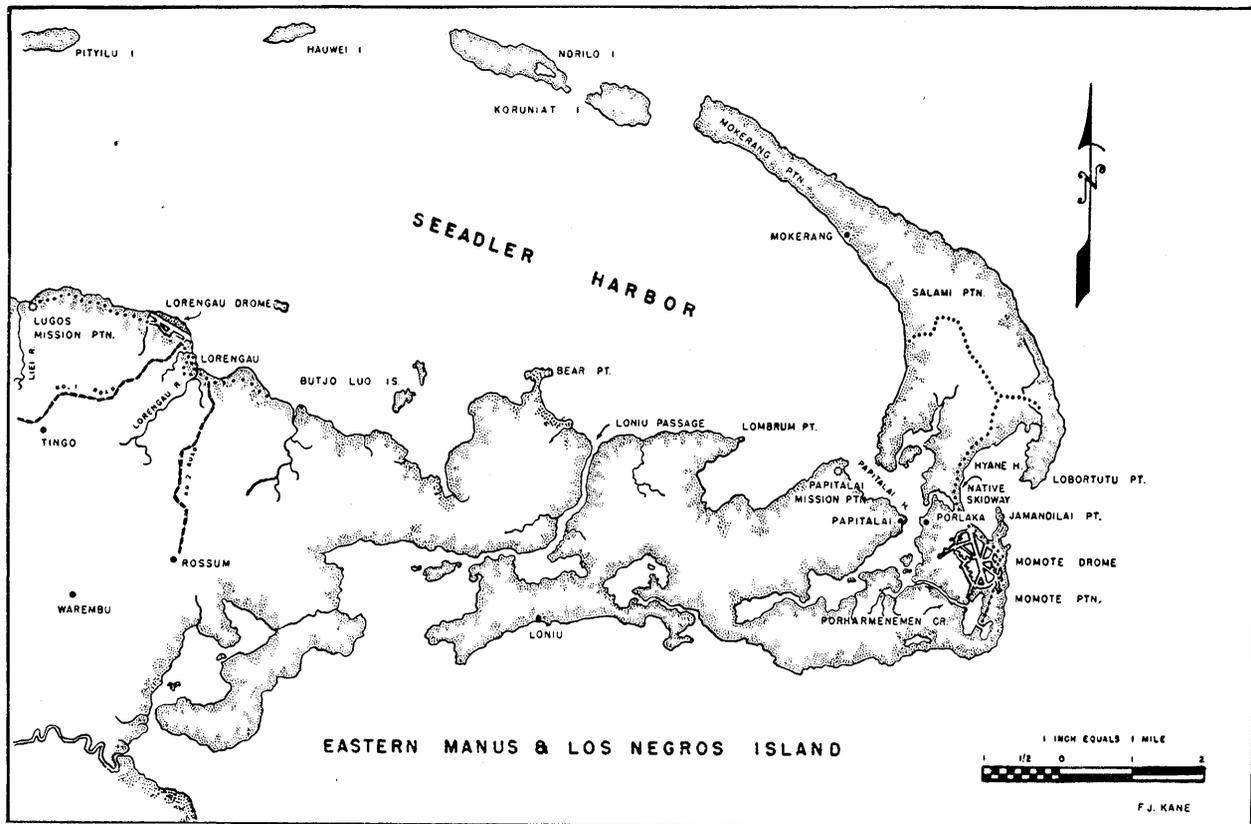
Group reporting 95 per cent hits in the target area. On 14 February, both groups flew a repeat mission over Momote. Weather again helped the Japanese on 22 February, when both heavies and mediums were diverted—the Liberators to Madang, and the Mitchells to Rein Bay in New Britain. Only three B-24's, out of a total of twenty-four heavies and twenty-seven mediums dispatched, reached the Admiralties on 24 February; on 25 February, nine Mitchells of the 405th Squadron reached the target. Since 22 January, 112 Liberator sorties and 288 B-25 sorties had dropped 650 tons of bombs on the Admiralties, mostly on Momote airfield and its installations. Bivouac areas and dumps at Lorengau as well as small shipping in the harbors had also been hit.²⁴

An initial conference on 19 February among representatives of the ALAMO Force, the BREWER Task Force, ADVON Fifth Air Force, and the Seventh Amphibious Force to settle questions of coordination among air, ground, and naval units adjourned to meet again on 25 February. But by that time the agenda had been drastically revised. Since 6 February, mission reports for operations over the Admiralties had shown no Japanese reaction, and on 23 February three B-25's of the 17th Reconnaissance Squadron, sent out for a further check, cruised over Manus and Los Negros for ninety minutes at minimum altitude without having a shot fired at them or seeing any signs of activity either on the airdromes or along the beaches. General Whitehead, who had previously suggested to Kenney that a target date of 15 February for the Admiralties and Kavieng would give him more time against Wewak and Hollandia in preparation for the Hansa Bay landing scheduled for 1 April,²⁵ immediately forwarded a special report of this reconnaissance mission to his chief at Brisbane.²⁶

General Kenney then suggested and "sold" the idea of an immediate reconnaissance in force of the Momote airdrome area instead of the planned seizure of Seadler Harbor. The conferees meeting at ALAMO Force headquarters on 25 February worked out a plan which MacArthur approved on 26 February.²⁷

Kenney had written Whitehead on the 24th:

The plan is that about the 28th or 29th February six destroyers, accompanied by three APD's and carrying the equivalent of a battalion of 1st Cavalry with a battery of mountain artillery and a battery of fifty caliber ackack machine guns, will make a reconnaissance in force of the Momote airdrome area. The destroyers will open fire on possible shore installations and if they draw no return fire will land troops to take over the Momote area. Two minesweepers will leave Finschhafen the afternoon before, timing their arrival at Hyane Harbour with



that of the raiding force. As soon as they have swept the harbour entrance clear, the destroyers are to steam in and discharge their cargoes and probably remain there the day.

You will have to provide a flight of fighters over the minesweepers during the afternoon preceding the landing at Manus [Los Negros], and I have told the Navy that the landing should not be made before 8:15 in order that we have a chance to deluge any possible opposition around Momote and Hyane Harbour by attacks with the heavies and straffers. I do not believe there is much possibility of any Jap air opposition to the show but you had better use P-38's to afford fighter cover for the landing operation and during at least the morning the raid takes place. To further insure the safety of the landing, I would clean out any gun positions that may be located in the Momote area, and in addition comb over the four Wewak dromes with straffers the afternoon before and the morning of the landing operations on Manus [Los Negros].

With their regular equipment the troops will carry some shovels to fill up enough holes on Momote strip so that our transports can land there. As soon as this is possible, we will fly up some airborne engineers to put the strip in shape for transport operations for the purpose of bringing in supplies or reinforcing troops in an emergency. This probably will not be necessary as the Navy seems willing to consider the Bismarck Sea our own private lake and Admiral Kinkaid is perfectly willing to send APD's or destroyers from Finschhafen to Manus [Los Negros] at any time after the Hyane Harbour is cleared out by the minesweepers.

Following the landing of this cavalry expedition a CB battalion has been ordered to get ready for movement into Momote about March 3d. They will take over construction of the strip in order for us to base two or three squadrons of fighters there.

Better get in touch with the RAAF and warn them that they may have to move in soon after that date.²⁸

This sudden change in plan, with a target date no later than 29 February, gave little time for preparation. Fortunately, the Fifth Air Force already had started on scheduled pre-invasion operations, and for 29 February Whitehead was able to allot his entire bomber force to the Admiralties as needed. Fortunately, also, the planning by ALAMO Force was well along, with full participation by General Swift and his staff of the 1st Cavalry Division.

GHQ had recommended limiting the initial assault echelon to 800 men and had specified the units. Field Order 2 of the BREWER Task Force kept to the designated units, but the total force was slightly more than 1,000. It included the three rifle troops and the heavy weapons troop of the 2d Squadron, 5th Cavalry; a platoon from Battery B, 99th Field Artillery Battalion, carrying two 75-mm. pack howitzers and four .50-cal. machine guns; the 673d Antiaircraft Machine Gun Battery with twelve .50-cal. machine guns; a communications platoon and a reconnaissance platoon from Headquarters Troop, 1st Cavalry Bri-

gade; air and naval fire-control parties; the 30th Portable Surgical Hospital; and an Australia–New Guinea administrative detachment to handle native administration.²⁹

The landing point was changed to a beach, designated White Beach, near the jetties in the lee of Jamandilai Point within Hyane Harbor on the eastern side of Los Negros Island. It was about 200 yards from White Beach to the edge of Momote airfield. Hyane Harbor was protected by gun emplacements on opposite points of land approximately one mile apart with excellent fields of fire on the 50-foot-wide passage through the barrier reef. The Japanese had apparently built their defense around these points and the revetments of Momote airdrome. For the Allies, aerial bombardment and naval shelling was expected to silence the gun positions. White Beach offered an 800-foot beach backed by trees and second-growth jungle thickets. Momote drome, 300 by 5,000 feet, was almost encircled with revetted dispersals. Once these were captured, the area could be held while an advance party crossed a 50-foot-long skidway to clear the Salami and Mokerang plantations on the northern tip of the island. These would provide staging points for the subsequent occupation of Manus. However, to protect the western flank the western tip of Papitalai Harbor would also have to be cleared of the enemy.³⁰

The original naval plan had envisioned diversionary bombardments of southern New Britain, minesweeping, and hydrographic surveys of the harbors and approaches. These were discarded and the naval mission was changed to transporting the troops and supplies, protecting their overwater movement, and furnishing a heavy bombardment to cover the approach and initial debarkation. The general mission of the air forces varied little from the original plan, except that the job was crowded into a three-day bombardment reaching a climax just before the landing. Each of the 345th's four squadrons would be on air alert for successive hours over the invasion area. Three B-25's of the 17th Reconnaissance Squadron would stand by to smoke the landing area if called for. Fighters would supply convoy and beachhead cover. Three RAAF fighter squadrons with their service elements would stand ready to move into Momote at the earliest practicable date. The Fifth Air Force was also prepared to supply the invasion garrison by air dropping as required and to take out enemy fields on New Guinea in advance of the landing.³¹

ALAMO Force had planned under the original instructions to put a

ground reconnaissance party ashore on the western end of Manus Island. This was canceled and a small party of scouts was landed by a Catalina on the southeast coast of Los Negros. The party was set ashore on 27 February under cover of a bombing attack and picked up the next morning, again under cover of an air attack. The party succeeded in eluding the Japanese who had observed the landing; they found a large bivouac area and ample evidence of Japanese activity south of the Momote airstrip. They reported the area as "lousy with Japs." Naval fire support schedules were modified to cover the bivouac area. The landing of the scouts seems also to have diverted the attention of the Japanese from Hyane Harbor. Aerial sightings showed increased activities the day before the landing; though these reports caused some misgivings, the invading force was already under way and the naval forces were prepared to re-embark the troops should the situation become too difficult.³²

Seven squadrons of B-25's and three of B-24's were scheduled to hit Lorengau and Momote on 26 February, but the weather turned bad. Early morning and evening B-24 reconnaissance missions got through, as did two squadrons of B-24's for a bombing attack, but the other planes either hit New Guinea fields or returned to base. On 27 February, four squadrons of Mitchells from the 38th Group were over Momote and Lorengau while the Catalina landed the scouts. Seven squadrons of Liberators hit Boram, Wewak, and Tadjji; simultaneously, a squadron of mediums worked over the Hansa Bay airstrips. A reconnaissance B-24 and two P-38's bombed and strafed Papitalai as the Catalina returned on 28 February to take off the scouts. Shortly after noon, twenty-seven B-25's struck at Momote, Salami Plantation, and Lorengau, with six Liberators of the 65th Squadron following up at Momote. Three squadrons of B-24's and four of A-20's struck the Hansa Bay airfields, and on the night of 28/29 February seven B-24's hit Hollandia. Poor weather had prevented anything like "flattening" operations against the Admiralties, but diversion of the bombing effort to the New Guinea dromes served nevertheless to cut down potential Japanese aerial opposition to the landing.³³

The assault elements began loading at Oro Bay on 27 February, the convoy getting under way at 0645 on the following day. The attack group was composed of three destroyer-transport with immediate escort provided by three other destroyers. A supporting group of six destroyers followed the attack group out at 0819. Off Cape Cretin,

the attack group was joined by the cruisers *Nashville* and *Phoenix* and four more destroyers; General MacArthur and Admiral Kinkaid were aboard the *Phoenix*. The ships arrived ten miles off Los Negros at 0600 on D-day without being challenged.³⁴

H-hour had been set at 0815. The destroyers began their supporting fire at H minus 35, but heavy weather had virtually nullified all efforts to lay on a preliminary bombing by the air force. Seven planes out of three squadrons of the 43d Group's Liberators scheduled to attack had made their bomb runs at H minus 38. Four squadrons of mediums, the 38th Group, had been assigned to bomb and strafe after the B-24's cleared, but no more than two planes of the 823d Squadron and one of the 71st Squadron succeeded in reaching the Admiralties, and these had not been observed when at H minus 20 the naval shelling was scheduled to stop. Consequently, the shelling was continued to H minus 5, when the command ship signaled with star shells for the air attack. The three planes had circled Pak Island for thirty minutes and now bombed the gun positions on the two points flanking Hyane Harbor. As usual, they were fired on by the LCP(R)'s moving in with the assault troops.³⁵ The 345th Group's B-25's having been scheduled for squadron alerts for each of the four hours extending from 0915, the 499th Squadron reached Pak Island only one minute behind schedule and circled until 0942, when the command ship ordered an attack on the area joining Papitalai Harbor on the Seadler side of the island and Hyane Harbor on the eastern coast. As the planes turned back to base after two runs, the pilots saw twelve P-38's coming down through the overcast, heard the 12th Air Liaison Party's station broadcasting from the beach, and saw the 498th Squadron circling over Pak Island. By this time, heavy rain and clouds had lowered the ceiling to zero, with the result that neither the 498th nor the other two B-25 squadrons could be used. Planes of the 17th Reconnaissance Squadron, sent up for smoke-laying, similarly went unused. The 475th Group sent out fifty-seven P-38's for fighter cover, losing four of these to bad weather on the return flights. The P-47's of the 348th Fighter Group found it impossible to get through the weather.³⁶ The Fifth Air Force had made its chief contribution in pointing out the opportunity.

Under cover of naval bombardment and heavy rain, the entire reconnaissance force had been landed by H plus 4 hours 35 minutes.³⁷ By 0950 the Momote airstrip had been occupied, and the patrols began to fan out. The evidence brought in by the patrols indicated a consider-

able Japanese force in the area. The Japanese attacked strongly after dark, but apparently they mistook the outpost line for the main line and the attack was uncoordinated when it reached the perimeter. There were numerous infiltrations even to the command post; and by morning, after the infiltrators had been cleaned up, sixty-six Japanese dead were counted within the perimeter for an American loss of seven dead and fifteen wounded. Back at Cape Cretin, General Swift next day received orders to reinforce the reconnaissance force and to exploit aggressively the success of the initial landing by seizing Seeadler Harbor and by establishing light naval and airdrome facilities.³⁸

But with these reinforcements not due to arrive until the morning of 2 March, the day and night of 1 March were a critical period. Fortunately, the weather turned good and the Fifth Air Force sent up substantial help in the way of supplies and air strikes. Three B-25's of the 38th Group dropped supplies at 0830; a B-17 of the 39th Troop Carrier Squadron, the *Yankee Diddler*, flew two supply missions, strafing on each pass. Four other B-17's of the 375th Troop Carrier Group each dropped three tons of such supplies as blood plasma, ammunition, mortar shells, barbed wire, antipersonnel mines, grenades, and other weapons.³⁹ The four squadrons of the 38th Bombardment Group on successive air alerts over Pak or Lou Islands had been briefed for secondary targets if they were not called by the air liaison party. Targets attacked were Lombrum Point, Papitalai Mission, Lorengau, and the dispersal area west of the airstrip. Ground intelligence indicated that the Japanese were gathering forces in the Lorengau area for a counterattack, and the 43d Group loaded sixteen B-24's with 1,000-pounders which they dropped on the assembly area about noon. While the other medium squadrons of the 345th Group attacked Hansa Bay, the 499th Squadron flew the last mission of the day over the Admiralties to hit the dispersal area near Lorengau with excellent results. The destroyers, called on for assistance from time to time, performed excellently.⁴⁰

During the afternoon of 1 March, a Japanese patrol was discovered within thirty-five yards of the command post. Through the night the enemy continued attempts at infiltration, but the perimeter was held with a total Japanese loss for the two days counted as 147 men. In preparation for the arrival of reinforcements, Jamandilai peninsula was cleared on the morning of 2 March. The remainder of the 5th Cavalry, the 99th Field Artillery Battalion, a machine-gun battery and a gun

battery of antiaircraft, and the 40th Naval Construction Battalion came in about 1000 on 2 March in LST's.⁴¹

Not all the air strikes went off smoothly on 2 March. Failures of communication or misunderstandings by elements of the various squadrons messed up the morning attack of twenty-three Mitchells from the 38th Group. Some planes did not hear the request by GANGWAY (the 12th Air Liaison Party) for an attack on the west side of Momote strips. Only about half of the planes, including the six from the 405th, hit the right target; others hit Lorengau. The afternoon mission by the 345th's Mitchells was jumped by the first Japanese interception effort, but eight P-47's drove off the attackers, claiming eight with four probables out of an estimated fifteen Japanese fighters. The mediums had been briefed to hit the west side of Momote after contacting GANGWAY. Capt. George F. Frederick at GANGWAY, however, changed the target to both sides of Porharmenemen Creek, southwest of Momote. The 498th and 501st Squadrons hit the proper target, but the 500th and 499th dropped part of their bombs east of the strips, across and into the northwest dispersal area—where the ground troops had already moved in. Two of our men had been killed and three wounded before GANGWAY could stop the bombing. A later strike by sixteen A-20's of the 13th and 90th Bombardment Squadrons was well executed along Porharmenemen Creek. Eight P-47's of the 340th Fighter Squadron strafed the coast northeast of Momote, and sixteen P-38's of the 433d Squadron attacked gun positions on Hyane Harbor to complete the day's strikes. The *Yankee Diddler* and two B-17's of the 69th Troop Carrier Squadron flew very satisfactory supply-dropping and strafing missions; the latter two B-17's met four interceptors and entered a claim for one of them. The combat pilots assigned to these supply missions found satisfaction in their low-level strafing passes, which not only helped the ground troops to recover the supplies dropped but also killed quite a few Japanese.⁴²

Immediately after landing, the 40th Seabee Battalion began to build unloading ramps. Assigned a defense sector on the right of the beachhead, the Seabees helped prepare the perimeter defenses and emplace weapons for other sectors. The 1st Squadron was immediately moved up, and the two cavalry squadrons—the 1st and 2d of the 5th Cavalry—mounted an afternoon attack which occupied the airstrip and the dispersal area within an hour. The dispersal revetments offered excellent defensive positions around which the perimeter was organized.⁴³

With an estimated 2,000 Japanese on Los Negros and 2,000 more on Manus, Brig. Gen. William C. Chase, who commanded the 1st Cavalry Brigade Combat Team, urgently requested Krueger, commander of ALAMO Force, to send in the rest of the 1st Brigade by 4 March instead of waiting, as originally planned, until 6 March. Krueger agreed, and also ordered General Swift to proceed immediately to Los Negros and requested Task Force 76 to speed up the movement of the 2d Brigade to that island. The enemy's night attack on 2 March was not heavy, except around the 2d Squadron's sector. Early in the morning a Japanese patrol was wiped out, and orders detailing the plan of a projected attack on the night of 3 March fell into Allied hands.⁴⁴

On 3 March, the scheduled morning attack by the 43d Group's Liberators was diverted by weather to Alexishafen. In the afternoon, nine A-20's of the 13th Squadron and six B-25's of the 499th Squadron reached the Admiralties to bomb and strafe enemy troop areas north of Hyane Harbor. During the day only one enemy fighter came over, and it was driven off by destroyer fire. At 2100 another Japanese plane dropped eight bombs with no damage, but its attack coincided with the opening of a major Japanese ground attack. Supported by mortar fire, the enemy troops made no attempt at surprise. They talked and sang as they moved automatic weapons up and charged the American positions. Those in front were cut down by the fire of the protective line, but more kept coming. Some infiltrators stole through the Allied lines to cut communications or to give fake orders. One enemy column, about an hour before daylight, marched down the Porlaka road singing "Deep in the Heart of Texas." Many were killed by anti-personnel mines on the road, but others kept coming—to be cut down by small-arms fire. By dawn of 4 March it was clear that the enemy's best effort had been met and matched. During the day, over 750 enemy dead were counted against 61 Americans killed and 244 wounded.⁴⁵ With new reinforcements coming in that day and others promised for the near future, it seemed reasonably certain that the gamble at Los Negros would pay off.

Sixteen A-20's and twelve Mitchells reached the Admiralties on 4 March to help the destroyers work over enemy gun positions on Hyane Harbor. General Whitehead had held heavies on alert for further assistance, but during this period of operations he had been unable to get information from ALAMO Force in time to brief the heavies, which, unlike the mediums, could not be put on the targets by the air liaison

party.⁴⁶ At 1100 on 5 March, General Swift reached Los Negros to assume command. The 2d Squadron, 7th Cavalry, which had landed on the 4th, attacked north and reached the skidway during the afternoon. The 12th Cavalry Regiment was landed on 6 March, and the attack continued toward Salami Plantation, where the beach area was captured on that same day. Elements of the 5th Cavalry had meanwhile occupied Porlaka. A combined attack by mediums and heavies had hit that area on 5 March. The first artillery-spotting planes began operating from Momote on 6 March; a B-25 made an emergency landing there on 7 March; and on 9 March, another B-25 escorted twelve RAAF P-40's of the 77 Fighter Squadron to Momote as the first garrison echelon. They were followed by twelve more P-40's on 10 March. This garrison gave the BREWER Task Force an integral fighter-bomber force less subject to the vagaries of the weather than were the New Guinea-based planes. Minesweepers, covered by destroyers, had cleared Seadler Harbor by 9 March.⁴⁷ The capture of Momote, Porlaka, Salami Plantation and beach, plus the overwater seizure of Papitalai Mission and Lombrum Plantation, ended effective resistance on Los Negros by 8 March.⁴⁸ Already preparations were under way to exploit the initial victory by the occupation of Manus. Remaining Japanese elements on the southern part of Los Negros would be reduced by the end of March, although patrols encountered small groups of Japanese after that date.

The first requisite for the Manus landing was control of Seadler Harbor, particularly the two islands of Butjo Luo and Hauwei Island. The minesweepers had attempted to sweep the harbor as early as 2 March, only to receive accurate fire from Hauwei Island. The destroyers bombarded the guns from 2 March and cruisers of Task Force 74 hit them on 4 and 5 March. Bad weather plagued a seventeen-plane attack on the islands on 7 March; only five planes hit the target, and they claimed but nine hits out of forty bombs. Better results were obtained on 8 March by seventeen B-24's and eleven B-25's hitting Hauwei, Ndrilo, Pityilu, Lorengau, and other points. One B-24 is credited with a direct hit on gun emplacements, killing seventy-five Japanese. On 11 March reconnaissance patrols were sent to occupy Hauwei and Butjo Luo Islands. Butjo Luo was occupied without resistance and the 99th Field Artillery Battalion placed there, but the patrol ran into heavy resistance on Hauwei and had to be picked up by PT boat after its LCV was sunk. Next day an attack was mounted

by the 2d Squadron, 7th Cavalry, supported by artillery from the tip of Mokerang Peninsula. Captain Frederick of the 12th Air Liaison Party guided six RAAF P-40's in an air support strike. Enemy resistance on Hauwei having been overcome, artillery units were emplaced in preparation for the Manus landing.⁴⁹

The pre-invasion attacks of the Fifth Air Force started on 10 March. By D-day, on 15 March, Lugos Mission, Lorengau airdrome, Lorengau town, and the trails leading to the town had been hit with 143 tons of bombs and 135,000 rounds of strafing ammunition by 26 B-24's and 35 B-25's. Even the heavies dropped down to treetop level and strafed on 11 March. The capable Captain Frederick worked out the air support plan for D-day with General Swift on 11 March. This plan called for the use of mediums and the RAAF P-40's, since opposition was not expected to be too severe.⁵⁰ The two beaches selected were on either side of the Liei River near Lugos Mission. In contrast to Lorengau, this area had not been fortified. Eighteen Mitchells of the 499th and 500th Squadrons were over the beachhead at H minus 30 (0900) on the 15th and bombed and strafed the beach areas on both sides of the Liei River until 0925, when Troops A and C of the 8th Cavalry were on the point of debarking from the landing boats. Captain Frederick and his 12th Air Liaison Party were early ashore and were operating by 0950 in contact with the RAAF 77 Fighter Squadron and the 501st Squadron's B-25's on air alert. The RAAF P-40's were used in a coordinated artillery and air attack on enemy bunkers near the beach, while the B-25's of the 501st and of its successor on alert, the 408th Squadron, hit Tingo village ahead of the troops moving inland to No. 1 Road.⁵¹

The D-day strikes practically ended Fifth Air Force participation in the reduction of the Admiralties. Except for a coordinated air-ground assault on 26 March at Warembu, the remaining effort was supplied by the RAAF P-40's. By 18 March both the 76 and 77 RAAF Fighter Squadrons were at Momote with thirty-four P-40's. In the last week of March, 79 Fighter Squadron moved up with twenty-four Spitfires from Kiriwina. Even these were not called on very often because of the terrain and the nature of the Japanese defenses. The fighting area was characterized by low-lying hills with steep slopes and many gullies. Caves and holes under trees had been prepared for defense early enough for the jungle foliage to have grown over the openings, making discovery very difficult. The result was close-in fighting without sufficient distance between friend and foe for ground support bombing.⁵²

The ground troops had won Lorengau airdrome and had pushed on to the Lorengau River by 17 March. They crossed the river and occupied the town on 18 March. The toughest part of the campaign developed in the drive toward Rossum which ended on 25 March. The campaign was not officially closed until 18 May. With an estimated 150 live Japanese still on the island, mopping up continued for some time. Among the other islands, Tong was seized on 25 March; Pityilu was captured on 30 March with the unfortunate loss of Captain Frederick to a sniper; Koruniat and Ndrilo were occupied without opposition on 1 April; and Rambutyo was attacked on 3 April with no resistance but mopping up took about three weeks. Since the Lorengau airfield failed to measure up to anticipated requirements, it had been decided to build a new strip at Mokerang on Los Negros.⁵³ The strip was completed by 22 April, at which time the 5th Bombardment Group of the Thirteenth Air Force already had moved with its B-24's onto Mote.*

The March Directives

Though the fighting for possession of the Admiralties continued through several weeks, General MacArthur had been in position to give assurance to the Joint Chiefs of Staff as to the success of the operation as early as 4 March. This assurance carried the promise that the whole RENO III schedule could be stepped up, and General Sutherland, still in Washington, found his hand strengthened in the continuing debate over Pacific strategy.⁵⁴

The movement into Los Negros, which took the JCS by surprise, had come just after General Marshall, pointing to the general agreement on the importance of the Formosa-China coast-Luzon triangle, had proposed that both MacArthur and Nimitz be directed to make plans for entering this area. After some discussion over questions of phrasing, such a directive was dispatched on 2 March.⁵⁵ The JSSC paper of 16 February[†] was returned to the Joint Staff Planners for clarification, and General Sutherland was called upon to provide a revision of the RENO plan. While these studies proceeded, the JCS heard at first hand the views of Nimitz.

Nimitz and Sherman appeared before the Joint Chiefs on 7 March to report that the capture of Kwajalein, Majuro, and Eniwetok, together with the successful carrier raids on Truk and the Marianas, made

* See below, p. 586.

† See above, pp. 553-54.

possible a general acceleration in GRANITE operations. Nimitz had already begun to prepare forces which could seize either Truk, the southern Marianas, or the Palaus on 15 June. Capture of Truk, although the place was obviously weaker than had been thought, would still be expensive. In Allied hands, it would furnish an excellent fleet base, but to safeguard it from attacks from the northeast, Central Pacific forces would still have to take the southern Marianas. Bases in the Palaus would also be needed to prevent the Japanese from moving aircraft either to or against Truk from the west, and for support of an attack against the Formosa–China coast–Luzon objective. Nimitz believed that, prior to a Central Pacific attack against the major strategic objective, it would be desirable to have SWPA forces on Mindanao, provided this did not involve delay in the Pacific campaign. The following timing seemed practicable: Truk, 15 June; southern Marianas, 1 September; Palaus, 15 November. If Truk were by-passed, Nimitz would proceed to the southern Marianas directly; but since none of these islands possessed a fleet base, it would be necessary to seize Ulithi Atoll, about 360 miles southwest of Guam. Uninterrupted use of Ulithi would demand capture of near-by Yap, the only island in the vicinity with enough land area to build airfields. By isolating Truk, this schedule was practicable: southern Marianas, 15 June; Woleai, a link in the Japanese air route from the Palaus to Truk, 15 July; Ulithi-Yap, 1 September; and the Palaus, 1 November. Either of the two schedules would place Central Pacific forces in a position to invade the major strategic area by early spring of 1945. In a memorandum written the next day, Nimitz amended his second schedule, deferring the capture of Ulithi-Yap until after the Palaus and moving the target date for the latter islands up to 1 October.⁵⁶

On this same day, 8 March, Sutherland submitted to Marshall a copy of RENO IV. In a covering letter General Sutherland promised that “the line of action presented in RENO IV will sever sea communications between Japan and the vital Borneo–N.E.I.–Malaya region and will place our forces in the Luzon–Formosa–China Coast area at the earliest date possible under conditions that can be foreseen at this time.” To MacArthur, by teletype conversation, he expressed the opinion that the stepped-up schedule for SWPA would make it very difficult to justify a heavy operation against the Marianas.⁵⁷ The revised plan followed the already familiar scheme of maneuver, but it deleted most of the flank-protecting operations of earlier RENO plans. SWPA land-

based air power, plus Central Pacific operations on the east, would protect the flanks. Anticipating a transfer of naval and amphibious resources between SWPA and POA, the plan proposed four phases: (1) to seize bases in the Humboldt Bay and Geelvink Bay areas of New Guinea, 15 April; (2) seize air bases in the Arafura Sea, 15 July; (3) take areas or air bases on the western tip of the Vogelkop and in the Halmaheras required to support the invasion of Mindanao and ward off Japanese air attacks from the west, about 15 September (this being timed to coincide with seizure of the Palaus by Central Pacific forces); (4) invade Mindanao, 5 November. A northward movement into Luzon was indicated by Sutherland to be practicable during January 1945.⁵⁸

As these proposals passed to the Joint Staff Planners for study, Sutherland knew some concern over the position that would be taken by AAF representatives. Since the early fall of 1943 the AAF had shown an active interest in the possible use of Marianas bases for B-29 operations against the Japanese homeland,⁵⁹ and Sutherland reported to MacArthur on 9 March that Brig. Gen. Haywood S. Hansell, Jr., representing the AAF on the Joint Staff Planners, was supporting an early occupation of the Marianas.⁶⁰

The Joint Staff Planners, with the concurrence of the Joint Logistics Committee, recommended on 10 March that the following operations seemed feasible:

Hollandia—15 April—by SWPA
 Southern Marianas—15 June—by POA
 Palaus—15 September—by POA
 Mindanao—15 November—by SWPA
 Formosa—15 February—by POA

The Kavieng operation would be canceled and it was assumed that Truk could be by-passed. The JPS conceded that if there were to be delay in the invasion of Formosa, it would be well for SWPA to move from Mindanao to Luzon. Such an operation was not essential, but it would aid the Formosa campaign. Since it would be unwise to attempt to capture Woleai far in advance of the Palaus, the JPS favored postponement of this operation, or possibly leaving the island to be neutralized by air. Air bases on Mindanao were considered necessary for neutralization of Japanese air strength on Luzon prior to the invasion of Formosa.⁶¹ The Joint Chiefs discussed the problem at a meeting on 11 March. Nimitz and Sherman, who with Sutherland were present, indi-

cated general approval, although they desired to reserve the decision on Woleai. Sherman pointed out that the Japanese might move heavy forces into the Marianas, thus rendering it necessary to capture Truk, a remark which indicated to Leahy that it would be well to take the southern Marianas as quickly as possible. Sutherland was more critical. He questioned especially the possibility of a movement from the Palaus-Guam line against Formosa. He also objected that the planners had specified no operations for SWPA between Hollandia and Mindanao, but he was reassured that there had been no intention to cut off SWPA at the former place. King, in a concluding comment, remarked that both SWPA and POA had emphasized the need to take the Palaus; and as for the Marianas and Carolines, they would have to be cleared out sooner or later, and it might as well be done quickly.⁶²

Following an interchange of memoranda between Marshall and King, the JCS in a closed session on 12 March approved a directive to MacArthur and Nimitz. SWPA was directed to complete the isolation of Rabaul and Kavieng (Kavieng would not be occupied) with a minimum of forces; launch an attack on Hollandia on 15 April in order to establish heavy bombardment groups there for aid in its New Guinea campaign and to assist in neutralization of the Palaus; conduct operations along the New Guinea coast and such other operations as were feasible in preparation for support of the invasions of Palaus and Mindanao; and to invade Mindanao on 15 November 1944. Truk would be neutralized and by-passed, with the forces under Admiral Nimitz going into the southern Marianas on 15 June and into Palaus on 15 September. Nimitz and MacArthur would coordinate their planning, including plans for the occupation of Formosa by CINCPAC and Luzon by CINCSWPA—with a target date of 15 February 1945.⁶³

This definition of strategy permitted an orderly disposition of SOPAC troops, among them the Thirteenth Air Force. Discussion of the redeployment of the latter unit had actually been in progress since December 1943, when Lt. Gen. Millard F. Harmon had indicated his desire to maintain the Thirteenth as an integrated combat unit. He had pointed out that "its dissolution would destroy something that would be extremely difficult and would take a long time to recreate."⁶⁴ While in Washington in January 1944, Kenney had put in a strong bid for the entire air force and had promised to maintain its fighting units intact, while pooling the service elements of the Fifth and Thirteenth Air Forces to effect a centralized logistical command.

THE ARMY AIR FORCES IN WORLD WAR II

Arnold had also interviewed Sherman regarding possible employment of the Thirteenth in the Central Pacific, but he had been dissatisfied with plans which, it seemed to him, would move the air force to the Admiralties for attacks against Truk and use shorter-range units as a reservoir of replacements for Seventh Air Force units. This would involve placing POA units on MacArthur's bases, and Arnold considered such a pooling wasteful employment of air power. He accordingly favored the transfer of the Thirteenth Air Force to SWPA, with provision for use of its long-range bombers to support POA.⁶⁵

Formal directions for the liquidation of South Pacific forces materialized on 25 March when the JCS approved a paper written by the Joint Staff Planners a week earlier.⁶⁶ Of the principal units of SOPAC, SWPA was given the XIV Corps headquarters and corps troops and the 25th, 37th, 40th, 43d, 93d, and Americal Divisions. POA received the I Marine Amphibious Corps and corps troops and the First and Third Marine Divisions. SWPA's Seventh Fleet was augmented to a total U.S. strength of 3 cruisers, 27 destroyers, 30 submarines, 18 DE's (PF), 1 AGC, 1 APA, 1 AKA, 5 APD's, 60 LCI's, 40 LST's, plus miscellaneous auxiliary and small craft. SWPA also received the entire Thirteenth Air Force, with instructions that it would be used to support Nimitz as requested. Other Navy and Marine air units, and Royal New Zealand Air Force units, would be disposed of in negotiations between Nimitz and MacArthur; some would form a garrison for the Solomons, a minimum air garrison would be retained in a new and smaller SOPAC area, and some of the units would be used by Nimitz in the Central Pacific. A small garrison of four U.S. infantry regiments, Fijian troops, and the 3 New Zealand Division (pending its clearance for forward employment) would remain in the South Pacific. SWPA thus increased its U.S. infantry divisions from six to twelve, gained outright the six and one-fourth air groups of the Thirteenth Air Force, and would receive additional Navy and Marine air units. POA would now control four Marine divisions and six infantry divisions.

CHAPTER 18

* * * * *

HOLLANDIA

THE Hollandia area, in Netherlands New Guinea, promised sheltered anchorages and locations suitable for airfield development in a combination that seemed unique along 450 miles of coast line extending from Wewak to Geelvink Bay. Lying between Humboldt and Tanahmerah bays, the immediate region is dominated by the 6,000-foot peaks of the Cyclops Mountains, which parallel the coast in steep cliffs but slope off to a saddlelike basin surrounding Lake Sentani. In this basin the Japanese had built three airfields—Hollandia, Cyclops, and Sentani—and had joined them by an imperfect motor transport road running for some sixteen miles over a plateau to the village of Pim on Jautefa Bay, an indentation at the head of Humboldt. From Depapre village on Tanahmerah Bay an undeveloped trail carried eleven miles to provide a possible route into the fields. At Tami, on the coastal flat south of Humboldt Bay, the Japanese had started work on a fourth airstrip. Hollandia town, like the other villages in the area, was of little military importance, although some of its buildings sheltered Japanese troops and supplies.¹

The Japanese had occupied Hollandia in April 1942, but its development had been understandably delayed. In January 1944, however, Lt. Gen. Hatazo Adachi, commanding the Eighteenth Army, had emphasized the region's growing strategic importance by the warning that "Hollandia is the final base and last strategic point of this Army's New Guinea operations. Therefore, it is expected that if we are unable to occupy Moresby, the Army will withdraw to Hollandia and defend this area to the last man." Orders had been given to develop fortifications "to the highest attainable degree" under a plan to make Hollandia an expensive, if not a prohibitive, operation for the Allies.²

Closely joined with Hollandia, both in Japanese and Allied planning,

was Aitape, situated 123 miles southeast of Hollandia and within the limits of Australia's New Guinea mandate. At Aitape a low coastal plain is backed by the 4,500-foot peaks of the broken Torricelli range, from five to twelve miles inland. There is no acceptable harbor, but Aitape Roads, shielded somewhat by Tumleo, Ali, and Seleo Islands, offered thirteen miles of exposed landing beaches suitable for fair-weather use. Except for a number of rivers which transect the coastal plain, the region has no natural defensive barriers. Like Hollandia, Aitape had been occupied in 1942 by the Japanese, who, after some delay, had by December 1943 begun construction on two runways at Tadjji, about eight miles southeast of Aitape town. They had subsequently graded and compacted a bomber strip, and by March 1944 they had cleared a third strip northwest of the other two, but only the bomber strip was operational. Allied photo intelligence indicated that the Japanese were having trouble with drainage; but because the fields were believed to be lightly held and lay so near the coast, they presented an attractive objective to Allied planners seeking a site where airfields could be quickly captured and rehabilitated for cover of the main force at Hollandia.³

Weather conditions at both places during April, for which time the Allied operation had now been scheduled, promised to be unfavorable. Planners had to take into calculation an average rainfall for the month at Hollandia of 8.5 inches, and at Aitape of 10.3 inches. Hollandia lay precisely under the mean position of the doldrum belt, and while it could be expected to have no pronounced winds or storms, it would have extremely variable weather. Aitape would be in the last month of the northwest monsoon, a season accompanied by torrential downpours. Cloud cover at Hollandia would be slight during the mornings, but weather fronts could be expected at the edges of the doldrum belt. Thunderstorms at both places would hinder night operations. The lack of a good weather-reporting network (obviously impossible in Japanese-held areas) would add to the uncertainty.⁴

Fortunately, the enemy suffered from his own uncertainties. General Adachi, apparently convinced that the next Allied move would be directed against the Hansa Bay-Wewak area and therefore that there would be time enough to reinforce Hollandia, in late March ordered the main portion of the 41st Division to Hansa and instructed the 51st Division to concentrate at Wewak. The 20th Division was to move into the Aitape-But area simultaneously with the reinforcement of

Hansa Bay. Adachi thus almost completely misplaced the 70,000 combat effectives at his disposal, but it may be said in his justification that he followed the orders of his superior, Gen. Koreiku Anami, commander of the Second Area Army, whose headquarters at Davao had assumed control of the Eighteenth Army on 20 March. Anami seems to have been apprehensive about an invasion of the Palaus or the Carolines from the Admiralties, and had begun to move fresh troops into these areas. Having ordered an immediate concentration at Wewak and westward to Aitape, he planned a later consolidation of the position at Hollandia, to which he sent now the cadre of one division. These troop dispositions, records of which were captured after the Hollandia invasion, coincided closely with Allied estimates, except that the estimates generally overrated the number of Japanese troops to be encountered at Hollandia and Aitape. G-2 of GHQ SWPA estimated that 13,550 of the enemy would oppose the two landings. Actually, the departure of 6,800 transients for Wewak left only 4,600 to 8,000 men, most of them service, line-of-communication, and base troops.⁵

Japanese naval dispositions were still disarranged by the Pacific Fleet strike of 16-17 February on Truk and by the loss of the Admiralties. Adm. Mineichi Koga, commanding the Combined Fleet, had gone to Tokyo on 10 February, and following conferences there, he had taken his flag, aboard the battleship *Musashi*, to Palau, where he proposed to await developments. All three of his carrier divisions were much under strength because of the attrition suffered at Rabaul; indeed, one division was in training at Singapore and the other two on similar assignment in the home waters. Uncertain as to the direction of the next Allied thrust, Koga planned to command from Saipan if the attack came from the north or at Davao if it came from the south. Following the capture of the Admiralties, the shore-based 23d Air Flotilla had moved its command post from Kendari to Davao, where it was instructed to conserve its strength while maintaining patrol along the New Guinea-Admiralties line. Its bombers were moved to Mindanao to meet expected carrier attacks; its search planes were deployed on bases in northwest New Guinea. In addition to the *Musashi*, the Palaus based the Japanese Second Fleet, consisting of five or six cruisers and escorts; Peleliu held the 26th Air Flotilla, still suffering from serious depletion as a result of replacements fed into Rabaul. The 22d Air Flotilla, reduced in effectiveness by losses during February but somewhat reinforced by units withdrawn from Rabaul, comprised the Japanese

air garrison in the eastern Carolines. Although Koga, regarding Truk as an outpost of the Marianas and Palaus, desired the maintenance of a strong air garrison there, the 22d Air Flotilla, as late as 31 March, would have only about 161 planes, divided between the two fields on Moen Island and the fields on Eten, Param, and Dublon Islands. Another portion of the 22d Air Flotilla was located on Woleai. In general, the Japanese navy had lost so many of its experienced pilots to Allied air action that it was in no condition to force a major attack.⁶

Principal dependence for the defense of New Guinea had to be placed, therefore, on the Fourth Air Army, composed of the 6th and 7th Air Divisions. In September 1943, it had established its headquarters and concentrated its forces at Wewak, but by November replacements for Rabaul had so drained the naval air garrisons in the Celebes that the 7th Air Division, with its 3d and 9th Air Brigades, had been withdrawn from New Guinea to Amboina and neighboring bases. Since September, Lt. Gen. Kunachi Teramoto, an experienced air officer who had served in Manchuria, had commanded the Fourth Air Army, while Lt. Gen. Giichi Itabana had lately taken command of the 6th Air Division and its subordinate 14th and 30th Air Brigades. During the latter part of February 1944, units of the 8th Air Brigade, including three fighter and two bomber regiments, had begun to move from Amboina into New Guinea. This brigade, a Second Area Army unit, would be attached until the Fourth Air Army was itself taken over by the area army on 20 March. By 8 March the Fourth Air Army, on the New Guinea front, controlled twelve flying regiments, two separate flying squadrons, and an air transport unit, located variously at Galela airdrome in the Halmaheras, at Kamiri airdrome on Noemfoor, on Wakde Island,* at the three Hollandia airdromes, at Tadj, at the two But airdromes, at the two Wewak airdromes, at the two Hansa airdromes, and at the two Alexishafen airdromes. The Alexishafen and Hansa fields, however, had been roughly handled by the Fifth Air Force, which, according to Japanese documents, had put both of the Alexishafen fields out of commission on 29 February and had "demolished" both Hansa strips on 1 March.⁷

The Fourth Air Army early in March had been alerted against a new Allied landing on the New Guinea coast west of Madang. Its mission included also attacks on Allied shipping in the Dampier Strait and the Bismarck Sea, night raids on Allied bases, cover for Japanese convoys

* Insoemoar. See below, p. 617.

bound for New Guinea, and such training as would enable its units to become proficient in attacking an invasion convoy. Performance of the mission was severely restricted by poor maintenance; at the time of the Hollandia invasion only 25 per cent of its planes were operational. Large numbers were grounded because of the inferior quality of spare parts available, a high accident rate, and lack of heavy equipment at the Wewak and Hollandia air depots. Allied attacks had been a constant drain on strength; for example, early in February the 248th Flying Regiment had been forced through depletion to "advance" (its operational orders read thus) from Wewak back to Hollandia to recover combat strength. Japanese figures are unavailable, but on 3 March the Allies estimated that the total number of operational Japanese planes in all of the SWPA (including the Philippines, Borneo, New Guinea, and the Bismarcks) was 754 planes. Some 319 of these planes were thought to be in New Guinea, with heaviest concentrations at Hollandia and Wewak. Allied air commanders knew that Japanese air power had been severely taxed by the continuing assault on Rabaul, but the Fourth Air Army in New Guinea had been building up for several months. It was estimated that as many as 239 aircraft would be available to the Japanese for attacks on the Aitape and Hollandia beachheads.⁸

The Allied Air Forces mustered a respectable margin of superiority over the Japanese. The Fifth Air Force alone had on 29 February a total of 803 fighters, 780 bombers, 173 reconnaissance planes, and 328 transports. Fighting strength depends, however, on the number of aircraft operational, and during February, a month of many unit movements into forward areas, only 54.1 per cent of Fifth Air Force planes had been operational. As a daily average during the month, 413 fighters, 370 bombers, and 323 other types had been available for use. By no means all of these operational planes were actually in tactical units, for the totals included aircraft en route to units as well as reserve strengths. On 22 February, for example, only 60 per cent of Fifth Air Force fighters were in tactical units, and of this number only 73 per cent were operational. Of the 265 B-24's in the theater on 5 March, 177 were assigned to units, and Whitehead estimated that from 30 to 35 per cent of the heavies would always be in depot or service squadrons. In addition to the Fifth, the Allied Air Forces controlled some 507 RAAF aircraft of miscellaneous types, including many obsolescent models. The percentage of operational RAAF planes generally averaged a little

lower than that of the Fifth. A Netherlands East Indies squadron, operating under the RAAF Command, had twenty medium bombers.⁹

The effective aid to be expected from the Allied Air Forces was more circumscribed by the air-base situation than by the number of aircraft available, for only a part of their tactical units could be brought within range of the Japanese targets at Hollandia. The nearest Allied field lay 358 nautical miles south of Hollandia at Merauke, on the southern coast of New Guinea, but it had limited capabilities which could not be expanded. Saidor, the most advanced Allied base on the northern coast of New Guinea and 408 nautical miles from Hollandia, had been taken as recently as 2 January and airdrome construction had lagged because of bad weather. According to Whitehead, the place was in a "terrible mess."¹⁰ On 1 March most of the tactical units scheduled for Saidor were marking time, awaiting the completion of air facilities there. A single 6,000-foot, steel-mat strip and a limited number of hardstands would not be completed until 18 March. At the head of the Ramu River valley, 30 or more miles inland from Saidor and 390 nautical miles from Hollandia, lay a cluster of strips known collectively as Gusap. The region had been taken by the advancing Australians, also in January, and of the nine strips located there, only one gravel-surfaced runway and another steel-mat runway offered all-weather facilities. Whitehead had regarded Gusap and Saidor as the main fighter bases for covering a movement northwestward to Hansa Bay, but they were of limited value for strikes against Hollandia. The center of gravity of the Fifth Air Force was building up at Nadzab, in the lower Markham River valley. That site now boasted one grassed and six surfaced runways, together with 536 surfaced dispersals, but it was 448 nautical miles from Hollandia.¹¹

Allied air units were generally out of line for support of the Hollandia operation because Allied strategy until recently had been pointed toward Hansa Bay and Kavieng. The airfield at Finschhafen had been built to permit fighter cover for New Britain operations; under the new strategic concept, it would be developed as an air depot. Two Fifth Air Force squadrons had recently moved across the straits to Cape Gloucester on New Britain. Anchored around Milne Bay, now far from the fighting front, were three RAAF wings with their units disposed on Goodenough and Kiriwina Islands. Allied air units at Dobodura and Port Moresby, by 1 March 1944, lacked a tactical offensive mission and awaited movement to forward areas. Based on some twenty fields cen-

tered around Port Darwin in northwestern Australia and controlled by RAAF Command, another concentration of Allied air power early in March had been alerted by erroneous information that Japanese naval units had entered the Indian Ocean south of Lombok Strait. Of importance to the Hollandia operation was the presence there of the 380th Bombardment Group (B-24) whose air echelons, rushed back to Australia from Dobodura to stave off a Japanese fleet raid, would be in position to support the left flank of the Allied advance on Hollandia. An RAAF Catalina squadron had become proficient in mining enemy waters and would also be of value for left-flank support.¹²

Hollandia thus lay just outside the current range of Allied fighter-escort planes. Fifth Air Force P-38's could normally accompany the bombers for only about 350 miles. A few P-38's had had their radius extended for this purpose to about 520 miles, but Whitehead reasoned that the Japanese, by moving no more than fifty new fighters into Hollandia each week, could wear out these P-38's.¹³ Hollandia could be bombed readily enough at night, for night bombers did not require escorts, but the fields, being inland, would be hard to identify and the weather promised to be unfavorable. There were two possible solutions to the problem: to depend upon carrier-based cover for the landing or to extend the range of Fifth Air Force fighters—and in the end both were done.

RECKLESS

As SWPA planners addressed themselves to the problem of mapping out an early invasion of Hollandia without preliminary occupation of Hansa Bay or other intervening areas, the operation not inappropriately received the code name of RECKLESS. G-3, in an outline study of 29 February, had indicated a need for two infantry divisions to assure the promptest possible overpowering of the enemy garrison, a need which, it soon was apparent, would place an impossible strain on available amphibious shipping unless the Kavieng occupation by SOPAC forces, still scheduled for 1 April, could be changed.¹⁴ Halsey, in Brisbane on 3 March, argued for substitution of Emirau Island (he long had urged that there was no reason to capture Kavieng),¹⁵ and though MacArthur for a time remained unconvinced, the JCS directive of 12 March* canceled the Kavieng occupation and ordered the completion of steps for the isolation of Rabaul and Kavieng with minimum

* See above, p. 573.

forces. On MacArthur's suggestion a subsequent postponement of the target date for Hollandia from 15 to 22 April provided a further help on shipping.¹⁶

Formal warning instructions for RECKLESS were issued by GHQ on 7 March, two days after a specific request for approval of the operation had gone to the Joint Chiefs. Inclusion of Aitape, in the hope that its airstrips could be quickly seized for assistance over Hollandia, was decided upon in a series of conferences held at ALAMO headquarters on Cape Cretin between 8 and 11 March. Whitehead, who entertained doubts about provisions for the carrier cover of the operation, proposed a D minus 15 landing at Aitape in the hope that land-based fighters could be ready there by D minus 4, but Krueger proved unwilling to sacrifice surprise.¹⁷ Simultaneous landings would be made at Humboldt Bay, Tanahmerah Bay, and Aitape.

Over in the SOPAC, Halsey immediately effected plans to capture Emirau while he still retained combat forces. Securing permission from Nimitz to use the 4th Marine Regiment for a short time, he gave the unit thirty-six hours to get ready. Intelligence indicated few Japanese on this spur of coral, four miles long and half a mile wide, but it was only seventy-five miles northwest of Kavieng and within reach from Truk and there might be some trouble. But the chance for enemy air opposition from Rabaul or Kavieng was slight, and when the Marines landed on 20 March they met friendly natives on the beaches—all Seventh Day Adventists whose relations with heathen Japanese patrols had been most unpleasant. By the end of April construction troops had two bomber strips ready for Marine fighters and Navy search planes. Thirteenth Air Force B-24's, limping back from Truk, would stop there. This easy capture—the 4th Marines called it their “jawbone campaign”—secured the last objective needed to keep Kavieng and Rabaul out of the war.¹⁸

The JCS directive of 12 March gave MacArthur assurance of carrier support from Nimitz, who was ready with a proposed plan on 14 March. The Pacific Fleet, beginning about 1 April, would execute a two-day attack on Palau, Yap, and Woleai with all available fast carriers and battleships; about six days later it would strike Truk and Satawan. Nimitz wanted SWPA to establish long-range search sectors over the Bismarcks–New Guinea–Palau–Truk rectangle to cloak the movement of his fleet, to intensify bombardment of Japanese bases along the New Guinea coast while the fleet struck Palau, and to neu-

tralize Woleai during fleet attacks on Truk and Satawan. MacArthur immediately asked for strikes by two fast carrier groups against Hollandia and against Wakde, about a hundred miles farther to the west, on D minus 1 through D plus 1, together with the loan of Carrier Divisions 22 and 24 (a total of six CVE's) for the close support of his operation. He promised to rush the Manus airfields to completion for use by SOPAC search planes, to intensify the bombardment of New Guinea coastal airfields, and to attack Woleai as requested if the airfields on Manus could be prepared in time. Nimitz then promised to use two fast carrier groups against Hollandia and Wakde as desired, and in an interchange of radios agreement was reached on the transfer of a South Pacific PB4Y search squadron to Nadzab for cover of the Pacific Fleet.¹⁹

Conferences among representatives of SWPA, SOPAC, and CENPAC at Brisbane on 23-24 March produced an inclusive plan for the air operations.²⁰ The Allied Air Forces would furnish aerial reconnaissance and photography, neutralize enemy air forces on bases along the New Guinea coast as far west as Wakde, attack hostile air installations in the Arafura Sea and western New Guinea (especially those on the Kai Islands and in Geelvink Bay), neutralize enemy ground defenses in the target areas, and perform continuing missions such as fighter defense of forward bases and interdiction of hostile water movements. SOPAC air forces would assist in the neutralization of Truk. CENPAC's Fifth Fleet, its three fast carrier groups and its fast battleships and cruisers formed into Task Force 58 under command of Vice Adm. Marc A. Mitscher, would attack the Palaus about D minus 21 through D minus 19; starting on D minus 1 and continuing through D plus 2 it would neutralize airfields at Wakde and Hollandia and support the landings at Hollandia; from D plus 3 to D plus 8 (or until land-based fighters were established at Aitape or Hollandia) it would support the Hollandia beachheads. It would be independent of the SWPA command, but while acting in close support, it would coordinate its activities with the Seventh Fleet. Two escort carrier groups from the Pacific Fleet would be organized as Task Force 78 and placed under control of the Seventh Fleet for cover of the invasion convoys and support of the Aitape invasion until 12 May, when their release would be required for CENPAC operations. Beginning on D minus 1 and for as long as the Fifth Fleet remained at Hollandia, fast carrier aircraft would, during daylight hours, remain west of 141° 30' E.,

while the planes of TF 78 and Allied Air Forces would remain east of the line. The Allied Air Forces, however, would be free to conduct general supporting strikes into the Geelvink Bay and western New Guinea areas. At night, carrier aircraft would operate only over sea areas, while Allied Air Forces would be permitted to bomb land areas at will.

Land-based air would cooperate with the Fifth Fleet raids in the following manner. Citing K-day (beginning of carrier strikes on the Palaus) as 1 April, SOPAC would conduct heavy bomber attacks on Truk and Satawan between K minus 5 and K minus 4, neutralize enemy air effort at Kavieng and Rabaul from K minus 6 to K minus 4 and again from K plus 4 to K plus 6, continue current searches northward from Munda, and dispatch a search squadron to Nadzab. The Allied Air Forces would deliver attacks of maximum intensity on Hollandia airfields on the nights of K minus 4 to K minus 1, attack Woleai as practicable on K-day and K plus 1, and institute searches in the sea region to be traversed by the Fifth Fleet, using Catalinas from Manus (to begin not later than 25 March) and PB4Y's from Nadzab (to begin not later than 28 March).

Nimitz agreed to all this, except that he considered it an invitation to disaster to leave his fast carriers in one area for ten days. Accordingly, they were permitted to withdraw after D plus 2, and it was planned to move a part of the escort carrier force up to Hollandia to replace them. Also, the Allied Air Forces would be free to provide close support at Hollandia after the fast carriers withdrew. Nimitz added the general qualification that the proposed arrangements would be made without prejudice to opportunities for the destruction or containment of hostile naval forces, which would remain the governing task for the Fifth Fleet.²¹ Insofar as land-based air forces were concerned, ADVON Fifth Air Force would give all possible support to the Hollandia and Aitape movements, RAAF North West Area forces would cover the left flank, and elements of the Thirteenth Air Force would protect the right flank.

ALAMO headquarters designated Lt. Gen. Robert L. Eichelberger, commander of I Corps, as commander of the RECKLESS Task Force, and assigned him the 24th Infantry Division for the Tanahmerah Bay landing and the 41st Infantry Division, less one RCT, for the invasion at Humboldt Bay. The main attack would be launched at Tanahmerah, but both forces would drive inland to the airfields as quickly as pos-

sible. The 163d Infantry of the 41st Division, led by Brig. Gen. Jens A. Doe, was designated as the PERSECUTION Task Force for the landing at Aitape. Krueger, becoming uneasy about Japanese strength massing at Wewak (only ninety-four miles from Aitape), would later add the 127th Infantry Regiment as a D plus 1 reinforcement for PERSECUTION; and this made it necessary to use the 32d Infantry Division, relieved by Australian troops at Saidor on 28 April, as the general reserve for the operation.²² Vice Adm. Thomas C. Kinkaid's Allied Naval Forces carried the responsibility for putting the men ashore and for their continuing support according to a pattern now becoming familiar by experience. Rear Adm. Daniel E. Barbey received immediate command of the three attack forces (for Aitape, Humboldt Bay, and Tanahmerah Bay), and, at GHQ's suggestion, he would remain in full control until each landing force commander could assume command ashore. Similarly, it was agreed that Navy air support commanders and the controllers for the Allied Air Forces would accompany the attack forces to advise on the capabilities of their respective forces. Fighter director groups aboard ship would control aircraft in their vicinity until fighter director facilities and air liaison parties could be set ashore. These procedures would become standard procedure for future Allied landings in SWPA, wherever both naval and land-based aircraft were employed.²³

Whitehead immediately had initiated a regroupment of the forces under his operational control on receiving information of the change in Allied objectives from Hansa Bay to Hollandia. Considering Nadzab to be the best base for long-range, coordinated attacks against the new objective, he sought permission to move the 8th and 475th Fighter Groups there. By staging at Gusap on their return trip, they could reach Hollandia. To release dispersals at Nadzab for the P-38 groups, Whitehead proposed to send the RAAF 77 Wing back to Australia and to move the 10 Operational Group and its P-40 squadrons to Cape Gloucester. He also favored a concentration at Cape Gloucester of the RAAF units on Goodenough and Kiriwina Islands to give the 10 Operational Group enough strength to support continued ground operations on New Britain. Kenney secured speedy approval of these suggested movements, and by 23 March the 77 Wing began departing for Australia for reorganization as the first RAAF heavy bombardment squadron. Movement of the 10 Operational Group to Gloucester began on 11 March and was completed in early April. Squadrons of the 8th and

475th Groups, taking space as it was released, moved into Nadzab between 12 and 29 March.²⁴

By April, plans also had been completed for moving Thirteenth Air Force units into the Admiralties. The 5th and 307th Bombardment Groups (H) had been committed by JCS direction to a neutralization campaign in the Carolines, which could be reached from South Pacific bases only by staging through Torokina and the Green Islands. The Allied Air Forces wanted the groups moved to the Admiralties at the earliest possible date, both to simplify their Carolines commitment and "to get at least one good strike out of them at Hollandia." Construction of airfields, each suitable for a heavy bomber and a fighter group, was under way at Momote and Mokerang on Los Negros Island. As quickly as field conditions permitted, the Allied Air Forces moved the RAAF 73 Wing to Momote during March, and on 25-26 March tender-based Catalinas of VP-33 and VP-52 Squadrons moved to Seadler Harbor. Early in April, GHQ informed Halsey that it desired to initiate operations from Los Negros with one B-24 group on 7 April and with the other as soon after 22 April as practicable. To provide a command organization for the forces in the Admiralties until such time as Thirteenth Air Force headquarters might be moved forward, Kenney, on 11 April, established the Thirteenth Air Task Force, under command of Maj. Gen. St. Clair Streett, and placed it under the operational control of ADVON Fifth Air Force.²⁵

Beginning on 8-9 April a forward echelon of XIII Bomber Command headquarters moved to Los Negros on C-47 Skytrains. Ground echelons of the 5th Bombardment Group, followed by their B-24's, arrived during the following week, and by 18 April the group was ready for its first combat mission from Momote drome. In answer to an urgent GHQ request, SOPAC also released the 868th Bombardment Squadron—a B-24 organization* needed to lead night raids—and its air echelon flew to Momote on 18-20 April. The heavy bomber strip at Mokerang was completed on 22 April, but troop carrier demands of RECKLESS delayed movement of the 307th Bombardment Group there until early in May. Basing of the two heavy bombardment groups in the Admiralties was thus too tardily accomplished to permit diversion of effort to Hollandia (such strikes, indeed, had not been needed), but the 5th Bombardment Group had at least been placed much closer to its targets in the Carolines in time to assist RECKLESS.²⁶

* See above, pp. 241-42.

In an attempt to provide all possible escort for bomber attacks against Hollandia, Kenney had been "steaming up" the V Air Force Service Command to put all priority on long-range P-38's. Fortunately, efforts to extend the range of P-38J aircraft already had been initiated.* Basically, the P-38 had a 300-gallon internal fuel capacity and a combat radius of 130 miles; with 300 additional gallons in wing tanks, its radius reached 350 miles. Technical experimentation in the United States had further demonstrated that it was possible to add 110- to 120-gallon tanks in the leading edges of the P-38's wings, increasing the combat radius to about 650 miles. The AAF Air Service Command had started procurement of modification kits in October 1943 and had put P-38J's with leading-edge tanks into production in January 1944. By early March, the Townsville air depot had completed long-range modifications on fifty-six P-38's, and they were being flown to New Guinea. Thirty-seven additional P-38's, complete with the internal modifications, were due to land at Brisbane on 11 March, and it was thought that these planes, with expeditious handling, could be sent to New Guinea in about two weeks. In addition, the Fifth Air Force had some thirty-seven P-38's already in New Guinea which could be modified. Kenney sent Lt. Col. Edward M. Gavin and especially picked crews from the 482d Service Squadron to Nadzab to perform the modifications—an assignment which they accomplished in record time. As the new planes flew into Nadzab during March they were assigned to the 8th and 475th Groups, the older P-38's being transferred to the 9th Squadron of the 49th Group at Gusap. By 1 April, the two P-38 groups at Nadzab had 106 operational long-range P-38's, a tight but adequate margin for their escort assignments.²⁷

In planning the employment of Fifth Air Force units against Hollandia, General Whitehead was also apprehensive about the status of bombardment aircraft. On 5 March there were 265 B-24's in the theater, of which 177 were assigned to units. The 43d Group had forty-eight (including twelve B-24 "snoopers"), the 90th Group had forty, and the 22d Group, which was converting from B-25's, had thirty. The remainder of the Liberators belonged to the 380th Group, which had fifty-nine at Darwin. Whitehead estimated that, allowing for planes being repaired and not counting the employment of the 380th from northwest Australia, he would have no more than 117 heavy bombers for day missions. Actually, the Fifth Air Force during March gained

* See above, p. 581.

thirty-four Liberators and lost only twenty-three, which brought the total to 276. On 1 April, 175 B-24's were assigned to units, 123 of them to the twelve squadrons in New Guinea. Less the SB-24's and the nonoperational 22d Group squadrons, there were 113 B-24's in nine squadrons available for the Hollandia strikes. Employment of the PB4Y patrol squadron permitted all nine to be used in offensive missions.²⁸ Availability of light and medium bombers caused little worry. The 38th and 345th Groups at Nadzab had 154 B-25's on 1 April, and although most of them were old, 131 were operational. The 3d Group at Nadzab, the 312th Group at Gusap, and the 417th Group at Dobo-dura mustered a combined strength of 172 A-20's. With the movement of the latter group to Saidor during the second week of April, the entire medium and light bomber force was within range of Hollandia. Again the Fifth Air Force strength in bombers would be tight but adequate.²⁹

Ahead of attempts to neutralize Hollandia came severe blows directed against Japanese airfields around Wewak: Boram, Wewak, Dagua, and But. Serving as headquarters for the Eighteenth Army and the Fourth Air Army, Wewak was also heavily garrisoned by combat troops who might oppose the Allied landing at Aitape. Targets at Wewak were well known to Allied airmen, who had visited them repeatedly in February. Whitehead planned for the Liberators to "take out" enough of the enemy AA to permit B-25's and A-20's to "mop up" personnel, supplies, barges, luggers, and other such targets with impunity.³⁰ The weather over Wewak on 11 March entered a transitional period between the northwest and southeast monsoons that permitted the Fifth Air Force to begin its sustained attack four days earlier than had been anticipated. The most favorable weather conditions prevailed between 0900 and 1300, and most of the attacks took place during these hours, a practice which assisted the Japanese in taking cover. Nevertheless, the Fifth Air Force campaign, begun on 11 March with a coordinated heavy, medium, and light bomber mission to Boram drome and concluded with a similar but somewhat anticlimactic raid against Wewak supplies on 27 March, rapidly reduced Japanese forces to a state of near impotence. Missions were flown in strength every day except for 20 March, when the lights and mediums had to recuperate from strenuous action the preceding day, and for 24 March, when weather prevented all missions. In sum, 1,543 sorties (500 by B-24's, 488 by B-25's, and 555 by A-20's) reached the area to drop some 3,036

tons of bombs. Fighters, covering the bombers each day, flew a total of 911 sorties.³¹

By 21 March, the heavies had such a disregard for the Japanese gunners that they tried individual four-minute bombing runs over Wewak Mission, receiving only twelve "pitifully inaccurate" bursts of flak from a formerly heavily defended headquarters area. Against the gun positions, well protected by earth revetments, the Liberators used mostly 1,000- and 2,000-pound bombs, despite tentative ordnance findings and crew opinion that they were less effective than a wider area coverage with smaller bombs.³² During these attacks on Wewak AA, the V Bomber Command confirmed the relative safety of strikes from 10,000 to 13,000 feet. At such altitude the enemy's heavy AA was too slow to track our planes and the medium AA could not reach them. Thenceforth, the V Bomber Command would exploit this favorable altitude for heavy bomber missions.³³ Medium and light bombers generally concentrated on dispersed aircraft, barge traffic, supply dumps, and bivouac areas. Smoke, often rising to 8,000 feet after a strike, attested to the destruction of fuel and supplies, but personnel casualties, obscured by plantation foliage, were harder to determine. A captured file of Eighteenth Army documents later indicated that the Japanese troops at Wewak "took to the forest during daylight, returning to their positions only at night."³⁴

The airstrips, being of dirt, could be repaired almost overnight, but the cumulative effect of these attacks soon produced a desperate situation. General Teramoto moved his Fourth Air Army headquarters back to Hollandia on 25 March, evidently leaving orders for the ground echelons of the now defunct air organizations to get there as best they could over coastal trails. Many of these troops (together with combat men intended for the reinforcement of Aitape) would straggle into Hollandia long after the Allies had landed. Others perished from starvation, malaria, and general debility along the way; one Japanese officer captured at Hollandia, who had made the trek, told of passing hundreds of men dying from sickness and starvation along the trails.³⁵

That these men, representing technical skills so badly needed by the Fourth Air Army, were left to walk to Hollandia bespoke the success of Fifth Air Force interdiction of waterborne movements into and out of Wewak. During the intensive campaign, medium and light bombers, aided by fighter sweeps, claimed destruction of sixty-one barges and

coastal luggers and probable destruction of fifty other such small craft.³⁶

During the operations, the Japanese ran in one merchant ship convoy—the 21st Wewak Resupply Convoy. Three freighters, the *Yakumo Maru* (3,199 tons), *Teschio Maru* (2,840 tons), and the *Taiei Maru* (3,221 tons), and a 78-ton sea truck, escorted by three 100-ton sub-chasers, had sailed from the Palaus for Wewak via Hollandia. On 16 March, while one day out of Hollandia, the *Taiei* and *Teschio* were damaged by Allied reconnaissance planes, the *Teschio* so badly that it remained at Hollandia. The other two ships slipped into Wewak at 1800 on 18 March, quickly unloaded a cargo of rice, medical supplies, and ammunition, embarked 363 troops, and were en route back to Hollandia early on the morning of 19 March when discovered by a search plane. Five Seventh Fleet destroyers, bombarding Wewak on the night of 18/19 March, had completely missed them. Forty B-24's, loaded to strike AA positions at Cape Boram, were diverted to the shipping target, but in a disappointing attempt at medium-level bombardment, managed to sink only the *Yakumo*. To finish the job, the V Bomber Command sent out fifty-six B-25's and thirty-three A-20's, most of which had already flown one mission to Wewak that morning. Planes of the 345th Group reached the convoy first and began an attack which rapidly turned into "a wild mass of milling airplanes each trying to outdo the other." Escorting fighters, meeting no enemy planes, strafed floating debris. Mast-level attacks (one of the A-20's brought back a page from the *Taiei's* register in its engine nacelle) rapidly destroyed the whole convoy; in the confusion two A-20's crashed, either from damage caused by flying debris or stray machine-gun fire. After this lesson, the Japanese unloaded their 22d Wewak Resupply Convoy at Hollandia, not Wewak.³⁷

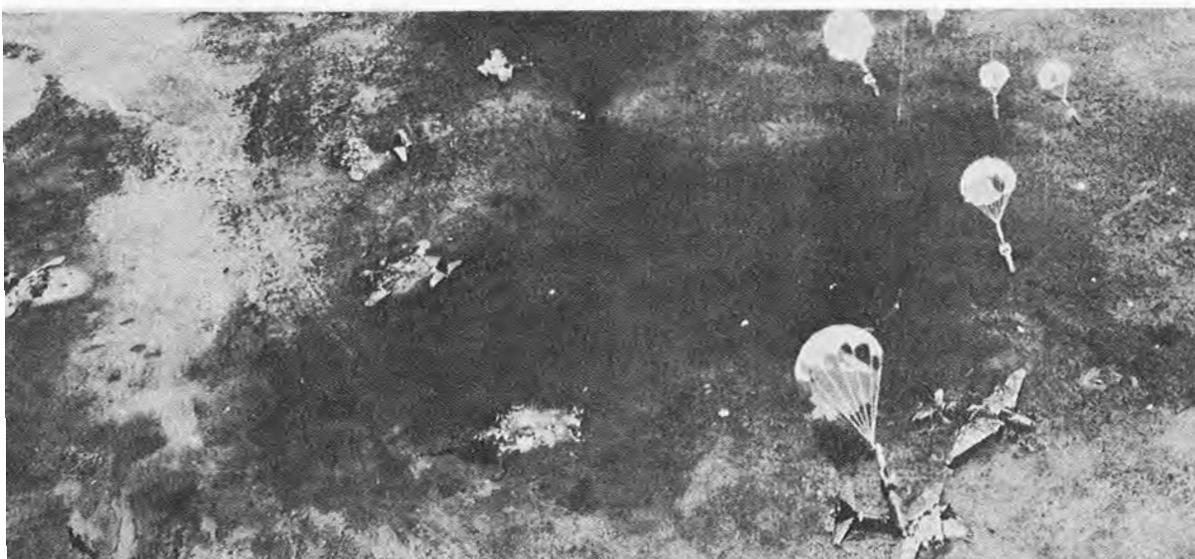
These Wewak operations met only feeble interference by enemy air forces. On 11 March, some forty to fifty Japanese fighters attempted to beat off the Boram raids, and fighters continued to intercept in diminishing numbers on the four succeeding days. On 16 March, however, all fighter strength was withdrawn from Wewak to Hollandia to cover the approaching convoy, and thereafter Wewak went virtually without cover. During the intensified air campaign, Fifth Air Force fighters claimed destruction of fifty-nine enemy planes, while the bombers claimed seven destroyed. Captured enemy reports differed in detail but confirmed the estimate that losses had been heavy—thirty-



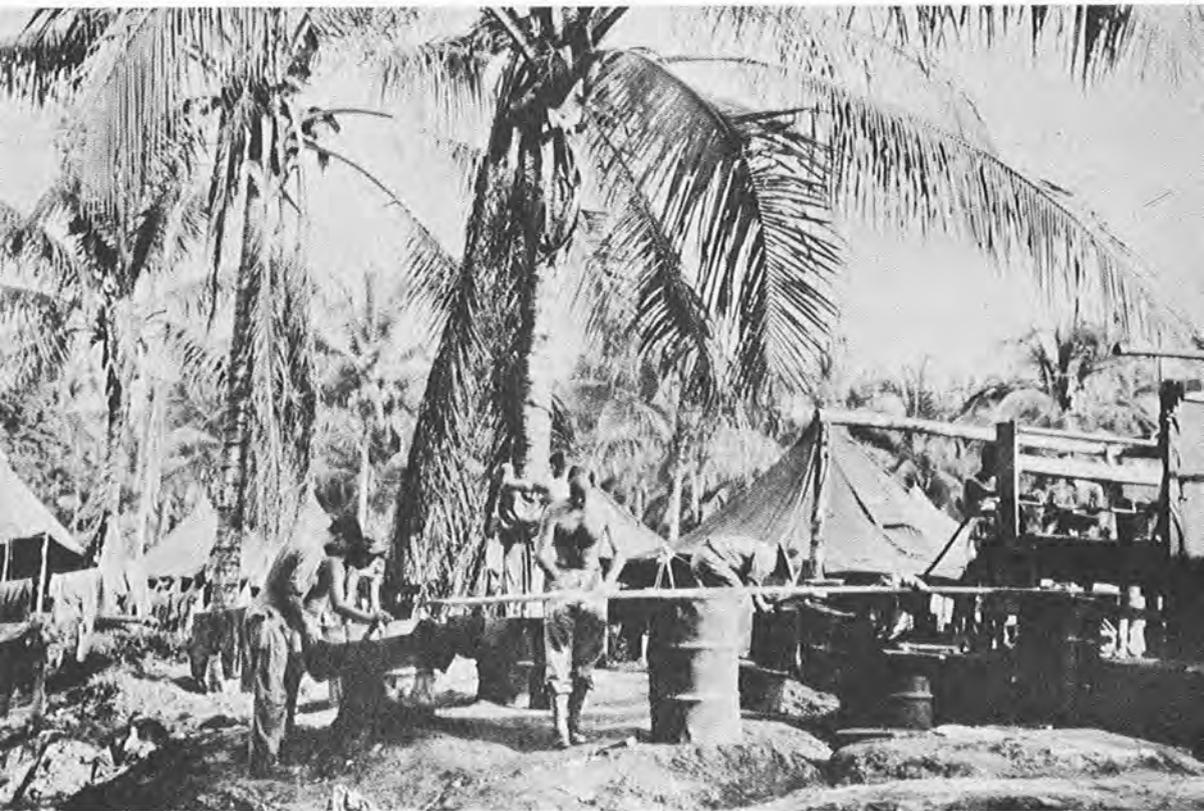
SUPPLY IN FORWARD AREAS

Above: OPEN DUMPS, BOUGAINVILLE

Below: ENGINEER SUPPLIES, LOS NEGROS



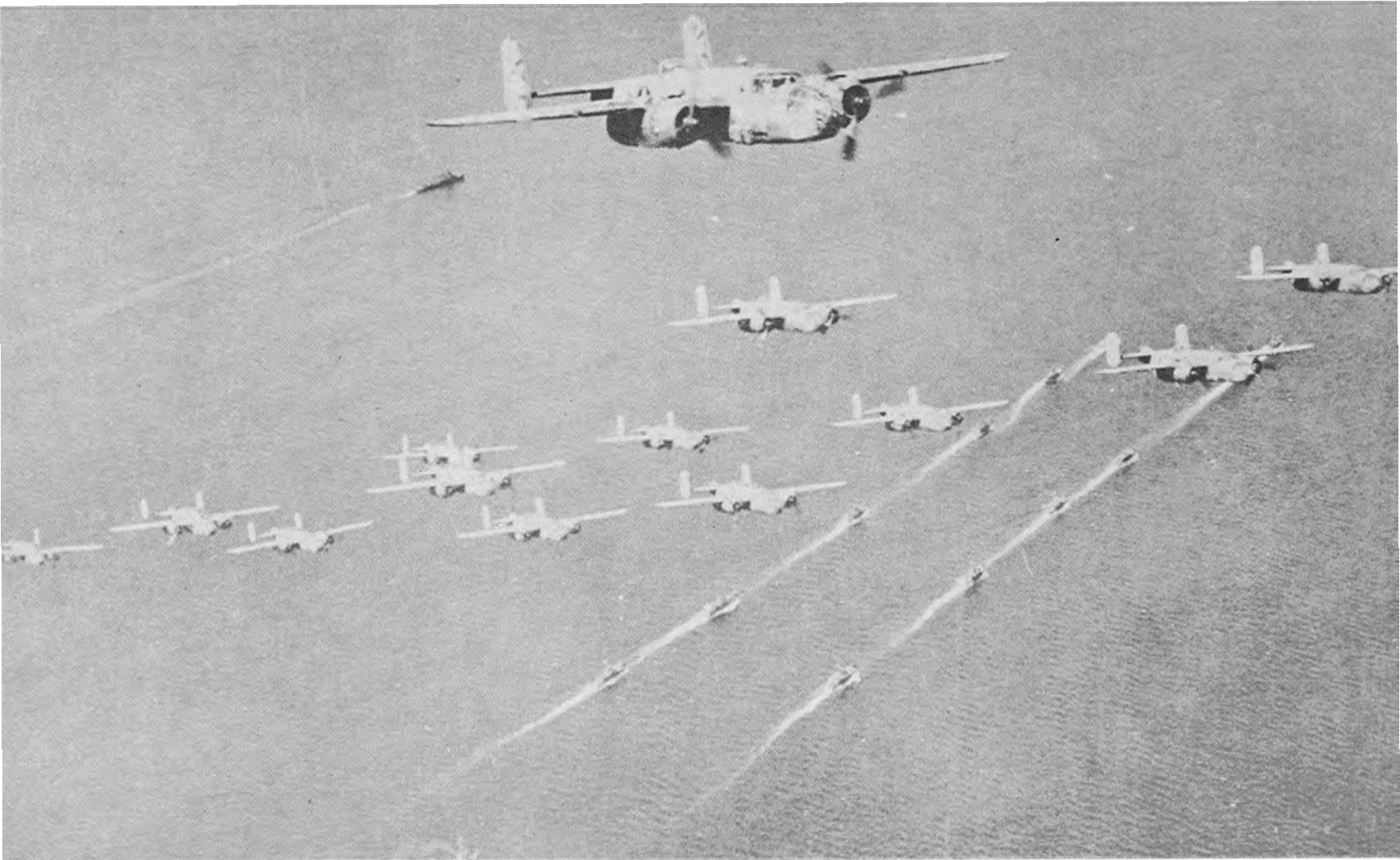
HOLLANDIA: KNOCKOUT OF ENEMY AIR POWER, 30 MARCH-3 APRIL 1944



CAMP AREAS

Above: MUD AT FINSCHHAFEN

Below: LAUNDRY AND SHOWER AT HOLLANDIA



D-DAY FOR GREEN ISLANDS: B-25'S EN ROUTE TO RABAU PASS INVASION FLEET

seven planes destroyed and twenty-four damaged in the air over Wewak, with six destroyed and eighteen damaged on the ground. During March, the Fourth Air Army ventured a few night raids against Saidor, but with the exception of slight damage on 15 and 18 March, these raids were ineffectual. Gusap was attacked by two night raiders on 15 March, one of which was shot down by AA fire. After 18 March, there were no more of these harassing raids.³⁸ In accomplishing the neutralization of Wewak, the Fifth Air Force itself lost to enemy action only twenty-one men killed or missing and four wounded, nine fighter planes, and five bombers. Efficient air-sea rescue service furnished by the Navy Catalina Squadron VP-34, flying from Langemak Bay (Finschhafen), lowered the Allied casualty rate. On 15 March, for example, a Catalina picked up a P-38 pilot within sight of Kairiru Island. Again on 20 March, a Catalina saved the sole survivor of the two A-20 crashes, a pilot who had spent an uneasy seventeen hours afloat in a life-vest. Counting losses from operational accidents, the Fifth Air Force lost thirty-four planes—sixteen bombers and eighteen fighters.³⁹

With Wewak disposed of, Hollandia took its place as the next focus of interest for the Allied Air Forces. Complete photo coverage of the three Hollandia dromes on 25 March revealed a strong concentration of air power there: 264 serviceable planes, 31 planes which seemed to have been wrecked, and 31 probably unserviceable aircraft. Radio intercepts between 25 and 30 March tabulated an additional 34 planes arriving at Hollandia with only 13 departing. Allied intelligence officers estimated that by 30 March the enemy had a total of 351 aircraft there.⁴⁰ Small Fifth Air Force night raids, beginning on 4 March, had accomplished little, and these harassing attacks had been curtailed between 22 and 27 March while Allied submarines secured hydrographic data off Humboldt and Tanahmerah bays. Committed to night attacks between 28 and 31 March for cover of Fifth Fleet oiling operations, the Fifth Air Force staged ten B-24's through Saidor (Nadzab, being partially surrounded by mountains, was not suitable for night take-offs) for another raid on 28 March. Weather turned back six of the planes, and the other four found the target so cloud-covered as to prevent bombing. The weather was again poor on the next night, but seven B-24's dropped ten tons of frags and delayed-action bombs in the vicinity of the three dromes.⁴¹

Meanwhile, Brig. Gen. Paul B. Wurtsmith, acting commander of

ADVON Fifth Air Force while Whitehead was in Australia, made plans for the first daylight raid on Hollandia. Hoping to put 100 B-24's over the target on the initial strike, he had asked for thirty planes from the 380th Group, only to be informed that the 380th was hard pressed to fly its own missions. Wurtsmith next proposed to send B-25's on the initial raid, but Kenney advised him to use Liberators with maximum fighter cover—a decision in which Whitehead concurred on his return to Nadzab about 29 March. The low-level strafers were more effective than B-24's against grounded aircraft, but the B-25's would be extremely vulnerable to AA and the A-20's would have operated dangerously near their extreme range. The solution adopted in the final tactical plan was new in SWPA: Liberators would be armed with small bombs, mostly 20-pound frags, and they would concentrate against enemy airfield dispersals in their first strikes. After their initial strikes against aircraft, the Liberators would shift their attention to AA positions, and, following a softening of the AA defenses, medium and light bombers (as at Wewak) would finish off the area. Since the Allies hoped to rehabilitate the Hollandia strips as quickly as possible, hits on the runways with heavy ordnance would be avoided. Fighter cover would be provided by long-range P-38's, which would escort the bombers over the target, and by shorter-range P-47's, which would meet the bombers near Aitape, beat off pursuing fighters, and shepherd them home. Medium and light bombers would continue attacks on the airfields at Wewak to prevent their use by Japanese fighters.⁴²

The first daylight mission to Hollandia came on 30 March. Before dawn that morning, seven B-24's attacked the Hollandia dispersals, and just after sunrise another force of seventy-five Liberators, each bombed up with either free-falling 20-pound frags or 120-pound frag clusters, was airborne. Formed into a tight wing made up of eleven squadrons of six or seven heavies each, the bombers at 0930 were joined by fifty-nine P-38's from Nadzab. The formation having flown up the Markham-Ramu-Sepik river valleys, at 1035 it swept over Hollandia and Cyclops dromes to bomb from 10,000 to 12,500 feet targets obscured by only a few low-drifting clouds. By 1039 hours, sixty-one B-24's had deposited 1,286 x 120-pound frag clusters and 4,612 x 20-pound frags on the dispersals. Japanese AA and fighter reaction was in general lethargic. Twenty-five or more fighters made "eager" passes against the 65th Bombardment Squadron, whose gunners claimed two destroyed. The 80th Fighter Squadron engaged a reported thirty-five to

forty hostile fighters, destroying seven of them. The 431st Fighter Squadron claimed one Tony damaged, but the 432d encountered no enemy fighters. Japanese interception seemed badly disorganized. The planes milled about with little evident formation, and most of the pilots appeared to have little desire for a fight. The P-38's withdrew to Nadzab as soon as the bombers cleared their targets, and P-47's, meeting the Liberators near Aitape, convoyed them home without incident. The experience proved to be an encouraging test of long-range fighter escort, although five of the P-38's taking off had turned back because of fuel difficulty. Two B-24's had turned back because of mechanical troubles, four lost the formation and bombed But, and eight were unable to release their bombs at the target because of malfunctions. Even so, the bomber crews came home with the conviction, as one squadron reported, that "Hollandia had really been 'Wewaked.'" ⁴³

The Lightning pilots, unable to reconcile the puny Japanese interceptions with estimates of the enemy potential, assumed that they had enjoyed the advantage of surprise. ADVON lost no time in putting the theory to a test. On 31 March it dispatched an almost identical mission: seventy-one Liberators, of which sixty-seven bombed the dispersals at Hollandia, Cyclops, and Sentani airdromes with 153 tons of 100-pound demos, frags, and incendiaries, flew at the same altitudes as the previous day, and arrived only a few minutes earlier. They found the AA more accurate, although only two planes received major damage. The fifty-two P-38's reaching Hollandia found the Japanese pilots both inexperienced and unaggressive. The 80th Squadron encountered about twenty-five enemy fighters, and claimed six destroyed. It also shot down a Dinah bomber which blundered within range. The 431st Squadron met something over twenty-five hostile fighters about thirty miles south of Lake Sentani, shooting down seven of them. One P-38, however, became separated and was shot down. The 432d Squadron met only six Japanese planes, and claimed only probables. As on the previous day, the P-38's were relieved by P-47's, several of which, too low on fuel to return to Nadzab, had to land at Gusap. ⁴⁴

Interpretation of strike and special reconnaissance photographs made after the second mission showed most encouraging results. After the first day's mission seventy-three Japanese planes were identified as burned out and completely demolished. The attack of 31 March brought the total to 199 aircraft. Nine other planes, obviously destroyed in the night attacks, raised the figure to 208 enemy aircraft

put out of action on the ground. The Japanese offered unanticipated confirmation of the results by flying out so many of their planes after the second mission as to leave no other conclusion but that they were withdrawing serviceable aircraft from Hollandia.⁴⁵ It had been a great victory for the B-24's.

After they had rested on 1 April, the weather up at Hollandia diverted the Liberators on the following day to the dumping ground at Hansa Bay. But when the weather cleared on 3 April, the Fifth Air Force staged its heaviest air attack to that date, sending out more planes and expending more ordnance than in any single mission theretofore undertaken. Sixty-six B-24's, minus one which crashed on take-off and two early returnees, followed the now familiar route to Hollandia. This time they carried 1,000-pound bombs, 492 of which were dropped between 1049 and 1102 on AA positions. An estimated thirty Japanese Tonys and Oscars attempted without success to break up the bomb runs, and B-24 gunners claimed two fighters destroyed, while the twenty-one escorting P-38's of the 80th Squadron claimed ten. Hard on the bombers came ninety-six A-20's, representing every squadron of the 3d and 312th Groups, to sweep the three strips at treetop height. They strafed, dropped 100-pound parademolition bombs, and winged away, leaving fires among grounded aircraft, stores, and other targets of opportunity. The 432d Squadron, covering the A-20's with seventeen P-38's, encountered about twenty Japanese fighters and claimed twelve definitely destroyed, against the loss of one P-38. The third attack wave brought seventy-six B-25's from the 38th and 345th Groups on a sweep across the strips at noon, scattering parafrags and parademos and strafing everything in sight. One squadron branched off from the airdromes to strafe and photograph the trail to Tanahmerah Bay. The 431st and 433d Fighter Squadrons, covering the Mitchells with thirty-six P-38's, encountered only three Japanese fighters and shot them all down. Results of this morning's work were difficult to assess in terms of the destruction wrought by 355 tons of bombs and over 175,000 rounds of strafing ammunition, but it was certain that Hollandia could no longer be considered a major air installation.⁴⁶ The comment of a Japanese seaman after hearing of the Allied mission of 3 April against Hollandia, although seemingly confused as to imperial folklore, correctly assessed the Allied victory: "Yesterday, the anniversary of the birthday of Emperor Meiji, we received from the

THE ARMY AIR FORCES IN WORLD WAR II

enemy, greetings, which amount to the annihilation of our Army Air Force in New Guinea."⁴⁷

After 3 April, although plagued by bad weather, the Fifth Air Force virtually owned the air over Hollandia. There would be only one resurgence of air opposition, on 11-12 April. The Japanese 14th Air Brigade, on the former date, staged a small fighter force to Wewak which, despite the loss of a Tony to the 8th Fighter Squadron, shot down three P-47's of the 311th Fighter Squadron, a new organization that had lately arrived from the United States and had only begun operations at Saidor on 7 April. The enemy force perhaps had withdrawn to Hollandia by the next day, because some twenty enemy fighters pounced on a straggling B-24 there and shot it down. Aerial gunners of the 403d Bombardment Squadron claimed destruction of one of the interceptors, and the 80th Fighter Squadron claimed eight others destroyed.⁴⁸ In this action, Capt. Richard I. Bong scored his twenty-sixth and twenty-seventh aerial victories, thus topping the score of twenty-six victories established by Rickenbacker in World War I. Promoted the same day to major, Bong was taken out of combat and returned to the United States on temporary duty at the suggestion of General Arnold, who feared adverse reaction among younger pilots if Bong were to be lost in combat after establishing such a record.⁴⁹

Flying weather permitted coordinated heavy, medium, and light attacks against Hollandia on 5, 12, and 16 April; on 8 April, only the heavies succeeded in penetrating a weather front. These missions, with one exception, proved uneventful and merely contributed to the cumulative destruction at the Japanese bases. The exception, on 16 April, illustrated well the hazards of New Guinea flying. Weather predictions that morning had not been too favorable, but ADVON, with the remaining days for neutralizing Hollandia running out, was anxious to get in every possible strike. And over the target area, the weather made no trouble as 58 B-24's, 46 B-25's, and 118 A-20's prosecuted successful attacks against AA installations, stores at Jautefa Bay, and other supply and personnel areas. According to a P/W captured later at Hollandia, this attack virtually wiped out such fixed defenses as had been built in the Humboldt Bay area and sped the surreptitious exodus of Japanese soldiers into the jungle.⁵⁰ But on the way home the planes ran into a front which had suddenly moved in across the Markham valley to

blanket Nadzab and other lower Markham fields with low clouds and rain.

Most of the planes had extended their range to reach Hollandia, and after breaking their formations to penetrate the weather front, each pilot was on his own. More than thirty of the planes headed for Saidor, which, although closed in, was the nearest landing ground. There the 56th Fighter Control Squadron had put its homing apparatus on the air, the D/F radio being manned by Cpl. John Kappastatter, who skilfully secured the fixes on the planes calling for help and guided them in as best he could to immediate landings without attention to customary procedures. Even a few minutes of precious gasoline might make the difference, and the whole camp dropped everything to "sweat out" the landings. From above the clouds on the common radio frequency came calls humorous, pathetic, and profane. One P-38 pilot, despairing of making the field, was heard to say: "Guess I won't make it. Send something out to get what is left of me." He barely managed a landing. Another pilot, after pleading vainly with others to give one of the aircraft in his flight priority to land, curtly announced that he would "shoot the next bastard who cuts in ahead of my buddy." His friend landed next. Flight patterns were ignored by planes which had only enough gasoline for direct approaches. One P-38, landing on one end of the runway, met a B-24 coming in from the opposite direction and literally hopped over it. In a similar but less happy meeting, an F-5 and a B-25 collided in the middle of the strip. Nor were all of the crews lucky enough to get to Saidor, and when the count could be taken, it was found that nineteen bombers had been lost, seven had been damaged but were repairable, and one could only be salvaged. The 433d Fighter Squadron lost five P-38's, and another was damaged in a belly landing at Saidor. The 26th Photo Reconnaissance Squadron lost an F-5 and its pilot in the crash at Saidor, and one of the six F-7's with which the 20th Combat Mapping Squadron had been photographing the invasion beaches at Hollandia, having lost two engines to Japanese AA, cracked up in landing at Saidor. The Fifth Air Force had lost sixteen men killed, and thirty-seven more were missing in action. Whitehead could point out that the mission had "saved the lives of many hundreds if not thousands of our comrades in arms of the ground forces," but to the men of the Fifth Air Force the day would always be "Black Sunday."⁵¹

Despite the weather, which forced cancellation of planned missions

on nine out of nineteen days, the Fifth Air Force won a decided victory at Hollandia, and one destined to have long-term effect on the remaining period of the war. Japan's 6th Air Division was completely destroyed and soon would be inactivated. Its commander, General Itabana, who in February had predicted that his force would destroy the "tyrannical air forces" opposing it, was relieved of command by imperial order on 7 April. Teramoto moved his own command post to Manado in the Celebes at about the same time. From this location, he attempted to rally the remnants of 6th Air Division units and, using the Amboina, Ceram, Boeroe, and Halmahera bases, to employ them and the weak 7th Air Division in such harassing attacks as were possible with a force of no more than 120 planes. Except for a few technicians flown out, the Fourth Air Army had left behind it in New Guinea some 20,000 maintenance men. Indeed, at Wewak and Hollandia the Fifth Air Force had climaxed two years of steady attrition of the Japanese army air force, and it would never again be a formidable organization.⁵²

After the RECKLESS Task Force had captured the region, examination revealed 340 wrecked planes on the fields. A part of the damage, no doubt, must be credited to the carrier planes of TF 58, which hit the place on 21 April. But the evidence supports the view that a devastating victory had been won by the Fifth Air Force long before the carriers arrived. To these 340 planes must be added claims to some 60 planes shot down by Allied planes into the inaccessible jungle surrounding Hollandia. In exchange, the Fifth Air Force had lost in combat two P-38's, one B-24, and the F-7 which crashed at Saidor after AA damage. A mass of documents captured at Hollandia and the testimony of a few captives threw much light on the debacle. One P/W spoke of a lack of trained pilots; another pointed out that planes ferried into Hollandia were in excess of the pilots available and merely piled up in a pool which, because of a lack of engineering equipment and limitations of the terrain, could not be properly dispersed. A copy of a speech made by the Fourth Air Army ordnance officer at Hollandia on 27 March complained that many of the airplanes ferried in had been exposed to weather for long periods at Manila and could not be flown in combat. Everyone agreed on the critical shortage of maintenance equipment and a most haphazard management of the AA defenses. The Japanese garrison, moreover, was not of high morale. "When the air raid alarm is sounded," commented the ordnance officer, "everyone thinks only to

take refuge in the air raid shelters." An Indian officer liberated at Hollandia corroborated the latter statement, remarking that "one P-38 flying over would cause much confusion." A Japanese navigator of the 75th Air Regiment declared that on one of the first attacks 100 fighters had taken off on a false alarm at about 0900 hours, only to land again at 1000 and be caught refueling.⁵³ This evidence, coupled with the withdrawal of Teramoto early in April, points to a speedy demoralization of the entire garrison following the first devastating air attack.

Seventh Fleet submarines, assisted by the 63d Bombardment Squadron's XB-24's, the 17th Reconnaissance Squadron's B-25's (which searched the New Guinea coast from Finschhafen to the Geelvink Bay daily), and by such other air units as encountered shipping, continued to enforce during April the tight blockade around Hollandia which, according to a report of the Japanese 21 Anchorage, had exacted 65 per cent losses on shipping bound for that port during March. Using its A-20's against shipping in Humboldt Bay on 12 April, the 3d Group sank the 1,915-ton *Narita Maru*. During the month, the 17th Reconnaissance Squadron and the 63d Bombardment Squadron scored three confirmed sinkings of sea trucks, while other Fifth Air Force units claimed to have destroyed four luggers and ten barges, mostly south of Hollandia.⁵⁴

Three small night attacks, combining Fifth Air Force Liberators with Navy PB4Y's and Catalinas, were made against Wakde Island during the early morning hours of 6, 13, and 16 April. These attacks seem to have been more profitable than similar missions against the Sentani airfields, probably because Wakde was only a small island easily identified by radar and so jammed with military objectives that a hit anywhere would be damaging. A captured Japanese diary recorded that the 6 April raid killed eleven men, destroyed a barracks, cratered the runway in five places, and destroyed or severely damaged ten planes. A daylight attack against Wakde by seven squadrons of Liberators was scheduled for 6 April, but weather forced its cancellation.⁵⁵

While the major attention of the Fifth Air Force had thus been fixed on forward targets, the Japanese forces at Aitape, Wewak, and Hansa Bay had been the targets for other shorter-range units and for all units when weather prevented missions to Hollandia. Including a few strikes during March, Aitape village, the Tadjj airstrips, and the offshore islands had received 1,105 tons of bombs by 20 April. Wewak and Hansa Bay continued as priority objectives throughout the month,

Mindando SASA

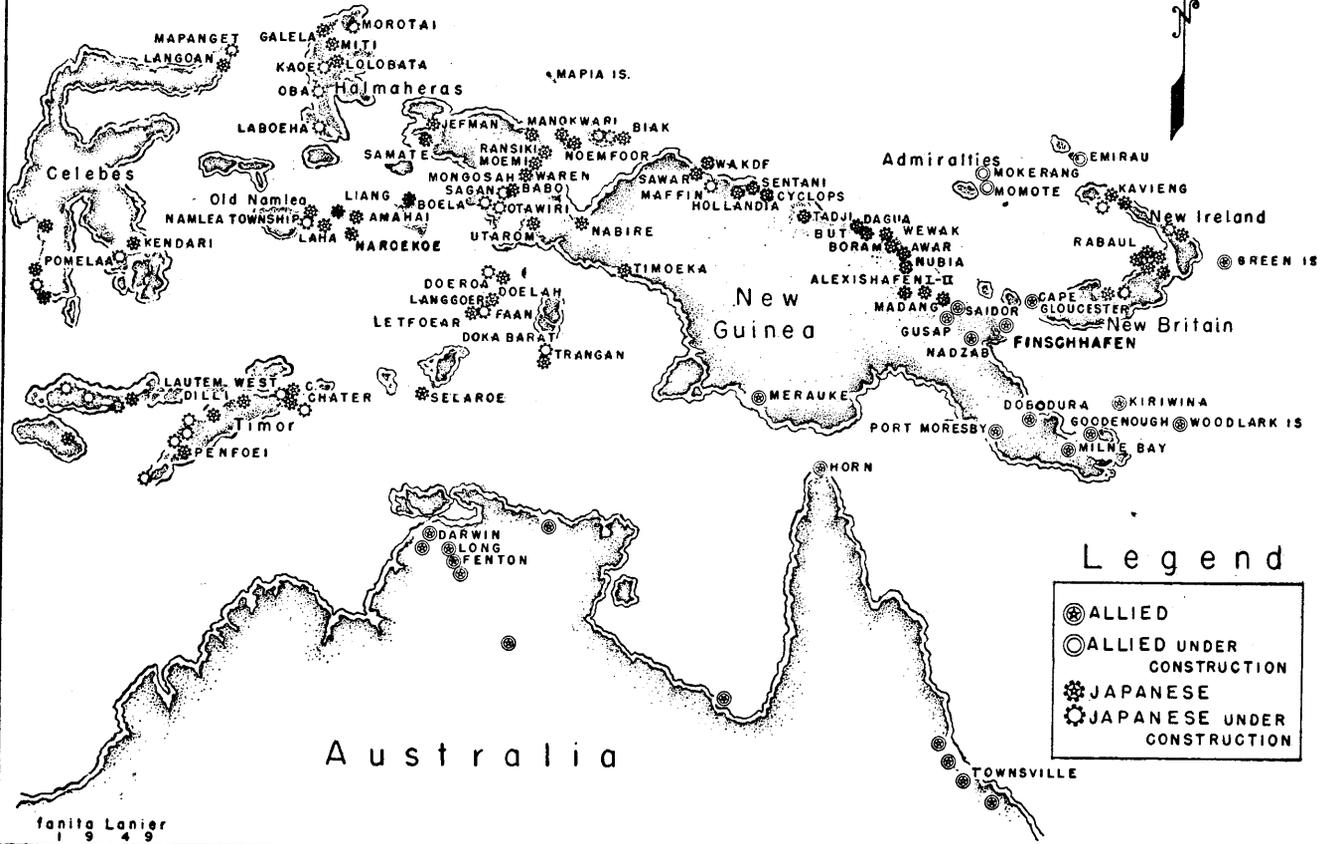
PELELIU PALAU IS

WOLEAI

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SATAWAN

JAPANESE AND ALLIED AIRFIELDS - APRIL 1944



Legend

- ⊙ ALLIED
- ⊖ ALLIED UNDER CONSTRUCTION
- ★ JAPANESE
- ★⊖ JAPANESE UNDER CONSTRUCTION

Australia

receiving 1,276.5 and 2,169 tons of bombs, respectively. A part of this emphasis sprang from GHQ's desire to encourage the Japanese in the belief that the Allies would land next in this general area. Further encouragement in this belief was provided by naval units, at times with the cooperation of Fifth Air Force. On 7 April the 17th Reconnaissance Squadron cooperated with a PT raid against Karkar Island. Heavy bombers struck Nubia and Awar at the same time that a destroyer force shelled coastal targets at Hansa Bay on 11 April.⁵⁶

Japanese airfields in Geelvink Bay and on the Vogelkop—indeed, enemy bases along the whole west flank of the main line of advance—were left to RAAF Command, which employed the 380th Bombardment Group as its main striking force. Getting back to Long and Fenton fields from its sojourn in New Guinea, the 380th sent out to Japan and Noemfoor Islands on 11 March a photo mission which aborted because of weather. On 15 and 16 March, the group staged two missions through Coronna Downs on seventeen-hour flights to bomb the Japanese naval base at Soerabaja in Java. Smaller missions went out to bomb Babo airdrome on 18 March, to photograph the Halmaheras on 23 March, and to keep under general surveillance the Geelvink-Vogelkop area. Group missions late in March and early in April attacked Penfoei drome on Timor and Langgoer and Faan dromes on the Kai Islands. Weather turned so extremely bad between 9 and 15 April that the group could send out only five small reconnaissance flights. A new directive then required the 380th to neutralize Kai dromes until 18 April, divide its strength between Manokwari and Babo dromes on 18–19 April, and concentrate on Noemfoor Island between 20 and 24 April. Photo and surveillance missions would be limited to those required for bombing, plus one late afternoon reconnaissance to Geelvink Bay designed to discover whether the Japanese might be moving naval units there. Using six Liberators to each squadron, the 380th carried out these assignments to the best of its ability.⁵⁷

The RAAF, in addition to patrol and bombing of targets in the Banda, Timor, and Arafura seas, contributed successful mining operations in the harbor at Balikpapan, believed to be the point of origin for much of the Japanese aviation gasoline shipped by tanker to New Guinea. After Catalinas of the 43 Squadron made night visits on 20, 24, and 27 April, Japanese shipping notices showed that the harbor was closed between 20 and 29 April and for an undetermined time thereafter. A delayed-action mine evidently sank the Japanese destroyer

Amakiri while it was sweeping the harbor on 23 April. This same squadron mined waters off Sorong, Manokwari, and Kaimana during March and April. After the war, Japanese officers declared that mines caused them more trouble at Balikpapan than did later and more orthodox bombing attacks.⁵⁸

On the right flank of the proposed advance on Hollandia, enemy targets fell to the Fifth Fleet, with assistance from the Thirteenth Air Force and Aircraft Seventh Fleet. In accordance with an acceleration by the Fifth Fleet of its target date for the Palaus raid from 1 April to 30 March and a request for harassment of Woleai Island through 2 April, Whitehead sent Seventh Fleet Catalinas from Seeadler to bomb the airstrip on Woleai each night, beginning 28 March. Most of these planes had to push through bad weather and bomb by radar, but they pressed home their attacks with "daisycutter" fuzed 500-pound bombs and 1,000-pound contact-fuzed bombs.⁵⁹ On the night of 26/27 March two Fifth Air Force B-24's, manned by Marine crews but commanded by V Bomber Command pilots, flew from Los Negros to the Palaus in an effort to photograph objectives there in preparation for the Fifth Fleet raid. One plane searched through bad weather most of the night but failed to find its objective; the other dropped flash bombs which revealed a large amount of shipping in Malakal harbor, but it failed to obtain photos.⁶⁰

The XIII Bomber Command's Liberators, flying first under SOPAC and later under Thirteenth Air Task Force operational direction, furnished more important and immeasurably more hazardous cover for the carrier strikes. Beginning on 26 March, it was their task to neutralize Japanese air strength at Truk and Satawan, a mission which required them to fly approximately 1,700 miles without fighter escort and to attack hostile airfields heavily defended by AA and fighters. The first two missions, flown on 26 and 27 March, proved abortive because of navigational error and weather, but on 29 March the 307th Bombardment Group got through. Twenty-four Liberators had taken off at Munda on the preceding day and staged to Piva strip on Bougainville. Twenty of them, topping off with additional fuel at Nissan, bombed the airstrip on Eten Island, Truk Atoll, at 1300 hours on 29 March. During the bomb runs, the planes met AA fire variously described as heavy, moderate, and generally inaccurate, and immediately after the "bombs away" some seventy-five Japanese fighters, evidently having held off until the AA had fired, pressed aggressive attacks for three-

quarters of an hour. In this furious engagement, 307th gunners claimed thirty-one definite victories, but two B-24's were lost, fifteen damaged, twenty men were killed or missing, and eleven others were wounded. One of the Liberators, trailing gasoline from a damaged engine, was set on fire by a phosphorous burst bomb, a new aerial weapon which the Japanese fighters lobbed in among the bombers to break their defensive formations. The other planes landed safely at Nissan Island, whence they returned to Munda. Photo interpretation indicated that forty-nine Japanese aircraft had been destroyed or badly damaged on the ground. In recognition of its outstanding performance, the 307th received a presidential citation for the mission.⁶¹

On the following day, eleven B-24's of the 5th Bombardment Group hit the runways and revetments on Moen Island, releasing their 100- and 500-pound bombs through a partial overcast. They were intercepted by about forty Japanese fighters, and in a running fight lasting more than an hour some eleven of the enemy planes were shot down at a loss of three B-24's. The 5th and 307th Groups teamed up on 2 April to execute a highly successful raid against Dublon town and the Nanko district of Truk Atoll, despite murderous AA fire and interceptions by some fifty fighters. B-24 gunners were credited with thirty-nine fighters destroyed, but once again the Liberators were badly damaged and four of them did not return from the mission. After such heavy losses in day raids, XIII Bomber Command next sent out a night attack, in which four 868th Bombardment Squadron "snoopers" led twenty-seven B-24's of the 307th Group to Dublon town on the night of 6/7 April. One B-24 was lost, either to flak or to a hostile night fighter. Having successfully covered the Fifth Fleet's raid on Truk, albeit at a heavy cost, Halsey called a halt to the Truk missions.⁶²

Task Force 58, built around eleven fast carriers, had fueled near Nissan Island on 26 March and forthwith begun a speedy run toward the Palaus. On 28 March, a Japanese search plane from Woleai gave the alarm. Admiral Koga, at Palau, seems first to have considered sending his fleet units out to meet the attack, but on the next day he moved his headquarters ashore and ordered all Japanese naval units to flee to safer waters. The shore-based 26th Air Flotilla did its best, but seven torpedo bombers sent out on the afternoon of 29 March were quickly shot down by TF 58's air patrols. Other torpedo attacks, launched by six Japanese planes during the night, similarly failed. At dawn on 30 March, TF 58 launched a fighter sweep which eliminated such Japa-

nese planes as were airborne over the Palaus and strafed the airfields. New Japanese planes, evidently flown in from Tinian during the night, were destroyed in another early morning sweep on 31 March. The primary target on both days was shipping, and although the Japanese fleet units had escaped, confirmed reports gave carrier strikes credit for sinking two old destroyers, four escort craft, and twenty other vessels grossing 104,000 tons. TBF's, escorted by fighters which strafed AA positions, mined Malakal harbor for good measure. TF 58 began withdrawing on 31 March, one carrier group attacking Yap, Ulithi, and Ngulu en route. Just before leaving the general area, the entire force struck Woleai on 1 April.⁶³ Japanese fleet units had been driven out of the Palaus and could no longer endanger RECKLESS. Admiral Koga, having weathered the carrier strikes ashore, became alarmed by an erroneous report that a transport force was leaving the Admiralties, and he set out for Davao on the evening of 31 March to rally his forces to withstand an attack on the Palaus. En route his flying boat was lost in bad weather, and he was never seen again. Thus the Japanese naval forces were temporarily leaderless at the critical juncture during which the Allies mounted the RECKLESS operation.⁶⁴

The carrier strikes were followed up by a return to activity, after only a brief respite, of the 5th and 307th Groups of the Thirteenth Air Force. The 307th Group sent three more night missions to Truk, on 23, 25, and 27 April, before suspending operations for its move to Mokerang airfield on Los Negros. It had been preceded in the move to the Admiralties by the 5th Group, which was ready at Momote by 18 April for the first of nine day missions against Woleai Island, 690 miles northwest of the new base. The first mission, flown by twenty-two Liberators, successfully bombed Woleai and Mariaon Islands, destroying six Japanese planes on the ground at Woleai and shooting down three of ten to fifteen intercepting Zekes. After this mission the group raided Woleai each day through 26 April and, skipping the 27th, ended the series with four more consecutive daily raids. AA continued to be troublesome, but Japanese fighters put in an appearance only on 23 April, when some twenty-five determined Zekes so badly damaged a Liberator that it had to be ditched. For their eagerness, the Japanese fighters paid a dear price—seventeen of their number were claimed destroyed.⁶⁵ RAAF Catalinas mined Woleai waters on the nights of 16–19 April.⁶⁶

Thus did the air forces prepare the way for, and assure the success of, the landings at Aitape and Hollandia.

The Landings

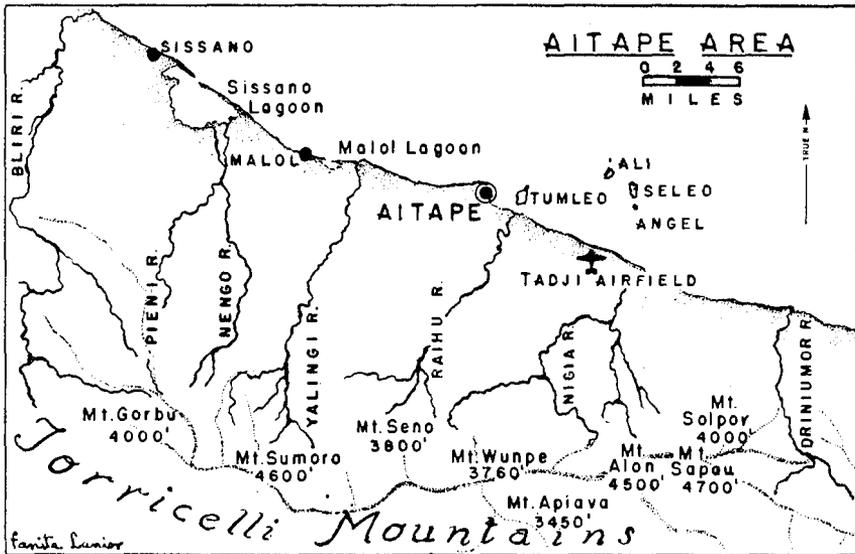
Task Force 77, having embarked the I Corps and 24th Division troops at Goodenough and the 41st Division troops at Cape Cretin, held landing rehearsals on 8–10 April and began its movement northward on 16 April. After a pause in the Admiralties, the groups comprising the attack force joined up northwest of the Admiralties on 20 April. Late on the next afternoon they split and, steaming through the night, reached their respective invasion beaches early on the morning of 22 April.⁶⁷

Meanwhile, TF 58 had moved to a position between Wakde and Hollandia and had launched strikes against Wakde and Sarmi airfields and the Sentani fields on the morning of 21 April. On this and the three following days, the carrier planes thoroughly neutralized such aircraft as remained at Wakde-Sarmi and, according to Japanese documents, almost completely disrupted the logistic establishment of the Japanese 36th Division at Sarmi village. Little remained to be done at Hollandia, but the carrier planes strafed the airfields and shot down one airborne plane. At 0650 on 22 April, TF 58 bombed the waters off the Tanahmerah beaches to explode possible mines, but it canceled other air strikes because of the utter lack of opposition. Cruiser and destroyer fire, swelled by rockets from amphibious craft, then prepared the way for unopposed landings at both Tanahmerah and Humboldt bays. As the troops went ashore, they found cooked but uneaten breakfasts in beach bivouacs, revealing that such of the defense troops as had not already taken to the hills had been completely surprised. Preceded by naval fire and air strikes by TF 78 planes, a similarly successful landing was made at Aitape. Eleven of the 672d Bombardment Squadron's A-20's—the only Fifth Air Force planes venturing beyond Wewak on 22 April—bombed the Tadjji strip at 0850 hours.⁶⁸

At Aitape the assault by the PERSECUTION Task Force met little resistance, and the 163d Infantry, reinforced by elements of the 127th Infantry between 24 and 28 April, speedily pushed the disorganized Japanese troops out of the chosen defense perimeter. The RAAF 62 Works Wing began repairing the north strip at Tadjji at 1300 hours on D-day and, ignoring the Japanese to the extent even of using floodlights during the nights, it was able to pronounce the strip usable on the morning of 24 April. An advanced detachment of the 10 Operational Group had arrived on D-day, and on 24 April it called forward twenty-five P-40's of the RAAF 78 Wing. These planes began patrols to Hol-

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landia the next morning. The north strip, never properly drained or compacted, proved to have been prematurely opened and had to be closed for repairs between 26 and 29 April. By 25 April, Detachment H, Fighter Wing and Company B, 583d Signal AW Battalion had completed the temporary installations of the 30th Fighter Sector. On the night of 27/28 April, however, a Japanese plane successfully eluded the four radars operating and hedgehopped over the Torricelli Mountains to bomb the USS *Etamin*. The next night infantry patrols met the first



signs of organized Japanese resistance, but it proved to be only a token resistance. Air echelons of another RAAF P-40 squadron, followed by the 65th Troop Carrier Squadron, flew into the Tadji strip as soon as it was reopened. With the relief of the 163d Infantry by the 32d Division on 4 May, a move designed both to release the regiment for invasion of Wakde and to increase the Aitape garrison against an expected Japanese counterattack, the assault phase of the Aitape campaign was successfully concluded.⁶⁹

It was fortunate that Japanese resistance at Hollandia was slight, because the ground forces found the beach-exits from Tanahmerah Bay and the routes inland to be fully as unfavorable as low-level aerial reconnaissance had indicated earlier in the month. The 24th Division discovered one of its beaches to be backed by a waist-deep swamp,

while the other was limited by a coral shelf which blocked it at low tide. General Eichelberger, accordingly, changed the plan to route his heaviest forces through Tanahmerah and diverted his reserve and headquarters to Humboldt Bay. The 21st Infantry, slogging its way over a track so muddy and subject to landslides that even jeep traffic was impossible, captured Hollandia drome on the afternoon of 26 April, while the 19th Infantry remained behind to patrol Tanahmerah Bay and hand-carry supplies forward over the tortuous trail. Meeting only sporadic resistance and speeding its attack by amphibious movement across Lake Sentani, the 186th Infantry seized Hollandia town and sent one reinforced company to clear out the Tami drome area on 27 April. By 29 April the few remaining Japanese troops had been mopped up.⁷⁰

Little direct air support was required, but the fast carriers sent out a few planes to strafe and bomb targets of opportunity in advance of the infantry regiments. A bombing mission on 23 April, for example, preceded the capture of Hollandia town. On 24 April, as scheduled, CVE's took over the air defense mission, relieving TF 58 for a parting raid against Truk.⁷¹ Although the RECKLESS troops needed little tactical air support, the troops moving inland soon ran short of food and munitions and, being unable to transport any bulk of supplies overland, they sent out a stream of urgent demands for airborne resupply. For two days planes were blocked out of the area by torrential rains and low cloud ceilings, but on 26 April, twelve B-25's of the 17th Reconnaissance Squadron successfully dropped food and ammunition to the 21st Infantry at Dazai. On the next day, at a time when the infantry either had to have food or start withdrawing from the airdrome area, the Fifth Air Force used twenty-three B-24's and forty-three B-25's to drop rations on Hollandia drome. Thus fed, the engineers, using captured Japanese equipment and a few light machines brought over the road from Pim, smoothed Cyclops strip and considered it usable on 28 April. A C-47 landed there the next day, but the strip was not ready to receive two squadrons of P-40's belonging to the 49th Fighter Group until 3 May. These P-40's relieved the CVE's at 1900 the next afternoon. To help supply this small fighter force—the road situation would make this at first almost entirely an airborne effort—the 41st Troop Carrier Squadron was transferred to Hollandia on 4 May.⁷²

Terrain and transportation difficulties also retarded the establishment of an adequate air warning network for the 31st Fighter Sector. Assault echelons of Detachment G, Fighter Wing and Company D,

583d Signal AW Battalion landed at Tanahmerah Bay on D-day and established an assault control center on the beach by 1700 the following day. This center was supposed to have moved overland to the airdromes, but, unable to transport its heavy equipment over the trail, it had to move to Humboldt Bay and thence to the airdromes. With the resulting delays, it was not able to reach its final destination until 8 May. Beachhead confusion retarded the installation of radars; and reporting procedures, as well as the technique of control in general, were complicated by a continuing lack of ground wire lines. The Fifth Air Force finally flew twelve VHF radios in to provide at least a minimum of communications and, when ALAMO Force remained unable to move AA units inland, flew two airborne batteries to the airfields. Permanent aircraft warning installations began to be established during the latter part of May. On 17 May a GCI radar went into operation, and on 29 May the permanent fighter control center, manned by the 49th Fighter Control Squadron and Company C, 574th Signal AW Battalion took over the air defense of Hollandia.⁷³

Fortunately, the enemy attempted only six night raids with a total of twelve planes during this time of incomplete air defense. The first, at 1942 hours on 23 April, was made by a single bomber upon the main landing beach at Humboldt Bay. One of its bombs set fire to a Japanese bomb dump on the beach, and the resultant conflagration and explosions killed 24 soldiers and wounded 100. Before the fires could be checked, a large part of the supplies landed at the beach were destroyed. A control mix-up prevented AA from firing, and the bomber escaped undamaged. Late on 1 May, two enemy fighters dropped bombs which killed seven men, wounded forty-two, and destroyed four vehicles. Other raids on 27 April, 3, 4, and 18 May caused no noteworthy damages.⁷⁴ The difficulty with air warning facilities prompted V Fighter Command to request assignment of a number of amphibious vessels in which it planned to install radars and radio equipment, but the pressing shortage of such vessels prevented the allocation of anything more than one LCT for an LW/AW radar. Consequently, the Fifth Air Force transferred to the command three C-47's for the installation of equipment that would provide a completely air-transportable, fighter control "center." This "Flying Circus," as it was popularly called, would be ready for emergency use at Biak.⁷⁵

Ground reconnaissance soon revealed that the major logistical and air base planned at Hollandia could never be developed. Col. R. E.

Beebe, Jr., Allied Air Forces chief of staff, succinctly informed Kenney that the Allies had captured a "lemon." Neither Tanahmerah nor Humboldt Bay provided a suitable anchorage, and the area itself was so swampy as to preclude the possibility of building any major establishments. Maj. Gen. J. L. Frink, commanding general of the theater U.S. Army Services of Supply, after a ground tour, advised ALAMO headquarters to suspend plans for a USASOS depot and to concentrate on airfields and minor naval facilities. Kenney likewise abandoned plans for an air depot at Hollandia. Even the development of minimum airfields would depend upon a road system which was worse than even the aerial photos had indicated. Eichelberger, by way of illustration, spent four hours by jeep, buffalo, and on foot when he went from Pim to the airfields on 27 April, and the Pim-airdrome road, narrow and with light bridges, rapidly neared impassability as heavy equipment pushed over it. One portion of the road, a stretch through a swamp at the end of Lake Sentani, became entirely impassable, necessitating a detour which in turn deteriorated. Not only was the road torn up by units moving into the airfields but late in April elements of the 41st Division, moving out of the interior to stage for impending operations, utilized the road at night, thereby denying to the engineers uninterrupted time for repairs.⁷⁶

At this juncture, Whitehead, worried by engineer reports that it would take three weeks to rebuild the Pim-airdrome road, personally requested Eichelberger to get the Tami strip ready for troop carriers by 2 May. He planned to shuttle fuel (the engineers could not lay a pipe line to the airdromes until they had a good road), supplies, and personnel, lightered down from Humboldt Bay, into Tami on 30 April. Beginning work immediately on the strip, which was little more than a bomb-cratered, grassy ridge in the middle of a swamp, they had it serving C-47's by 3 May. During the critical days of May, 494 C-47 loads of supplies were flown inland from Tami. At the same time, Whitehead used the 54th Troop Carrier Wing and the Directorate of Air Transport to ferry 3,999 C-47 loads into Hollandia from Aitape, Finschhafen, and Nadzab. Initially, twenty planes each day were required to haul ammunition and rations to the ground troops.⁷⁷

Amidst these complicating logistical problems, GHQ planners struggled to keep the SWPA offensive from bogging down at Hollandia. Actually the difficulties had been foreseen by both Kenney and Whitehead. As early as 25 March, Kenney had informed GHQ that it might

be better to divert a part of the airfield program from Hollandia to the Wakde-Sarmi area, provided the latter region could be taken immediately after Hollandia. He had also attempted to persuade GHQ to limit the Tanahmerah Bay landings to a small party "to annoy the Nip and invite him to divert his forces" while the troops thus released seized Wakde-Sarmi, but he had been unsuccessful.⁷⁸ Whitehead, scanning each low-level photograph of the area with increasing apprehension, had proposed to limit the whole Hollandia operation to the capture of the Tami strip, diverting most of the assigned troops to Wakde-Sarmi in a simultaneous movement.⁷⁹ Although unwilling to modify the Hollandia operation, GHQ had issued a warning instruction on 10 April ordering its forces to prepare to seize Wakde-Sarmi, and on 10 May it issued a directive for the invasion of both Wakde and Biak, still farther to the west, on 17 and 27 May. Hollandia would have to be developed as a forward air base without delay to support the two operations.⁸⁰

On 1 May, Whitehead notified Col. Donald R. Hutchinson, commanding the 310th Wing at Hollandia, that preparatory to Wakde it would be necessary to have the airplanes of the 49th and 475th Fighter Groups and the 3d Bombardment Group operating at his bases by 15 May. Eichelberger cooperated in the race to develop the necessary facilities, saying "No," as he expressed it, to nothing that the Air Corps requested. Conferences held each evening in his tent allocated the engineer effort for the next day, allowing always just enough effort on roads to keep them open. Despite the tightness of the schedule, the RECKLESS engineers had dry-weather facilities ready at the Hollandia and Cyclops strips on 15 May. As dispersals were readied, the air echelons of the initial air garrison were flown in. That of the last squadron of the 49th Fighter Group—the 9th Squadron flying P-38's—arrived on 13–14 May, and the air echelons of the 475th Fighter Group flew in on 14–15 May. Facilities were ready but dust conditions were so bad (the doldrums had given way to summer droughts at Hollandia) that Hutchinson could call forward only one squadron of A-20's—the 8th Squadron—on 16 May. In place of the other 3d Bombardment Group squadrons, he borrowed the RAAF 78 and 80 (P-40) Squadrons from Aitape, supposedly on a temporary basis.⁸¹

These units satisfied the requirements for air support in the Wakde landing, but prior to Biak, Whitehead wanted the B-25's of the 345th Bombardment Group at Hollandia, and he also would have liked all-weather surfacing on the airstrips. He asked for the following all-

weather construction: two 6,000-foot strips and 100 heavy bomber dispersals at Hollandia strip, a 5,000-foot runway with 50 heavy bomber dispersals at Cyclops, and a 5,000-foot strip with 26 heavy bomber dispersals at Sentani. Such an amount of work, plus a new directive to build a headquarters for GHQ, proved to be more than the engineers could complete. On 17 May they began work designed to make Sentani a fair-weather transport strip and, as late as the 23d, Eichelberger had hopes of completing at least a part of the project; but the next day over two inches of rainfall began a short spell of unseasonably bad weather, thwarting even a modified program. Nevertheless, Whitehead, visiting Hollandia on 27 May, was pleased with the amount of work accomplished. Having succeeded in getting the remaining squadrons of the 3d Group to the fields, he had been willing to proceed with the Biak operation.⁸²

Whitehead, his conviction as to the impossibility of a large airfield development program at Hollandia confirmed by his visit, recommended that the Allied Air Forces seek construction of minimum facilities there and then "cut and run" in the hope of finding a more suitable air base potential at Biak.⁸³ Heartily in accord with this recommendation, the Allied Air Forces requested, and GHQ approved, a reduction of the Hollandia objective.⁸⁴ Early in June, Base G, USASOS assumed the construction function, and during June and July the basic air facilities permitting the operation of a tactical air garrison were completed, although somewhat too tardily to support properly the air campaigns in Geelvink Bay. About 12 June, for example, the base commander had to take most of the heavy engineer equipment off Hollandia airdrome to build roads to the new GHQ command post, thus preventing movement forward of the 312th Bombardment Group—needed to isolate Japanese resistance preparatory to the seizure of Noemfoor—until the first week of July.⁸⁵

Movement of the ground echelons of the initial air units to Hollandia was accomplished with little more than a normal amount of confusion. The 418th Night Fighter Squadron (whose aircrews, for want of suitable night fighter planes, were being trained in night intruder B-25 tactics at Port Moresby) moved from Finschhafen to Hollandia between 9 and 11 May. The waterborne echelon of the 3d Bombardment Group, moving directly from Nadzab via Lae without staging, reached Humboldt Bay between 12 and 15 May. That of the 49th Fighter Group staged at Finschhafen, made a cramped voyage to Hol-

landia aboard a Liberty and LST's, and started unloading on 17 May only to lose one man and much of its equipment in a beach fire and explosion that night. The 475th Fighter Group's water echelon spent an unpleasant month staging at Lae and did not reach Hollandia until 5 June.⁸⁶

Moving tortuously over the rough and winding road to the airfields (the motor convoy trip of the 418th Night Fighter Squadron took twenty-six hours for twenty-four miles), these units established their camps among the tangled wrecks of Japanese aircraft and supplies littering the area and kept a wary eye out for hungry Japanese stragglers. Other than clouds of dust, six-foot-high growths of kunai grass which had to be hacked down or burned, and a few tree stumps to be grubbed, the camp areas were fairly pleasant and had near-by mountain streams fit for bathing until showers could be built. Collection of souvenirs from the Japanese dumps offered an interesting diversion, and ambitious ground crews of the 8th Fighter Squadron, not content with trinkets, rebuilt an entire Japanese Oscar in their spare time. Despite usual hardships—poor food and lack of mail were mentioned—morale was high, for the Allies had successfully by-passed Wewak and most men felt that the war was “finally getting under way.”⁸⁷

At Aitape, slight enemy opposition and topographical conditions had permitted a rapid exploitation of the Tadjiri airfields. The fighter strip so quickly prepared for P-40's, however, was never satisfactory—daily rains kept it soft and sloppy, Australian P-40's barely managing to get in and out—and it would be abandoned on 12 July. Meanwhile, the RAAF works wing had built another field—modified from medium bomber to fighter specifications by a change in the airfield directive for Aitape—which was usable on 15 June and would be completed on 26 July. During May the 65th, 66th, and 68th Troop Carrier Squadrons flew out of Aitape on the Hollandia build-up run, and during the middle of the month, some of the RAAF P-40's had been taken westward from Aitape to Hollandia. Aitape had thus justified its purpose as an intermediate air base between more easterly New Guinea fields and Hollandia.⁸⁸

Japanese resistance to probing 32d Division infantry patrols, initially no more than skirmishes with scattered remnants, began to stiffen early in May, and on the night of 14/15 May an enemy force estimated at company strength drove a small American force in from Babiang, an outpost across the Driniumor River and southeast of Aitape. White-

head, concerned over this minor reverse, immediately requested to be informed of targets worth air strikes and was told that the coastal trails between But and Suain were being heavily traveled by Japanese troops. During May, 2,605.5 tons of bombs were dropped in the Wewak area by Fifth Air Force planes. Much of this tonnage was dropped by V Fighter Command aircraft, which flew 3,098 bombing and strafing sorties into the Wewak area between 23 April and 30 June, but the 312th Bombardment Group and the 110th Reconnaissance Squadron from Gusap and the 417th Bombardment Group from Saidor also concentrated on the by-passed area.⁸⁹

Movement of Fifth Air Force units northward during June lowered the weight of bombs dropped in the Wewak area to 1,546 tons. During the month captured documents revealed that the Eighteenth Army, having conducted a reconnaissance of Allied positions, intended to launch an attack with 20,000 men in the assault and 11,000 more in reserve at Wewak. Such an attack was to begin about the end of the first ten days in July. To meet this threat, Krueger sent the XI Corps, 43d Infantry Division, and two regimental combat teams to Aitape during late June. At about the same time, Whitehead built up the Aitape air garrison, replacing the RAAF fighters with the 110th Reconnaissance Squadron and the RAAF 71 Wing (Beaufighters and Beaufores). These units were well suited to close support work and capable of keeping "the Nip concentration in the But area entertained every hour of the day and night when weather permits." The Fifth Air Force also assigned support aircraft parties to the corps and each of the two divisions, instructing them to refer all requests for additional air support to Nadzab.⁹⁰

The Japanese attack materialized just about as the documents indicated. A force of at least regimental strength, though twice repulsed, finally succeeded in breaking through the Driniumor River line, but by 13 July the attackers had been driven back and the river line re-established. The Allied Naval Forces dispatched TF 74 to Aitape to give additional gunfire support to the XI Corps, and these vessels swept coastal trails with artillery fire almost every night prior to 25 July. Air missions from Tadjj and Saidor further isolated the attacking force, while American patrols probed out and destroyed Japanese units. Because of the impracticability of depending upon native carriers in close jungle fighting, these patrols were often almost wholly supplied by air. On 21 July, for example, 4,500 men were being supplied by air

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drops, and with increased patrolling the next day even more men had to be fed from the air. Altogether, 54th Troop Carrier Wing planes dropped 671 tons of supplies to the ground patrols in the area during July. One 64th Troop Carrier Squadron plane, piloted by Lt. George W. Walker, while on detached service at Tadjik between 14 and 25 July dropped 129 tons of this total. On 31 July the XI Corps launched its offensive which, by 10 August, had crushed all organized resistance. By this time the Japanese had lost 8,821 men killed and 98 captured. Utterly defeated and evidently broken in morale (pilots of the 110th Reconnaissance Squadron mentioned that Japanese remnants had adopted a "don't give a damn" attitude and congregated daily on the beaches inviting slaughter by the Airacobras' guns), the Eighteenth Army would never again be reckoned with seriously in the New Guinea campaigns. The twin operations of the RECKLESS campaign had been successfully completed.⁹¹

CHAPTER 19

* * * * *

FINAL VICTORY IN NEW GUINEA

ACCORDING to the JCS directive of 12 March 1944,* MacArthur's immediate duty following RECKLESS was to "conduct such operations along the New Guinea coast and such other operations as may be feasible in preparation for support of the Palau operation and the assault on Mindanao." To execute this mission MacArthur had been assigned most of the U.S. Army forces in the SOPAC, forces which would have to be transported to the SWPA and integrated into its command structure. Although Nimitz was supposed to assist SWPA as practicable, POA's operations in the Marianas meant that SWPA would have no fast carrier support and would be unable to borrow amphibious shipping to augment its own insufficient number of assault vessels. No exact timing had been indicated by the JCS for the remaining phase of the New Guinea campaign, but it had been stipulated that both SWPA and POA would be in positions permitting the invasion of southern Mindanao by MacArthur on 15 November 1944.

As planning matured, it became evident that SWPA would have to complete its New Guinea campaign by early August or sacrifice in a move into the northern Halmaheras the advantage to be had from the strategic carrier cover planned by POA in support of its mid-September invasion of the Palaus. For SWPA to be delayed and POA to progress on schedule could mean that MacArthur would not lead the troops liberating the Philippines, if indeed the JCS did not cancel the invasion of those islands. MacArthur had no intention of allowing such a failure. As he remarked to Kenney, he intended to be ready to enter the Philippines on schedule even if he was "down to one canoe paddled by Douglas MacArthur and supported by one Taylor cub."¹

* See above, p. 573.

The victory at Hollandia, particularly the destruction of the Japanese Fourth Air Army, permitted SWPA to accelerate the phasing of New Guinea operations specified in RENO IV, but other than a working draft of a RENO V plan which was never officially released, SWPA did not undertake a formal revision of its over-all strategy until 15 June—too late to include any New Guinea operations other than the final invasion of a Vogelkop target area. On 8 May, however, in reply to a request from the JCS for information, MacArthur indicated that SWPA intended to invade Wakde Island about 21 May, Biak about 1 June, and some site suitable for an airfield on the coast of the Vogelkop about August. Tentatively, SWPA planned to seize an airfield site in the northern Halmaheras about 15 September. Except the invasion of Noemfoor Island on 2 July, this selection of targets and timing would be generally followed. The draft of RENO V included an additional operation following the old concept of a contingent invasion of the Kai-Tanimbar Islands if necessitated by Japanese air strength in the Celebes and Netherlands East Indies. Such a maneuver was favored by the Allied Air Forces, and on 30 May, Kenney submitted plans to CINCSWPA for Operation JURYMAST, an airborne invasion of Selaroe Island in the Tanimbars, urging that the plan be implemented on or about 1-15 July without regard to Allied progress on Biak. He hoped to make this operation—designed to build a fighter field on Selaroe—completely airborne and air supplied for the first fourteen days in order to explore the practicability of an airborne invasion of Mindanao. But GHQ considered itself fully committed to the advance along the New Guinea axis, and refused to permit any diversion of effort.²

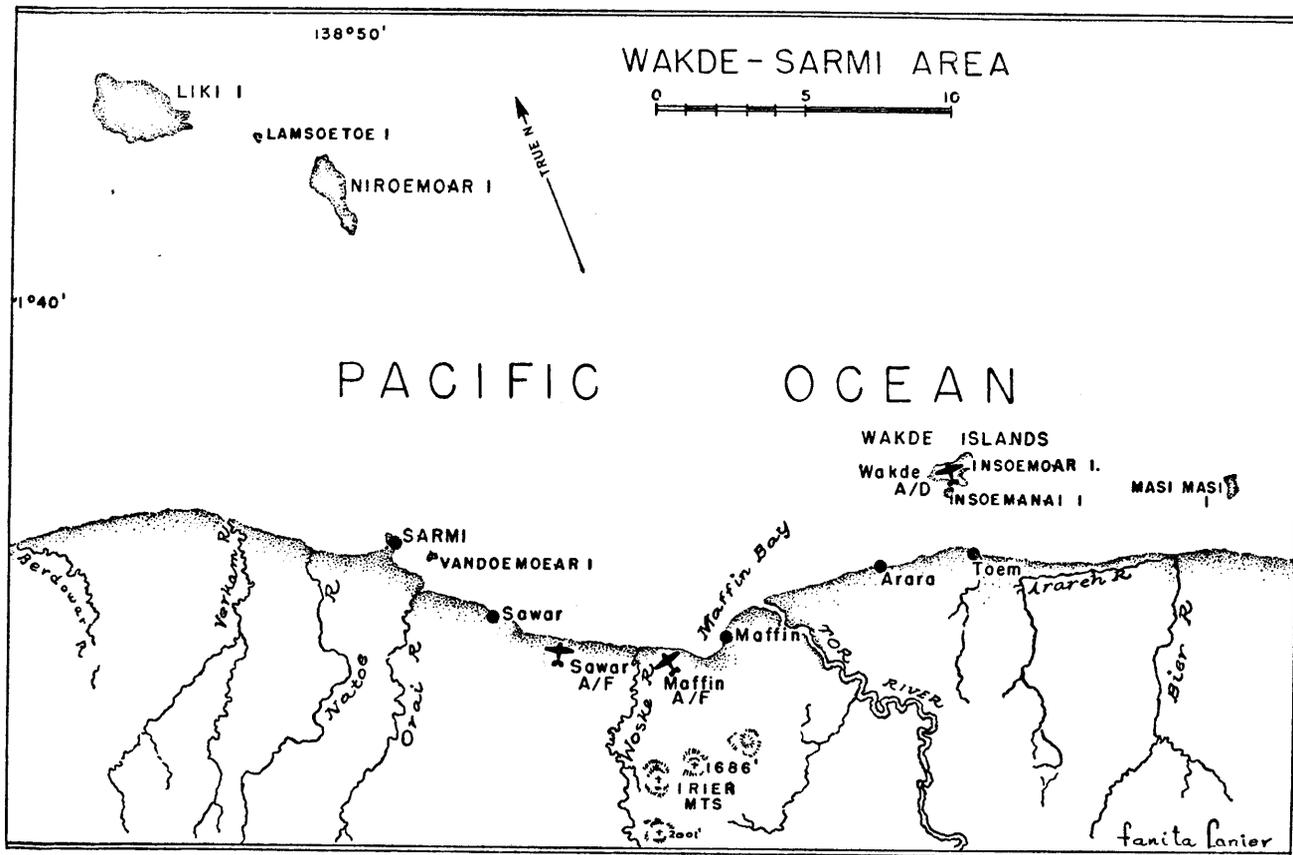
SWPA thus committed its entire effort to an advance up the New Guinea coast along an exceedingly narrow front. Its four remaining operations in New Guinea would advance the land-based bombers by successive occupations of minimum air-base areas, selected in positions lightly held by the Japanese. Air power would prepare the way for each invasion and would protect SWPA's flanks, increasingly vulnerable as the attack moved northward. SWPA experience had demonstrated that air power could perform such a mission. The only question was whether the execution of four operations in as many months with the limited amount of amphibious shipping and engineering forces available would allow SWPA to reach the point of departure for the Philippines within the time allotted.

Wakde

Nearly a month before the ground troops had gone ashore at Hollandia, Kenney and Whitehead had perceived from low-level aerial photos that the area around Lake Sentani would not support an air base of the magnitude contemplated, and looking ninety-six miles farther up the New Guinea coast, they had picked Wakde-Sarmi as the next most likely air-base area. Although GHQ had been unwilling to modify RECKLESS, it had on 10 April issued a warning order instructing all forces to prepare plans to attack Wakde-Sarmi on not less than three days' notice following the establishment of two fighter groups at Hollandia and other necessary preparations of force.*³

As usual in the swiftly moving SWPA campaigns, initial thinking about a Wakde-Sarmi operation was based on "meager to nonexistent" topographical information. Geographically, the area of interest was a 25-mile-long coastal strip, backed by swamps and dense jungles from two to six miles inland, lying between Sarmi and Toem villages, together with the offshore islands of Wakde, Masi Masi, and Koemamba. Of especial interest were the two Wakde Islands: Insoemoar, a generally flat island about 9,000 feet long by 3,000 feet wide, containing approximately 540 acres, and Insoemanai, a smaller island to the southwest. Insoemoar, commonly called Wakde, had been occupied by the Japanese in June 1942. Within a year they had cleared enough of the coconut plantation covering the island to build an excellent, coral-surfaced runway. Late in 1943 they started to build up their garrison on the adjoining mainland, and they had constructed an airfield at Sawar and cleared another strip at Maffin. Of these two, only the Sawar strip was operational in the spring of 1944. The general area was under the command of the Japanese Second Army, with headquarters at Manokwari, which, in turn, was under the Second Area Army. At Sarmi village the newly arrived 36th Division had established its command post, and within the area the division controlled a garrison consisting of parts of two infantry regiments, a tank company, and some 2,400 base and line-of-communications troops. Although the 222d Infantry Regiment was at Biak, the division had an estimated 6,500 mobile combat troops under its immediate command. The Allies estimated that the Japanese had another concentration of approximately 13,225 troops, including 7,150 mobile combat effectives, around the

* See above, pp. 609-10.



Second Army command post at Manokwari. Utilizing the 85 to 100 barges believed available, they could, under favorable circumstances, move a reinforcing regiment from Manokwari to Wakde-Sarmi within a week. Interference by major Japanese naval units was believed unlikely.⁴

The Japanese air situation was likely to remain favorable to the Allies for some time, at least during May. On about 20 April—as soon as the Allied intention to land in New Guinea rather than in the Palaus or Mindanao became clear to the enemy—the 23d Air Flotilla headquarters had advanced to Sorong, and its strength, disposed on Vogelkop airdromes, was increased to 180 planes by reinforcements from Malaya, Japan, and Truk. In May it would receive seventy additional army aircraft from Manila. Despite these reinforcements, the 23d Air Flotilla was no longer the formidable organization it had been when its planes had raided Clark Field on 8 December 1941. The squadron which it received from Japan, for example, had been re-formed after heavy losses at Kwajalein. Remnants of the Fourth Air Army headquarters had withdrawn from Manado in the Celebes and, operating through the 7th Air Division at Amboina, were attempting to harass the Allies with night raids staged through Biak, Noemfoor, Sarmi, and Samate. Allied commanders estimated that the Japanese would have 282 fighters and 246 bombers available for use against a Wakde-Sarmi landing, but this number included 348 planes in the Philippines and Palaus which probably would remain where they were. It was assumed that Allied air attacks prior to the invasion would have reduced Japanese strength within 100 miles of the beachhead to 36 fighters and 24 bombers. Recognizing Allied air superiority, the Japanese would probably limit themselves to night attacks.⁵

SWPA warning instructions directed ALAMO headquarters to submit a coordinated air, naval, and ground plan for the Wakde-Sarmi operation—designated collectively as STRAIGHTLINE—before 22 April. Krueger, considering the probable enemy dispositions, decided to use one regimental combat team against Wakde and to use the remainder of the division from which it was taken against Sarmi. He would have preferred to employ an idle division, but the limitations imposed by shipping and by staging areas made it imperative that he use one of the divisions forward at Hollandia. Consequently, he selected the battle-hardened 41st Division, and designated the 163d RCT for the landing on Wakde. ADVON Fifth Air Force drew up the basic

tactical air force plan for STRAIGHTLINE, predicating its readiness for the operation upon the establishment of two fighter groups and an attack bomber group at Hollandia and an RAAF fighter wing and two RAAF light bomber squadrons at Aitape. The Allied Naval Forces allocated assault shipping for STRAIGHTLINE through D plus 10, at which time USASOS vessels would undertake the mission. These individual plans were consolidated at a commanders' conference on 27 April, and on the same day GHQ issued its formal operations instruction.⁶

During the week following the issuance of these orders, low-level oblique photography revealed that the Sarmi area was most unsuited for airdrome development. Whitehead, reporting observations of 17th Reconnaissance Squadron pilots, informed Kenney on 3 May that the "Sarmi area . . . is fuller of Nips and supplies than a mangy dog is with fleas." Two days later, Whitehead, recalling that SWPA had selected the objective areas at Gloucester, Saidor, and Hollandia without adequate reconnaissance and with adverse results, warned that the entire Maffin-Sawar area was nothing more than a "mud-hole." He strongly recommended that STRAIGHTLINE be limited to capture of a mainland area opposite Wakde and the island itself. He would move the 348th Fighter Group there, and staging two heavy groups through the Wakde area he would neutralize Biak sufficiently to make possible its capture early in June. From the rate of progress that the Japanese were making with their airfields there, Whitehead was sure that Biak offered the best possibilities for airdrome development between Nadzab and Mindanao. MacArthur tentatively accepted these recommendations without delay, and so informed Krueger on 6 May. He sent key staff members to Finschhafen to discuss the changed maneuver, and on 9 May the conferees agreed that it would be practicable to invade Wakde on 17 May (D-day) and Biak on 27 May (Z-day). The selection of this D-day, however, was predicated upon the establishment at Hollandia of the air units previously specified by ADVON, and Z-day upon establishment of a fighter group on Wakde and at least two B-25 squadrons at either Hollandia or Wakde.⁷

Biak's geographical location in the approximate center of Geelvink Bay, together with its Japanese-built airfields, justified plans for its capture, but its topography would make it a difficult ground campaign. Being little more than an uplifted portion of the shallow seas thereabouts, the island is predominantly a narrow coastal shelf. This shelf,

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which occupies the southern two-thirds of the island, is somewhat broken up by roughly parallel limestone ridges and cliffs which rise like steps to an inland plateau. Within these ridges and cliffs are countless caves, many of which are interconnected by fissures and tunnels. Vegetation is primarily rain forest on the coast; inland, scrub predominates. Access to Biak from the ocean is made difficult by fringing coral reefs which border most of the coast line, and the coast is otherwise made inaccessible by cliffs. There are breaks in the reef at Korim Bay on the east coast, at Wardo Bay on the west coast, and off Bosnek village on the southeast shore of the island. On its northwest, Biak is separated by a narrow channel from the mountainous Soepiori Island; off its southeastern coast are the islets of the Padaido group, two of which—Owi Island and Mios Woendi Atoll—would prove of interest to the Allies. Specific information regarding Biak, as late as 7 May, was scarce. The first good photographs of the island, taken on 17 April, showed that the Japanese had made Bosnek village their main supply and bivouac area. This village was connected by a fair motor road, running westward along the coast and skirting cliffs near Parai, with the three airdromes which the Japanese had been hurriedly building during April. By early May they had completed Mokmer and Sorido dromes, while Borokoe, lying between the other two, was still under construction. ALAMO headquarters believed that the main defense force on Biak would be the 222d Infantry Regiment, but adding engineers, AA troops, and service organizations it estimated that there would be from 2,575 to 7,255 Japanese troops on Biak by Z-day. Barring an interdiction of water movement, the Japanese possessed ability to move in additional men from Noemfoor Island, 72 nautical miles distant, or from Manokwari, only 123 miles away across Geelvink Bay. Land-based air opposition to an Allied landing on Biak would probably be about the same as for Wakde-Sarmi, with possibly some intensification of night raids since Biak was ringed on the west by Japanese Vogelkop airfields. The Allies had also learned that the Japanese were moving to Tawitawi in the southern Philippines two carrier divisions which, after about Z plus 14, could attack Biak.⁸

To effect the change in objectives from STRAIGHTLINE to STICKATNAUGHT-HORLICKS (Wakde-Biak), GHQ on 10 May issued an amendment to its operations instruction. The final ground campaign plan was a modification of STRAIGHTLINE, substantially as indicated by MacArthur on 6 May. The task force for

TORNADO, consisting of the 163d RCT plus the 218th Field Artillery Battalion and supporting troops and commanded by Brig. Gen. Jens A. Doe, would land near Arara on the coast opposite Wakde, emplace its artillery for close support, and would transfer across the two miles of water to make a landing on Wakde on D plus 1. With utmost speed its engineers would prepare facilities for an initial fighter group on the island, and then they would expand the airdrome to accommodate an additional fighter group, a night fighter flight, and a long-range reconnaissance squadron. The task force for HURRICANE, commanded by Maj. Gen. Horace H. Fuller and comprising the remainder of the 41st Division and supporting troops, would land at Bosnek on Z-day, seize a beachhead, and occupy the three Biak airdromes. It would quickly rehabilitate one of them to accommodate an initial fighter group and, as soon as practicable, an additional fighter group, a night fighter squadron, a reconnaissance group, a photo reconnaissance squadron, and a heavy bomber group. Krueger would arrange to reinforce TORNADO with the 158th RCT, effective on about 23 May.⁹

The Allied Naval Forces, directed to furnish transportation and protection for the invasion troops and to move light naval forces into the target areas, allocated its transport mission to TF 77, to be commanded by Rear Adm. William M. Fechteler, deputy commander of the Seventh Amphibious Force. TF 74 and TF 75, the two Seventh Fleet cruiser forces, would furnish fire support and naval cover for the operations. Limited virtually to its own resources, TF 77 would load the Biak-scheduled troops of the 41st Division at Hollandia and the 163d RCT at Aitape, utilizing in part the amphibious craft which it had begun to concentrate forward on orders from GHQ.¹⁰

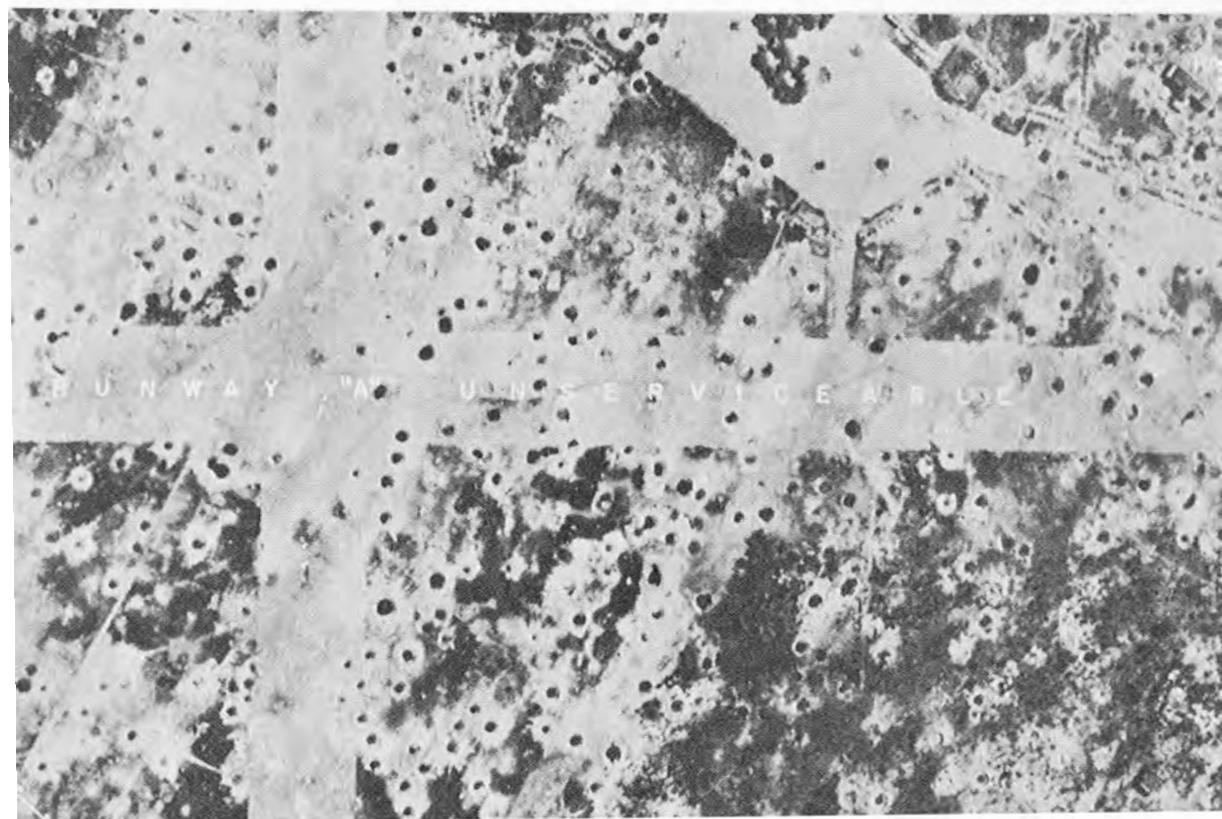
Most of the duties allotted to the Allied Air Forces for the operation were passed on to ADVON Fifth Air Force. ADVON, in turn, directed its fighter and bomber commands to push forward the 49th and 475th Fighter Groups and the 3d and 345th Bombardment Groups into Hollandia. This force, employed under the 310th Bombardment Wing (M), would provide local defense, offer fighter cover to forward missions, and extend direct support and cover to the beachheads and naval convoys. The V Bomber Command would employ its three heavy groups from D minus 5 to Z-day in concentrated attacks in the Wakde-Biak area. Using SB-24's, with 1,000-pound bombs, it would destroy enemy ground defenses on the coast at Toem just after first light on



AAF FIGHTERS

Above: P-39 AIRACOBRAS, MAKIN

Below: REFUELING P-38 LIGHTNING, MIDDELBURG



POSTHOLING ENEMY AIRSTRIPS

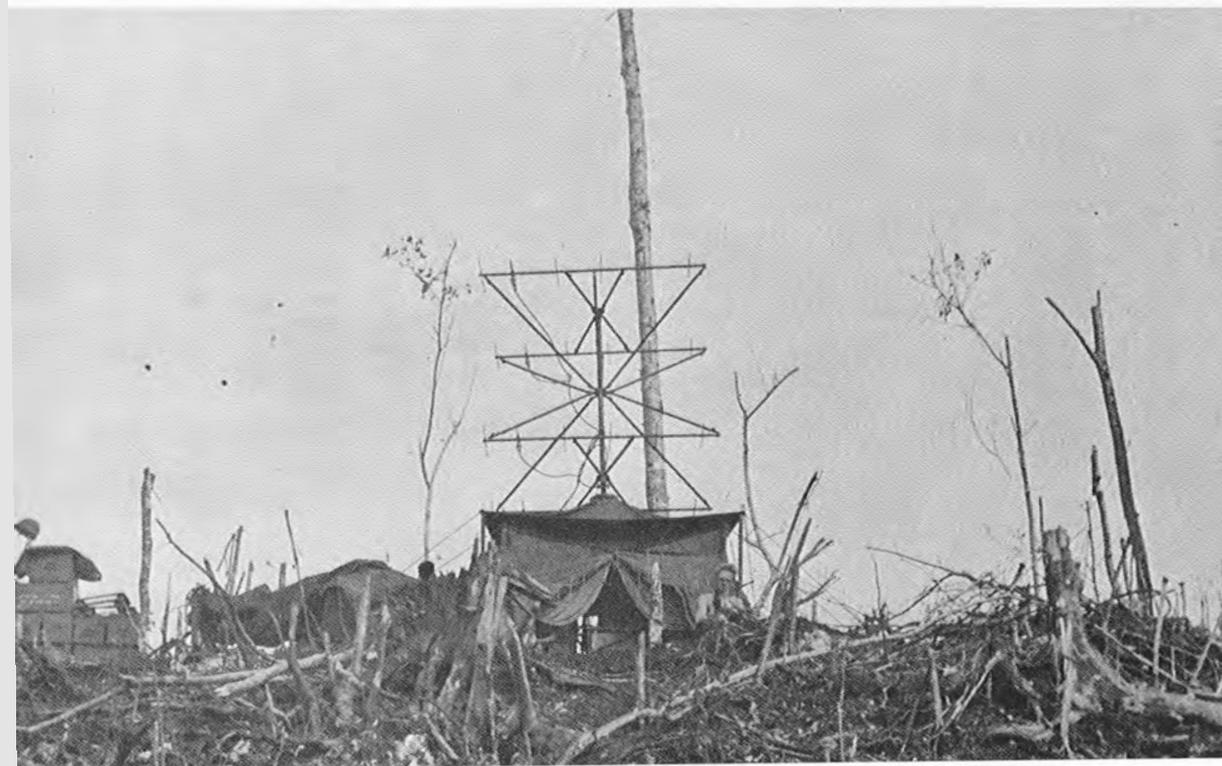
Above: BUT, NEW GUINEA

Below: WOTJE ATOLL



MEASURES

Upper Right: DISPERSAL, ESPIRITU SANTO
Lower Right: ANTI-AIRCRAFT EMPLACEMENT, SANSAPOR



DEFENSIVE

Upper Left: LOOKOUT ON NEW CALEDONIA
Lower Left: PORTABLE RADAR, NOEMFOOR

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D-day. On Z-day, V Bomber Command heavies would strike the airfields at Manokwari, Moemi, Ransiki, and on Noemfoor. After Z-day, all heavy bombers would be ready to support ground operations. The 38th Group would stage its B-25's to Merauke on 25 May and during the three following days would neutralize the Japanese airfield at Nabire. Shorter-range units would continue to strike Japanese opposition at Aitape and Wewak.¹¹

The Thirteenth Air Task Force, flying its two heavy bomber groups from the Admiralties under operational control of ADVON, would harass Woleai and Truk enough to hamper repair and reinforcement, at the same time devoting a part of its efforts to Wakde, Sarmi, and Biak. Beginning on 1 June and continuing through 22 June, it would have to exert maximum effort against Truk and Woleai in support of POA's Marianas operations. This force would also send daily searches up the north coast of New Guinea, and prior to H-hour on Z-day it would soften ground defenses at Biak. On the west flank, the RAAF Command, in addition to routine operations, would neutralize hostile air bases in the Vogelkop and Geelvink Bay areas west of and including Noemfoor and Nabire.¹²

Tentatively the Allied Air Forces planned to develop Biak as a major air base for both tactical and service units, but the more pressing problem would be to establish the tactical air garrisons required for immediate support as quickly as facilities could be rehabilitated. The 308th Bombardment Wing (H), commanded by Col. David W. ("Photo") Hutchison, would serve as the air task force headquarters for both operations. It would send an advanced echelon to Wakde to call forward the 348th and 8th Fighter Groups, a flight of the 418th Night Fighter Squadron, and a PB4Y squadron. The main body of the 308th would move to Biak and establish the 49th and 35th Fighter Groups, the 421st Night Fighter Squadron, the 25th Photo Reconnaissance Squadron, the 17th, 82d, and 110th Reconnaissance Squadrons, and the 43d Bombardment Group. When the 308th left Wakde, command there would pass to the 310th Bombardment Wing.¹³

Construction of air facilities at Wakde and Biak would be the function of the ground task forces, but for the first time in SWPA the air task force commander would be permitted to make minor changes in construction directives to suit terrain conditions. GHQ's comprehensive definition of facilities for Wakde, issued on 17 May, included an initial fighter field suitable for expansion into a medium bombardment

field with an extra-length, 7,000-foot runway, sixty-four heavy bomber hardstands, and a surfaced parking area sufficient to stage ninety-six heavy bombers. The fighter field with limited dispersal for a fighter group should be ready by D plus 2, the augmented medium bomber field by D plus 14, and the heavy bomber parking by D plus 16. On Biak, GHQ directed the construction of one fighter field suitable for expansion to medium bomber specifications with a 7,000-foot runway and fifty-two heavy bomber hardstands. Another regulation heavy bomber airfield with seventy-three heavy bomber hardstands would be built. One usable runway with limited dispersal for a fighter group should be operational by Z plus 2; the fighter airdrome with dispersal for two fighter groups by Z plus 10; one 7,000-foot runway at the heavy bomber airdrome, together with limited dispersal for a heavy bomber group, would be suitable for use by Z plus 20; and it was expected that the whole project would be completed by Z plus 60. To supervise the construction and to make such minor field modifications as were now permitted, Whitehead arranged to send his air engineer, Col. Leland H. Hewitt, on detached service with the 308th Bombardment Wing.¹⁴

Wakde, Sarmi, and Biak had been attacked prior to the RECKLESS landings, but the first large daylight strikes on the three areas began on 28 April. Forty-seven B-24's from the 43d and 90th Groups flew from Nadzab to bomb Mokmer drome on Biak. The 90th Group, arriving first, encountered twelve fighters, shot three of them down, and destroyed an additional ten planes on the ground. The 43d Group, meeting only one interceptor, was credited with three grounded aircraft. Before dawn that morning, twelve SB-24's of the 63d Bombardment Squadron had attacked Wakde, and at the same time that the Liberators struck Mokmer twenty-five B-25's of the 38th Bombardment Group bombed and strafed Wakde, destroying five grounded planes and setting a number of fires. Simultaneously, also, twenty-three Mitchells of the 345th Group bombed and strafed Sawar airstrip, scoring direct hits on four more Japanese planes. About ten minutes later, thirty-two Liberators from the 22d Group bombed the Japanese headquarters at Sarmi village. Amidst all this activity, twelve B-25's of the 17th Reconnaissance Squadron swept coastal targets between Sarmi and Sawar. None of the covering fighters met any opposition during the day and no Fifth Air Force planes were lost in the extensive activity. That night seventeen SB-24's from the 63d and 868th Squadrons teamed up to

bomb Wakde. While the heavies rested on 29 April, twenty-seven B-25's raided Sawar and Sarmi, six B-25's bombed and strafed Wakde AA, and late that night six of the 63d Squadron's snoopers harassed Wakde in cooperation with a naval bombardment of coastal targets. Once again the fighters had an uneventful day.¹⁵

This was a good beginning toward the neutralization of both targets, but the weather closed in along the north coast of New Guinea on 30 April and persisted until 13 May, barring all but a few missions into Wakde-Sarmi. Fortunately, the weather, which thwarted Markham River valley-based planes, did not seriously hinder the Liberators of the XIII Bomber Command, now based in the Admiralties, and on 4 May they took over the task of neutralizing Biak. The first three missions, flown by the 5th Bombardment Group with fighter escort, were hotly contested by Japanese fighters. On 5 May one Liberator was lost and another had to crash-land at Hollandia. On 7 May the 49th Fighter Group's P-40's from Hollandia escorted planes from the 5th and 307th Groups on a raid against Mokmer, and on this mission the heavies destroyed two interceptors while the P-40's claimed eight planes shot down. Thereafter the Japanese did not attempt to intercept the bombers, although sixteen to eighteen fighters attempted to attack an F-7 on 15 May over Biak, only to lose seven of their number to the 7th Fighter Squadron's P-40's. The XIII Bomber Command—skipping only 10 May, when it bombed Truk, and 15 May, when it raided Woleai—bombed Biak daily from 4 to 19 May. After 7 May these missions were uneventfully successful, except for one B-24 shot down by AA on 12 May.¹⁶

As the weather improved, the Fifth Air Force returned to the job. Heavies and mediums had a successful day against stores and personnel targets at the coastal villages of Sarmi, Arara, and Sawar on 7 May. Wakde was heavily attacked on 11 May. Weather did not permit any large-scale air activity again until 13 May, but beginning on this day and continuing through the three succeeding days, the heavies and mediums loosed a heavy bomb tonnage on Wakde-Sawar. On 17 May, which was D-day at Wakde, Whitehead shifted V Bomber Command's three heavy groups to attacks on Biak.¹⁷

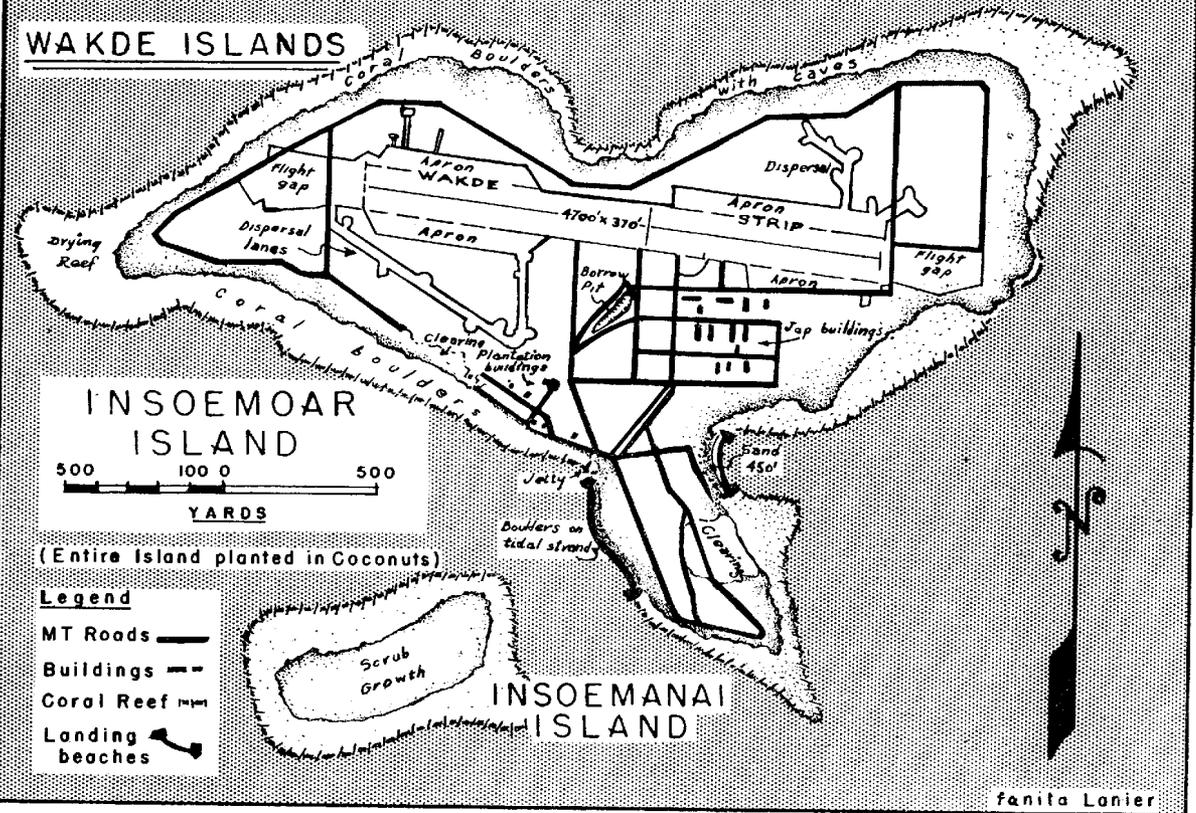
Meanwhile, the 380th Bombardment Group, flying from the Darwin area, had been carrying out what its personnel, committed to twelve-to-seventeen-hour unescorted flights since early March, considered to be their private war against the Japanese. The group had continued its

THE ARMY AIR FORCES IN WORLD WAR II

string of missions against Noemfoor through 23-24 April and then switched its efforts to the Vogelkop airfields. In addition, the group sent B-24's to reconnoiter the Halmaheras and northwest New Guinea, missions which were usually intercepted, although not always persistently. During May the group reconnoitered Geelvink Bay on the 4th; bombed Penfoei airdrome in Timor on the 6th; reconnoitered Geelvink Bay and bombed Utarom strip on the 7th; reconnoitered the Halmaheras and bombed Jefman Island, losing a B-24 to interceptors, on the 8th; reconnoitered the Vogelkop and bombed Kai Island fields on the 9th; bombed Laha and Namlea airfields on Amboina and Boeroe Islands, respectively, on the 11th; hit Namber and Moemi airfields on the 13th; searched for shipping in Geelvink Bay on the 15th; and on the 16th, covered by a squadron of the 475th Group's P-38's from Hollandia, bombed Kamiri airdrome on Noemfoor. Taking advantage of fires set by the British Eastern Fleet's carrier strikes on Soerabaja, seven 531st Squadron B-24's bombed the dock installations there shortly after midnight on 17/18 May.¹⁸

By nightfall on 16 May the 310th Bombardment Wing (M) had a garrison in place at Hollandia, which fact enabled the Allied Air Forces to inform GHQ that they were ready. That evening the naval vessels carrying the TORNADO landing force set out from Hollandia, joined the naval escort from the Admiralties during the night, and by early morning the convoy was standing off the mainland beaches. Direct aerial support for the landing had actually begun the preceding morning when the 38th Bombardment Group had undertaken to detonate possible mines in the waters off the coast and surrounding Insoemoar and Insoemanai. Neither the TORNADO force nor the Navy had desired any heavy pre-invasion air bombardment of the landing beaches, but Whitehead had nevertheless scheduled a small snoop mission to bomb the coast between Sawar and Sarmi, west of the invasion beaches, at first light on D-day. Fighter cover from Hollandia arrived at 0715, the precise minute that the naval bombardment lifted and the 163d Infantry began an unopposed landing. During the day, the 163d established a defensive perimeter and concentrated at Toem, while one reinforced rifle company landed on Insoemanai. Flights of the 8th Squadron's A-20's, orbiting in relays until called in by the local air control, bombed and strafed Wakde. The next morning, following an aerial and artillery barrage, elements of the 163d landed on Wakde, where for the first time they met intense rifle, machine-gun, and mortar

WAKDE ISLANDS



INSOEMOAR ISLAND



(Entire Island planted in Coconuts)

Legend

- MT Roads ———
- Buildings ———
- Coral Reef [line with dashes]
- Landing beaches [line with curve]

INSOEMANAI ISLAND

Janita Lanier

fire from well-entrenched Japanese troops who seemed to have been but slightly bothered by the heavy naval bombardment which preceded the landing or by the tons of aerial bombs which had battered the island during April and May. About 800 Japanese troops had dug themselves in so completely that only direct bomb hits on dispersed entrenchments and hand-to-hand combat could destroy them. During the day, A-20's were directed on close support missions against enemy bunkers and strongpoints by an airborne B-25 "control ship," and after a sharp fight, all organized resistance ended on Wakde at approximately 1700 hours on 18 May.¹⁹

A better employment of the full strength of the Japanese 36th Division—10,000 combat troops against 10,500 Allied soldiers—might have made it a different story. The division commander within the week preceding the landing had shrewdly estimated the size of the U.S. invasion force and had anticipated a landing at Wakde by moving an infantry company there on 16 May. Otherwise, the Japanese commander had failed to prosecute his advantage. Believing that the landing could not come before 18–19 May, he had failed to get two other infantry companies moved to Wakde as planned. He had, moreover, prepared his defenses to withstand an invasion either between Sawar and Sarmi or directly on Wakde and was thus unprepared for a landing at Arara. His best opportunity—the chance to attack the 163d Infantry on 18 May when it was divided between the mainland and Wakde—could not be exploited because he had previously sent most of his 224th Infantry Regiment overland to attack Hollandia, and he was unwilling to give battle until these troops had returned. By that time the 158th RCT would have disembarked at Toem on 21 May and the situation would never again favor the Japanese.²⁰

The 836th Engineer Aviation Battalion landed on Wakde on 18 May, but because of sniper fire it did not begin repairs on the captured airstrip until next day. The engineers had it operational on 21 May when a C-47, first buzzing the field to get the bulldozers out of the way, landed at 1310 hours. There had been little difficulty in filling enough bomb craters to make the runway operational, but preparation of facilities specified by GHQ was another matter. Charged with support for Biak and with initiating heavy bomber strikes on the Palaus in preparation for POA's Marianas operations, Kenney had to have base facilities at Wakde for a fighter group and a Navy PB4Y squadron and staging facilities for a B-25 reconnaissance squadron, an additional

fighter group, and two heavy bomber groups. GHQ directed Krueger and Whitehead to plan a program which would complete facilities by 27 July, and after studying the terrain, Hewitt and the TORNADO force engineer agreed that the only solution was to prepare a 6,500-foot strip and several large undispersed parking areas. The presence of all the indicated units at any one time would necessitate parking aircraft close together, thereby presenting a lucrative target to a Japanese night raider, but Whitehead, realizing that this could mean losses in both personnel and planes, agreed to take the risk. By 27 May the facilities were ready for use substantially as outlined by Hewitt.²¹ These facilities, so hurriedly completed, were imperfect (a dip near the center of the coral-surfaced runway caused a roller-coaster effect and became soft in heavy rains), but they would improve with more effort.

The ground echelon of the 348th Fighter Group, which had been awaiting a call forward at Hollandia, moved into Wakde on 22 May. Finding the island crammed with service troops and supplies, the 348th pitched its camp on Insoemanai and started a ferry across the 300 yards of water separating the islands. On 26 May the group received its P-47's. The air echelon of the 17th Reconnaissance Squadron, a unit which Whitehead wanted forward to patrol Biak at dawn and dusk, flew to Wakde on 25 May, leaving its ground crews behind at Finschhafen. On 26 May, seven PB4Y's of VB-115 flew to Wakde, and on the next day this squadron made the first regular air reconnaissance of southern Mindanao since early 1942. On 28 May the 421st Night Fighter Squadron sent a flight of P-70's forward to complete the Wakde air garrison. The 8th Fighter Group, displaced at Wakde by a decision to use its space for staging, was held for movement to Biak. Command at Wakde, assumed by a detachment of the 308th Bombardment Wing shortly after its arrival on 19 May, would pass to the 310th Bombardment Wing on 29 May, and early in June the 85th Air Defense Wing would arrive to exercise the local command function at Wakde under the 310th Wing.²²

Wakde, though operational as an air base, would remain an unpleasant and hazardous locality for some time. The 303d Airdrome Squadron, one of the first units at Wakde, killed five Japanese officers and fifty-one Japanese soldiers in suicide charges on the nights of 19 and 20 May. Air Corps troops found the island too small for comfort, and the stench of Japanese corpses left unburied in the press of other

work, as well as the swarms of flies which bred on them, promised an epidemic of disease. Liberal use of DDT in air-spray solution—a new technique in SWPA—and other sanitary measures soon alleviated the hazard. The accumulation of supplies and especially of aviation gasoline and bombs—in the hurry to repair operating facilities the engineers had no time to build dispersed fuel and ordnance dumps—made it such a potential powder keg that on 5 June all engineers, other than those required to keep the runway usable, were ordered to the construction of dumps.²³

In the circumstances, fighter defense was a matter of the most vital importance, especially in view of the slowness of the ground forces in building up an adequate gun and searchlight defense. As at Aitape, Detachment H, Fighter Wing landed on D-day with echelons of the 1st Fighter Control Squadron and Company A, 583d Signal AW Battalion. An assault fighter control center opened immediately, and on 23 May a temporary control center on Insoemanai replaced it. Company B, 574th Signal AW Battalion soon supplemented the radar network and on 24 May opened a GCI radar on Insoemanai. Early in June the 421st Night Fighter Squadron flew in five new P-61 night fighters to replace obsolescent P-70's. Not until 27 June were the permanent installations of the 32d Fighter Sector established. But once again the Japanese air forces had failed to exploit a golden opportunity; they made no air attacks against Wakde until 27 May, and during June, devoting most of their effort to less lucrative attacks on Biak, they sent only eight listless night attacks against Wakde. Even these small raids were particularly destructive; two raiders, making the most successful attack of the series on the night of 5/6 June, killed five men and wounded four others and destroyed six planes and damaged eighty others.²⁴

While the Fifth Air Force was perfecting its Wakde establishment, the ground campaign continued on the mainland, supported initially by the 49th's P-40's from Hollandia. On 20 May these P-40's were credited with yeoman success in assisting the ground troops to break up a Japanese counterattack along the Tor River. After a few weeks of hard fighting the campaign was not pressed; and ALAMO headquarters was content to move the 6th and 31st Divisions through the area in succession, using them in patrols while they were awaiting employment at Sansapor and Morotai. Glide-bombing P-47's of the 348th Fighter Group from Wakde furnished most of the air support required during

the lagging campaign. Results of these strikes were hard to assess, but one notable success—destruction of bridges across the Orai River by the 341st Fighter Squadron on 12–14 June—was believed to have hastened the withdrawal of Japanese artillery in forward areas, thus lightening the work for American infantrymen. Virtual collapse of Japanese resistance by 20 July curtailed the need for air activity, but sporadic strikes continued even beyond the official termination of the operation on 2 September.²⁵

Biak

Meanwhile, the Biak campaign had been mounted on schedule. Whitehead, joining his three heavy groups to the two of XIII Bomber Command, sent ninety-nine heavy bombers over Biak on 17 May for an hour of “excellent” to “superior” bombing of Bosnek, Sorido, and Mokmer. Each day thereafter, with the exception of 21 May when it raided Truk, XIII Bomber Command bombed Biak, accumulating a total of 185 sorties against that target between 4 May and Z-day.²⁶ Fifth Air Force heavies also devoted most of their effort to Biak, but handicapped by adverse weather and the long trip from Nadzab, they had managed a total of only 139 sorties prior to Z-day. In addition, light bombers of the 8th Squadron made low-level strikes against Sorido drome and near-by barge shipping on 20 and 22 May, and on 23 May they attacked targets of opportunity west of Mokmer drome.²⁷ All of these bombing missions were escorted by 49th Fighter Group planes. Bored by a lack of aerial opposition, fourteen P-38’s of the 9th Squadron, returning from an abortive escort mission on 23 May, strafed targets on Biak, silencing an AA position near Mokmer, burning four barges offshore, and killing about fifteen enemy troops who tried to swim ashore.²⁸

Neutralization of other Japanese airdromes in Geelvink Bay and on the Vogelkop, made doubly important by Japanese reinforcements, was the assigned function of the 380th Bombardment Group. On 19 May, thirteen B-24’s of the 529th and 530th Squadrons flew from northwest Australia to bomb Manokwari airdrome. After a great amount of confusion in arranging the escort, Col. Donald R. Hutchinson finally sent out the 9th and 431st Squadrons from Hollandia to fly cover. The 380th’s Liberators were intercepted by six Tojos, one of which was shot down by the bombers and four others of which were destroyed by the 9th Squadron’s P-38’s. The 431st Squadron met four

Japanese fighters and destroyed one of them. The 380th Group, carrying out its maximum effort in support of Biak, made two more strikes against Manokwari. On 21 May, one squadron made rendezvous with 433d Squadron P-38's to attack the primary target, but the other three Liberator squadrons, failing to meet their escort, attacked Utarom and Moemi airstrips. By another miscalculation on the 23d, the 9th Squadron's P-38's were dispatched to cover the 380th on a strike against Sagan, only to receive a much-delayed radio canceling the B-24 raid. On 26 May the 8th Squadron's P-38's joined twenty-one heavies from Australia for a successful strike on Manokwari. On 27 May, using two squadrons and ten B-24's, the 380th bombed Babo airdrome. The effort in general had been disappointing, for the group had managed only one really good strike, that against Manokwari on the 26th. Moreover, in view of the continuing confusion over fighter cover, Whitehead would soon pronounce such coordinated missions to be impossible.²⁹

The 8th Bombardment Squadron, flying its fifteen A-20's from Hollandia, operated more satisfactorily. On 19 May, twelve of these A-20's, sweeping in over Manokwari harbor in an early morning raid, destroyed or badly damaged seven or eight vessels, including one of 1,000 to 1,500 tons and another of 2,000 tons. Still having some ammunition left, the A-20's continued to their secondary target, Kamiri drome on Noemfoor, where they destroyed at least four grounded planes, heavily damaged five others, and strafed about 100 Japanese workers on the strip. P-38's of the 432d and 433d Squadrons covered the light bombers, and the latter squadron shot down a Rufe floatplane. After being weathered out on 20 May, twelve A-20's virtually ignored Japanese gunners to make four bombing and strafing passes over Kamiri on the next day, destroying seven to eight grounded planes. The next two days the light bombers were unable to reach their primary targets and attacked Biak, but on 24 May they swept Namber and Kamiri dromes, destroying ten additional planes on the ground.³⁰ These raids were singularly effective in reducing the Japanese air potential and in breaking up shipping, but the single light bomber squadron lacked the bomb-carrying capacity to crater Japanese airfields on Noemfoor.

ADVON, although unable to secure base facilities for the 345th Bombardment Group at Hollandia as it wished, was successful in staging the air echelon of the 38th Group to Merauke where, operating at extended range, its B-25's could attack some of the Vogelkop dromes. This movement was accomplished on 23-24 May, and it being

evident that Nabire was no longer a profitable target, the group was sent out to raid Babo on 26 May, only to find the area blanketed by weather and to be turned back to attack Dobo township in the Aroe Islands. The next day, Z-day at Biak, the group got through to the Vogelkop and, dividing into two-squadron echelons, attacked Babo and near-by Otawiri dromes at minimum altitude. The 71st and 822d Squadrons found only a few enemy planes at Babo but destroyed a Betty; the 823d and 405th Squadrons found Otawiri still under construction.³¹

The plan had been to use the heavy bombers of the Fifth Air Force against Vogelkop and Noemfoor airfields on Z-day, but Whitehead, anticipating strong enemy opposition to the landings, decided to employ them on Biak in supplement to the scheduled efforts of XIII Bomber Command. Ground and naval commanders had been somewhat reluctant to accept Whitehead's plan to use the Admiralty-based B-24's against the invasion beaches, but ALAMO headquarters, prompted by GHQ, finally authorized the attacks.³² As soon after first light as it was possible to identify the target on 27 May, twelve B-24's, drawn from the 63d and 868th Squadrons, flew in from Los Negros to bomb the Bosnek defenses. A second wave of twenty-five B-24's appeared between 0700 and 0704 and dropped 234 x 500-pound bombs along the beaches which, at the moment, were also under naval fire. XIII Bomber Command had scheduled forty-eight heavies for the mission, but one had crashed and exploded on the runway while taking off and had prevented the remaining planes from taking off. Another B-24 had crashed in the ocean en route.³³ Between 1103 and 1150 hours, seventy-seven of the Fifth's Liberators bombed targets in the airdrome area.³⁴

Including this effort, the Allied Air Forces in one month of sustained activity had dropped 2,260 tons of bombs on Biak defenses—899 tons by V Bomber Command and 1,361 tons by XIII Bomber Command. Study by a bomb-evaluation section of V Bomber Command and Japanese testimony soon revealed the extent of the damage caused by this aerial attack. Approximately 90 per cent of the Japanese supply dumps south of the airdromes and surrounding Bosnek and Mokmer villages had been destroyed. Bosnek village itself was practically devastated, and P/W's indicated that the main body of the 222d Infantry had evacuated Bosnek on 23 May because of the severity of the air strikes. Leaving only one company at Bosnek, the Japanese had

withdrawn to the airdrome area, despite their doctrine that "the enemy must be annihilated on the beaches." Coastal defense guns which might have imposed serious casualties on the Allied landing forces had been knocked out before they could fire. ALAMO credited the immediate pre-landing aerial bombardment with destruction of one 5-inch and two 3-inch naval dual-purpose guns located halfway between the two jetties at Bosnek, although the naval barrage which converged on the same area made definite assessment of the destroying agency difficult.³⁵ "My hat is off to the Air Corps," signaled General Fuller after he had witnessed the virtually unopposed landing of his invasion troops.³⁶

As Fuller's comment suggests, the establishment of a beachhead at Bosnek proved not to be very difficult. The first echelon of the 41st Division had departed Hollandia on the evening of 25 May. Naval covering forces joined the amphibious fleet next morning, and steaming directly toward Biak, with cover by fighter patrols from Hollandia and Wakde during the daylight hours of the 26th, the invasion fleet arrived off Bosnek on the early morning of 27 May. Following the naval and air bombardment, landing troops started ashore at 0715. Once ashore, the 186th Infantry quickly established a beachhead, and the 162d Infantry, second in the debarking column of regiments, pushed speedily toward Mokmer village.³⁷ Air cover was instituted shortly after first light by four 17th Reconnaissance Squadron B-25's, but the next two successive fighter patrols were blocked off by weather and scheduled air cover was not in place again until 1100. Thereafter, fighters rotated on patrol, encountering no enemy airborne opposition (although friendly AA sent up occasional bursts of flak) until late in the afternoon.³⁸ Four squadrons of the 3d Group's A-20's, orbiting off Biak, furnished direct support on call, and the fighters, as they were relieved from patrol, strafed targets specified by the ground controller.³⁹ Except for one A-20 shot down by enemy AA with the loss of its gunner, there were no aerial casualties during Z-day.

First indications were that seizure of the Biak airdromes also would be easy, but the Japanese soon revealed that they, no less than Whitehead, considered the Biak operation to be "the decisive step on the road to the Philippines."⁴⁰ Alerted by a search plane which had sighted the Allied convoys on Z minus 1, the 23d Air Flotilla had immediately started moving reinforcements in from Davao.⁴¹ The first Japanese airborne opposition, however, did not appear until 1630 on Z-day, when the 342d Squadron met eight enemy fighters flying in on the

deck about ten miles east of Bosnek. The patrol promptly shot down five of these planes but lost one P-47. Two hours later, five other Japanese planes, taking advantage of the temporary absence of Allied fighters, attempted a raid on the beachhead only to be shot down by AA.⁴² On the next day, the reinforced Japanese regiment at Biak, commanded by the exceptionally able Lt. Col. Naoyukie Kuzume, revealed that the Japanese meant to fight on the ground as well as in the air. Although ordered to defend the island at the water's edge, Kuzume, left little choice by the Allied bombing but to withdraw from Bosnek, had disposed the bulk of his force in the airdromes area and had prepared a perfect ambush in the cliffs high up over the Bosnek-Mokmer road. Permitting his advance guard to retreat before the 162d Infantry, he loosed a mortar barrage as the American troops were reaching Mokmer village and simultaneously erected a road block behind the Americans at Parai. Faced with counterattacks supported by tanks on 29 May, the 162d had to fight its way back through the road block and establish a defensive position near Ibdi village, halfway back to Bosnek. Kuzume then strengthened his defense at the Parai defile, completely blocking the easiest route to the airdromes. Fuller could only ask for the remainder of the 41st Division, especially the 163d RCT, so that he could undertake a difficult flanking attack up across the desiccated plateau back of the coastal shelf and envelop the Japanese positions by entering the airdromes from the northeast. At the same time, another regiment would attempt to reduce the enemy position at Parai defile and a third regiment would hold the beachhead. Krueger immediately ordered the 163d RCT dispatched from Wakde so as to arrive at Biak by 31 May and asked the Fifth Air Force to fly the 503d Parachute Infantry from Oro Bay to Hollandia to be ready for an emergency drop.⁴³

Capture of the airdromes would obviously take time and would require more air support than the 310th Bombardment Wing could furnish. At Fuller's request, thirty-one Liberators, armed with 1,000-pound bombs, were sent against AA positions at the east end of Mokmer strip on 29 May. They knocked out a four-piece, 120-mm. gun battery so emplaced that it could be used either as AA or to cover water approaches to the airdromes.⁴⁴ Hearing about the Japanese tanks, Whitehead also sent six B-25H's of the 398th Bombardment Squadron up to Wakde that day in the hope that the 75-mm. nose cannons (so far a disappointment in combat) might finally prove useful. Finding the tanks already destroyed by the ground forces, the B-25H's hit gun

positions; but being forced to fly a steady course to sight their cannon, the B-25H's provided a good target and lost one of their number to AA.⁴⁵ Light and medium bombers of the 3d Group and 17th Reconnaissance Squadron continued to give direct support on call, a business which was endangered by friendly AA gunners made "trigger happy" by Japanese activity. On 28 May the gunners had shot down a B-25 which had been cleared to drop pictures on the beachhead.⁴⁶ Bad flying weather over Biak turned back all missions on 30 May but also gave the ground forces respite from hostile air attacks until late that evening.

Having received its reinforcements and regrouped, the HURRICANE force began its offensive on 1 June, sending the 186th Regiment up over the plateau and moving the 162d toward Parai. By 7 June the 186th had broken through the coral cliffs northeast of Mokmer and had captured the strip; its position, however, was precarious from lack of supplies, general exhaustion, and harassing Japanese artillery fire from ridge positions back of the strip. Having made amphibious landings west of the Parai defile, forces of the 162d RCT pushed through the Japanese barrier from both sides and opened the Mokmer-Bosnek road on 9 June. The Fifth Air Force had wanted to use six squadrons of B-24's a day to blast a path for the ground forces on Biak, but weather and more pressing targets prevented it. One mission of thirty-six Liberators bombed Mokmer artillery positions on 1 June, but the formation had so much difficulty finding a poorly identified target that one plane, running low on gas, crashed while attempting to land at Wakde. Weather prevented most of the heavy flights from reaching Biak on 3-4 June; from 4 to 7 June, they were largely committed to a futile search for Japanese naval units; and on 8 June, the Nadzab-based B-24's were staged to Hollandia for a mission to the Palaus. Such heavy strikes against Biak targets as were made proved only partially successful and were unduly expensive; weather-aborted missions used up effort and, in addition, the heavy missions from Nadzab had to arrive over Biak about noon, a time at which the Japanese soon prudently took cover.⁴⁷ When it became necessary to commit the heavies to operations over the Palaus, ADVON supplemented the strength of the 310th Bombardment Wing by staging B-25 missions from Nadzab through Hollandia to Biak.⁴⁸

While General Fuller's forces worked toward the airdromes, the Japanese Combined Fleet undertook to move 2,500 troops of the 2d Amphibious Brigade from Zamboanga to Biak. An escort of battle-

ships and cruisers sailed from Davao on 2 June, but alarmed by submarine and search-plane sightings and erroneous reports of a powerful Allied naval force northwest of New Guinea, the battleships soon turned back. Two cruisers, six destroyers, and the troop transports continued to Sorong, where after some debate, the Japanese decided to use the six destroyers for a fast run into Biak. Three of the destroyers were loaded with 200 men each, and covered by the three other destroyers they left Sorong early on 8 June.⁴⁹ Special intelligence and sightings had kept Allied forces well posted. While TF 74 and TF 75 went on alert, Whitehead on 4 June rushed a large concentration of aircraft to Wakde, but when planes of the 63d Bombardment Squadron located the main body of the enemy fleet steaming back north that night and sank a troop transport, the alert was relaxed. During the day a large formation of Japanese planes, sacrificing four of their number to P-47's, had holed the cruiser *Nashville*; after the alert, our naval forces moved back to safer waters at Hollandia.⁵⁰ But continued reports, resulting from attacks by the 3d Group on Japanese barge concentrations at Manokwari, indicated that mischief was still afoot, and on 6 June, B-24's of the 380th Group located the Japanese cruisers hovering off Waigeo Island.⁵¹ The subsequent attack proved unsuccessful.

When the Japanese destroyers began their run on 8 June, luck seemed to be with them. The Allied Air Forces, committed to heavy bomber attacks on the Palaus prior to Nimitz' move into the Marianas, had released as much forward staging space as possible. Moreover, the 5/6 June night raid on Wakde had damaged a great number of Allied aircraft, and all that the 310th Bombardment Wing had available for attack was the 17th Reconnaissance Squadron. Covered by P-38's, ten of the 17th's B-25's met the Japanese destroyers near Amsterdam Island at 1250 hours on 8 June. The AAF pilots, believing that they had encountered two cruisers (actually oversized destroyers) and four destroyers, sank the troop-laden *Harusame* and damaged three other vessels in a blazing low-level attack. Three crews, including that of the squadron commander, Maj. William G. Tennille, Jr., were shot down, and the remaining B-25's were so badly damaged by AA that the whole squadron had to be sent back to Finschhafen to re-form. P-38's of the 432d Squadron shot down three of the small force of escorting Japanese fighters.⁵² The Japanese force turned back temporarily but soon resumed a course for Biak, arriving off Korim Bay at

2230 hours. Just as they were preparing to unload, they were attacked by Allied destroyers, which had rushed back from Hollandia, and then pursued to the vicinity of the Mapia Islands in a running gun fight without damage to either side. The Japanese made preparations for another attempt to run in reinforcements, this time with escort from the super-battleships *Yamato* and *Musashi*, but the American attack in the Marianas forced cancellation of all such efforts to aid Biak.⁵³ With the possible exception of the night of 12 June, when the enemy seems to have slipped approximately 218 men in from Manokwari on luggers, probably via Noemfoor, the Japanese had been unable to reinforce Biak.⁵⁴

Enemy air operations over Biak, stepped up somewhat during the period of attempted reinforcement, reached a total of twenty-two attacks by some seventy-one planes to the end of June.⁵⁵ As is usual in military operations, when one phase of an effort is retarded, others are thereby delayed. Thus, the establishment of adequate air warning and control facilities on Biak was thrown out of kilter by the slow ground campaign. Z-day echelons had set up an assault fighter control center west of Bosnek without delay, but the Japanese counterattack forced the control units to retire to Bosnek. The small perimeter available around Bosnek village circumscribed the siting of radars, and not even the GCI station, which went on the air on 31 May, could operate with efficiency. As rapidly as Owi and Woendi Islands were taken, radar stations were moved there to broaden the base of the air warning system, and on 26 June the GCI, now moved from Bosnek to Tamao, began operation under more favorable circumstances. As soon as Mokmer drome was secured, V Fighter Command's new airborne control center was flown in to relieve the assault fighter control center at Bosnek. This improved control and warning system, aided by the arrival of a detachment of 421st Night Fighter Squadron P-61's (one of them trailed and shot down a Dinah bomber over Japen Island on 7 July to score the first P-61 victory in the SWPA), made Japanese raids against Biak-Owi increasingly hazardous, but the permanent installations of the 33d Fighter Sector, delayed by a shipping impasse, would not be operational until the middle of August.⁵⁶

The Japanese had built up raiding air garrisons at Jefman and Samate airdromes, at the north tip of the Vogelkop near Sorong, and at Babo, Sagan, and Otawiri, on McCluer (Beraoe) Gulf. They could stage these planes and others from the Netherlands East Indies through

Manokwari, Ransiki, Moemi, Waren, Noemfoor, and Nabire to attack Biak. A naval petty officer, shot down over Biak on 2 June, had been flown to Moemi to pick up a plane which had been ferried down from Davao the day before. Initially, Whitehead had relied upon the 380th Bombardment Group and the stripped-down 38th Bombardment Group, flying from Merauke, to keep Japanese air strength in the Vogelkop beaten down. At his request the 380th had flown to Jefman on 28 May, only to be weathered out; another scheduled strike on Jefman had been canceled when the 380th on 6 June attacked the Japanese cruisers; and by 7 June the enemy air strength in the area had so increased that Kenney did not care to send the unescorted 380th there again. The 38th Group efforts against Babo had been only moderately successful; it managed the long flights there on 27, 29, and 31 May, but during June, weather prevented any more missions to Babo. Engine failures caused by long cruising on lean gas mixtures, the expense of maintaining the Mitchells at Merauke by air resupply, and ordnance difficulties reduced the effectiveness of the 38th Group. Babo, however, was too close to Allied bases at Hollandia to continue long as a major Japanese base. On 3 June, P-38's, supposed to cover a weather-thwarted B-25 strike, virtually eliminated the Japanese air complement at Babo, but lost their squadron commander, Lt. Col. David A. Campbell. As quickly as the situation on Biak permitted, Whitehead committed the 3d Bombardment Group almost entirely to neutralization strikes on Geelvink Bay fields, and beginning on 5 June the group also undertook a continued neutralization of Babo, so releasing the 38th Group from its stint at Merauke.⁵⁷

The Japanese air effort against Biak was sharply curtailed after 13 June, when the 23d Air Flotilla's potential reinforcements started moving to the Central Pacific front. Eradication of the Japanese strength remaining at Jefman-Samate would be a difficult matter, involving the longest B-25 flights yet undertaken in SWPA and prospects of a vigorous interception. Kenney, however, considered the area to be an anchor position in the Japanese defense line, and ADVON at Nadzab was making plans to neutralize it as soon as the commitments to Nimitz and the installations to turret and bomb-bay tanks in the B-25's permitted.⁵⁸

On 14 June these requisites had been accomplished, and the Fifth Air Force began staging the 38th and 345th Bombardment Groups, together with P-38's of the 8th Fighter Group, into Hollandia. The

latter group and the 475th Fighter Group moved their P-38's up to Wakde early on 16 June, refueled them, and took off to cover forty-one B-25's from Hollandia which reached Jefman drome at 1255. The Mitchells went in over the field in an exceptionally low line-abreast sweep, strafing and dropping 100-pound parafrags on Japanese fighters which were either trying to take off or were parked in ready positions. Leaving fires and billowing smoke so thick that the last pilots had to fly on instruments, the wing continued across the four-mile channel separating Jefman Island from Samate drome on the mainland and repeated its performance. Surprised Japanese defenses managed to shoot down only one plane. Crews of the 38th Group, comparing their activities to a day at a county fair, claimed eleven enemy planes shot down. The 345th Group, flying second, claimed only one Hamp. Photos showed that fourteen grounded planes had been destroyed or badly damaged. The covering P-38's claimed twenty-five other definite victories, at a loss of one pilot.⁵⁹ Whitehead intended to use the B-25's against Babo on the following day, but they had reported so many lucrative shipping targets around Sorong that he sent thirty-five Mitchells and sixty-eight P-38's back there. On this day the 345th Group attacked the two seemingly deserted airfields, while the 38th Group claimed at least eight vessels sunk and several others set on fire. Lightning pilots saw only four airborne Japanese planes and shot down one of them. A few Japanese fighters evidently remained around Sorong for several days, because two of them shot down a 38th Group B-25 during a shipping sweep on 22 June, but finally admitting the defeat of all organized Japanese air strength in New Guinea, the 23d Air Flotilla headquarters retreated from Sorong to Amboina on 28 June.⁶⁰

Back on Biak, General Fuller's troops had established tenuous control over Mokmer strip by 9 June, and aviation engineers began on the next day attempts to make it ready for our fighters. But it proved impossible to get heavy equipment over the road from Bosnek, and enemy fire forced suspension of work on the 13th. The infantry's attempt to clean up the Japanese pockets in the caves back of Mokmer rapidly exhausted the available forces, and even though Fuller put Air Corps troops into perimeter defenses at Bosnek, he lacked the strength to finish off the Japanese as rapidly as desired. As the delay in the rehabilitation of Mokmer ate up the schedule for the completion of the New Guinea campaign, MacArthur was growing restive. When Fuller, citing rumors of Japanese reinforcements and the fatigue of his men, asked

for an additional regiment on 13 June, Krueger arranged to move forward the 34th Infantry and directed Eichelberger to take command at Biak. Eichelberger assumed command on 15 June, and on the 19th launched an attack with the fresh 34th Infantry, which captured Borokoe and Sorido dromes on the next day. The action also relieved Japanese pressure on Mokmer strip, and Eichelberger immediately informed Hutchison that he could move Air Corps units there as soon as he desired.⁶¹

ALAMO, anticipating the delay at Mokmer, had queried the HURRICANE force regarding alternate airdrome sites on 30 May, and by 8 June, Hewitt and the task force engineer had discovered a site for a regulation heavy bomber airfield on near-by Owi Island. With parts of two battalions of aviation engineers at work, stripping started at noon on 9 June, and work progressed so favorably that some of the P-38's returning from Sorong on 17 June were able to land. Colonel Hutchison considered the strip ready for two groups of fighters in an emergency, but preferring to give the engineers as much uninterrupted time as possible, he did not call forward the airplanes of the first two squadrons of the 8th Fighter Group until 21 and 23 June. The third squadron came in on 1 July. A detachment of the 421st Night Fighter Squadron and Airacobras—invaluable for close support—of the 82d Reconnaissance Squadron moved to Owi on 28 June. Mokmer received the air echelons of the 49th Fighter Group between 21 and 25 June, and by 2 July the rejuvenated 17th Reconnaissance Squadron had settled down there. The air garrison had now reached the minimum which Whitehead considered necessary before the Fifth Air Force could undertake support of the invasion of Noemfoor.⁶²

Old-timers in the Fifth Air Force had long regaled new arrivals with tales of how "rough" it had been at Port Moresby, but the ground echelons of the first units moving into Biak calculated that they had an effective rebuttal of all such tall stories. An advanced detachment of the 308th Bombardment Wing headquarters had arrived at Bosnek on 30 May in time to experience the early bombings; it was fairly well inured to the local hardships by the time that the remainder of the headquarters arrived on 23 June. The ground echelon of the 49th Group had arrived on 5 June, and since space was limited it had been quartered in a campsite approximately 250 yards square. Except for furnishing labor to unload LST's, the group sat there in an idleness which the men, little knowing the precarious ground and shipping situation, considered

“purposeless, useless, and complete.” Into this jammed camp area at about 0130 hours on 12 June, a single Japanese plane dropped four bombs with deadly effect, killing nineteen men and injuring twenty-nine. On 20 June the group moved to a new campsite near Mokmer drome and began preparations to receive its planes. Ground personnel of the 8th Fighter Group, having originally sailed for Wakde only to be held aboard ship for a month, finally debarked at Bosnek on 12-14 June and, primed with stories of Japanese atrocities, spent a wakeful series of nights. Uneasy guards, seeing faint lights moving along the ledges above the bivouac, alerted the whole camp on the night of 15/16 June, only to discover that the supposed Japanese infiltrators were fireflies. The group ruefully dubbed this incident the “Battle of Firefly Hill.” On 18 June the group’s personnel and equipment were ferried to Owi, where a permanent camp was pitched. Just as these first units were getting settled on Biak and Owi an epidemic of tropical fever—later diagnosed as mite-borne scrub typhus—broke out, and by 28 July there had been 202 cases of this debilitating and, in some cases, fatal disease among the Air Corps troops. Clearing and burning of mite-infested areas and rigidly enforced wearing of clothing impregnated in a dimethyl phthalate solution proved an effective prophylactic measure against new infections, but by this time the troops had begun to wonder whether there might not be some truth to the rumor that “Owi” in the native tongue meant “Island of Death.”⁶³

On Biak, as the 34th Infantry attacked westward, the 162d and 186th turned into the “West Caves,” a maze of sump holes, caves, and interconnecting fissures in which Kuzume had centered the remnants of his regiment. The American infantry slowly liquidated this pocket, using gasoline and dynamite to flush the Japanese from their hiding places and calling occasionally for aid from the air forces, as when twelve B-25’s of the 38th Group on 24 June made a “bull’s-eye” attack with 1,000-pound bombs.⁶⁴ The West Caves and other ridge pockets of resistance having been cleaned up by 29 June, Eichelberger returned to Hollandia. During early July the infantry localized remaining organized resistance in the Ibdı pocket, just north of Mokmer village, and following a heavy artillery barrage and Liberator bombardment, the 163d Infantry wiped out the pocket on 22 July. Patrols continued to hunt down bands of Japanese, badly demoralized and reduced to cannibalism, until the official termination of the Biak campaign on 20 August and even thereafter sporadically.⁶⁵

THE ARMY AIR FORCES IN WORLD WAR II

While the Fifth Air Force had been able to locate the minimum air garrison needed on Biak-Owi to support the invasion of Noemfoor, the early ground delays would have a cumulatively delaying effect on the comprehensive base-development program and the air force deployment dependent upon it. The Navy had planned to start moving Liberty ships to Biak by Z plus 8, but delays in the capture of Mokmer strip, coupled with the vigorous Japanese air attacks, caused TF 77 to refuse to leave cargo vessels at Biak even for one daylight period. Few such large vessels could run to Biak until 21 June, and consequently some 30,000 to 40,000 tons of shipping had been backlogged by that time. This backlog would have to be sandwiched in with current re-supply shipments and taken in over the beaches at Biak at a rate of about 2,000 tons a day, a rate which could not be appreciably increased until docks were built. ALAMO estimated that the backlog could not be worked off until late September.⁶⁶

On 20 June, GHQ issued a revised construction authority for Biak. Four airdromes would be constructed: one regular heavy bomber drome with 180 hardstands on Owi; one heavy bomber drome (less a parallel runway) with 115 hardstands at Mokmer; one heavy bomber drome (less a parallel runway) with 115 hardstands at Sorido; and one fighter drome with 94 hardstands or equivalent aprons for two troop carrier groups at Borokoe. This program was broken down into monthly completion objectives, and it was expected that it would be completed by 15 September, at which time construction of air depot facilities could begin. After a personal observation and conferences with HURRICANE and 308th Bombardment Wing engineers, Whitehead projected his own needs in relation to scheduled post-Noemfoor operations. By 15 July he needed one 7,000-foot runway and 136 hardstands at Owi and another 7,000-foot runway and 142 hardstands in the Mokmer-Sorido-Borokoe area. By 25 July he required two 7,000-foot runways and 189 hardstands at Owi and both a 7,000-foot and a 5,000-foot runway and 244 hardstands in the Mokmer-Sorido-Borokoe area. By 5 August he wanted an additional taxiway and 282 hardstands at Owi and an extension of the shorter runway in the Mokmer-Sorido-Borokoe area to 5,500 feet together with 238 hardstands in the area. He was quite optimistic that the engineers, by concentrating effort on three airdromes and leaving Sorido until last, could meet these target dates. The Allied Air Forces forwarded Whitehead's request to GHQ, which permitted the extension of Borokoe to 5,500 feet but rescinded

all previously announced target dates and left this matter up to the air forces and the construction agency.⁶⁷

The engineers cooperated with Whitehead's program to the best of their ability, but a variety of factors, including some worn equipment and an average delay of three to four weeks in the arrival of engineer units, caused construction lag behind the GHQ schedule by as much as fourteen days. Mature investigation revealed that Sorido could not be developed into a heavy bomber field without almost prohibitive labor; and, after 4,000 feet of the strip had been repaired enough to permit troop carrier use, GHQ curtailed its development and expanded the other three airdromes to make up for the loss of hardstanding capacity at Sorido. Tactical facilities would be practically finished by 1 October, and at that date work could begin on the Biak air depot.⁶⁸

The same shipping bottleneck which impeded construction hampered the movement of air units and supplies to Biak in preparation for invasion in the Vogelkop. Air movements, however, utilizing troop carrier C-47's and bombers, enabled the Fifth Air Force to get stripped-down units into Biak and Owi despite the shipping tangle. Between 11 and 20 July, for example, the 22d and 345th Bombardment Groups devoted almost all their effort to hauling cargoes from Nadzab to Owi. By air transport the flight echelons of the 25th Photo Reconnaissance Squadron, 82d Reconnaissance Squadron, 475th Fighter Group, 43d Bombardment Group, 345th Bombardment Group, part of the 22d Bombardment Group, and such service organizations as were suitable for air movement were moved forward during July.⁶⁹ Additionally, P-40's of the RAAF 78 Wing were flown from Hollandia to Biak, where they were held in readiness to move to Noemfoor. To extend the SWPA search pattern, PB4Y's of VB-115 moved to Owi on 15 July, and Catalinas of VP-34 and VP-52, based on the tender *Tangier*, took up station in Woendi Atoll on 15-16 July. Catalinas of the 2d Emergency Rescue Squadron, just arriving from the United States, began operating from Mokmer late in July.⁷⁰ During the last week in July, advanced echelons of the Fifth Air Force, V Bomber Command, and V Fighter Command headquarters arrived at Owi. The Fifth Air Force formally transferred its command post from Nadzab to Owi on 10 August, relieving the 308th Bombardment Wing for a period of badly needed rest at Hollandia.⁷¹

Movement forward of the air echelons of so many tactical organizations without their full complement of ground crews and maintenance

equipment met the immediate tactical situation but contributed to one of the most confused logistical situations ever encountered by the Fifth Air Force. Proper maintenance was impossible, and by 3 August some ninety-one aircraft were grounded at Biak-Owi for want of repairs, reducing, in effect, by one full tactical group the potential striking force based forward.⁷² This unfavorable condition, moreover, was not limited to Biak-Owi. The 90th Bombardment Group, to take but one example, had set up an air echelon at Wakde on 22 June, a part of the ground echelon was aboard ship at Hollandia awaiting movement to Biak during most of July, while the rest of the ground echelon was at Nadzab, the official group station.⁷³ Concentration of these scattered echelons at Biak and Owi would be one of the gravest problems confronting the Fifth Air Force during August and early September.

The Far East Air Forces

During the three months following the JCS announcement of plans for liquidation of SOPAC forces, SWPA had been so busy with its New Guinea campaign that none but extemporized command arrangements had been practicable. These improvisations, however, suited a climate of opinion in SWPA that placed military operations ahead of the niceties of administration.

Since 1942 the ranking air headquarters in SWPA had been the Allied Air Forces, SWPA, which exercised operational control over the Fifth Air Force, RAAF Command and attached Netherlands East Indies units, and Aircraft Seventh Fleet. This headquarters, once heavily staffed with Australians, had become more and more an American body as the Fifth Air Force had dwarfed the RAAF Command in size, and by June 1944 the Allied Air Forces staff was, with the exception of the Directorate of Intelligence, the corresponding staff of Rear Echelon, Fifth Air Force. As Kenney was fond of saying, he and his staff merely had two hats, one "Allied Air Forces" for dealing with Allied or naval units and another "Fifth Air Force" for controlling AAF organizations. With the Thirteenth Air Force assigned to SWPA, it was no longer feasible for Rear Echelon, Fifth Air Force to serve in effect as the supreme air headquarters in SWPA and thus control another American air force. Kenney's first intention was to set up a new USAAF headquarters in SWPA—MacArthur wanted to call it the "First Air Army"—which would absorb the personnel and functions of Rear Echelon, Fifth Air Force and in effect the Allied Air Forces. Thus

the "First Air Army" staff would exercise administrative control over the Fifth and Thirteenth Air Forces and, in the name of the Allied Air Forces, could control operations of these air forces as well as those of the RAAF Command, Aircraft Seventh Fleet, and the composite Marine and Navy air command to be inherited from SOPAC. The new headquarters would establish and control directly the logistic and training functions common to both the Fifth and Thirteenth Air Forces. It would gradually undertake to control the operations of its AAF subordinates directly, because Kenney foresaw that the operational importance of the Allied Air Forces would decline as USAAF units re-deployed from Europe and as operations progressed northward from the Australian base.⁷⁴

Organization of the "First Air Army" would take care of the Thirteenth Air Force, but some other arrangement would be required under the Allied Air Forces framework to control Marine and Navy air units to be taken over when SWPA assumed responsibility for operations west of the 159th meridian. After intertheater conferences, SOPAC, utilizing the latitude permitted the Navy in the organization of task forces, established a new headquarters, designated Aircraft Northern Solomons (AIRNORSOLS), under Maj. Gen. Ralph J. Mitchell, USMC, with headquarters at Torokina. Effective with the organization of AIRNORSOLS on 15 June, the Allied Air Forces assumed operational control and directed Mitchell to support the operations of the U.S. Army XIV Corps along the New Ireland-Solomons axis. Mitchell was seemingly none too pleased by this mission against 70,000 by-passed Japanese, but Kenney assured him that he was not going to be "kicking a corpse around."⁷⁵

The question of a new USAAF headquarters for SWPA was not of such easy solution. Kenney incorporated his ideas on the subject in a recommendation to CINCSWPA on 5 May, and SWPA, adding a request for an additional Army headquarters as well, passed the recommendation on to the War Department six days later. On 15 May the War Department readily granted the request for the additional Army headquarters but, pending study by AAF Headquarters, permitted the activation of a new air headquarters only on a provisional basis from personnel available in Brisbane. The AAF immediately objected to such an unusual name as "First Air Army," suggesting instead the name "USAAF in the Far East." AAF reaction to Kenney's request for 1,304 officers and men for the new headquarters was also skeptical,

especially since Kenney had earlier claimed that consolidation of two air forces would result in personnel savings and had just persuaded the AAF to authorize a fourth fighter squadron for the 348th Group on that assumption. The Troop Basis Division of AC/AS, Operations, Commitments, and Requirements first recommended that no additional personnel be authorized, but it soon relented and offered a standard air force headquarters and headquarters squadron, or an aggregate of 727 officers and men.⁷⁶

After waiting as long as possible for Washington to approve a personnel authorization, USAFFE (the SWPA administrative headquarters) cut orders on 14 June 1944 announcing organization of a command designated as the Far East Air Forces (Provisional), effective the next day. The old Far East Air Force, as the predecessor of the Fifth Air Force, had fought in the Philippines early in the war,* and SWPA preferred a plural version of the same designation rather than that suggested by the AAF both for sentimental reasons and because an abbreviation of the suggested designation might be confused with USAFFE (U.S. Army Forces in the Far East). Kenney, utilizing personnel of the Brisbane headquarters, formed FEAF (P) on 15 June; it would continue as a provisional organization until 5 August, when receipt of an air force T/O&E permitted activation of a Headquarters and Headquarters Squadron, FEAF. On 15 June, Whitehead and Street assumed command of the Fifth and Thirteenth Air Forces, respectively, opening their command posts at Nadzab and Los Negros. They disbanded the old ADVON Fifth Air Force and the Thirteenth Air Task Force and absorbed the assigned missions. Since only part of the Thirteenth Air Force units were in the Admiralties, Street opened a rear echelon of his headquarters at Guadalcanal to supervise rearward units, which, pending movement forward, would support ground operations in New Britain and assist COMAIRNORSOLS. FEAF (P), assigned for operational control to the Allied Air Forces, assumed command of the Fifth and Thirteenth Air Forces, following a pattern of command and control which was not fundamentally new in SWPA. Internally, the FEAF, Fifth Air Force, and Thirteenth Air Force headquarters were organized along conventional lines with the familiar A-1, A-2, A-3, etc., and special staff sections and would continue so organized for the remainder of the war period.⁷⁷

This reorganization so far was little more than a paper transaction

* See Vol. I, 176 ff.

formalizing a command structure already existing, albeit with redesignations of headquarters. The only significant innovations were the command arrangements announced for control of logistic and training functions common to both the Fifth and Thirteenth Air Forces. The fourth echelon supply and maintenance function was assigned to the Far East Air Force Service Command (Provisional), organized on 15 June under command of Brig. Gen. Paul H. Prentiss. This command would continue provisional until regularly activated with an aggregate of 1,029 personnel on 18 August. Assigned to FEASC (P) were the Brisbane detachment of the V Air Force Service Command headquarters, the headquarters squadrons of the IV and V Air Service Area Commands, eight air depot groups and their subordinate units, aircraft assembly and overhaul squadrons, and miscellaneous supporting units. In brief, FEASC would receive aircraft and Air Corps technical supplies from the United States for modification, assembly, and delivery to the back doors of the fighting air forces. FEASC depots, assigned to the two air service area commands, would provide fourth echelon maintenance and supply for the combat air forces, and the duplicate area command headquarters—IV ASAC and V ASAC—would be located initially at Finschhafen and Townsville but would leapfrog forward to keep pace with the fighting. Both the V and XIII Air Force Service Command headquarters would be continued because Kenney considered them needed for logistical planning, for control of requisitions, distribution, and maintenance on combat bases, and to supervise and administer the third echelon functions of their assigned service groups. The staff of IV ASAC had been, in effect, functioning as the service command of ADVON Fifth Air Force at Nadzab; in the reorganization this headquarters was redesignated as the headquarters of V Air Force Service Command, and a new staff for IV ASAC was built up to take control at Finschhafen.⁷⁸

Theater training and indoctrination of replacement aircrews became the responsibility of a new Far East Air Force Combat Replacement and Training Center (Provisional), organized on 15 June under command of Col. Carl A. Brandt with station at Port Moresby. To this FEAFRTC (P) were assigned the 8th Service Group, the V Bomber and V Fighter Command Replacement Centers, and miscellaneous service units. Thereafter all incoming aircrews reported to Port Moresby, where they received a course of instruction and flew a series of indoctrination missions against by-passed Japanese positions. The

CRTC (P) moved to Nadzab on 4 September, where on 16 October it was reorganized on the basis of a newly activated service group, the 360th Service Group. This organization, functioning under policies established by FEAF's A-3, would train and distribute all incoming airmen until the end of the war. Reception and distribution of incoming ground replacements for the air forces remained the duty of the 91st Replacement Battalion (AAF), operating directly under the supervision of FEAF's A-1.⁷⁹

The skeleton framework of the new organization was thus closely akin to the SWPA air organization which had grown up since 1942. Fundamentally, command relationships would continue to be inextricably connected with the personalities of the generals commanding. Kenney's prestige as the senior air commander in SWPA was high in all SWPA councils, and MacArthur, observing that he had "found that it takes an aviator to run aviators," left air matters within the theater generally to Kenney, who never forgot that the august CINCSWPA—Kenney always referred to MacArthur as "the General"—was in name and in fact the repository of all military authority in the SWPA. Kenney's air autonomy did not extend outside the theater, chiefly because no other theater commander was as jealous of his prerogatives as MacArthur, and communications between FEAF and AAF Headquarters in Washington, with the exception of personal correspondence between Kenney and Arnold, always passed through either GHQ or USAFFE, often receiving far more than routine attention. Thus early in July 1945, GHQ would refuse to pass officially to Kenney a request from Arnold that he be advised of FEAF's plans for supporting an invasion of Japan.⁸⁰

Shortly after taking command of FEAF, Kenney informed Whitehead and Streett that his basic operational principle would be to insure flexibility in tactics, and he encouraged them to visit and correspond with each other and merely advise him of their decisions. While he planned that all Allied Air Forces entities would ordinarily operate in well-defined areas, their subordinate units might be switched about to meet tactical situations and each entity might cross its boundary lines if the commander concerned were properly notified. Since most of the original FEAF personnel had been members of the Fifth Air Force, there existed from the first a rapport between their headquarters which did not extend to the Thirteenth Air Force. The chiefs of staff of FEAF and of the Fifth Air Force kept up a steady exchange of memo-

randa during most of 1944, settling many matters on an informal basis. Kenney, moreover, had a high admiration for Whitehead, whom he considered "an essential member of a winning team which is producing maximum results with a minimum cost of personnel and equipment."⁸¹ The two generals exchanged letters, often daily, when their command posts were separated.

The Fifth Air Force, because of its size rather than favoritism, would be the assault air force in most of the operations between June 1944 and August 1945, while the Thirteenth, smaller in size and a much tighter administrative unit than the sprawling Fifth Air Force, generally would be cast in a supporting role. In this respect, the Fifth Air Force would generally work closely with the ALAMO Force and its successor, the Sixth Army, and the Thirteenth would work with the new Eighth Army in consolidation operations. Predominance of Fifth Air Force-indoctrinated personnel on the FEAF staff provoked some complaints from the Thirteenth Air Force, but although Kenney would have preferred to draw staff officers from both air forces for the new headquarters, the Thirteenth had actually been so short of staff when it was transferred to SWPA (it had always depended upon the Navy for operational direction and intelligence) that Kenney was hard pressed to fill it up, much less take away its key staff members. The supporting role of the Thirteenth also occasioned "some chaffing on the part of the staff," and Streett in January 1945 went so far as to reveal a personal opinion that the Thirteenth should be inactivated and its units absorbed by the Fifth. Plans for the employment of FEAF against Japan made this suggestion impracticable, and not only would the Thirteenth be needed but the Seventh Air Force would be assigned to FEAF on 14 July 1945 to support the planned invasion of Japan.⁸²

In general, FEAF would develop substantially as had been visualized, assuming more and more of the operational attributes of the Allied Air Forces until by September 1945 it was ready for the liquidation of the latter agency, a change planned to coincide with a redefinition of MacArthur's theater preparatory to the invasion of Japan but which actually would take place after V-J Day. This, however, will be a subject for later attention. To return to June 1944 and the New Guinea campaign, it may be observed that the reorganization had been accomplished smoothly and with no delay to the Allied war effort.

Noemfoor

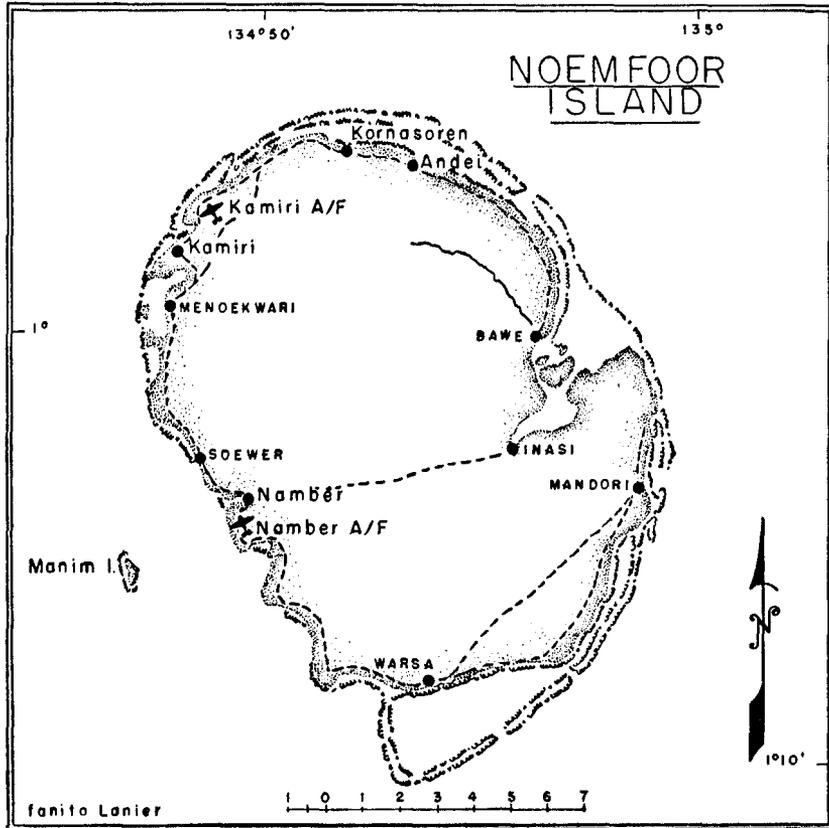
Neither RENO IV nor MacArthur's radio to the JCS on 8 May had contemplated the seizure of an objective in Geelvink Bay other than Biak, but by mid-May air planners were agitating their need for Noemfoor Island. Whitehead urged that such an operation could be undertaken as soon as the Fifth Air Force had two fighter groups operating at Biak, or about 15 June. By this time the RAAF engineers would be completing their work at Tadjji and could be released to construct fields on Noemfoor needed for the 10 Operational Group and a few Fifth Air Force units. An air garrison on Noemfoor would facilitate fighter escort for bomber strikes on the Halmaheras, could maintain the neutralization of Vogelkop airfields, could break up Japanese efforts to reinforce Biak from Manokwari, and would also be of value in case the Japanese navy, observed to be effecting a concentration around Tawitawi, attempted to raid Biak.⁸³

Geography and enemy efforts had fitted Noemfoor for exploitation. It lies near the northwestern limit of Geelvink Bay, eighty-one miles west of Biak and forty-five miles east of Manokwari. Roughly elliptical in shape upon axes of about fourteen miles north-south and thirteen miles east-west, Noemfoor's low coral-limestone hills are predominantly timber covered. The northern half of the island is low and flat. A fringe of coral reef almost completely surrounds the island, allowing access to only a few landing beaches. In November 1943, the Japanese, seeking to speed development of airfields, had impressed some 3,000 Javanese men, women, and children for labor on Noemfoor, where all but 403 of the mistreated slaves were to die before liberation. Three partly completed airdromes had been built: Kornasoren, on the north-central coast, with a partially cleared 5,000-foot strip; Kamiri, on the northwest coast near Kornasoren, with a 5,000-foot strip and seemingly extensive parking areas; and Namber, one-half mile inland in the southwest part of the island, with a 4,000-foot runway and limited dispersals. Other than a good path running around the perimeter of the island there was no well-developed system of communications.⁸⁴

Allied prognostication as to the number of defending troops likely to be encountered on Noemfoor was hampered by the closeness of the island—two hours by destroyer or eight hours by barge—to Manokwari. On 21 June, ALAMO estimated that 2,850 enemy troops, including 1,600 combat troops, were then on Noemfoor, and that the Japanese

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would be able to move an additional combat battalion there prior to an Allied landing. Estimates of air resistance for Noemfoor were about the same as for Biak. Within 800 miles the Japanese held at least forty-nine operational airdromes, and within 200 miles they had seven advanced staging fields. FEAF intelligence expected a maximum enemy



air strength of 554 aircraft, predominantly fighters, to be within a radius of 600 miles of Noemfoor. The concentration of Japanese warships at Tawitawi was first believed a threat to Noemfoor, but before the target date these ships would have sortied for the Marianas. Whitehead, convinced that the Japanese had been reinforcing Noemfoor steadily, felt that they would "fight to beat hell."⁸⁵

GHQ planners had been in no hurry to commit themselves on a Noemfoor invasion, obviously preferring to await developments at Biak, but on 5 June, MacArthur indicated that it might be necessary to

use one regiment of infantry against Noemfoor in order to consolidate Biak. A preliminary GHQ plan contemplated use of this regiment and two engineer aviation battalions to seize and develop Kamiri drome for a fighter group, beginning on 22 June. The Allied Air Forces staff, while realizing that seven miles of road would be required to exploit Namber, urged that all three of the airdromes would be needed. The air forces were facing a strong air concentration, and their attacks on Amboina, Jefman, and Halmahera bases would need a minimum installation on Noemfoor to serve air units which otherwise would have to be less economically placed on Biak. GHQ accepted the concept of a Noemfoor operation designed to secure all airdromes and issued a warning instruction on 14 June, designating the 158th RCT, augmented with combat and service units, as the invading force. The target date would depend upon the establishment of fighter units at Biak.⁸⁶

Discussions, including the highly controversial determination of a target date, now passed to ALAMO's Finschhafen headquarters. MacArthur had maintained that Noemfoor could be invaded between 22 and 25 June, but most of his staff seemed to believe it impossible before mid-July, a time which also jibed with Seventh Fleet thinking. No one, however, was particularly anxious to inform MacArthur that there would have to be delay. Kenney was exceedingly anxious to get two fighter groups to Biak in time to permit an invasion on 25 June—so anxious, indeed, that he would have been willing to see the attack launched with only one fighter group in place. A preliminary conference at Finschhafen on 16 June, however, estimated that Biak air facilities could not permit the invasion before 30 June, and at a conference between Krueger, Whitehead, and Fecteler on 20 June, it was decided that 2 July would be the best target date. By then the task force, scheduled to have completed concentration at Toem by 26 June, would have held a landing rehearsal, the engineers would have completed a parallel taxiway on Owi desired by Whitehead, and additional LCM's and LCT's would have moved forward. MacArthur immediately approved this target date.⁸⁷

GHQ had already released its formal operations instructions on 17 June, and the naval, ground, and air plans for TABLETENNIS soon followed. The mission of the Allied Naval Forces was the usual transportation and supporting function.* Reef conditions off Kamiri drome,

* TF 74 and TF 75 would furnish cover and fire support, while TF 77, commanded by Admiral Fecteler, would embark troops at Toem and proceed so as to arrive off Noemfoor in time for H-hour (1800K) on 2 July.



RESCUE OPERATIONS

Above: By PBV, HERMIT ISLAND

Center: By SUBMARINE, OFF LOS NEGROS

Below: P-47 PILOT, NOEMFOOR

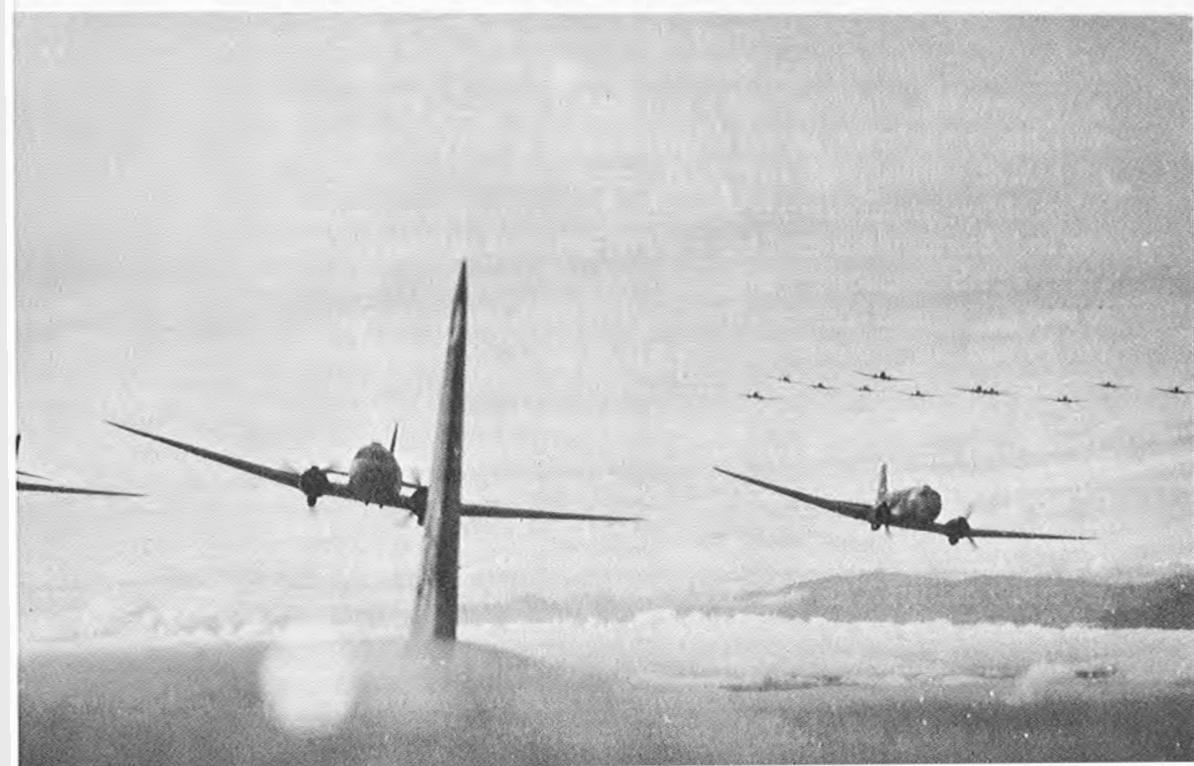


NOEMFOOR: PARATROOP LANDING



BY C-47

Upper Right: CARGO LOADING, STIRLING ISLAND
Lower Right: SUPPLY-DROP, BOUGAINVILLE



AIR SUPPLY

Upper Left: ADVANCE STRIP, NEW GUINEA
Lower Left: AIRTRAIN TO FINSCHHAFEN

the desired landing area, necessitated more than usual attention. Air photos showed no depth of water over the continuous reef about 450 yards offshore, but a team of ALAMO Scouts reconnoitered on the night of 22/23 June and found four feet of water in a pronounced break about 400 yards long off the southwest end of Kamiri strip. LCI's, LCT's, and LCM's might be able to get across the reef there (the ALAMO Scouts had been uncertain as to the state of the tide when they sounded), but LST's would have to off-load the assault troops and supplies into LVT's and DUKW's. This would take time, and the Japanese garrison, probably alerted by the party of scouts, might well concentrate their fire on the narrow boat lane and inflict Tarawa-like damages before the 158th RCT could get ashore. Thus it was vital that naval gunfire and aerial bombing paralyze the enemy defenses immediately prior to H-hour.⁸⁸

ALAMO organized the CYCLONE Task Force under command of Brig. Gen. Edwin D. Patrick and charged it to land at Kamiri, seize the airdrome area, and subsequently occupy all of Noemfoor. The total combat force numbered only 7,415 men, and both Krueger and Whitehead, while realizing the shipping limitations, were skeptical that so few combat troops could accomplish the mission with any degree of speed. There being no really valid information as to enemy strength, Krueger committed the 503d Parachute Infantry Regiment at Hollandia as the task force reserve and alerted the 34th Infantry at Biak. CYCLONE engineers were expected to prepare initially one 5,000-foot runway capable of extension into a fighter-medium bomber field if terrain permitted, one 6,000-foot runway for expansion into a heavy bomber field, and one additional fighter-medium bomber field. Large undispersed parking aprons might be prepared initially, but eventually 280 hardstands were contemplated. Of these facilities, one usable runway with limited dispersal for 75 fighters and 8 night fighters would be ready by D plus 3; limited dispersals for 75 additional fighters by D plus 10; one additional runway and limited dispersals for 128 light bombers and 75 additional fighters by D plus 28; and the whole program would be completed by D plus 66.⁸⁹

At Brisbane on 26 June, an ALAMO representative presented the combined TABLETENNIS plan to MacArthur's staff conference. MacArthur approved it, seemingly without his usual enthusiasm. Kenney's side comments were somewhat skeptical. "If it were not for the confidence that I have in your flattening the defenses before the infan-

try gets in," he wrote Whitehead, "I would be willing to bet that the show would be a flop, but having a lot of faith in the thousand pound bomb and reading the continuous stream of reports of the Gloucesterizing going on I am not worried about it at all."⁹⁰ TABLETENNIS was a small operation, but if the Japanese defenders remained able to fight they could make it costly both in men and time for the Allies.

Much of the aerial preparation for Noemfoor had already been accomplished in support of Biak. As early as 11 June, Whitehead had directed Hutchinson to use the 3d Bombardment Group against Manokwari in force approximately equal to that against Noemfoor so as to confuse the Japanese command as to the next Allied objective. He especially enjoined him to continue the "intelligent and aggressive" strikes against barge and lugger concentrations at Manokwari, both to reduce their ability to ship reinforcements to Biak and to deny them any opportunity to build up Noemfoor. During June, the 310th Wing claimed destruction of 107 Japanese vessels, mostly barges and luggers but including some twenty-four freighters. The 3d Group's "Grim Reapers," in their busiest operational month overseas, claimed 74 of the 107 vessels. With such a splendid record to indicate what A-20's up front could do, delay in getting a second A-20 group to Hollandia was doubly bitter to Whitehead.⁹¹

Similarly, the campaign against the Vogelkop airfields would assist an engagement at Noemfoor. Following the eradication of Japanese air units at Jefman and Samate,* the Fifth Air Force had only to keep the Vogelkop strips sufficiently cratered to prevent their use by sneak raiders. During the latter part of June, the 3d Group attacked Babo, Moemi, and Waren dromes, and the 90th Group's B-24's, staged into Wakde on 22 June, raided Jefman, Samate, Ransiki, and Moemi. The 38th Group, staging B-25's through Hollandia, also hit Manokwari and Ransiki on 26 and 27 June. Neutralization raids against Babo, designed to cover the heavy bombers at Wakde, were made by the 380th Group on 27 and 29 June. Since there were no Japanese interceptions over the Vogelkop after 22 June, fighter escorts strafed targets of opportunity for want of better to do. By 1 July such hostile air power as remained in New Guinea was generally debilitated. Jefman seemed abandoned, there was little activity at Samate, Babo's strips were cratered, Waren was unserviceable, and Moemi was used but sparingly. The Allied Air Forces estimated that there were approximately fifty-

* See above, pp. 639-41.

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six enemy planes in northwestern New Guinea, of which probably no more than twelve were actually serviceable.⁹² Only the weather and the long distance from Nadzab hindered the neutralization of Noemfoor.

Sustained air attacks against the island began on 20 June with a four-squadron Liberator attack on Kamiri drome. Nadzab-based B-24's returned to the target next day, but bad weather, which would linger in the Markham valley for the remainder of the month, then closed in, and the 22d and 43d Groups were able to reach Noemfoor only on 25 and 26 June. Except for 23 June, when weather completely shrouded Noemfoor, the A-20's of the 3d Group and dive-bombing fighters from the 49th, 348th, and 475th Groups continued the assault; but these planes could not deliver the bomb tonnage necessary to saturate the beachhead defenses, and Whitehead, after moving his advanced command post to Hollandia on 28 June, called for Thirteenth Air Force support. On 30 June the 5th and 307th Groups, joined by the 90th Group at Hollandia and assisted by a miscellany of shorter-range forward units, delivered 159.5 tons of bombs to Noemfoor. The next day a break in Markham valley weather permitted all five FEAF heavy bombardment groups, plus the miscellaneous units, to drop 220.6 tons of bombs on the island. Between 20 June and 1 July, FEAF planes had thus deposited 801 tons of bombs on Noemfoor, mostly on the defenses in the Kamiri area. These missions proved uneventful, for the Japanese garrison elected to save its ammunition to withstand invasion, permitting the island to become an undefended target over which Allied aircraft were free to bomb and strafe from any level. Thus on 26 June a 403d Squadron formation, after five runs over Namber looking for an opening in the clouds, descended to 3,000 feet to bomb. After such experiences, one intelligence officer wondered whether a "milk-run" to Noemfoor was actually "an engagement with the enemy."⁹³

The naval convoys, covered by Wakde and Biak fighters, had begun leaving Toem on 29 June, and by about 0630 on 2 July the landing and fire support ships were standing off Kamiri. Just before the sun rose three cruisers opened fire, and a few minutes later destroyers and three rocket-launching LCI's joined. Four other destroyers off Namber and Kornasoren began a simultaneous barrage. Between H minus 80 and H-hour the ships off Kamiri had fired two and one-half times as much ammunition as normally required to neutralize such an area. Promptly at 0731 the first B-24's appeared, and by 0747 the last of the sixteen

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Liberators had dropped their cargoes of 250-pound instantaneous demolition bombs precisely on Japanese ridge defenses and personnel areas overlooking the beachhead. Admiral Fechteler described their work as "the best example of coordination and timing yet achieved in the SWPA."⁹⁴ Proceeding ashore successfully in LVT's, the assault wave of the 158th RCT found that the Japanese had abandoned their beach defenses. The first defensive troops encountered, near the center of Kamiri strip, had been so badly stunned by the aerial and naval bombardment that they could offer little resistance. Throwing a perimeter defense around the airdrome, the 158th spent the rest of D-day cleaning huddles of dazed Japanese troops out of the caves east of the airdrome. A captured Japanese lieutenant and abandoned documents revealed that the Japanese commander had observed the soundings of the ALAMO Scouts and had anticipated an Allied landing at Kamiri early in July. He had prepared defenses and registered weapons so as to destroy the landing forces on the reef, but his forces, their morale and combat efficiency already sapped by aerial bombings, collapsed under the immediate pre-invasion air and naval bombardment.⁹⁵ The potentially hazardous landing at Noemfoor was thus accomplished practically without opposition.

The B-24's from the 90th Group represented only a part of the D-day aerial support. A 421st Night Fighter P-61 had taken station over the beachhead at 0630, and another provided last-light cover. Between times, the 8th, 348th, and 475th Groups covered the beachhead with 161 fighter patrol sorties. Encountering no opposition, they strafed such targets as the naval air controller designated. Four A-20 squadrons each sent two missions to orbit off Noemfoor until directed to ground targets, and the 17th Reconnaissance Squadron provided three similar B-25 missions. These support aircraft silenced mortar positions, knocked out a few automatic weapons, and strafed small parties of enemy troops attempting to reach the combat area. In general, however, few worth-while targets appeared, and one A-20 flight was sent home for lack of a suitable objective. At noon, forty-four B-24's from Nadzab bombed Kornasoren airdrome.⁹⁶

The ground fighting on Noemfoor had progressed beyond all expectations on D-day, but Patrick, his early intent to ask for the 503d Parachute Infantry strengthened by erroneous P/W reports that there were 3,500 to 4,500 Japanese troops on Noemfoor, requested reinforcements by air beginning on 3 July. By the evening of D plus 2, he

had correctly assessed enemy opposition at not more than 1,500 men, but he still needed the additional force for expanding operations.⁹⁷ The 317th Troop Carrier Group had been concentrated at Hollandia, and on the mornings of 3 and 4 July its C-47's dropped 1,424 parachutists on Kamiri strip. Both missions were marred by high injury rates—9.74 per cent on the 3d and 8.17 per cent on the 4th. On the former day, a smoke screen laid by A-20's and B-25's to mask the drop zone from sniper fire drifted over the strip, with the result that many of the parachutists, missing the strip, landed among debris and parked vehicles on either side of it. On the second day the C-47's released the jumpers properly and most of them landed in the drop area, but by this time the engineers had begun compacting the strip and there were more fractures than on the previous morning. A ground forces board subsequently concluded that an airstrip was unsuited for paradrops and, with the exception of a few planes which had dropped below the prescribed 400 feet, absolved the 317th Troop Carrier Group of blame for the casualties.⁹⁸ Because of the high injury rate, a third battalion scheduled to be dropped was flown to Biak and thence moved to Namber by LCI's on 11 July.⁹⁹

Meanwhile, the 158th RCT had occupied Kornasoren drome on 4 July, and the next day a battalion moving southward from Kamiri broke up a Japanese counterattack to end organized resistance. On 6 July, by means of a shore-to-shore landing, a battalion of the 158th secured Namber. The same day a platoon of paratroopers seized Manim Island, desired by the air forces as a radar site. After 7 July patrols pushed remnants of the enemy, soon reduced by a lack of food to the most loathsome and promiscuous cannibalism ever noted in SWPA, to the interior of the island, where by the end of August they had been surrounded and destroyed. Other than routine fighter patrols, the CY-CLONE force required virtually no air support after a few strafing sorties on D plus 2.¹⁰⁰

During the four weeks in July that Noemfoor was the most advanced Allied base, enemy air attacks amounted to nine sorties in five raids, which, if credence is given to a P/W shot down at Noemfoor, seem to have originated at Ceram bases and to have staged through Moemi. Neither the first raid, made by a single bomber at 2150 hours on 4 July, nor the following efforts were effective. Aircraft warning and control functions at Noemfoor were performed by Detachment G, Fighter Wing, utilizing the 35th Fighter Control Squadron and

operating units of the 565th and 569th Signal AW Battalions. They opened an assault control center on D-day, and after encountering shipping delays and various unloading accidents they finally completed the permanent installations of the 34th Fighter Sector on 20 August.¹⁰¹

Construction of initial air facilities on Noemfoor had to be timed in relation to the Vogelkop operation scheduled for 30 July. Fortunately, construction could begin as soon as the engineers were ashore. The Japanese strips, unfortunately, were of little use. Kamiri was poorly surfaced with sand and clay and, instead of supposedly "extensive dispersals," had no more than ten hardstands. Kornasoren was "only a location." Namber strip was suitable for transports, but its utilization would require a supply route overland from Kamiri and construction of a standard airfield would be complicated by heavy standing timber and rugged terrain. Work began at Kamiri on D-day, when the 27th Engineer Combat Battalion dragged lengths of Japanese railway irons behind trucks to smooth ruts and used abandoned rollers to begin compacting the strip. By 5 July the 1874th Engineer Aviation Battalion started 24-hour construction, and after a coral surfacing coat had been laid the strip was opened on 16 July for transport aircraft. Work had not begun at Kornasoren when, without warning on 14 July, GHQ indicated that air plans to begin raids against the Halmaheras would require a serviceable strip and parking for fifty P-38's there by 25 July—this without slowing work at Kamiri—but the RAAF 62 Construction Wing, service units, and combat troops working together met the deadline. During August the Fifth Air Force and ALAMO would agree to forego a fighter-medium bomber field at Namber, reasoning that the engineering effort could better exploit a limited expansion at Kamiri and a large expansion at Kornasoren.¹⁰² But, after the middle of August, the base-construction program on Noemfoor became a factor in immediate pre-Philippine operations and will be discussed in a later volume.

The air garrison, moved to Noemfoor before early August, was by no means as extensive as the Fifth Air Force had scheduled, because of a shipping jam even more aggravated than that at Biak. With the worst unloading conditions ever encountered in SWPA, only about 4,940 tons of shipping could be debarked between 2 and 15 July. Naval demolition parties had blasted a slot through the barrier reef off Kamiri and engineers had built an LST jetty there by 13 July, but even with attainment of a maximum daily unloading capacity of 1,500

tons ALAMO predicted that the shipping backlog could not be cleared before the end of August. This tie-up both delayed the movement of air force units and hindered construction on Noemfoor. By 12 August air force movements into Noemfoor were 69 per cent behind schedule for troops, 76 per cent for vehicles, and 66 per cent for other impedimenta. An advanced detachment of 10 Operational Group went ashore on 4 July, and on 21-22 July, P-40's of the 78 Wing flew to Kamiri. Waterborne echelons of the RAAF 22 and 30 Squadrons (77 Wing) were to have reached Noemfoor before 12 July, but these shipments could not be debarked until 24 July and 14 August and their Bostons and Beaufighters could not be accommodated at Kamiri before the middle of August. The American garrison was even more tardy, and when the advanced detachment of the 309th Bombardment Wing reached Kornasoren on 28 July, two days before D-day at Sansapor, it found only a detachment of the 419th Night Fighter Squadron in place. Failing to get transportation from Saidor for the 58th Fighter Group, Whitehead flew the air echelon of the 35th Group, which had been biding its time at Nadzab since early June, to Kornasoren in time to cover Sansapor.¹⁰³ Fortunately, the landing at Sansapor did not depend too heavily upon the build-up at Noemfoor.

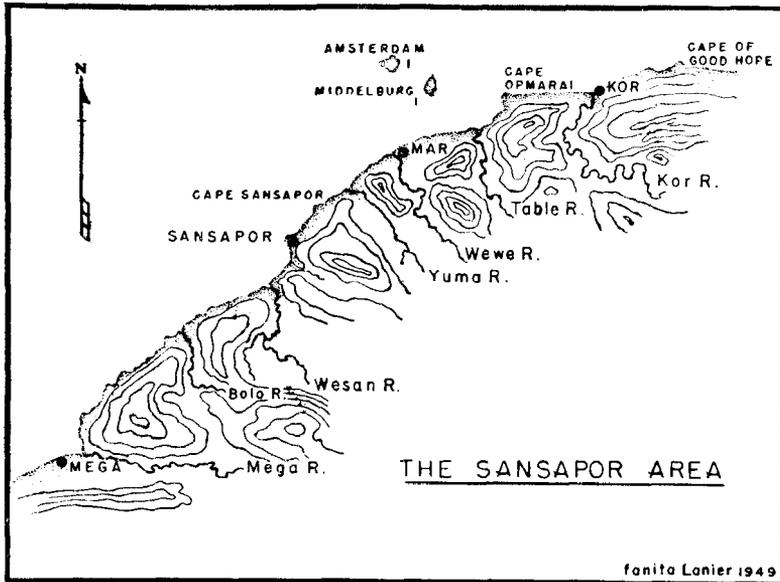
Sansapor

Both RENO IV and the new RENO V plan had assumed that it would be necessary to establish an advanced air base midway between Geelvink Bay and the Halmaheras. An air garrison at such a base—located either on Waigeo Island or the coast of the Vogelkop—would assist in neutralizing the Halmaheras, cover the convoys and the invasion beaches there, and interdict Japanese air forces based on the left flank of the Allied movement. To assure completion of air bases and the orderly installation of air units in time to assist an invasion of the Halmaheras (tentatively set for 15 September), the Vogelkop operation would have to begin about 1 August.¹⁰⁴

Allied planners soon discovered that it was one thing to recognize the strategic utility of a Vogelkop base and quite another to specify its exact location, and GHQ, lacking even general information as to what areas might be profitably explored by ground infiltration parties, overloaded the Fifth Air Force's 91st Photo Reconnaissance Wing with requests for aerial photos. Weather and lack of staging space for photo planes at Wakde and Hollandia proved a hindrance, and the evi-

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dence gained was largely negative. Waigeo and Ayu Asia Islands clearly possessed no possible air-base sites. A reconnaissance party sent out by submarine returned the first of July with word that Cape Sansapor offered a good beach, though no very acceptable airstrip site. But Whitehead's air engineer, who had reconnoitered the area in a low-flying B-25, was favorably impressed with two potential sites on the mainland and with the possibility of building a fighter strip on offshore Middelburg Island, which a captured Japanese document had also



indicated as a likely site. Another party, headed by Lt. Col. H. G. Woodbury, who would be the air engineer on the project, landed from a PT boat on the night of 14 July and explored the terrain between Capes Sansapor and Opmarai. His reconnaissance confirmed the possibility of building airfields somewhere in the region, but a final engineers' conference at Hollandia agreed that selection of specific sites would have to await Allied capture of the whole area.¹⁰⁵

The region of interest to SWPA was a roughly rectangular strip of coastal plain between Cape Opmarai and Cape Sansapor, about three-fourths of a mile wide and two miles long, lying fifteen miles west of the Cape of Good Hope, northernmost point in New Guinea. Here the coastal flat is heavily forested, swampy in places, and intersected by several small rivers. About three miles inland the Tamrau Moun-

tains parallel the coast. Beaches between the two capes are generally reef-free. Amsterdam and Middelburg (the Mios Soe Islands) lie five and three miles off the coast, respectively.¹⁰⁶

The Japanese were believed to have no more troops in the immediate area than small LOC detachments at Sansapor and Mar villages. Sixty miles along the coast beyond Sansapor, however, they had an estimated 8,000 combat, base defense, and LOC troops at Sorong, and a greater distance to the east approximately 13,023 troops in the concentration around Manokwari. ALAMO estimated that the enemy might, under the most favorable circumstances, begin to move 200 to 300 troops a day by barge into the target area, beginning on D plus 2 from Sorong and D plus 3 from Manokwari. Heavier troop concentrations in the Halmaheras and southern Philippines could be drawn upon, but it was not believed that the Japanese would risk combat ships for their transport.¹⁰⁷ In the air the Japanese possessed prospects. During June they had increased their SWPA air strength by an estimated 150 planes, adding strength especially to the Halmahera and Amboina-Boeroe-Ceram airfields, all within 400 miles of Sansapor. Including southern Mindanao and the Palaus, the enemy had a total of 850 aircraft within probable range of Sansapor, and in the Philippines they had an estimated additional 1,157 planes. The Allied Air Forces, however, did not believe that the Japanese would consider an operation at Sansapor as vital to their defenses, and since Sansapor was closer to Noemfoor than to the most advanced Japanese air bases then in use, Brig. Gen. Paul B. Wurtsmith of V Fighter Command assumed that fighter cover there would be "a cinch compared to the last three operations."¹⁰⁸

GHQ, after a radio warning instruction on 21 June, issued its operations instructions for the GLOBETROTTER operation on 30 June, setting the target date for 30 July. ALAMO set up the TYPHOON Task Force under command of Maj. Gen. Franklin C. Sibert and assigned it the 6th Infantry Division (less the 20th RCT in reserve at Toem), a heavy complement of AA units, and the equivalent of four and one-half engineer battalions. The TYPHOON force, transported by TF 77 from Toem, would land in the vicinity of Cape Opmarai at 0700 on 30 July, capture a beachhead, and subsequently extend its control to Cape Sansapor, Middelburg, and Amsterdam.¹⁰⁹ The air plan, which assigned the major task to the Fifth Air Force and put the Thirteenth in reserve, was distinguished chiefly by a purpose to draw

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on the latter air force for the air garrison to be established in the Sansapor region. Kenney, who was anxious to force the issue of moving certain Thirteenth Air Force units out of South Pacific bases, slated for Sansapor the 18th and 347th Fighter Groups (P-38), the five B-25 squadrons of the 42d Bombardment Group, and half of the 419th Night Fighter Squadron. The headquarters mechanism for control of the garrison would be another Thirteenth Air Task Force, commanded by Brig. Gen. Earl W. Barnes and utilizing personnel of his XIII Fighter Command headquarters. This air task force, functioning under operational control of the Fifth Air Force, would move into Sansapor and call forward its air units as soon as bases were ready. Because of uncertainties as to the terrain, GHQ was persuaded to allow Barnes to make the final selection of air-base sites and establish the priorities for construction of air facilities.¹¹⁰ "I intend to follow up this advantage," Kenney wrote Whitehead, "and some day we may get fields built our way in places we select."¹¹¹

Aerial preparations for Sansapor were hampered by a generally unfavorable base situation and the confusion incident to the forward movement of many Fifth Air Force bombardment groups. During July the total weight of bombs dropped by the Fifth Air Force declined to 2,744 tons, less than half the amount dropped in April, but most of this activity was confined to attacks against Japanese airfields on the Vogelkop. Early in July small forces of heavy bombers raided Sorong. Throughout the month all types of bombers kept the Babo area airdromes under attack, dropping 744.9 tons of bombs (the heaviest Fifth Air Force concentration during July) on these targets. Light and medium bombers attacked barge shipping and raided the Japanese supply center and barge construction yard at Kokas village, on the south shore of McCluer Gulf. Other attacks, including missions weathered out elsewhere, bombed enemy concentrations and airdromes in the vicinity of Manokwari. RAAF P-40's and V Fighter Command planes flew a few sweeps over the Vogelkop, and the latter usually strafed targets of opportunity when returning from uneventful escort missions. The 418th Night Fighter Squadron, using B-25's for want of regulation night fighters, made night intruder missions over the Vogelkop fields. Most of these missions were uneventful, but on occasions hostile AA, seemingly improving in marksmanship and increasing in volume, shot down Allied planes.¹¹²

Only the Halmaheras promised to provide an exciting target. Photos

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taken by the 26th Photo Squadron on 22 July showed 128 planes dispersed at Galela, Lolobata, and Miti dromes. While the number of aircraft was only slightly larger than that observed on 13 July, the Japanese were attempting to build new fields at Kaoe, Hatetabako, and Laboeha, obviously to accommodate a larger air garrison. Whitehead sensed that this was intended as a defensive garrison, but he conceded that "maybe the Nip is fooling us."¹¹³ On 24 July, the air bases at Biak, Owi, and Noemfoor now being ready to receive the concentration of units needed for raids on the Halmaheras, Whitehead ordered an attack. A front over the target area delayed the initial mission until 27 July, but early that morning Hutchison sent out the largest coordinated bomber formation employed in the SWPA since Hollandia. The 90th Group and two squadrons of the 22d Group took off at Wakde for rendezvous with the other two 22d Group squadrons from Owi. Over Japen Island the heavy bomber wing assembled with the 43d Group, which had taken off from Owi, in the lead. Joined by four P-38 squadrons, the wing flew directly to the coast of the Halmaheras, where the groups divided to drop their 20-pound frag clusters on the dispersal areas at Lolobata and Miti airdromes. In all, fifty-two Liberators of the 90th and 43d Groups reached Lolobata, and twenty-eight Liberators of the 22d Group bombed Miti. Breaking away from these targets, the groups, with only two B-24's slightly damaged by AA, left at least ten enemy planes destroyed at Lolobata and seven more at Miti.¹¹⁴

That same morning the 38th and 345th Groups had launched a force of B-25's from Mokmer airfield, had contacted two squadrons of P-38's above Ajoie Island, and had thence flown directly to Galela airdrome. Swooping down to treetop height, twenty-four Mitchells of the 345th Group caught the Japanese completely by surprise. Two minutes later, twenty Mitchells of the 38th Group repeated the low-level attack. By the time they had cleared the area, the Mitchells had toggled 402 x 100-pound parademo bombs into the runways, dispersals, and other targets of opportunity and had expended 68,790 x .50-cal. and 29,375 x .30-cal. ammunition in strafing. With only three planes slightly damaged by AA, the Mitchells had destroyed at least ten parked planes.¹¹⁵

The 431st and 432d Squadrons from Mokmer and the 36th and 80th Squadrons from Owi escorted the heavy bombers. The 36th, covering Miti, chased and shot down three uneager Oscars, while a fourth, whose pilot was believed to have been inexperienced and to have

looked over his shoulder too long, crashed into the ocean. The 432d sighted five Zekes and a Hamp at Miti, but the enemy pilots appeared to be experienced and all of them escaped. Over Lolobata, 80th Squadron pilots, counting fifteen to twenty Oscars and a Lily, in twenty-five minutes of combat destroyed three Oscars and the Lily. The 431st, also covering Lolobata, jumped five or six fighters, which seemed to have just taken off, and shot down three in a low-altitude dogfight. Meanwhile, the 35th and 433d Squadrons had been covering Galela in support of the mediums. The 35th Squadron surprised three Tonys and an Oscar approaching for a landing; and, as a Japanese observer recorded, flying "very low and at great speed and as though they owned the place," the P-38's shot down the four planes without difficulty. Pilots of the 433d Squadron reported in some disgust that they had not seen a single airborne enemy plane. Only one of the Lightnings did not return safely to base, and the pilot of this 431st Squadron plane, who ditched because of mechanical failure, was rescued by a Catalina.¹¹⁶ Prior to this mission the Fifth Air Force had been apprehensive that the P-38's could not make the 1,280-mile round trip to the Halmaheras without difficulty, but Charles A. Lindbergh had been working with the 8th and 475th Groups and had shown pilots that they could extend their range by use of economical speeds for cruising (cruise control). Following his directions, all but two of the fighter squadrons were able to return to Biak-Owi without stopping to refuel at Noemfoor.¹¹⁷

Dispersal of Japanese planes in wooded areas made assessment of destruction of grounded planes difficult, but tabulation of pilot observations and analysis of raid photos finally set the number of such planes destroyed or badly damaged at forty-five. Counting fifteen other planes shot down by fighters, the raid had eliminated sixty Japanese aircraft. Whitehead, although pleased with the manner in which the strikes had been executed, was somewhat disappointed that the Japanese before the attack had removed some of the planes noted on 22 July.¹¹⁸

Now convinced that the enemy dispositions in the Halmaheras were purely defensive, Whitehead turned the attention of the Fifth Air Force to the Amboina-Ceram-Boeroe area where, according to Allied estimates on 28 July, the Japanese had approximately 151 planes at Haroekoe on the like-named island, at Liang and Laha dromes on Amboina, at Kairatoe, Boela, and Amahai dromes on Ceram, and at

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Namlea Township and Old Namlea dromes on Boeroe. Additionally, the Boela oil fields, located on the east end of Ceram, comprised a strategic target which, if not one of the more important sources of Japanese fuel, was the first to come within effective bombing range in the SWPA. On 9 July, Whitehead had relieved the 380th Group from its commitment against Babo, and during the month this group had executed four attacks against Old Namlea, four against Namlea Township, three against Amahai, one against Liang, and two against Laha. These strikes had been hampered by slow-moving tropical fronts, but the group claimed seventeen planes destroyed or rendered unserviceable on the ground. On 14 July, seventy-four A-20's of the 3d and 312th Groups, staging through Mokmer, had executed a deck-level attack on the Boela airfield, oil wells, and oil storage tanks. AA had shot down one of the light bombers, but the strike had been successful in firing Japanese oil stores.¹¹⁹

On 28 July, Whitehead sent the 38th and 345th Groups to Haroekoe, covered by 9th and 80th Squadron P-38's which were "to stick around and shoot down Nips . . . flushed . . . off Liang and Laha." Weather turned the Mitchells back, but the two fighter squadrons flew over Amahai, Haroekoe, Liang, and Laha, circling each airdrome at 8,000 feet and keeping just out of effective AA range. The pilots saw very few Japanese airplanes on the dromes, and only two airborne planes were sighted, one of which was shot down by the 9th Squadron. On 28, 29, and 30 July, a part of the Fifth Air Force's Liberator force was dispatched to bomb Boela targets, but these missions encountered no Japanese fighters. A 36th Squadron fighter sweep over Amboina found no aircraft on Liang. Puzzled by this negative information, Whitehead intended to keep sending strikes into the area to determine whether the Japanese air units had withdrawn temporarily or permanently.¹²⁰

During the week prior to the Sansapor landing, Fifth Air Force planes of every type were employed in attacks against shipping. Beginning on 27 July and continuing to the end of the month, the 498th Bombardment Squadron sent two B-25 missions each day to search for shipping around the Halmaheras. The 63d Bombardment Squadron, which had been sending armed reconnaissance planes almost nightly to the Palaus, began night missions to the Halmaheras and Ceram on 25 July. The 36th Squadron sweep to Amboina on 29 July fired a 5,000-ton cargo vessel and another small steamer. Other units attacked

barges from Cape Sansapor to Sorong. The net results claimed in the week's shipping attacks were: one 5,000-ton freighter set afire; one 500- to 1,000-ton freighter left burning; one 2,000- to 4,500-ton freighter sunk; one 4,000- to 5,800-ton freighter strafed; two smaller freighters damaged by strafing or near misses; nine luggers definitely sunk and six others probably sunk; six barges destroyed and seven damaged. Innumerable sailboats, canoes, fishing boats, and the like were strafed, results being usually unobserved.¹²¹

On the nights of 26/27 and 27/28 July, the slower boats departing first, the assault convoys had left Toem. The voyage northward was generally uneventful, although an 80th Squadron P-38 flight drove off five Japanese dive bombers which seemed anxious to attack the naval convoys just north of Manokwari. By the predawn hours of 30 July, the naval forces were standing off Red Beach, a point midway between the Wewe River and Cape Opmarai. No enemy opposition being evident, Sibert canceled the preliminary naval barrages. Air support was also unneeded, although five 501st Squadron B-25's strafed targets near the beachhead shortly after the assault waves began landing at 0800. Thirty minutes later, a cavalry reconnaissance troop was launched in amphibious tanks from an LST and secured Middelburg without opposition; shortly afterward the same troop captured Amsterdam, also without opposition. The next day an infantry battalion, making a shore-to-shore landing, seized Sansapor village. Ground fighting in the Sansapor area never amounted to more than sporadic skirmishes, and at the termination of the operation on 31 August, the TYPHOON force had killed only 379 Japanese and captured 213 prisoners at a loss of 10 killed and 31 wounded.¹²²

General Barnes landed behind the assault troops on D-day and immediately inspected sites near Mar village (just east of the Wewe River), on Amsterdam, and on Middelburg. By D plus 1, he had decided that a fighter airdrome could be built on Middelburg and that the medium bomber fields should be built at the Mar site. In spite of difficulties inherently connected with the construction of an airstrip on a small, reef-surrounded island, the airdrome program progressed most satisfactorily. The engineers, finding that the coarse coral sand of the island would be impossible to compact, borrowed coral off the shallow floor of the sea during low tide and surfaced the strip with pierced steel plank. The 5,000-foot runway received a crippled B-24 on 14 August and was ready for regulation landings three days later.

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The job, complete with sixty hardstands, three alert areas, a service apron, and interconnecting taxiways, was finished on 8 September. Work at the Mar site was complicated by thick jungle growth and large trees, but the airdrome was operational on 3 September, at which time it comprised a 6,000-foot, steel-mat runway, four alert aprons, and seven hardstands. By 18 September a total of eighty-five hardstands had been completed, and by the end of the month the strip had been lengthened to 7,500 feet.¹²³

Installation of the Thirteenth Air Task Force garrison at Sansapor required movement of 6,500 men, belonging to thirty-five combat and service units, from as far away as New Caledonia. The first units to move were the headquarters squadron of XIII Fighter Command, the 347th Fighter Group, the 6th Service Group, and a detachment of the 419th Night Fighter Squadron. Ground echelons of these units left the Solomons between 15 and 18 July, reloaded on LST's at Toem, and shuttled into Sansapor between 15 and 19 August. Aircrews of Detachment B, 418th Night Fighter Squadron flew to Middelburg on 18 August, followed by the flight echelons of the 347th Group, which moved to Middelburg by squadrons between 20 and 26 August. Local air cover having been established, the waterborne echelons of the 18th Fighter and 42d Bombardment Groups, plus their supporting service units, moved directly to Sansapor in transports and landed there on 23 August. Flight echelons of the 18th Fighter Group landed at Middelburg between 4 and 7 September, but the crews of the 42d Group flew to Hollandia between 1 and 4 September, remained there to fly missions coordinated with the invasion of the Halmaheras, and did not reach Mar airdrome until 14-18 September.¹²⁴

During the period of the establishment of the Allied base at Sansapor, both Allied and Japanese air activities were nominal. No air support was required other than routine day and night fighter patrols from Noemfoor, and the Japanese night raiders did not appear for nearly a month after D-day. On 25 August, however, the Japanese, timing their effort to coincide with a full moon, began a series of five night attacks which killed one man, seriously wounded three others, and destroyed or damaged eight P-38's. Although Detachment H, Fighter Wing, the 33d Fighter Control Squadron, and reporting units of Company A, 565th Signal AW Battalion and Company A, 596th Signal AW Battalion had completed the permanent installations of the 35th Fighter Sector on 21 August, well before the first Japanese air raid, their warn-

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ing network could not overcome the permanent echoes caused by the ring of mountains circling the rear of the beachhead, and the Japanese raiders late in August were able to sneak in to attack the airdrome area without adequate warning.¹²⁵

Once ashore at Sansapor, the units of the Thirteenth Air Task Force established their camps in the thick rain jungle, clearing the timber with axe and machete. Because of the construction under way on Middelburg, the 347th Group had to bivouac temporarily on the mainland and ferry its personnel to the island. Rations, especially perishable foods (not present in quantity until D plus 55, when a shipload came forward), left much to be desired. Rigidly enforced mite-control measures, including clearing of undergrowth, aerial DDT spraying, and impregnated clothing held cases of scrub typhus among Thirteenth Air Task Force troops to thirty-eight infections, none of them fatal. Swamps and slow-flowing rivers necessitated especially vigilant malaria-control measures. The flurry of Japanese night raids at the end of August proved annoying to troops from the Solomons who, more recently, had gotten out of the habit of having their sleep interrupted, but the fact that several of the groups originated betting pools as to the time of the next interruption showed that the raids were not taken too seriously.¹²⁶

The closer collaboration of Thirteenth and Fifth Air Force units fittingly gave emphasis to the great achievements which had marked two years of hard fighting in the South and Southwest Pacific. The campaigns in New Guinea, like those in the Solomons, had begun in desperate and essentially defensive attempts to check the enemy's advance toward vitally important Allied positions. Allied air, ground, and sea forces—American, Australian, New Zealand, and Dutch—had wrested the initiative from the enemy, and advancing then along two converging lines, they now controlled the Solomons, the Bismarcks, and New Guinea. And the Philippines, where the earlier Far East Air Force had taken its initial defeats, would soon be brought within reach.

CHAPTER 20

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THE MARIANAS

WITH the capture of Eniwetok, U.S. forces in the Central Pacific, during a period of less than four months, had pushed their bases westward approximately 2,400 miles from Pearl Harbor—two-thirds of the distance to the Marianas and more than halfway to the Philippines and the Japanese homeland itself. Hence, by 1 March, Admiral Nimitz' forces, having occupied or swept by Japanese peripheral positions, were poised on the westernmost of the Marshalls ready to strike at the enemy's inner defenses.

Early thinking on Pacific strategy had assumed, almost as a matter of course, that the occupation of Truk, most important of the Carolines, was essential to the defeat of Japan in the Central Pacific. Situated midway between Saipan and Rabaul, Truk consisted of a cluster of 245 islands lying within a lagoon formed by a coral reef about 140 miles in circumference and encompassing one of the best anchorages in the world. The atoll possessed superb natural defenses, and at the beginning of the war it was correctly believed to be the best base in the Pacific outside Pearl Harbor. But this was true primarily because of its almost ideal anchorage and its natural strength. Contrary to the estimates of Allied intelligence, Japanese naval policy did not depend upon strongly defended outer bases and, except for air-base development and the usual fleet defenses, the intensive fortification of Truk did not begin until January 1944, when army units moved there in anticipation of an invasion and began organizing the ground defenses of the islands.¹ Even so, Truk would have presented a tough assignment for amphibious assault. After the U.S. Navy carrier attack of 16–17 February had demonstrated the inadequacy of enemy air defenses at Truk, it had been decided in March that Truk would be by-passed and that Central

Pacific forces would occupy instead the southern Marianas, target date 15 June.*

Organization for FORAGER

While the planners in Washington were reaching a decision to bypass Truk and invade the Marianas, the tactical units of the Seventh Air Force continued to neutralize the much-battered bases remaining to the enemy in the Marshalls. By mid-March the fighter and dive-bomber squadrons used against Mille and Jaluit during FLINTLOCK-CATCHPOLE had been returned to Oahu for rest and re-equipment. Targets in the Marshalls were turned over to Navy and Marine squadrons and to the B-25's of the AAF's 41st Group. The mediums had flown 175 sorties in February but the total grew to 605 in March and 875 in April.² After 23 March, when the Navy's newly developed base at Majuro became available for staging, the B-25's took off from their bases at Tarawa or Makin, bombed Jaluit or Maloelap, landed at Majuro for rearming and refueling, and then bombed the other of the two targets on the way home. Wotje or Mille served as alternate targets. Interceptors had long since ceased to appear, even over Maloelap, but the bombers sustained some damage from antiaircraft fire.³

Beginning in March, the Seventh's two heavy groups in the forward area were moved to Kwajalein, the 30th from Apamama and the 11th from Tarawa.⁴ With both heavy groups concentrated for the first time on one island, ADVON Seventh Air Force was disbanded on Tarawa and its functions turned over to Headquarters, VII Bomber Command at Kwajalein, with Brig. Gen. Truman H. Landon, the bomber commander, being named deputy commander of the Seventh Air Force in the forward area.⁵ On their arrival at Kwajalein, the men of the Seventh once again were faced with primitive living conditions amid the rubble of departed battle. Kwajalein had undergone a considerably heavier pre-invasion bombardment than Tarawa, and when the tactical units arrived they found "a good representation of all the city dumps in the U.S.A. plus the permeating odor of dead Japs still unburied." The bomber strip, having had priority, was completed, but, in the words of the squadron historical officer again, "the rest of the Island was a most disheartening mess of broken trees, and block-houses, the whole surface of the island being plowed up by shell fire and bombs; thick black dust pervaded every nook and cranny."⁶ Yet,

* See above, p. 573.

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despite the primitive living conditions, the dust, the mosquitoes, the heat, and the C rations, the heavy bomber crews began the grueling task of neutralizing the Carolines at overwater distances exceeding any they had yet flown.

Meanwhile, the very success of U.S. operations in the Central Pacific had brought with it increasingly urgent problems of command. It will be recalled that during the operations in the Gilberts and Marshalls, all striking units of the Seventh Air Force had been included in a task group commanded by Maj. Gen. Willis H. Hale, commanding general of the Seventh, this task group being part of a task force (Defense Forces and Shore Based Air) under the command of Rear Adm. John H. Hoover, with over-all command vested in Vice Adm. Raymond A. Spruance.* In addition to all land-based aircraft in the Central Pacific, Admiral Hoover exercised command over all of the bases and the forces garrisoning the islands on which they were located.⁷ As the tempo and scope of operations increased, it became more and more apparent that the somewhat ambiguous command relationships, particularly as they affected the employment of land-based aircraft, would have to be clarified.

Of particular concern to AAF and Army commanders was the fact that naval commanders, who virtually always were in authority over AAF and Army units, occasionally went beyond the limits approved by joint Army-Navy doctrine in directing the activities of those units. After insisting that all naval commanders of joint forces insure that all units be "left free to accomplish assigned tasks by use of their own technique as developed by precept and experience,"⁸ Admiral Nimitz proposed the establishment of a joint task force which would include all shore-based aviation in the forward area and which would function under the control of the Commander Aircraft, Central Pacific Force (Admiral Hoover) to be designated Commander, Forward Area.⁹

General Hale immediately objected to the proposal on the ground that it simply confirmed the existing arrangement and placed direct control of all air operations in the hands of COMAIRCENPAC.¹⁰ As a counterproposal, he recommended that an officer of the Navy be designated an area commander with responsibility for maintenance, defense, logistics, and operation of all shore and harbor installations, and that the commanding general of the Seventh Air Force be designated Commander Aircraft, Central Pacific, and be charged with

* See above, pp. 293, 304-5.

the operation of all shore-based aviation for offensive purposes, with the chain of command extending directly to him from CINCPAC or the major task force commander, depending upon the current situation.¹¹ In supporting Hale's position, Lt. Gen. Robert C. Richardson, commanding U.S. Army Forces in the Central Pacific Area, expressed particular concern for maintaining the integrity of the Seventh Air Force, an achievement of considerable difficulty within the framework of naval task force organization. In his judgment, General Hale, under War Department regulations, would have to retain command of the Seventh Air Force and thus would have to be responsible for logistic support as well as operational control.¹² Further complicating the problem was the fact that all thinking relative to the Seventh Air Force was in the light not of its present strength and mission but of the future when it would be augmented by the redeployment of additional units from Europe as well as the fact that insofar as AAF Headquarters in Washington was concerned probably the most important phase of the air problem in the Pacific was employment and control of the B-29's, scheduled for future deployment in that area.¹³

As a temporary solution, apparently agreeable to all concerned, Nimitz announced on 23 March that effective 1 May he intended to establish the Shore Based Air Force, Forward Area as a joint task force, approving at the same time the nomination of General Hale as task force commander.¹⁴ The unit was designated Task Force 59, and with the title of COMAIRFORWARD, Hale was to be responsible for the operation of all shore-based aircraft in the forward area, including bombers, fighters, air evacuation, and air transport (except ATC and NATS). Reconnaissance aviation, including search, patrol, and photographic aircraft, was to be operated initially as a task group within Task Force 59, although it was suggested that possibly it might pass directly under the control of Commander, Forward Area or a task fleet.¹⁵ As COMAIRFORWARD, Hale would continue to operate under the command of Admiral Hoover, designated Commander, Forward Area.¹⁶ In order to assume command of Task Force 59, Hale relinquished command of the Seventh Air Force and was succeeded by Brig. Gen. Robert W. Douglass, Jr., who had been at the head of VII Fighter Command.¹⁷ On 1 May, Hale assumed command of Task Force 59, with headquarters at Kwajalein.¹⁸

During the Marianas invasion Admiral Hoover's Task Force 57, of which Task Force 59 was a part, continued to operate as part of

Admiral Spruance's Central Pacific Force, now known as the Fifth Fleet.¹⁹ The operations of land-based aircraft were to be in the pattern established in earlier Central Pacific campaigns—neutralization and reconnaissance—with the additional mission of close support for the amphibious forces engaged in the occupation of the southern Marianas. Further support for the operations would be provided by Admiral Mitscher's fast carriers (Task Force 58) and Vice Adm. C. A. Lockwood's submarines (Task Force 17).²⁰ Specifically, the bombers were to neutralize Truk, Ponape, and Wake; continue attacks on the Marshalls; keep Nauru, Kusaie, and Ocean under constant surveillance; and as a first priority target—as always in the Central Pacific—attack enemy shipping at every opportunity.²¹ When bases were secured in the Marianas, the Seventh's fighters were to provide them with air defense—a mission later to be expanded into close support of landing operations.

Neutralization of the Carolines

The decision to by-pass Truk and to capture instead the southern Marianas had been based on the assumption that the air power available to U.S. forces would be sufficient to deny the Japanese use of their naval base at Truk and of their airfields there and at other points in the Carolines. Carrier task forces had shown in the Gilberts and Marshalls and in the Truk attacks of 16–17 February that they were capable of overwhelming local Japanese aerial forces in particular areas as the occasion might require, but the continuous interdiction of enemy aerial activity in the islands required consistently repeated attacks. As an evaluation board later observed, "It is a matter of hours or at most a day or two to repair runways such as the Japs use; to rebuild light frame buildings; and to fly replacement airplanes down through the chain of the mandated islands."²² The need was for "almost daily" attack, and the task naturally fell to the heavy bombers of the AAF.

It was thus that the AAF made its major contribution to the success of the Marianas invasion. In the period from 15 March to 15 September, the heavy bombardment groups of the Seventh and Thirteenth Air Forces found their primary mission in the continuous effort to neutralize enemy bases in the Carolines. The mission required long over-water flights calling for the closest attention to navigation. The operations were arduous, repetitious, and boring, except for the time over the target. Crews lacked the protection of fighter cover and the assur-

ance afforded in cross-country flight by opportunities for emergency landings. The effort received little publicity at home and limited recognition even within the combat areas. There is some question as to how well the men themselves understood the vital importance of the protection they provided for MacArthur's right flank as he moved into Hollandia, Biak, Sansapor, and Morotai and for Nimitz on the left flank as he advanced to Saipan.

The coordination of effort between the Seventh and Thirteenth Air Forces was worked out in conference and by radio between the headquarters of MacArthur and Nimitz. When the first Truk mission was undertaken by the 30th Bombardment Group on 14/15 March, the orders came from ADVON Seventh Air Force, which on 26 March turned its functions over to General Landon's forward echelon of the VII Bomber Command. This in turn became on 1 May a part of Task Force 59 under General Hale as COMAIRFORWARD. Similarly, the first strikes by Thirteenth Air Force bombers against Truk were directed by Brig. Gen. William A. Matheny's XIII Bomber Command, which in April became the nucleus of the Thirteenth Air Task Force under Maj. Gen. St. Clair Streett. This task force operated under the control of Maj. Gen. Ennis C. Whitehead of the Fifth Air Force, and he continued to have general control over the bombers after the Thirteenth Air Force became a part of the Far East Air Forces on 15 June.* The Seventh Air Force supplied planes from the 11th and 30th Bombardment Groups, each of which had three squadrons of heavies. For its share of the work, the Thirteenth Air Force looked to the 5th and 307th Bombardment Groups. Though scheduled for assignment to SWPA, the Thirteenth by JCS directive was made available as necessary for support of Central Pacific operations, and General Whitehead's directive from GHQ as passed along by General Kenney called for maximum effort by Thirteenth Air Task Force heavies against the Carolines.²³

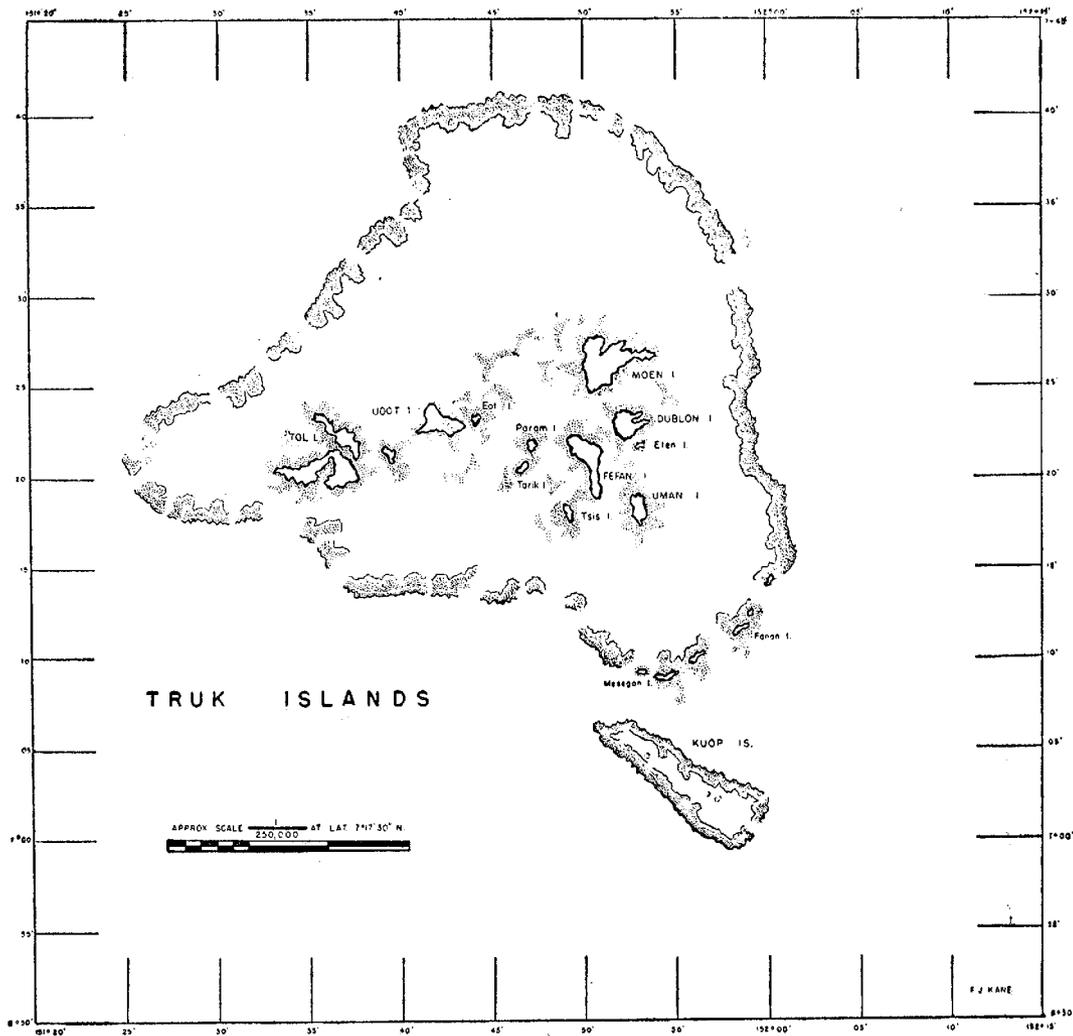
Plans for air support of the Marianas invasion took into account three routes of reinforcement open to Japanese forward bases from which attacks might be made against U.S. forces. Planes could be flown from the home islands by way of Marcus Island to Wake, from which Allied supply routes might be attacked. Wake had received the bombers' attention during the Gilberts and Marshalls campaigns, but the Japanese kept the airfields there under repair and the Seventh Air

* See above, pp. 573-74, 586, 648.

Force would send twelve missions, for a total of 204 B-24 sorties, against Wake during March, April, and May 1944.²⁴ The Japanese could also fly planes from the homeland to the Bonins and thence to the Marianas for staging to Truk or for direct attack on U.S. forces. The third route ran through the Palaus and western Carolines—Yap and Woleai particularly—to Truk. Planes could be fed into this line either from the Philippines or up from the Netherlands East Indies through the Halmaheras.

The strategic focus of this Japanese potential was, of course, the islands and the harbor of Truk. The atoll's principal air targets were facilities on the islands of Dublon, Eten, Moen, and Param. Dublon, located in the eastern part of the lagoon, was the center of activity at Truk, containing the enemy's headquarters for the central and eastern Carolines, his principal storage and repair facilities, a seaplane base, a submarine base, the main barracks area, and two radio stations. Dublon Town was the scene of greatest activity on the island, although the entire south shore supported concentrations of docks, warehouses, tank farms, and buildings. Eten, strategically situated opposite Dublon Town, had the largest and best-developed airfield on the atoll. It was the principal fighter base. Moen, the northernmost of the larger islands, contained two airstrips and a seaplane base. Param, centrally located in the lagoon, supported a single airstrip, a bomber base which, with excellent dispersals covered by heavy foliage, managed to keep operational longer than any of the other airfields.²⁵ Truk's air defense, like its offensive capabilities, had been overrated by U.S. intelligence. The entire atoll had no more than forty anti-aircraft guns, none of which were equipped with fire-control radar. The early warning radar, however, was generally good enough to give the Japanese ample warning of approaching strikes—particularly those coming from the Marshalls.²⁶

The 30th Bombardment Group of the Seventh Air Force got in the first two missions against Truk. They were night missions of two-squadron strength, the first of them executed by planes of the 38th and 392d Squadrons led by Col. Edwin B. Miller, CO of the group. Both squadrons staged to Kwajalein after morning take-offs on 14 March from the Gilberts—the 38th from Makin and the 392d from Apamama over distances of 656 and 897 nautical miles, respectively. At Kwajalein each plane was loaded with six 500-pound GP bombs with delayed fuzing and was topped off with a gas load of 3,150 gallons



of gasoline. Twenty-two planes in all set out for Truk at 2200 local time. The first two flights of the 38th Squadron were assigned the hangars and aircraft repair shops on Eten Island; the two remaining flights were assigned targets in the seaplane base and installations on the south shore of Dublon Island. The 392d Squadron was assigned Dublon targets, with the first flight drawing the tank farm and the second flight scheduled to hit the town and warehouse area.²⁷

The night-flying Liberators had good weather most of the way and the Japanese at Truk helped by keeping their radios on the air, thus giving the navigators good bearings on Truk. As the planes got closer they picked up the homing beam and rode that on in to the target. About 100 miles from Truk, they ran into a tropical front which caused two planes of the 38th Squadron to lose the formation and turn back, though one bombed Oroluk Atoll on the way home. Another plane of the 38th Squadron had engine trouble and turned back to Eniwetok on two engines. The 392d following the 38th had more trouble with the weather and finally broke formation, with each plane on its own. Two of its planes jettisoned their bombs near Minto Reef, one bombed Oroluk Atoll, and two bombed Ponape town after turning back.

In all, eight planes of the 38th Squadron and five of the 392d got through to Truk. The B-24's were stacked from 10,000 to 13,000 feet as Colonel Miller led the first flight over the target. They found Truk all lighted and no anti-aircraft, but after the first bombs hit the Eten Island hangars, Truk was blacked out and succeeding flights met moderate to intense but inaccurate anti-aircraft. Changing the original plan, the first flight hit Eten with 14 x 500-pound bombs, the second flight got 12 x 500-pound bombs in the seaplane-base area on Dublon Island, the third flight placed 6 x 500-pound bombs in the tank-farm area, exploding a large fuel tank, and the last flight put 12 x 500-pounders into the warehouse area of Dublon Town. The five planes of the 392d put all of their bombs (30 x 500-pounders) in the tank-farm area, adding to the fire started by the 38th Squadron. It was generally a good mission, the excellent bombing of the planes over the target making up for the large number of turnbacks. Although the round-trip distance to Truk from Kwajalein was 1,906 nautical miles, the 38th Squadron had flown a distance of 3,218 miles before getting back to Makin and the 392d had flown 3,700 back to Apamama. Almost all the pilots reported the distance as too long for the condition of the

engines in their planes, but no planes had been lost, the anti-aircraft had been inaccurate and the searchlights ineffective, and only two or three night fighters had made ineffectual passes.²⁸

This first land-based attack on Truk brought the 30th Bombardment Group a series of commendations, including one from Admiral Nimitz,²⁹ but it was decided to postpone further missions against Truk until the heavy groups had been moved to Kwajalein and Eniwetok had been sufficiently developed for staging operations. Meanwhile, Ponape, Wake, and Mille-Maloelap were each hit twice and then, before all preparations had been completed at the forward bases, Truk again became the target. Admiral Mitscher's Task Force 58 was scheduled to hit Palau at dawn on 30 March, and for the support of this attack and subsequent carrier operations in the western Carolines the Seventh and Thirteenth Air Forces received orders to take out Truk.³⁰

The Thirteenth Air Force led off with a mission flown on 26 March by the 370th and 424th Squadrons of the 307th Group. It turned out to be a remarkably inept performance—a mission described by General Matheny as one marked by “poor planning, poor leading, poor navigation.” When the formation should have been over Truk, the planes were actually seventy miles west of the target and by the time errors in navigation had been corrected, the formation was too low on gas to reach Truk. The planes bombed Pulusuk Island, where they reported no installations of a military nature, and returned to Nissan Island. On the next day, the 5th Bombardment Group sent two squadrons to Truk, only to be foiled by weather which completely closed in the target. After circling for 45 minutes, the planes dropped their bombs through the overcast with no observable results.³¹

So it was that the honors for the second effective mission over Truk fell to twenty-one Liberators of the Seventh Air Force. Led again by Colonel Miller, they took off from Kwajalein on the afternoon of 28 March to arrive over Truk (four planes having meantime aborted) shortly after 2100 local time, about six hours earlier than on the previous mission. The airfields on Moen and Eten were the targets, but cloud cover over the latter of these diverted some of the planes to other targets and the bombing in general was none too good. Anti-aircraft fire was more intense this time but still inaccurate, and no interception was attempted.³²

The 307th Group more than redeemed itself on the 29th in the first daylight attack by the heavy bombers on Truk. Twelve planes of the

370th Squadron and twelve from the 424th had staged from Munda to Torokina on the 28th. Loaded with instantaneously fused 100- or 500-pounders, the planes took off between 0625 and 0654 on the following morning, landed at Nissan for fuel, and then set a course for the Eten airfield. Twenty of the original twenty-four planes made up the formation as it was led over the target by Maj. Roland O. "Lucky" Lundy, group operations officer. Evidently the Japanese early warning radar was working well, for the bombers had been met ten minutes out of Truk by fifteen to twenty-five fighters, and the bomber crews noticed a still larger formation of Japanese fighters climbing up from about 4,000 feet. No interception was attempted by the enemy planes until after the bomb run, but land batteries, assisted by three destroyers, had ready a waiting hail of intense fire as the Liberators, stacked from 17,900 to 19,000 feet, made their run at about 1300. The bombing was excellent, starting at the water's edge and walking across the entire target area. Immediately after the bombs were away, the enemy fighters closed. Five or six phosphorous bombs were lobbed into the bomber formations by Tonys and Zekes, after which an estimated seventy-five planes made aggressive and repeated attacks from all around the clock. As the bombers withdrew, the enemy kept them under attack for forty-five minutes. Returning gunners claimed thirty-one sure kills, twelve probables, and another ten planes damaged. In addition, photographs indicated that nearly all of the forty-nine planes on the ground at Eten had been destroyed.³³

Two B-24's had been lost, ten men had been killed, ten were missing, and eleven were wounded. Over the target a Japanese fighter had put a hole in the plane piloted by Lt. William E. Francis and evidently reached a fuel line, for as the formation passed through phosphorous streamers the plane was seen to flame up and fall off to the right with five of the enemy following it down. Four parachutes were seen to open and one man, jumping from the top hatch, hit the tail of the plane. The Liberator piloted by Lt. Paul B. Rockas, though badly shot up over the target, made it back to Nissan Island, but in landing it swerved off the runway, hit a bulldozer, somersaulted onto its back, and killed all of the crew except the bombardier. The 307th Group received a presidential unit citation for this first daylight and highly successful strike on Truk.

The Seventh sent the 27th Squadron from Kwajalein and the 98th Squadron from Eniwetok to Truk on the night of 29/30 March. Chief

targets were the airdrome on Param and the seaplane base and tank farm on Dublon, but Uman, Fefan, and Moen Islands were also hit.³⁴ The 868th Squadron, the Thirteenth's blind-bombing outfit, sent the first of many "heckle" missions to drop frag clusters on Dublon Town that same night.³⁵ And as Admiral Mitscher's carrier planes were hitting the Palaus on the morning of the 30th, the 5th Bombardment Group got nineteen planes of the 72d and 394th Squadrons off with Moen airdrome as the target. Again they ran into heavy weather and only eleven planes got through to hit Moen. From thirty to forty-five Japanese fighters began attacking as the planes entered their bomb run and kept up a running attack for thirty minutes after the Liberators had pulled away. The B-24 gunners claimed as many as eighteen of the enemy, but the mission cost three Liberators.³⁶

Moen was hit again that night by heavies from the 11th Bombardment Group, now staging from Eniwetok and carrying the increased bomb load of forty 100-pounders per plane. Twenty-one planes reached the target to secure good results from between 8,500 and 10,500 feet altitude.³⁷ The 868th sent a heckler up from the Solomons on the same night.³⁸ During the daylight hours of the 31st, the Japanese got a rest, but at night the 38th and 392d Squadrons of the 30th Group put fourteen planes with 500-pounders over Dublon Town and the tank farm.³⁹

On the night of 1/2 April, twenty-two Thirteenth Air Force Liberators hit Dublon again, and the 868th sent its heckler loaded with 500-pound magnesium clusters.⁴⁰ The 868th also provided two pathfinder planes for the attack mounted by the 5th and 307th Groups against Dublon Town during the day on 2 April. Some fifty Zekes, Tonys, Tojos, and Vals intercepted ten minutes before the bombs were dropped in a determined attempt to break up the formation and continued their attacks for forty minutes. American gunners claimed thirty-nine sure kills and the bombing was good, but the mission cost four B-24's.⁴¹

The Seventh sent eleven Liberators over Eten and Dublon on the night of 2/3 April,⁴² and followed through on the next night with twelve planes of the 38th Squadron and eight of the 26th Squadron flying from Kwajalein and Eniwetok. First over the target, the 26th's planes found the antiaircraft moderate to intense and inaccurate but ran into determined interception. Two of the bombers were last seen over the target, and returning crews had no information as to whether

antiaircraft, enemy night fighters, or the normal hazards of overwater flights accounted for their loss. The 38th Squadron, coming in over Truk three to four hours later, had no trouble.⁴³

In the last mission of the series covering the operations and withdrawal of Admiral Mitscher's task force, twenty-seven B-24's of the 307th Group and four snoopers belonging to the 868th Squadron on 6/7 April staged the largest strike yet undertaken against Truk. The target was Dublon and Maj. Leo J. Foster, Jr., commander of the 868th, served as lead bombardier with excellent results. Antiaircraft fire was still inaccurate, but night fighters shot down one B-24 and badly damaged another which, happily, made it back to base.⁴⁴ By 7 April the combined efforts of the Seventh and Thirteenth Air Forces had resulted in claims of 130 enemy planes destroyed in the air and on the ground, a total corresponding exactly with the estimated strength on Truk's airfields at the beginning of the attacks. Dublon Town had suffered over 50 per cent destruction, and damage elsewhere had been comparably heavy. Much of the damage could be repaired and replacement aircraft could be ferried in, but the immediate Japanese offensive potential at Truk had been severely curtailed.

Seventh Air Force planes were back over Dublon Town on the night of 7/8 April, after a mission of 6 April to Wake. On 9/10, 13/14, and 16/17 April and on alternate nights for the rest of the month, two-squadron attacks were put over Truk. The six squadrons divided the assignment as follows: two squadrons of the 11th Group would strike, next one squadron from the 11th and one from the 30th, and then two squadrons of the 30th Group. Working in this rotation, the Seventh's B-24's by the end of April had achieved the grand total of 734 tons of bombs dropped on Truk in 329 effective sorties at the cost of five bombers.⁴⁵ In addition to Truk, the Seventh had struck occasional blows at Wake and Ponape, and during April the Liberators ran two missions over the Marianas. On 18 April, five B-24's of the 392d Squadron escorted five Navy PB4Y's on a photographic mission over Saipan. In this first land-based attack on Saipan, the B-24's dropped 100-pound bombs and fought off eighteen or more interceptors. One B-24 was forced into a water landing, fortunately near an American destroyer. Again on 25 April, seven B-24's accompanied seven PB4Y's to Guam and then flew to Los Negros, where they loaded with bombs and hit Ponape on their way back to Eniwetok.⁴⁶

The heavy bomber neutralization of Truk was given a powerful

assist on the last two days of April, when Admiral Mitscher's Task Force 58, retiring from its cover of the Hollandia invasions,* staged a two-day assault on Truk. In 2,200 sorties the Navy flyers dropped 748 tons of bombs, claimed fifty-nine enemy aircraft shot down and thirty-four destroyed on the ground, and did extensive damage to Japanese installations on all of the atoll. Once again Japanese air strength at Truk had been virtually eliminated, but the enemy promptly ferried in replacements to the extent of about 60 per cent.⁴⁷

Meanwhile, Thirteenth Air Force bombers had turned their attention to the provision of flank cover for MacArthur's invasion of Hollandia on 22 April and for Mitscher's carrier forces operating in strategic support of that landing. The 5th Bombardment Group and elements of the 868th Squadron had begun their move to Los Negros, from which they began on 18 April the "take-out" of Woleai. The 307th Group, still staging through Nissan Island, placed most of its effort on Satawan in the Nomoi Islands. It ran a night attack against Eten Island on 13/14 April with bad weather obscuring results, and then struck Satawan by day on 16, 17, 18, and 19 April.⁴⁸ The 5th Group in its first mission against Woleai sent twenty-two Liberators loaded with 500-pounders against air installations and continued its attacks in strengths of from twelve to twenty-four planes almost daily from 18 April to and including 1 May. There was no interception except on the first mission and again on 23 April, when over twenty-five Zekes intercepted before the bomb run. The B-24 gunners claimed seventeen sure kills and five probables. One Liberator was forced into a water landing with the loss of five crewmen, and six other planes had been damaged by enemy fire.⁴⁹ The group operated under difficulties, for it was establishing itself at a new base and it suffered a serious epidemic of diarrhea.⁵⁰

The 307th, upon completion of its Satawan strikes and before packing up for the move to the Admiralties, got in three missions against Truk. On 23 April, it struck Dublon, Param, and Eten Islands by daylight and followed with two night missions on 25 and 27 April. On the latter mission the crews reported one enemy night fighter shot down, but the Japanese antiaircraft gunners got more than even by flaming a B-24 with a direct hit. The group then began its move to Los Negros.⁵¹ General Whitehead, who faced an invasion of Biak scheduled for 27 May and was unable to move his own heavies up to Hollandia, sought a

* See above, pp. 582-83, 603-7.

change in the mission of the newly established Thirteenth Air Task Force from the "neutralization of Truk and Woleai to a general harassment until 31 May" in order that he might send powerful daylight attacks against the Bosnek area.⁵² The grant of this request, with terminal date at 28 May, cut down Thirteenth Air Task Force missions against the Carolines for the period to five. On 6 and 9 May, the 307th ran its first mission from the Admiralties against the Woleai runway. On 10 May, Dublon and Eten were hit; on the 15th, Woleai and nearby islands were again the target; and on 21 May Param and Moen were bombed.⁵³

During May the efforts of the Seventh Air Force against Truk also fell off. The two heavy groups kept up their alternating schedule until 13 May but thereafter ran no missions against Truk until the last day of the month. In preparation for the Saipan invasion, ten Liberators on 7 May had escorted six PB4Y photo planes to Guam. Nine B-24's of the 26th Squadron accompanied four Navy photo planes to Rota on 22 May, and again on 29 May a photographic mission took ten planes of the 98th and 431st squadrons over Saipan in the company of eight PB4Y's while thirteen B-24's of the 38th and 27th Squadrons escorted other PB4Y's over Guam. One B-24 was lost over Saipan; all of the bombers carried 100-pounders; and both missions ran into interception.⁵⁴ During May, General Hale also experimented with use of the heavies in coordinated attacks with medium bombers and Navy and Marine planes. Using B-24's, B-25's, F6F's, F4U's, and SBD's, he sent missions against Jaluit (14-15 May), Wotje (21 May), and Ponape (27-28 May). Wake was hit by fifty-seven Liberator sorties in May. Meanwhile, the 41st Group's B-25's continued to work over the bypassed Marshalls, and by staging through Eniwetok the Mitchells kept Ponape well covered.⁵⁵

A Japanese officer passing through Truk early in May 1944 on the way from Rabaul to Tokyo made the following entry in his diary under date of 9 May: "Arrived at Truk at 0500. The remains of the damage caused by bomb explosions was a terrible sight to behold."⁵⁶ But while the damage to Truk undoubtedly made a "terrible sight," the airfields were still under repair and thus constituted a threat to U.S. forces as they gathered for the assault on Saipan, initial target in the southern Marianas. Accordingly, at the month's end the Thirteenth Air Task Force and the heavy bombers of the Seventh Air Force turned their chief attention once more to Truk.

Left: THIRTEENTH AIR FORCE, BIAK



HIGH-ALTITUDE BOMBING

Right: 5TH BOMBARDMENT GROUP, YAP





KWAJALEIN AS AN AMERICAN BASE, APRIL 1944



SEVENTH AIR FORCE OVER TRUK



MAINTENANCE: HEAVY BOMBERS

Above: LADD FIELD, ALASKA

Below: LOS NEGROS

The heavy groups operating from the Admiralties had hit Woleai on 28 May, Satawan on the 29th, and on the 30th they went to Alet and To Islands of the Puluwat group.⁵⁷ The first mission back to Truk on 1 June ran into heavy weather and only six of the forty-eight planes dispatched got through to their targets. Momote's poor condition on the 2d prevented the 5th Group from taking off, but fifteen Liberators of the 307th went on to the target. In a running fight with interceptors that began with the bomb run, gunners claimed ten of the enemy fighters. An equal number of the B-24's were damaged, with three men killed and one wounded, but all of the planes got back to base. Eighteen planes of the 307th and twenty belonging to the 5th Group hit Truk again on 3 June.⁵⁸

The reported movement of a heavily escorted enemy landing force toward Biak caused General Whitehead to cancel scheduled strikes from the Admiralties on 4, 5, and 6 June, but the Seventh Air Force got through to Truk on the nights of 3 and 4 June. The Thirteenth dispatched on 7 June forty-eight bombers, of which only ten got past a heavy front to bomb Eten and Uman Islands, but twenty-five planes bombed on the 9th, thirty-nine on 10 June, thirty-four on 11 June, thirty-nine again on 12 June, and twenty-seven on the 13th.⁵⁹ Meanwhile, the Seventh, having run a photo-bombing mission over Guam on the 6th, hit Truk by night on 8, 9, 10, 11, and 12 June. On 13 June, twenty-six Liberators of the 11th Group bombed the airfields on Moen Island during daylight. On the night of the 14th, another attack was made and then the Seventh took a breather until it assumed full responsibility for Truk on 19 June.⁶⁰

Thirty planes from Los Negros hit Dublon on 14 June, and six bombers belonging to the 5th Group struck Woleai. On 15 June—D-day at Saipan—the 5th and 307th Groups put thirty-nine Liberators over Truk. On D plus 1 they again were out in strength with thirty-nine planes dropping 500-pounders on Dublon Town and the tank farm. On 17 June forty-one planes were sent, and on 18 June thirty-four.⁶¹ Thirteenth Air Force heavies combined with those of the Seventh on 19 June to put fifty-six planes above Truk.⁶² This was the day on which a large Japanese force, estimated at forty or more vessels, was sighted to the north of Yap and the Thirteenth was promptly ordered to hit Woleai and to attack any units of the enemy fleet that might seek refuge at Yap.⁶³ Although the enemy, following his defeat at the hands of Admiral Spruance's Task Force 58, did not seek refuge at

Yap, Woleai and Yap continued thereafter to be the responsibility of the Thirteenth Air Force. Following two strikes on Woleai by the 5th Group on 20 and 22 June, the 5th and 307th Groups bombed the Yap airdrome on 22 June on a mission by thirty-three planes which caught over forty enemy aircraft on the ground. Thirty Liberators on 23 June, eighteen on the 24th, twenty-one on the 25th, and nineteen on each of the two following days kept the Japanese at Yap so busy that they had nothing to offer their hard pressed comrades on Guam and Saipan. In this six-day series the two groups of the Thirteenth dropped 257 tons of bombs, claimed twenty planes destroyed on the ground and twenty-six in the air. The cost was two Liberators, with twenty-one damaged.⁶⁴

For five days during the threat from the Japanese fleet (19-23 June), the Kwajalein-based Liberators bombed Truk daily in high-altitude daylight attacks, and as this threat to FORAGER was diminished so was the tempo of the Seventh's attacks. June was the high point with a total of 1,813 tons of bombs dropped by the heavy bombers—1,247 of them credited to the Thirteenth and 566 to the Seventh.⁶⁵ After the daylight missions began, the Seventh regularly encountered from four to nineteen interceptors. Crews on the Seventh's night missions occasionally met enemy aircraft over Truk, but for the most part the enemy's defenses against night attacks consisted of anti-aircraft and searchlights. Bomber crews went to considerable pains to drop Window and other radar-jamming devices, but the U.S. Strategic Bombing Survey after the war found that neither the anti-aircraft nor the searchlights were radar controlled.⁶⁶

From the first of July, the Seventh's B-24's settled down to a summer-long campaign of bombardment consisting of from three to four missions per week—reduced after 1 August to two missions per week. Most of them were daylight missions, although frequently one or two snoopers would be sent over at night, and occasionally a full-scale (two-squadron) night mission would be flown. The neutralization of Truk continued to be a responsibility of the AAF in the Central Pacific throughout the remainder of the war; and until 7 August 1945 the atoll was now intermittently, now constantly, under the bombsights and guns of U.S. planes.⁶⁷

Though most of Truk's facilities had been pounded into unserviceability, its aircraft destroyed or moved to safer bases, and its celebrated lagoon had become a poor haven for any vessels which managed to slip

through the sea and air patrols, Truk remained a potential threat to U.S. positions in the Central Pacific. It was closer to a part of the supply line between the Marshalls and the Marianas than any American base, so that an attack on U.S. convoys by enemy aircraft from Truk was not only feasible but expected. As late as 20 November 1944 a convoy northwest of Truk at approximately 150° E. 10° N. was attacked twice within four hours by an unspecified number of enemy aircraft.⁶⁸ In retaliation, twenty-four of the 30th Group's Liberators, now based at Saipan, were launched against Truk, escorted by twenty-five P-38's of the 318th Fighter Group. Coming in at from 17,000 to 19,500 feet over the atoll which long since was supposed to have been neutralized, the Liberators were attacked by eight Zekes, apparently oblivious to the P-38's orbiting over the reef at 23,000 feet on this first fighter-escorted mission to Truk. In the ensuing battle four Zekes were destroyed and a fifth was damaged. The Liberators, in turn, cratered the airfields at Moen and Param with their 500-pound GP's.⁶⁹

Again on 27 April 1945, after approximately three and one-half months of intermittent bomber and fighter attacks against the atoll (following the mission of 22 November, Truk was not hit again until 14 January),⁷⁰ General Hale received a warning from the island commander at Guam that an Emily had been observed at the Dublon seaplane base and ordered daily two-squadron attacks against Truk and Marcus to ward off possible air attacks on the Marianas. The operation assumed the proportions of a minor emergency: the 318th Fighter Group, about to embark for Okinawa with its newly acquired long-range P-47N's, was held at Saipan; two squadrons of the 494th Bombardment Group at Angaur were placed on detached service with the 11th Group at Guam; six P-51's of the 506th Fighter Group, temporarily in the Marianas en route to Iwo Jima, were sent to Ulihi to supplement the air defense command there, with the rest of the group being retained in the Marianas for defense against possible air attacks.⁷¹ The 11th Group had a mission off less than seven hours after the Navy's warning, and for two weeks Truk was hit daily by the Seventh's B-24's and P-47N's. The primary target was enemy aircraft, but since none were present, the Liberators bombed and the Thunderbolts strafed what remained of the enemy's installations on the battered atoll.⁷² On 13 May, almost fourteen months to the day since the first AAF strike on the atoll, and with Japanese capitulation only three months away, this last major operation against Truk was canceled, though inter-

mittent attacks would continue for another three months. Neutralization was a continuing process.

Tactical Support in the Marianas

The neutralization of the Carolines, inaugurated well in advance of the Saipan landing and continued long after the conclusion of that operation, was but one phase of AAF participation in FORAGER. The other consisted of providing air defense for U.S. bases in the Marianas.⁷³ Later, as the struggle to dislodge the enemy from his strong-points on Saipan, Guam, and Tinian increased in intensity over what had been expected, the fighter mission was expanded to include the close support of ground troops, the first occasion on which the Seventh's aircraft had been put to such use.⁷⁴

D-day on Saipan, first of the Marianas to be occupied, was 15 June. For a week the heavy bombers of the Seventh and Thirteenth Air Forces had pounded Truk, principal threat to landing operations at Saipan and the position which had been boldly by-passed in order to move on to the Marianas. At Saipan itself when the Second and Fourth Marine Divisions went ashore from Vice Adm. Richmond K. Turner's LST's at Charan Kanoa at 0840 they had been preceded by four days of intensive air and naval bombardment, two days of minesweeping, and two days of reconnaissance of the landing beaches. The heavy bombardment had driven most of the troops from the beaches, but having retreated to prepared positions on commanding terrain to the front and on the flanks the enemy offered stubborn resistance to the Marine advance. Even against intense artillery and mortar fire, however, the Marines secured enough of a beachhead to enable the 27th Infantry Division to begin landing during the afternoon of the 16th. By the night of the 18th, the assault troops had captured Aslito airfield and had occupied all of the southern part of the island except a strong pocket on Naftan Point jutting out at the southeast. Leaving part of the 27th Infantry Division to clean out Naftan Point, the assault troops re-formed their lines to begin a movement northward, with the Second Marine Division on the left, the Fourth on the right, and the 27th Infantry Division in the center.⁷⁵

At approximately 1000 on 22 June, as the ground troops were moving slowly and against heavy opposition into the rough terrain surrounding Mount Tapotchau, twenty-two P-47's of the 19th Fighter Squadron, having been catapulted from the CVE's *Manila Bay* and

Natoma Bay, landed at Aslito (renamed Isley) Field.⁷⁶ Their guns had been loaded aboard the carriers and it was expected that they would go into the fight immediately after refueling. The first mission, however, called for a rocket attack against enemy installations on Tinian, three miles off the southern tip of Saipan. Within four hours rocket launchers were installed on eight planes, the projectiles were loaded, and the planes were in the air, strafing and rocketing enemy ground forces on Tinian.⁷⁷ Within two days the fighter strength at Isley had been reinforced by the 73d Fighter Squadron, a detachment of seven P-61's of the 6th Night Fighter Squadron, and the remainder of the 19th.⁷⁸ In carrying out their primary mission, the P-47's were on combat air patrol daily from 0515 to 1900, with the squadron on patrol maintaining a minimum of eight planes in flight and twelve standing by on alert. At night the Black Widows took over the patrol. In addition, the P-47's were called upon daily to strafe, bomb, and rocket enemy positions on Tinian and Saipan.⁷⁹

All organized resistance on Saipan ended 9 July; and as the ground forces mopped up isolated pockets of fanatical defenders—a process that was to continue until the war's end—the Seventh's P-47's continued their attacks on Tinian, dropping 500- and 1,000-pound GP bombs as well as strafing with .50-cal. machine guns. Meanwhile, preparations were under way for Phases II and III of FORAGER—the recapture of Guam and the capture of Tinian, which for all practical purposes were carried out simultaneously. The Third Marine Division and the 1st Provisional Marine Brigade reinforced by the 305th Regimental Combat Team of the 77th Infantry Division landed on Guam at 0830 on 21 July, following two weeks of softening-up operations by naval gunfire and naval air bombardment and strafing. Reinforced by the remainder of the 77th Division, which landed on 23–24 July, the assault troops pinched off the southern half of the island, and then, despite heavy resistance, moved steadily northward to overcome all organized resistance on 10 August. At 0830 on 24 July, while the 77th Division was completing its landing on Guam, the Fourth Marine Division landed on the north side of Tinian. Heavy air and naval bombardment, together with the fire of nearly all of Saipan's shore batteries, which had been massed on the southern shore of the island, preceded the landing.⁸⁰ The Seventh's P-47's, in addition to bombing and strafing enemy positions, also marked the beach for the assault troops.⁸¹ On the 25th, the Second Marine Division landed, and the next day both divi-

sions launched a coordinated attack, which against only light resistance had secured the island by 1 August.⁸²

Throughout the assault on Guam and Tinian, the Seventh's P-47's continued to furnish close support for the ground troops. Ability to perform their dual mission of air defense and close support was greatly enhanced on 18 July when the 333d Fighter Squadron arrived, thus bringing the 318th Fighter Group to full strength in the Marianas.⁸³ The P-47's definitely proved their versatility in this first Central Pacific operation in which land-based fighters were used in support of ground troops. They could strafe with .50-cal. machine guns, double as bombers, and launch 4.5-inch rockets. Late in July they began carrying a new type of ordnance, the "fire bomb." Brought directly to Saipan from Eglin Field, Florida, where they only recently had been developed, fire bombs as used by the 318th Fighter Group consisted of wing and belly tanks filled initially with a mixture of diesel oil and gasoline and later with a napalm and gasoline mixture. All apparatus for mixing the ingredients and loading the bombs had to be constructed from materials at hand. Dropped from fifty feet after a dive from 2,000 feet, the fire bombs were particularly effective on Tinian; each bomb cleared an area approximately seventy-five by two hundred feet.⁸⁴

To provide further support for operations on Tinian and Guam, late in July the 48th Bombardment Squadron (M) temporarily was relieved of the monotonous task of neutralizing the by-passed Marshalls and moved forward to Saipan, where its B-25's were given an opportunity—rare in the Central Pacific—to fly missions for which they were peculiarly adapted: low-level, ground support attacks with machine guns and 75-mm. cannon blazing. During the last five days of July they flew sixty-nine sorties against enemy positions on Tinian, and from 3 to 8 August, ninety-one sorties over Guam.⁸⁵ Upon completion of the assault phase of FORAGER, the squadron was withdrawn to Makin to rejoin the remainder of the 41st Bombardment Group (M) in the continued neutralization of the Marshalls, Ponape, and Nauru, the only mission within the capabilities of the B-25 remaining in the Central Pacific.⁸⁶

With Saipan, Tinian, and Guam secure, the 318th Group's fighters, and until withdrawn the 48th Squadron's B-25's, turned to the neutralization of the lesser Marianas in addition to continuing their defense of the occupied islands. Only Pagan and Rota supported airstrips and these were kept inoperational with ease, nullifying any capacity they

may have had as temporary refuge for enemy planes launched against the U.S. bases built and building in the Marianas. The remaining Marianas—Alamagan, Anatahan, Aguijan, Sarigan, Maug, and such innocuous bits of land as Farallon de Medinilla, Farallon de Pajaros, and Guguan—posed a problem even less difficult. The most formidable of them had only rudimentary military installations, and the majority no more than the few Japanese who may have escaped when Saipan, Tinian, and Guam fell.⁸⁷

With the capture of the Marianas, one phase of the Pacific war had ended, another had begun. While the sound of battle still echoed over the western Pacific, Seabees and aviation engineers were landed on Saipan, Guam, and Tinian to begin construction of the great bases from which B-29's of the Twentieth Air Force would bombard the Japanese homeland.

The diminutive Seventh Air Force would continue to play the role to which it had been assigned in November 1943. Its 11th and 30th Bombardment Groups, moved forward from Kwajalein to Guam and Saipan, respectively, continued to maintain the neutralization of Truk, with an occasional mission over Marcus, also a potential threat to our bases in the Marianas; at the same time, the bombers launched missions against the Nampo Shoto, midway between the Marianas and the Japanese homeland, partly in preparation for a future assault on Iwo Jima but chiefly in defense of the Marianas. During operations for capture of the Palaus in September the Seventh helped neutralize Yap and Woleai. A third heavy bombardment group, the 494th, which had been in Hawaii since June, went to Angaur in the Palaus late in October to take its share in the neutralization of by-passed enemy positions in that area. In preparation for augmented air strength in the Pacific and in recognition of its tactical role, the Seventh Air Force on 1 August was divested of its service functions and reorganized as a mobile, tactical air force, which, operationally, it had been since November 1943. Services, supply, and other administrative matters, including most of VII AFSC's units and personnel, were placed under the jurisdiction of a new headquarters, Army Air Forces, Pacific Ocean Areas, activated on 1 August under the command of Lt. Gen. Millard F. Harmon.

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NOTES TO CHAPTER 1

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4. AAFHS-17, p. 4.

5. USSBS Intr. 441, Capt. T. Ohmae, 25 Nov. 1945.

6. *Ibid.*; USSBS Intr. 53, Capt. M. Yamaoka, 19 Oct. 1945, p. 5.

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16. Interview with Maj. Frank P. Bostrom in Carmichael interview.

17. History, 8th Photo Sq.; interview with Maj. Karl Polifka.

18. Incl. 1 (WDGS Disposition Form [6-24-42] OPD 384 PTO [6-18-42] for AC/AS Plans from OPD), Instruction Relative to Duties as Commander, South Pacific Area and South Pacific Force, CINCPAC to Vice Adm. Robert L. Ghormley, A16-3/P17, Serial 090W, n.d.; CINCPAC War Diary, 13 Apr. 1942.

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21. Interview with Capt. M. B. Gardner, USN, 13 Jan. 1943.
22. *Ibid.*; CM-IN-6839 (6-21-42), Efate to Marshall, 134, 20 June 1942; William Bradford Huie, *Can Do! The Story of the Seabees* (New York, 1944), p. 90.
23. History, 70th Fighter Sq.
24. The Operations of Aviation Engineers in the South Pacific, Jan. 1942-Aug. 1944, pp. 66-67.
25. *Ibid.*, p. 74; History, 67th Fighter Sq.; AAF Form 63 (Sup.), Foreign Airport Description, Nov. 1943.
26. Gardner interview; memo for record, Security of New Caledonia and Efate, New Hebrides, 20 May 1942 in OPD 381, PTO, 29. In all these labors McCain received complete cooperation from General Chamberlin and from General Rose, who succeeded Chamberlin when the latter was forced to return to Hawaii because of illness.
27. Memo, n.s. and n.d., in JPS 21/7, 18 Apr. 1942.
28. JPS 21/5/D, 7 Apr. 1942.
29. JCS 48, 2 May 1942. JCS 48 never received the approval of the Joint Chiefs. It was superseded by later decisions, but its value lies in the conflicting points of view developed during the course of discussion.
30. Comment 1 (R&R, Arnold to AFAEP, 21 Apr. 1942) in J/CCS, 660.2 (4-7-42), AC/AS Plans.
31. JCS 48, 2 May 1942.
32. *Ibid.*
33. *Ibid.*
34. *Ibid.*
35. *Ibid.*
36. JCS 23, 14 Mar. 1942.
37. JCS 48, 2 May 1942.
38. *Ibid.*
39. *Ibid.*
40. JPS 21/7, in JCS 48, 2 May 1942.
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42. Comment 1 (R&R, Arnold to AFAEP, 21 Apr. 1942).
43. Comment 2 (R&R, Arnold to AFAEP, 21 Apr. 1942), AFAEP to Arnold, 4 May 1942.
44. JCS 14th Mtg., 11 May 1942. At this period of the Pacific war, Admiral King felt that it would be futile to oppose with the two undamaged U.S. carriers a powerful enemy force striking along the line, unless these were supported by land-based bombers. (Ltr., CNO to C/S, Situation in South Pacific and Southwest Pacific Areas as of the End of May 1942, 12 May 1942.)
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68. History, 374th Troop Carrier Gp.; CM-IN-7554 (8-20-42), Kenney to CGAAF, A315, 18 Aug. 1942; CM-IN-7603 (7-22-42), Brett to CGAAF, A135, 21 July 1942. This figure of thirty-two aircraft does not agree with record in Statistical Control Division and may include those in the RAAF. (See also interview with six members of Troop Carrier Command, 3 July, 1943; Maj. Fred G. Henry, Alan D. Moore, James A. McCullough, George E. Stover, Ray Vandiver, John W. Wise; memo for AC/S OPD from Col. O. A. Anderson, Acting AC/AS Plans, 15 July 1942; Osmar White, Secret Report; statement of Col. William Hipps to author.)

69. CM-IN-3443 (8-10-42), CINCSWPA to C/S, C232, 9 Aug. 1942; CM-IN-1272 (8-4-42), CINCSWPA to C/S, C199, 4 Aug. 1942.

70. CM-IN-4248 (8-12-42), Kenney to Arnold, A262, 12 Aug. 1942; CM-IN-7967 (8-22-42), Kenney to Arnold, Q546, 22 Aug. 1942; CM-IN-10841 (7-31-42), CINCSWPA to C/S, C173, 30 July 1942; CM-IN-0074 (8-1-42), CINCSWPA to C/S, 178, 31 July 1942; R&R, AFADS to AFDMR, 14 Aug. 1942, and AFDMR to AFADS, 15 Aug. 1942; R&R, AFRBS/SUP to AFROM and AFACT, 17 Aug. 1942; History, 27th Bomb. Gp.

71. CM-IN-8604 (6-26-42), GHQ SWPA to AGWAR, 74, 26 June 1942;

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- CM-IN-9902 (6-30-42), GHQ SWPA to AGWAR, 260, 30 June 1942.
72. G-2 Information Bull. 121, 22 July 1942, in GHQ G-3 Journal, 22 July 1942.
73. CM-IN-2174 (7-7-42), CINCSWPA to C/S, C38, 7 July 1942.
74. George C. Kenney, *General Kenney Reports: A Personal History of the Pacific War* (New York, 1949), pp. 19-26, where the author gives his own account of his trip from California to Australia.
75. CM-OUT-2793 (8-9-42), Marshall to CINCSWPA, 658, 9 Aug. 1942; CM-OUT-2792 (8-9-42), OPD (Marshall) to Necal, 890, 9 Aug. 1942; Polifka interview; Lt. Walter H. Johnson, Short History, 435th Overseas, and App. G, Summary of Operations of the 435th Bombardment Squadron, in History, 19th Bomb. Gp.; Samuel E. Morison, *History of United States Naval Operations in World War II*, IV (Boston, 1949), 267.
76. Operations Instruction 18/1942 to Hq. North Eastern Area, 3 July 1942; Morison, *History . . . Naval Operations*, IV, 269.
77. CM-IN-8416 (6-26-42), G-2 Necal to WDGBI, 379, 21 June 1942.
78. CM-IN-9177 (8-24-42), G-2 Necal to AGWAR, AGWAR 802, 17 Aug. 1942.
79. CM-IN-5682 (7-17-42), G-2 Necal to WDGBI, 1566, 16 July 1942; CM-IN-11038 (7-31-42), G-2 Necal to WDGBI, 685, 31 July 1942.
80. CM-OUT-0221 (7-1-42), OPD to CGHD, 1 July 1942.
81. CM-IN-0741 (7-3-42), Emmons to WDCSA, 1229, 2 July 1942; CM-OUT-1100 (7-4-42), OPD to CGHD, 4695, 4 July 1942.
82. CM-OUT-4129 (7-15-42), WDOPD to CGHD, 4905, 15 July 1942.
83. CM-IN-5463 (7-16-42), Emmons to WDCSA, 1562, 16 July 1942.
84. Gardner interview, 13 Jan. 1943; The Operations of Aviation Engineers in the South Pacific, Jan. 1942-Aug. 1944, p. 84.
85. History, 26th Bomb. Sq.
86. History, 98th Bomb. Sq.
87. COMAIRSOPACFOR Operations Order 1-42, 25 July 1942, in History, 98th Bomb. Sq.
88. Ltr., Col. Saunders to Gen. Hale, 18 Aug. 1942.
89. *Ibid.*
90. History, 98th Bomb. Sq.; ltr., Saunders to Hale, 18 Aug. 1942.
91. Ltr., Saunders to Hale, 18 Aug. 1942.
92. *Ibid.*; CINCPAC War Diary, 13 Apr. 1942.
93. Incl. 2 (Disposition Form for OPD from AC/AS Plans, 23 June 1942), memo for C/S from Brig. Gen. T. T. Handy, Directive to Commander Aircraft, South Pacific Area, 18 June 1942.
94. CM-IN-9710 (7-28-42), COMSOPAC to all COMGENS Island Bases SOPAC, 270510 NCR 954, 27 July 1942.
95. Ltr., COMAIRSOPAC to CINCSWPA and COMSOPAC via COMGENSOPAC, 3 Aug. 1942.
96. *Ibid.*
97. *Ibid.*
98. 1st and 2d ind. (ltr., COMAIRSOPAC to COMSOPAC, 3 Aug. 1942), by COMGENSOPAC and COMSOPAC, 4 Aug. 1942.
99. CM-OUT-0221 (7-1-42), Marshall to Emmons, 4630, 1 July 1942; CM-IN-3516 (7-10-42), Ft. Shafter to WDCSA, 14393, 10 July 1942.
100. Ltr., Marshall to Harmon, 7 July 1942.
101. CM-IN-8640 (5-30-42), CINCPAC to COMSOPACFOR, 292019CCR1404.
102. Memo for AC/AS OPD from Harmon, 10 July 1942; VII Army Corps GO 39, San Jose, Calif., 30 July 1942; WD ltr., AG 320.2 (7-22-42), MR-M-GN, 24 July 1942, cited in History, Hq. and Hq. Co., USAFISPA.
103. Memo for AC/S OPD from Harmon, 12 July 1942.
104. Ltr., Colonel Bradley, Chief, AFPMP to CO Force 9465, 26 Aug. 1942; History, Hq. and Hq. Co., USAFISPA; interview with Maj. S. W. Smith, 10 Mar. 1944; Kenney, *General Kenney Reports*, pp. 19-26.
105. CM-IN-9310 (7-27-42), COMGENSOPAC to WDCSA, 236, 26 July 1942.
106. Ltr., Harmon to Arnold, 5 Aug. 1942; ltr., Harmon to Brig. Gen. St. Clair Streett, 5 Aug. 1942.
107. Ltr., Harmon to Streett, 5 Aug. 1942.
108. CM-IN-0058 (8-1-42), Harmon to Marshall, 675, 30 July 1942.
109. CM-OUT-0253 (8-1-42), OPD to Harmon, 789, 31 July 1942; WDGS Dispo-

sition Form OPD 452.1 PTO (30 July 1942) for CGAAF from Handy, AC/S, 3 Aug. 1942; memo for OPD from Actg. AC/AS A-3, 10 Aug. 1942; CM-IN-0058 (8-1-42), Harmon to Marshall, 675, 30 July 1942; CM-OUT-0253 (8-1-42), OPD to CG New Caledonia, 789, 31 July 1942.

110. CM-IN-10700 (7-31-42), Harmon to Arnold, 677, 30 July 1942.

111. CM-OUT-2177 (8-7-42), OPD to COMGENSOPAC, 866, 7 Aug. 1942; AG 320.2 (9-10-42) MR:M:AF, 11 Sept. 1942; Hq. I Island Air Command GO 1, 17 Oct. 1942; Hq. II Island Air Command GO 29, Hq. USAF in Fiji, 20 Oct. 1942.

112. Hq. 1st Marine Div., Division Commander's Final Report on Guadalcanal Operation, Phase II, 24 May 1943.

113. History, 431st Bomb. Sq.

114. Interview with Maj. Felix Hardison, in Carmichael interview; Kenney interview; CM-IN-2937 (8-9-42), CINC-SWPA to C/S, C226, 8 Aug. 1942; CM-OUT-5507 (8-18-42), WDGBI to CINC-SWPA, 937, 17 Aug. 1942; CM-IN-7704 (8-21-42), MacArthur to AGWAR, C311, 20 Aug. 1942.

115. CM-IN-10212 (10-24-42), Brisbane to WAR, A873, 23 Oct. 1942; CM-IN-3795 (8-11-42), CINC-SWPA to C/S, C245, 11 Aug. 1942; Hardison interview.

116. Ltr., Saunders to Hale, 18 Aug. 1942.

117. Hq. First Marine Div. Report, Phase III.

118. ONI, Landings in the Solomons, 7-8 August 1942, p. 42.

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1. Ltr., Saunders to Hale, 20 Aug. 1942; History, 98th Bomb. Sq.; History, 11th Bomb. Gp.

2. Interview with Brig. Gen. L. G. Saunders, 14 Apr. 1943.

3. Memo for Harmon from Saunders, 15 Aug. 1942, in History, 11th Bomb. Gp.

4. Ltr., Saunders to Hale, 18 Aug. 1942.

5. Ltr., Saunders to Hale, 26 Aug. 1942.

6. CM-IN-11091 (8-27-42), Harmon to Marshall, 144, 27 Aug. 1942; ltr., Saunders to Hale, 26 Aug. 1942; History, 26th Bomb. Sq.; USSBS Memo Nav. 11, 16 Oct. 1945, p. 4; USSBS, *The Campaigns of the Pacific War*, pp. 110-11.

7. ONI Combat Narratives, Battle of the Eastern Solomons, p. 65; USSBS Memo Nav. 11, 16 Oct. 1945, p. 15; USSBS Intr. 252, 1 Nov. 1945, Capt. Y. Toyama, p. 5.

8. Ltr., Saunders to Hale, 26 Aug. 1942; History, 26th Bomb. Sq.; ONI, Battle of the Eastern Solomons, pp. 65-66; *The Campaigns of the Pacific War*, p. 113.

9. Ltr., Saunders to Hale, 26 Aug. 1942.

10. Hq. 1st Marine Div., Division Commander's Final Report on Guadalcanal Operation (Vandegrift Report), 24 May 1943, Phase III.

11. 67th Fighter Sq. Operations Rpt., 20 Aug.-24 Sept. 1942.

12. Vandegrift Rpt., Phase III.

13. Ltr., W. W. Evans, Medical Officer, USMC to Bureau of Medicine and Surgery, 22 Dec. 1942.

14. Ltr., Harmon to Arnold, 28 Aug. 1942.

15. 67th Fighter Sq. Operations Report; History, 67th Fighter Sq.; CM-IN-1874 (9-5-42), Emmons to WDCSA, 2706, 4 Sept. 1942.

16. CM-OUT-2926 (9-9-42), AFRAD to Necal, 1286, 8 Sept. 1942; CM-OUT-3629 (9-11-42), AFACT to Necal, 1309, 10 Sept. 1942; CM-IN-5418 (9-13-42), Harmon to AFRAD, 249, 13 Sept. 1942.

17. Ltr., Harmon to Kuter, 11 Sept. 1942.

18. *Ibid.*

19. Ltr., Harmon to Arnold, 15 Sept. 1942.

20. JPS 22d Mtg., 10 July 1942.

21. CCS 94, 24 July 1942.

22. CCS 34th Mtg., 30 July 1942.

23. Memo for Arnold, n.s., Transfer of Major Military Objective from Bolero, 14 July 1942.

24. JPS 48, 28 Aug. 1942, Tab A, memo for C/S from Arnold, 29 July 1942.

25. Ltr., Harmon to St. Clair Streett, 5 Aug. 1942.

26. Incl. A (ltr., COMSOPAC to CINC-US, A3-1/A16-3 [3] Serial 0048, 6 Aug. 1942), ltr., Harmon to COMSOPAC, 4 Aug. 1942.

27. *Ibid.*

28. Ltr., COMSOPAC to CINCUS, 6 Aug. 1942, as cited in n. 26, and 1st ind., CINCUS to CINCUS, 6 Sept. 1942, A16-3 (9) (86) Serial 0199W.

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29. Sources in n. 28; ltr., Harmon to Marshall, 11 Aug. 1942.
30. CM-IN-9744 (8-26-42), Enmons to WDCSA, 2504, 25 Aug. 1942.
31. CM-OUT-1424 (8-5-42), WDOPD to CGHD, 5328, 4 Aug. 1942; CM-OUT-2792 (8-9-42), Marshall to Necal, 890, 9 Aug. 1942.
32. Cited in R&R, Arnold to AC/AS A-3, 31 Aug. 1942.
33. *Ibid.*
34. CM-IN-9889 (8-26-42), COMGEN-SOPAC to WAR, 137, 25 Aug. 1942; CM-OUT-9008 (8-29-42), OPD to COMGEN-SOPAC, 1158, 28 Aug. 1942; CM-OUT-8628 (8-27-42), WDOPD to CGHD, 5743, 27 Aug. 1942.
35. CM-OUT-8255 (8-26-42) WDOPD to CGHD, 5718, 26 Aug. 1942.
36. Cited in memo for AC/AS Plans from Kuter, 21 Aug. 1942.
37. Memo for AC/AS Plans from Kuter, 21 Aug. 1942.
38. JCS 97, 5 Sept. 1942.
39. Incl. A (JCS 97/2, 15 Sept. 1942), memo for Arnold from King, 5 Sept. 1942.
40. Incl. B (JCS 97/2, 15 Sept. 1942), memo for CINCUS and C/NO from Arnold, Need for Army Aircraft in the Current Solomons Operation, 14 Sept. 1942.
41. Memo for CINCUS from Arnold, Air Reinforcements for the Guadalcanal-Tulagi Area, 5 Sept. 1942.
42. Incl. 4 (R&R, AFAEP to AFDAS, 7 Sept. 1942), memo for CINCUS from Arnold, Combat Performance of Army Air Forces Aircraft, 4 Sept. 1942; memo for CINCUS from Arnold, Air Reinforcements for the Guadalcanal-Tulagi Area, 5 Sept. 1942.
43. JCS 32d and 33d Mtgs., 8 and 15 Sept. 1942.
44. Ltr., Harmon to Kuter, 11 Sept. 1942.
45. Memo for CSA from CINCUS and C/NO, Fighter Plane Reinforcements to Guadalcanal, 17 Sept. 1942.
46. *Ibid.*
47. Memo for CINCUS and C/NO from Marshall, 30 Sept. 1942.
48. Ltr., Harmon to Arnold, 15 Sept. 1942. General Arnold gives his own account of this trip in *Global Mission* (New York, 1949), pp. 336-50.
49. USSBS Intr. 497, Lt. Gen. S. Miyazaki, 3 Dec. 1945.
50. JCS 36th Mtg., 6 Oct. 1942.
51. JCS 97/5, 22 Oct. 1942, Tab A, Recommended Capacity of Certain Airfields in the South Pacific.
52. JCS 97/5, 22 Oct. 1942, Tab B, Recommended Strength of Certain Airfields in the South Pacific; JCS 97/5, 22 Oct. 1942; R&R, AFCAS to AC/AS Plans, 3 Oct. 1942.
53. Incl. (R&R, AFCAS to AC/AS Plans, 24 Oct. 1942), msg. from COMAIR-WING 1, 23 Oct. 1942.
54. Incl. (same R&R), memo for Leahy, King, Marshall, and Arnold from Pres. Roosevelt, 24 Oct. 1942.
55. Memo for the President from Marshall, 26 Oct. 1942.
56. JCS 97/5, 22 Oct. 1942, Tab C, Table II; JCS 39th Mtg., 27 Oct. 1942.
57. JCS 39th Mtg., 27 Oct. 1942.
58. Incl. 2 (memo for Gen. Deane by C/S, n.d., OPD 320.2 PTO [10 Nov. 1942]), draft of dispatch for CINCPAC from CSA and COMINCH; memo for Arnold from King, 21 Dec. 1942.
59. USSBS Intr. 497, Lt. Gen. S. Miyazaki, 3 Dec. 1945, p. 4.
60. CM-OUT-5191 (9-15-42), Marshall to CGHD, 155, 15 Sept. 1942; CM-OUT-5574 (9-16-42), Marshall to CGHD, 171, 16 Sept. 1942; interview with Lt. Col. Narce Whitaker, by author, 20 June 1944; Growth of Heavy and Medium Bombardment Units in the Seventh Air Force, 7 Dec. 1941-31 Aug. 1944; CM-OUT-05972 (10-19-42), Marshall to CGHD, 778, 18 Oct. 1942; History, 31st Bomb. Sq., Apr. 1944.
61. Interview with Lt. Col. R. C. Mangrum, USMC, 11 Nov. 1942. Mangrum commanded VMSB-232, the first dive-bomber squadron to operate from Henderson.
62. Saunders interview.
63. CM-IN-2996 (10-8-42), Harmon to Marshall, 523, 7 Oct. 1942; CM-IN-06795 (10-16-42), Harmon to Marshall, 637, 15 Oct. 1942.
64. CM-IN-06795 (10-16-42), Harmon to Marshall, 637, 15 Oct. 1942; Hq. USA-FISPA GO 8, 5 Jan. 1943.
65. 1st Marine Div. D-2 Journal, 13 Oct. 1942; History, 67th Fighter Sq.

66. 1st Marine Div. D-2 Journal, 13 Oct. 1942; William Bradford Huie, *Can Do! The Story of the Seabees*, pp. 41-44.
67. History, 67th Fighter Sq.; Herbert L. Merillat, *The Island: A History of the First Marine Division on Guadalcanal* (Boston, 1944), p. 142; Capt. John A. Burden, USMC, Enemy Operations on Guadalcanal, 7 Aug. 1942-9 Feb. 1943.
68. MAG-23 War Diary, 14 Oct. 1942; History, 67th Fighter Sq.; interrogations of Admirals Kusaka and Irifune and Commander Hori, in USSBS, *The Allied Campaign against Rabaul*, 1 Sept. 1945, p. 44; USSBS, *The Campaigns of the Pacific War*, p. 119.
69. Saunders interview; History, 67th Fighter Sq.; Whitaker interview, 26 Oct. 1944.
70. Merillat, *The Island*, p. 145; History, 67th Fighter Sq.
71. Merillat, *The Island*, p. 145.
72. Huie, *Can Do!* p. 44. This field was first used on 9 September.
73. History, 67th Fighter Sq.
74. Merillat, *The Island*, pp. 152-53. Several thousand additional gallons of gas came in on the destroyer *MacFarland* on the 16th.
75. *Ibid.*, p. 147; interview with Brig. Gen. P. A. Del Valle, USMC, 19 Dec. 1942, in Military Observers Report, Southwest Pacific Area, 26 Sept.-23 Dec. 1942. Japanese commanders state that six transports actually reached Guadalcanal; three were left on the beaches after discharging about 80 per cent of their cargo and all of their personnel. (Intrs. of Admirals Kusaka and Irifune and Commander Hori, in *The Allied Campaign against Rabaul*, p. 44.)
76. MAG-23 War Diary, 16 Oct. 1942.
77. *New York Times*, 17 Oct. 1942; *The Campaigns of the Pacific War*, p. 119.
78. *New York Times*, 17 Oct. 1942.
79. *Ibid.*, 17, 18, 19 Oct. 1942; MAG-23 War Diary, 22 Oct. 1942.
80. Lt. Gen. M. F. Harmon, The Army in the South Pacific; Huie, *Can Do!* p. 50; ltr., Harmon to Arnold, 31 Oct. 1942; msg., Harmon to Marshall, 31 Oct. 1942.
81. MAG-23 War Diary, 23 Oct. 1942; ONI Combat Narratives, The Battle of Santa Cruz Islands, p. 29.
82. Capt. John A. Burden, Enemy Operations on Guadalcanal; Combat Intel. Center, Hq. XIV Corps, Brief Summary of the Battle for Guadalcanal, 12 Feb. 1943; Merillat, *The Island*, pp. 164-65.
83. USSBS Intr. 75, Comdr. M. Okumiyaya, 12 Oct. 1945.
84. Ira Wolfert, *Battle for the Solomons*, p. 108; Daily Tactical Rpt., 29 Oct. 1942, in AFSHO files; Hq. USAFISPA GO 118, 15 May 1943.
85. CM-IN-00244 (11-1-42), Harmon to Marshall, 945, 30 Oct. 1942.
86. CM-OUT-05331 (10-16-42), Marshall to Emmons, 734, 16 Oct. 1942; CM-OUT-08683 (10-25-42), Marshall to Emmons, 941, 25 Oct. 1942; incl. 2 (R&R, Gen. Anderson to Arnold, 31 Oct. 1942), memo for CGAAF, sub.: 90th Bomb. Group (H), 31 Oct. 1942; CM-IN-11300 (10-26-42), Emmons to WDCSA, 3834, 26 Oct. 1942; History, 93d Bomb. Sq.; CM-IN-11552 (10-27-42), Harmon to Marshall, 860, 27 Oct. 1942; CM-IN-1238 (11-3-42), Harmon to Marshall, 1021, 3 Nov. 1942; CM-IN-1239 (11-3-42), Harmon to Marshall, 1042, 3 Nov. 1942.
87. USSBS Intr. 497, Lt. Gen. S. Miyazaki, 3 Dec. 1945, p. 4; 1st Marine Div. D-2 Journal, 11 Nov. 1942; ONI Combat Narratives, Battle of Guadalcanal, p. 3.
88. Hq. USAFISPA, Results of our Air Action against the Japanese Transport Convoy, Shortland to Guadalcanal, Nov. 12-15, 1942, 14 Mar. 1943; USSBS Intr. 467, Comdr. T. Yamamoto and Capt. T. Ohmae, 20 Nov. 1945; intrs. of Admirals Kusaka and Irifune and Commander Hori, in *The Allied Campaign against Rabaul*, p. 44; *The Campaigns of the Pacific War*, p. 125. The claim for twelve transports is not borne out by JANAC or by the detailed list of ships furnished by Capt. Ohmae and indicated in the Navy's report, which names only eleven ships. (See last source, p. 128.)
89. ONI, Battle of Guadalcanal, p. 34; History, 339th Fighter Sq.; Daily Aviation Sum. in COMAIRSOPAC Intel. Bull., 13-14 Nov. 1942, in USMC Hist. Div. files; MAG-23 War Diary, 15 Nov. 1942.
90. COMAIRSOPAC Intel. Bull., 24 Nov. 1942; History, 35th Fighter Gp., p. 22.
91. Daily Aviation Sum., COMAIRSOPAC Intel. Bull., 17 Nov. 1942; ONI,

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Battle of Guadalcanal, p. 34; History, 69th Bomb. Sq.; History, 70th Bomb. Sq.

92. ONI, Battle of Guadalcanal, p. 40; Air Intel. Sum., COMAIRSOPAC Intel. Bull., 17 Nov. 1942; History, 70th Bomb. Sq.; USSBS Intr. 467, Comdr. T. Yamamoto and Capt. T. Ohmae, 20 Nov. 1945, p. 5.

93. CM-IN-7611 (11-18-42), Harmon to Marshall, 1318, 17 Nov. 1942; USSBS Intr. 467, 20 Nov. 1945; Joint Army-Navy Assessment Comm., *Japanese Naval and Merchant Losses during World War II*, Feb. 1947, pp. 35-36.

94. USSBS Intr. 467, 20 Nov. 1945, p. 5; Intr. 503, Pt. 3, Vice Adm. S. Fukudome, 9 Dec. 1945, p. 42; ONI, Battle of Guadalcanal, pp. 55-56; USSBS Memo Nav. 11, 16 Oct. 1945.

NOTES TO CHAPTER 3

1. Hq. 11th Bomb. Gp., Information on Operations in the Solomon Islands from 31 July to 30 November 1942, 3 Dec. 1942 (hereinafter cited as 11th Gp. Opns., July-Nov. 1942). These figures from the group's report are somewhat at variance with those given by General Saunders in his interviews.

2. Actually, the new pilots coming in were army pilots whose experience level was regarded by the Rabaul navy men as low. (USSBS Intr. 495, Capt. T. Ohmae, 6 Dec. 1945, p. 4.)

3. CM-IN-12005 (8-31-42), Harmon to Arnold, 170, 31 Aug. 1942; CM-OUT-2626 (9-8-42), AFASC to Harmon, 1280, 7 Sept. 1942; CM-OUT-3287 (9-10-42), AFASC to Necal, 1294, 9 Sept. 1942.

4. Incl. 1 (memo for CG's of all Air Forces from AFIBI, 21 Nov. 1942), extract from ltr. of 11th Bomb. Gp. comdr. to AAFHQ, n.d. This letter was written after the mission of 16 November. Saunders believed installation of the Bendix chin turret would prove effective against frontal attack; the turret permitted fire over 160° azimuth, 50° depress, and 30° elevation. (R&R, Arnold to Echols, Operations of the 11th Bomb. Gp., 17 Dec. 1942.) On 27 January, General Stratemeyer explained to Saunders, then home in Aberdeen, South Dakota, that improvements were being made, but "We

are always building tomorrow's planes today—today's planes yesterday." (Incl. [R&R, Arnold to Stratemeyer, 17 Dec. 1942], ltr., Stratemeyer to Saunders, 27 Jan. 1943.)

5. 11th Gp. Opns., July-Nov. 1942.

6. Incl. (R&R, Arnold to Eubank, 18 Nov. 1942), ltr., Harmon to COMSOPAC, 22 Oct. 1942.

7. Ltr., Harmon to Halsey, 20 Nov. 1942.

8. Ltr., Harmon to Saunders, 6 Nov. 1942.

9. *Ibid.*

10. *Ibid.*

11. CM-OUT-5079 (11-16-42), Arnold to Harmon, Rane 2063, 16 Nov. 1942; ltr., Stratemeyer to Harmon, 4 Dec. 1942; CM-OUT-6456 (11-20-42), Arnold to Harmon, Rane 2107, 20 Nov. 1942.

12. Ltr., Harmon to Halsey, 20 Nov. 1942.

13. Interview with Brig. Gen. L. G. Saunders, 14 Apr. 1943. The only targets for which the planes were specifically loaded were the ships in the Buin-Tonolei area.

14. *Ibid.* The normal loading was a 500-pound bomb with instantaneous fuze. There was a need for time fuzes with varied delay—5 minutes up to 72 hours—for employment against enemy landing strips. The Marines at Guadalcanal found that their SBD's, carrying a 1,000-pound bomb fitted with a 1-second delay fuze, sent these bombs completely through transports.

15. *Ibid.*

16. Ltr., Harmon to Halsey, 20 Nov. 1942. Completion of Bomber Strip No. 2 on Espiritu, anticipated in about ten days, obviously would relieve this congestion.

17. Report No. 2, Hawaii, by Maj. Gen. Robert C. Richardson to WDCSA, 1 June 1942.

18. Saunders interview; CM-IN-9647 (11-22-42), Harmon to Arnold, n.n., 22 Nov. 1942. Actually, through 18 November there were only five missions in which nine or more bombers were dispatched against moving targets. (Ltr., Harmon to Halsey, 20 Nov. 1942.)

19. Ltr., Harmon to Halsey, 20 Nov. 1942.

20. Ltr., Harmon to Arnold, 25 Nov. 1942.

21. Saunders interview.
22. Ltr., Lt. Corcoran Thom to Maj. Frank O. Brown, 7 Dec. 1942.
23. Ltr., Harmon to COMSOPAC, 22 Oct. 1942. The first squadron of New Zealand Hudsons arrived at Guadalcanal on 26 November 1942, thereby relieving the Marines' SBD's from much of their search responsibility. (MAG-14 War Diary, 16 Oct.-16 Dec. 1942.)
24. Interview with Capt. M. B. Gardner, USN, 13 Jan. 1943.
25. Extract from ltr., Saunders to AAFHQ, n.d. Apparently this letter was written shortly after 15 November.
26. Memo for King from Arnold, 2 Dec. 1942.
27. *Ibid.*
28. *Ibid.*
29. Ltr., Harmon to Arnold, 16 Dec. 1942.
30. Comment by Operational Plans, 30 Jan. 1943 (R&R, AC/AS A-3 to AC/AS A-2, 19 Jan. 1943). This is a draft of the reply to Harmon's letter of 31 December 1942.
31. On 14 November, Capt. James E. Joham sighted two large enemy task forces, and in the face of heavy anti-aircraft fire and fighter opposition, he identified all surface vessels composing the forces. This B-17 destroyed three enemy fighters, possibly two more, and reached its base with its tail surfaces all shot away. Two days earlier Lt. Mario Sesso had made a carrier contact 350 miles north of Guadalcanal and maintained it for two hours, shooting down six zeros in the action before returning safely. (History, 98th Bomb. Sq.; Foster B. Hailey, *Pacific Battle Line* [New York, 1944], p. 277; Lt. S. S. Savage, USNR, B-17 Performance, 19 Nov. 1942.)
32. Interview with Gen. Harmon and Gen. Twining, 31 Mar. 1943.
33. Ltr., Harmon to Arnold, 25 Nov. 1942.
34. *Ibid.*; ltr., Harmon to C/S Air Forces SOPAC, 29 Nov. 1942.
35. CM-IN-12983 (11-30-42), Harmon to Arnold, 1544, 30 Nov. 1942; ltr., Harmon to C/S, 29 Nov. 1942.
36. Interview with Brig. Gen. G. C. Jamison and Col. Brooke Allen, 13 Sept. 1943. General Jamison was a member of the USAFISPA staff; Colonel Allen commanded the 5th Bombardment Group (H).
37. Ltr., Harmon to Stratemeyer, 6 Dec. 1942.
38. CM-OUT-2160 (12-7-42), Marshall to Harmon, Rane 2292, 5 Dec. 1942.
39. R&R, AFROM to AFTSI thru AFMSC, 9 June 1942.
40. CM-IN-6223 (12-15-42), Harmon to Arnold, n.n., 14 Dec. 1942.
41. CM-OUT-5243 (12-15-42), Arnold to CGSPA, 2397, 15 Dec. 1942. This was authorized by AG 320.2 (12-11-42) OB-I-AF-M, 14 Dec. 1942. (Ltr., TAG to CGSPA, 4 Jan. 1943, AG 320.2 [12-31-42] OB-I-E.)
42. Ltr., TAG to CGSPA, 4 Jan. 1943; CM-IN-10498 (12-24-42), Harmon to Arnold, 252, 23 Dec. 1942.
43. CM-OUT-7940 (12-23-42), Arnold (AFDPU) to CGSPA, Rane 2511, 23 Dec. 1942.
44. CM-OUT-1661 (1-5-43), Marshall to Harmon, Rane 2679, 5 Jan. 1943; CM-OUT-2445 (1-7-43), Marshall to Harmon, Rane 2719, 7 Jan. 1943; CM-IN-2657 (1-6-43), Harmon to Arnold, 1003, 4 Jan. 1943; ltr., TAG to CGSPA, 4 Jan. 1943, AG 320.2 (12-31-42) OB-I-H. The orders left Washington on 5 January 1943.
45. Ltr., TAG to CGSPA, 4 Jan. 1943; memo for TAG, CGAAF, CGSOS from Gen. Handy, AC/S, 31 Dec. 1942.
46. Ltr., Harmon to Arnold, 31 Dec. 1942.
47. CM-IN-3371 (1-8-43), Harmon to Handy, 131, 7 Jan. 1943; CM-OUT-3187 (1-9-43), Marshall to Harmon, Rane 2753, 9 Jan. 1943; memo for TAG from Brig. Gen. J. E. Hull, Actg. AC/S, 13 May 1943; msg., TAG to CGSPA, 19 May 1943.
48. CM-IN-7560 (1-17-43), COMGEN-SOPAC to AGWAR, 1864, 15 Jan. 1943; Lt. Gen. M. F. Harmon, *The Army in the South Pacific*, p. 15.
49. Jamison and Allen interview.
50. Harmon, *The Army in the South Pacific*, p. 16.
51. Ltr., Marshall to Harmon, 7 July 1942.
52. CM-OUT-5607 (12-16-42), AFADS to CGHD, 1892, 16 Dec. 1942; CM-OUT-1808 (2-6-43), Transportation Corps (Somervell) to CGHD, 2681, 5 Feb. 1943.

53. Harmon, The Army in the South Pacific.

54. Ltr., Maj. C. E. Brooks and Francis E. Kraft to CGASC, 13 Feb. 1943. These two men were sent out from the AAF Air Service Command and reported at Tontouta on 3 February 1943. Their report, cited as Brooks and Kraft Report, is a detailed and valuable survey of supply problems in the South Pacific. (R&R, AC/AS A-4 to AFRBS, Transportation Div., 6 Jan. 1943; interview with Lt. Jonathan Poriss, 13 June 1943.) Lt. Poriss reached Efate on 2 August 1942 with the 482d Ordnance Company and subsequently was assigned to the 42d Bombardment Squadron (H) as ordnance officer.

55. R&R, AC/AS A-4 to AFRBS, Transportation Div., 6 Jan. 1943, and comment 2 by Transportation Div., 13 Jan. 1943.

56. *Ibid.*

57. Interview with Col. Rodieck, 14 Dec. 1942. It was later reported that at one time seventy-five engines were on a ship which was at Noumea waiting to unload a part of her cargo at that point. After three weeks' delay in unloading, it still was impossible either to unload at Noumea or to move the vessel up to Espiritu for delivery of the engines. (Interview with Maj. De Forest Van Slyck, 26 Mar. 1943.)

58. History, 67th Fighter Sq.; Brooks and Kraft Rpt. 5; CM-IN-3532 (11-8-42), Harmon to Arnold, 1151, 8 Nov. 1942. The original P-400 planes of the 67th Fighter Squadron were carried by truck from Noumea over the hills to Tontouta.

59. CM-IN-3532 (11-8-42), Harmon to Arnold, 1151, 8 Nov. 1942.

60. Ltr., Harmon to Arnold, 25 Nov. 1942.

61. Memo for C/S from Actg. AC/AS A-4, 11 July 1942; ltr., Harmon to Arnold, 21 July 1942.

62. R&R, AFDAS to AFADS, 17 July 1942; R&R, AFDPU to AFAEP, AFACT, AFADS, 12 Aug. 1942; R&R, AFASC-O to AFADS, 25 Aug. 1942; 1st ind. (basic unknown), Hq. ASC to CGAAF, 13 Oct. 1943; CM-OUT-664 (11-3-42), AFASC to Breene, 16, 2 Nov. 1942.

63. Ltr., Emmons to Marshall, 17 Sept. 1942; R&R, Arnold to Stratemeyer, 6 Oct. 1942.

64. CM-OUT-02691 (10-9-42), AFADS to CG Necal, 1639, 8 Oct. 1942; CM-OUT-08391 (10-24-42), OPD to Harmon, 1814, 24 Oct. 1942.

65. CM-IN-11059 (10-26-42), Harmon to Arnold, 806, 26 Oct. 1942; CM-OUT-08993 (10-27-42), OPD to COMGENSO-PAC, 1844, 26 Oct. 1942; CM-OUT-04579 (10-14-42), OPD to CGHD, 691, 14 Oct. 1942; CM-OUT-11114 (11-4-42), AFADS to Harmon, 1928, 4 Nov. 1942; ltr., Harmon to Arnold, 25 Nov. 1942. The units did not disembark until two to four days later.

66. CM-OUT-08747 (10-26-42), AFRBS to Harmon, 1827, 26 Oct. 1942; CM-IN-10011 (11-23-42), Harmon to Arnold, 1442, 23 Nov. 1942.

67. CM-OUT-3158 (1-9-43), Marshall to Harmon, Rane 2750, 9 Jan. 1943.

68. Brooks and Kraft Rpt. 5.

69. Incl. 12 (History, 13th Air Depot Gp.), Information Concerning Depot Supply, 13th Air Depot, AAF, 7 July 1943; History, 13th Depot Supply Sq.; Brooks and Kraft Rpt. 5.

70. Incl. 13 (History, 13th Air Depot Gp.), Information Concerning Thirteenth Depot Engineering Department, 2 July 1943.

71. Brooks and Kraft Rpt. 5.

72. *Ibid.*

73. Poriss interview.

74. Incls. 12 and 13, as cited above, n. 69 and 70; History, Hq. 38th Service Sq.

75. CM-IN-8010 (11-19-42), Harmon to AFTSC, 137, 18 Nov. 1942; CM-OUT-6395 (11-20-42), AFTSC to Harmon, 2105, 19 Nov. 1942; CM-IN-555 (2-2-43), Burnett to Marshall, 3019, 1 Feb. 1943; CM-IN-3139 (2-6-43), Harmon to AFTSC, 3643, 6 Feb. 1943; CM-OUT-2958 (2-9-43), AFTSC to CGSPA, Rane 3183, 9 Feb. 1943.

76. Ltr., Harmon to Arnold, 25 Nov. 1942.

77. The strip under construction at Aola Bay had been abandoned because of the presence of swamp land. (Capt. Charles W. Hedges, Special A-2 Rpt. to CG VII Fighter Comd., 2 Dec. 1942.)

78. Harmon, The Army in the South Pacific; Hq. Americal Div. GO 2F, 9 Dec.

1942; CM-IN-4198 (12-10-42), Harmon to Marshall, 1759, 10 Dec. 1942.

79. Narrative of Operations, Americal Div. at Guadalcanal, 28 May 1943; Merillat, *The Island*, p. 232; Miller, *Guadalcanal: The First Offensive*, pp. 190-220.

80. COMAIRSOPAC Intel. Bull. 20-21 Nov., 1-2 Dec. 1942; CM-IN-10693 (11-25-42), Harmon to Marshall, 1493, 24 Nov. 1942.

81. Operations of the 25th Infantry Div. on Guadalcanal, 17 Dec. 1942-5 Feb. 1943, n.d.; Miller, *Guadalcanal*, p. 218.

82. ONI, Battle of Tassafaronga, 30 Nov. 1942, pp. 1-2. The report for 23 November indicated only two cargo vessels in the Buin area, whereas the following day's report mounted to at least nine DD's and seven cargo vessels. (CM-IN-10395 [11-24-42], Harmon to Marshall, 1478, 24 Nov. 1942; CM-IN-10693 [11-25-42], Harmon to Marshall, 1493, 24 Nov. 1942; CM-IN-11432 [11-27-42], Harmon to Marshall, 1515, 26 Nov. 1942; CM-IN-12527 [11-29-42], Harmon to Marshall, 1569, 29 Nov. 1942.)

83. Battle of Tassafaronga, pp. 20-21; Detailed Account of Tokyo Express, 18 Nov. 1942-9 Feb. 1943, n.d.; Harmon, *The Army in the South Pacific*.

84. Harmon, *The Army in the South Pacific*.

85. Narrative of Opns., Americal Div. at Guadalcanal.

86. *Ibid.*; Miller, *Guadalcanal*, pp. 232 ff.

87. 2d Marine Aircraft Wing War Diary, 26 Dec. 1942, in USMC Hist. Div. (hereinafter cited as MAW-2 War Diary).

88. All pilots of the 67th Fighter Squadron had been sent back to New Caledonia by 22 December. They did not re-enter combat on Guadalcanal until 29 January. (History, 67th Fighter Sq.) The first complete AAF squadron to base on Guadalcanal was the 68th, whose final detachments came in on 8 December. (History, 68th Fighter Sq.)

89. MAW-2 War Diary, 29 Dec. 1942, 3-4 Jan. 1943.

90. Maj. Frank O. Brown, Report on Activities in South Pacific Area; CM-IN-5408 (1-12-43), Harmon to Marshall, 1531, 11 Jan. 1943; MAW-2 War Diary, 10 Jan. 1943; CM-IN-5489 (1-12-43), Harmon to Marshall, 1653, 13 Jan. 1943; CM-IN-6410 (1-14-43), Harmon to Marshall, 1799, 14

Jan. 1943; CM-IN-7439 (1-16-43), Harmon to Marshall, 1953, 16 Jan. 1943; CM-IN-8117 (1-18-43), Harmon to Marshall, 2029, 17 Jan. 1943.

91. Opns. of the 25th Inf. Div. on Guadalcanal; Brown, Report on Activities in SPA; CM-IN-6410 (1-14-43), Harmon to Marshall, 1799, 14 Jan. 1943; History, 42d Bomb. Sq.

92. History, 42d Bomb. Sq.; CM-IN-6410 (1-14-43), Harmon to Marshall, 1799, 14 Jan. 1943; CM-IN-7439 (1-16-43), Harmon to Marshall, 1953, 16 Jan. 1943; Brown, Report on Activities in SPA; MAW-2 War Diary, 17 Jan. 1943.

93. Opns. of the 25th Inf. Div. on Guadalcanal; Miller, *Guadalcanal*, pp. 327-32. General Harmon reported capture of Kokumbona as of 24 January. (CM-IN-11714 [1-25-43], Harmon to Marshall, 2643, 25 Jan. 1943.)

94. Harmon, *The Army in the South Pacific*; Narrative of Opns., Americal Div. at Guadalcanal; CM-IN-4845 (2-10-43), Harmon to Marshall, 3881, 9 Feb. 1943.

95. COMAIRSOPAC Intel. Bull., 23 Nov. 1942; CM-IN-12527 (11-29-42), Harmon to Marshall, 1569, 29 Nov. 1942; CM-IN-9736 (2-19-43), COMGENSOPAC to Strong, 4370, 16 Feb. 1943.

96. Joint Hq. 5th and 11th Bomb. Gps. Periodic Intel. Rpt., 1-31 Dec. 1942; Hq. 1st Marine Div. Daily Intel. Sums., 7 Nov.-7 Dec. 1942; CM-IN-4038 (12-10-42), Harmon to Marshall, 1770, 8 Dec. 1942.

97. History, 11th Bomb. Gp.; Joint Hq. 5th and 11th Bomb. Gps., Periodic Intel. Rpt., 1-31 Dec. 1942; CM-IN-5462 (12-13-42), Harmon to Marshall, 1829, 11 Dec. 1942; History, 98th Bomb. Sq.

98. Joint Hq. 5th and 11th Bomb. Gps. Periodic Intel. Rpt., 1-31 Dec. 1942.

99. *Ibid.*

100. Americal Div. G-3 Journal file, 17 Dec. 1942-6 Jan. 1943; CM-IN-11057 (12-26-42), Harmon to Marshall, 477, 25 Dec. 1942.

101. History, 339th Ftr. Sq.; interview with Lt. J. A. Lynch, 12 Feb. 1943. Lieutenant Lynch was on Guadalcanal from 1 December 1942 to 28 January 1943 as a member of the 68th Fighter Squadron. (Americal Div. G-3 Journal file, 17-24 Dec. 1942; Capt. Charles W. Hedges, Special A-2 Rpt. to CG VII Ftr. Comd., 26 Jan. 1943.)

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102. Americal Div. G-3 Journal file, 17-24 Dec. 1942; ltr., Col. Wentworth Goss, DC/S 7th AF to Arnold, 10 Jan. 1943; memo for Stratemeyer from Saville, Dir. of Air Defense, 5 Feb. 1943; History, Det. B, 6th Night Ftr. Sq.

103. History, 339th Ftr. Sq.; Hq. USAFISPA G-2 Periodic Rpt. 2, 24-31 Jan. 1943.

104. Ltr., Harmon to Arnold, 31 Dec. 1942 (P.S. dtd. 2 Jan. 1943).

105. Hedges Special A-2 Rpt., 26 Jan. 1943.

106. Ltr., Harmon to Arnold, 16 Dec. 1942; History, 69th Bomb. Sq.; naval communication in Americal Div. G-3 Journal file, 30 Dec. 1942-6 Jan. 1943.

107. Memo for Hanley from Harmon, 8 Dec. 1942; Lt. Col. Frederick J. Freese, Jr., MC, Status Report on Medical Department Officers in Thirteenth Air Force and in Other AAF Units in SPA, as of 9 April 1943 (hereinafter cited as Freese Rpt.). Colonel Freese was assistant air surgeon at USAFISPA before he became air surgeon at the Thirteenth Air Force.

108. The air surgeon of the Thirteenth Air Force estimated that of the entire 11th Group less than ten flying officers could pass the standard AAF "64" physical examination. (Capt. E. T. Keller, MC, Report on Solomon Island Tour of Duty, 28 May, 1943; Freese Rpt.)

109. Ltr., Harmon to Arnold, 31 Dec. 1942; memo for Stratemeyer from Arnold, 31 Dec. 1942; CM-OUT-7252 (12-21-42), AFRDB to Harmon, 2482, 20 Dec. 1942; CM-IN-2970 (1-7-43), Harmon to Arnold, 1217, 7 Jan. 1943. The flight surgeon stated that anything short of immediate relief for the 11th Group would leave over half the flying officers of the group unfit for further useful service. (Freese Rpt.)

110. Ltr., Harmon to Arnold, 17 Dec. 1942; CM-OUT-7252 (12-21-42), AFRDB to Harmon, 2482, 20 Dec. 1942; Growth of Heavy and Medium Bombardment Units in the Seventh Air Force, 7 Dec. 1941-31 Aug. 1944.

111. History, 11th Bomb. Gp. In recognition of its work in the South Pacific, the group was awarded a Presidential Citation on 23 January 1943. (Incl. 8 [History, 98th Bomb. Sq.], WDGO 4, 23 Jan. 1943.)

112. Memo for CGAAF from Handy, AC/S OPD, 31 Dec. 1942. The basic agree-

ment had been reached on 22 October 1942.

113. Ltr., Arnold to Harmon, 7 Dec. 1942. Total unit strength was to remain the same by 1 April 1943 except that the number of fighters would rise to 200. The lag in shipment is shown by this table:

Type	JCS	In Theater
	Commitment	30 Dec. 1942
HB	70	47
MB	52	26
Fighters	150	158

114. *Ibid.*; ltr., Harmon to Arnold, 31 Dec. 1942.

115. R&R, Arnold to Anderson, 7 Dec. 1942, with incl., msg., COMSOPAC to CINCPAC, 046459 NCR 4115, 6 Dec. 1942, and comment 2, Anderson to Arnold, 9 Jan. 1943.

116. Memo for C/AS from Col. Robert W. Harper, 14 Jan. 1943; History, 69th Bomb. Sq.; CM-OUT-7752 (2-21-43), Marshall to Harmon, Rane 3393, 20 Feb. 1943; comment 2 (R&R, AAG to AC/AS A-3, 20 Feb. 1943), AC/AS A-3 to AAG, 22 Feb. 1943; ltr., TAG to CGSWPA and SOPAC, 26 Feb. 1943, AG 320.2 (2-24-43) OB-I-AFDPU-M. The 105 officers and 568 enlisted men of the new units debarked from the *Maui* at Noumea on 16 April 1943. (History, 42d Bomb. Gp.; History, 390th Bomb. Sq.)

117. CM-IN-7637 (2-15-43), Harmon to Stratemeyer, 4423, 15 Feb. 1943; CM-IN-7645 (2-15-43), Harmon to Arnold, 4422, 15 Feb. 1942.

118. Ltr., Stratemeyer to Harmon, 6 Feb. 1943.

119. CM-IN-4918 (2-10-43), Harmon to Marshall, 3922, 10 Feb. 1943; Americal Div. G-3 Journal, 6-14 Feb. 1943; Narrative of Opns., Americal Div. at Guadalcanal, 28 May 1943; Opns. of the 25th Inf. Div. on Guadalcanal, 17 Dec. 1942-5 Feb. 1943.

120. Harmon, The Army in the South Pacific; Maj. Gen. John H. Hester, Report of Occupation of the Russell Islands, 8 June 1943. The Russell strip was built by the 33d Seabee Battalion, aided by personnel of the 116th Engineer Battalion.

121. Hq. USAFISPA G-2 Periodic Rpt. 5, 13-20 Feb. 1943; Development of Jap Fields in the Solomons Area, 15 Dec. 1942-15 Feb. 1943, cited in U.S. Pacific Fleet,

SOPACFOR Air Combat Intel., 21-27 Feb. 1943; CM-IN-12514 (2-25-43), Harmon to Marshall, 4998, 24 Feb. 1943.

122. MAW-2 War Diary, 26 Dec. 1942. General Mulcahey replaced Brig. Gen. L. E. Woods, USMC.

123. Incl. (MAG-12 War Diary), Record of Events, Fighter Command, Guadalcanal, 1 Feb.-25 July 1943.

124. MAW-2 War Diary, 16 Feb. 1943. At the time of activation of COMAIRSOLS, composition of the air command was as follows: AAF-69th Bomb. Sq.; dets. of 12th, 44th, 67th, 68th, 70th, and 339th Ftr. Sqs., 5th, 11th, and 307th Bomb. Gps. (H), and 17th Photo Recon. Sq.; U.S. Navy-Forward Echelon (Hq.); 2d Marine Aircraft Wing; Hq. Sq.-14; Service Sq.-14; VMSB-131, 144, and 234, VMF-123, VS 4D-14, VCS Recon. 3 (RNZAF); VF-72, Patron 12 and 51, VTB-11, 12, and 16. (MAW-2 War Diary, 17 Feb. 1943.)

125. Harmon, The Army in the South Pacific.

126. Keller, Report on Solomon Island Tour of Duty; Freese Rpt.

127. Gardner interview; interview with Lt. Comdr. Leroy C. Simpler, USN, 26 Feb. 1943. Commander Simpler was on Guadalcanal from 13 September to 17 November 1942. When evacuated, all surviving pilots of Marine Aircraft Group 23 were incapable of rehabilitation in the South Pacific and were returned to the United States. (Ltr., Brig. Gen. Roy S. Geiger, CG MAW-1 to COMSOPAC, 15 Jan. 1943.)

128. Vice Adm. Shigeru Fukudome paid high tribute to the effectiveness of B-17 search operations, stating under interrogation by a U.S. naval officer that the heavy bombers disrupted Japanese communications in the Solomons even more than did Allied submarines. (USBS Intr. 503, Pt. 3, Vice Adm. S. Fukudome, 9 Dec. 1945, p. 44.)

NOTES TO CHAPTER 4

1. Dispatch from MacArthur, 30 Aug. 1942, in JCS 96, 31 Aug. 1942.

2. Memo for McNarney from Arnold, 20 July 1942.

3. JPS, 33d Mtg., 2 Sept. 1942; msg., Marshall to MacArthur, 31 Aug. 1942, in JCS 96.

4. CM-IN-0944 (9-3-42), CINCSWPA to C/S, C411, 3 Sept. 1942.

5. Ltr., Vasey to Chamberlin, 8 Sept. 1942, in GHQ G-3 Journal, 8 Sept. 1942; Report on Part Played by 30 Aus. Inf. Brig. in Owen Stanley Range . . . , *ibid.*, 18 Sept. 1943; Australian Mil. History Sec. Interrogation, 5 M.H. Fld. Team, Rabaul.

6. Allied Land Forces, SWPA, Operation Milne Bay, 24 Aug.-8 Sept. 1942, in GHQ G-3 Journal, 21 Oct. 1942; memo for CG Allied Land Forces from Maj. Gen. R. K. Sutherland, 12 June 1942, *ibid.*, 13 June 1942.

7. CM-IN-11398 (8-30-42), MacArthur to C/S, C382, 30 Aug. 1942; memo for CG Allied Land Forces, SWPA from Sutherland, 2 July 1942, in GHQ G-3 Journal, 3 July 1942; Allied Land Forces, SWPA, Operation Milne Bay . . . , *ibid.*, 21 Oct. 1942; Histories, 8th Ftr. Gp. and 8th Ftr. Control Sq.; CM-IN-7017 (8-19-42), CINCSWPA to C/S, C301, 19 Aug. 1942; CM-IN-3795 (8-11-42), CINCSWPA to C/S, C245, 11 Aug. 1942.

8. Daily Sum. of Enemy Intel. 135, 4/5 Aug., 137, 6/7 Aug., 148, 17/18 Aug., 153, 22/23 Aug., in GHQ G-3 Journal, 5, 7, 19, 23 Aug. 1942; Hq. Allied AF Operations Instruction 22, 17 Aug. 1942, *ibid.*, 18 Aug. 1942.

9. CM-IN-6597 (8-18-42), CINCSWPA to C/S, C291, 18 Aug. 1942; Allied AF Intel. Sum. 27, 21 Aug. 1942; Maj. Gen. C. A. Clowes, Report on Opns. Milne Force, 4 Oct. 1942, in GHQ G-3 Journal, 22 Oct. 1942; CM-IN-10171 (8-27-42), CINCSWPA to C/S, C357, 26 Aug. 1942. Reports on the size of the convoy were quite accurate. It actually consisted of two transports, two cruisers, and two corvettes. (Aus. Intr., 5 M.H. Fld. Team, Rabaul.)

10. C. A. Clowes, Milne Bay Operation, 25 Aug.-Sept. 1942. See also GHQ G-3 Journal, 25 Aug. 1942.

11. CM-IN-10171 (8-27-42), CINCSWPA to C/S, C357, 26 Aug. 1942. The Joint Army-Navy Assessment Committee has not been able to credit this claim. (Japanese Naval and Merchant Losses During World War II, Feb. 1947 [hereinafter cited as JANAC].)

12. *New York Times*, 16 Sept. 1942; Clowes Rpt.

13. CM-IN-10171 (8-27-42), CINCSWPA

SWPA to C/S, C357, 26 Aug. 1942; Daily Sum. of Enemy Intel. 156, 25/26 Aug. 1942.

14. CM-IN-10171 (8-27-42), CINCSWPA to C/S, C357, 26 Aug. 1942; "P-39's in New Guinea," in AFGIB 11 (Apr.-May 1943), p. 18; "Air Support at Milne Bay," *ibid.*, 7 (Dec. 1942).

15. Clowes; Milne Bay Operation; ltr., C. A. Clowes to Allied Commands, 8 Sept. 1942. The Japanese aimed first at seizing the landing strip; then, after cleaning up the Milne Bay area, occupying Samarai. (Daily Sum. of Enemy Intel. 164, 2/3 Sept. 1942. See also Dept. of Army Historical Div. manuscript study, Port Moresby to the Admiralties, by Samuel L. Milner.)

16. Note sgd. Chamberlin, in GHQ G-3 Journal. Most of the P-40's were temporarily withdrawn from Milne Bay on 28 August but returned on the following day.

17. Allied Land Forces, Operation Milne Bay.

18. AAF Historical Study 17, Air Action in the Papuan Campaign, 21 July 1942 to 23 January 1943, pp. 34-35; Clowes Rpt. The Allies suffered a major loss when Peter Turnbull, much decorated veteran and commander of 75 Squadron, scraped a palm tree and crashed.

19. GHQ Opns. Instrn. 18, 4 Sept. 1942, in GHQ G-3 Journal, 4 Sept. 1942.

20. Casualties in this campaign vary according to the source. Allied losses were approximately 161 killed and missing and 192 wounded. (Memo for C/S, 23 Oct. 1942, in GHQ G-3 Journal, 23 Oct. 1942; Allied Land Forces, Operation Milne Bay. See also Aus. Intr., 5 M.H. Fld. Team, Rabaul, and enemy sources cited in Dept. of Army Historical Div. manuscript study, Port Moresby to the Admiralties, by Samuel L. Milner.)

21. Kenney, *General Kenney Reports*, pp. 11-12, 34, 100.

22. Conference Called by General McNarney on 26 July to Consider General Richardson's Report, in OPD, SWPA, General MacArthur, Sept. 1942, Vol. V.

23. CM-IN-1752 (8-4-42), Brisbane to AGWAR, A201, 4 Aug. 1942; CM-IN-2682 (8-8-42), CINCSWPA to AGWAR, C216, 7 Aug. 1942; CM-OUT-2785 (8-9-42), AFCAS to CINCSWPA, 657, 9 Aug.

1942; GHQSWPA GO 28, 3 Sept. 1942; [Hq. Allied Air Forces] GO 46, 4 Sept. 1942.

24. Ltr., R. T. Nichols, Jr., to Dir., Allied Meteorological Services, 8 Oct. 1942; Hq. SWPA GO 47, 5 Sept. 1942; msg. 972, RAAF Comd. to all Areas, 23 Sept. 1942.

25. Unrecorded interview with Maj. M. J. Keane, March 1944.

26. Hq. 5th AF GO 3, 5 Sept. 1942.

27. Ltr., Kenney to Arnold, 28 May 1942.

28. Hq. 5th AF GO 3, 5 Sept. 1942; ltr., Kenney to Arnold, 28 Aug. 1942; CM-IN-6695 (9-16-42), MacArthur to Marshall, C501, 16 Sept. 1942; ltr., Whitehead to CG 5th AF, 25 Oct. 1942; statement by Col. William Hipps to author.

29. See unit histories and cable status reports. The three fighter groups were the 8th, 35th, and 49th.

30. CM-OUT-7532 (6-29-42), HHA to CINCSWPA, 308, 29 June 1942. Cf. cable status reports.

31. Memo for record, in OPD 452.1, PTO; CM-OUT-3042 (8-10-42), Marshall to CINCSWPA, 690, 10 Aug. 1942; CM-IN-5009 (8-14-42), MacArthur to C/S, C261, 14 Aug. 1942; Kenney, *General Kenney Reports*, pp. 121-22, 128, 186, 243.

32. Memo for record, 28 Aug. 1942, in OPD, 452.1, Australia (8-28-42).

33. Cf. cable status reports with the enemy air order of battle listed in Intel. Sums.

34. Ltrs., Kenney to Arnold, 28 Aug. and 24 Oct. 1942.

35. Interview with Capt. J. R. Donnelly, 4 Oct. 1943; interview with Maj. C. M. Diehl, 8 July 1943; interview with Clarence F. Barnes.

36. Ltr., Kenney to Arnold, 28 Aug. 1942.

37. CM-IN-3169 (10-8-42), Hq. AAF-SWPA to CGAAF, A706, 8 Oct. 1942; CM-OUT-04038 (10-13-42), ASC to CINCSWPA for Kenney, 2613, 12 Oct. 1942; CM-IN-7049 (11-16-42), Brisbane to WAR, A1099, 16 Nov. 1942.

38. CM-IN-04199 (10-10-42), Brisbane to CGAAF, A736, 10 Oct. 1942; CM-OUT-2104 (11-7-42), Hq. ASC to CINCSWPA, 3427, 6 Nov. 1942; CM-IN-7868 (11-18-42), Brisbane to WAR, A1118, 18 Nov. 1942.

39. CM-IN, Brisbane to WAR: 3026

(9-8-42), 8 Sept.; 13254 (10-31-42), A959, 31 Oct.; 3286 (12-8-42), A1291, 8 Dec. 1942.

40. Ltr., Brig. Gen. T. J. Hanley, Jr., AC/AS A-4 to CGASC, 12 Sept. 1942, and 1st ind., ASC to CGAAF (AFADS), 13 Oct. 1942. There was some feeling among American airmen that the Australians lacked an understanding of the American motor and that engines reconditioned by Australians were unsatisfactory. (Interview with Capt. Vincent L. Snyder, Engineer Officer of 19th Bomb Gp., 5 Dec. 1942; interview with Lt. Gerald J. Dix, 10 Dec. 1942.)

41. History, V Air Service Area Comd.; ltr., Kenney to Arnold, 28 Aug. 1942.

42. Station List, 14 July 1942. See also History, 4th Air Depot Gp.

43. AAF 201 Files, Kenney. See also Kenney, *General Kenney Reports*, *passim*.

44. The redesignation occurred on 27 September, and Connell took over on 18 October. (History, V ASAC.)

45. History, V ASAC.

46. *Ibid.*

47. History, 4th Air Depot Gp.; Hq. 5th AF GO 56, 24 Dec. 1942, in History, V ASAC, incl. 7. On 20 Oct. 1942, Bertrandias replaced Benner as Air Service Command representative for the Townsville area, and with the establishment of the Advance Echelon, Air Service Command, Fifth Air Force, at Townsville on 26 Jan. 1943, became its commander.

48. History of the Fifth Air Force Service Command in New Guinea.

49. *Ibid.*, History, 8th Service Gp.

50. History, 27th Depot Repair Sq.

51. *Ibid.*

52. History, V ASAC.

53. History, 30th Service Sq.

54. Unrecorded interview with Col. William Hipps, one-time operations officer with ADVON, Apr. 1945; interview with Col. John Davies, CO, 3d Bomb Gp.; GHQSWPA GO 34, 15 Sept. 1942. Kenney received a Purple Heart for his part in the development and employment of parafrags.

55. CM-IN-11937 (11-28-42), Brisbane to WAR, A1193, 27 Nov. 1942; memo for General Handy from Col. Walter E. Todd, Actg. Chief, SWP Gp., OPD, 12 Sept. 1942; CM-IN-9230 (2-21-42), Brisbane to WAR, C547, 21 Sept. 1942.

56. CM-OUT-0816-0823, book msg. sgd. Arnold, 337, 3 July 1942; ltr., Stratemeyer to Kenney [10 Sept. 1942]; CM-OUT-5590 (6-23-42), AC/AS A-4 to USAFIA, 2304, 22 June 1942.

57. Kenney, *General Kenney Reports*, pp. 21-22, 63-64, 105; extract of ltr., Benn to 5th AF Hq., 21 Nov. 1942, in History, 43d Bomb Gp.

58. CM-IN-5652 (8-15-42), Hq. AAF-SWPA to CGAAF, A288, 15 Aug. 1942.

59. CM-IN-07806 (10-18-42), Brisbane to WAR, A818, 18 Oct. 1942; 5th AF ADVON, Report by Ordnance Officer, 23 Jan. 1943; ltr., Eubank to H. K. Ramey, V BC, 6 Mar. 1943; CM-OUT-3751 (3-11-43), Hq. AAF AFRBS to CINCSWPA, 1859, 10 Mar. 1943.

60. CM-IN-2629 (10-7-42), Brisbane to WAR, C642, 6 Oct. 1942; CM-IN-8098 (9-19-42), SWPA to WAR, C517, 18 Sept. 1942; CM-IN-8620 (9-20-42), SWPA to WAR, C528, 19 Sept. 1942; History, 38th Bomb Gp.

61. George Henry Johnston, *The Toughest Fighting in the World* (New York, 1943), pp. 140-43; *New York Times*, 29 Sept., 4 Oct., 18 Oct., 3 Nov. 1942; CM-IN-12825 (9-29-42), Brisbane to WAR, C595, 29 Sept. 1942; Allied AF Intel. Sums. 38, 42, 48, for 29 Sept., 13 Oct., 4 Nov. 1942. See also cable opns. rpts., 12-21 Oct. 1942.

62. *New York Times*, 10 and 11 Sept. 1942; Johnston, *Toughest Fighting in the World*, 137, 139-40; E. J. Kahn, "Terrible Days of Company E," *Saturday Evening Post*, 8 Jan. 1944, p. 2; CM-IN-7018 (9-17-42), Australia to WAR, C506, 16 Sept. 1942; History, Dir. of Air Transport, Allied AF.

63. "P-39's in New Guinea," in AFGIB 11 (Apr.-May 1943), p. 18; "War Record of the A-20," in AFGIB 12 (June 1943), pp. 36-38; CM-IN-5557 (9-13-42), CINCSWPA to C/S, C485, 13 Sept. 1942; Davies interview; GHQSWPA GO 34, 15 Sept. 1942.

64. AAF Historical Study 17, Air Action in the Papuan Campaign, p. 47. See particularly Polifka interview; History, 8th Photo Sq.; and Aus. Intr., 5 M.H. Fld. Team, Rabaul.

65. Summary made from Allied AF Intel. Sums., Sept. and Oct. 1942, pp. 34-38.

66. CM-IN-07523 (10-18-42), Brisbane to WAR, C731, 17 Oct. 1942.

67. R&R, AFRDB to AFDMR, 28 July 1942; ltr., Arnold to Kenney, 10 Sept. 1942; CM-OUT-1409 (10-5-42), AC/AS A-3 to CINCSWPA, 2396, 4 Oct. 1942; memo for C/S from CGAAF, 18 Oct. 1942; R&R, AFDAS to AFABI, 8 Oct. 1942.

68. CM-IN-11063 (10-26-42), Brisbane to WAR, C814, 26 Oct. 1942; CM-OUT-09002 (10-27-42), OPD to CINCSWPA, 3072, 27 Oct. 1942; Marshall (OPD) to MacArthur, 3989, 25 Nov. 1942.

69. CM-IN-04326 (10-10-42), Australia to WAR, C672, 10 Oct. 1942; CM-IN-04744 (10-11-42), Brisbane to WAR, C681, 11 Oct. 1942; interview with Maj. Felix Hardison, in interview with Col. Richard Carmichael and members of the 19th Gp., 5 Dec. 1942.

70. Diary of Lt. Col. John A. Rouse, 1-10 Oct. 1942; Hq. 5th AF GO 45, 8 Dec. 1942; Allied AF Intel. Sums.; Diary of Capt. Cecil C. Knudson, 13 Oct. 1942, in History, 19th Bomb. Gp.; CM-IN-06465 (10-15-42), Australia to WAR, C707, 14 Oct. 1942.

71. Allied AF Intel. Sums. 44 and 46, 21 and 28 Oct. 1942; Hq. SWPA GO 48, 6 Nov. 1942. See especially JANAC. The 43d Group history claims one destroyer sunk.

72. See Allied AF Intel. Sums. for Oct. 1942. See also JANAC. On 9/10 October, Allied intelligence found some seventy-one fighters at Lakunai and forty-nine ships in Rabaul harbor.

73. Paraphrased msg. quoted in CM-IN-10698 (10-25-42), Brisbane to WAR, C808, 25 Oct. 1942. See also Navy Communiqué, 16 Nov. 1942; CM-IN-07523 (10-18-42), Brisbane to WAR, C731, 17 Oct. 1942.

74. Memo for C/S USA from CINCUS, 26 Oct. 1942 and memo for CINCUS from C/S, 27 Oct. 1942; memo for Arnold by G.C.M., 29 Oct. 1942; Plans Div. Digest, 1 Nov. 1942. Marshall first requested MacArthur to send the P-38's immediately and to be prepared to provide replacements. (CM-OUT-09002 [10-27-42], OPD to CINCSWPA, 3072, 27 Oct. 1942.)

75. Ltr., MacArthur to CG Allied Land Forces, 11 Sept. 1942, and msg., MacArthur to Walker for Blamey, 27 Sept.

1942, in GHQ G-3 Journal, 11 and 27 Sept. 1942.

76. Msg., MacArthur to Walker for Blamey, 27 Sept. 1942.

77. Report of CG Buna Forces, p. 45; ltr., Brig. Gen. Donald Wilson to DCO 5th AF, 4 Oct. 1942.

78. See discussion of feud between Gatty and the AAF Air Transport Command over control of both inter- and intra-theater air transport. (Air Transport Command in the Southwest Pacific, 7 Dec. 1941-1 Aug. 1944.) There was some criticism of USASOS at this time because its air supply activities were not coordinated with the directorate. (History, Dir. of Air Transport; CM-IN-7298 [9-17-42], MacArthur to WAR, C502, 16 Sept. 1942.)

79. Memos for CGAAF from OPD, 10 and 17 Sept. 1942; and R&R, AFCAS to AFAEP, 19 Sept. 1942.

80. Histories, 6th and 33d Troop Carrier Sqs.; Hq. 5th AF GO 32, 1 Nov. 1942.

81. Ltr., Kenney to Arnold, 24 Oct. 1942; msg., MacArthur to Walker for Blamey, 30 Sept. 1942, in GHQ G-3 Journal, 30 Sept. 1942.

82. Msgs., Blamey to MacArthur, 1 and 2 Oct. 1942, in GHQ G-3 Journal, 2 Oct. 1942.

83. Msgs., Blamey to MacArthur, 29 Sept. 1942, and MacArthur to Blamey, 30 Sept., 1 Oct., 2 Oct. 1942, in GHQ G-3 Journal, 29 Sept., 1 Oct., 2 Oct. 1942; ltr., Hq. 5th AF to CGASC, 3 Oct. 1942; msg., CG 5th AF to ADVON *et al.*, 2 Oct. 1942.

84. Ltr., Blamey to MacArthur, 5 Oct. 1942, in GHQ G-3 Journal. It should be noted that despite the decision to push HATRACK the 7th Independent Company was flown to Wau before 11 October. (Msgs., Blamey to MacArthur, 4 Oct., MacArthur to Blamey, 5 Oct. 1942, and ALFSWPA Daily Opns. Rpt. 180, 11 Oct. 1942, in GHQ G-3 Journal, 5 and 11 Oct. 1942.)

85. Report of Activities of 32d Div. Quartermaster during the Buna Campaign, 15 Apr. 1943; Report of Activities of G-4, Rear Echelon, 32d Div. in Papuan Campaign, 10 Apr. 1943 (hereinafter cited as 32d Div. G-4 Rpt.).

86. Radio msg. 5, 19 Oct. 1942, sgd. Downer; msg., sgd. Jim to Col. Quinn,

30 Sept. 1942, in 32d Div. Trail Opns., Buna Campaign.

87. 32d Div. G-4 Rpt.; msg., sgd. Jim to Col. Quinn, 30 Sept. 1942, in 32d Div. Trail Opns., Buna Campaign; Basic Report of the 32d Div. on the Papuan Campaign; unrecorded interviews with Maj. S. S. Terry, Capt. R. B. Kenney, and Col. William Hipps; History, 22d TC Sq.

88. Histories, 6th, 21st, 22d, 33d TC Sqs. Perhaps the most disastrous accident occurred on 5 November. As a package was pushed overboard, the chute caught the tail assembly of a C-47 and it crashed, killing all eight occupants including Col. Lawrence A. Quinn, CO of the 126th Regt. (Basic Rpt. of 32d Div.; Rpt. of 126th Regt.) It should be noted also that seven of the lost planes belonged to the squadrons which had only recently reached New Guinea, and were probably flown by inexperienced crews.

89. Johnston, *Toughest Fighting in the World*, p. 150; Report of Engineer Opns. in the Papuan Campaign, Hq. 114th Engrs. to CG 32d Div., 16 Apr. 1943; ALFSWPA Daily Opns. Rpt. 175, 6 Oct., and ltr., Blamey to MacArthur, 7 Oct., in GHQ G-3 Journal, 6 and 8 Oct. 1942.

90. History, 8th Ftr. Gp.

91. Ltr., Harding to Sutherland, 12 Oct. 1942, in GHQ G-3 Journal, 12 Oct. 1942.

92. Ltr., Harding to Sutherland, 20 Oct. 1942, in GHQ G-3 Journal, 27 Oct. 1942; 32d Div. G-4 Rpt.

93. Ltr., Harding to Sutherland, 20 Oct. 1942; Basic Rpt. of 32d Div.; Rpt. of 128th Regt.; Report of Attack by Unidentified Bomber at Pongani, New Guinea, Sunday, 18 Oct. 1942, in 32d Div. Records.

94. Ltr., Harding to Sutherland, 20 Oct. 1942; Basic Rpt. of 32d Div.; Rpts. of 126th and 128th Regts.

95. Msgs., Blamey to MacArthur, 12 Oct. 1942, and MacArthur to Blamey, 15 Oct. 1942; msg., NGF to GHQ, 23 Oct. 1942; GHQ Opns. Instrn. 24, 22 Nov. 1942, all in GHQ G-3 Journal, 15 Oct., 23 Oct., 27 Dec. 1942; USSBS, *Employment of Forces under the Southwest Pacific Command*, 14.

96. Allied AF, Gulliver Plan; ltr., Kenney to MacArthur, 2 Nov. 1942, in GHQ G-3 Journal, 3 Nov. 1942.

97. Incl. 1 (ltr., Kenney to Arnold, 24 Oct. 1942).

98. NGF Administrative Instrn. 27, 26 Oct. 1942, in 32d Div. G-2 and G-3 Journals, Buna Campaign; Basic Report of 32d Div. on Papuan Campaign.

99. Ltr., Harding to MacNider, 21 Oct. 1942 in 32d Div. G-2 and G-3 Journals; Basic Rpt. of 32d Div.; Maj. Parker C. Hardin, History of the 22d Portable Hospital, 9 Feb. 1943, in 32d Div. Records, Buna Campaign; msg., Harding to Lt. Moon, 1591, 27 Nov. 1942, in 32d Div. G-2 and G-3 Journals.

100. Basic Rpt. of 32d Div.; Rpt. of 114th Engrs.; msg., Eichelberger to NGF, 2 Dec. 1942, in 32d Div. Rear Echelon G-4 Journal of Msgs., Port Moresby; msg. 01886, 16 Dec. 1942, in 32d Div. G-3 Journal; Rpt. of 113th Engrs.; History, 35th Ftr. Gp.

101. For more details on the land dispositions and operations, see MID, *Papuan Campaign, the Buna-Sanananda Operation*, 16 Nov. 1942-23 Jan. 1943.

102. 32d Div. G-4 Rpt.; NGF Instrn. 6, 18 Dec. 1942, in 32d Div. G-3 Journal.

103. Tactics for Escort of Transports (SWPA), in Informational Intel. Sum., 30 Mar. 1944. The plan was for full squadrons of fighters to replace each other over the area in shifts.

104. *Ibid.*; Johnston, *Toughest Fighting in the World*, p. 152; msg. Q1361, NGF to 32d Div., 1 Dec. 1942, in 32d Div. G-3 Journal; msg., Harding to NGF, 2 Dec. 1942, in G-4 Journal of Msgs., Rear Echelon, Port Moresby; Activities of the 107th QM Det., 32d QM Co., at Dobodura, 27 Mar. 1943, in 32d Div. Records.

105. Basic Rpt. of 32d Div.

106. *Ibid.*, 32d Div. Rear Echelon G-4, Record of Air Shipments, 14 Nov. 1942-4 Jan. 1943.

107. Ltr., Kenney to Arnold, 14 Dec. 1942; Rpt. of CG Buna Forces, pp. 74-75; Hq. 120th Field Artillery Bn., 32d Div., History of the Artillery in the Buna Campaign, 23 Apr. 1943.

108. Memo for Gen. Anderson sgd. AW, 15 Dec. 1942.

109. Basic Rpt. of 32d Div.; Hq. 32d Div. G-1, Report of Action, Papuan Campaign, 27 Apr. 1943. These figures do not include Australians. But Kenney wrote on 1 January that the air force had evacuated "around 6,000 men from the north

coast." (Ltr., Kenney to Arnold, 1 Jan. 1943.)

110. See for example the histories of the 3d, 38th, and 43d Bombardment Groups for these months; and Kenney interview.

111. Combat diary of 63d Squadron. One of these destroyers was sunk. (See JANAC.)

112. Although these figures must be used with some caution, they were obtained by careful questioning and are probably as reliable as any available. (Aus. Intr., 5 M.H. Fld. Team, Rabaul.)

113. Brisbane to WAR: CM-IN-837 (12-2-42), C1119, 2 Dec. 1942; CM-IN-1155 (12-3-42), C1127, 3 Dec. 1942; CM-IN-3827 (12-9-42), C1184, 9 Dec. 1942; CM-IN-5564 (12-13-42), C1216, 13 Dec. 1942; CM-IN-6029 (12-14-42), C1223, 14 Dec. 1942; CM-IN-8409 (12-19-42), C1274, 19 Dec. 1942; CM-IN-9053 (12-21-42), C1283, 20 Dec. 1942; CM-IN-6493 (12-15-42), Port Moresby to WAR, C1235, 15 Dec. 1942.

114. Report of CG Buna Forces, pp. 16-17, 96-98.

115. Basic Rpt. of 32d Div.

116. Hq. 32d Div. instruction, 4 Nov. 1942, in 32 Div. G-3 Journal, Buna Campaign; interview with Capt. George A. Hilbert, Jr.

117. CM-IN-9460 (11-22-42), Brisbane to WAR, Q4241, 22 Nov. 1942; msg. 1135, Harding to NGF, 22 Nov. 1942, in 32d Div. G-2 and G-3 Journals; Basic Rpt. of 32d Div.

118. NGF GS Instrn. 5, 18 Dec. 1942, in 32d Div. G-3 Journal; Rpt. of CG Buna Forces, p. 75; memo for Ground General and Special Staff Secs. by Col. Gordon B. Rogers, 25 Aug. 1943; msg. 0183 Adv. NGF, 10 Dec. 1942, in 32d Div. G-2 Journal.

119. Msgs. NGF to 32d Div., 5 and 8 Dec. 1942 in 32d Div. G-2 Journal; msg. 014, Adv. NGF to 32d Div., 30 Nov. 1942; msg. 0182, NGF to 7th and 32d Div., 10 Dec. 1942; msg., Adv. NGF to 32d Div., 19 Dec. 1942; msg., O'Loan to G-2, 1 Jan. 1943; msg., Beaver to G-3, 22 Dec. 1942; msg., NGF to G-2, 26 Dec. 1942, all in 32d Div. G-3 Journal; E. J. Kahn, *G.I. Jungle: An American Soldier in Australia and New Guinea* (New York, 1943), p. 87.

120. One spearhead did isolate Buna

Village. (Report of CG Buna Forces, p. 21.) General Blamey, concerned over the slowness of the advance, was pressing MacArthur to furnish two destroyers and corvettes to move amphibious troops behind the Japanese lines. (Ltr., Blamey to MacArthur, 8 Dec. 1942, in GHQ G-3 Journal, 8 Dec. 1942.)

121. CM-IN-3106 (12-8-42), Australia to WAR, P419, 7 Dec. 1942. These Australian troops, the 21st Infantry Brigade, had been transported from Port Moresby to Popengetta by air.

122. From 2 to 19 December, the 2d Battalion of the 126th Regiment had decreased in effective strength from 14 officers and 472 men to 5 officers and 200 men. (G-1 Report, in Report of CG Buna Forces, p. 51; Report of Action, Hq. 127th Inf. to CG 32d Div., 26 Apr. 1943.)

123. CM-IN-4120 (12-10-42), Brisbane to WAR, C1193, 10 Dec. 1942; CM-IN-4609 (12-11-42), Brisbane to WAR, C1199, 11 Dec. 1942.

124. Report of CG Buna Forces, p. 24.

125. Msg. 2725, Col. J. S. Bradley, Hq. Buna Forces to Brig. Hopkins, 10 Dec. 1942, in 32d Div. G-3 Journal.

126. Msg., R. Land to CG 32d Div., 24 Nov. 1942, in 32d Div. G-2 and G-3 Journals.

127. "P-39's in New Guinea," in AFGIB 11 (Apr.-May 1943), p. 20.

128. CM-IN-11990 (12-28-42), Brisbane to WAR, C1361, 28 Dec. 1942; Reports of P-38 pilots from 39th Sq. attached to ltr., Kenney to Arnold, 1 Jan. 1943; History, 39th Ftr. Sq.; ltr., Whitehead to Stratemeyer, 28 Dec. 1942. On 26 November a radio had been installed at Dobodura and was used at this time to summon the P-38's.

129. Msg., 32d Div. to 7 Australian Div., etc., 7 Nov. 1942, in G-2 and G-3 Journals, Buna Campaign; NGF GS Instrn. 3, 9 Dec. 1942, in 32d Div. G-3 Journal, Buna Campaign. Prior to this, confusion resulted from the fact that requests were directed to the wrong headquarters and often contained insufficient information. (Msg., NGF to 32d Div., 5 Dec. 1942; msg. Adv. NGF to 7 Australian Div., etc., 6 Dec. 1942, in 32d Div. G-3 Journal, Buna Campaign.)

130. NGF GS Instrn. 6, 19 Dec. 1942, in 32d Div. G-3 Journal, Buna Campaign.

131. NGF Opnl. Instn. 58, 4 Jan. 1943, in 32d Div. G-3 Journal; AAFHS-17, p. 95.

132. Msg., Adv. NGF to NGF, 0639, 13 Jan. 1943, in 32d Div. G-3 Journal.

133. See for a more detailed account of these last weeks *The Papuan Campaign: The Buna-Sanananda Operation*, pp. 70-80.

134. Report for CG Hawaiian Dept. from Maj. Frank O. Brown, Ground Air Support in New Guinea, 27 Apr. 1943; Basic Rpt. of 32d Div.

135. 1st Bn., 128th Regt. Journal, 3 Dec. 1942; Basic Rpt. of 32d Div.; msg., Col. Bradley to Col. Howe, 3371, 20 Dec. 1942, in 32d Div. G-3 Journal, Buna Campaign; msg., Capt. Hewitt to Maj. Hawkins, 6 Jan. 1943, in 32d Div. G-2 Journal, Buna Campaign; Lt. Col. O. A. Kessels, Report on Operations in New Guinea, the Sanananda Area, 2 Dec. 1942-Jan. 1943, in GHQ G-3 Journal, 22 Jan. 1943.

136. It is unlikely that more than the following vessels above 500 tons were sunk by Allied planes from the SWPA from July through December 1942: the *Ayatsosan Maru*, a 9,788-ton transport sunk off Buna on 22 July; the destroyer *Yayoi* sunk east of Normanby Island on 11 Sept. 1942; the 720-ton converted net-tender *Kotobuki Maru* No. 5 sunk at Rabaul on 25 Oct. 1942; the 6,710-ton passenger cargo vessel *Yasukawa Maru* sunk from a convoy south of New Britain on 2 Nov. 1942; the 5,652-ton passenger cargo vessel *Havana Maru* sunk between Gona and Cape Ward Hunt on 18 Nov. 1942; the destroyer *Hayashio* sunk between Lae and Finschhafen on 24 Nov. 1942; the 515-ton *Tama Maru* No. 2 sunk in Arawe harbor on 24 Dec. 1942; the 5,859-ton *Italy Maru* and the 3,108-ton *Tsurugisan Maru* sunk at Rabaul on 27 Dec. 1942; and the 3,821-ton *Tomimura Maru* sunk at Rabaul on 30 Dec. 1942. (See JANAC.) However, as a commentary on this list, General Kenney suggests additions and changes as follows: *Shimanogawa Maru* (7,506 tons) sunk off Shortland Island by Fifth Air Force, 14 Nov.; *Havana Maru* (5,652 tons) sunk at Buin by Fifth AF, 18 Nov.; cruiser *Tenryu* sunk off Madang by B-17's of the 43d Group, 18 Dec. (Navy report to USSBS claims *Tenryu* as sunk by submarine, but subs did not

go into Madang harbor); *Koa Maru* (623 tons) sunk in Marcus Bay near Arawe, New Britain, 24 Dec.; *Tama Maru* was sunk the same day in Gasmata harbor, not Arawe, as above; *Koyoku* or *Kotoku Maru* (6,701 tons) sunk off Buna by B-17's, 30 July. (Kenney interview.)

137. Survey of Enemy Operations, 1 June 1942-1 Aug. 1943, in Opnl. Intel. Target Survey 1; interview with Capt. Charles L. Marburg, 3 Nov. 1942.

138. SWPA Intel. Sum. 74, 2 Feb. 1943, pp. 23-24; 32d Div. G-2 Rpt.

139. SWPA Intel. Sum. 61, 18 Dec. 1942; Survey of Enemy Operations.

140. Maj. Parker C. Hardin, History of the 22d Portable Hospital, 9 Feb. 1943, in 32d Div. Records, Buna Campaign; Basic Rpt. of 32d Div. It should be noted that Japanese warships had carefully avoided shelling an Allied hospital ship at Milne Bay. (Johnston, *Toughest Fighting in the World*, p. 126.)

141. Report of CG Buna Forces, p. 105.

142. AAF Historical Study 17, Air Action in the Papuan Campaign, 21 July 1942-23 Jan. 1943, App. 7.

143. Col. Frederic H. Smith, "The Papuan Campaign," *Air Force*, XXVI (Sept. 1943), p. 36.

144. *New York Times*, 11 Jan. 1943.

145. Ltr., Kenney to Arnold, 1 Jan. 1943.

NOTES TO CHAPTER 5

1. CM-IN-4574 (1-10-43), Brisbane to WAR, C82, 10 Jan. 1943.

2. A copy, dated 28 Feb. 1943, is in files of Air Historical Div.

3. GHQSWPA, Estimate of the Situation and Rough Draft, RENO Plan, 25 Feb. 1943.

4. CCS 155/1 (19 Jan.), 168 (22 Jan.), 170/2 (23 Jan. 1943); Minutes, CCS 56th Mtg., 14 Jan. 1943.

5. Minutes of Pacific Military Conference.

6. Memos for General Handy from Adm. C. M. Cooke, 22 and 23 Mar. 1943.

7. CM-OUT-9499 (3-25-43), Sutherland to MacArthur, 2232, 25 Mar. 1943.

8. JCS 238/4, 27 Mar. 1943; Minutes, JCS 70th Mtg., 28 Mar. 1943. General Marshall had proposed substantially this same arrangement as early as 8 January

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1943. (See memo for COMINCH from C/S, 8 Jan. 1943.)

9. See especially App. C, Incl. B, JCS 238/4, 27 Mar. 1943.

10. JCS 70th Mtg., 28 Mar. 1943; CM-OUT-11091 (3-29-43), JCS to MacArthur, 2407, 29 Mar. 1943.

11. JCS 70th Mtg., 28 Mar. 1943; GHQ Operations Instruction 31, 11 Mar. 1943, in GHQ G-3 Journal, 11 Mar. 1943; CM-OUT-9499 (3-25-43), Sutherland to MacArthur, 2232, 24 Mar. 1943.

12. JPS 67/4, 28 Apr. 1943.

13. Memo from the JCS, 14 May 1943, circulated as CCS 220 on 19 May and approved by the CCS in its 90th Mtg. on 20 May as the basis for study and elaboration of future plans.

14. *Ibid.*; Minutes, CCS 92d Mtg., 21 May 1943; CCS 239/1 (23 May), 242/6 (25 May 1943).

15. JCS 386, 28 June 1943; Minutes, JCS 94th Mtg., 29 June 1943.

16. CINCSWPA to Marshall, C-3302, 20 June 1943; Minutes, JCS 97th Mtg., 20 July 1943; msg., JCS to CINCPAC, 202204 July 1943.

17. Hq. Allied AF, SWPA Intel. Sums. 65 and 66, 1 and 5 Jan. 1943.

18. CM-IN-2986 (1-7-43), Australia to WAR, C58, 7 Jan. 1943; CM-IN-3448 (1-8-43), Port Moresby to WAR, C67, 8 Jan. 1943; CM-IN-4711 (1-11-43), Brisbane to WAR, C71, 9 Jan. 1943.

19. Allied Land Forces, SWPA, The History of the Lae-Salamaua Garrison; Histories, 35th and 49th Ftr. Gps. A general summary of the action claims that 69 aircraft were destroyed, 28 probably destroyed, and 40 damaged. (Intel. Sum. 68, 12 Jan. 1943.) The 5,447-ton *Nichiryu Maru* and the 4,103-ton *Myoko Maru* were sunk. (See JANAC.)

20. Interview with Maj. De Forest Van Slyck, 26 Mar. 1943.

21. ALF, The History of the Lae-Salamaua Garrison; Van Slyck interview; Histories, 374th and 317th TC Gps. and 40th TC Sq.; CM-IN-61 (2-1-43), Brisbane to WAR, C297, 31 Jan. 1943; CM-IN-14236 (1-30-43), Brisbane to WAR, C291, 30 Jan. 1943.

22. See enemy order of battle reports in the intelligence summaries for January 1943.

23. Histories, 35th and 49th Fighter

Gps.; Form 34, 7th and 9th Sqs. of 49th Gp., the 39th, 40th, and 41st Sqs. of 35th Gp., 31 Jan.-6 Feb. 1943; Intel. Sum. 76, 9 Feb. 1943; CM-IN-4375 (2-9-43), Brisbane to WAR, C371, 7 Feb. 1943.

24. Intel. Sums. 74 (2 Feb.), 76 (9 Feb.), 77 (12 Feb.), 78 (16 Feb.), 81 (27 Feb. 1943); ltr., Kenney to Arnold, 23 Jan. 1943.

25. Operations reports from cables and Intel. Sums.; Histories, 43d and 90th Bomb. Gps. See especially CM-IN-2554 (1-5-43), Brisbane to WAR, C50, 6 Jan. 1943; 63d Sq. Combat Diary. JANAC reports that three Japanese vessels were sunk during January in the SWPA, two at Rabaul, one of the latter, the 5,833-ton *Keifuku Maru*, on 5 January.

26. Ltr., Kenney to Arnold, 23 Jan. 1943. See also station lists and unit histories.

27. Van Slyck interview; Form 34 for January.

28. Col. James C. Van Ingen, Communications in New Guinea, in AAFSAT Intel. Rpt. 16 (Oct. 1943); Lt. R. J. Wood, Radar in New Guinea, *ibid.*, 22 (Feb. 1944); History, 565th Signal AW Bn.; Van Slyck interview.

29. See unit histories of 8th, 35th, and 49th Fighter Gps.; CM-IN-12053 (1-26-43), Brisbane to WAR, 128, 25 Jan. 1943; ltr., Kenney to Arnold, 23 Jan. 1943.

30. There is not complete agreement on the number of planes destroyed in the above raid. The figures are taken from the official operations report. (CM-IN-8329 [1-19-43], Brisbane to WAR, C169, 18 Jan. 1943. See also Form 34, 403d Sq.; History, 80th Fighter Sq.) Some experiments were made at this time in converting a P-38 into a night fighter. (Histories, 80th Fighter and 8th Fighter Control Sqs.)

31. AAF Historical Study 17, Air Action in the Papuan Campaign, App. 4; ltr., Kenney to Arnold, 23 Jan. 1943; histories of units mentioned.

32. Air Action in the Papuan Campaign, p. 64; History, 30th Service Sq.; ltr., Jack Fox to North American Aviation, 15 Dec. 1942; CM-IN-5273 (4-9-43), Brisbane to ASCPFO, XA3193, 9 Apr. 1943.

33. Ltr., Jack Fox to North American Aviation, 15 Mar. 1943; Fox to Field Service Dept., North American Aviation, 4 Mar. 1943.

34. Advance Echelon Report, Incl. VI, par. 3, quoted in AFSHO special study, *The Bismarck Sea Action*, p. 300, and 9 Operational Gp. Opns. Order, also quoted, p. 158; Masthead Attacks against Shipping, in AFGIB 13 (July 1943), pp. 20-24; CM-IN-11103 (2-21-43), Brisbane to WAR, C516, 21 Feb. 1943; CM-IN-14093 (2-27-43), Brisbane to WAR, Q3272, 27 Feb. 1943.

35. G-2 Estimate of the Enemy Situation 333 (18/19 Feb.), 337 (22/23 Feb.), 338 (23/24 Feb.), 341 (26/27 Feb.), 342 (27/28 Feb.), 343 (28 Feb./1 Mar. 1943), in GHQ G-3 Journal; *The Bismarck Sea Action*, pp. 101-2.

36. *The Bismarck Sea Action*, pp. 101-2. Much credit for the success of the Bismarck Sea action should undoubtedly go to Col. Kenneth Hobson, chief of staff of the V Bomber Command.

37. Detailed operational orders and other documents were captured on Goodenough Island with the shipmaster of the *Teiyo Maru*, sunk in the engagement. The Allied Translator and Interpreter Section, SWPA published them as "Bismarck Sea Operations" in Enemy Publications No. 7, Pts. 1 and 2. These documents are analyzed in detail in *The Bismarck Sea Action*, pp. 59 ff. See also U.S. Strategic Bombing Survey (Pacific), *The Campaigns of the Pacific War*, pp. 174-75, and *Interrogations of Japanese Officials*, II, 498; USSBS Intrs. 65 (Capt. Y. Watanabe, 15 Oct. 1945), 388 (Lt. Col. Koji Tanaka, 20 Nov. 1945), 479 (Capt. Mirioru Genda, 28-29 Nov. 1945).

38. The following narrative of the attacks on the Bismarck Sea convoy is a synthesis of information taken from many documents. The principal sources used were the daily cable operations reports sent from General MacArthur's headquarters to the War Department; intelligence summaries; Form 34; A-2, V Bomber Command, Tactical Reports of Attacks on Bismarck Sea Convoy (V BC Bismarck Tac. Rpts.); Advance Echelon Hq., Fifth AF, Report on Destruction of Japanese Convoy in Bismarck Sea, 6 Apr. 1943 (ADVON Bismarck Rpt.); Histories, 35th and 49th Ftr. Gps., 3d, 38th, 43d, and 90th Bomb. Gps.; 63d Sq. Combat Diary. *The Bismarck Sea Action* (AFSHO study) contains a careful mis-

sion by mission account of the attacks on the convoy in more detail than the present summary.

39. V BC Bismarck Tac. Rpts.; ADVON Bismarck Rpt.

40. See interview with General MacArthur as reported in the *Washington Post*, 4 Sept. 1945, p. 2.

41. CM-IN-4398 (3-9-43), Brisbane to WAR, C789, 9 Mar. 1943; CM-IN-5702 (3-11-43), Brisbane to WAR, C818, 11 Mar. 1943.

42. See Charts 50, 51, 52, and discussion of the statistics used in *The Bismarck Sea Action*, pp. 262 ff.

43. CM-IN-1403 (3-3-43), Brisbane to WAR, C628, 3 Mar. 1943.

44. *Ibid.*

45. For a more complete analysis of this, see *The Bismarck Sea Action*, pp. 275 ff.

46. ADVON Bismarck Rpt.

47. CM-IN-5415 (9-7-43), Brisbane to WAR, CA20, 7 Sept. 1943.

48. See *Washington Post*, 4 Sept. 1945, p. 2.

49. The account is based on full notes taken by an AAF historical officer from a report prepared in Japan in September 1945 by a Colonel Scott, and Col. E. L. McCranie, AC/S A-2, 13th AF, with the assistance of Maj. John W. Weems, Capt. W. N. Davis, 1st Lt. Davis, and M/Sgt. Roper, all of the Thirteenth Air Force. No copy of this report was available for transmission to the AAF Historical Office and subsequent attempts to locate the document have been unsuccessful, but the notes were taken by a professional historian of proved competence and it is believed that they represent highly dependable documentation. Many of the details, except for the precise hours of attack, are confirmed by mission reports, USSBS interviews, and the findings of JANAC.

50. See USSBS Memo Nav. 11.

51. History, 4th Air Depot Gp.; Maj. Bernard M. Donnelly, Flight Surgeon's Report of Medical Activities in the SWPA, 27 Feb. 1943, and Maj. Jon T. Klausner, 22d Gp. Flight Surgeon, Report for History of Medical Department, 23 Jan. 1943, in AAG Reports of the Surgeon General; ltr., Col. Bascom L. Wilson, 5th AF Surgeon to the AAF Air

Surgeon, 1 Mar. 1943; Form 34, 8th Ftr. Sq., 17-23 Jan. 1943; History, 1156th QM Co. (Avn.).

52. Ltr., Col. Bascom L. Wilson to the AAF Air Surgeon, 1 Mar. 1943; Form 34, 8th Ftr. Sq., 17-23 Jan. 1943; Histories, Hq. and Hq. Sq., 27th Air Depot Gp., 35th Ftr. Control Sq., 80th Ftr. Sq.

53. Histories, 8th Ftr. Gp. and 80th Ftr. Sq.; ltr., Wilson to the Air Surgeon, 1 Mar. 1943.

54. Osmar White in his thoughtful book, *Green Armour*, stresses the unpreparedness of the American soldier for jungle warfare.

55. Ltr., Wilson to the Air Surgeon, 1 March 1943.

56. Report by 38th Bomb. Gp. Surgeon to Chief Air Surgeon, 5th AF, 15 Mar. 1943; Report by 3d Bomb. Gp. Surgeon to the Surgeon, V BC., 23 Mar. 1943; Report by 43d Bomb. Gp. Surgeon to Surgeon, 5th AF, 30 Mar. 1943; Report by 90th Bomb. Gp. Surgeon to Surgeon, V BC., 30 Mar. 1943; Maj. Edward F. Hoover, A-3 in the SWPA, in AAFSAT Intel. Rpt. 17 (Oct. 1943).

57. Ltr., Wilson to the Air Surgeon, 1 Mar. 1943; *The Marauder: A Book about the 22d Bomb. Gp.*; History, 80th Ftr. Sq.; ltr., Kenney to Arnold, 23 Jan. 1943. See also AAFRH-13, The Fifth Air Force in the Huon Peninsula Campaign, January to October 1943, p. 15.

58. This totaled 1,816 additional aircraft, and MacArthur believed that he also needed five additional infantry divisions. (See USSBS, *Employment of Forces under the Southwest Pacific Command.*) The air units desired for the Huon Peninsula campaign had already been requested by General Kenney. (Ltr., Kenney to Arnold, 23 Jan. 1943.)

59. JCS 238/1, 18 Mar. 1943; CM-OUT-6327 (3-17-43), Sutherland to MacArthur, 3058, 17 Mar. 1943. See also Kenney, *General Kenney Reports*, pp. 215-16.

60. In March, 13 B-25's, 8 B-24's, 1 C-47, 8 P-38's, and 4 F-5A's reached Australia. Over against these figures, 7 P-38's, 2 B-17's, 1 B-25, 1 P-400, and 1 A-20 were lost or reported missing to enemy action, while 11 fighters, 7 bombers, 9 transports, and 1 F-4 were the victims of accident. (See CM-IN-16225 [3-30-43], Brisbane to WAR, A521, 30 Mar. 1943.)

61. Form 34, 8th Ftr. Sq., 21 Mar. 1943; unit history.

62. Form 34, 22d Bomb. Gp., 403d Bomb. Sq., 8th Bomb. Sq., and 13th Bomb. Sq.

63. CM-OUT-8736 (3-23-43), JCS to Brisbane, 23 Mar. 1943. See also ltr., Arnold to Kenney, 30 Mar. 1943, which somewhat modified the original decision.

64. R&R, Allocation Sec., A-3 Div. to Dir. of War Orgn. and Movement, 5 Jan. 1943; CM-IN-5762 (1-13-43), Brisbane to WAR, C109, 12 Jan. 1943; CM-OUT-2619 (2-8-43), Hq. ASC to CINCSWPA, 995, 7 Feb. 1943; R&R's: Allocations Br. to Theater Br., AC/AS OC&R, 1 Apr. 1943; Stratemeyer to Dir. of Mil. Requirements, 25 Mar. 1943; Arnold to Stratemeyer, 23 Mar. 1943; AC/AS A-3 to Air Support, 26 Mar. 1943; DC/AS to Allocations and Programs Div., AC/AS OC&R, 4 May 1943; Allocations and Programs Div., AC/AS OC&R to DC/AS, 5 May 1943.

65. CM-OUT-5665 (1-16-43), AFROM to CINCSWPA, 390, 16 Jan. 1943; CM-OUT-3522 (1-11-43), AFROM to CINCSWPA, 239, 10 Jan. 1943; CM-IN-7226 (1-16-43), Brisbane to WAR, A79, 15 Jan. 1943; CM-OUT-6395 (1-19-43), AFROM to CGSWPA, 435, 19 Jan. 1943; 1st ind. (ltr. missing), Hq. AAF, sgd. Stratemeyer to CG 5th AF, 2 Mar. 1943.

66. Ltr., Kenney to Col. William L. Ritchie, 14 Apr. 1943; CM-IN-3457 (5-6-43), Brisbane to WAR, A809; CM-OUT-2358 (5-6-43), Sec. WDGS (from Marshall) to CINCSWPA, 3488; CM-OUT-3102 (5-7-43), AC/AS OC&R to CINCSWPA, 3535.

67. Report by V Fighter Command, 1 August. 1943; History, 27th Depot Repair Sq.

68. CM-IN-12485 (1-27-43), Brisbane to ASCPFO, XA861, 26 Jan. 1943; CM-IN-2261 (4-4-43), Brisbane to WAR, Q7694, 3 Apr. 1943; CM-IN-6131 (7-9-43), Brisbane to CGAAF, XA6243, 8 July 1943.

69. History, 4th Air Depot Gp.

70. CM-IN-5004 (5-8-43), Brisbane to ASCPFO, XA4052, 8 May 1943; CM-OUT-6211 (5-14-43), AC/AS OC&R to CINCSWPA, 3749, 14 May 1943; CM-IN-1307, Brisbane to ASCPFO, XA6019, 2 July 1943; CM-IN-508 (9-1-43), Bris-

bane to ASCPFO, XA7191, 1 Aug. 1943; CM-OUT-4918 (8-13-43), AC/AS OC&R to CINCSWPA, 6784, 12 Aug. 1943. CM-IN-4587 (7-7-43), ASCPFO to Brisbane, O56, 7 July 1943. Between January and October 1943, the 30th Service Squadron alone dewinterized at least 22 C-47's, 107 B-25's, 43 B-24's. (History, 30th Service Sq.)

71. Materiel Div. Memo Report 217, 20 Apr. 1943; CM-IN-5328 (2-11-43), Brisbane to ASCPFO, XA1323, 10 Feb. 1943; CM-OUT-7528 (2-21-43), AFRDB to CINCSWPA, 1382, 20 Feb. 1943; CM-IN-12760 (2-25-43), Brisbane to CGAAF, Q2914, 24 Feb. 1943; CM-OUT-2413 (3-16-43), CGASC to CGSWPA, ASC 097, 16 Mar. 1943; CM-IN-685 (5-2-43), Brisbane to ASCPFO, XA3840, 1 May 1943.

72. CM-IN-3504 (5-6-43), Brisbane to CGAAF, A814, 6 May 1943; CM-OUT-8421 (7-21-43), AC/AS OC&R to CINCSWPA, 5960, 20 July 1943; CM-IN-19780 (8-26-43), Brisbane to CGAAF, XA8163, 26 Aug. 1943; CM-IN-8470 (9-11-43), Brisbane to CGAAF, XA8771, 10 Sept. 1943; CM-OUT-6743 (9-14-43), C/AS (from Arnold) to CINCSWPA, 7986; CM-OUT-7173 (9-15-43), AC/AS OC&R to CINCSWPA, 8011, 14 Sept. 1943.

73. Unrecorded interview with Maj. John Trotter, 26 May 1944; Off. of the Chief Engineer, SWPA, Engineer Construction in the Southwest Pacific Area, 1 Mar. 1944; interview with Col. Frederic Smith, 11 May 1943.

74. Lt. R. J. Wood, Radar in New Guinea, in AAFSAT Intel. Rpt. 22 (Feb. 1944); Histories, 1158th QM Co., 440th Signal Bn., 565th Aircraft Warning Bn., and 46th Service Gp.; History, V AFSC in New Guinea.

75. History, V AFSC in New Guinea; History, 49th Ftr. Gp.; Form 34, 7th, 8th, 9th Ftr. Sqs.

76. Form 34, 9th Ftr. Sq., 22-30 Mar. 1943; Histories, 46th Service Gp. and 49th Ftr. Gp.

77. History, 49th Ftr. Gp.

78. Col. James C. Van Ingen, Communications in New Guinea, in AAFSAT Intel. Rpt. 16 (Oct. 1943); History, 440th Signal Bn.

79. Unrecorded interview with Lt. Col. W. F. Coleman, 17 May 1945; Maj. Herbert O. Johansen, "Our Air Task

Force," in *Air Force*, XXVII (Dec. 1944), p. 7.

80. Ltr., Kenney to Col. William L. Ritchie, 14 Apr. 1943.

81. Kenney had decided earlier that "the theory of an Air Support Command does not fit the picture in this theater." Trained air support officers were therefore assigned to the various ground units as air liaison officers usually with a direct channel to the operations (A-3) section of the air force, at Port Moresby if the missions in question were the responsibility of ADVON, or at Dobodura if that of the First Air Task Force. (CM-OUT-3073 [2-9-43], OPD to CINCSWPA, 9 Feb. 1943; CM-IN-269 [3-1-43], Brisbane to WAR, C640, 1 Mar. 1943; ltrs., Kenney to Arnold, 28 Feb. and Arnold to Kenney, 16 Mar. 1943; History, 5th Tactical Air Communications Sq.)

82. Form 34, 8th, 13th, 89th, 90th Bomb. Sqs.; Frederic Smith interview; Histories, 8th Bomb. Sq. and 3d Bomb. Gp.; Coleman interview.

83. CM-IN-9326 (1-31-43), Brisbane to WAR, C188, 30 Jan. 1943; CM-OUT-6589 (2-19-43), OPD to CINCSWPA, 1313, 18 Feb. 1943; CM-OUT-9393 (2-26-43), TAG Opns. Br., to CINCSWPA, 1524, 26 Feb. 1943.

84. History, 54th TC Wing.

85. Ltr., Kenney to Ritchie, 14 Apr. 1943.

86. Engineer Construction in the Southwest Pacific Area.

87. See Australian Army Dir. of Public Relations, *Battle of the Ridges* (Sydney, 1944).

88. History, 5th Tac. Air Com. Sq.

89. FO 1, 2, 3, 5, dtd. 20 Feb., 25 Feb., 8 Mar., and 24 Mar. 1943, in 162d Regt. War Journal.

90. Hq. MacKechnie Force GO 1, 28 Mar. 1943, and Hq. MacKechnie Force FO 1 and 2, 30 Mar. and 6 Apr. 1943, all in 162d Regt. War Journal.

91. Histories, V FC and 49th Ftr. Gp.; CM-IN-4930 (3-10-43), Brisbane to WAR, C800, 10 Mar. 1943; CM-IN-6277 (3-12-43), Brisbane to WAR, C850, 12 Mar. 1943; CM-IN-8642 (3-17-43), Brisbane to C/S, C935, 16 Mar. 1943; CM-IN-10677 (3-20-43), Brisbane to WAR, C1045, 20 Mar. 1943; Intel. Sums. 85 and 90, 13 and 31 Mar. 1943. The Operations Report puts

the last raid on 27 March rather than the 28th. (CM-IN-15965 [3-30-43], Brisbane to WAR, 1272, 29 Mar. 1943.)

92. See SWPA Intel. Sums. 91 and 92, 3 and 7 Apr. 1943.

93. SWPA Intel. Sum. 93, 10 Apr. 1943; CM-IN-7286 (4-13-43), Brisbane to WAR, C1640, 12 Apr. 1943; History, 49th Ftr. Gp.

94. Histories, 49th Ftr. Gp., 80th Ftr. Sq., and 35th Ftr. Control Sq.; CM-IN-7659 (4-13-43), Brisbane to WAR, C1668, 13 Apr. 1943; Form 34, 9th, 39th, 40th, and 41st Ftr. Sqs., 11 to 17 Apr. 1943; ltr., Off. of the Engineer, ADVON to CG 5th AF, 22 Apr. 1943.

95. SWPA Intel. Sums. 95, 97, and 100, dtd. 17 and 24 Apr. and 5 May 1943.

96. Histories, 49th and 35th Ftr. Gps.

97. Histories, 49th Ftr. Gp., 80th Ftr. Sq., 5th Tac. Air Com. Sq.; Form 34, 35th Ftr. Sq., 16 to 22 May 1943; SWPA Intel. Sum. 104, 19 May 1943.

98. The analysis of types of mission performed was taken from Form 34 for the Fifth Air Force squadrons during March, April, and May. See also History, 8th Photo Sq.

99. Claims for these shipping attacks were somewhat exaggerated, but it seems clear from studying the reports that considerable damage was done by hits and near misses. Form 34 gives the most satisfactory accounts for the statistician. These should be supplemented by the Narrative Mission Reports of individual pilots and squadrons. The operations reports in the cables are also of some value, although they must be used with considerable caution. The following ships were definitely sunk: On 13 March the 3,103-ton *Momoyama Maru* at Wewak; on 14 April the 5,872-ton *India Maru* at Wewak and the 4,150-ton *Sydney Maru* at Hansa Bay; on 20 April the 864-ton *Kosei Maru* at Wewak; and on 8 May the 970-ton *Tomioika Maru* and the 546-ton *Sumida Maru* at Madang. (See JANAC.) As a commentary on this list, General Kenney suggests the following additions: *Kaijo Maru* (3,270 tons), sunk by B-24 just south of the Celebes on 10 March 1943; the *Okuyo Maru* (2,904 tons), sunk by B-24's at Ambon; and the *Gisbo Maru* (543 tons), "sunk by B-24 at 4°30'S/150°30'E (about

half-way between Kavieng and Rabaul)." (Kenney interview.)

100. JANAC lists the only vessel sunk as the *Florida Maru*.

NOTES TO CHAPTER 6

1. Vice Adm. Aubrey W. Fitch, Task Force 33, South Pacific Force, Operation Plan 7-43, 17 June 1943, derived from Third Fleet's Operation Plan 14-43. See also USSBS, *Employment of Forces under the Southwest Pacific Command*.

2. USSBS, *Employment of Forces under SWP Comd.*; Aus. Army Dir. of Public Relations, *Battle of the Ridges* (Sydney, 1944). The plan was to maintain about 1,000 men at Bena Bena, 2 Australian independent companies, 1 airborne AA (U.S.) battery, an AW detachment, and service detachments. (Ltr., Chamberlin to Col. R. J. Barham, ALF, 5 June 1943, in GHQ G-3 Journal, 5 June 1943.)

3. Report by Comdr. Seventh Amphibious Force, Operation CHRONICLE, 21 Nov. 1943. There was apparently one Australian coast watcher at Woodlark and a radar station on Kiriwina. (See Woodlark Task Force Opns. Diary, 23 June-4 Aug. 1943; History, Kiriwina Task Force, 9 June-4 Aug. 1943.)

4. Notes on Conference Held in Brisbane, 17 May 1943, in GHQ G-3 Journal, 17 May 1943. See also USSBS, *Employment of Forces under SWP Comd.*

5. Memo for G-3 from Brig. Gen. Hugh Casey, 1 May 1943; ltr., Hq. 5th AF to ADVON, 19 June 1943; History, CHRONICLE Operation, sgd. Krueger, 23 Aug. 1943, in GHQ G-3 Journal, 30 Aug. 1943.

6. History, Kiriwina Task Force; USSBS, *Employment of Forces under SWP Comd.*, p. 23; AAFRH-13, The Fifth Air Force in the Huon Peninsula Campaign, Jan.-Oct. 1943, p. 174; AAFRH-20, The Thirteenth Air Force, Mar.-Oct. 1943, p. 79; Office of Naval Intelligence, ONI Weekly, II, 27 (7 July 1943). See also Walter Karig, *Battle Report, IV, The End of an Empire* (New York, 1948), 22; History, CHRONICLE Operation, sgd. Krueger, 23 Aug. 1943.

7. History, Kiriwina Task Force; Woodlark Task Force Opns. Diary; msg.,

MacArthur to COMSOPAC, 2 July 1943, in GHQ G-3 Journal, 2 July 1943; Historical Report, 46th Engr. General Service Regt., 16 May-4 Aug. 1943, in GHQ G-3 Journal, 4 Aug. 1943.

8. Msg., Regtl. S-3 to G-3 41st Div., 26 June 1943, and FO 2, 26 June 1943, in 162d Regt. War Journal; Colonel MacKechnie, Notes on Opns.—Morobe, Nassau Bay Area, 13 July 1943.

9. MacKechnie, Notes on Opns.; Brig. Gen. W. F. Heavey, CO 2d Engr. Special Brig., report, Exchange of Information (Army and Navy Combined Operations), 13 July 1943.

10. MacKechnie, Notes on Opns.; msg., Regtl. CO to CG 41st Div., 30 June 1943, in 162d Regt. War Journal; Form 34 for 27 June-3 July 1943, all sqs. of 8th, 35th, 49th Gps.

11. SWPA Intel. Sums. 118 and 119, 7 and 10 July 1943; 63d Sq. Combat Diary; Form 34, 27 June-3 July 1943, 89th Sq.

12. Msg., Regtl. S-3 to G-3 41st Div., 2 July 1943, in 162d Regt. War Journal; History, 49th Ftr. Gp.; Form 34, 27 June-3 July 1943, 17th Ftr. Sq.

13. 162d Regt. Rpt. of Opns., 29 June-12 Sept. 1943; MacKechnie, Notes on Opns.

14. 162d Regt. Rpt. of Opns.; MacKechnie, Notes on Opns.; 162d Regt. War Journal, 15 July 1943; msg., 17th Brig. to Regtl. CO, 5 July 1943, Regtl. S-3 to G-3 41st Div., 10 July 1943, 3 Aus. Div., sgd. Reeski to Kate, 293, 19 July 1943, and 3 Aus. Div. to Coane, 817, 25 July 1943, all in 162d Regt. War Journal.

15. Hq. 5th AF GO 176, 12 Aug. 1943.

16. Intel. Sum. 121, 17 July 1943; ONI Weekly, II, 28, 29, and 30 (14, 21, and 28 July 1943); Plan for Operations to Secure Tambu Bay by Coane Force, 15 July 1943, and msg., sgd. Cawfield to Pt. Base, Morobe, 315, 20 July 1943, Lt. Mulliken to Gen. Coane, 348, 21 July 1943, 3 Aus. Div. to Coane Force, 1005, 27 July 1943, and to GOC 3 Aus. Div., 1026, 28 July 1943, all in 162d Regt. War Journal.

17. History, 67th Sq.; Form 34 for July, all fighter sqs.; opns. rpts. in cables. The most successful day for American fighters was on 21 July when thirty-four P-38's escorting a bombing mission to Bogadjim near Madang tangled with some fifty enemy fighters. At least twenty-two fight-

ers were shot down to the loss of two P-38's. (Opns. rpts. in cables; Histories, 35th and 49th Fighter Gps. and 80th Fighter Sq.)

18. These figures usually taken from the intelligence summaries are approximate. There are some differences between these and the figures derived from Form 34. In cases of obvious error, the intelligence summary figures have been adjusted.

19. CM-IN-13306 (7-19-43), Brisbane to WAR, C4050, 18 July 1943; CM-IN-13572 (7-19-43), Brisbane to WAR, C4075, 19 July 1943; History, 8th Bomb. Sq.; ONI Weekly, II, 30 (28 July 1943); Intel. Sums. and opns. rpts. in cables for July.

20. See JANAC; Intel. Sums. for July; Form 34, 21-31 July 1943, 8th, 13th, and 90th Sq.

21. From 1 June to 30 July, Allied flyers in the Solomons claimed 529 aircraft destroyed, while claims for aircraft destroyed in the entire Southwest Pacific numbered only 165. (Intel. Sums. 124 and 125, 28 and 31 July 1943.) On 21 July, 85 fighters and 57 bombers were reported in Wewak dromes. (Intel. Sum. 123, 24 July 1943.)

22. USSBS interrogation of Gen. Hitoshi Imamura, CINC Southeastern Japanese Forces, and Lt. Rimpei Kato, his chief of staff, in USSBS, *The Allied Campaign against Rabaul*.

23. By the end of July, 115 P-47's had arrived. (See AAFRH-13, App. 4; ltr., Kenney to Arnold, 29 June 1943; memo for Col. Burgess from 348th Ftr. Gp., 7 Feb. 1944, in Col. W. M. Burgess Report.)

24. History, 475th Ftr. Gp. Kenney at this time was trying to get an additional P-38 group instead of the P-47 group scheduled for later delivery. His request was refused in July on the grounds that the P-38 was being diverted for modification to become the F-5 photo plane and because of requirements of other theaters. It was refused again in September because of difficulties and delays in production. (CM-OUT-12674 [6-30-43], AC/AS OC&R to CINCSWPA, 5277, 29 June 1943; CM-IN-5484 [7-8-43], Brisbane to CGAAF, A1239, 8 July 1943; CM-OUT-4149 [7-10-43], AC/AS OC&R to CINCSWPA, 5603, 10 July 1943; memo for the AC/S OPD by Lt. Col. N. O. Ohman, AC/AS OC&R, 15 July 1943; CM-IN-

23569 [8-31-43], Brisbane to CGAAF, A1625, 31 Aug. 1943; CM-OUT-818 [9-2-43], AC/AS OC&R to CINCSWPA, 7511, 2 Sept. 1943.)

25. Form 34 for week of 22 July 1943.

26. The refineries were not destroyed, as two reconnaissance B-24's noted on returning two days later. (Form 34, 8-14, 15-21 Aug. 1943, 528th, 529th, 530th, 531st, and Hq. & Hq. Sqs.)

27. Some thought had been given to the possible necessity for building an airfield at Merauke on southwest coast of New Guinea. (Ltr., GHQ to CO ALF, 26 Mar. 1943; memo for G-4 from G-3, 16 Apr. 1943; check sheet, G-3 to C/S, 28 Apr. 1943; all in GHQ G-3 Journal, 27 Mar., 16 and 28 Apr. 1943.)

28. CM-OUT-11051 (3-28-43), AFIPU to CINCSWPA, 2402, 28 Mar. 1943; ltr., TAG to CINCSWPA, 29 Mar. 1943; CM-IN-12636 (4-21-43), Brisbane to WAR, C1850, 21 Apr. 1943; CM-IN-13858 (4-23-43), Brisbane to WAR, C1907, 23 Apr. 1943; History, 38th Bomb. Gp.

29. CM-IN-5515 (6-9-43), Brisbane to CGAAF, A1057, 9 June 1943; CM-OUT-5627 (6-14-43), AC/AS OC&R to CINCSWPA, 4729, 13 June 1943; CM-IN-15847 (6-25-43), Brisbane to CGAAF, A1146, 25 June 1943.

30. CM-OUT-10927 (7-27-43), OC&R to CINCSWPA, 6169, 27 July 1943; CM-IN-1602 (8-3-43), Brisbane to WAR, A1412, 3 Aug. 1943; CM-OUT-9127 (8-22-43), OC&R to CINCSWPA, 7107, 21 Aug. 1943.

31. Ltrs., Kenney to Arnold, 7 Sept. 1943 and Arnold to Kenney, 26 Sept. 1943. 32. Report, Lt. Col. P. I. Gunn to CG V AFSC, 7 Aug. 1943.

33. History, V Air Service Area Command; CM-IN-6164 (9-9-43), Brisbane to WAR, A1677, 9 Sept. 1943.

34. Ltr., Arnold to Kenney, sent 12 May 1943; memo for CGAAF from Col. F. H. Smith, Jr., 3 May 1943; CM-OUT-6113 (5-14-43), OPD to CINCSWPA, 3744, 13 May 1943; CM-IN-10801 (5-17-43), Brisbane to WAR, C2507, 17 May 1943; CM-OUT-9268 (5-21-43), WDGS to CINCSWPA, 3969, 21 May 1943; CM-IN-17888 (5-28-43), Brisbane to WAR, C2754, 28 May 1943; CM-OUT-412 (6-1-43), AC/AS AFRTH to CINCSWPA, 4312, 1 June 1943; ltr., Arnold to Kenney,

5 July 1943; CM-IN-6820 (5-11-43), Brisbane to WAR, C2362, 11 May 1943; CM-OUT-4102 (5-10-43), OPD to CINCSWPA, 10 May 1943.

35. CM-OUT-10601 (6-25-43), AC/AS OC&R to CINCSWPA, 5108, 25 June 1943; CM-OUT-8717 (8-21-43), OC&R to CINCSWPA, 7075, 21 Aug. 1943; Histories, 55th, 56th, 57th, 58th TC Sqs., 375th TC Gp., and 54th TC Wing.

36. Ltr., TAG to CGAAF etc., 6 June 1943.

37. CM-OUT-3125 (6-8-43), OC&R to CINCSWPA, 4545, 7 June 1943; memo for Gen. Giles from Col. O. P. Weyland, 1 July 1943; notes on a staff meeting with Gen. Arnold, in memo for Col. Gross, etc. from Brig. Gen. H. A. Craig, 11 Aug. 1943.

38. CM-IN-19933 (5-31-43), Brisbane to CGAAF, 31 May 1943; CM-IN-3379 (7-5-43), Brisbane to CGAAF, A1215, 5 July 1943; CM-OUT-3002 (5-7-43), AFRAL to CINCSWPA, 3526, 7 May 1943; CM-OUT-3831 (7-9-43), OC&R to CINCSWPA, 9 July 1943.

39. CM-IN-9455 (7-14-43), Brisbane to WAR, A1274, 13 July 1943; CM-OUT-5687 (7-14-43), OC&R to CINCSWPA, 5730, 14 July 1943; ltrs., Kenney to Arnold, 28 July, and Arnold to Kenney, 31 Aug. 1943. The detail of the debate over medium and light bomber replacements is considered in AAFRH-13, pp. 151 ff.

40. CM-IN-2911 (8-5-43), Brisbane to CGAAF, A1413, 3 Aug. 1943; CM-IN-23507 (8-31-43), Brisbane to CGAAF, A1622, 31 Aug. 1943; Reports to General Kenney by John N. Gibson, 4 July 1943, and by Paul V. McNamara, 8 July 1943, incl. to ltr., Kenney to Arnold, 28 July 1943.

41. Ltr., Kenney to Arnold, 28 July 1943.

42. Extract of ltr. from Gen. Kenney in R&R, Arnold to Giles, 29 June 1943.

43. Memo for Gen. Giles from Col. O. P. Weyland, Chief of Allocations and Programs Div., AC/AS OC&R, 1 July 1943, which was incorporated in a letter from Arnold to Kenney, 5 July 1943.

44. CM-OUT-5875 (6-15-43), DC/AS to CINCSWPA, 4748, 14 June 1943; CM-OUT-8566 (6-20-43), C/AS to CINCSWPA (Arnold to Kenney), 4952, 20 June 1943.

45. CM-IN-14605 (6-23-43), Brisbane to CGAAF, A1132, 23 June 1943; CM-OUT-5632 (7-14-43), Hq. AAF to CGSWPA (Arnold to MacArthur for Kenney), 5724, 11 July 1943; CM-IN-5261 (7-8-43), Brisbane to CGAAF, A1232, 8 July 1943.

46. Ltr., Kenney to Arnold, 28 July 1943.

47. R&R, DC/AS to AC/AS OC&R, 10 Aug. 1943; memo for C/AS from Brig. Gen. H. A. Craig, 17 Aug. 1943.

48. Ltr., Arnold to Kenney, 31 Aug. 1943.

49. History, 35th Service Gp. The school was officially activated on 18 April 1943 by Hq. Allied Air Forces GO 14.

50. Ltr., Kenney to Arnold, 28 July 1943.

51. Ltr., Kenney to Arnold, 7 Sept. 1943.

52. Ltr., Kenney to Arnold, 28 July 1943.

53. History, 27th Air Depot Sq.; CM-IN-10371 (7-15-43), Brisbane to CGAAF, XA6543, 15 July 1943; CM-IN-11999 (7-17-43), PFO to Brisbane, 1633, 17 July 1943; CM-IN-22575 (7-31-43), PFO to CGSWPA, 3053, 31 July 1943.

54. Ltr., Kenney to Arnold, 28 July 1943; CM-IN-515 (8-1-43), Brisbane to CGAAF, XA7182, 1 Aug. 1943.

55. Histories, 35th Ftr. Gp., 440th Sig. Bn., 4th Airdrome Sq. See also ADVON 5th AF GO 58, 6 Aug. 1943.

56. The account of the development of Tsili Tsili as a base is taken largely from Capt. Everette E. Frazier's Experiences on the Location of Airdromes in New Guinea, in History, V AFSC in New Guinea.

57. Frazier, "Experiences; Tsili Tsili, a Tribute to Aviation Engineers," in *Impact*, I (Oct. 1943); Historical Summary of the Aviation Engineers; ltr., Brig. Gen. S. C. Godfrey, Air Engr. to CO's of Engr. Avn. Unit Training Centers, etc., 15 Nov. 1943; unrecorded interview with Capt. Everette E. Frazier.

58. Histories, 35th Ftr. Gp., 565th Signal AW Bn., 35th Ftr. Control Sq., 412th QM Platoon, 440th Signal Bn., and the 4th Airdrome Sq. On the Second Air Task Force see ADVON 5th AF GO's 58 and 60, 6 and 27 Aug. 1943.

59. History, 345th Ftr. Gp.; CM-IN-

11980 (8-16-43), Brisbane to WAR, C4827, 16 Aug. 1943; Form 34, 15-21 Aug. 1943, 40th and 41st Ftr. Sqs.

60. History, 475th Ftr. Gp.; Form 34, 12-21 Aug. 1943, 340th, 341st, and 431st Ftr. Sqs.; cable opns. rpts. for August; History, 67th Ftr. Sq.

61. Between 24 July and 3 August, at least 94 enemy barges were claimed destroyed and 60 others damaged. Between 1 and 17 August, the Fifth Air Force carried out at least 46 B-25, 42 B-17, and 154 B-24 sorties on objectives in the general Salamaua area. The official reports on these missions must be used with caution, since the squadron reports are at times less sweeping in their claims. (For more details on this, and for complete documentation see AAFRH-13, pp. 193-95.)

62. Brisbane to WAR: CM-IN-1088 (8-2-43), C4423, 2 Aug. 1943; CM-IN-2652 (8-4-43), C4473, 4 Aug. 1943; CM-IN-10548 (8-14-43), C4764, 14 Aug. 1943.

63. Form 34 for squadrons of the 43d and 90th Bomb. Gps., the 38th Bomb Gp., and the 3d Bomb. Gp. The B-25's of the 345th Group were being modified.

64. Account of Mission 228-G on 16 Aug. 1943, 63d, 64th, 65th, and 403d Bomb. Sqs.

65. *Ibid.*; Form 34, 15-21 Aug. 1943, 63d, 64th, 65th, 403d, 319th, 320th, 321st, and 400th Sqs.

66. Form 34, 8th, 13th, 71st, 90th, and 405th Sqs.

67. *Ibid.*, 9th, 39th, 80th, 431st, 432d, and 433d Ftr. Sqs. The unit histories, with the exception of that of the 475th Group, are very inaccurate on this mission. (See also Brisbane to WAR: CM-IN-13600 [8-18-43], C4872, 18 Aug. 1943, and CM-IN-12497 [8-17-43], A1515, 17 Aug. 1943.)

68. Form 34; Hq. Allied AF Narrative Mission Rpts. 55, 60, 62.

69. On 25 and 28 August, over 70 B-25's, 30 B-24's, and 10 B-17's hit the Hansa Bay area, and on 29 August, 48 B-25's struck at Alexishafen.

70. Form 34; Intel. Sums.; cable opns. rpts.; Diary of Operational Statistics, Pt. IIIA, Claims against Enemy—1943, in Office of Stat. Control. According to Col. Rinsuka Kaneko, from July 1943 to August 1943 on the staff of the Eighth Area Army at Rabaul and from then until September 1944 with the Fourth Air Force

staff at Rabaul, very heavy losses on the ground from Allied air attack were suffered because there were insufficient personnel and equipment to provide dispersal facilities and to get aircraft off the ground when warning of an attack was received. (USSBS Intr. 440, 21 Nov. 1945.)

71. Aus. Army Dir. of Public Relations, *Battle of the Ridges*; Report by 7 Australian Division on Operation Outlook, 1-16 Sept. 1943, in GHQ G-3 Journal, 16 Sept. 1943; ltr., ALF to GHQ, 16 July 1943, in GHQ G-3 Journal, 16 July 1943.

72. Interrogation of Gen. Adachi and Col. Tanaka of Eighth Area Army headquarters by Aus. 5 M.H. Field Team, Rabaul. See also USSBS, *Employment of Forces under SWP Comd.*, p. 24.

73. See ELKTON Plan, 12 Feb. 1943, and also CCS 420, 4 Dec. 1943. Original plans set the assault on Lae for 1 August. When the details of the airborne maneuver were being worked out, the target date was shifted first to 27 August and then to 4 September to permit the concentration of transport aircraft at Port Moresby. (USSBS, *Employment of Forces under SWP Comd.*, pp. 21-22.)

74. Ltr., ALF to GHQ, 16 July 1943, and Notes on Discussion with Colonel Barham, 24 July 1943, in GHQ G-3 Journal, 16 July 1943.

75. Memo for C/S SWPA by Gen. Chamberlin, 5 Aug. 1943.

76. *Ibid.*; ltr., Sutherland to Kenney, 5 Aug. 1943.

77. Ltr., Brig. Gen. Donald Wilson to CINCSWPA, 20 July 1943.

78. Ltr., CO Allied NF to CINCSWPA, 16 Aug. 1943.

79. Memo for Sutherland from Kenney, 19 Aug. 1943, and 2d ind., Kenney to CINCSWPA, 19 Aug. 1943; ltr., CO Allied NF to CINCSWPA, 16 Aug. 1943.

80. Memo for C/S SWPA from Gen. Chamberlin, 23 Aug. 1943; Hq. Allied AF, Plan for Air Operations in Support of Postern, 26 Aug. 1943; msg., Comdr. Seventh Fleet to CINCSWPA, 27 Aug. 1943; msg., Comdr. Seventh Fleet to U.S. Naval Comdr. Moresby for MacArthur, 1 Sept. 1943; Report by Comdr. Seventh Amphibious Force to COMINCH, Lae Operation, 23 Oct. 1943; Annex A to ADVON 5th AF FO 70, 4 Sept. 1943.

81. Radar sets were located in the Do-

bodura area and at Cape Ward Hunt, Morobe, Bulolo, Tsili Tsili, and Bena Bena. At this time, the set at Morobe was inoperative, the towering mountains limited range of the others, and the set at Cape Ward Hunt did not reach Lae. (Capt. William M. Ball and Capt. David F. Harbor, "Amphibious Control," in AAFSAT Intel. Rpt. 25 [March 1944].)

82. *Ibid.*

83. *Ibid.*; History, 5th Tac. Air Com. Sq.

84. CM-IN-1361 (9-2-43), Brisbane to WAR, CA3, 2 Sept. 1943; Form 34.

85. The vessels were the 4,105-ton *Hankow Maru* and the 5,901-ton *Nagato Maru*. (JANAC; Form 34, 29 Aug.-4 Sept. 1943, 71st and 405th Sqs.) Many of these attacks were bitterly resisted. For example at least twenty-five fighters were still able to swarm off the much-bombed Wewak fields to intercept the B-25 attacks, and enemy AA was heavy and accurate. The forty P-38's, providing top cover, shot down at least six enemy fighters, and the B-25's six more, while three B-25's and two P-38's were lost. (CM-IN-2068 [9-3-43], Port Moresby to WAR, 3 Sept. 1943; History, 80th Ftr. Sq.)

86. Lae Operation, as cited in n. 80; History, 5th Tac. Air Com. Sq.; AAFRH-13, p. 204.

87. History, 5th Tac. Air Com. Sq.; Form 34, 29 Aug.-4 Sept. 1943, 40th and 433d Sqs.; Lae Operation.

88. Lae Operation; Form 34, 29 Aug.-4 Sept. 1943, 13th Sq.; CM-IN-3998 (9-5-43), Port Moresby to WAR, CA13, 5 Sept. 1943.

89. Ball and Harbor, "Amphibious Control."

90. *Ibid.*; Form 34, 29 Aug.-4 Sept. 1943, 39th, 80th, 342d, and 433d Sqs.; CM-IN-3998 (9-5-43), Port Moresby to WAR, CA13, 5 Sept. 1943.

91. Lae Operation.

92. *Ibid.*; History, 5th Tac. Air Com. Sq.

93. Report by 7 Australian Div. on Operation Outlook; History, V AFSC in New Guinea; Frazier interview.

94. Report by Maj. A. J. Beck, Paratroop Dropping at Nadzab, 5 Sept. 1943, in History, 54th TC Wing.

95. Ltr., Kenney to Arnold, 7 Sept. 1943. Several of Kenney's figures are

somewhat different from those in the squadron reports. For example, he mentions ninety-six transports, which differs from the figure given above. He mentions six A-20's, whereas Form 34, 89th Squadron specifies seven. For more detail on the use of smoke, see Chemical Warfare Service, Theater of Opns., Opns. Ltr. 7, 8 Nov. 1943.

96. Frazier interview; Beck rpt., as cited in n. 94; Report by 7 Australian Div. on Operation Outlook.

97. Extract from ltr. by Lt. Col. H. G. Woodbury, 25 Oct. 1943, in ltr., Brig. Gen. S. C. Godfrey, Air Engr. to CO's of Engr. Avn. Unit Training Centers, etc., 15 Nov. 1943; History, 5th Tac. Air Com. Sq.; Report by 7 Australian Div. on Operation Outlook; GHQSWPA Daily Opns. Rpt., 7 Sept. 1943, and memo for Sutherland from Whitehead, 12 Sept. 1943, both in GHQ G-3 Journal, 7 and 12 Sept. 1943.

98. Cable opns. rpts. for September, 162d Regt. War Journal. The Allied Air Forces in the meantime kept heavy attacks on airfields and barge hideouts in New Britain, renewed attacks on Wewak dromes, and carried out 421 sorties in which approximately 800 tons of bombs were dropped in support of the Lae operation. (See AAFRH-13, App. 3.)

99. Hq. U.S. Fleet, Amphibious Operations during the Period August to December 1943, dtd. 22 Apr. 1944.

100. CM-IN-15490 (9-21-43), Port Moresby to WAR, C66, 21 Sept. 1943; CM-IN-16120 (9-22-43), Port Moresby to WAR, CA66, 21 Sept. 1943.

101. Combined Opns. Hq. Bulletin 10, Operations Postern and Diminish, 24 Nov. 1943; History, 5th Tac. Air Com. Sq.

102. Form 34, 19-25 Sept. 1943, 64th, 403d, 8th, 89th, and 90th Sqs.; CM-IN-16932 (9-23-43), Port Moresby to WAR, CA74, 23 Sept. 1943.

103. Operation Diminish, as cited in n. 101. The Japanese had expected an Allied attack on Finschhafen at some future date, and on 15 September about 2,800 troops had arrived there from Madang. The main body of the Japanese 20th Division was en route from Madang to Finschhafen when the landing occurred. (Aus. Intr., 5 M.H. Fld. Team, Rabaul.)

104. Form 34, 19-25 Sept. 1943 for all

fighter sqs.; Ball and Harbor, "Amphibious Control."

105. "Amphibious Control"; Form 34, 19-24 Sept. 1943, 9th, 35th, 39th, 341st, and 432d Sqs.; CM-IN-16932 (9-23-43), Port Moresby to WAR, CA74, 23 Sept. 1943; CM-IN-18992 (9-27-43), Brisbane to WAR, C6085, 27 Sept. 1943.

106. ONI Weekly, II, 39 (29 Sept. 1943); History, 5th Tac. Air Com. Sq.

107. History, 478th Service Sq.

108. Form 34, 26 Sept.-2 Oct. 1943, all bomb. sqs.; ONI Weekly for bomb loads. Brisbane to WAR: CM-IN-19937 (9-28-43), C6140, 28 Sept. 1943; CM-IN-19166 (9-27-43), C6108, 27 Sept. 1943; CM-IN-20550 (9-29-43), C6183, 29 Sept. 1943. The ship sunk was the *Taisei Maru*. (See JANAC.)

109. Form 34, 24-30 Oct. 1943, 40th and 41st Ftr. Sqs.; History, V AFSC in New Guinea; Histories, 41st Ftr. Sq., 70th TC Sq., 1954th Truck Co. (Avn.), and 35th Gp.; Group Medical and Sanitation Rpt., 1943, in History, 35th Gp.; Hq. Allied AF GO 27, 10 Nov. 1943.

110. History, V AFSC in New Guinea; Histories, 54th TC Wing, 872d Airborne Engr. Avn. Bn., 440th Signal Bn. (Cons.), and Third Air Task Force; ltr., Whitehead to Kenney, 18 Sept. 1943.

111. Ltr., Whitehead to Kenney, 18 Sept. 1943; narrative by Capt. Everette Frazier, in History, V AFSC in New Guinea.

112. Narrative by Capt. Frazier; Histories, 54th TC Wing, 872d Airborne Engr. Avn. Bn., and Third Air Task Force; ltr., Whitehead to Kenney, 20 Oct. 1943.

113. Memo for Sutherland from Brig. Gen. Carl Connell, 6 Sept. 1943.

114. Ltr., Connell to Col. H. E. Eastwood, Asst. G-4 GHQ, 21 Sept. 1943; msg., CG 23d Port Hq. to CGUSASOS, 12 Oct. 1943; ltr., Connell to Capt. Christian Petersen, 25 Oct. 1943; 1st ind. (ltr., Whitehead to CG Adv. Sec., USASOS, 26 Dec. 1943), Hq. Adv. Sec., USASOS to Dep. CG 5th AF, 6 Jan. 1944.

115. Ltr., Whitehead to Kenney, 20 Oct. 1943.

116. Ltr., Kenney to Sutherland, 11 Oct. 1943, in GHQ G-3 Journal, 13 Oct. 1943; memo for Kenney from Whitehead, 13 Nov. 1943; ltr., Whitehead to Kenney, 4 Nov. 1943.

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117. Ltr., Connell to Col. "Jimmy" Crabb, CO SATF, 16 Dec. 1943. This project was not without personnel problems. Connell relieved a commanding officer of a signal battalion for trying to push his heavy equipment against orders over the road before it was finished. On another occasion he found that engineer officers were not giving their men proper supervision. (Ltr., Connell to Lt. Col. Henry L. Schnoor, CO 60th Signal Bn., 13 Nov. 1943; memo for Lt. Col. S. E. Smith, CO 836th Engr. Avn. Bn. from Gen. Connell, 16 Dec. 1943; msg., CG Adv. Sec., USASOS to CGUSASOS, 27 Nov. 1943.)

118. Msg., CG Adv. Sec., USASOS to CGUSASOS, 15 Dec. 1943; ltr., Connell to Crabb, 15 Dec. 1943.

119. Ltr., Connell to Col. L. J. Sverdrup, 19 Dec. 1943.

120. Memo for Brig. Gen. L. J. Whitlock, 19 Oct. 1943, with incl. of ltr., Connell to Whitehead, 15 Oct. 1943; msg., MacArthur to CG 23d Port Hq., Q6148, 14 Oct. 1943; msg., CG Adv. Sec., USASOS to CGUSASOS, 10 Dec. 1943; ltr., Whitehead to Kenney, 20 Oct. 1943.

121. Ltr., Whitehead to Kenney, 20 Oct. 1943; ltr., Maj. W. J. Ellison, Jr. to Connell, 11 Nov. 1943.

122. Ltrs., Connell to Kenney, 12 Dec. 1943, and Kenney to Connell, 12 Dec. 1943; Check Sheet, Connell to Lt. Col. Pickard, 15 Dec. 1943; msg., CG Adv. Sec., USASOS to CGUSASOS, 10 Dec. 1943; Histories, 54th TC Wing, 35th, 340th, 341st, and 342d Ftr. Sqs.

123. Memo for C/S SWPA from Chamberlin, 3 Sept. 1943, and memo for file initiated by Chamberlin, both in GHQ G-3 Journal, 31 Aug. 1943; USSBS, *Employment of Forces under SWP Comd.*, p. 24.

124. Msg., OPD to CINCSWPA, CM-OUT-7555, 19 July 1943; GHQSWPA, RENO II, Estimate of the Situation and Outline Plan for Operations of the Southwest Pacific Area, 1944, 3 Aug. 1943.

125. CCS 319/5, 24 Aug. 1943. See also JCS 386, 28 June 1943; msg., WD (Marshall) to CINCSWPA, WARX-5972, 21 July 1943.

126. GHQSWPA, RENO III, Outline Plan for Operations of the Southwest Pacific Area to Reoccupy the Southern

Philippines, 20 Oct. 1943. See also CM-OUT-9252 (9-19-43), Marshall to MacArthur (Personal), 18 Sept. 1943; msg., CINCSWPA to WARCOS (for Col. W. L. Ritchie), C-6131, 28 Sept. 1943; CM-OUT-630-632 (10-2-43), OPD to MacArthur, Nimitz, and Halsey, 2 Oct. 1943.

127. GHQSWPA Warning Instn. 2, 6 May 1943; Hqs. ALAMO Force, Report of the Dexterity Operation, 15 Dec. 1943-10 Feb. 1944, pp. 1-3.

128. CINCPAC, Serial 00198, 30 Sept. 1943.

129. CM-OUT-630 (10-2-43), OPD to COMGENSOPAC, Rane 8285, 2 Oct. 1943.

130. In addition to these units, a photo reconnaissance squadron was to depart in late October and another in November, and the squadrons of the 71st Reconnaissance Group had either arrived already or would arrive in October. (CM-OUT-4236 [8-9-43], AC/AS OC&R to CINCSWPA, 7789, 9 Sept. 1943.)

131. CM-IN-12579 (10-21-43), Brisbane to CGAAF, 21 Oct. 1943; CM-OUT-2022 (11-5-43), AFRTH to CINCSWPA, 92, 5 Nov. 1943.

132. For further details on this subject see AAFRH-16, The Fifth Air Force in the Huon Peninsula Campaign, October 1943-February 1944, pp. 46-48.

133. *Ibid.*

134. *Ibid.*, p. 50.

135. Capt. James M. Stentz, Radar Officer, V Bomber Comd., Report on Tactics of PBV Catalina Enemy-Shipping Strikes, 3 Jan. 1944.

136. AAFRH-16, p. 54. During the period from 1 October to 31 December 1943, PBV's carried out 177 sorties of which 87 per cent were completed, made 75 contacts and 50 attacks, and were credited with 21 hits and 15 near misses, 8 warships sunk or damaged, and 80,700 tons of merchant shipping sunk or damaged. By January 1944 the LAB planes had flown 126 sorties of which 86 per cent were complete, made 52 contacts and 41 attacks, claimed 20 hits and 17 near misses, and were credited with 8 warships and 73,000 tons of merchant shipping sunk or damaged. (Memo for CG 5th AF from Col. Harry F. Cunningham, AC/AS A-2. ADVON 5th AF, 6 Jan. 1944, in A-2 Lib.

According to records of the Strategic Bombing Survey, these claims were considerably exaggerated.)

137. AAFRH-16, pp. 51 ff.
138. Ltr., Kenney to Arnold, 29 Oct. 1943.
139. Air Service Command in the SWPA, 1941-1944, p. 55.
140. Ltr., Wurtsmith to D/CG 5th AF, [July] 1943; ltr., Hq. 5th AF to CG USAFFE, 25 Sept. 1943; ltr., Capt. Harry M. Hayes, Asst. A-4, 54th TC Wing to Wing Comdr., 12 Aug. 1943, in Reustow Report; memo for Liaison Officer from Col. Alvin L. Pachynski, 30 Dec. 1943, in Report of Liaison Officer SWPA, 19 Feb. 1944.
141. CM-IN-2781 (10-5-43), Brisbane to WAR, C6365, 5 Oct. 1943; CM-IN-7061 (10-12-43), Brisbane to WAR, XC7432, 12 Oct. 1943; CM-OUT-12886 (10-29-43), ASF Trans. to CINCSWPA, 9749, 28 Oct. 1943; WD-PF-356 (12-2-43), Brisbane to CGAAF, XA11873, 2 Dec. 1943; WD-PF-624 (12-4-43), Brisbane to CGAAF, XA11863, 3 Dec. 1943; WD-PF-1289 (12-8-43), ASCPFO to Brisbane, 1643, 8 Dec. 1943; CM-IN-14425 (12-23-43), Brisbane to CGAAF, A2520, 23 Dec. 1943; CM-OUT-9579 (12-24-43), AC/AS MM&D to CINCSWPA, 2192, 24 Dec. 1943.
142. Ltr., Connell to Col. W. J. Clinch, AC/AS Personnel, 5 Aug. 1943, in Air Service Command in the SWPA, 1941-1944, Pt. 4; Capt. Edgar A. Holt's interview with Col. Jerry H. Dunkelberger, Exec. Off., IV ASAC, 1 May 1944, *ibid.*, Pt. 1; History, IV Air Service Area Comd.; Reustow Rpt., Tabulation of Activities of the 4th Air Depot at Townsville; Hq. 5th AF GO 28, 9 Jan. 1944. On 10 January, Col. Victor E. Bertrandias was placed in command of the Townsville area and Col. Carl A. Brandt, deputy service commander since June 1943, at Port Moresby. (Hq. V AFSC GO 3, 10 Jan. 1944, in History, V ASAC.) The War Department, however, did not authorize the reassignment of service squadrons independently of groups until February. (Memo for the AC/S OPD by Maj. Gen. Barney M. Giles, C/AS, 24 Feb. 1944.)
143. Air Service Command in the SWPA, 1941-1944; History, V ASAC.

144. Histories, 4th Air Depot Gp. and 479th Service Sq.

145. See particularly History, V ASAC.
146. WD-PF-3669 (10-23-43), Brisbane to CGAAF, A2031, 23 Oct. 1943; WD-PF-3889 (10-24-43), Brisbane to ASCPFO, XA10280, 24 Oct. 1943; ltr., Whitehead to Kenney, 21 Oct. 1943; CM-OUT-8733 (10-20-43), AFDMA to CINCSWPA, 9390, 20 Oct. 1943; WD-PF-3669 (10-23-43), Brisbane to CGAAF, A2031, 23 Oct. 1943; CM-OUT-12172 (10-27-43) AFDMA to CINCSWPA, 9685, 27 Oct. 1943.
147. WD-PF-1390 (11-9-43), Brisbane to ASCPFO, XA11044, 9 Nov. 1943; memo for the S/AS from Maj. Gen. O. P. Echols, AC/AS MM&D, 11 Dec. 1943; R&R, AC/AS OC&R to S/AS, 12 Dec. 1943; 81st Air Depot Group Year Book, 1943-1944; ltrs., Kenney to Whitehead, 2 Nov. 1943, and Whitehead to Wilson, 9 Jan. 1944.
148. Directive by General MacArthur, Return of Personnel to the United States, FEGG 210.68, 29 July 1943.
149. History, 440th Signal Bn.
150. Col. George F. Baier, Report of Inspection of the Medical Activities of the Fifth Air Force, 27 Nov. 1943.

NOTES TO CHAPTER 7

1. Incl. (ltr., Comdr. 3d Fleet to COMINCH, South Pacific Campaign--Narrative Account, 3 Sept. 1944), The South Pacific Area, 20 Apr. 1942 to 15 June 1944, in USMC Hist. Div. files (hereinafter cited as Halsey Rpt.).
2. Halsey Rpt.; Harmon, The Army in the South Pacific. At Casablanca the Combined Chiefs of Staff had ordered the seizure of Rabaul. (Statement of Gen. Wedemeyer, Discussion of Availability of Forces for Implementation of Elkton Plan, n.d.)
3. Hq. 43d Infantry Div., Report of Occupation of the Russell Islands, 8 June 1943; COMAIRSOPAC Opn. Plan 2-43, 15 Feb. 1943, in Ftr. Comd. Guadalcanal War Diary, USMC Hist. Div. files; 13th AF A-2 Periodic Rpt., 31 Jan.-28 Feb. 1943.
4. COMAIRSOPAC Opn. Plan 2-43, 15 Feb. 1943; Guadalcanal Escorted Mis-

sions during December 1942 and January 1943 through February 24, 1943, in A-2 Library.

5. Hq. 43d Inf. Div., Report of Occupation of the Russell Islands, 8 June 1943.

6. SWPA Intel. Sum. 92, 7 Apr. 1943.

7. SOPACFOR Office of Naval Air Combat Intel., Development of Jap Fields in Solomons Area, 15 Dec. 1942-15 Feb. 1943, dtd. 21-27 Feb. 1943. General Harmon reported eighty-two fighters on Buka, Kahili, Ballale, and Munda as of 21 February, although other reports placed seventy-five fighters on Kahili and Ballale alone. (USAFISPA G-2 Per. Rpt. 5, 13-20 Feb. 1943; CM-IN-12514 [2-25-43], Harmon to Marshall, 4998, 24 Feb. 1943.)

8. Plan for the Seizure and Occupation of the New Britain-New Ireland-New Guinea Areas, 28 Feb. 1943, especially Annex B. This plan represents a stage in the development of the ELKTON plans: I (12 Feb. 1943), II (11 Mar. 1943), and III (26 April 1943). ELKTON III was the plan actually followed, but the differences were in detail rather than principle.

9. Elkton Plan; JCS 238/1, 18 Mar. 1943. 10. Incl. C (JCS 238/1, 18 Mar. 1943).

11. CM-OUT-8736 (3-23-43), bk. msg., JCS to CINCSWPA, CINCPAC, and COMSOPAC, 2226, 23 Mar. 1943.

12. JCS 238/2, 20 Mar. 1943. At the Pacific theater conference held in Washington, Maj. Gen. R. K. Sutherland spoke for General MacArthur, Capt. Miles R. Browning, USN, represented Halsey, and Rear Adm. R. A. Spruance came as deputy CINCPAC to Nimitz.

13. JCS 238/5/D, 28 Mar. 1943.

14. JCS 238/4, 27 Mar. 1943; JCS 70th Mtg., 28 Mar. 1943, Extract from Minutes.

15. JCS 238/4, 27 Mar. 1943, App. C; CM-OUT-8736 (3-23-43), JCS to CINCSWPA, 2226, 23 Mar. 1943; JCS 70th Mtg., 28 Mar. 1943, Extract from Minutes.

16. JCS 238/4, 27 Mar. 1943, App. C; JCS 238/5/D, 28 Mar. 1943.

17. Elkton Plan, Annex A, G-2 Estimate of Enemy Strength and Reinforcement Rate in New Guinea-Bismarcks Area, 26 Feb. 1943.

18. Harmon, The Army in the South Pacific.

19. *Ibid.*, Incl. E, Principles and Poli-

cies Governing Employment of Air Force Units, 4 Mar. 1943; ltr., Gen. Harmon to Adm. Fitch, 3 Mar. 1943. This conference was held on 2-3 March 1943.

20. Harmon, The Army in the South Pacific.

21. Task Force 63 Opn. Plan 4-43, 11 Mar. 1943. Until 16 March, COMAIR-SOPAC was known as Task Force 63; on that date the new designation of Task Force 33 became effective. (COMAIR-SOPACFOR War Diary, 1 Mar.-30 Apr. 1943, Navy Register 8693.)

22. CM-IN-4883, 7130, 11160 (3-10, 14, 21-43), COMGENSOPAC to C/S USA, 6044, 6314, 6849, 10, 14, and 21 Mar. 1943.

23. CM-IN-8213 (4-14-43), COMGENSOPAC to AGWAR, 449, 14 Apr. 1943; USAFISPA Mission Rpt., 12 Apr. 1943; Form 34, 29 Mar.-4 Apr. 1943, 70th Fighter Sq. The sole Marine to complete this mission was Lt. Benjamin E. Dale of VMF-124.

24. SOPACFOR Office of Naval Air Combat Intel., Enemy Aircraft Destroyed by SOPAC Forces and Shipping Attacked by SOPAC Planes, May 1944, in USMC Hist. Div. files.

25. Ftr. Comd. Guadalcanal War Diary, App. II, Enemy Planes Shot Down by Fighters from Guadalcanal Area, and App. IV, Results of Fighter Action on Guadalcanal.

26. Halsey Rpt.

27. Ftr. Comd. Guadalcanal War Diary, incl., Interception of Enemy Fighters over the Russell Islands, April 1, 1943; Hq. 43d Inf. Div., Report of Occupation of the Russell Islands, 8 June 1943.

28. Ftr. Comd. Guadalcanal War Diary, incl., Interception of Enemy Dive Bombing Attack against Shipping, Tulagi Harbor and Vicinity, April 7, 1943; CM-IN-5022 (4-9-43), COMGENSOPAC to C/S USA, 8453, 8 Apr. 1943.

29. Tactical Intel. Questionnaire of Lt. Joseph F. Moore, 24 Sept. 1943; Ftr. Comd. Guadalcanal, War Diary, incl. of 7 Apr. 1943 and App. IV; CM-IN-5022 (4-9-43), COMGENSOPAC to C/S USA, 8453, 8 Apr. 1943. The P-38's accounted for eight planes here, and Lanphier was credited with three of this number.

30. Interview with Lt. Col. Thomas G. Lanphier, Jr., by author, 10 Sept. 1945; Ftr. Comd. Guadalcanal, War Diary; Hq.

USAFISPA, Ftr. Interception Rpt., 21 Apr. 1943.

31. Lanphier interview; Form 34, 12-18 Apr. 1943, 70th Ftr. Sq. and 339th Ftr. Sq.; Hq. USAFISPA, Ftr. Interception Rpt.

32. Hq. USAFISPA, Ftr. Interception Rpt.; Lanphier interview.

33. Lanphier interview; Enemy Aircraft Destroyed by Army Fighter Pilots in the Solomon Area Covering Period from August 22, 1942 to June 30, 1943, in A-2 Lib.; CM-IN-11334 (4-19-43), COMGEN-SOPAC to C/S USA, 1033, 19 Apr. 1943. Much secrecy surrounded this exploit, since its success rested on U.S. ability to understand the Japanese codes. Not one of the original intelligence reports examined ever gave any indication that Yamamoto was involved. Some difficulty arises in fixing responsibility for shooting down the victim's plane. Both Barber and Lanphier destroyed a bomber, and so did Holmes over Moila Point. But this last one fell in the water, Barber's disintegrated in the air at 5,000 to 6,000 feet, while Lanphier's crashed into the trees. A subsequent report by the Japanese stated that Yamamoto was found dead in his wrecked plane, which would indicate that it was Lanphier's work.

34. Ltr., Harmon to Arnold, 1 May 1943; Decorations and Awards made for Service during the Current War as Indicated by the Records of the Navy Department Board of Decorations and Medals, January 1, 1944. All other members of the flight received the Navy Air Medal.

35. Ltr., Gen. Harmon to Gen. Arnold, 1 May 1943.

36. *Ibid.*; CM-IN-8818 (4-15-43), COMGENSOPAC to AGWAR, 561, 15 Apr. 1943; ltr., Twining to Arnold, 27 Apr. 1943.

37. Col. George F. Baier, III, MC, Report of Inspection of the Medical Activities of the Thirteenth Air Force, 11 Dec. 1943, Exh. 2, Days Lost per 100 Flying Officers per Month.

38. The Operations of Aviation Engineers in the South Pacific, January 1942-August 1944, dtd. 15 July 1945 (hereinafter cited as Opns. of Avn. Engineers); ltr., Twining to Arnold, 27 Apr. 1943. The groups were as follows: heavy bombardment, 5th and 307th; medium bom-

bardment, 42d; fighters, 18th and 347th; photo, 4th.

39. Ltr., Twining to Arnold, 27 Apr. 1943.

40. CM-IN-4047 (3-8-43), Lindsay and MacArthur to Marshall, Q4412; ltr., Lt. Angus Hopkins, Jr. to Brig. Gen. R. W. Douglass, CG VII Ftr. Comd., 10 Mar. 1943; ltr., Harmon to Arnold, 1 May 1943; Opns. of Avn. Engineers; ltr., Twining to Arnold, 27 Apr. 1943.

41. CM-IN-902 (4-2-43), COMGEN-SOPAC to Arnold, 7518, 1 Apr. 1943; CM-OUT-9769 (3-26-43), Arnold to Harmon, Rane 3953, 25 Mar. 1943; CM-IN-15058 (3-28-43), Thompson to Arnold, 7319, 28 Mar. 1943. See Arnold's comment in Daily Log; CM-OUT-11089 (3-29-43), Arnold to Harmon, Rane 4006, 29 Mar. 1943; ltr., Twining to Arnold, 27 Apr. 1943. When asked why he had not attacked Fighter No. 2, where 130 fighters were parked on the one strip, an enemy airman replied that his people knew these planes for the most part were dummies since the "Americans would not be so dumb as to put that many planes in the open." (Ltr., Twining to Arnold, 27 Apr. 1943.)

42. CM-IN-902 (4-9-43), COMGEN-SOPAC to Arnold, 7518, 1 Apr. 1943; ltr., Twining to Arnold, 27 Apr. 1943; CM-IN-13079 (4-22-43), Harmon to Arnold, 1289, 21 Apr. 1943; CM-IN-14006 (4-23-43), Harmon to Arnold, 1550, 23 Apr. 1943. On 21 April aircraft on Guadalcanal totaled 286 distributed as follows: Henderson, Army-23, Navy-109; Carney Field, Army-24, Navy-0; Fighter No. 1, Army-9, Navy-54; Fighter No. 2, Army-58, Navy-18.

43. Mine Laying Operations by Aircraft in the Buin-Tonolei Area, 20-21 Mar. 1943; 31st Bomb. Sq. Strike Mission Rpt., 21-22 Mar. 1943; 307th Bomb. Gp. Consolidated Mission Rpt., 20-21 Mar. 1943, all in USMC Hist. Div. files; CM-IN-11680 (3-22-43), COMGENSOPAC to C/S USA, 6931, 22 Mar. 1943; CM-IN-12186 (3-23-43), COMGENSOPAC to C/S USA, 7005, 23 Mar. 1943.

44. CM-IN-9631 (5-15-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 140661 GR 208, 15 May 1943, SCR NR 10; Air Combat Intel. Rpt. (ACIR), 9-15 May 1943; Ftr. Comd., MAG-12 Air Combat Intel.

Log, Feb. 10-July 10, 1943 (hereinafter cited as Ftr. Comd. Log, with appropriate date).

45. ACIR, 16-22 May 1943.
46. Report of Mine Laying in Kahili and Shortland Island Areas, May 19, 20, 23, and COMAIRSOLS Strike Comd. War Diary, 2 Apr.-25 July 1943, both in USMC Hist. Div. files; Form 34, 17-23 May 1943, 424th Bomb. Sq.; 307th Bomb. Gp. Consolidated Mission Rpt., 19 May 1943; TBF Intel., VT-11, 20 and 23 May 1943; 5th Bomb. Gp. Consolidated Mission Rpt., 23 May 1943.
47. ACIR, 23-29 May, 6-12 June 1943.
48. COMAIRSOLS Weekly Intel. Sum., 11 June 1943.
49. CM-IN-7447 (6-12-43), COMGEN-SOPAC G-2 to COMGENAAF, 749, 12 June 1943; ACIR, 6-12 June 1943; Hq. 18th Ftr. Gp., Ftr. Interception Rpt., 17 June 1943; RNZAF Dir. of Public Relations, RNZAF in the Pacific, Historical Summary, Aug. 1944, p. 10. P-40's were credited with twelve planes this day.
50. Ftr. Comd. Guadalcanal, War Diary, App. IV, Results of Fighter Action on Guadalcanal.
51. *Ibid.*; Hq. 18th Ftr. Gp., Ftr. Interception Rpt., 12 June 1943.
52. ACIR, 13-19 June 1943; CM-IN-10632 (6-17-43), COMGENSOPAC to C/S USA, 869, 17 June 1943; COMAIRSOLS Weekly Intel. Sum., 18 June 1943; CM-IN-9837 (6-16-43), Comdr. 3d Fleet to CINCSOWESPAC, SCR 10 150600 Z GR 133, 15 June 1943.
53. ACIR, 13-19 June 1943; Ftr. Comd. War Diary, incl., Action Report, Fighting Squadron Eleven, 16 June 1943; CM-IN-11857 (6-19-43), COMSOPAC to COMINCH, 190114 SCR 9, 19 June 1943.
54. Ftr. Comd. War Diary, App. IV, Results of Fighter Action on Guadalcanal; CM-IN-11225 (6-18-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 170529 NCR 8046, 18 June 1943; ACIR, 13-19 June 1943; COMAIRSOLS Weekly Intel. Sum., 18 June 1943.
55. CM-IN-11857 (6-19-43), COMSOPAC to COMINCH, 190114 SCR 9, 19 June 1943.
56. CCS 239/1, 23 May 1943.
57. Harmon, The Army in the South Pacific.
58. ONI Combat Narratives, Opera-

tions in the New Georgia Area, 21 June-5 August 1943, pp. 1-2.

59. *Ibid.*, p. 2; Harmon, The Army in the South Pacific; COMAIRSOLS Weekly Intel. Sum., 17-23 Mar. 1943.
60. ONI, Opns. in the New Georgia Area, p. 3; SOPACFOR, The Air Aspect of the Munda Campaign, 15 Aug. 1943. Carney was flooded out for three days in the period 14-20 June. (Form 34's, 424th Bomb. Sq., 9-16 June and 14-20 June 1943.)
61. Halsey Rpt.; Opns. in the New Georgia Area, p. 5; Hq. New Georgia Air Force, Special Action Rpt., 29 June-13 Aug. 1943, Annex A, in USMC Hist. Div. files; Task Force 31 Opn. Plan A8-43, 4 June 1943; Operations of the 25th Infantry Div. in the Central Solomons, 14 June 1944.
62. Task Force 33 Opn. Plan 7-43, 18 June 1943, in USMC Hist. Div. files; Halsey Rpt.; Harmon, The Army in the South Pacific; TF-31 Opn. Plan A8-43.
63. TF-31 Opn. Plan A8-43; Harmon, The Army in the South Pacific.
64. TF-33 Opn. Plan 7-43; TF-31 Opn. Plan A8-43, Annex D, Air Support Plan, Toenails Operation.
65. TF-31 Opn. Plan A8-43, Annex D.
66. TF-33 Opn. Plan 7-43; Hq. New Georgia AF, Special Action Rpt.
67. New Georgia AF, Special Action Rpt., Annex C, Plans for Air Support Missions for Ground Operations and for Fighter Direction in the New Georgia Area, 24 June 1943; TF-31 Opn. Plan A-8-43, Annex D; TF-33 Opn. Plan 7-43.
68. TF-33 Opn. Plan 7-43.
69. ONI, Opns. in the New Georgia Area, p. 4.
70. SOPACFOR, The Air Aspect of the Munda Campaign. COMSOPAC's estimate of 26 June credited the Japanese with 380 aircraft in the New Britain-Solomons area, of which the majority were at Rabaul and in the Solomons.
71. *Ibid.*
72. COMAIRSOLS Weekly Intel. Sums., 25 June, 9 July 1943; History, 42d Bomb. Gp., 15 Jan. 1941-30 June 1943; CM-IN-17927 (6-28-43), COMAIRSOLS to COMAIRSOPAC, SCR 11 262336, 26 June 1943.
73. New Georgia AF, Special Action Rpt., Annex E, Daily Intel. Sums.; Lt.

Burton Atkinson, USNR, Navy Fighter Control in the Solomons, in AAFSAT Intel. Rpts., March 1944; Ftr. Comd. Guadalcanal, War Diary; COMAIRSOLS Weekly Intel. Sum., 2 July 1943; ACIR, 27 June-3 July 1943. Fighter control was handled by Argus No. 11, first of the Navy's radar fighter-director units.

74. ACIR, 27 June-3 July 1943; ONI, Opns. in the New Georgia Area, pp. 11-13.

75. CM-IN-314 (7-1-43), COMAIRSOLS to COMAIRSOPAC, SCR 10 301252, 30 June 1943; ACIR, 27 June-3 July 1943; Ftr. Comd. War Diary, App. IV. AAF planes were credited with seventy-one enemy kills, Corsairs with ninety, and F4F's with seventy-eight. RNZAF P-40's added fifteen more. A rough estimate of enemy personnel losses in June indicates an expenditure of more than 500 pilots and aircrew men. Fighter Command's figures exclude Allied losses in heavy and medium bombers.

76. COMAIRSOLS Weekly Intel. Sum., 9 July 1943; Ftr. Comd. War Diary, App. IV; ACIR, 27 June-3 July 1943; New Georgia AF Daily Intel. Sum.

77. The Air Aspect of the Munda Campaign; ltr., Harmon to Arnold, 13 July 1943.

78. Ltr., Twining to Brig. Gen. La Verne Saunders, DC/AS, 8 July 1943; Strike Comd. War Diary, 2 Apr.-25 July 1943; CM-IN-315 (7-1-43), COMAIRSOLS to COMAIRSOPAC, SCR 9 301311, 30 June 1943.

79. Ltr., Twining to Saunders, 8 July 1943. Fighter Command lists 169 Japanese planes down by 8 July, with an Allied combat loss of 27, exclusive of 7 operational losses.

80. Ltr., Twining to Saunders, 8 July 1943; CM-IN-7580 (7-11-43), COMGENSOPAC to COMGENAAF, 1372, 11 July 1943; ltr., Harmon to Arnold, 13 July 1943. In addition to the twenty-nine reported on hand, ten were due in by boat on 13 July, thirty more were scheduled for July shipment.

81. CM-OUT-5178 (7-13-43), Arnold to Harmon, Rane 6321, 12 July 1943; memo for Col. Berquist from Lt. Col. Roger L. Shearer, 11 July 1943.

82. Ltr., Harmon to Arnold, 13 July 1943; CM-IN-7005 (7-10-43), CTF 31

to COMSOPAC, 100123Z SCR 12, 10 July 1943; New Georgia AF Daily Intel. Sum.

83. 13th AF, Opns. Analysis Sec., Losses, Accidents and Injuries of Fighter Planes and Pilots in Relation to Flying Time, Solomon Islands, June through Nov. 1943, dtd. 15 Apr. 1944. It was necessary to withdraw P-39's from this field in September and to replace them with carrier-type fighters.

84. Ltr., Harmon to Arnold, 13 July 1943.

85. ONI, Opns. in the New Georgia Area, pp. 29-31, 34-35; CM-IN-5302 (7-8-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 070626 NCR 1406, 8 July 1943. The Japanese lost two destroyers in the first action, and their light cruiser *Jintsu* in the second. (USSBS, *The Campaigns of the Pacific War*, p. 142.)

86. USSBS, *The Campaigns of the Pacific War*.

87. ACIR, 11-17 July 1943; Ftr. Comd. War Diary, App. IV; COMAIRSOLS Weekly Intel. Sum., 16 July 1943. It was believed that the Japanese army planes were involved here because some of the aircraft were painted a mottled green-brown. (CM-IN-11174 [7-16-43], COMAIRSOLS to COMAIRSOPAC, 151245 SCR NR 9, 15 July 1943.) The eleven AAF P-40's involved claimed 12½ enemy planes destroyed in this action. (Form 34, 12-18 July 1943, 44th Fighter Sq. Det.)

88. ACIR, 18-24 July 1943.

89. New Georgia AF Daily Intel. Sum.; The Air Aspect of the Munda Campaign.

90. *Ibid.*

91. CM-IN-973 (7-2-43), COMAIRSOLS to COMAIRSOPAC, 010951Z SCR 14, 1 July 1943; CM-IN-2478 (7-4-43), COMGENSOPAC to C/S USA, 1219, 4 July 1943; COMAIRSOLS Weekly Intel. Sum., 9 July 1943; Form 34, 5-11 July 1943, 72d Bomb. Sq. (H), 394th Bomb. Sq. (H), 370th Bomb. Sq. (H); Strike Comd. War Diary, 2 Apr.-25 July 1943.

92. Form 34's, 21-27 June, 5-11 July 1943, 69th Bomb. Sq. (M); 28 June-4 July, 12-18 July 1943, 390th Bomb. Sq. (M); CM-IN-1770 (7-3-43), COMAIRSOLS to COMAIRSOPAC, 021103 SCR 8, 2 July 1943.

93. Ltr., Twining to Saunders, 8 July 1943; Form 34, 12-18 July 1943, 390th Bomb. Sq. (M). Twining pointed out

at the same time that the Navy now was interfering very little with heavy bomber employment.

94. CM-IN-12874 (7-18-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 150547 SCR 13, 15 July 1943; CM-IN-12917, COMAIRSOLS to COMAIRSOPAC, 170013Z SCR NR 17, 17 July 1943; COMAIRSOLS Weekly Intel. Sum., 16 July 1943.

95. COMAIRSOLS Weekly Intel. Sum., 23 July 1943; Form 34, 12-18 July 1943, 370th Bomb. Sq. (H); Strike Comd. War Diary; CM-IN-13454 (7-19-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 180540 SCR 6, 18 July 1943; ACIR, 11-17 July 1943. The fighter escort was typical of these operations: twenty-three P-40's, twelve P-38's, thirty-five F4F's, and forty-four F4U's. P-38G's of 339th Fighter Squadron escorted the B-24's, shooting down five Zeros, but they lost two of their number. (Form 34, 11-18 July 1943, 339th Fighter Sq.; Ftr. Comd. War Diary, App. IV.) A later estimate placed enemy losses at forty-six Zeros. (COMAIRSOLS Weekly Intel. Sum., 23 July 1943.)

96. COMAIRSOLS Weekly Intel. Sum., 23 July 1943; The Air Aspect of the Munda Campaign; CM-IN-13540 (7-19-43), COMGENSOPAC to C/S USA, 1536, 19 July 1943; Strike Comd. COMAIRSOLS War Diary, 2 Apr.-25 July 1943; Form 34, 12-18 July 1943, 424th Bomb. Sq.; Ftr. Comd. War Diary, especially App. IV; CM-IN-14231 (7-20-43), Comdr. 3d Fleet to CINC SOWESPAC, SCR 12 190552 GR 171 BT, 19 July 1943; CM-IN-14454 (7-20-43), COMAIRSOLS to COMAIRSOPAC, SCR 8 181927Z, n.d.

97. CM-IN-16416 (7-23-43), COMAIRSOLS to All Comdrs. SOPAC, SCR NR 15 221224, 22 July 1943; COMAIRSOLS Weekly Intel. Sum., 30 July 1943; Form 34's, 19-25 July 1943, 72d, 424th, and 370th Bomb. Sqs.

98. CM-IN-21689 (7-30-43), COMAIRSOLS to COMAIRSOPAC, SCR 8 290951, 29 July 1943. Both SBD's and TBF's were now equipped with wing tanks which increased their range. (COMAIRSOLS Weekly Intel. Sum., 23 July 1943.)

99. COMAIRSOLS Weekly Intel. Sum., 23 July 1943; ACIR, 18-24 July 1943; CM-IN-16782 (7-23-43), CTF 31 to COMSOPAC, SCR NR 20 220316Z GR 190

BT, 22 July 1943. LST 343 lost ten dead and ten wounded in this attack. P-39's and P-40's would leave Segi late in the afternoon to cover the Rendova area at dusk. (Form 34's, July 1943, 70th, 12th, 339th Ftr. Sqs.)

100. COMAIRSOLS Weekly Intel. Sum., 30 July 1943; CM-IN-18667 (7-26-43), COMAIRSOLS to COMAIRSOPAC, SCR 9 251103Z, 25 July 1943; ACIR, 25-31 July 1943. Four F4F's and two P-39's were lost in this interception but three pilots were recovered.

101. Ltr., Twining to Arnold, 29 July 1943.

102. Strike Comd. War Diary, 2 Apr.-25 July 1943; Ftr. Comd. War Diary. From March to July inclusive, the Navy and Marines together had assigned to them an average of slightly less than three times the number of fighters operated by the AAF in Fighter Command. (Ftr. Comd. War Diary, App. I.) The enemy's loss record in the 26-day period was as follows: 222 Zeros, 1 twin-engine fighter, 23 float biplanes, 55 Bettys, 6 Sallys, and 9 dive bombers. In terms of personnel losses, assuming a crew of 5 for the Sallys and 6 for the larger Bettys, the above figures would indicate that it had cost the lives of 40 Allied pilots of all services to destroy approximately 648 enemy airmen. (*Ibid.*, App. IV.)

103. Maj. Victor Dykes, Air Comd. Solomon Islands, n.d.; ltr., Twining to Arnold, 29 July 1943. Strother had commanded the XIII Fighter Command since its activation. Matheny took over the XIII Bomber Command on 1 July 1943.

104. Ltr., Twining to Saunders, 8 July 1943; ltr., Twining to Arnold, 29 July 1943.

105. ACIR, 25-31 July 1943; SOPAC-FOR Office of Naval Air Combat Intel., Enemy Aircraft Destroyed by SOPAC Forces and Shipping Attacked by SOPAC Planes. F4U's held the highest score in June and July, destroying 85 and 112½ planes, respectively. AAF P-40's made the best Army record: 43 and 31½.

106. 43d Inf. Div., Report of Operations; ONI, Opns. in the New Georgia Area, pp. 16-17, 19-20; CM-IN-1864 (7-3-43), CTF 31 to COMSOPAC, 020556.

107. CM-IN-1864 (7-3-43), CTF 31 to COMSOPAC, 020556; Harmon, The

Army in the South Pacific; 43d Inf. Div., Rpt. of Opns.; CM-IN-5366 (7-8-43), COMGENSOPAC to C/S USA, 1302, 8 July 1943; CM-IN-6041 (7-9-43), COMGENSOPAC to C/S USA, 1321, 9 July 1943; CM-IN-7005 (7-10-43), CTF 31 to COMSOPAC, 100123Z SCR 12, 10 July 1943; COMAIRSOLS Weekly Intel. Sum., 9 July 1943; ONI, Opns. in the New Georgia Area, pp. 15-16, 31.

108. Opns. of the 25th Infantry Div. in the Centrall Solomons, 14 June 1944.

109. XIV Corps Photo Intel. Rpt., New Georgia Opns., n.d.; Harmon, Summary Munda Operation, 1 Aug. 1943; 43d Div., Rpt. of Opns.

110. 43d Div., Rpt. of Opns.; Harmon, Summary Munda Opn.

111. TF-31, Opn. Plan A8-43, Annexes C and D, in USMC Hist. Div. files; Hq. New Georgia AF, Special Action Rpt.

112. Hq. New Georgia AF, Special Action Rpt.; CG XIV Corps, Informal Report on Combat Operations in the New Georgia Campaign, British Solomon Islands; Hq. New Georgia AF, Special Action Rpt.

113. Hq. New Georgia AF, Special Action Rpt.

114. The Air Aspect of the Munda Campaign.

115. CM-IN-7005 (7-10-43), CTF-31 to COMSOPAC, SCR 12 100123Z, 10 July 1943; COMAIRSOLS Weekly Intel. Sum., 9 July 1943; 43d Div., Rpt. of Opns.

116. Harmon, The Army in the South Pacific; Halsey Rpt.

117. Hq. New Georgia AF, Special Action Rpt.; CM-IN-15700 (7-22-43), COMAIRSOLS to COMAIRSOPAC, SCR NR 13 211122Z, 21 July 1943; COMAIRSOLS Weekly Intel. Sum., 23 July 1943.

118. COMAIRSOLS Weekly Intel. Sum., 30 July 1943; ONI, Opns. in the New Georgia Area, pp. 52-53.

119. COMAIRSOLS Weekly Intel. Sum., 30 July 1943; CM-IN-18696 (7-26-43), Comdr. 3d Fleet to Comdr. 1st Fleet, SCR 13 250637, 25 July 1943; Strike Comd. War Diary. This force, which struck at 0630, was composed of fifty-three SBD's, fifty-two TBF's, thirty-two B-24's, twenty-four B-25's, and ten B-17's, escorted by seventy-nine fighters of all types. One B-24 and one SBD were lost. Harmon

went along to drop a "personal bomb." (CM-IN-18671 [7-26-43], ACORN RED 1 to COMSOPAC, SCR 11 250158Z, 25 July 1943.)

120. Harmon, Summary Munda Opn.

121. CM-IN-3986 (8-6-43), Gen. Griswold to COMSOPAC, SCR NR 11 050545, n.d.; 43d Div., Rpt. of Opns.; ONI, Opns. in the New Georgia Area, p. 59; Opns. of the 25th Inf. Div.

122. ACIR, 1-7 Aug. 1943. Distances in nautical miles from Munda to the enemy's fields were as follows: Kieta, 160; Tenekow, 180; Buka, 234; Rabaul, 394. Enemy planes had landed on Munda as early as 23 December 1942, but by 2 January 1943, thirty-seven Zeros had been shot down over the strip and by early March it was totally inoperative. Thereafter Japanese aircraft landed only rarely and Munda never was placed in active operation.

123. The Air Aspect of the Munda Campaign. Enemy losses were: 259 fighters, 60 twin-engine bombers, 23 dive bombers, and 16 float planes.

124. Hq. New Georgia AF, Special Action Rpt., Annex D, Air Support Requests -New Georgia Campaign, June 30-August 5, 1943. Total sorties by COMAIR New Georgia were distributed in the following manner:

SBD 886	B-25 102	B-17 16
TBF 763	B-24 66	

125. COMAIRSOLS Weekly Intel. Sum., 6 Aug. 1943; CM-IN-1740 (8-3-43), Comdr. 3d Fleet to Comdr. 1st Fleet, SCR NR 12 020557, 2 Aug. 1943.

126. Harmon, Summary Munda Opn.; Opns. of the 25th Inf. Div.; CG XIV Corps, Informal Rpt. on Combat Opns. in New Georgia.

127. Interview with Lt. Comdr. Harold H. Larsen, USN, 18 Jan. 1944. Larsen served as operations officer for Strike Command for five months, beginning 25 July 1943. His criticism of the failure of ground commanders to request close support may be attributed to a pride often demonstrated by the TBF-SBD men in the accuracy of their bombing.

128. The Air Aspect of the Munda Campaign; COMAIRSOLS Weekly Intel. Sum., 16 July 1943. The Navy report credits COMAIRSOLS with the destruction of one seaplane carrier, one oiler, four destroyers, six cargo vessels, nine

barges, plus damage to seven DD's, nine AK's, and three PC's during the campaign.

129. TF-33 Opn. Plan 7-43; 43d Div. G-4 Journal, Munda Campaign, 22 June-22 Aug. 1943.

130. 43d Div., Rpt. of Opns.

131. 43d Div. G-4 Journal; Hq. 145th Inf., The First Battalion Journal for New Georgia and Vella Lavella Campaigns; COMAIRSOLS Weekly Intel. Sum., 16 July 1943; History, 13th Troop Carrier Sq.

132. Interview with Col. F. L. Beadle, 23 Nov. 1943; New Georgia AF Daily Intel. Sum. Thirty Japanese planes, all in poor condition, were captured on Munda. (ACIR, 8-14 Aug. 1943; COMAIRSOLS Weekly Intel. Sum., 13 Aug. 1943; CM-IN-7817 [8-11-43], COMAIRSOLS to COMAIRSOPAC, SCR NR 14 101000, 10 Aug. 1943.) Lt. Shuler, who had downed four planes on the 6th, shot down his fifth in this action. (COMAIRSOLS Daily Intel. Sum., 11 Aug. 1943.)

133. *Ibid.*; History, 828th Engineer Aviation Bn., Nov. 1942-July 1944, incl. 5, Operations of Aviation Engineers; Form 34, 8-14 Aug. 1943, 44th Ftr. Sq. When the Navy moved to an advance position requiring establishment and maintenance of an airfield, it ordered an Acorn and a Combat Aircraft Service Unit (CASU). CASU personnel serviced and repaired the planes. Seabees attached to the Acorn built and maintained the airstrip, buildings, and installations. Each Acorn was so equipped that when joined with a CASU, it could service, rearm, and perform minor repairs and routine upkeep for the aircraft of a carrier group or a patrol plane squadron. (*Naval Aviation News*, 1 June 1945, p. 18.)

134. History, 828th Engineer Aviation Bn.

135. *Ibid.* The 73d Seabees maintained this field.

136. 13th AF Opns. Analysis Sec., Report on Study of Non-Combat Accidents, 15 Nov. 1943. From the center line of the strip to 100 feet on each side, Munda was surfaced with eighteen inches of rolled coral.

137. Harmon, The Army in the South Pacific; Halsey Rpt. Apparently, Halsey made his decision to by-pass Vila on

12 July. (Hq. N.Z. 3 Div., History of Occupation of Vella Lavella.)

138. Harmon, The Army in the South Pacific; Hq. New Georgia Occupation Force, Narrative Account of the Campaigns in the New Georgia Group, B.S.I.; Hq. USAFISPA G-2 Per. Rpt., 14-21 Aug. 1943. The 35th was followed by the 4th Defense Battalion, USMC, the 58th Seabees, and the reconnaissance troop of the 25th Division.

139. Hq. New Georgia Occupation Force, Narrative . . . New Georgia; Rpt. of the 43d Division During the Campaign to Secure Arundel Island and Diamond Narrows.

140. Opns. of the 25th Inf. Div.; Hq. New Georgia Occupation Force, Narrative . . . New Georgia.

141. Hq. New Georgia Occupation Force, Narrative . . . New Georgia. Total Allied ground casualties in the central Solomons were 972 killed, 3,873 wounded, 23 missing, and 122 additional deaths due to wounds.

142. Larsen interview.

143. Larsen interview; COMAIRSOLS Weekly Intel. Sum., 13 Aug. 1943; CM-IN-11200 (8-15-43), COMAIRSOLS to COMAIRSOPAC, 140012 SCR NR 13, 14 Aug. 1943; Hq. 7th AF Intel. Bull. 100, 29 Aug. 1943.

144. Hq. New Georgia AF, Special Action Rpt., Second Phase, 14 Aug.-20 Oct. 1943, in USMC Hist. Div. files; COMAIRSOLS Daily Intel. Sum., 16 Aug. 1943.

145. COMAIRSOLS Daily Intel. Sum., 16-17, 19 Aug. 1943; Hq. New Georgia AF, Special Action Rpt., Second Phase, especially Annex A; New Georgia Air Comd. Daily Intel. Sum., 14 Aug.-20 Oct. 1943; COMAIRSOLS Weekly Intel. Sum., 20 Aug. 1943.

146. Hq. New Georgia AF, Special Action Rpt., Second Phase; NG Air Comd. Daily Intel. Sum. On 17 August an estimated fifty shells fell around Munda Field. On the day previous, one shell had burst in the Acorn 8 dispensary.

147. Hq. New Georgia AF, Special Action Rpt., Second Phase.

148. COMAIRSOLS Daily Digest, 28 Sept. 1943.

149. *Ibid.*

150. COMAIRSOLS Weekly Intel. Sum., 27 Aug. 1943.

151. NG Air Comd. Daily Intel. Sum.
152. Hq. N.Z. 3 Div., History of Occupation of Vella Lavella. It was estimated that prior to initiation of full operation, Barakoma had been directly or indirectly responsible for the saving of twenty-two pilots and aircrew men.
153. Hq. USAFISPA, Air Information Bull. 24, 18 Aug. 1943; Hq. 7th AF Intel. Bull. 100, 29 Aug. 1943.
154. Hq. 7th AF Intel. Bull. 100, 29 Aug. 1943.
155. COMAIRSOPAC Daily Intel. Sums., 21-23, 25-27 Aug. 1943; Hq. 42d Bomb. Gp., Narrative Rpt. of August Activities, 9 Sept. 1943. Often the Japanese ran their barges up on the beach where they were burned out.
156. CM-IN-20417 (8-27-43), COMSOPAC to CINCPAC, 260601Z SCR 11; ltr., Twining to Arnold, 7 Oct. 1943; COMAIRSOLS Weekly Intel. Sum., 17 Sept. 1943; COMAIRSOLS Daily Intel. Sum., 5 Oct. 1943. On 11 September Halsey congratulated Twining on the progress of the anti-barge campaign in his usual pungent manner, remarking that "your anti-barge warfare is warming [the] seats of the Jap britches. Keep 'em blazing." (Strike Comd. War Diary, 26 July-19 Nov. 1943.)
157. SOPACFOR Office of Naval Air Combat Intel., Enemy Aircraft Destroyed by SOPAC Forces; ACIR, 5-11 Sept. 1943. This was the second highest monthly total of kills achieved by the B-24's in the entire Solomons campaign.
158. COMAIRSOLS Weekly Intel. Sum., 3 Sept. 1943; The Thirteenth Air Force, March-Oct. 1943, App. 5.
159. Hq. New Georgia AF, Special Action Rpt., Second Phase; ACIR, 19-25 Sept. 1943.
160. SOPACFOR Intel. Sec., The F4U-2(N) in the Solomons, 1 Mar. 1944, in USMC Hist. Div. files; COMAIRSOLS Daily Intel. Sum., 18 Sept. 1943; ACIR, 19-25 Sept. 1943.
161. ACIR, 17 Sept. 1943.
162. *Ibid.*, 21 Sept. 1943.
163. Draft AAF historical study, Development of Radio and Radar Equipment for Air Operations, 1939-1944.
164. CM-OUT-12466 (4-30-43), Arnold to CGSPA, Rane 4684, 27 Apr. 1943; CM-IN-2186 (5-4-43), COMGENSOPAC to CGAAF, 2899, 4 May 1943; ltr., Col. W. A. Matheny to CG 13th AF, 21 Sept. 1943; 13th AF Opns. Analysis Sec., Some Factors Affecting Snooper Performance, 1 May 1944.
165. 13th AF, Some Factors Affecting Snooper Performance; Form 34's, 23-29 Aug. 1943, 30 Aug.-5 Sept. 1943, 394th Bomb. Sq.; ltr., Matheny to CG 13th AF, 21 Sept. 1943.
166. Form 34, 27 Sept.-3 Oct. 1943, 394th Bomb. Sq.; COMAIRSOLS Daily Intel. Sum., 29 Sept. 1943; ltr., Harmon to Arnold, 7 Oct. 1943; COMAIRSOLS Weekly Intel. Sum., 1 Oct. 1943; CM-IN-1629 (10-3-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 010302Z, 1 Oct. 1943.
167. CM-IN-1629 (10-3-43), Comdr. 3d Fleet to Comdr. 1st Fleet, 010302Z, 1 Oct. 1943; interview with Lt. F. L. Sylvester, 26 July 1944; interview with Col. Stuart P. Wright by author, 3 Jan. 1946.
168. Ltr., Matheny to CG 13th AF, 21 Sept. 1943; CM-IN-18528 (9-26-43), COMGENSOPAC to CGAAF, 3030, 26 Sept. 1943.
169. XIII AFSC, War Critique Study, p. 57.
170. CM-OUT-12979 (9-28-43), Arnold sgd. Marshall to COMGENSOPAC, Rane 8179, 28 Sept. 1943; ltr., Harmon to Arnold, 7 Oct. 1943; CM-IN-17283 (12-28-43), CG 13th AF to CGAAF, F1986, 28 Dec. 1943; ltr., Matheny to CG 13th AF, 21 Sept. 1943; 868th Bomb. Sq., Periodic Activities Summary, 1-31 Jan. 1944. Colonel Wright was recalled from the South Pacific as soon as his project was well established. Harmon desired Wright's return in a command status. (CM-IN-3488 [10-6-43], COMGENSOPAC to CGAAF, 3261, 6 Oct. 1943.)
171. 13th AF, Some Factors Affecting Snooper Performance; ltr., Matheny to CG 13th AF, 21 Sept. 1943. During the 10-week period ending 5 November, 111 strike missions were flown by these planes. Results were observed on 93 of the bombing runs, yielding the claimed figure of 23.6 per cent direct hits.
172. Capt. Ernest R. Barriere and Lt. Sol L. Reiches, Preparation for the Use of SCR-717-13 as a Pathfinder in the XIII Bomber Command, 3 Sept. 1942, p. 2. The Navy was very cooperative and went to considerable effort to confirm sinkings by

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this unit. Direct hits were claimed on five DD's, two CL's, one submarine, and one carrier. (Some Factors Affecting Snooper Performance; Sylvester interview.)

173. COMAIRSOLS Weekly Intel. Sum., 8 Oct. 1943.

174. *Ibid.*, 1 and 8 Oct. 1943; ACIR, 3-9 Oct. 1943; CM-IN-4900 (10-8-43), COMGENSOPAC to C/S USA, 3305, 8 Oct. 1943.

175. ACIR, 3-9 Oct. 1943.

176. COMAIRSOLS Daily Intel. Sum., 13 Oct. 1943.

177. Msg., Arnold to Harmon, Rane 8212, 29 Sept. 1943. It is of some interest to note that the commanding general of the AAF was concerned when his flyers seemed temporarily unable to continue their destruction of five enemy planes for each loss of their own.

178. Ltr., Twining to Arnold, 7 Oct. 1943.

179. *Ibid.*

180. ACIR, 19-25 Sept. 1943. The first aircraft to land at Barakoma came in on 23 September, but none were based there until 17 October. (Hq. New Georgia AF, Special Action Rpt., Second Phase.)

181. Ltr., Twining to Arnold, 7 Oct. 1943.

182. Ltr., Arnold to Twining, 16 Oct. 1943.

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1. First Marine Amphibious Corps, Report on Bougainville Operation, 21 Mar. 1944 (hereinafter cited as FMAC Bougainville Opn.), in USMC Hist. Div. files; ltr., Halsey to MacArthur, 9 Sept. 1943.

2. ONI Combat Narratives, The Bougainville Landing and the Battle of Empress Augusta Bay, 27 Oct.-2 Nov. 1943, p. 1.

3. Incl. (ltr., Comdr. 3d Fleet to COMINCH, South Pacific Campaign—Narrative Account, 3 Sept. 1944), The South Pacific Area, 20 Apr. 1942 to 15 June 1944 (hereinafter cited as Halsey Rpt.); Elkton Plan; CM-IN-12400 (9-16-43), COMSOPAC to CINCSOWESPAC, 150634 NCR 5051-S, 15 Sept. 1943.

4. FMAC Bougainville Opn., Incl. 3, C-3 Operations Summary of Bougainville Campaign.

5. FMAC Bougainville Opn., especially

Incl. 3; Maj. John N. Rentz, USMCR, *Bougainville and the Northern Solomons* (Washington D.C., 1948), p. 18.

6. ONI, The Bougainville Landing, p. 3; FMAC Bougainville Opn., Incl. J, memo for Comdr. SPA and SPF from Adms. Fitch and Wilkinson and Gens. Harmon and Barrett, 7 Sept. 1943, in USMC Hist. Div. files; ltr., Halsey to MacArthur, 9 Sept. 1943.

7. Halsey Rpt.

8. CM-IN-12400 (9-16-43), COMSOPAC to CINCSOWESPAC, 150634 NCR 5051-S; Halsey Rpt.; CM-IN-12399 (9-16-43), COMSOPAC to CINCPAC, 150635 NCR 5352, 16 Sept. 1943.

9. CM-IN-12399, as cited in n. 8; ltr., MacArthur to Halsey, 11 Sept. 1943.

10. CM-IN-12399, as cited in n. 8.

11. FMAC Bougainville Opn.

12. Halsey Rpt.

13. Memo for Halsey from Harmon, 19 Sept. 1943; Notes on GHQ Conference of Sept. 10, 1943, by Whitehead, 11 Sept. 1943.

14. FMAC Bougainville Opn. Even these seemed to be engaged primarily in rice cultivation.

15. Halsey Rpt.

16. *Ibid.*; ltr., Harmon to Marshall, 30 Mar. 1944. Actually the Japanese needed four months to accomplish this.

17. Halsey Rpt.; msg., Halsey to MacArthur, 1 Oct. 1943; msg., CINCSOWESPAC to Comdr. 3d Fleet, 1 Oct. 1943.

18. FMAC Bougainville Opn., Incl. C, Warning Order, 22 Sept. 1943.

19. FMAC Bougainville Opn.; TF-31 Opn. Plan A14-43, 15 Oct. 1943. Rear Adm. T. S. Wilkinson commanded Task Force 31.

20. Ltr., Brig. Gen. Donald C. Wilson to CINCSWPA, 24 Oct. 1943; Whitehead Notes on GHQ Conference of 10 Sept. 1943; ltr., Kenney to Sutherland, 11 Oct. 1943.

21. Ltr., Brig. Gen. Donald C. Wilson to CINCSWPA, 24 Oct. 1943; msg., CINCSOWESPAC to COMSOPAC, 25 Oct. 1943; msg., Comdr. 3d Fleet to CINCSOWESPAC, 25 Oct. 1943.

22. Halsey Rpt.

23. FMAC Bougainville Opn.; ONI, Bougainville Landing, pp. 6-7.

24. COMSOPAC Opn. Plan 16-43, 12 Oct. 1943.

25. COMAIRSOLS Opn. Plan T1-43, 21 Oct. 1943.
26. *Ibid.*, Annex A.
27. ONI, Bougainville Landing, p. 6; USSBS, *The Allied Campaign against Rabaul*, 1 Sept. 1946, p. 25. It was believed that the Japanese Third Fleet might attempt to play a major role.
28. Forward Echelon, Hq. First Marine Aircraft Wing (FMAW) War Diary, 1 Sept. to 31 Dec. 1943.
29. FMAC Opns. Order 1, 15 Oct. 1943, Annex B, Air Support and Warning Plan. Control passed to this unit as soon as radio contact was established with planes entering the area.
30. *Ibid.*; Capt. Warren Goodman, US-MCR, *The Role of Aviation in the Bougainville Operation*, Oct. 1944.
31. FMAC Bougainville Opn., Incl. C, Warning Order, 22 Sept. 1943.
32. Halsey Rpt.
33. Ltr., Twining to Arnold, 7 Oct. 1943.
34. USSBS Intr. 495, Capt. T. Ohmac and Comdr. M. Yamagachi, 6 Dec. 1945.
35. USSBS Intr. 139, Comdr. Nakajima, 21 Oct. 1945, p. 2.
36. Opn. Plan 9-43, 15 Oct. 1943.
37. Goodman, *Aviation in Bougainville Opn.*
38. History, XIII Bomber Comd., 13 Jan. 1943 to 1 Jan. 1944, p. 94.
39. *Ibid.*, p. 96.
40. COMAIRSOLS Weekly Intel. Sum., 22 Oct. 1943; 13th AF Opns. Analysis Sec. Prelim. Rpt. 9, First Phase Analysis of Bomb Fall Plots, 23 Nov. 1943; Goodman, *Aviation in Bougainville Opn.*
41. COMAIRSOLS Weekly Intel. Sums., 22 and 29 Oct. 1943; Goodman, *Aviation in Bougainville Opn.*
42. History, 70th Bomb. Sq.
43. *Ibid.*; COMAIRSOLS Weekly Intel. Sums., 22 and 29 Oct. 1943.
44. Goodman, *Aviation in Bougainville Opn.*
45. COMAIRSOLS Weekly Intel. Sum., 29 Oct. 1943. Normally, B-25's were not sent on the same mission with the light bombers.
46. Goodman, *Aviation in Bougainville Opn.*
47. COMAIRSOLS Daily Intel. Sums., 29-31 Oct. 1943; USAFISPA G-2 Per. Rpt. 41, 23-30 Oct. 1943, Annex 6, 31 Oct. 1943. On 28 October, Kara was out of service, yet on the 30th it was serviceable again, despite a morning attack by sixty-eight SBD's and twenty-seven TBF's.
48. USSBS, *The Allied Campaign against Rabaul*, 1 Sept. 1946, p. 23.
49. History, XIII Bomber Comd., pp. 97-98.
50. COMAIRSOLS Daily Intel. Sum., 1 Nov. 1943.
51. ONI, *The Bougainville Landing*, pp. 16-19; FMAC Bougainville Opn.
52. ONI, *The Bougainville Landing*, pp. 21-23; COMAIRSOLS Daily Intel. Sum., 28 Oct. 1943. The DD was *Cony*.
53. FMAC Bougainville Opn., especially Incl. Q, Preliminary Report, Operation BLISSFUL, 5 Nov. 1943; Halsey Rpt.
54. Ltr., Harmon to Marshall, 30 Mar. 1944. Harmon and Halsey counted on a period of grace of ten weeks. (FMAC Bougainville Opn.)
55. *Ibid.*; ONI, *The Bougainville Landing*, p. 43; COMAIRSOLS Daily Intel. Sum., 2 Nov. 1943. Total Allied losses here were 70 killed and missing and 124 wounded.
56. COMAIRSOLS Daily Intel. Sum., 2 Nov. 1943; ONI, *The Bougainville Landing*, p. 46.
57. ONI, *The Bougainville Landing*, p. 46; History, 339th Ftr. Sq.; USAFISPA G-2 Per. Rpt. 42, Annex 6, p. 9; Form 34, 1-7 Nov. 1943, XIII Ftr. Comd. Of the New Zealanders, F/O L. A. Rayner and F/L R. H. Balfour each shot down two Zekes here. (RNZAF Dir. of Public Relations, RNZAF in the Pacific, Hist. Sum., Aug. 1944, App. D.)
58. ONI, *The Bougainville Landing*, p. 46; Ftr. Comd. COMAIRNORSOLS Log of Messages, Orders, and Operations, Nov. 1, 1943 to Jan. 29, 1944 (hereinafter cited as Ftr. Comd. Log, with appropriate date of entry); Halsey Rpt. Admiral Halsey attributes the successful avoidance of damage to "alertness, radical maneuvering by the ships, excellent AA gunnery, and savage fighter interference."
59. COMAIRSOLS Daily Intel. Sum., 4 Nov. 1943.
60. ONI, *The Bougainville Landing*, pp. 25-33. This attack was coordinated with a strafing mission of four B-25's against the float planes at the Faisi-Poporang seaplane base in order to tie down

possible hecklers of the bombardment force. (*Ibid.*, p. 31; COMAIRSOLS Daily Intel. Sum., 2 Nov. 1943.)

61. ONI, The Bougainville Landing, pp. 34-37; Comdr. USS *Saratoga*, Air Attacks on Buka and Bonis, 1 and 2 Nov. 1943, and on Rabaul, 5 and 15 Nov. 1943.

62. COMAIRSOLS Daily Intel. Sum., 2 Nov. 1943.

63. *Ibid.*, 1-2 Nov. 1943. It should be noted that one day earlier all the southern Bougainville fields were listed as un-serviceable.

64. Halsey Rpt.; USSBS, *The Campaigns of the Pacific War*, pp. 152-53.

65. Sources cited in n. 64; COMAIRSOLS Daily Intel. Sum., 2 Nov. 1943. Onori's force actually consisted of three heavy cruisers, one CL, and six DD's.

66. USSBS, *The Campaigns of the Pacific War*, p. 152; Form 34, 1-7 Nov. 1943, 5th Bomb. Gp. Project. The SB-24 crew, relying on its radar scope, reported only that the attack should be designated as "good." Since the attack was reported by the crew as occurring at 0120 and by the Japanese at 0130, it is reasonably clear that this plane caused the damage to *Haguro*; in view of the absence of any other attacks the time differential is of little consequence. If the CA was limited to twenty-six knots after the attack, presumably this was the maximum speed of the Japanese task force when it met Merrill's cruisers and destroyers.

67. USSBS, *The Campaigns of the Pacific War*, pp. 152-53; ONI, The Bougainville Landing, pp. 71-74. The torpedoed *Foote* was under tow, thereby offering an easy target.

68. Msg., MacArthur to Halsey, 0017, 2 Nov. 1943.

69. *Ibid.*

70. USSBS, *The Allied Campaign against Rabaul*, p. 23.

71. USSBS Intr. 503, Pt. 2, Vice Adm. S. Fukudome, 9 Dec. 1945, p. 22.

72. *Ibid.*, pp. 20, 22; USSBS Intr. 524, Vice Adm. S. Fukudome, 12 Dec. 1945, pp. 4-6.

73. USSBS, *Japanese Air Power*, 29 Mar. 1946, p. 37.

74. *Ibid.*, pp. 37-38. Shortly thereafter, CARDIV 2 was withdrawn to Singapore and Japan. These pilots formed the nucleus for the rebuilt carrier force which

met U.S. carriers off the Marianas in June 1944.

75. USSBS Intr. 503, Pt. 2, pp. 22, 25; USSBS, *The Allied Campaign against Rabaul*, pp. 23-24. On 6 November, General Kenney estimated that total strength in the Rabaul area had dropped to approximately 200. (Incl. [R&R, S/AS to AC/AS Plans, 3 Dec. 1943], Ltr., Kenney to Arnold, 6 Nov. 1943.) On the same date USAFISPA estimated 258 land-based planes on New Britain, New Ireland, and Bougainville. Apparently the intelligence officers of neither SOPAC nor SWPA anticipated such a large and sudden increase in enemy air strength. One week later the increase became apparent to the SWPA Directorate of Intelligence, whose officers correctly believed the Japanese were stripping their carriers to replace the losses at Rabaul and in the Solomons. (Hq. Allied Air Forces Intel. Sum. 155, 13 Nov. 1943, p. 1.)

76. USSBS Intr. 503, Pt. 3, p. 26.

77. Halsey Rpt.; Hq. USAFISPA G-2 Per. Rpt. 42, 9 Nov. 1943, p. 5. These forces were listed as follows: twenty-eight DD's, nine CL's, and nine CA's. Admiral Kurita's fleet had arrived from Truk on the evening of 4 November and was of lesser strength than indicated by Halsey's intelligence reports. (USSBS Intr. 503, Pt. 3, p. 25.)

78. Ltr., Twining to Arnold, 14 Nov. 1943. Halsey accepted the risk of possible loss of the entire *Saratoga* air group. (Halsey Rpt.)

79. CM-IN-3585 (11-6-43), CTF 38 to COMSOPAC, 050712, 5 Nov. 1943; USSBS, *Campaigns of the Pacific War*, pp. 155-56; Halsey Rpt.; COMAIRSOLS Daily Intel. Sum., 6 Nov. 1943. The strike was accompanied by fifty-two COMAIRSOLS fighters, freed from their task of covering the task force. The fighters landed on the carriers when necessary. (Ltr., Twining to Arnold, 14 Nov. 1943.)

80. Hq. Allied AF Intel. Sum. 154, 10 Nov. 1943, pp. 1-2. It was assumed that Rabaul's first fighter team was grounded for servicing at the time of the second attack.

81. Ltr., Twining to Arnold, 14 Nov. 1943.

82. COMAIRSOLS Daily Intel. Sum., 12 Nov. 1943; Halsey Rpt.; 307th Bomb.

Gp. Per. Activities Sum., 10 Dec. 1943; ltr., Twining to Arnold, 14 Nov. 1943. To his chief Twining wrote: "However, COMSOPAC wanted nothing but the ships so no questions were asked."

83. Ltr., Twining to Arnold, 14 Nov. 1943; Halsey Rpt.; USSBS, *Campaigns of the Pacific War*, p. 157. CA *Agano* had to be towed back to Truk for repairs.

84. Halsey Rpt.; Hq. Allied AF Intel. Sum. 155, 13 Nov. 1943, p. 1. As in all air battles, it was difficult to determine the precise number of enemy losses. COMAIRSOLS intelligence officers placed the total at 116: 24 over Rabaul, 5 to the B-24's, 2 to TF-38, 64 to planes and ships of TF-50.3, and 21 to the land-based cover. (COMAIRSOLS Daily Intel. Sum., 13 Nov. 1943, p. 2.)

85. FMAC Bougainville Opn., pp. 12-14; Report of Action, Operations of the 37th Infantry Div., Bougainville, B.S.I., 8 Nov. to 30 Apr. 1944. The 148th Infantry Regiment was attached to the Third Marine Division and placed on the line on 11 November. (CM-IN-7996 [11-13-43], COMGENSOPAC to C/S USA, 4123, 13 Nov. 1943.)

86. FMAC Bougainville Opn., p. 16.

87. *Ibid.*, pp. 16, 18-19. These troops had come down from Rabaul under destroyer escort and formed the first echelon for a much larger force scheduled to disrupt the defense lines.

88. Halsey Rpt.; Ftr. Comd. Log, 5 and 10 Nov. 1943.

89. Halsey Rpt.; Estimate of Forward Airdromes as of 26 Nov. 1943, in note, COMAIRSOPAC to Col. Sterling, 13th AF.

90. Ltr., Harmon to Arnold, 15 Nov. 1943.

91. *Ibid.*; COMAIRSOLS Weekly Summary and Review, 12 Nov. 1943.

92. CM-IN-2880 (10-5-43), Harmon to Arnold, F941, 5 Oct. 1943. The P-39 was, however, an excellent strafing and a "reasonably good low altitude fighter."

93. *Ibid.*; ltr., Arnold to Harmon, 18 Dec. 1943.

94. USAFISPA G-2 Per. Rpt. 44, 13-20 Nov. 1943, Annex 6, and Rpt. 43, 6-13 Nov. 1943, Annex 6; COMAIRSOLS Daily Intel. Sum., 13 Nov. 1943. On the night of the 12th the commander of Task Force 39 reported that for the past three

nights his ships had been surrounded almost continuously by enemy planes. (CM-IN-8005 [11-13-43], CTF 39 to COMSOPAC KOLI, 122340 NCR 2907-S, 13 Nov. 1943.) The night raiders sank the APD *McKean* with heavy loss of life, bombed the CL *Birmingham*, and put a torpedo into CL *Denver*.

95. CM-IN-13476 (11-22-43), COMSOPAC to CINCPAC, 180650; CM-OUT-10610 (11-27-43), Giles to Arnold, 1101, 26 Nov. 1943.

96. SOPACFOR Office of Naval Air Combat Intel., The F4U-2(N) in the Solomons, 1 Mar. 1944; FMAW War Diary, 1 Sept. to 31 Dec. 1943.

97. History, 67th Ftr. Sq.

98. *Ibid.*; Ftr. Comd. Log, 25 Nov. 1943.

99. FMAW War Diary, 3 and 12 Nov. 1943. The airfields were observed daily by the high-flying F-5A's (photographic P-38's). These had been operating from Munda since the third week of October. (Form 34's, 11-17 and 18-24 Oct. 1943, 17th Photo Sq. Det.)

100. CM-IN-10314 (11-17-43), COMSOPAC to CINCPAC, 160522, 16 Nov. 1943.

101. *Ibid.*; Fighter Comd. Log, 20 and 23 Nov. 1943; CM-IN-17791 (11-29-43), COMAIRSOLS to COMAIRSOPAC, 281221, 28 Nov. 1943.

102. CG XIV Corps, Report on Lessons Learned in the Bougainville Operation, n.d., pp. 18-19.

103. Interview with Col. D. F. O'Neill, USMC, Sept. 1944. Colonel O'Neill led Strike Command from 19 July 1943 to 15 March 1944. (CG XIV Corps, Rpt. on Lessons in Bougainville Opn., p. 18.)

104. It was believed the Japanese had more than 100 barges of varying sizes in the Solomons. (Hq. USAFISPA G-2 Per. Rpt. 43, 6-13 Nov. 1943, App. A; Ftr. Comd. Log, 19 Nov. 1943.)

105. History, 68th Ftr. Sq.; COMAIRSOLS Daily Intel. Sum., 6 Nov. 1943; Hq. 42d Bomb. Gp. Per. Activities Sum., 1-30 Nov. 1943.

106. COMAIRSOLS Daily Intel. Sum., 7 Nov. 1943; ltr., Harmon to Arnold, 15 Nov. 1943. Harmon sent in high praise for the leadership and training given the 42d's crews by the group commander, Col. Harry Wilson.

107. Hq. 42d Bomb. Gp. Per. Activities Sum., 1-30 Nov. 1943.

108. *Ibid.*

109. *Ibid.*; COMAIRSOLS Daily Intel. Sum., 25 Nov. 1943; CM-IN-15390 (11-25-43), COMAIRSOLS to COMAIRSOPAC, 241253 NCR 1302, 25 Nov. 1943. This particular rescue attracted wide admiration from the senior commanders in the area. The PBY was piloted by Lt. Cheverton.

110. Hq. 42d Bomb. Gp. Per. Activities Sum., 1-31 Dec. 1943.

111. Hq. USAFISPA G-2 Per. Rpt. 47, 4-11 Dec. 1943, Annex 6 and Rpt. 48, 11-18 Dec. 1943, Annex 6.

112. O'Neill interview; USAFISPA G-2 Per. Rpt. 45, 20-27 Nov. 1943, p. 1; CM-IN-4345 (12-7-43), Radio Munda to All COMS SOPAC and SOWESPAC Areas, 061057, 6 Dec. 1943; CM-IN-8937 (12-14-43), COMSOPAC to CINCPAC, CINCSOWESPAC, 140520Z.

113. ACIR, 5-11 Dec. 1943; USAFISPA G-2 Per. Rpt. 48, 11-18 Dec. 1943, pp. 1-2.

114. Fighter Comd. Log, 26 Nov. 1943; FMAW War Diary, 24 Nov. 1943, 10 Dec. 1943; CM-IN-7087 (12-11-43), COMSOPAC to CINCPAC, 110515, 11 Dec. 1943; COMAIRSOLS Daily Intel. Sums., 7-11 Dec. 1943.

115. By 14 December the Treasury strip was surfaced over an area 4,000 x 300 feet. (COMAIRSOLS Daily Intel. Sum., 14 Dec. 1943.)

116. USSBS, *The Campaigns of the Pacific War*, pp. 158-59.

117. Rabaul lay approximately 255 statute miles from both Torokina and Arawe.

118. CM-IN-7679 (12-12-43), COMGENSOPAC to CGAAF, 4745, 12 Dec. 1943. Twining's relief, official on 27 December, was the result of General Arnold's desire to broaden the experience of his field commanders. (CM-IN-12393 [11-20-43], Arnold to Giles, 200417 NCR 8121, 20 Nov. 1943; CM-OUT-9861 [12-27-43], Marshall to Harmon, Rane 265, 27 Dec. 1943; CM-OUT-10287 [12-28-43], Marshall to Eisenhower, 5834, 28 Dec. 1943.) Both Harmon and Halsey were very reluctant to lose Twining, whose performance in a difficult multiservice command position they regarded as outstanding. Harmon was unaware that Twining

would not return. (Ltr., Harmon to Arnold, 6 Dec. 1943.)

119. Col. George F. Baier, III, MC, Report of Inspection of the Medical Activities of the Thirteenth Air Force, 11 Dec. 1943 (hereinafter cited as Baier Rpt.). This report indicates that in 1943 malaria and dengue together cost the aircrews far more loss of flying time than that attributable to wounds and injuries.

120. Harmon, *The Army in the South Pacific*. General Harmon designated this disease "the scourge of this command."

121. *Ibid.* In an effort to mobilize all resources, the Joint Army-Navy Malaria Control Board was established and placed directly under Admiral Halsey. This board had complete jurisdiction over all matters pertaining to the control, prevention, and therapy of malaria. Under direct supervision of the board were a number of malaria control units composed of both Army and Navy personnel, and these were assigned to each occupied island. (Baier Rpt.)

122. Baier Rpt., Exh. 2.

123. Baier Rpt. When the 29th Air Service Group first went ashore on Espiritu Santo, approximately 75 per cent of the command contracted diarrhea of a mild to severe nature before screened messes could be established. (*Ibid.*, Exh. 15.)

124. Operational History, 29th Air Service Gp., Incl. 1, ltr., Lt. Col. Franklin K. Reyley to CG XIII AFSC, 13 Oct. 1943.

125. Ltr., Maj. William L. Chapel, Jr. to CG XIII AFSC, 6 Sept. 1945; ltr., Maj. Max Hampton, AG XIII AFSC to President, XIII AFSC War Critique Committee, 9 Sept. 1945; Incl. 1 (ltr., Maj. Wayne S. Boydston, 38th Air Engr. Sq. to CG XIII AFSC, 14 Sept. 1945), Air Service Operation.

126. In some instances an airdrome squadron performed all the work for a tactical unit whose own ground personnel did relatively little, yet when credit was announced the airdrome squadron was neglected. (XIII AFSC, War Critique Study, p. 108.)

127. Incl. 1 (ltr., Maj. Boydston, 38th Air Engr. Sq. to CG XIII AFSC, 14 Sept. 1945), Air Service Operation; Incl. 1 (ltr., Capt. Dickson S. Stauffer, Jr., 570th Air

Service Gp. to CG XIII AFSC, 14 Sept. 1945), War Critique Studies, p. 20; ltr., CWO Jerome G. Peppers, Jr., 9th Air Engr. Sq. to CG XIII AFSC, 31 Aug. 1945.

128. Ltr., Lt. Col. Lewis L. Holladay, 321st Air Service Gp. to CG XIII AFSC, 11 Sept. 1945; Form 34, 13-19 Sept. 1943, 370th Bomb. Sq.

129. War Critique Studies, as cited in n. 127; MID Rpt. 1839, Morale of the Army Air Force on Guadalcanal, 21 June 1943. This report is from O. W. Clements, AP correspondent.

130. Ltr., Maj. Thomas H. Edmands, 6th Air Service Gp. to CG XIII AFSC, 5 Sept. 1945; Holladay ltr. as cited in n. 128.

131. War Critique Studies, as cited in n. 127, pp. 20-21. Lack of fresh foods on Guadalcanal was overcome in the spring of 1944 by the establishment of extensive gardens on that island.

132. MID Rpt. 1839, Morale of the Army Air Force on Guadalcanal, 21 June 1943; Edmands ltr. as cited in n. 130.

133. CM-OUT-11912 (8-28-43), Arnold to CGSPA, Rane 7422, 28 Aug. 1943; CM-IN-247 (9-1-43), Harmon to Arnold, 2460, 1 Sept. 1943.

134. Memo for Col. Ball from Maj. Gen. H. R. Harmon, 16 May 1944.

135. *Ibid.*

136. Baier Rpt., Exh. 15.

137. Brig. Gen. C. C. Hillman, Report of Observations of Medical Service in Southwest Pacific and South Pacific Areas, 12 July 1943.

138. Ltr., Harmon to Arnold, 2 Nov. 1942. This "Aviatorium" was organized in conjunction with the American Red Cross in Auckland. Much of the credit for its establishment goes to Col. Earl Maxwell, MC, Surgeon, USAFISPA. Aircrews were granted seven-day rests here although they were not compelled to remain at the Aviatorium while in Auckland. However, most of them did so. (Lt. Col. Frederick J. Freese, Jr., MC, Status Report on Medical Dept. Officers in Thirteenth Air Force and in other AAF Units in SPA as of April 9, 1943.)

139. Memo for Gen. Hanley, DC/AS from Gen. Harmon, 8 Dec. 1942; ltr., Gen. Harmon to Gen. Arnold, 2 Nov.

1942. The C-87 was the cargo and transport version of the B-24.

140. Memo for Gen. Hanley, DC/AS from Gen. Harmon, 8 Dec. 1942; ltr., Gen. Arnold to Gen. Harmon, 7 Dec. 1942; ltr., Gen. Harmon to Gen. Arnold, 16 Dec. 1942.

141. Ltr., Gen. Hanley to Gen. Harmon, 18 Feb. 1943; R&R, AC/AS OPD to A-3, 29 Jan. 1943; CM-OUT-2777 (1-8-43), George to Harmon, Rane 2731, 8 Jan. 1943.

142. Freese Rpt. as cited in n. 138. The most successful means used to break the tension and effect relaxation upon completion of a strike was to give each crew member two ounces of liquor under the supervision of the flight surgeon.

143. Ltr., Twining to Arnold, 27 Apr. 1943; CM-OUT-10821 (4-27-43), OPD to Necal, Rane 4600, 26 Apr. 1943; CM-IN-6148 (5-10-43), Harmon to Arnold, 86, 10 May 1943.

144. Baier Rpt.

145. *Ibid.* Because of the long distances involved, in May it was found advisable to increase the seven-day period to nine days. (History, 13th AF A-2 Sec.) The normal operational tour for bomber crews and fighter pilots was six weeks. (Dr. Ross A. McFarland and H. S. Shryock, An Analysis of Fatigue in the Ground Echelons of the 13th Air Force, 5 Jan. 1944 [hereinafter cited as McFarland and Shryock Rpt.]; Baier Rpt., Exh. 10; Losses, Accidents, and Injuries of Fighter Planes and Pilots in Relation to Flying Time, Solomon Islands, June through November 1943, dtd. 15 Apr. 1944.)

146. More than one-third of the 29th Air Service Group had suffered dengue fever and approximately 25 per cent had contracted malaria. (Baier Rpt., Exh. 15.)

147. Form 34's, 31 May-6 June, 11-18 July, 26 July-1 Aug., 7-14 Aug. 1943, 12th Ftr. Sq., 1-7 Nov. 1943, Det. B., Night Fighter Sq. In this night-fighter unit the enlisted men averaged four years overseas. Common complaints were loss of sleep, poor appetite, and early fatigue. (Form 34, 26 July-1 Aug. 1943, 424th Bomb. Sq.)

148. Ltr., Arnold to Harmon, 20 July 1943.

149. Baier Rpt.; McFarland and Shryock Rpt. During the last four months of

1943 less than 500 ground men were sent to Auckland.

150. McFarland and Shryock Rpt. Of 400 officers and men evacuated to the United States from the South Pacific in September 1943, 69 were mental cases, 331 physical; in October the number was 535, of which 77 were mental and 458 physical.

151. Losses, Accidents, and Injuries, as cited in n. 145.

152. History, 29th Air Service Gp.; ltr., Holladay to CG XIII AFSC, 11 Sept. 1945; MID Rpt. 1839. The comedian Joe E. Brown was a notable favorite in the South Pacific.

153. History, 29th Air Service Gp.; ltr., Capt. Robert J. Madigan, staff judge advocate, XIII AFSC to CO XIII AFSC, 15 Sept. 1945. The staff judge advocate modestly recognized his limitations in this field, stating that "he is neither equipped nor does he desire to meddle in an attempt to improve the virtue of women."

154. XIII AFSC, War Critique Study, p. 83.

155. *Ibid.*, pp. 51-52; ltr., Lt. Col. Fred T. Taylor, 572d Air Service Gp. to CG XIII AFSC, 14 Sept. 1945; History, 29th Air Service Gp., Incl. 4, Functions of the Group Transportation Sec.; ltr., Capt. John C. Machovec, 29th Air Service Gp. to CG XIII AFSC, 9 Sept. 1945; ltr., Maj. Roy D. Andre to CO XIII AFSC, 11 Sept. 1945; ltr., Capt. Alton J. Weigley, 1034th Air Materiel Sq. to CG XIII AFSC, 8 Sept. 1945.

156. Ltr., Holladay to CG XIII AFSC, 11 Sept. 1945; incl. (ltr., Stauffer to CG XIII AFSC, 14 Sept. 1945), War Critique Studies, p. 2.

157. Operational History, 29th Air Service Gp., Incl. 1, ltr., Lt. Col. Franklin K. Reyley to CG XIII AFSC, 13 Oct. 1943; History, 29th Air Service Gp., Incl. 22, Operational History, 40th Service Sq.

158. CM-OUT-2623 (4-7-43), Arnold to Harmon, Rane 4219, 6 Apr. 1943; CM-IN-5857 (4-10-43), Harmon to Marshall and Arnold, 8482, 10 Apr. 1943; CM-IN-8818 (4-15-43), COMGENSOPAC to AGWAR, 561, 15 Apr. 1943; Hq. USA-FISPA GO 87, 14 Apr. 1943. Col. George McCoy, Jr., was named commander of the new service command on 8 May. (Hq. 13th AF SO 95, 8 May 1943; memo for

COMGENSOPAC from Brig. Gen. R. G. Breene, 27 Apr. 1943.)

159. History, 29th Air Service Gp., Incl. 18, Activities of the 40th Service Squadron Engineering Section in the South Pacific Area, 9 Oct. 1943.

160. XIII AFSC, War Critique Study, p. 3.

161. History, 71st Service Sq., 1 Dec. through 31 Dec. 1943; History, 42d Bomb. Gp. (M); History, 13th Air Depot Gp., Incl. 13, Information Concerning Thirteenth Depot Engineering Dept., 2 July 1943; interview with Mr. Roland H. Bliss, 22 Apr. 1944; CM-IN-6854 (7-10-43), Harmon to Marshall, 1356, 10 July 1943.

162. Incl. 1 (ltr., Stauffer to CG XIII AFSC, 14 Sept. 1945), War Critique Studies; XIII AFSC War Critique Study, p. 4.

NOTES TO CHAPTER 9

1. Serial 0080, CINCPOA to all Flag and General Officers, Pacific Fleet, 18 Aug. 1944.

2. AAF Historical Office, History of the Air War in the Pacific Ocean Areas, II, 180.

3. Ltr., Brig. Gen. H. C. Davidson, CG 7th AF to CGAAF, 13 June 1942.

4. History of the Air War in the Pacific Ocean Areas, I, 23-25.

5. USSBS, *The Seventh and Eleventh Air Forces in the War against Japan*, p. 23.

6. History, 11th Bomb. Gp.

7. AAF Historical Study No. 41, Operational History of the Seventh Air Force, 7 Dec. 1941-6 Nov. 1943, p. 26.

8. CM-IN-5118/27, Marshall to CG-HHD, 26 Aug. 1942.

9. CM-IN-773/18, Marshall to CG-HHD, 18 Oct. 1942.

10. CM-IN-4989Z/17, CGAAF Washington to CGHHD, 17 Dec. 1942.

11. Growth of Heavy and Medium Bombardment Groups in the Seventh Air Force, 7 December 1941-1 August 1944, pp. 11-19.

12. In a letter of 4 September 1942 to Emmons, outlining the great variety of claims on AAF resources and the necessity to distribute them "in the manner that will best further our strategic plans," Arnold had bluntly refused requested

reinforcements for the Seventh and added with equal bluntness: "Nor do I foresee any great augmentation of your forces in the immediate future."

13. Ltr., Maj. Gen. Willis H. Hale, CG 7th AF to CG VII BC, 31 July 1942.

14. USSBS, *The Reduction of Wake Island*, pp. 6, 29-30.

15. AAFHS-41, p. 28.

16. *Ibid.*, pp. 46-65; ltr., Brig. Gen. H. K. Ramey to CG 7th AF, 30 Dec. 1942; AAF Historical Study No. 38, Operational History of the Seventh Air Force, 6 Nov. 1943-31 July 1944, pp. 87-237.

17. Ltr., Col. Truman H. Landon, CO VII BC to CG 7th AF, 28 Jan. 1943.

18. Ltr., Landon to CG 7th AF, 18 May 1943; 371st and 372d Sq. Mission Reports. USSBS, *The Reduction of Wake Island*, p. 11, curiously makes the statement that a strike of 8 July, of which no record was found by the Historical Section of the Seventh AF, was "the first recorded land-based strike of 1943."

19. VII BC, Bombing of Wake Island, 4 Aug. 1943.

20. AAFHS-41, pp. 58-64 *passim*.

21. *Ibid.*, p. 33.

22. CINCPAC Opn. Order 5-43, 24 Mar. 1943.

23. AAFHS-41, p. 34.

24. Ltr., Hq. 7th AF to Arnold, 27 Apr. 1943.

25. Ltr., Landon to CG 7th AF, 26 Apr. 1943.

26. Ltr., Hq. 7th AF to Arnold, 27 Apr. 1943.

27. Ltr., Capt. John W. McIlvaine, Acting A-2, VII BC to CG VII BC, 2 July 1943.

28. Ltr., CINCPAC to CGHHD, 6 June 1942; History, VII FC, p. 4.

29. VII Fighter Command in the Defense of Midway Islands, and Overwater Mass Flights of P-40 Airplanes, Jan. 1942-Apr. 1943.

30. History, VII FC, pp. 5-6.

31. *Ibid.*, p. 3.

32. *Ibid.*, pp. 3-4.

33. *Ibid.*, pp. 2-3.

34. 7th AF Reg. 35-7, 28 May 1942.

35. History, Air Depot, APO 953, 7 Dec. 1941-Mar. 1944, p. 94.

36. *Ibid.*, pp. 92-93.

37. Incl. 1 (ltr., Landon to CG 7th AF, 14 June 1943).

38. History, Air Depot, APO 953, p. 95.

39. *Ibid.*, p. 66.

40. *Ibid.*, pp. 66-67.

41. *Ibid.*, p. 93.

42. CCS 239/1, 23 May 1943.

43. USSBS, *The American Campaign against Wotje, Maloelap, Mille, and Jaluit*, p. 11.

44. Adm. Raymond A. Spruance, quoted in Water Karig, *Battle Report* (New York, 1948), IV, 76-78.

45. *Ibid.*

46. JCS 386/1, 19 July 1943.

47. CM-IN-260439, CINCPAC to COMINCH, 26 Sept. 1943.

48. Memo for COMINCH from C/S USA, 27 Sept. 1943.

49. Ltrs., McIlvaine to CG VII BC, 6, 9, 11, and 16 Sept. 1943.

50. History, 45th Ftr. Sq.

51. CINCPAC Opn. Plan 14-43, 10 Sept. 1943.

52. VII BC Consolidated Mission Rpt., 24 Sept. 1943; VII BC, Analysis of Tarawa Mission, 18-19 Sept. 1943, dtd. 30 Sept. 1943.

53. JPS 205/4, 15 July 1943.

54. Histories, 30th and 41st Bomb. Gps.

55. COMCENPAC Opn. Plan Cen. 1-43, Serial 00110, Pearl Harbor, T.H., 25 Oct. 1943.

56. *Ibid.*; Spruance, as cited in n. 44.

57. COMCENPAC Opn. Plan Cen. 1-43, 25 Oct. 1943.

58. Incl. 1 (memo for CG VII BC from McIlvaine and Maj. Maurice Broner, 19 Oct. 1943).

59. Incl. 2 (memo, Hq. F/E VII BC), Construction Progress at Funafuti, Nukufetau, and Nanomea, 19 Oct. 1943.

60. The Construction and Development of Airfields in the Central Pacific through June 1944, p. 78.

61. *Ibid.*, p. 80.

62. *Ibid.*, p. 72.

63. History of Air Service Support Squadrons in the Seventh Air Force, Aug. 1943-June 1944, p. 2; History, 422d Sub-Depot.

64. Report, CG 7th AF to CG USA-FICPA, 9 Mar. 1944.

65. Seventh Air Force Participation in the GALVANIC Operation, 13 Nov. 1943-6 Dec. 1943.

66. Ltr., CG VII AFSC to CO all ASSRONS, 6 Nov. 1943.
67. History of ASSRONS in 7th AF, p. 9.
68. *Ibid.*, p. 2.
69. *Ibid.*, p. 3.
70. History of the Air War in the Pacific Ocean Areas, I, 41.
71. Ltr., CO 1st ASSRON to CG 7th AF, 11 Dec. 1943.
72. History, 1st ASSRON, 12 Aug. 1943-8 Apr. 1944.
73. History of ASSRONS in 7th AF, pp. 20-21.
74. 7th AF Participation in GALVANIC, as cited in n. 65.
75. *Ibid.*
76. *Ibid.*
77. *Ibid.*
78. Administrative History, 7th AF, 1916 to May 1944, pp. 32-33.
79. The Power of the Heavies in the "Galvanic" Operation, D-7 to D-Day; 7th AF Participation in GALVANIC.
80. ICPOA Bull. 11-43, Tarawa, 1 Feb. 1943; 7th AF PID PI Rpt. 59, 24 Sept. 1943.
81. 7th AF PID PI Rpt. 61, 30 Oct. 1943.
82. Ltr., Hale to CTF 57, Operations of Seventh Air Force-13 Nov. 1943 through 31 Jan. 1944, dtd. 15 Feb. 1944.
83. *Ibid.*; Statement on Makin Island, in VII BC files.
84. ADVON 7th AF Cons. Mission Rpt. 1, 14 Nov. 1943.
85. JICPOA Bull. 53-43, Kwajalein, 1 Dec. 1943.
86. *Ibid.*, 56-43, Jaluit, 10 Dec. 1943.
87. *Ibid.*, 50-43, Mille, 15 Dec. 1943.
88. *Ibid.*, 52-43, Maloelap, 25 Nov. 1943.
89. ICPOA Air Target Bull. 30, Nauru, 15 Feb. 1943.
90. COMCENPAC Opn. Plan Cen. 1-43, 25 October 1943.
91. ADVON 7th AF Mission Rpt. 11, 20 Nov. 1943.
92. ADVON 7th AF Mission Rpts.
93. Ltr., Hale to CTF 57, as cited in n. 82.
94. *Ibid.*
95. TWX, CG VII BC to CG 7th AF, 14 Jan. 1944.
96. *Ibid.*
97. Power of Heavies in "Galvanic" Opn.
98. USSBS, *Air Campaigns of the Pacific War*, p. 27.
99. AAFPOA Evaluation Board Rpt. 1, p. 55. This board, headed by Brig. Gen. Martin F. Scanlon, argued that neutralization could not possibly be maintained with the small force of B-24's, which because of the long distances from the most advanced staging bases to the targets were the only planes available. It argued further that it was a matter of hours to repair runways such as the Japanese used, to rebuild their light frame buildings, and to fly replacement aircraft down through the chain of mandated islands, thus making almost daily attacks necessary to maintain complete neutralization. With the distances involved and the force available this was impossible.
100. JCS 386/1, 19 July 1943.
101. ADVON Seventh AF Mission Rpts. 14, 14A, and 14B, 22-24 Nov. 1943.
102. F/E VII BC Mission Rpt. 30, 17 Dec. 1943; JICPOA Bull. 57-43, Wotje, 15 Dec. 1943.
103. Ltr., CO 2d ASSRON to CG 7th AF, Rpt. on GALVANIC Opns., 29 Dec. 1943.
104. Construction and Dev. of Airfields in CENPAC, pp. 83-84.
105. Ltr., CG 7th AF to CG USAFICPA, State of Readiness of Units of the 7th AF, 15 Jan. 1944.
106. Construction and Dev. of Airfields in CENPAC, pp. 85-88.
107. Movement data from histories of 45th, 46th, 72d, and 531st Ftr. Sqs. and 11th and 30th Bomb. Gps.
108. ADVON 7th AF FO 13A, 20 Dec. 1943.
109. COMCENPAC Opn. Plans Cen. 1-44, 6 Jan. 1944, and Cen. 4-44, 9 Feb. 1944.
110. COMCENPAC Opn. Plan Cen. 1-44, 6 Jan. 1944.
111. COMCENPAC Opn. Plan Cen. 4-44, 9 Feb. 1944.
112. 9th SCU, Seventh AF Operations in the Gilberts, Marshalls, and Carolines, November 1943 to March 1944, p. 9.
113. *Ibid.*; Lt. Chester W. Taylor, Asst. A-2 VII BC, Operations of the Seventh Bomber Command in the Marshall Islands Offensive, 15 Sept. 1944.

114. AAFHS-38, pp. 17-25.
115. ADVON Seventh AF and F/E VII BC Mission Rpts.; 9th SCU, Operations of Seventh Air Force in Pacific Ocean Areas, November 1943-April 1945, p. 5.
116. F/E VII BC Mission Rpt. 96, 3 Feb. 1944.
117. 9th SCU, 7th AF Opns. in Gilberts, etc., p. 17.
118. Taylor, Opns. of VII BC in Marshalls.
119. F/E VII BC Mission Rpts.
120. 531st Ftr.-Bomber Sq. Mission Rpts.
121. VII FC Prov. Gp. Cons. Mission Rpts., 16-28 Jan. 1944; 9th SCU, 7th AF Opns. in Gilberts, etc., p. 36.
122. VII FC Prov. Gp. Cons. Mission Rpts., 29-31 Jan. 1944.
123. JICPOA Bull. 27-44, Ponape, 1 Apr. 1944.
124. F/E VII BC Mission Rpts.
125. *Ibid.*
126. 318th Ftr. Gp. Intel. Bull. 3, 28 Jan. 1944.
127. Ltr., Brig. Gen. Robert W. Douglass, Jr. to CTF 57, 4 May 1944.
128. Preliminary Organizational History of VII Bomber Command, 1 May 1931 to 31 July 1944, p. 39.
129. Ltr., Hale to CTF 57, 15 Feb. 1944.
130. F/E VII BC Mission Rpts.
131. AAFHS-38, p. 25.
132. Ltr., Hale to CTF 57, 15 Feb. 1944; Taylor, Opns. of VII BC in Marshalls.
133. Ltr., Douglass to CTF, 4 May 1944.
134. USSBS, *The Campaigns of the Pacific War*, pp. 199-200.
135. *Ibid.*, p. 193.
6. *Ibid.*; USSBS, *Japanese Air Power*, p. 14.
7. USSBS, *The Campaigns of the Pacific War*, pp. 183-85; USSBS, *Japanese Air Power*, pp. 12-13.
8. USSBS, *Japanese Air Power*, pp. 12-13. The Fourth Air Army was composed of the Sixth Air Division (324 planes) and the Seventh Air Division (156 planes in New Guinea and 84 in the Ambon area).
9. Lt. Gen. Y. Arisue of general staff and chairman of the Army-Navy Liaison Committee, in Hq. AAF AC/AS-2, *Mission Accomplished* (Washington: USGPO, 1946), pp. 11-12; USSBS, *Campaigns of the Pacific War*, pp. 183-85.
10. 5th AF Station Lists, 30 Sept. and 30 Oct. 1943; AAF Reference History No. 16, The Fifth Air Force in the Huon Peninsula Campaign—Oct. 1942 to Feb. 1944. This history, written by Maj. Richard L. Watson, gives detailed accounts of personnel, airplane strength, air-base construction, and combat operations including the Fifth Air Force attacks on Rabaul. It has been used extensively by the author.
11. AAFRH-16, p. 10; 5th AF Station Lists, 30 Sept. and 30 Oct. 1943; History of the Fifth Air Force Service Command in New Guinea; GHQSWPA Off. of the CE, Engineer Construction in the Southwest Pacific Area, p. 39; Station List, 25 Oct. 1943, in Air Service Command in the SWPA, 1941-1944, Pt. 1; Air Evaluation Board, Rabaul, Annex DD.
12. History, 3d Airdrome Sq.; AAFRH-16, pp. 15-16.
13. Memo for Sutherland from Brig. Gen. Carl Connell, 6 Sept. 1943; History of the V AFSC in New Guinea; History, 3d Air Task Force; AAFRH-16, pp. 16-20.
14. AAF Historical Study No. 43, The Fifth Air Force in the Conquest of the Bismarck Archipelago—Nov. 1943 to Mar. 1944, pp. 11-12 and App. 2. This study, written by Maj. Harris G. Warren, gives details of the Fifth Air Force operations against New Britain and the Admiralties.
15. Ltr., Gen. Wilson to CINCSWPA, 26 Aug. 1943, in GHQSWPA G-3 Journal, 26 Aug. 1943.
16. Minutes of a Conference held at GHQSWPA, 10 Sept. 1943, in folder, MacArthur's Plans, 1942.
17. *Ibid.*
18. CM-IN-1025 (10-2-43), Brisbane to

NOTES TO CHAPTER 10

1. History, 5th AF, Pt. III, App. III, Doc. 9; USSBS, *Rabaul*, pp. 11-12.
2. USSBS, *Rabaul*, pp. 11-18.
3. *Ibid.*, pp. 12-17.
4. History, 5th AF, Pt. III, App. III, Doc. 9; ltr., Whitehead to Kenney, GHQ Outline Plan, Operation "F," 29 Jan. 1944. At Lupin, seven miles east of Arawe Harbor, there was an emergency landing strip built in 1937, but it was never used by Japanese. (AC/S G-2 Alamo Force, Terrain Report, Arawe Area, 26 Nov. 1943.)
5. USSBS Interrogation No. 483.

WAR, C-6301, 2 Oct. 1943; CM-IN-6490 (10-11-43), Rear Echelon GHQSWPA to WAR, C-6586, 11 Oct. 1943; CM-IN-7068 (10-12-43), Brisbane to WAR, C-6614, 12 Oct. 1943.

19. Extract from ltr., Kenney to Arnold, 10 Oct. 1943, in memo for the C/S, 24 Oct. 1943.

20. AAFRH-16, pp. 96-100; AEB, Rabaul, p. 23; 8th Bomb. Sq., NCMR 284-AA, 12 Oct. 1943. Annex DD, AEB report, indicates that the RAAF unit was No. 30 Squadron (Beaufighters) of No. 71 Wing.

21. *N.Y. Times*, 15 Oct. 1943; 8th, 13th, 71st, and 90th Bomb. Sqs., NCMR 284-AA, 12 Oct. 1943; Form 34, 8th, 13th, 71st, and 90th Bomb. Sqs., 9-16 Oct. 1943.

22. History, 49th Ftr. Gp.; Form 34, 8th, 13th, 71st, 90th, 405th, 498th, 499th, 500th, 501st Bomb. Sqs. and 9th, 431st, 432d, and 433d Ftr. Sqs., 9-16 Oct. 1943; 433d Ftr. Sq., NCMR 3-67, 12 Oct. 1943; AEB, Rabaul, p. 23.

23. 319th, 320th, 321st, and 400th Bomb. Sqs., NMR 284G, 12 Oct. 1943; 80th Ftr. Sq., ICFR Mission 213, 12 Oct. 1943; Form 34, 319th, 320th, 321st, and 400th Bomb. Sqs., and 39th and 80th Ftr. Sqs., 9-16 Oct. 1943.

24. 64th, 65th, and 403d Bomb. Sqs., NMR 284G, 12 Oct. 1943; Form 34, 64th, 65th, 319th, 320th, 321st, 400th, and 403d Bomb. Sqs. and 39th and 80th Ftr. Sqs., 9-16 Oct. 1943.

25. GHQSWPA Allied Air Forces Intelligence Summary (Isum) 147, 16 Oct. 1943.

26. "An Indian Army Captain stated that after the first heavy attack on Vunakanau on 12 October 1943, his men counted approximately 200 wrecked or damaged aircraft on the airfield. Some of the wrecks were later used to conceal fighters. In the raid the Japanese suffered about 300 casualties. They mistook the parafrags for an Allied airborne landing." (AEB, Rabaul, Annex GG.) In this and other instances, the GHQ policy of basing the daily communiqué on preliminary reports rather than photo-interpreted figures caused later embarrassment.

27. Isum 147, 16 Oct. 1943; 64th and 65th Bomb. Sqs., NMR FFO 285L, and 400th Bomb. Sq., NMR 285K, 13 Oct. 1943; Form 34, 64th, 65th, 403d, 319th, 320th, 321st, 400th, 528th, and 531st Bomb.

Sqs., and 9th, 39th, 80th, 431st, 432d, and 433d Ftr. Sqs., 9-16 Oct. 1943.

28. Isum 148, 20 Oct. 1943, p. 1. On 15 October, the entire force of twenty-seven Val dive bombers and their escorting twenty fighters were shot down. (AAFRH-16, p. 104.)

29. Form 34, 9th, 39th, 40th, 431st, 432d, and 433d Ftr. Sqs., and 64th, 65th, 71st, 319th, 320th, 321st, 400th, 405th, 498th, 499th, 500th, 501st, 528th, and 531st Bomb. Sqs., 17-23 Oct. 1943.

30. Form 34 data, as cited in n. 29; 499th, 500th, 501st, and 319th Bomb. Sqs., NMR FFO 290, 23 Oct. 1943. Three B-25's were lost, but an estimated forty planes were destroyed on the ground and twenty-eight in the air. Also destroyed were the three ships.

31. Isum 149, 23 Oct. 1943; ltr., Whitehead to Kenney, 24 Oct. 1943; Form 34, 64th, 65th, 403d, 319th, 320th, 321st, and 400th Bomb. Sqs. and 9th, 39th, 80th, 431st, 432d, and 433d Ftr. Sqs., 24-30 Oct. 1943.

32. Ltr., Whitehead to Kenney, 24 Oct. 1943; Form 34, 8th, 13th, 90th, 498th, 499th, 500th, and 501st Bomb. Sqs., and 9th, 39th, 80th, 431st, 432d, and 433d Ftr. Sqs., 24-30 Oct. 1943.

33. Ltr., Whitehead to Kenney, 24 Oct. 1943; Form 34, as cited in n. 31.

34. Form 34, as cited in n. 31; Major MacDonald shot down one Zeke. Thirty-nine aircraft were shot down and photographs showed twenty-one destroyed on the ground.

35. Ltr., Whitehead to Kenney, 24 Oct. 1943.

36. AAFRH-16, p. 119; AEB, Rabaul, p. 25.

37. Form 34, as cited in n. 31.

38. Ltr., Whitehead to Kenney, 4 Nov. 1943; AAFRH-16, pp. 120-23; Isums 152 and 153, 3 and 6 Nov. 1943; Form 34, 8th Photo Sq., 31 Oct.-6 Nov. 1943.

39. 5th AF, Rabaul; History, 38th Bomb. Gp., Jan. 1940-31 Mar. 1944, p. 206; Form 34, 9th, 39th, 80th, 431st, 432d, 433d Ftr. Sqs. and 8th, 13th, 71st, 90th, 405th, 498th, 499th, 500th, and 501st Bomb. Sqs., 31 Oct.-6 Nov. 1943.

40. Form 34, as cited in n. 39; History, 3d Bomb. Gp. Major Wilkins, when he saw that his squadron would have to pass close to the cruisers, placed his own plane on the exposed left flank drawing most of

the fire. He was posthumously awarded the Congressional Medal of Honor.

41. History, 3d Bomb. Gp.; USSBS, *Rabaul*, p. 266, Table 6. A shortage of oil tankers at this time and throughout the remainder of the Pacific war seriously limited the range and mobility of the Imperial navy. The JANAC listed only two ships: one of 1,503 and the other of 3,119 tons.

42. USSBS, *Rabaul*, Table 6.

43. Ltr., Whitehead to Kenney, 4 Nov. 1943.

44. Incl. (ltr., Comdr. 3d Fleet to COMINCH, South Pacific Campaign—Narrative Account, 3 Sept. 1944), The South Pacific Area, 20 Apr. 1942 to 15 June 1944 (hereinafter cited as Halsey Rpt.); Hq. USAFISPA G-2 Per. Rpt. 42, 9 Nov. 1943, p. 5; ltr., Twining to Arnold, 14 Nov. 1943; Ft. Adm. William F. Halsey and Lt. Comdr. Julian Bryan, III, "Admiral Halsey Tells His Story," in *Saturday Evening Post*, 19 July 1947.

45. Isums 153 and 154, 6 and 10 Nov. 1943; CM-IN-3585 (11-6-43), CTF 39 to COMSOPAC, 050712, 5 Nov. 1943; USSBS, *The Campaigns of the Pacific War*, p. 155; History, V FC. Only one P-38 was lost on the mission, since the Navy fighters had pretty well cleared the skies.

46. Isum 154, 10 Nov. 1943.

47. Halsey Rpt.; USSBS, *The Campaigns of the Pacific War*, pp. 155-57; ltr., Twining to Arnold, 14 Nov. 1943; ltr., Whitehead to Kenney, 10 Nov. 1943.

48. AEB, Rabaul, p. 27; ltr., Whitehead to Kenney, 11 Nov. 1943; msgs., COMAFADVON 5 to COMAF 5, 10 Jan. 1944, MacArthur to Comdr. SOPAC, 11 and 16 Jan. 1944, and Comdr. 3d Fleet to MacArthur, 15 Jan. 1944, all in GHQSWPA, G-3 Journal, 9 Jan. 1944. The night strikes by RAAF planes continued against Rabaul until 10 Jan. 1944 when their target was switched to central New Britain and Kavieng.

49. Radio 022100Z, 2 July 1942, JCS to CINCSWPA, CINCPAC, and COMSOPAC, File C/S, GHQSWPA 33; Radio Q147, CINCSWPA to C/S, WD, WDC in C/S GHQ File WD 173, 2 Aug. 1943.

50. JCS Radio 2407, 29 Mar. 1943, to CINCSWPA, in G-3 Journal GHQSWPA, 30 Mar. 1943; ELKTON III;

Minutes of Conference at GHQSWPA on 10 Sept. 1943 between SWPA and SOPAC on coordination of 1943 plans, in MacArthur's Plans, File No. 706.322 1942 in AFSHO.

51. Hq. Alamo Force, Report of the Dexterity Operation, 15 Dec. 1943-10 Feb. 1944 (hereinafter cited as Dexterity-Alamo Rpt.), pp. 1-3; ltr., 7th Amph. Force to CINCSWPA, Cape Gloucester Opns., 13 Feb. 1944, in G-3 Journal, 22 Dec. 1943.

52. Ltr., Sutherland to Comdr. Alamo Force, Plans of Opns., Dexterity, 14 Oct. 1943.

53. *Ibid.*, p. 1.

54. Opns. Instructions 39 together with ltr., ADVON 5th AF to CG 5th AF, both dated 28 Oct. 1943.

55. Dexterity-Alamo Rpt., p. 4.

56. Ltr., Whitehead to Kenney, 11 Nov. 1943.

57. Memo for C/S from Gen. Chamberlin, 11 Oct. 1943, in G-3 Journal, 11 Oct. 1943. Cf. Kenney, *General Kenney Reports*, pp. 326-27.

58. Ltr., ADVON 5th AF to CG 5th AF, Opns. Instr. 39, 28 Oct. 1943; memo for Kenney from Whitehead, Airdromes for Dexterity Opn., 13 Nov. 1943; ltr., Whitehead to Kenney, 13 Nov. 1943.

59. Memo for C/S by GHQSWPA G-3; penciled note: "Not sent but discussed with Kenney and Sutherland—action approved," in G-3 Journal, 26 Oct. 1943.

60. Ltr., Krueger to CINCSWPA, 12 Nov. 1943, in G-3 Journal, 14 Nov. 1943.

61. Memo for MacArthur from Chamberlin, 21 Nov. 1943, in G-3 Journal, 21 Nov. 1943.

62. Dexterity-Alamo Rpt., p. 3.

63. *Ibid.*, p. 5.

64. Check Sheet, D/Opns. AAF to G-3, 8 Dec. 1943, in G-3 Journal, 8 Dec. 1943.

65. Dexterity-Alamo Rpt., p. 7; Isum 150, 27 Oct. 1943, p. 14; Isum 160, 1 Dec. 1943, p. 1; Isum 162, 8 Dec. 1943, p. 1.

66. Isum 164, 15 Dec. 1943, p. 14; Comdr. 7th Amph. Force, Report on Cape Gloucester Operation (hereinafter cited as 7th Amph. Rpt.), 3 Feb. 1944; History, 5th Tactical Air Communications Sq., May 1942-Apr. 1944, p. 11; 1st Marine Div. Gloucester Rpt., Annex A, p. 36; ltr., Col. H. V. White, AC/AS G-2 6th Army to AC/AS G-2 GHQ, 4 Nov. 1943, in G-3 Journal, 5 Nov. 1943.

67. History, 8th Photo Rcn. Sq., Activation to 1 Feb. 1944, p. 4; Form 34's, 8th Photo Rcn. Sq. and 90th Bomb. Sq., Nov. 1943. On 19 November, the 90th Bombardment Squadron sent nine B-25's on a photographic and strafing mission of the Cape Gloucester area. (Form 34's, Fifth AF bomb. sqs., Nov. 1943; AAFRH-16, p. 137.)

68. Radio msgs., MacArthur to C/S WD: 3179 (12-5-43), C-8546, 5 Dec. 1943; 3700 (12-6-43), C-8576, 6 Dec. 1943; 5158 (12-8-43), C-8653, 8 Dec. 1943.

69. Form 34's, 5th AF, Nov.-Dec. 1943; AAFRH-16, pp. 133, 138-41; Isums 154, 156, 157, 159, of 10, 17, 20, 27 Nov. 1943.

70. Form 34's, 5th AF, Nov.-Dec. 1943; MacArthur's daily communiqués to C/S WD, Nov.-Dec. 1943; map, Japanese Antiaircraft Installations in New Britain, in History, 5th AF, Pt. III, App. III, Doc. 19; AAFHS-43, pp. 25-27.

71. Form 34's, 5th AF, Nov.-Dec. 1943; Isums 146-47, 149, 151-53, of 13, 16, 23, 30 Oct., 3, 6 Nov. 1943; AAFHS-43, pp. 27-28.

72. AAFHS-43, p. 28.

73. *Ibid.* and App. 3.

74. 1st Marine Div. Gloucester Rpt., Annex A, p. 45, and Phase 1, Hq. Combat Team C Opns. Order 1-43, 20 Dec. 1943.

75. 1st Marine Div. Gloucester Rpt., Annex A, pp. 45-48, and App. 1, Hq. LT 21 Opns. Order 3-43, 23 Dec. 1943; AAFHS-43, p. 17.

76. 403d Bomb. Sq., NMR No. 353-CG, 22 Dec. 1943.

77. Dexterity-Alamo Rpt., p. 8.

78. Form 34, 5th AF, 12-18 Dec. 1943; NMR's, 5th AF, 12-18 Dec. 1943; AAFHS-43, pp. 29-30 and 140, n. 41.

79. Hq. ADVON 5th AF Frag Field Order 173, 15 Dec. 1943, in AAFHS-43, App. 4.

80. 112th Cavalry Regt., Historical Report—24 Nov. 1943-10 Feb. 1944 (hereinafter cited as 112th Cavalry Rpt.), pp. 1-5; Dexterity-Alamo Rpt., p. 8.

81. Dexterity-Alamo Rpt., p. 8; 112th Cavalry Rpt., p. 6; AGF Board Report, SWPA 6, Airborne Supply during the Arawe and Cape Gloucester Operations in the Southwest Pacific Area, 7 Feb. 1944 (hereinafter cited as AGF Rpt. 6). Another supply mission dropped 204 mines on 20 December and three B-17's dropped

sandbags and barbed wire and pickets on 28-29 December. (AAFHS-43, p. 42.)

82. Dexterity-Alamo Rpt., pp. 8-9; 13th Bomb. Sq., NMR 348-AA, 15 Dec. 1943; AAFHS-43, pp. 32-33.

83. 112th Cavalry Rpt., p. 7; 112th Cavalry S-3 Journal, Opns. Diary, p. 3. Neither MacArthur's communiqué nor the Dexterity-Alamo Rpt. lists any shipping losses. (Form 34, 5th AF, 12-18 Dec. 1943; AAFHS-43, p. 142, n. 60.)

84. Dexterity-Alamo Rpt., Lessons Learned, p. 7; 112th Cavalry S-3 Journal; Form 34's, 5th AF fighter sqs., Dec. 1943-Jan. 1944. The Allied air losses were light in view of pilots' reports that the Japanese encountered were experienced pilots. (Incl. 1, p. 6, in Dexterity-Alamo Rpt.)

85. Dexterity-Alamo Rpt., p. 9; AAFHS-43, pp. 34-37; 33d Bomb. Sq., NMR 352-FF, 19 Dec. 1943.

86. Form 34's, 5th AF bomb. sqs., Dec. 1943-Jan. 1944; Dexterity-Alamo Rpt., p. 10; 64th, 65th, and 403d Bomb. Sqs., NMR 16-A-1, 17 Jan. 1944; 500th and 501st Bomb. Sqs., NMR 16-B-1, 16 and 17 Jan. 1944; 8th and 9th Bomb. Sqs., NMR 20-B-1, 20 Jan. 1944; AAFHS-43, pp. 37-38 and 144, n. 72.

87. Dexterity-Alamo Rpt., p. 10; Form 34's and NMR's, 5th AF bomb. sqs., Dec. 1943; AAFHS-43, pp. 44-47 and App. 3.

88. AAFHS-43, pp. 44-47 and App. 3; History, XIII BC, p. 5.

89. Dexterity-Alamo Rpt., p. 11; Hq. BACKHANDER Force Opns. Order 2-43, Annex C, Air Support Plan, 14 Nov. 1943, in AAFHS-43, App. 5.

90. SWPA Allied Geographical Sec. Terrain Study 63 (Revised), Locality Study of Cape Gloucester, 26 Aug. 1943, p. 1; 1st Marine Div. Gloucester Rpt., Phase II, p. 3; 7th Amph. Rpt., p. 1.

91. Dexterity-Alamo Rpt., pp. 10-11.

92. *Ibid.*, p. 4; 1st Marine Div. Gloucester Rpt., Phase II, p. 2; 7th Amph. Rpt., pp. 6-7.

93. Dexterity-Alamo Rpt., p. 11; 7th Amph. Rpt., pp. 7-9; 1st Marine Div. Gloucester Rpt., Phase II, pp. 3-4; Col. Horace O. Cushman, Inf. with 1st Marine Div., Report of Liaison Officer, 26 Dec. 1943-1 Jan. 1944 (hereinafter cited as Cushman Rpt.), p. 5; 500th Bomb. Sq., NMR 359-EE, 27 Dec. 1943; 499th Bomb. Sq., NMR 359-EE, 28 Dec. 1943; 3d Bomb.

Gp., NMR 359-GG, 27 Dec. 1943; AAFHS-43, App. 6.

94. Dexterity-Alamo Rpt., p. 11; 1st Marine Div. Gloucester Rpt., Phase II, p. 4; AAFHS-43, App. 6; 400th Bomb. Sq., NMR 359-NN, 27 Dec. 1943.

95. Dexterity-Alamo Rpt., p. 13; 1st Marine Div. Gloucester Rpt., Phase II, Pt. II, pp. 1-4; 13th Bomb. Sq., NMR 359-FF, 26 Dec. 1943; Task Group 76.3, Bombardment and Landing Operation at Tauli (Cape Gloucester), New Britain, 26 Dec. 1943; USS *Reid* Action Report, Serial 025, pp. 1-2.

96. History, 5th Tac. Air Com. Sq., pp. 49-50; History, 33d Ftr. Control Sq., 11 Dec. 1943-31 Mar. 1944, p. 5; Dexterity-Alamo Rpt., p. 13. The 2d Air Liaison Party operated with the First Marines, and the 3d Air Liaison Party came in with supporting troops on the afternoon of D-day. The 7th ALP accompanied the Tauli Force. (1st Marine Div. Gloucester Rpt., Phase II, Pt. II, pp. 1-4.)

97. 80th Ftr. Sq., NCR 278, 26 Dec. 1943; 431st Ftr. Sq., NCR 1-147, 27 Dec. 1943; 36th Ftr. Sq., NCR 2, 26 Dec. 1943; 35th Ftr. Sq., NCR 5-4, 26 Dec. 1943; 7th Amph. Rpt., p. 10; 500th Bomb. Sq., NMR 359-KK, 26 Dec. 1943; 1st Marine Div. Gloucester Rpt., Phase II, p. 5. The Japanese had sent out a morning strike which hit Arawe. They apparently knew of the Gloucester landing in the morning but may have been unable to divert the Arawe attack.

98. 341st Ftr. Sq., NCR 2-29, 26 Dec. 1943; 342d Ftr. Sq., NCR 2-29, 26 Dec. 1943; 7th Amph. Rpt., p. 10; AAFHS-43, pp. 58-59.

99. Dexterity-Alamo Rpt., p. 11; memo from Maj. J. B. Bonham in Cushman Rpt., Annex C, p. 2; 8th and 9th Bomb. Sqs., NMR 361-AA, 29 Dec. 1943.

100. Col. J. F. Bird, Report on BACKHANDER Operation from 1 Jan. 1944 to 7 Jan. 1944, in Cushman Rpt., Annex D, p. 2; AAFHS-43, pp. 61-62; 1st Marine Div. Gloucester Rpt., Phase II, pp. 7-11 and Annex A, p. 17.

101. Dexterity-Alamo Rpt., pp. 13, 18; ltr., Whitehead to Krueger, 28 Jan. 1944, and radio, Krueger to GHOSWPA, 9 Jan. 1944, both in History, 5th AF, Pt. III, App. II, Docs. 67 and 119.

102. History, 347th Troop Carrier Gp.,

Feb. 1944, p. 2; 65th TC Sq., Daily Opns. Rpts., Feb. 1944; History, 67th TC Sq., Feb.-Mar. 1944; History, 40th TC Sq., Feb. 1944.

103. AAFHS-43, pp. 61-64.

104. 13th Bomb. Sq., NMR 4-J-1, 4 Jan. 1944; 1st Marine Div. Gloucester Rpt., Phase III, pp. 2-4.

105. 1st Marine Div. Gloucester Rpt., Phase III, pp. 6-11; 43d Bomb. Gp., NMR's 7-A-1, 7-B-1, 7-H-1, 8 Jan. 1944; 90th Bomb. Sq., NMR 19-D-1, 10 Jan. 1944; 321st Bomb. Sq., NMR 10-B-1, 11 Jan. 1944.

106. 1st Marine Div. Gloucester Rpt., Phase III, pp. 13-15; AAFHS-43, pp. 66-67.

107. 1st Marine Div. Gloucester Rpt., Phase IV; 1st Marine Div., APPEASE Operation, Special Action Report; AAFHS-43, pp. 67-72.

108. 1st Marine Div., APPEASE Rpt., pp. 5-11.

109. Dexterity-Alamo Rpt., p. 21.

110. Col. Henry P. Dexter, Hq. AGF, Report on Air Support in Southwest Pacific Area during the Period 1 Nov. 1943 to 1 Feb. 1944, p. 11, in Army War College File; AAFHS-43, pp. 82-85.

111. Msg., Barbey to Kenney, Whitehead, and Smith, 25 Dec. 1943, in G-3 Journal, 26 Dec. 1943; AAFHS-43, pp. 82-85.

112. Dexterity-Alamo Rpt., pp. 15-17.

113. Michaelmas Operation Diary, 16 Dec. 1943-10 Feb. 1944.

114. ONI Weekly, II, 49, 50, 51, and 52 (8, 15, 22, and 29 Dec. 1943).

115. Isums 161-68, 4, 8, 11, 15, 18, 22, 25, and 29 Dec. 1943.

116. ADVON 5th AF, Brief Plan for Close Support of Michaelmas Task Force, 19 Dec. 1943; memo for CG 5th AF by Brig. Gen. Clarence A. Martin, 21 Dec. 1943; ltr., Comdr. 7th Amph. Force to COMINCH, 3 Feb. 1944.

117. Michaelmas Opn. Diary.

118. *Ibid.*

119. Report of Michaelmas Operation, App. 5, Operations Air Liaison Party; Michaelmas Opn. Diary. The reason for such an error is not clear. The MICHAELMAS diary states that later inquiries showed that the orders of the MICHAELMAS Task Force, which would have cleared up the matter and

which were delivered to "Fifth Air Force," failed to reach the First Air Task Force, which had prepared the detailed plan of air support.

120. Form 34's, all 5th AF bomb. sqs., 1 Jan. 1944.

121. Ltr., Comdr. 7th Amph. Force to COMINCH, 3 Feb. 1944; Lt. Gen. Walter Krueger, Report on Saidor, Arawe, Cape Gloucester, 17 May 1944.

122. Form 34's, all 5th AF bomb. sqs., 2 Jan. 1944.

123. G-2 Estimate of the Enemy Situation, 21 Dec. 1943, Incl. 1 to Annex 2, Hq. Saidor Task Force, Saidor Plan; AGF Board Rpt. 35, 26 Feb. 1944; Isum 170, 5 Jan. 1944.

124. Isum 170, 5 Jan. 1944; Form 34, 2 Jan. 1944, 7th Sq.; Michaelmas Opn. Diary.

125. One enemy attempt on 16 January to attack an Allied convoy resulted in the Japanese losing nineteen aircraft. (Michaelmas Opn. Diary; Michaelmas Opn. Rpt., as cited in n. 119; Form 34, 16 Jan. 1944, 35th Sq.; History, 35th Ftr. Sq.)

126. AGF Board Report 35, 26 Feb. 1944; Michaelmas Opn. Diary; Histories, 56th Ftr. Control Sq., 3d Airdrome Sq., and 54th TC Wing; Krueger Rpt. on Saidor, etc.

127. Krueger Rpt. on Saidor, etc.; Histories, 56th Ftr. Control Sq., 2015 QM Truck Co., and 3d Airdrome Sq.

128. Michaelmas Opn. Diary; cable opns. rpts.; Michaelmas Opn. Rpt., as cited in n. 119.

129. History, Third Air Task Force; Form 34, 20 Dec. 1943, 7th Ftr. Sq.; memo for "all concerned" by TATF, 2 Feb. 1944, in A-2 Lib.

130. Memo for "all concerned" by TATF, 2 Feb. 1944; Form 34, Jan. 1944, 38th and 22d Bomb. Gps. RAAF Vengeances also participated in these attacks but with less success. (CM-IN-13020 [1-20-44] Rear Echelon GHQSWPA to WAR, C-723, 20 Jan. 1944; Adv. LHQ SWPA, The New Guinea Campaign: Ramu Valley-Shaggy Ridge, Report on Operations of 18 Aus. Infantry Brig., 1 Jan.-6 Feb. 1944, in GHQ G-3 Journal, 6 Feb. 1944.)

131. The statistics on the sorties and

tonnage against Madang and Alexishafen were calculated from Form 34's for January. Only those sorties actually carried out against the airfields, the towns, and the supply depots specifically identified as being at Alexishafen or Madang were considered in the calculation. It should be pointed out, however, that all B-25 and A-20 units were repeatedly hitting tracks and supply points along the coast and in the Ramu valley of the general Alexishafen-Madang area.

132. These figures were similarly calculated from Form 34's (see note above). Hansa Bay is considered to include Nubia and Bogia.

133. Aus. Intr., 5 M.H. Fld. Team, Rabaul.

134. Ms. for Robert Sherrod, History of Marine Corps Aviation in World War II, Pt. 12, The Elimination of Rabaul, pp. 3-4; COMAIRNORSOLS Ftr. Comd. War Diary; ONI, *The Combat Strategy and Tactics of Major Gregory Boyington, USMCR*, 15 Feb. 1944.

135. 13th AF, Campaigns of the Northern Solomons, p. 10; AEB, Rabaul, Annex GG; History, XIII BC, pp. 5, 26; History, XIII FC, Jan.-Mar. 1944, pp. 11, 21; Report on Rabaul Operations; Sherrod, History of MC Aviation, Pt. 12, p. 4; SOPACFOR Intel. Sec., The Air Assault on Rabaul, 17 Dec. 1943-19 Feb. 1944 (hereinafter cited as SOPACFOR Rpt.), pp. 6-7; Isum 169, 1 Jan. 1944.

136. History, XIII BC, pp. 23-24. The F6F's flying cover made several direct approaches on the bombers out of the sun and were fired on. (*Ibid.*; 307th Bomb. Gp., NMR 370-194.)

137. Sherrod, History of MC Aviation, p. 6.

138. Isum 171, 8 Jan. 1944; History, XIII BC, Annex IV; XIII FC Brief Log of Mission (hereinafter cited as XIII FC Log). On 6 January, sixteen P-38's rendezvoused with thirty-two F4U's and twenty-six F6F's for a fighter sweep to Rabaul. After weather turned back the F4U's and F6F's, the P-38's encountered thirty to thirty-five Zekes and Hamps. They destroyed nine Japanese fighters and claimed four to fourteen probables for a loss of two P-38's. (XIII FC Log; Sherrod, History of MC Aviation, pp. 6-7.)

139. History, XIII FC, p. 26.
140. History, XIII BC, Annexes I, IV, VII, XI; XIII FC Log. One of the B-25 squadron commanders, who turned his flight back because of no observable fighter cover, was relieved after the 12 January mission. (Ltr., M. F. Harmon to Gen. Owens, 26 Dec. 1943.)
141. History, XIII BC, Annexes IV and XI; XIII FC Log; SOPACFOR Rpt., p. 7.
142. Ltr., Harmon to Owens, 26 Dec. 1943; History, XIII BC, pp. 13-19 and Annexes I, IV, VII, XI; History, XIII FC, pp. 11, 26; XIII FC Log; Isum 178, 2 Feb. 1944; SOPACFOR Rpt., pp. 7-10. A total estimate for January was 503 Japanese planes destroyed on the ground and in the air. (SOPACFOR Rpt., p. 15.)
143. Isum 178, 2 Feb. 1944; AEB, Rabaul, pp. 33-34; USSBS, *Rabaul*, pp. 26, 30; History, XIII FC, pp. 13-15, 22; COMSO-PAC, Report on the Reduction of Rabaul, 8 June 1944; Sherrod, History of MC Aviation, Pt. 12, p. 7; SOPACFOR Rpt., pp. 7-12; History, XIII BC, Annexes II, V, and VIII.
144. AEB, Rabaul, pp. 34-35; Isum 179, 5 Feb. 44; History, XIII BC, Annexes II, V, VIII; XIII FC Log; Rpt. on Rabaul Opns.
145. AEB, Rabaul, p. 38; History, XIII BC, Annexes II, V, VIII; USSBS, *The Campaigns of the Pacific War*, p. 194; Rpt. on Rabaul Opns.; SOPACFOR Rpt., pp. 10-15; USSBS, *Rabaul*, pp. 23-32.
146. USSBS, *Rabaul*, pp. 17-18.
147. History, XIII BC, pp. 8, 10, and Annexes II-III, V-VI, VIII-X; AEB, Rabaul, Annex GG; History, XIII FC, pp. 12, 14.
148. *General Kenney Reports*, p. 353.
149. History, V Ftr. Comd., Jan.-June 1944, p. 24; Isum 182, 16 Feb. 1944; NMR's 42-A-1 and 42-B-1.
150. History, V Ftr. Comd., p. 24; Isum 183, 19 Feb. 1944.
151. History, V Ftr. Comd., pp. 25, 26; History, 345th Bomb. Gp., Feb. 1944, p. 10; History, 38th Bomb. Gp., Jan. 1940-March 1944, pp. 260-64; Isum 184, 22 Feb. 1944; History, 5th AF, Pt. III, Feb.-June 1944, p. 11; NMR's 15-B-309, 46-B-1; *General Kenney Reports*, p. 357.
152. Isum 184, 22 Feb. 1944; Isum 185, 26 Feb. 1944; Isum 186, 1 March 1944; NMR's 47-B-1, 47-C-1, 48-E-1, 48-F-1,

19G309, 52-P-1; JANAC; *General Kenney Reports*, p. 357.

NOTES TO CHAPTER 11

1. Memo for Arnold from Brig. Gen. W. O. Butler, 10 Feb. 1942.
2. Stuart R. Tompkins, *Alaska: Pro-myschlennik and Sourdough* (Norman, Oklahoma, 1945), p. 10.
3. Air Pilot Manual of Aleutian Islands.
4. Quoted in History, 11th AF, pp. 20-21.
5. ONI, The Aleutian Campaign (unpublished), App C. This work must be carefully distinguished from a published study with an almost identical name: ONI, The Aleutians Campaign. Both are cited frequently below.
6. Eleventh Air Force Combat Activities; History, 11th AF, p. 160.
7. History, 11th AF, p. 169.
8. Ltr., Butler to Arnold, 16 June 1942.
9. History, 11th AF, p. 166; 11th AF Combat Activities.
10. USSBS Intrs. 99 and 101, Comdr. Nifumi Mukai and Capt. Taisuke Ito, 22 and 11 Oct. 1945.
11. ONI, Aleutian Campaign (unpub.), p. 31.
12. History, 11th AF, p. 168.
13. History, 404th Bomb. Sq.
14. History, 54th Ftr. Sq., App., Tactical History.
15. AAF Historical Study No. 4, Alaskan Air Defense and the Japanese Invasion of the Aleutians, p. 15.
16. ONI, Aleutians Campaign (pub.), pp. 32-33, 18.
17. G-3 Report of Offensive Phase of the Aleutian Campaign, 14 Sept. 1943.
18. History, 11th AF, pp. 164-65.
19. AAFHS-4, p. 65.
20. History, XI AFSC, pp. 54-55.
21. *Ibid.*, pp. 57-59.
22. *Ibid.*, p. 59.
23. Memo for C/S sgd. Arnold, 24 July 1942.
24. Memo for C/S from Arnold, 21 Aug. 1942.
25. Memo for C/S from Kuter, AC/AS Plans, 5 July 1942.
26. G-3 Rpt. of Offensive, 14 Sept. 1943.
27. *Ibid.*
28. ONI, Aleutian Campaign (unpub.), p. 34.

29. G-3 Rpt. of Offensive, 14 Sept. 1943.
30. History, Adak Air Base, p. 7.
31. 11th AF FO 7, 23 Aug. 1942.
32. History, Adak Air Base, pp. 8-9.
33. *Ibid.*
34. *Ibid.*
35. History, 11th AF, p. 173.
36. History, 28th Bomb. Gp., pp. 30-31.
37. G-2 Periodic Report (Weekly), 12-19 Sept. 1943.
38. 11th AF Combat Activities; History, 11th AF, pp. 195-98.
39. History, 11th AF, pp. 175-78, 182, 229-30.
40. *Ibid.*, p. 232; ONI, Aleutian Campaign (unpub.), p. 46.
41. 11th AF Combat Activities.
42. USSBS Intr. 101, Capt. Taisuke Ito.
43. 11th AF Combat Activities.
44. 4th AF Historical Study IV-2, Doc. 14.
45. First Partial Report of Alaskan Inspection by Col. Charles G. Williamson, 12 Nov. 1942.
46. Second Partial Report by Williamson, 27 Nov. 1942.
47. *Ibid.*
48. AAFHS-4, p. 46.
49. ONI, Aleutians Campaign (pub.), p. 21.
50. 11th AF FO 8, 1 Nov. 1942.
51. G-2 Per. Rpt. 24, 31 Oct.-7 Nov. 1942.
52. 11th AF Combat Activities.
53. *Ibid.*
54. History, 11th AF, pp. 238-39; ONI, Aleutians Campaign (pub.), p. 22.
55. G-2 Per. Rpt. 220, 30-31 Dec. 1942.
56. History, 11th AF, p. 244.
57. ONI, Aleutian Campaign (unpub.), p. 42.
58. *Ibid.*
59. *Ibid.*
60. *Ibid.*; History, Amchitka Air Base, pp. 8-9.
61. ONI, Aleutian Campaign (unpub.), p. 43.
62. 11th AF FO 9.
63. ONI, Aleutians Campaign (pub.), p. 23.
64. History, XI AFSC, p. 151.
65. History, 11th AF, pp. 247-48.
66. 11th AF Combat Activities.
67. History, 11th AF, p. 249.
68. History, 464th Base Hq. and Air Base Sq., p. 8.
69. G-2 Per. Rpt. 256, 4-5 Feb. 1943.
70. G-2 Per. Rpt. (Weekly) 37.
71. G-2 Per. Rpt. 265, 13-14 Feb. 1943.
72. History, 464th Base Hq. and Air Base Sq., pp. 9-10.
73. History, 18th Ftr. Sq., pp. 13-14.
74. History, 11th AF, pp. 260-61.
75. *Ibid.*, p. 251; 11th AF Combat Activities.
76. USSBS Intr. 102, Comdr. Shigefuso Hashimoto, 22 Oct. and 7 Nov. 1945.
77. ONI, Aleutians Campaign (pub.), p. 62.
78. CM-OUT-11597 (3-30-43), CGAAF to Fort Richardson, 3299, 29 Mar. 1943.
79. CM-IN-1545 (4-3-43), Hq. ADC Fort Richardson to CGAAF.
80. G-3 Report of Offensive, 14 Sept. 1943.
81. JCS 58th Mtg. (Casablanca), 22 Jan. 1943.
82. CCS 168, 22 Jan. 1943.
83. CCS 170, 22 Jan. 1943.
84. CCS 168, 22 Jan. 1943.
85. ONI, Aleutian Campaign (unpub.), pp. 57-60; History, 11th AF, pp. 257-58.
86. ONI, Aleutian Campaign (unpub.), p. 70.
87. CM-IN-0445 (3-20-43), Hq. 11th AF, Ft. Greely to CGAAF, 75, 19 Mar. 1943.
88. ONI, Aleutian Campaign (unpub.), p. 66.
89. ONI, Aleutians Campaign (pub.), p. 70; ONI, Aleutian Campaign (unpub.), p. 66.
90. History, 11th AF, p. 265.
91. Eleventh AF Statistical Summary.
92. Statistical Control, Air Operations in the Alaskan Theater.
93. *Ibid.*
94. 11th AF Combat Activities.
95. ONI, Aleutians Campaign (pub.), p. 71.
96. ONI, Aleutian Campaign (unpub.), p. 70; G-3 Report on Attu Operation.
97. Hq. 11th AF FO 10, Annex B, Air Plan for Operation Landgrab.
98. *Ibid.*; History, 54th Ftr. Sq.
99. History, 11th Ftr. Sq., pp. 77 ff.; History, 18th Ftr. Sq., p. 19.
100. History, XI BC, pp. 12-15.
101. USSBS, Operations of the Seventh and Eleventh Air Forces (manuscript).
102. 11th AF Combat Activities.

103. ONI, Aleutian Campaign (unpub.), p. 71.
104. U.S. War Dept., *The Capture of Attu* (Washington, 1944), pp. 12-13.
105. ONI, Aleutians Campaign (pub.), pp. 73, 76.
106. ONI, Aleutian Campaign (unpub.), p. 68; 11th AF Stat. Sum.
107. Report of Operation on Attu by Maj. Gen. E. M. Landrum.
108. ONI, Aleutian Campaign (unpub.), p. 76.
109. Landrum Rpt.; *The Capture of Attu*, p. 13.
110. Landrum Rpt.
111. Air Plan for Opn. Landgrab; History, 54th Ftr. Sq.
112. History, 11th AF, p. 272.
113. *Ibid.*, 273-74.
114. A-3 History of Eleventh Air Force, Ref. 26: Eleventh AF Operations, 27 April to 31 May 1943.
115. 11th AF Combat Activities.
116. CM-IN-9030 (5-14-43), Adak to CGAAF, 120, 13 May 1943.
117. Air Plan for Opn. Landgrab.
118. ONI, Aleutians Campaign (pub.), p. 82.
119. CM-IN-9416 (5-15-43), Adak to CGAAF, 123, 14 May 1943.
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121. Air Plan for Opn. Landgrab.
122. *Ibid.*
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124. *The Capture of Attu*, pp. 23-24.
125. ONI, Aleutians Campaign (pub.), p. 90.
126. CM-IN-13956 (5-22-43), 135, 21 May 1943.
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131. CM-IN-16073 (5-25-43), Adak to CGAAF, 140, 25 May 1943.
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133. History, 54th Ftr. Sq.
134. ONI, Aleutian Campaign (unpub.), p. 86.
135. *The Capture of Attu*, p. 31; Landrum Rpt., p. 9.
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137. CM-IN-16930 (5-26-43), Adak to CGAAF, 141, 25 May 1943; Air Plan for Opn. Landgrab.
138. 32d Infantry Regiment Operation Report on Attu.
139. CM-IN-16930 (5-26-43), Adak to CGAAF, 141, 25 May 1943.
140. CM-IN-17571 (5-27-43), Adak to CGAAF, 145, 27 May 1943.
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142. *The Capture of Attu*, p. 36.
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146. ONI, Aleutian Campaign (unpub.), pp. 89-90.
147. CM-IN-471 (6-1-43), Adak to CGAAF, 154, 31 May 1943.
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150. History, 11th AF, p. 284; memo for Gen. Arnold prepared by Current Br., Air Intel., Activities of the USAAF in Recent United Nations Achievements, 18 June 1943.
151. History, 11th AF, p. 284.
152. Hq. WDC and Fourth Army, G-3 Report on the Aleutians Campaign.
153. ONI, Aleutian Campaign (unpub.), pp. 92-96.
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155. AC/AS G-2, Hq. ADC, The Enemy on Kiska, p. 14; History, 11th AF, p. 289.
156. 11th AF Stat. Sum. These figures (pp. 176-77) do not correspond exactly with those given in AAF Statistical Digest of World War II, which gives figures as of the end of the month, whereas the figures given here are "average number of aircraft on hand and in commission."
157. USSBS, Opns. of 7th and 11th AF's (ms.).
158. History, 11th AF, p. 287.
159. 11th AF Stat. Sum.
160. ONI, Aleutian Campaign (unpub.), pp. 97-98.

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161. History, 11th AF, pp. 290-91.
162. *Ibid.*, p. 292; 11th AF Combat Activities.
163. CM-IN-2741 (7-4-43), Adak to CGAAF, 211, 3 July 1943.
164. ONI, Aleutians Campaign (pub.), p. 95; CM-IN-5255 (7-8-43), Adak to CGAAF, 222, 7 July 1943.
165. History, 77th Bomb. Sq.; CM-IN-8270 (7-12-43), Adak to CGAAF, 229, 11 July 1943.
166. CM-IN-8999 (7-13-43), Adak to CGAAF, 230, 12 July 1943.
167. History, 11th AF, p. 297; CM-IN-14089 (7-20-43), Adak to CGAAF, 251, 20 July 1943.
168. ONI, Aleutians Campaign (pub.), pp. 96-97.
169. CM-IN-17393 (7-24-43), Adak to CGAAF, 262, 24 July 1943.
170. ONI, Aleutians Campaign (pub.), p. 97.
171. CM-IN-20328 (7-28-43), Adak to CGAAF, 273, 28 July 1943; History, 11th AF, p. 301.
172. ONI, Aleutians Campaign (pub.), pp. 98-99; CM-IN-2312 (8-4-43), Adak to WAR, 290, 3 Aug. 1943.
173. CM-IN-4138 (8-6-43), Adak to CGAAF, 294, 5 Aug. 1943.
174. History, 11th AF, p. 307.
175. CM-IN-4726 (8-7-43), Adak to CGAAF, 2966, 6 Aug. 1943.
176. CM-IN-9633 (8-13-43), Adak to CGAAF, 12 Aug. 1943; History, 11th AF, pp. 314-17. One of the last planes landed at Petropavlovsk.
177. Memo for AC/AS Intel. from Capt. John J. Babe, 13 Sept. 1943.
178. 11th AF Combat Activities.
179. Memo for AC/AS Intel. from Capt. John J. Babe, 13 Sept. 1943.
180. ONI, Aleutians Campaign (pub.), p. 94.
181. See USSBS Intrs. 98, 99, 102, Comdrs. Kintaro Miura, Nifumi Mukai, and Shigefuso Hashimoto, respectively.
182. ONI, Aleutians Campaign (pub.), p. 103.
183. On 29 July, a Catalina made radar contact with seven ships about 200 miles northwest of Attu. It is possible that this was the evacuation, but the ships were never identified. (ONI, Aleutians Campaign [pub.], p. 98.)
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185. CM-IN-4726 (8-7-43), Adak to CGAAF, 2966, 6 Aug. 1943.
186. Memo for AC/AS Intel. from Capt. John J. Babe, 13 Sept. 1943.
187. Extract from Minutes, JCS 113th Mtg., 7 Sept. 1943.
188. Extract from Minutes, JPS 101st Mtg., 15 Sept. 1943.
189. JPS 266/1, 18 Sept. 1943.
190. AAF Reference History No. 12, History of Twentieth Air Force: Genesis, pp. 49-50.
191. JPS 266/1, 18 Sept. 1943.
192. JPS 102d Mtg., 20 Sept. 1943.
193. JCS 474/1, 21 Sept. 1943.
194. JCS 115th Mtg., 21 Sept. 1943.
195. CM-OUT-13295 thru 13304 (10-29-43), OPD WDGS, 29 Oct. 1943.
196. JCS 474/3, 25 Sept. 1943.
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198. JCS 474/4, 30 Sept. 1943.
199. History, 11th AF, pp. 319-21.
200. *Ibid.*, p. 322.
201. A-3 History of 11th AF, Doc. 48.
202. Hq. 11th AF FO 10, 27 Dec. 1943.
203. 11th AF Combat Activities.
204. History, 11th AF Instrument Tng. School (Prov.), p. 8.
205. *Ibid.*, pp. 10-11.
206. History, 11th AF Instrument Flying Tng. School.
207. History, 11th AF, p. 330.
208. *Ibid.*, p. 331.
209. *Ibid.*, p. 332.
210. *Ibid.*, pp. 346-49.
211. Hq. Alaskan Dept., Letter of Instructions on Projects 2022, 2023, and 2024, 27 Apr. 1944, Doc. 58, in A-3 History of 11th AF.
212. History, 11th AF, p. 336.
213. *Ibid.*, p. 352.
214. 11th AF Stat. Sum.
215. History, 11th AF, p. 340; TAG ltr., 3 Aug. 1944, Doc. 151, in History, XI AFSC.
216. History, 11th AF, p. 326; Field Hq. 11th AF GO 18, 18 Mar. 1944.
217. History, 11th AF, pp. 346, 366. Actually, the XI Strategic Air Force seems to have existed in name only since its personnel were coextensive with the personnel of 28th Bombardment Group (C).
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MM&D, 19 Nov. 1943; AC/AS Plans Daily Diary, 7 Dec. 1943.

219. CM-IN-5756 (1-9-44), Alaskan Dept. to WAR, A2989.

220. JWPC 147/D, 25 Nov. 1943.

221. AC/AS Plans Daily Diary, 15 Feb. 1944.

222. *Ibid.*, 24 Feb. 1944.

223. JCS 742, 2 Mar. 1944.

224. JCS 742/6, 6 Apr. 1944, approved 10 Apr.

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226. Task Force 90 FO 12, 10 May 1944; USSBS, Opns. of 7th and 11th AF's (ms.).

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2. History, 51st Ftr. Gp.

3. CM-IN-5589, Stilwell to AGWAR, AMMISCA 1059, 21 June 1942.

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5. CM-IN-05200, Bissell to Arnold, AQUILA 5804A, 13 Oct. 1942.

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25. *The Stilwell Papers, passim*; interview with Lt. Col. John Allison, 3 July 1943; interview with Maj. A. J. Baumler, 24 Mar. 1943; interview with G. J. Henker and E. E. McMahon, Allison representatives, 16 Aug. 1943; interview with Col. G. H. MacNair, 15 July 1943; interview with Col. Bruce K. Holloway, 16 Nov. 1943.
26. History, 308th Bomb. Gp.
27. Incl., ltr., Chennault to Arnold, 4 Mar. 1943; msg., Stilwell to Arnold, 26 Mar. 1943.
28. Ltr., Arnold to Chennault, 2 Apr. 1943.
29. Memo for Marshall from Arnold, 23 Mar. 1943; statistics from Official Reports, ICWATC to Hq. AAF.
30. See Form 34's.
31. Memo for Stratemeyer from Marshall, 18 Mar. 1943; memos for Marshall from Stratemeyer, 20 and 26 Mar. 1943; memos for Marshall from Arnold, 23 Mar. and 12 Apr. 1943 and notation by GCM at bottom of page of latter; memo for Gen. Handy from Col. T. S. Timberman, OPD, 23 Mar. 1943; msg., Roosevelt to Chiang, 31 Mar. 1943; memo for Marshall from Brig. Gen. J. E. Hull, 14 Apr. 1943; memo for TAG from Hq. AAF, 24 Apr. 1943; memos for Roosevelt from Marshall, 10 and 12 Apr. 1943; memo for Marshall from Roosevelt, 12 Apr. 1943; msg., Marshall to Stilwell, 11 Apr. 1943.
32. CCS 239/1, 23 May 1943, Incl. A. See also *The Stilwell Papers*, pp. 204-5.
33. CCS 239/1, 23 May 1943, Incl. A. See also Chennault, *Way of a Fighter*, pp. 220-24.
34. CCS 239/1, 23 May 1943, Incl. A.
35. *Ibid.*
36. Msg., Arnold to Stilwell, 2 July 1943.
37. Official Rpts., ICWATC to Hq. AAF.
38. *Ibid.*
39. Ltr., Alexander to Arnold, 19 Apr. 1943.
40. Report of Brig. Gen. Howard C. Davidson to Arnold, 22 June 1943.
41. Ltr., G. W. Macready, British Joint Staff Mission to Arnold, 10 May 1943.
42. *Ibid.*
43. Official Rpts., ICWATC to Hq. AAF.
44. *Ibid.*
45. *Ibid.*
46. Davidson Rpt.
47. *Ibid.*
48. *Ibid.*
49. *Ibid.*; memo for Deputy C/AS from AC/AS Plans, sgd. O. A. Anderson.
50. CM-OUT-8568, Arnold to Stratemeyer, 2600, 21 Aug. 1943. Cable files for summer 1943 are filled with reports of defects of the C-46 and efforts to overcome them in the field.
51. Memo for Deputy C/AS from AC/AS Plans, sgd. O. A. Anderson.
52. *Ibid.*
53. Rickenbacker Report; R&R, Stratemeyer to Giles, 6 June 1943.
54. R&R, Gen. George to AC/AS OC&R, 14 June 1943.
55. *Ibid.*; Rear Echelon Hq. USAF CBI, Cir. 6, sgd. Brig. Gen. B. G. Ferris, 14 Apr. 1943.
56. R&R, Giles to Stratemeyer, 1 July 1943.
57. Rickenbacker Rpt.; CM-OUT-8535, Stratemeyer and George to Arnold, 1432, 25 Jan. 1943.
58. CM-OUT-8535, Stratemeyer and George to Arnold, 1243, 25 Jan. 1943; CM-IN, Bissell to George: 11243, AQUILA R770XS, 21 Mar.; 15045, AQUILA R1088A, 28 Mar.; 5116, AQUILA P214XC, 9 Apr.; CM-IN-8882, Bissell to Frank, AQUILA W195PXS, 15 Apr.; CM-IN-9770, Ferris to Marshall, AMMDEL AG 506, 15 May; CM-OUT-8658, Arnold to Stratemeyer, 2600, 21 Aug. 1943.
59. CM-OUT-5851, Marshall to Wheeler, 2807; Davidson Rpt.; Rear Ech. Hq. USAF CBI Cir. 6.
60. History, American Air Base Comd. No. 1; Historical Data, Chronology of the Evolution of the 5320th Air Defense Wing (Prov.).
61. Historical Data, 5320th ADW.
62. *Ibid.*; msgs., Bissell to Stilwell, 14 June 1943; Bissell to Haynes, 14 June 1943; Haynes to Bissell, 16 June 1943; Di-

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rective regarding responsibilities in Assam area, Stilwell to Bissell, 13 July 1943; Directive, Bissell to Haynes, 12 June 1943; ltr., Bissell to Haynes, 17 June 1943.

63. History, USAAF, India-Burma Sector, CBI, p. 11.

64. Msg., Stilwell to OPD for Marshall and Arnold, 20 Mar. 1943.

65. Msg., Roosevelt to Chiang, 28 June 1943.

66. Msg., Stilwell to Marshall, 30 June 1943.

67. Msg., Marshall to Stilwell, 1 July 1943.

68. Msg., Chiang to Roosevelt thru Soong, 17 July 1943.

69. Memo for OPD, Attn. Gen. Handy, from Stratemeier, C/AS, 20 July 1943; Hq. 10th AF GO 76, 19 Aug. 1943; Rear Ech. Hq. USAF CBI GO 21, 20 Aug. 1943. Stratemeier asked that ICWATC be placed under his command but the request was not favorably considered. (Ltr., Stratemeier to Brig. Gen. Byron E. Gates, 9 Nov. 1943.)

70. Rear Ech. USAF CBI GO 21, 20 Aug. 1943; CM-IN-16358, Stilwell to Marshall (n.n.), 21 Aug. 1943.

71. See sources in n. 70.

72. Memo for CG Rear Ech. USAF CBI from Col. Charles B. Stone III, C/S IBS, 3 Sept. 1943; ltr., Arnold to Stratemeier, 28 Aug. 1943; CCS 111th Mtg., 18 Aug. 1943.

73. History, IBS CBI.

74. Hq. IBS CBI GO 1, 23 Aug. 1943.

75. History, IBS CBI.

76. TAG to CG IBS CBI, 28 Sept. 1943; CM-OUT-10038, Arnold to Stratemeier, 3823, 25 Nov. 1943.

77. For exact boundaries of the new theater see CCS 308/3, 21 Aug. 1943.

78. Ltrs., Arnold to Stratemeier, to Stilwell, and to Chennault, 28 Aug. 1943; CM-IN-20727, Stilwell to Arnold, 775, 30 Sept. 1943.

79. Memo for CG Rear Ech. from Stone.

80. See copy of plan in History, IBS CBI.

81. Memo for Air Comdr., SEAC from Stratemeier, 26 Oct. 1943.

82. Copy of record of the meeting is found in History, IBS CBI.

83. Memo for Wedemeyer from Stratemeier, 30 Oct. 1943.

84. Copy of memo in History, IBS CBI.

85. CM-IN-15125, Somervell to Marshall, 2810 KM2683, 25 Oct. 1943.

86. Ltr., Stratemeier to Arnold, 29 Nov. 1943.

87. Memo for Arnold from Kuter, 1 Dec. 1943.

88. Ltr., Arnold to Mountbatten, 3 Dec. 1943.

89. History, IBS CBI.

90. *Ibid.*

91. Hq. EAC GO 1, 15 Dec. 1943.

92. *Ibid.*

93. History, IBS CBI.

94. *Ibid.*

NOTES TO CHAPTER 14

1. During the late summer the 25th Squadron had flights at Sookerating, Sadiya, and Jorhat, and the 26th Squadron was dispersed at Dinjan, Mohanbari, and Lilibari. (History, 51st Ftr. Gp.)

2. Report on Fort Hertz by Lt. Col. Emile Z. Berman, 20 July 1943; Report on KC-8 Incident; Northern Combat Area Comd., Air Dropping in Northern Burma, pp. 1-3; ACSEA, Air Transport Operations on the Burma Front, pp. 7-8.

3. S-2 Information Bulletins; Daily Tactical Reports; Form 34's.

4. Form 34's; Berman Rpt.

5. The position of KC-8, an air warning outpost strategically located at Hkalak Ga in Hukawng Valley, probably had been revealed to the enemy by air dropping and it was in imminent danger of being overrun by a Jap patrol. Kachin irregulars, holding them off, asked for air support. A series of bombing and strafing attacks, directed by air-ground liaison with men from KC-8, forced a withdrawal of the patrol and saved the air warning post. (Rpt. on KC-8 Incident.)

6. S-2 Info. Bulls.; Hq. 10th AF GO 43, 23 May 1943; *Air Force*, Oct. 1943, pp. 5, 35; *Impact*, Nov. 1943, p. 12.

7. S-2 Info. Bulls.; 10th AF Hqs. Aerial Operations File; Daily Tactical Rpts.; Form 34's.

8. History, Hq. 10th AF.

9. S-2 Info. Bulls.; Aerial Opns. File; Daily Tactical Rpts.; Form 34's.

10. Histories, 51st and 80th Ftr. Gps.; Form 34's.

11. Form 34's.

12. *Ibid.*
13. Histories, 10th AF and USAAF IBS CBI.
14. Histories, 51st and 80th Ftr. Gps.; Form 34's.
15. OPTI Section (Plans) Projects AF Units, Rangoon Operation; Form 34's.
16. Daily Tactical Rpts.; Form 34's.
17. Report by Lt. Col. Samuel T. Moore, TCC EAC; Form 34's.
18. Aerial Opns. File.
19. *Ibid.*
20. John L. Christian, *Modern Burma* (Berkeley, 1942), p. 6; *Impact*, Nov. 1943, pp. 8-9; *Air Forces General Information Bulletin* (AFGIB) 10 (Mar. 1943), p. 8.
21. Christian, *Modern Burma, passim*.
22. There was little coordination between RAF and AAF at this time, and the American squadrons turned to river targets only when other targets were closed in. (Form 34's.)
23. Report to Committee of Operations Analysts by Subcommittee on Far Eastern Railways, 28 Dec. 1943.
24. *Ibid.*
25. *Ibid.*; 10th AF, Air Objective Folders; memo for Gen. Bissell from Col. Jasper N. Bell, A-3 Opns., 10th AF, 22 Apr. 1943.
26. Report to Committee of Operations Analysts by Subcommittee on Far Eastern Railways, 28 Dec. 1943.
27. *Ibid.*; 10th AF, Air Objective Folders; memo for Bissell from Bell, 22 Apr. 1943.
28. Memo for Bissell from Bell, 22 Apr. 1943; Christian, *Modern Burma*, p. 129.
29. Memo for Bissell from Col. Harold B. Wright, A-2 10th AF, 20 Mar. 1943, in Aerial Opns. File.
30. Administrative History for the AAF in India and the Eastern Air Command, SEA, 12 Feb. 1942-31 May 1945.
31. Lt. (j.g.) Julius Impellizeri, USNR mine planter specialist, was obtained from the Middle East during the autumn of 1942, and was attached to Tenth Air Force headquarters. (Maj. Geoffrey R. Norman, A-2 IATF, Project LOW: First Night Mission to Mine Rangoon River; Form 34's.)
32. AAF CBI Evaluation Board Report 4, 15 Dec. 1944; memo for Bissell from Wright, 20 Mar. 1943; Form 34's; Intelligence Summaries; Daily Tactical Rpts.
33. Form 34's; memo for CG 10th AF from A-3 Opns., 13 Mar. 1943.
34. Form 34's.
35. *Ibid.*; Air Attacks on Bridges, with Special Reference to Operations in Burma (Air Force Manual No. 32).
36. Air Attacks on Bridges; *Impact*, July 1943, pp. 46-47.
37. AAF CBI Evaluation Board Rpt. 4, 15 Dec. 1944.
38. *Ibid.*; Form 34's.
39. Daily Tactical Rpt.; Intelligence Summary; Form 34's.
40. Form 34's.
41. OPTI, as cited in n. 15. This file contains complete record of planning, execution, and evaluation of the series of missions. See also report on operation prepared by Capt. Samuel S. Whitt, Asst. A-2 10th AF.
42. Whitt Rpt. See also Histories, 7th and 308th Bomb. Gps.
43. Histories, 7th and 308th Bomb. Gps.
44. *Ibid.*; Form 34's.
45. OPTI; Form 34's; History, 530th Ftr. Sq.
46. See sources cited in n. 45 and histories of units participating in the missions.
47. *Ibid.*
48. *Ibid.*
49. *Ibid.*
50. *Ibid.*
51. *Ibid.*; *Impact*, Feb. 1944, pp. 12-13.
52. Form 34; OPTI. The B-24 crew was rescued by some of Col. Carl Eifer's OSS men who made a 900-mile sea voyage in a launch to effect the rescue.
53. Form 34; OPTI.
54. See sources cited in n. 53.
55. *Ibid.*
56. *Ibid.*
57. *Ibid.*
58. *Ibid.*
59. *Ibid.*
60. *Ibid.*
61. 10th AF Evaluation, Dec. 1942 thru 1943.
62. OPTI.
63. *Ibid.*
64. Form 34's.
65. *Ibid.*
66. *Ibid.*
67. Banta and Stauffer, *Climate of Burma, passim*.
68. The 341st Group had never oper-

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ated together at full strength, since the 11th Squadron was in China when the group was activated. The three squadrons in India generally were below normal strength. (Form 34's.)

69. Air Attacks on Bridges. Prior to March 1943 the mediums had only two Norden bombsights, and the D-8 sights being used were considered valueless. (Ltr., Haynes to Bissell, 21 Mar. 1943.)

70. Informational Intel. Sum., 30 Aug. 1943, p. 10.

71. River targets were attacked by the AAF as alternates when land targets were obscured. (Form 34's.)

72. *Ibid.*

73. Rpt. to Comm. of Opns. Analysts.

74. Form 34's; Histories, 341st Bomb. Gp. and 22d and 491st Bomb. Sq.

75. Histories of units cited in n. 74.

76. *Ibid.*

77. "Employment of Heavy Bombers in the Far East," in EAC Bomber Operations.

78. Form 34's. See also squadron histories.

79. 10th AF, Index to Burma Bridges.

80. Air Attacks on Bridges.

81. *Ibid.*; Form 34's; memo for CG 10th AF from A-3 Opns., 13 Mar. 1943.

82. Air Attacks on Bridges; Form 34's. The B-17's were being repaired in preparation for moving them to another theater. They were considered of no use in CBI because of limited range and excessive oil consumption.

83. Air Attacks on Bridges; Form 34's.

84. Form 34's.

85. *Ibid.*; *Impact*, July 1943, pp. 46-49, and Nov. 1943, pp. 10-11.

86. Air Attacks on Bridges; Form 34's.

87. Christian, *Modern Burma*, p. 129; Rpt. to Comm. of Opns. Analysts.

88. Rpt. to Comm. of Opns. Analysts.

89. Msg., Bissell to Stilwell, AQUILA F503A, 15 Feb. 1943; msg., Stilwell to Bissell, 20, 15 Feb 1943; memo for Bissell from Air Hq. India, 14 Feb. 1943.

90. Form 34's; Air Attacks on Bridges.

91. Air Attacks on Bridges; *Impact*, July 1943, pp. 46-47.

92. Form 34's; Air Attacks on Bridges. See also histories of squadrons.

93. See histories of squadrons.

94. *Ibid.*

95. *Ibid.*

96. *Ibid.*

97. *Ibid.*

98. History, 490th Sq.; 490th Sq., Report on Bridge Busting; *Yank*, 10 Feb. 1943, pp. 4-6; *Impact*, March 1944, pp. 28-29; Air Attacks on Bridges.

99. Later reports by the Evaluation Board called attention to a weakness in planning. The board contended that knocking out a single bridge merely led to substitution of some sort of ferry or to building a by-pass while the bridge was under repair. It was recommended that attempts be made to destroy several bridges on a relatively short stretch of railway, and that trackage in between be bombed out. This would multiply repair difficulties.

NOTES TO CHAPTER 15

1. Ltr. of Instructions, Marshall to Stilwell, 2 Feb. 1942; CCS 97/2, 13 Aug. 1942; CCS 219 and CCS 220, 14 May 1943; Theodore H. White, ed., *The Stilwell Papers* (New York, 1948), pp. 110-241.

2. Report of Lt. Gen. Joseph W. Stilwell to Chief of Staff, covering 21 May 1942-25 Oct. 1944, pp. 95-96.

3. Report on Operations carried out by Special Force, Oct. 1943-Sept. 1944; Hq. EAC Operations Directive (n.d. but probably Jan. 1944); MID, *Merrill's Marauders* (1945), pp. 8-16.

4. Hq. SACSEA War Diary, Vol. I, 6 Oct. 1943; msg., GHQ India to all gps. to be in SEAC, 14 Nov. 1943; Stilwell Rpt., pp. 99-100.

5. Ltr., Lt. Gen. Brehon Somervell to Marshall, 24 Oct. 1943; Minutes of Conference at Generalissimo's Residence, in Hq. SACSEA War Diary, Vol. I, 19 Oct. 1943; *The Stilwell Papers*, pp. 234-86.

6. Directive, PM to SACSEA, 23 Oct. 1943, in Hq. SACSEA War Diary, Vol. I, 24 Oct. 1943.

7. SEXTANT, Minutes of 1st Plenary Mtg., 23 Nov. 1943.

8. Hq. SACSEA War Diary, Vol. III, 22-27 Nov. 1943.

9. *The Stilwell Papers*, p. 247; SAC's Personal Diary, in Hq. SACSEA War Diary, Vol. III, 26 Nov. 1943; SEXTANT-EUREKA, Minutes 1st and 2d Plenary Sessions, 28 and 29 Nov. 1943;

- msg., Roosevelt to Chiang Kai-shek, 6 Dec. 1943.
10. Hq. SACSEA War Diary, Vol. I, 7 Dec. 1943; msg., Chiang Kai-shek to the President, 8 Dec. 1944; Stilwell Rpt., p. 108.
11. Memo for SACSEA from Maj. Gen. A. C. Wedemeyer, DC/S, 5 June 1944; Minutes, SAC's 29th Mtg., 9 Dec. 1943; Hq. SACSEA War Diary, Vol. I.
12. Report by SAC War Staff, Strategic Policy, 3 Feb. 1944; Hq. SACSEA War Diary, Vol. I; notes by Brig. Gen. Patrick J. Hurley, 5 Nov. 1943.
13. Minutes, SAC's 54th Mtg., 4 Feb. 1944.
14. Minutes of Conferences with Stilwell's Envoys, 8-15 Feb. 1944; CCS 452/6, 17 Feb. 1944; SEACOS 99; CCS 452/9, 28 Feb. 1944.
15. Bowen CBI M file.
16. Stilwell Rpt., pp. 110-17; msg., Roosevelt to Churchill, 29 Jan. 1944; Minutes of Conference on CBI, Washington, 9 Feb. 1944.
17. Bowen CBI M file; Air Staff Hq. ACSEA, The Siege of Imphal, p. 7.
18. Air Staff Hq. ACSEA, The Siege of Imphal, p. 7; *The Stilwell Papers*, pp. 273-77.
19. C. L. Chennault, *Way of a Fighter* (New York, 1949), p. 280.
20. *The Stilwell Papers*, pp. 277-79.
21. Interrogation Report of Lt. Gen. Tanaka Shinichi, CG Japanese 18 Div. Obtained through courtesy of U.S. Army Historical Div.
22. AM Sir John Baldwin, Despatch on Bengal Command and Third Air Task Force, Nov. 1943-May 1944.
23. *Ibid.*, SAC's Personal Diary, in Hq. SEAC War Diary, Vol. IV, 29 Feb. 1944.
24. ACSEA, Air Transport Operations on the Burma Front, p. 7.
25. Stilwell Rpt., pp. 2-3; AVM D. F. Stevenson, Burma Despatch, 1 Jan.-22 May 1942, p. 28.
26. ACSEA, Air Transport Opns. on Burma Front, p. 7; U.S. Mil. Observer Gp. (New Delhi), Growth, Development and Operating Procedures of Air Supply and Evacuation System, NCAC Front, 1943-1945, April-July 1945, Pt. III, pp. 3-4.
27. Growth, . . . Air Supply, as cited in n. 26, p. 6.
28. Ltr., Stratemyer to Giles, 23 Sept. 1943.
29. Hq. India Command, Report by Joint Planning Staff, Operations in Burma 1944, 25 Sept. 1943, Course B, Annex I.
30. Hq. EAC GO 1, 15 Dec. 1943; CG TCCEAC Diary (hereinafter cited as Gen. Old's Diary), p. 5; Hq. TCC, Special Report on Air Operations, 5 June 1944.
31. Gen. Old's Diary, pp. 7, 43.
32. Gen. Old's Diary, pp. 53, 56-58, 61; ltr., Stratemyer to Arnold, 4 Mar. 1944.
33. Ltr., Stratemyer to Arnold, 4 Mar. 1944.
34. AAF CBI Evaluation Board Rpt. 2, 15 Oct. 44, pp. 4-5.
35. The Siege of Imphal, pp. 7-8.
36. Rpt. on Opns. Carried out by Special Force.
37. Hq. EAC Opns. Directive 2, Jan. 1944.
38. MID, *Merrill's Marauders*, pp. 8-16; interview with Brig. Gen. Frank D. Merrill, 4 May 1948; Stilwell Rpt., pp. 101-3.
39. Report of TCC Participation in THURSDAY Operation, in ltr., Brig. Gen. W. D. Old to CG EAC, 16 Mar. 1944.
40. *Ibid.*
41. Gen. Old's Diary, pp. 8, 10; Rpt. of TCC in THURSDAY Opn.
42. Rpt. of TCC in THURSDAY Opn.
43. Memo for the President from Marshall, 15 Mar. 1944; ltr., Stratemyer to Arnold, 22 Mar. 1944; Résumé of THURSDAY Operation; Records of UNITY, an organization set up at Lalaghat to coordinate troops and equipment into Burma by air.
44. Rpt. of TCC in THURSDAY Opn.; Gen. Old's Diary, Pt. I, p. 126, and Pt. II, p. 60; Rpt. on Opns. Carried out by Special Force, p. 10.
45. Rpt. of TCC in THURSDAY Opn.
46. JICA Report 1448, First Commando Invasion of Burma, 29 Mar. 1944, pp. 4-6.
47. Report of Tour of Forward Areas and TCC Operations, June 1944, by Maj. R. L. Goerder, Hq. ACSEA.
48. Gen. Old's Diary, Pt. II, p. 67; Rpt. on Opns. Carried Out by Special Force, p. 10.
49. Rpt. on Opns. Carried Out by Special Force, p. 16.
50. *Ibid.*, pp. 9-24; JCS Memo/Info 235,

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15 May 1944; Address by Brig. B. E. Ferguson, 20 Mar. 1946, in *Journal of Royal United Service Institution*, Aug. 1946, pp. 352-53.

51. Gen. Old's Diary, pp. 121-31.

52. Evaluation Board Report 2, pp. 7-8.

53. Gen. Old's Diary, Pt. II, pp. 63-65, 68, 79-83; Hq. TCC, Special Rpt. on Air Opns., 5 June 1944; The Siege of Imphal; TCC Monthly Intelligence Survey, April 1944.

54. Gen. Old's Diary, Pt. II, p. 88; The Siege of Imphal, p. 31; Evaluation Board Rpt. 2, p. 18.

55. The Siege of Imphal, p. 65.

56. Evaluation Board Rpt. 2, p. 18; Tokyo broadcast, quoted in ACSEA, Japanese Air Supply.

57. SEAC Weekly Intel. Summary 4, Pt. VII, pp. 1-2, 12 Dec. 1943.

58. Stratemeyer, Despatch on Air Operations in EAC, 15 Dec. 1943-1 June 1945, p. 13.

59. Ltr., Stratemeyer to Arnold, 5 Jan. 1944; AM Sir John Baldwin, Despatch Covering Operations of Third Tactical Air Force, 8 Dec. 1943-1 June 1944.

60. Ltr., Stratemeyer to Arnold, 3 Feb. 1944; EAC WIS, 8 Sept. 1944; SEAAC WIS 13, Pt. I, pp. 6-7, 13 Feb. 1944; Baldwin Despatch, 3d TAF.

61. EAC WIS 2, Sec. I, p. 1, 8 Sept. 1944 and ACSEA WIS 17 and 18, 12 and 19 Mar. 1944, Pt. I in each case and pp. 3 and 2 respectively; SEAAC WIS 20, Pt. I, p. 8, 2 Apr. 1944; figures furnished by 22 SCU and RAF Intel.

62. SEAAC WIS 21, Pt. II, p. 1, 9 Apr. 1944; figures supplied by 22 SCU and RAF Intel.

63. SEAAC WIS 25, Pt. II, p. 1, 7 May 1944; figures supplied by 22 SCU and RAF Intel.

64. Stratemeyer, Despatch on Air Opns. in EAC, Annex 2, p. 1.

65. History, 12th Bomb. Gp.; figures supplied by 22d SCU.

66. Hq. EAC Operational Directives 1 and 16, 11 Jan. and 18 Oct. 1944.

67. Maj. Gen. H.C. Davidson, Despatch, 15 Dec. 1943-31 May 1944, p. 2.

68. Evaluation Board Rpt. 4.

69. *Ibid.*, p. 29.

70. Ltrs., Stratemeyer to Arnold, 4 June and 10 Aug. 1944.

71. Mellersh, Despatch, 1 June 1944-26 Nov. 1944, p. 15.

72. Davidson Despatch, pp. 2-3.

73. Evaluation Board Rpt. 3, pp. 12-13.

74. *Ibid.*

75. AAF IBS CBI, Operations Analysis, Review of Operations of the SAF, Sept. 1943, p. 1.

76. Davidson Despatch, p. 3.

77. *Ibid.*; Evaluation Board Report 3, pp. 32, 40; Davidson Despatch, pp. 3-4.

78. Davidson Despatch, p. 4.

79. *Ibid.*, p. 5; Opns. Analysis Review, p. 1.

80. Stratemeyer, Despatch on Air Opns. in EAC, pp. 85-86.

81. *The Stilwell Papers*, pp. 284-86; U.S. Mil. Observer Gp., Growth, ... Air Supply, as cited in n. 26, p. 64.

82. MID, *Merrill's Marauders*, p. 106.

83. *Ibid.*, pp. 107-8; *The Stilwell Papers*, p. 296.

84. This statement is based on an overall interpretation of interviews held with high-ranking air and ground personnel upon whom rested the responsibility of decisions at Myitkyina. See also Report on Myitkyina Fly-in by Stratemeyer to Arnold, 22 June 1944.

85. MID, *Merrill's Marauders*, p. 114.

86. *The Stilwell Papers*, pp. 298-301.

87. Report on Myitkyina Fly-in by Stratemeyer to Arnold, 22 June 1944.

NOTES TO CHAPTER 16

1. Incl. to Ltr., Chennault to Arnold, 4 Mar. 1943.

2. 14th AF Intelligence Summary, 25 Mar. 1943, based on report of the Chinese Air Force; 14th AF Isum, 21 Apr. 1943, based on report of the U.S. Military Attaché in Chungking; Daily Tactical Reports.

3. Daily Tac. Rpts.; 14th AF Isums; Form 34's; interview with Col. B. K. Holloway, 16 Nov. 1943. See also unit histories.

4. Unit histories; Narrative on Experiences as Chief of Staff of 14th Air Force, Mar. 1943-Dec. 1944, by Brig. Gen. Edgar E. Glenn; Report of Brig. Gen. H.C. Davidson to Arnold, 22 June 1943.

5. History, 308th Bomb Gp.; Daily Tac. Rpts.; 14th AF Isums.

6. 14th AF Isums.

7. *Ibid.*
8. Daily Tac. Rpts.
9. *Ibid.*; Histories, 308th Bomb. Gp. and 23d Ftr. Gp.; MID, Operational Records, China Campaign, Vol. XVIII, No. 74, Pt. 2; Far East Command.
10. History, 308th Bomb. Gp.
11. Daily Tac. Rpts.; 14th AF Isums; Histories, 23d and 51st Ftr. Gps.; Form 34's; Statistical Control, Report on Aircraft with the Fourteenth Air Force; Holloway interview.
12. Memo for AC/AS Plans from Stratemeyer, 6 June 1943; memo for AC/AS MM&D from Stratemeyer, n.d.; comment 1, memo for AC/AS OC&R from Gen. Kuter, dtd. 10 July 1943; memo for Arnold from Maj. Gen. Thomas T. Handy, A/CS, 19 June 1943; CM-IN-4673, Stilwell to Arnold, AQUILA D427, 7 July 1943; CM-OUT-3865, Arnold to Stilwell, 2983, 9 July 1943; Histories, 80th Ftr. Gp. and 449th Ftr. Sq.
13. Davidson Rpt.
14. Daily Tac. Rpts.; 14th AF Isums; History, 308th Bomb. Gp.; Form 34's.
15. Form 34's.
16. Daily Tac. Rpt.
17. Histories, 308th Bomb. Gp. and 23d Ftr. Gp.; Form 34's; Holloway interview; Daily Tac. Rpts.
18. Daily Tac. Rpts.; History, 11th Bomb. Sq.
19. History, 308th Bomb. Gp.; Daily Tac. Rpts.; Form 34's.
20. Form 34's.
21. *Ibid.*; History, 23d Ftr. Gp.; 14th AF Isums.
22. Daily Tac. Rpts.; 14th AF Isums; Form 34's. See also squadron histories.
23. History, 308th Bomb. Gp.
24. History, 23d Ftr. Gp. and 11th Bomb. Sq.; Holloway interview; Daily Tac. Rpts.; 14th AF Isums; CM-IN-9072, Chennault to Arnold, 11 Sept. 1943.
25. CM-OUT-3460, Marshall to Stilwell, 2975, 8 July 1943; memo for AC/AS Plans from Stratemeyer, 1 July 1943; notation sgd. by Stratemeyer on memo for Arnold from Davidson, 27 June 1943; memo for Stratemeyer from Davidson, 5 July 1943.
26. CM-IN-12097, Chennault to Arnold, 361, 20 Apr. 1943; CM-OUT-2150, Marshall to Stilwell, 2672, 5 June 1943.
27. CM-OUT-1712, Arnold to Chennault, 156, 4 July 1943; memo for Arnold from Davidson, 27 June 1943; CM-IN-1955, Chennault to Arnold, COGUK W1UB, 3 July 1943; CM-OUT-12913, Arnold to Stilwell, 1860, 30 June 1943; CM-OUT-8521, Arnold to Chennault, 3018, 21 July 1943; CM-OUT-13629, Arnold to Stilwell, 3260, 29 Sept. 1943; CM-IN-1511, Stratemeyer to Arnold, AQUILA W2331, 13 Oct. 1943; CM-IN-213, Chennault to Arnold, COGUK W277, 1 July 1943.
28. Histories, CACW and 3d Ftr. Gp.
29. 14th AF Isums.
30. Histories, 68th Composite Wing and 11th Bomb. Sq.
31. History, 308th Bomb. Gp.; Form 34's. See also squadron histories.
32. Daily Tac. Rpts.; 14th AF Isums; Form 34's; 14th AF Historical Office, Battering Burma, 9 June 1945.
33. Histories, 68th Comp. Wing and CACW.
34. 14th AF Isums; History, 68th Comp. Wing; msg., Chennault to Ferris, D102NN, 28 Nov. 1943; 14th AF Hist. Office, Formosa.
35. 14th AF Isums; Preliminary Report by Maj. Wilfred J. Smith, Asst. A-2, 14th AF, Tungting Lake Operations; interview with Capt. John M. Birch, 26 Mar. 1945; Changeh Report, by Lt. Paul W. Frillman, 30 Dec. 1943; Histories, 23d Ftr. Gp. and 68th Comp. Wing; 14th AF Message File; interview with Capt. Paul W. Frillman, 10 May 1945.
36. 14th AF Isums; Daily Tac. Rpts.; Form 34's. See also unit histories.
37. Unit histories.
38. Histories, Hq. 14th AF and 68th Comp. Wing; memo for TAG from Arnold, 2 Aug. 1943; 24th SCU Report.
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1944; Chennault to Hearn, 23 Mar. 1944; Oliver to Hood, 24 Mar. 1944; 5th ind. (ltr., Stratemeyer to Sultan, 21 Feb. 1944), Chennault to Hearn, 15 Apr. 1944.

41. Glenn diary as cited in n. 4; History, CACW; 14th AF Station Lists; Form 34's.

42. Form 34's; History, 68th Comp. Wing.

43. 14th AF Isums.

44. AAF Evaluation Board Rpt. 1, 15 Sept. 1944.

45. 14th AF, Japan's War in China, 1944, and Air Support of Ground Troops, Salween River Area, both in 24th SCU annual summary, 1944.

46. *Ibid.*; 14th AF Hist. Office, Salween Campaign; History, 69th Comp. Wing. See also squadron histories.

47. Squadron histories; 14th AF Isums; Daily Tac. Rpts.; Form 34's.

48. Ltr., A-2 14th AF to CG 14th AF, 18 May 1944, Fourteenth AF Estimate of Japanese Capabilities on the China Front; 14th AF Isums.

49. Historical Report of Mission A to CG 14th AF from Hq. CACW, 15 Sept. 1944.

50. *Ibid.*; Histories, 308th Bomb. Gp. and 68th Comp. Wing.

51. 14th AF Isums; Historical Rpt. of Mission A; History, 68th Comp. Wing.

52. History, 68th Comp. Wing.

53. *Ibid.*

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2. CPS 86/7, 30 Nov. 1943; Minutes, CPS 94th Mtg., 1 Dec. 1943; CCS 417, 2 Dec. 1943; CCS 417/1, 5 Dec. 1943; CCS 417/2, 23 Dec. 1943.

3. CCS 397 (Rev.), 3 Dec. 1943; Minutes and Papers, SEXTANT Conf., Nov.-Dec. 1943, pp. 65-71.

4. JCS 581/3, 4 Dec. 1943.

5. CINCPAC-CINCPOA, Campaign Plan GRANITE, 13 Jan. 1944.

6. Msg., JCS to CINCPAC and CINCSOWESPAC, 231520, Jan. 1944; memo for Pacific Conferees from R/Adm. C.H. McMorris, C/S PacFlt and POA, 24 Jan. 1944.

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8. Memo for Marshall from Maj. Gen. T.T. Handy, 7 Feb. 1944. See also Kenney, *General Kenney Reports*, pp. 347-49.

9. Msg., Marshall to MacArthur, WAR 3406, 24 Jan. 1944; msg., JCS to GHQ-SWPA, 302199, Jan. 1944; msg., MacArthur to C/S WD, C-1217, 2 Feb. 1944.

10. Minutes, JCS 145th Mtg., 8 Feb. 1944.

11. Memo for C/S USA from King, 8 Feb. 1944; memo for King from Marshall, 10 Feb. 1944.

12. JCS 713, 16 Feb. 1944.

13. Memo for C/S USA from Sutherland, 18 Feb. 1944.

14. Sutherland, while never mentioning the matter in formal discussions, seems informally to have urged the need for an over-all Pacific commander. When it was explained that this commander might probably be Nimitz he said that in such event, "General MacArthur would retire one day, resign on the next, return to the United States as a civilian and undertake an active newspaper and radio program to educate the public." (Memo for Brig. Gen. F.N. Roberts, JPS from Col. W.E. Todd, OPD, 26 Feb. 1944.)

15. Memo for Record, by Handy, 19 Feb. 1944.

16. Minutes, JCS 148th Mtg., 22 Feb. 1944; USSBS, *The Campaigns of the Pacific War*, pp. 194-95; memo for C/S USA from King, 24 Feb. 1944; memo for Leahy and King from Marshall, 24 Feb. 1944; memo for King from Marshall, 27 Feb. 1944; memo for CINCUS and CNO from Marshall, about 27 Feb. 1944.

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18. Area Study of the Admiralty Is-

lands, pp. 1-26; *The Admiralties*, pp. 4-6; Alamo-Brewer Rpt., pp. 2-4.

19. Alamo-Brewer Rpt., pp. 2-4.

20. Memo for Kenney from Whitehead, GHQ Outline Plan, Operation F, 29 Jan. 1944. On fighter operations, see Isums 179 and 180, 5 and 9 Feb. 1944; V Bomber Command staff sec. histories; History, V Fighter Command, Jan.-June 1944, pp. 104-5.

21. Isum 176, 26 Jan. 1944, p. 18; Form 34's, Jan. 1944, 8th Photo Rcn. Sq., 499th and 501st Bomb. Sqs.

22. 345th Bomb. Gp. NMR's 24-D-1 and 25-G-1, 25 and 26 Jan. 1944; 38th Bomb. Gp. NMR 25-C, 26 Jan. 1944.

23. 43d Bomb. Gp. NMR 26-C-1, 27 Jan. 1944; 90th Bomb. Gp. NMR's 26-D-1, 27-D-1, 37-A-1, 28-29 Jan., 8 Feb. 1944; 64th Bomb. Sq. NMR 37-A-1, 8 Feb. 1944; Form 34, 23-29 Jan. 1944, 17th Rcn. Sq; Alamo-Brewer Rpt., p. 10.

24. Form 34's, 13-19 Feb. 1944; 38th and 345th Bomb. Gps.; History, 38th Bomb. Gp., Feb. 1944, p. 3; 345th Bomb. Gp. NMR 44-C-1, 13-14 Feb. 1944; 498th Bomb. Sq. NMR 53-K-1, 22 Feb. 1944; 319th Bomb. Sq. NMR 53-M-1, 26 Feb. 1944.

25. Alamo-Brewer Rpt., pp. 3-4; History, 5th AF, Pt. III, p. 15; ltr., Whitehead to Kenney, 15 Feb. 1944.

26. Msg., Whitehead to Kenney, as referred to in ltr., Kenney to Whitehead, 24 Feb. 1944.

27. Alamo-Brewer Rpt., p. 4; ltr., Kenney to Whitehead, 24 Feb. 1944; Kenney, *General Kenney Reports*, pp. 358-61.

28. Ltr., Kenney to Whitehead, 24 Feb. 1944.

29. *The Admiralties*, pp. 18-19; Alamo-Brewer Rpt., p. 6.

30. Alamo-Brewer Rpt., pp. 7-8.

31. *The Admiralties*, p. 15; AAF Historical Study No. 43, *The Fifth Air Force in the Conquest of the Bismarck Archipelago*, App. 9.

32. Alamo-Brewer Rpt., p. 9; *The Admiralties*, p. 19; History, 38th Bomb. Gp., Feb. 1944, p. 4.

33. Histories, 5th AF, Pt. III, p. 16, and V BC, Feb. 1944, p. 5; 64th Bomb. Sq. NMR 57-L-1, 28 Feb. 1944; Form 34's, 27 Feb.-4 Mar. 1944, 43d, 90th, 38th, and 345th Bomb. Gps.

34. *The Admiralties*, pp. 21-22.

35. *Ibid.*, p. 23; Form 34, 27 Feb.-4 Mar. 1944, 65th and 403d Bomb. Sqs.; 65th Bomb. Sq. NMR 60-J-1, 1 Mar. 1944; History, 38th Bomb. Gp., Feb. 1944, p. 4. *The Admiralties* is used chiefly as a source for ground operations. Since its air account was based on observation aboard command ship in the rain-squalls of D-day, the air report is not considered as accurate as the squadron mission reports upon which this account relies.

36. Form 34's, 27 Feb.-4 Mar. 1944, 348th and 475th Ftr. Gps.; 345th Bomb. Gp. NMR 60-G, 1 Mar. 1944; Alamo-Brewer Rpt., p. 18.

37. *The Admiralties*, pp. 23-29.

38. *The Admiralties*, pp. 31-32, 33-35; Alamo-Brewer Rpt., pp. 10-11; Alamo Force Hq. FO 11, which modified FO 9, the original opns. order.

39. Form 34, 27 Feb.-4 Mar. 1944, 38th Bomb. Gp.; 39th Troop Carrier Sq. NCR, 3 Mar. 1944, and History, Mar. 1944, pp. 21-22; History, 375th TC Gp., Mar. 1944, Doc. 2.

40. Form 34's, 27 Feb.-4 Mar. 1944, 38th and 43d Bomb. Gps.; History, 403d Bomb. Sq., Mar. 1944, p. 1; 499th Bomb. Sq. NMR 61-1, 2 Mar. 1944.

41. *The Admiralties*, pp. 37-39; Alamo-Brewer Rpt., p. 11.

42. NMR 62-I-1, 71st, 822d, 823d, and 405th Bomb. Sqs., 12, 12, 16, and 9 Mar. 1944; NMR 62-I, 501st, 498th, 500th, and 499th Bomb. Sqs., 3 Mar. 1944; 13th and 90th Bomb. Sqs. NMR 62-J, 3 Mar. 1944; Form 34, 27 Feb.-4 Mar. 1944, 340th and 433d Ftr. Sqs.; 39th TC Sq. NCR, 3 Mar. 1944; 433d TC Gp. NMR 1, 6 Mar. 1944; History, 5th Tactical Air Communications Sq., App. 40, p. 1.

43. *The Admiralties*, pp. 39-41, 55-56.

44. *Ibid.*, pp. 43-44; Alamo-Brewer Rpt., p. 11.

45. *The Admiralties*, pp. 40-42, 43-51; Brewer-Alamo Rpt., p. 12; History, 403d Bomb. Sq., Mar. 1944, p. 1; 65th Bomb. Sq. NMR 63-I-1, 4 Mar. 1944; 13th Bomb. Sq. NMR 63-B, 3 Mar. 1944; 499th Bomb. Sq. NMR 63-D, 4 Mar. 1944. The 40th Construction Battalion received a presidential unit citation for its defense work as well as for the construction carried out under enemy fire. (Brewer-Alamo Rpt., p. 12.)

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46. *The Admiralties*, pp. 50-53; 13th Bomb. Sq. NMR 64-H, 4 Mar. 1944; Form 34, 27 Feb.-4 Mar. 1944, 90th Bomb. Sq.; 500th and 501st Bomb. Sqs. NMR 64-G, 5 Mar. 1944; ltr., Whitehead to Kenney, 5 Mar. 1944.

47. Alamo-Brewer Rpt., pp. 12-13; AAFHS-43, App. 8; History, 5th Tac. Air Com. Sq.; History, V BC; Hq., Brewer Task Force [daily] G-3 Opns. Rpt. 9, 7 Mar. 1944; *The Admiralties*, p. 56.

48. AAFHS-43, pp. 117-18 and App. 8; Brewer Task Force [over-all] G-3 Opns. Rpt., p. 19.

49. Brewer-Alamo Rpt., p. 13; History, 403d Bomb. Sq., Mar. 1944, p. 2; 64th Bomb. Sq. NMR 67-I-1, 9 Mar. 1944; Form 34, 5-11 Mar. 1944, 498th and 501st Bomb. Sqs.; 64th Bomb. Sq. NMR 68-C-1, 13 Mar. 1944; History, 5th Tac. Air Com. Sq., App. 40.

50. AAFHS-43, p. 119; History, 5th Tac. Air Com. Sq., p. 61.

51. 499th and 500th Bomb. Sqs. NMR No. 75-J, 15-16 Mar. 1944; History, 5th Tac. Air Com. Sq., App. 40; Brewer Task Force [daily] G-3 Opns. Rpt. 17, 15 Mar. 1944; 501st Bomb. Sq. NMR 75-K, 16 Mar. 1944; Form 34, 12-16 Mar. 1944, 498th Bomb. Sq.; *The Admiralties*, p. 84.

52. Hq. Brewer Task Force Opns. Rpts., 19-26 Mar. 1944; Form 34, 26 Mar.-1 Apr. 1944, 8th Bomb. Sq.; 5th AF, 110 Rpts., 1944; Histories: 40th TC Sq., Mar. 1944, pp. 6-8; 41st TC Sq., Mar. 1944, p. 35; 39th TC Sq., Mar. 1944, pp. 23-24; *The Admiralties*, pp. 85-144.

53. Brewer-Alamo Rpt., pp. 13-17, 28; Brewer Task Force [over-all] G-3 Opns. Rpt., pp. 30-32.

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55. CM-OUT-682 (3-2-44), JCS to CINCSWPA and COMGENCENPAC, 2 Mar. 1944.

56. Minutes, JCS 150th Mtg., 7 Mar. 1944; JCS Memo for Information 200, 7 Mar. and Addendum, 8 Mar. 1944.

57. GHQSWPA, RENO IV, Outline Plan for Operations of the Southwest Pacific Area, 1944, dtd. 6 Mar. 1944; ltr., Sutherland to C/S USA, 8 Mar. 1944;

WD telecon, Sutherland-Marshall, 8 Mar. 1944.

58. GHQSWPA, RENO IV.

59. AAF Reference History No. 12, History of the Twentieth Air Force: Genesis, pp. 60, 85-87.

60. WD telecon, Sutherland-Marshall, 9 Mar. 1944.

61. JCS 713/1, 10 Mar. 1944.

62. Minutes, JCS 151st Mtg., 11 Mar. 1944.

63. JCS 713/2, 11 Mar. 1944; JCS 713/3, 11 Mar. 1944; JCS 713/4, 12 Mar. 1944; Minutes, JCS 152d Mtg., 12 Mar. 1944; CM-OUT-5137 (3-12-44), JCS to CINCSWPA and COMGENCENPAC, 12 Mar. 1944.

64. Ltr., Lt. Gen. M.F. Harmon to Maj. Gen. B.M. Giles, 26 Dec. 1944.

65. Memo for Arnold from Kenney, 13 Jan. 1944; memo for Giles from Arnold, 6 Feb. 1944; memo for Marshall from Giles, 12 Mar. 1944; memo for CG 7th AF from Arnold, 15 Mar. 1944.

66. JCS 713/5, 17 Mar. 1944; notation of informal JCS action, 25 Mar. 1944.

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3. SWPA TH 21, Aitape-Wanimo, 21 Mar. 1944; Alamo G-2 Photo Intel. Sec. Report 95, Aitape Area, 5 Apr. 1944; ADVON 5th AF, Photo Intel. Rpts., 30 Aug., 26 Nov., 1 Dec. 1943, 13 Feb., 20 Feb., 12 Mar. 1944.

4. SWPA TH 25, pp. 52-53, and TH 21, pp. 64-65; Joint Army-Navy Intel. Study (JANIS) 157, Netherlands New Guinea, chap. iv, Mar. 1944; Air Evaluation Board (AEB), SWPA, Hollandia-Aitape Campaign, 10 May 1946, pp. 23-26.

5. Alamo G-2 Weekly Rpt. 43, 31 May 1944, pp. 11-12; ATIS Bulletin 1127, Item 3, 5 July 1944; 2d Area Army, Estimate of the Situation, 25 Mar. 1944, quoted in

AAFSWPA Isum 226, 19 July 1944, pp. 30-31; KAGAYAKI (2d Area Army) Operations Order A, 46, 20 Mar. 1944, quoted in Alamo G-2 Weekly Rpt. 48, 5 July 1944, p. 12.

6. USSBS, *The Campaigns of the Pacific War*, pp. 191-205; USSBS Interrogation 454, Comdr. C. Nakajima, 22 Nov. 1945; USSBS, *The Reduction of Truk*, Feb. 1947, p. 9.

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9. History, 5th AF, Pt. III, App. 1, Docs. 1, 3, 22; msg., Kenney to CGAAF, A-479, 4 Mar. 1944.

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12. 5th AF Station List, 29 Feb. 1944; History, 5th AF, Pt. III, App. 1, Doc. 22; ltr., Col. B.M. Fitch to CG's USAFFE

and USASOS, 6 Apr. 1944; AAFSWPA OI 46, 8 Mar. 1944; ltr., Whitehead to Kenney, 8 Mar. 1944.

13. Ltr., Whitehead to Kenney, 9 Mar. 1944.

14. GHQSWPA, Hollandia Outline Plan, 29 Feb. 1944; GHQSWPA, Considerations Affecting the Plan to Seize Hollandia Bay Area with Strong Support of Carriers, 1 Mar. 1944.

15. GHQSWPA, Minutes of Conference: Proposal to Seize Humboldt Bay Area without Preliminary Capture of Hansa Bay, 3 Mar. 1944.

16. Msg., MacArthur to C/S USA for JCS, C-2473, 5 Mar. 1944; CM-OUT-5137 (3-12-44), JCS to CINCSWPA and COMGECENPAC, 12 Mar. 1944; msg., GHQSWPA to WAR, C-2852, 14 Mar. 1944; CM-OUT-7149 (3-17-44), JCS to MacArthur, 17 Mar. 1944.

17. GHQSWPA Warning Instructions 4, 7 Mar. 1944. Skeptical of the assurances that aircraft carriers could provide cover for more than a few days and still with some doubt that the large carriers would be directed to support the Hollandia landings, Kenney and Whitehead also explored the possibilities of establishing advanced P-40 fields on Manim Island, Wharibe Island, and Wuvulu (Maty) Island. None had suitable terrain, and Whitehead fundamentally objected to any idea of attempting to construct an advanced fighter field so close to a Japanese air concentration prior to Hollandia. (Ltr., Kenney to Whitehead, 6 Mar. 1944; msg., MacArthur to COMALAMO [Chambers for Chamberlin], XC-1855, 8 Mar. 1944; msg., ADVON 6th Army to GHQSWPA [Chamberlin for Chambers], WF-1453, 10 Mar. 1944; msg., COMAF-ADVON 5 to COMAAFSWPA, R-4810-A, 9 Mar. 1944; ltr., Whitehead to Kenney, 10 Mar. 1944; msg., CG Alamo to CINCSWPA, 7 Mar. 1944; memo for Kenney from Whitehead, 7 Mar. 1944; Memo for Record by Whitehead, 7 Mar. 1944; ltr., Whitehead to Kenney, 9 Mar. 1944; msg., Whitehead to Kenney, R-4810-A, 9 Mar. 1944.)

18. Msg., WAR to GHQSWPA, W-5191, 13 Mar. 1944; msg., COM3DFLT to CINCSWPA, 140521 Mar. 1944; msg., COM3DFLT to CINCPAC, 160146 Mar.

1944; msg., CINCPAC to COM₃DFLT, 160919 Mar. 1944; History, 6th Marine Div., pp. 7-8; History, XIII Bomber Command, Jan.-Mar. 1944, p. 10.

19. Msg., CINCPAC to CINCSWPA, 140144 Mar. 1944; CINCPAC-CINCPAC, Joint Staff Study DESECRATE, 15 Mar. 1944; msg., CINCSWPA to CINCPAC, 140941 Mar. 1944; msg., CINCSOWESPAC to CINCPAC, 150121 Mar. 1944; msg., CINCPAC to CINCSOWESPAC, 150306 Mar. 1944; msg., MacArthur to CINCPAC, XC-2127, 16 Mar. 1944; msg., CINCPAC to COMINCH, 170452 Mar. 1944.

20. Memo for CINCSWPA from Chamberlin, 25 Mar. 1944; memos for G-3 Alamo from Col. J.F. Bird, Asst. G-3 Alamo, about 25 and 31 Mar. 1944.

21. GHQSWPA OI 46, 48, and 46 (Rev.), 18, 24, and 28 Mar. 1944; msg., GHQSWPA to COM's, ALAMO, AAF-SWPA, ANFSWPA, XC-2211, 18 Mar. 1944; AAFSWPA OI 49 and 49/1, 21 and 25 Mar. 1944; CINCPAC Operations Plan 1-44, 18 Mar. 1944; msg., CINCPAC to COM₅THFLT, 270739 Mar. 1944.

22. Alamo Force FO 12, 23 Mar. 1944; msg., MacArthur to CG Alamo, XC-2210, 18 Mar. 1944; msg., CG Alamo to GHQ-SWPA, WF-2393, 13 Apr. 1944; msg., MacArthur to CG Alamo, C-10671, 14 Apr. 1944; msg., New Guinea Force to GHQSWPA, O-9876, 27 Apr. 1944; History of PERSECUTION Task Force, Aitape, 22 Apr.-4 May 1944; RECKLESS Task Force GO 1, 27 Mar. 1944; ltr., Hq. AAFSWPA to CINCSWPA, 14 Mar. 1944; ltr., Kenney to CINCSWPA, 25 Mar. 1944; msg., COMAAFSWPA to COMAFADVON 5, AX-30265, 27 Mar. 1944; ltr., GHQSWPA to CG Alamo *et al.*, 6 Apr. 1944; msg., MacArthur to CG Alamo, C-10500, 9 Apr. 1944.

23. GHQSWPA OI 46 (Rev.), 28 Mar. 1944; ANFSWPA Opns. Plan 4-44, 1 Apr. 1944; TF 72 Opns. Plan C-44, 7 Apr. 1944; Seventh Amphibious Force (TF 77) Opns. Plan 3-44, 3 Apr. 1944; memo for C/S GHQSWPA from Chamberlin, 28 Mar. 1944; memo for C/S Alamo from G-3 Alamo, 31 Mar. 1944; Report to CINCUS by R/Adm. D.E. Barbey, COM Seventh Amphibious Force, 6 May 1944; msg., GHQSWPA to CG Alamo, 210505Z, Mar. 1944; msg., COM₇THFLT

to CTF 76, 090019, Apr. 1944; ltr., Maj. F.A. Nichols to A-3 5th AF ADVON, 20 Apr. 1944; ltr., Cooper to All Concerned, 20 Apr. 1944; msg., COMAF-ADVON 5 to COM₇THFLT, P-7171-E, 022029K, Apr. 1944.

24. Memo for Kenney from Whitehead, 6 Mar. 1944; msg., Whitehead to Kenney, R-4647-A, 8 Mar. 1944; memo for Chamberlin from Beebe, 8 Mar. 1944; msg., MacArthur to COMALAMO, XC-2062, 14 Mar. 1944; GHQSWPA OI 47, 21 Mar. 1944; AAFSWPA OI 45/1, 30 Mar. 1944; draft study by RAAF for AEB, SWPA: No. 10 (Operational) Group, Jan.-Apr. 1944; History, V FC, Jan.-June 1944, pp. 116-17.

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27. Ltr., Kenney to Whitehead, 6 Mar. 1944; Air Technical Service Comd. Case Study: Fighter Aircraft Range Extension Program, pp. 4-5; ltr., Whitehead to Kenney, 9 Mar. 1944; History, V Air Force Service Comd., March 1944, p. 5; ltr., Wurtsmith to CG V AFSC, 3 Apr. 1944; History, V FC, Jan.-June 1944, p. 115; Form 34's, 8th and 475th Ftr. Gps., 26 Mar.-1 Apr. 1944.

28. Ltr., Whitehead to Kenney, 9 Mar. 1944; History, 5th AF, Pt. III, App. 1,

Doc. 2; Form 34's, 22d, 43d, 90th, and 380th Bomb. Gps., 26 Mar.-1 Apr. 1944; ltr., Brig. Gen. Donald Wilson to CINCSWPA, 19 Mar. 1944.

29. Ltr., Whitehead to Kenney, 9 Mar. 1944; History, 5th AF, Pt. III, App. 1, Doc. 2; Form 34's, 38th and 345th Bomb. Gps., 3d, 312th, and 417th Bomb. Gps., 26 Mar.-8 Apr. 1944.

30. AAFSWPA Objective Folder 66: Wewak-Aitape Area, n.d.; AEB, SWPA Report 23: Neutralization of Wewak, 11-27 Mar. 1944, dtd. 10 May 1946, pp. 11-25; Whitehead, General Plan of Air Operations—Mar. 15-Apr. 7, 1944, n.d.

31. In addition to this intensified action between 11 and 27 March, some 1,136 tons of bombs had been dropped in the Wewak area during February 1944. (5th AF ADVON Monthly Statistical Summary, Feb. 1944; AEB, SWPA Rpt. 23, pp. 26-28, 142.)

32. 5th AF ADVON Weekly Review 17, 5 Apr. 1944, Annex K, Air Blockade—Wewak—Analysis and Damage Assessment; Narrative Mission Report (NMR) 76-E, 403d Bomb. Sq., 20 Mar. 1944; ltr., Maj. R.L. Sigler to CG V BC, 18 Apr. 1944; ltr., Capt. C.N. Hagar, Jr., to CG V BC, 19 May 1944.

33. History, A-3 Sec., V BC.

34. 5th AF ADVON Weekly Review 17, Annex K; AEB, SWPA Rpt. 23, pp. 35-142; AAFSWPA Isum 220, 28 June 1944, pp. 31-32; ATIS Bull. 1227, Item 3, 5 July 1944.

35. ATIS Enemy Pub. 268, 4 Jan. 1945; msg., Alamo ADVON to G-2 Alamo, ON-6201, 9 June 1944; [G-2, I Corps] Interrogation Report of Capt. A.S. Das, Indian Medical Sec., 5 May 1944.

36. 5th AF ADVON Weekly Review 17, Annex K.

37. ATIS Bull. 1157, Item 9; NMR's: 79-A, 319th and 403d Bomb. Sqs., 21 Mar., and 320th Bomb. Sq., 20 Mar.; 79-B, 64th Bomb. Sq., 19 Mar., and 65th Bomb. Sq., 20 Mar.; 79-C, 19th Bomb. Sq., 20 Mar., and 33d Bomb. Sq., 19 Mar.; 79-M, 498th, 499th, 500th, and 501st Bomb. Sqs., 20 Mar.; 79-N, 71st, 405th, 822d, and 823d Bomb. Sqs., 20 Mar.; 79-L, 8th, 13th, 80th, and 90th Bomb. Sqs., 20 Mar. 1944; History, 400th Bomb. Sq., Jan.-Aug. 1944, p. 17; AEB, SWPA Rpt. 23, pp. 101-6;

memo for CINCSWPA from Capt. H.W. Graf, Hq. ANFSWPA, 19 Mar. 1944; Form 34, 386th Bomb Sq., 19-25 Mar. 1944; msg's., COMAFADVON 5 to COMAAFSWPA (Wurtsmith to Kenney), R-5754-B and R-5952, 20 and 22 Mar. 1944; JANAC, pp. 10, 56.

38. AEB, SWPA Rpt. 23, pp. 80, 143; AAFSWPA Isums 190, 15 Mar., pp. 2b, 2c; 191, 18 Mar., pp. 2-2a; 192, 22 Mar., pp. 2, 2b; 193, 25 Mar., pp. 2, 2b; 194, 29 Mar. 1944, pp. 2, 2b.

39. AEB, SWPA Rpt. 23, pp. 72-75, 142. The AEB figured losses at ten fighters and four bombers, but erroneously (on the basis of an ambiguous mission report) it accounted for the loss of a P-38 and an A-20 on 19 March instead of the two A-20's. (History, 80th Bomb. Sq., Mar. 1944; 5th AF ADVON Weekly Review 17, Annex K.)

40. AEB, SWPA Rpt. 24: Hollandia-Aitape Campaign, pp. vi, 48-51; 5th AF ADVON Weekly Review 18, 9 Apr. 1944.

41. History, V BC; ATIS, AAF Joint Report 749; msg., CINCOSOWESPAC to CINCPAC, XC-2354, 22 Mar. 1944; msg., MacArthur to COMALAMO, *et al.*, C-2278, 20 Mar. 1944.

42. Msg's., COMAFADVON 5 to COMAAFSWPA, R-6312-A and R-6620-A, 25 and 28 Mar. 1944, and COMAAFSWPA to COMAFADVON 5, 25 Mar. and A-30386, 28 Mar. 1944; AEB, SWPA Rpt. 24, p. 31; 5th AF ADVON, Plan of Air Operations in Support of the Aitape-Hollandia Operation, 1 Apr. 1944.

43. Form 34's, 319th, 320th, 321st, 400th, 64th, 65th, 403d, 19th, and 33d Bomb. Sqs. and 80th, 431st, and 432d Ftr. Sqs., 26 Mar.-1 Apr. 1944; NMR's: 90-K, 319th Bomb. Sq., 1 Apr., 320th, 321st, and 400th Bomb. Sqs., 31 Mar.; 90-J, 64th Bomb. Sq., 30 Mar., 65th Bomb. Sq., 1 Apr., and 403d Bomb. Sq., 6 Apr. 1944; History, 19th Bomb. Sq., Mar. 1944, p. 2; NMR 90-1, 33d Bomb. Sq., 30 Mar. 1944; V FC A-2 Periodic Rpt. 378, 31 Mar. 1944; 5th AF ADVON Monthly Stat. Sum., Mar. 1944; AEB, SWPA Rpt. 24, pp. 53-54.

44. Form 34's, 319th, 320th, 321st, 400th, 64th, 65th, 403d, and 19th Bomb. Sqs. and 80th, 431st, and 432d Ftr. Sqs., 26 Mar.-1 Apr. 1944; V FC A-2 Per. Rpts. 378,

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31 Mar. and 379, 1 Apr. 1944; NMR's: 91-I, 319th, 320th, 321st, and 400th Bomb. Sqs., 1 Apr.; 91-K, 65th Bomb. Sq., 1 Apr., and 403d Bomb. Sq., 6 Apr.; 91-J, 19th Bomb. Sq., 31 Mar. 1944.

45. 5th AF ADVON Weekly Review 18, Annex K.

46. Form 34's, 319th, 320th, 321st, 400th, 64th, 65th, 403d, 19th, and 33d Bomb. Sqs. (H); 498th, 499th, 500th, 501st, 71st, 822d, 823d, 405th Bomb. Sqs. (M); 8th, 13th, 89th, 90th, 38th, 386th, 388th, 389th Sqs. (L), 2-8 Apr. 1944; V FC A-2 Per. Rpts. 382 and 395, 4 and 16 Apr. 1944; AEB, SWPA Rpt. 24, pp. 60-64.

47. ATIS Bull. 1310, CD-13453.

48. ATIS Bull. 1227, Item 2, 5 July 1944; History, 311th Ftr. Sq.; Form 34's, 8th and 311th Ftr. Sqs., 9-15 Apr. 1944; V FC A-2 Per. Rpts. 391 and 395, 13 and 16 Apr. 1944; History, V FC, Jan.-June 1944, pp. 104-5.

49. History, V FC, Jan.-June 1944, pp. 104-5; msg's: COMAFADVON 5 to COMAAFSWPA, P-8427-A, 13 Apr.; COMAAFSWPA to COMAFADVON 5, A-31515, 13 Apr.; WAR to GHQSWPA (Bevans for Kenney), W-23104, 14 Apr.; Kenney to CGAAF (for Bevans), P-9614-A, 21 Apr. 1944.

50. AEB, SWPA Rpt. 24, pp. 81-83; msg., CG Alamo to GHQ ADVON *et al.*, WF-4439, 28 Apr. 1944.

51. In addition to the losses on the Hollandia missions, the 36th Fighter Squadron lost four P-38's and three pilots, which had escorted a B-25 search plane to the mouth of the Sepik River. (History, 36th Ftr. Sq.; Form 34's, 2d, 19th, 33d, 408th, 64th, 65th, 403d, 319th, 320th, 321st, and 400th Bomb. Sqs. [H]; 74th, 405th, 822d, 498th, 499th, 500th, and 501st Bomb. Sqs. [M]; 8th, 19th, 89th, 90th, 386th, 387th, 388th, 389th, 672d, 673d, 674th, and 675th Bomb. Sqs. [L]; 431st, 432d, 433d, 80th Ftr. Sqs., 16-22 Apr. 1944; ltr., Maj. W.T. Hodson, Jr., CO 56th Ftr. Control Sq. to CG V FC, 27 Apr. 1944; V BC Aircraft and Personnel Accident Report, Apr. 1944; memo for All Air Force Units from Whitehead, 29 Apr. 1944.)

52. Alamo Force G-2 Weekly Rpt. 44, 7 June 1944, pp. 15-16; AAFSWPA Isums 207 and 210, 13 and 24 May 1944; 41st Inf. Div. G-2 Intr. of Capt. Jiro Takahashi, 29 Apr. 1944; MIS, WD Order of Battle,

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53. 2d Photo Intel. Det., Photo Intelligence Hollandia Ground Study, n.d.; AAFSWPA Isums 208, 211, and 218, 17 and 27 May and 21 June 1944; msg., Kenney to CGAAF, A-33185, 14 May 1944; ltr., Capt. C. N. Hagar, Jr., to CO V BC, 20 May 1944; 41st Inf. Div. G-2 Intr. of Capt. J. Takahashi, 29 Apr. 1944; USSBS, *Air Campaigns of the Pacific War*, p. 24; msg., 310th Bomb. Wing to A-2 5th AF ADVON, OP-55, 1 May 1944; ATIS AAF Unit Rpts. 749 and 831; ATIS Bull. 1196, CD 12560; [41st Inf. Div. G-2] Notes on Interrogation of Lt. A. Ahah, 1st Bawal Pur (Indian Mil. Service), n.d.; ATIS Intr. Rpt. 672, 14 May 1945; USSBS Intrs. 360 and 440, 12 and 21 Nov. 1945.

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55. AEB, SWPA Rpt. 24, pp. 135-36, 172, 178; ATIS Bull. 1228, CD 12939.

56. 5th AF ADVON Monthly Stat. Sums., Mar. and Apr. 1944; memo for COM's, AAFSWPA, ANFSWPA, and Alamo from Maj. Gen. R.J. Marshall, 30 Mar. 1944, with 1st ind., Beebe to CG 5th AF ADVON, 30 Mar. 1944, and 2d ind., Cooper to CG V BC, *et al.*, 8 Apr. 1944; msg., COM7THFLT to CTF 75, 050033 Apr. 1944; msg., CINCSWPA to COMINCH, 110817, Apr. 1944; History, 17th Rcn. Sq., Apr. 1944, p. 17.

57. History, 380th Bomb. Gp., Feb.-June 1944, pp. 3-5; Form 34's, 528th, 529th, 530th, and 531st Bomb. Sqs., 2-22 Apr. 1944; memo for Beebe from Cooper, 14 Apr. 1944; memo for Cooper from Beebe, n.d.; memo for AOC RAAF Command from Col. F.C. Gideon, 14 Apr. 1944; ltr., Gideon to AOC RAAF Command, 17 Apr. 1944.

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June 1944; ltr., Lt. Col. H. W. Allen, Actg. AG GHQSWPA to COMAAFSWPA and CG USASOS, 22 June 1944.

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88. History, 54th TC Sq.; Alamo, Report on RECKLESS Opn., pp. 28-36; msg., CG Alamo to CINCSWPA, 22 May 1944; msg., GHQSWPA to COMALAMO, C-12936, 25 May 1944.

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20. Msg., Krueger to CG US Forces, APO 565, Unit 1, 23 May 1944; msg., CG US Forces, APO 565-1 to CG Alamo, Y-347, 24 May 1944; msg., CG US Forces, APO 565-1, Y-304, 24 May 1944; msg., Wakde TF to CG Alamo, Y-433, 26 May 1944; Adv. Hq. Allied Land Forces Operational Rpt. Sec., Final Report and Summary of 6 U.S. Army Operations at Wakde Island-Sarmi... and at Biak..., 22 June 1944; Hq. 6th Army, Rpt. on the Wakde-Biak Opn., p. 31.

21. History of the TORNADO Task Force, Wakde-Sarmi, Engineer annex; msg., Liles to Sturgis, Y-75, 19 May 1944; ltr., Hutchison to CG 5th AF, 24 May 1944; NMR, 40th TC Sq., 21 May 1944; History, 54th TC Wing, May 1944, p. 478; msg., MacArthur to CG Alamo, CX-12690, 19 May 1944; msg., CG 6th Army to GHQSWPA, WF-3616, 21 May 1944; msg., CG Alamo to CG US Forces, APO 565-1, WF-3587, 22 May 1944; msg., CG Alamo to CINCSWPA, 22 May 1944; ltr., Whitehead to Kenney, 30 May 1944; msg., CG US Forces, APO 565-1 to CG Alamo (Liles to Sturgis), Y-509, 28 May 1944.

22. Histories, 348th Ftr. Gp. and 17th Rcn. Sq.; msg., CTF 73 to CTU 73.1.3, 250440, May 1944; msg., COMAFADVON 5 to COMAAFSWPA and GHQSWPA, M-1402-D, 30 May 1944; Histories, 421st Night Ftr. Sq., 310th Bomb. Wing, and 85th Air Defense Wing; 5th AF ADVON GO 48, 25 May 1944.

23. History, 348th Ftr. Gp.; ltrs., Whitehead to Kenney, 8 June, and Kenney to Whitehead, 13 June 1944.

24. Ltrs., Whitehead to Kenney, 24 May and 13 June 1944; Histories, V FC, Jan.-June 1944, pp. 69-73, and 421st Night Ftr. Sq., June 1944.

25. Hq., 6th Army, Rpt. on the Wakde-Biak Opn., pp. 21-28, 30-31; History, 348th Ftr. Gp.; msg., 11 ALP to G-2 Alamo, KL-3, 20 May 1944; 5th AF ADVON Monthly Stat. Sum., May 1944; 5th AF Monthly Stat. Rpt., June, July, and Aug. 1944; History, V FC, Jan.-June 1944, pp. 68-69, and July-Dec. 1944, pp. 44-46.

26. Ltr., Whitehead to Kenney, 16 May 1944; History, XIII BC, May 1944, pp. 12-14.

27. Form 34's, 22d, 43d, and 90th Bomb. Gps., and 8th Bomb. Sq., 14-31 May 1944.

28. History, V FC, Jan.-June 1944, pp. 74-76.

29. Form 34's, 528th, 529th, 530th, and 531st Bomb. Sqs., 14-31 May 1944; V FC A-2 Per. Rpts. 429 and 435, 20 and 26 May 1944; 310th Bomb. Wing COIR's, 21 and 23 May 1944; ltr., Hutchinson to Cooper, 20 May 1944; ltr., Whitehead to Kenney, 24 May 1944; msg., Whitehead to COMAAFSWPA, U-651-A, 15 June 1944.

30. Form 34's, 8th Bomb. Sq., 14-31 May 1944; 310th Bomb. Wing COIR's, 19-24 May 1944.

31. Form 34's, 38th Bomb. Gp., 21-31 May 1944; History, 38th Bomb. Gp.; ltrs., Whitehead to Kenney, 21 and 24 May 1944.

32. Msgs.: CTF 77 to CG Alamo, 212350, May 1944; COMAFADVON 5 to all TF's, 7th Flt., M-5047-E, 22 May 1944; MacArthur to Coms. AAFSWPA, ANFSWPA, Alamo, CX-12843, 23 May 1944; CG Alamo to ADVON 5, 23 May 1944.

33. Histories, 868th and 63d Bomb. Sqs. and XIII BC, May 1944.

34. Form 34's, 22d, 43d, and 90th Bomb. Gps., 21-31 May 1944.

35. 5th AF ADVON Monthly Stat. Sums., Apr. and May 1944; ltr., Lt. Lyle R. Macumber, V BC to Ord. Off. 5th AF, 4 July 1944; ALF Operational Rpt. Sec., Final Report and Sum. of 6 U.S. Army Opns., 22 June 1944; msg., CG Alamo to GHQSWPA, WF-4867, 28 May 1944.

36. Ltr., Whitehead to Kenney, 28 May 1944.

37. 6th Army, Rpt. on Wakde-Biak Opn., pp. 38, 45-48.

38. 5th AF ADVON OI 1/1, 25 May

1944; 310th Bomb. Wing COIR's, 27-28 May 1944.

39. Form 34, 90th Bomb. Sq., 21-31 May 1944; 310th Bomb. Wing COIR's, 27-28 May 1944.

40. Ltr., Whitehead to Kenney, 21 May 1944.

41. USSBS Intr. 360, Capt. H. Komoto, 12 Nov. 1945.

42. 310th Bomb. Wing COIR, 27 May 1944; 6th Army, Rpt. on Wakde-Biak Opn., pp. 51-52.

43. ALF Operational Rpt. Sec., Final Report and Sum. of 6 U.S. Army Opns.; 6th Army, Rpt. on Wakde-Biak Opn., pp. 38-39; ltr., Fuller to CG Alamo, 28 May 1944; msg., Alamo ADVON to CG Alamo, WH-171, 28 May 1944.

44. Msgs., 14 ALP to CG ADVON 5, 31 and 40, 28 and 29 May 1944; msg., 15 ALP to 14 ALP, OP-60, 29 May 1944; Form 34's, 22d, 43d, and 90th Bomb. Gps., 21-31 May 1944; ltr., Capt. E. H. Robinson, A-2 Flakintel Sec., V BC to Historical Off., V BC, 19 Sept. 1944.

45. Msg., COMAFADVON 5 to 310th Bomb. Wing, M-1278, 29 May 1944; ltr., Whitehead to Kenney, 30 May 1944; Form 34, 498th Bomb. Sq., 21-31 May 1944.

46. Form 34's, 3d Bomb. Gp. and 17th Rcn. Sq., 21-31 May 1944; History, 17th Rcn. Sq.

47. 6th Army, Rpt. on Wakde-Biak Opn., pp. 40-42; ltr., Fuller to Krueger, 9 June 1944; ltr., Whitehead to Kenney, 30 May 1944; memo for Hutchinson from Whitehead, 1 June 1944; Form 34's, 22d, 43d, 90th Bomb. Gps., 1-20 June 1944; 5th AF ADVON FFO's, 151 and 163, 30 May and 11 June 1944.

48. Memo for Hutchinson from Whitehead, 1 June 1944; Form 34's, 38th and 345th Bomb. Gps., 1-20 June 1944.

49. USSBS Intr. 462, Capt. M. Shimanouchi, 26 Nov. 1945; ATIS Doc. 16638-B, Full Translation of [Imperial Japanese] Naval War Diary, Vol. III, 1 Apr. 1944-2 Sept. 1945; USSBS Intr. 360, Capt. H. Komoto, 12 Nov. 1945.

50. Msgs.: COMAFADVON 5 to COMAAFSWPA, M-8863, 26 May; COM7THFLT to CTF's, 7THFLT, 26 May; telecon, Alamo L/O, ADVON 5 to CG Alamo, 040040K, June; GHQ-SWPA to CG Alamo, C-13158, 1 June;

GHQSWPA to COMAAFSWPA, COMANFSWPA, CX-3203, 3 June 1944; memo for Hutchinson from Whitehead, 1 June 1944; msg., COMAFADVON 5 to Kenney, M-1478-A, 31 May 1944; msg., CG Alamo to CG US Forces, APO 920, WF-613, 4 June 1944; memo for Alamo ADVON from CO 310th Bomb. Wing, 4 June 1944; Form 34's, 3d Bomb. Gp., 1-10 June 1944; 310th Bomb. Wing COIR's, 4-5 June 1944; ltr., Capt. C. E. Coney, Comdr. USS *Nashville* to CINC-US, 6 June 1944; Form 34, 63d Bomb. Sq., 1-10 June 1944.

51. 310th Bomb. Wing COIR's, 4-5 June 1944; Form 34's, 3d Bomb. Gp., 1-10 June 1944; msg., Alamo to Alamo ADVON, WF-967, 5 June 1944; Form 34, 380th Bomb. Gp., 1-10 June 1944.

52. 310th Bomb. Wing FO 160, 7 June 1944; Form 34's, 432d and 433d Ftr. Sqs., 1-10 June 1944; History, 17th Rcn. Sq., June 1944; NMR 160, B-310, 17th Rcn. Sq., 8 June 1944; USSBS Intr. 462, Capt. M. Shimanouchi, 26 Nov. 1944.

53. USSBS Intr. 462; msgs., CTF 74 to COM7THFLT, 071220, and COM7THFLT to COMINCH, 080759, June 1944.

54. Msg., CG US Forces, APO 920 to CG Alamo, 182200, June 1944.

55. History, V FC, Jan.-June 1944, pp. 82-84; ltrs., Maj. J. C. Tuell, CO 33d Ftr. Sector to CG 85th Ftr. Wing, 2 and 3 June 1944; msg., 14 ALP to ADVON 5, 64, 2 June 1944; msg., CG Alamo, to GHQSWPA, WF-420, 3 June 1944; Hq. 6th Army, Rpt. on Wakde-Biak Opn., pp. 51-52.

56. Histories, V FC, Jan.-June 1944, pp. 80-81 and July-Dec. 1944, pp. 51-52, and 8th Ftr. Control Sq.

57. USSBS Intr. 360, 12 Nov. 1945; msg., 14 ALP to ADVON 5, 64, 2 June 1944; ATIS Intr. Rpt. 697, Sgt. T. Igehara, 75th Ftr. Regt., 21 May 1945; Histories, V FC, Jan.-June 1944, p. 87 and 9th Ftr. Sq.; ltr., Kenney to Whitehead, 26 June 1944; ltrs., Whitehead to Kenney, 28 and 30 May and 28 June 1944; msg., COMAFADVON 5 to COMAAFSWPA, M-1006-E, 27 May 1944; msgs., COMAAFSWPA to COMAFADVON 5, A-34131, A-34553, and AX-34862, 27 May, 1 and 6 June 1944; msg., COMAFADVON 5 to COMAF 5, U-1535-A, 1 June 1944; msg., AOC RAAF Comd. to

ADVON 5, COMAAFSWPA, CMD-435, 7 June 1944; Form 34's, 38th, 380th, and 3d Bomb. Gps., 21 May-10 June 1944.

58. Ltrs., Whitehead to Kenney, 1, 8, and 13 June 1944; memo for Whitehead from Wurtsmith, 2 June 1944; ltr., Wurtsmith to Whitehead, 2 June 1944; ltr., Kenney to Whitehead, 7 June 1944; memo for distribution from Whitehead, 13 June 1944.

59. Histories: 38th Bomb. Gp. June-Aug. 1944, pp. 6-15; 345th Bomb. Gp., June 1944; V FC, Jan.-June 1944, pp. 87-88.

60. Ltr., Whitehead to Kenney, 13 June 1944; Histories: 38th Bomb. Gp., June-Aug. 1944, pp. 6-15; 345th Bomb. Gp., June 1944; V FC, Jan.-June 1944, pp. 87-88; USSBS Intr. 360, 12 Nov. 1945.

61. Hq. 6th Army, Rpt. on Wakde-Biak Opn., pp. 42-43; Hq. I Corps, History of the Biak Opn., 15-27 June 1944, pp. 1-10; ltrs., Fuller to Krueger, 9 and 13 June 1944; msg., MacArthur to CG Alamo, C-13275, 5 June 1944; ltrs., Whitehead to Kenney, 13 and 16 June 1944; msg., CG US Forces, APO 920 to CG Alamo, TD-807, TD-848, and TD-874, 17, 19, and 20 June 1944.

62. Msg., Alamo to Alamo ADVON, WF-5272, 30 May 1944; msg., CG Alamo to CINCSWPA, 062350K, June 1944; msg., CG US Forces, APO 920 to CG Alamo, TD-419, TD-470, TD-807, TD-794, 7, 8, 17, and 17 June 1944; ltr., Kenney to Whitehead, 13 June 1944; ltr., Whitehead to Kenney, 13 June 1944; msg., CG Alamo to CINCSWPA, WF-2699, 14 June 1944; Histories, 7th, 8th, 9th, 35th, 36th, and 80th Ftr. Sqs., 421st Night Ftr. Sq., 17th and 82d Rcn. Sqs.

63. Histories, 8th and 40th Ftr. Gps., 7th, 8th, 9th, 35th, 36th, and 80th Ftr. Sqs., 308th Bomb. Wing; ltr., Whitehead to Kenney, 28 July 1944; ltr., Col. P. C. Ragan, Actg. AG FEAF to CG USAF-FE, 15 Sept. 1944.

64. 6th Army, Rpt. on Wakde-Biak Opn., pp. 43-44; Hq. I Corps, History of the Biak Opn., pp. 9-18; History, 38th Bomb. Gp., June 1944, pp. 17-18.

65. Msg., Eichelberger to CG 310th Bomb. Wing, TD-1031, 24 June 1944;

Alamo G-3 Opns. Report 400, 22-23 July 1944, p. 3.

66. Memo for Beebe from Chamberlin, 6 June 1944; msg., CG Alamo to CINCSWPA, WF-1178, 6 June 1944; msg., COM7THFLT to CTF 77 and CG Alamo, 050841Z, June 1944; memos for C/S GHQSWPA from Chamberlin, 9 and 18 June 1944; ltr., Krueger to CINCSWPA, 9 June 1944; ltrs., Kenney to Whitehead, 13 June and 3 July 1944; msg., CG Alamo to Alamo ADVON, WF-2638, 13 June 1944; msg., Alamo ADVON to Alamo, 21 June 1944; memo for C/S Alamo from Col. W. N. Leaf, G-4 Alamo, 15 July 1944; memo for Col. R. B. Barden, A-4 5th AF from Whitehead, 1 July 1944; ltr., Col. C. H. Decker, C/S Alamo to CINCSWPA, 19 July 1944.

67. Ltr., Lt. Col. H. W. Allen, Actg. AG GHQSWPA to CG's AAFSWPA, *et al.*, 20 June 1944; ltr., Whitehead to CG FEAF, 4 July 1944; memo for CO 308th Bomb. Wing, CG HURRICANE TF, and CG Alamo from Whitehead, 29 June 1944; Check Sheet, Beebe to GHQ Engr., 6 July 1944, quoting ltr., Whitehead to Kenney, 1 July 1944; ltr., Col. P. C. Ragan, AG AAFSWPA to CINCSWPA, 16 July 1944; ltr., Col. B. M. Fitch, AG GHQSWPA to CG's AAFSWPA *et al.*, 20 July 1944.

68. Ltr., Whitehead to Kenney, 28 July 1944; ltr., Whitehead to Krueger, 8 Aug. 1944; ltr., Krueger to Whitehead, 16 Aug. 1944; memo for CG FEAF from Col. L. H. Hewitt, Air Engr. FEAF, 10 Aug. 1944; 5th AF, Construction on Owi Island, about 26 Aug. 1944; msg., GHQSWPA to CG Alamo *et al.*, CX-15770, 5 Aug. 1944; msg., COMAF 5 to COMFEAF, A-1185-A, 20 Aug. 1944; ltr., Col. H. W. Allen, Asst. AG GHQSWPA to CG's AAFSWPA and USASOS, 6 Sept. 1944; 6th Army, Rpt. on Wakde-Biak Opn., pp. 50-51.

69. Memo for CO 308th Bomb. Wing from Whitehead, 6 July 1944; Histories, 25th Photo Rcn. Sq., 82d Rcn. Sq., 475th Ftr. Gp., 22d, 43d, and 345th Bomb. Gps.

70. Air Task Organization in the Pacific Ocean Areas, II, Sec. 3, Pt. II; AAFSWPA Opns. Rpt., 12, 29 July-4 Aug. 1944; History, 2d Emergency Rescue Sq.

71. 5th AF GO 409, 6 Aug. 1944.

72. Memo for Beebe from Whitehead, 5 Aug. 1944.

73. History, 90th Bomb. Gp., Jan.-Aug. 1944, pp. 88-93.

74. Ltr., Kenney to Whitehead, 9 Apr. 1944; interview with Col. M. C. Cooper by Capt. J. E. Fagg, FEAF Hist. Sec., 7 July 1945; memo for Whitehead from Kenney, 3 May 1944; ltr., Kenney to CINCSWPA, 5 May 1944.

75. Memo for G-3 GHQSWPA from Beebe, 9 Apr. 1944; CM-IN-16055 (5-21-44), CINCSWPA to CINCPAC, *et al.*, 21 May 1944; CM-IN-17476 (5-23-44), COMSOPAC to CINCPAC, 23 May 1944; msg., COMAIRSOPAC to COMAIRSOLS, Serial 0074-44, 4 June 1944; AIRNORSOLS Opns. Plans 1-44 and 2-44, 6 June and 10 July 1944; msg., COMSOPAC to COMAIRSOPAC, 120330, June 1944; msg., COMAIRSOPAC to COMAIRPAC, *et al.*, 141302, June 1944; AAFSWPA OI 54, 15 June 1944; ltr., Kenney to Mitchell, 26 June 1944.

76. Ltr., Kenney to CINCSWPA, 5 May 1944; CM-IN-7874 (5-11-44), GHQSWPA to WD, 11 May 1944; CM-OUT-036701, Marshall to MacArthur, 15 May 1944; memo for C/AS AAF from Maj. Gen. L. S. Kuter, AC/AS Plans, 24 May 1944; memo for CG AAF from Maj. Gen. T. T. Handy, Asst. C/S OPD, 1 June 1944; memo for AC/AS Plans from Col. J. J. Ladd, OC&R, 18 May 1944; R&R, Kuter to Brig. Gen. B. E. Gates, Management Control, 16 May 1944; R&R, Ladd to AC/AS Plans, 2 June 1944; ltr., WD TAG to CINCSWPA, 31 July 1944.

77. Memo for Cooper from Beebe, 13 June 1944; USAFFE GO 53, 14 June 1944; FEAF(P) GO 1, 15 June 1944; ltr., WD TAG to CINCSWPA, 31 July 1944; FEAF GO 120, 5 Aug. 1944; 5th AF GO 375, 15 June 1944; 13th AF GO 68, 13 June 1944; AAFSWPA OI 54, 15 June 1944.

78. GHQSWPA GO 3, 15 June 1944; FEAF(P) GO 7, 15 June 1944; FEAF GO 151, 18 Aug. 1944; ltr., CG FEAF(P) to CG FEASC(P), 15 June 1944; ltr., Brig. Gen. Paul H. Prentiss, CG FEASC(P) to CO's IV ASAC and V ASAC, 15 June 1944; ltr., Beebe to CG FEASC, 26 July 1944; memo for Streett from Beebe, 29 June 1944; Histories, FEASC(P), V AFSC, and XIII AFSC.

79. Ltr., Col. Troup Miller, Jr., DC/S 5th AF to D/CG 5th AF, 9 May 1944; msg., COMGENSOPAC to COMAF 13, H-1181, 4 June 1944; FEAF(P) GO 6 and 7, 15 June 1944; msg., COMFEAF(P) to CG 5th AF, A-35771, 17 June 1944; ltr., Lt. Col. O. C. Van Hoesen, AG FEAF(P) to CG USAFFE, 21 June 1944; msg., CO CRIC(P) to CG FEAF, BTC-2396-A, 3 Sept. 1944; ltr., Beebe to AVM Bostock, AOC RAAF Comd., 14 Sept. 1944; FEAF GO 260, 16 Oct. 1944; History, 360th Service Gp. (FEAFCRIC), 16 Oct.-30 Nov. 1944; FEAFCRIC, Program of Training, 12 Mar. 1945.

80. History, FEAF, 15 June 1944-2 Sept. 1945, I, 11-12; ltrs., Kenney to Arnold, 20 May 1944 and 11 July 1944.

81. Ltr., Kenney to Whitehead, Streett, Mitchell, Bostock, and Wagner, 4 July 1944; ltr., Beebe to CINCSWPA, 12 July 1944; History, FEAF, I, 11-22; msg., GHQSWPA to WD (Kenney to Arnold), C-2489, 6 Mar. 1944.

82. Ltr., Kuter to Kenney, 6 Sept. 1944; ltr., Kenney to Kuter, 17 Sept. 1944; ltr., Streett to Arnold, 15 Jan. 1944; memo for Giles from Kuter, 1 Mar. 1945; History, FEAF, I, 9.

83. 5th AF ADVON, Projected Air Operations after HORLICKS, about 14 May 1944, and Air Plan for TABLETENNIS Operation, 10 June 1944, Annex II; ltrs., Whitehead to Kenney, 14 and 16 May 1944.

84. SWPA Terrain Handbook, 27: Schouten Islands, 12 May 1944, pp. 45-62.

85. Hq. Alamo G-2 Estimate of the Enemy Situation with Respect to Noemfoor Island, 15 June 1944; Hq. ESCALATOR FO 19, 21 June 1944; Air Plan for TABLETENNIS Opn., Annex II; AAFSWPA OI 55, 20 June 1944, Annex 3; ltr., Whitehead to Kenney, 28 June 1944.

86. Ltrs., Kenney to Whitehead, 19 May and 13 June 1944; GHQSWPA to CG Alamo, C-13296, 5 June 1944; Check Sheet, Beebe to Kenney, 7 June 1944; msg., COMAAFSWPA to COMAFADVON 5, 8 June 1944; Air Plan for TABLETENNIS Opn.; memo for G-3 GHQSWPA from Beebe, 12 June 1944; msg., GHQSWPA to COMAAFSWPA, *et al.*, CX-13693, 14 June 1944.

87. Ltrs., Kenney to Whitehead, 14 and

16 June 1944; msg., CG Alamo to CINCSWPA, WF-3357, 17 June 1944; ltr., Whitehead to Kenney, 19 June 1944; msg., CG Alamo to CINCSWPA, 20 June 1944; msg., GHQSWPA to CG Alamo, *et al.*, CX-13998, 21 June 1944.

88. GHQSWPA OI 55, 17 June 1944; CTF 77 Opns. Plan 6-44, 22 June 1944; Hq. US Forces, APO 704 Hist. Rpt., Noemfoor (TABLETENNIS) Operation, pp. 5-9.

89. Hq. ESCALATOR FO 19, 21 June 1944; GHQSWPA OI 55, 17 June 1944, Annex I; ltrs., Whitehead to Kenney, 16 and 19 June 1944; ltr., Col. B. M. Fitch, AG GHQSWPA to CG Alamo, *et al.*, 28 June 1944.

90. Msg., MacArthur to CG Alamo (Eddleman to Decker), C-14215, 27 June 1944; ltr., Kenney to Whitehead, 26 June 1944.

91. Memo for Hutchinson from Whitehead, 11 June 1944; History, 310th Bomb. Wing, May-June 1944, pp. 23-24; ltr., Capt. Ivan P. Head, 3d Bomb. Gp. to CG V BC, 1 July 1944; ltr., Whitehead to Kenney, 28 June 1944.

92. Form 34's, 3d, 38th, 90th Bomb. Gps., 21-30 June 1944; msg., COMAAF-SWPA to COMAF 5, A-36120, 22 June 1944; ltr., Whitehead to Kenney, 22 June 1944; AAFSWPA Isums, 219-22, 24 and 28 June, 1 and 5 July 1944.

93. Form 34's, 3d, 22d, 43d, 90th, 312th, and 345th Bomb. Gps., 49th, 348th, and 475th Ftr. Gps., and 82d Rcn. Sq., 11 June-10 July 1944; History, XIII BC, June, pp. 15-16, and July 1944, p. 35; 5th AF Monthly Stat. Sum., June and July 1944; NMR 178-A-3, 403d Bomb. Sq., 30 June 1944; NMR 177-A-2, 64th Bomb. Sq., 25 June 1944; ATIS Bull. 1319, CD 13399.

94. 6th Army, Rpt. on TABLETENNIS Opn., 23 Nov. 1944, pp. 9-10; ltr., Patrick to CG Alamo, 7 July 1944; NMR's 184-E-X-I, 319th, 320th, 321st, and 400th Bomb. Sqs., 3 July 1944; msg., CTF 77 to COM7THFLT, 022340, July 1944; CTF 77, Rpt. of Noemfoor Opn., 16 July 1944.

95. 6th Army, Rpt. on TABLETENNIS Opn., pp. 9-10, 13-14; Hist. Rpt., Noemfoor (TABLETENNIS) Opn., pp. 17-18.

96. V FC A-2 Per. Rpts., 472 and 474,

3 and 5 July 1944; History, V FC, July-Dec. 1944, p. 11; Form 34's, 3d, 312th, and 43d Bomb. Gps., and 17th Rcn. Sq., 1-10 July 1944; NMR 184-E-11, 389th Bomb. Sq., 2 July 1944; ltr., Lt. Col. R. H. Ellis, CO 3d Bomb. Gp. to CG 310th Bomb. Wing, 11 July 1944.

97. Ltr., Patrick to CG Alamo, 7 July 1944.

98. *Ibid.*; msg., CG US Forces, APO 704 to CG Alamo, 021115K, NF-250, and n.n., 2 and 3 July 1944; History, 54th TC Wing, July 1944, pp. 29, 158-68; History, 317th TC Gp., July 1944, App. B, Exhs. X and XVIII; ltr., Lt. Col. J. J. Tolson, 503d Parachute Inf. Regt., *et al.* to CG US Forces, APO 704, 7 July 1944.

99. Msg., CG US Forces, APO 704 to CG Alamo, NF-302, 4 July 1944; msg., Krueger to CG US Forces, APO 704, 4 July 1944; 6th Army, Rpt. on TABLETENNIS Opn., pp. 11-12.

100. 6th Army, Rpt. on TABLETENNIS Opn., pp. 11-12; History, V FC, July-Dec. 1944, p. 9; Hist. Rpt., Noemfoor (TABLETENNIS) Opn., p. 22.

101. History, V FC, July-Dec. 1944, pp. 9-13; Hist. Rpt., Noemfoor (TABLETENNIS) Opn., pp. 17-19; msg., US Forces, APO 704 to CG Alamo, NF-848, 17 July 1944; ATIS Intr. 697, 21 May 1945.

102. Hist. Rpt., Noemfoor (TABLETENNIS) Opn., pp. 19-21; msg., CG US Forces, APO 704 to CG Alamo, NF-1004, NF-431, NF-670, NF-680, NF-815, and NF-1195, 20 June, 6, 12, 13, 16, and 25 July 1944; msg., COMAF 5 to COMFEAF, Y-7228-F, 16 July 1944; 6th Army, Rpt. on TABLETENNIS Opn., pp. 15-16; msg., GHQSWPA to CG Alamo, *et al.*, CX-14883, 14 July 1944; msg., CG Alamo to CG US Forces, APO 704, 17 July 1944; History, 1874th Engr. Avn. Bn. during the Noemfoor Opn., pp. 4-6; ltr., CG Alamo to CINCSWPA thru CG 5th AF, 22 Aug. 1944; ltr., Whitehead to CG FEAF, 21 Aug. 1944.

103. Hist. Rpt., Noemfoor (TABLETENNIS) Opn., p. 19; ltr., Col. C. H. Decker to CINCSWPA, 19 July 1944; ltr., Whitehead to Kenney, 12 Aug. 1944; 2d and 3d Opns. Analysis Secs., Analysis of Noemfoor Operation, n.d.; ltr., Whitehead to CG Alamo, 12 Aug. 1944; Histories: 309th Bomb. Wing, 5 Aug. 1943-

31 May 1945, pp. 7-9; 419th Night Ftr. Sq., July 1944; 35th Ftr. Gp., Jan. 1943-Dec. 1944, pp. 15-21; 58th Ftr. Gp., Aug. and Sept. 1944; 348th Ftr. Gp., Aug. 1944; 417th Bomb. Gp., Sept. 1944; msg., COMAF 5 to COMFEAF, A-1370-A, 21 Aug. 1944; ltr., Whitehead to CG FEAF, 7 Sept. 1944.

104. GHQSWPA, RENO V, Outline Plan for Opns. of the SWPA, 1944-1945; msg., CINCSWPA to WD, C-12287, 8 May 1944.

105. Memo for A-3 5th AF ADVON from Lt. Col. Alex Guerry, Jr., A-3 91st Photo Rcn. Wing, 1 June 1944; ltrs., Kenney to Whitehead, 7 June and 3 July 1944; ltrs., Whitehead to Kenney, 8 and 28 June 1944; Hq., Alamo G-2, Reconnaissance of Cape Sansapor Area, 9 July 1944; memo for Whitehead from Col. Ralph O. Brownfield, CO 91st Photo Rcn. Wing, 1 July 1944; interview with Col. H. G. Woodbury, Jr., by Sgt. Henry Borzo, FEAF Hist. Sec., 20 Aug. 1945; msg., CG Alamo to CINCSWPA, 18 July 1944; memo for Kenney from Whitehead, 23 July 1944.

106. 5th AF Engr., Cape Sansapor and Vicinity, 1 July 1944; History, 5th AF, 15 June 1944-2 Sept. 1945, chap. 3, p. 12.

107. Msg., GHQSWPA to CG Alamo, C-14004, 21 June 1944; Hq. Alamo, G-2 Estimate of the Enemy Situation with Respect to Cape Sansapor-Cape Oparai Area, Northwest Vogelkop, 9 July 1944.

108. AAFSWPA Isum 222, 5 July 1944, p. 29; AAFSWPA OI 57, 5 July 1944, Annex 3 (Intelligence); Fifth Air Force OI 4, 11 July 1944, Intelligence Annex; Hq. Alamo, Conference Report: Cape Sansapor Operation, 8 July 1944.

109. Msg., GHQSWPA to CG Alamo, C-14004, 21 June 1944; GHQSWPA OI 56, 30 June 1944; Alamo FO 20, 10 July 1944; TYPHOON TF, Tentative Plan for Seizure of Cape Oparai-Cape Sansapor Area, 10 July 1944; ltr., Col. B. M. Fitch to COMAAFSWPA, *et al.*, 3 July 1944; AAFSWPA OI 57, 3 July 1944; 5th AF Ltr. of Instructions 2, 26 July 1944.

110. Memo for Col. A. J. Thackston, AAF AC/AS OC&R from Beebe, 4 July 1944; memo for Beebe from Gideon, 23 June 1944; ltr., Streett to Kenney, 2 July 1944; msg., COMFEAF to COM-

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GLOSSARY

GLOSSARY*

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AAABC	Assam American Air Base Command
ACSEA	Air Command, South East Asia
ADC	Alaska Defense Command
ADVON	Advanced Echelon
AFDMA	Materiel Division, AC/AS, Materiel and Services
AFDPU	AAF Program Planning
AFMSC	Office of Statistical Control
AFRAL	Allocations Branch, AC/AS, OC&R
AFRBS	Directorate of Base Services
AFRTH	Theater Branch, AC/AS, OC&R
AFTSC	Director of Communications
AFTSI	Director of Technical Inspection
AGC	General communications vessel
AKA	Cargo ship, attack
ALF	Allied Land Forces
ANGAU	Australia-New Guinea Administrative Unit
APA	Transport, attack
APD	Transport, high speed
ASSRON	Air Service Support Squadron
CA	Heavy cruiser
CACW	Chinese-American Composite Wing
CAF	Chinese Air Force
CAVU	Ceiling and visibility unlimited
CHRONICLE	Kiriwina-Woodlark Islands
CINCPOA	Commander in Chief, Pacific Ocean Area
CL	Light cruiser
COIR	Combat Operations Intelligence Report
COMAIRCENPAC	Commander Aircraft Central Pacific
COMAIRFORWARD	Commander Aircraft Forward Area

* This glossary includes only terms not listed in preceding volumes, and it omits code words for which the index provides a ready guide to definition. For Japanese aircraft types and their designations, see Vol. I, 79 n.

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COMAIRNORSOLS	Commander Air North Solomons
COMAIRSOLS	Commander Air Solomons
COMAIRSOPAC	Commander Aircraft South Pacific
COMCENPAC	Commander Central Pacific
COMGENSOPAC	Commanding General, U.S. Army Forces, South Pacific Area
CRTC	Combat Replacement and Training Center
CV	Aircraft carrier
DAT	Directorate of Air Transport
DE (PF)	Destroyer escort (patrol vessel, frigate)
DIMINISH	Finschhafen, New Guinea
DUKW	Amphibious truck
F/E	Forward Echelon
HHD	Headquarters, Hawaiian Department
IATF	India Air Task Force
IBS	India-Burma Sector
ICPOA	Intelligence Center, Pacific Ocean Area
ICW	India-China Wing
JICPOA	Joint Intelligence Center, Pacific Ocean Area
JSSC	Joint Strategic Survey Committee
JWPC	Joint War Plans Committee
LAB	Low-altitude bombardment equipment
LCI	Landing craft, infantry
LCM	Landing craft, mechanized
LCP (R)	Landing craft, personnel (ramp)
LCT	Landing craft, tank
LCV	Landing craft, vehicle
LSD	Landing ship, dock
LST	Landing ship, tank
LVT	Landing vehicle, tracked
NATS	Naval Air Transport Service
NCAC	Northern Combat Area Command
NGF	New Guinea Force
Patron	Patrol squadron
PF	Patrol vessel, frigate
POSTERN	Lae-Finschhafen-Madang
PV	Navy patrol bomber
RNZAF	Royal New Zealand Air Force

GLOSSARY

SAC	Supreme Allied Commander in Chief
SCAT	South Pacific Combat Air Transport (USMC)
SEAC	Southeast Asia Command
TCC	Troop Carrier Command
USAFICPA	U.S. Army Forces in Central Pacific Area
VB	Navy dive-bomber squadron
VCS	Cruiser-scouting squadron
VF	Navy fighter squadron
VMF	Marine fighter squadron
VMSB	Marine scout-bombing squadron
VP	Navy patrol squadron
VS	Navy shore-based scouting squadron
VTB	Torpedo-bombing plane
WDC	Western Defense Command
WDCSA	War Department Chief of Staff, U.S. Army
WDGBI	War Department General Staff, Intelligence (G-2)

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