

Information Division
Air Service

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The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE July 13, 1922.

THE CONQUEST OF ELLINGTON FIELD

A Resume of the Spring Maneuvers of the First Group (Pursuit).

War having been declared on The United States (BLUE) by an enemy (RED), the oft-predicted result of our unpreparedness policy came to pass: The Panama Canal was blown up simultaneously with the Declaration of War, and the RED Navy, acting in force and unheralded, encountered the scattered ships of the BLUE Navy off the Atlantic seaboard and forced their retirement on June 8th. Early during the night of June 8th a strong detachment of the RED Navy was reported in the Gulf of Mexico, about a hundred miles out of Galveston, accompanied by a fleet of Transports and two Airplane-Carriers, - the HANNIBAL, carrying 100 pursuit planes, and capable of launching a maximum of 4 planes per minute; and the FABIUS, carrying 25 heavy and 25 light bombing planes, and capable of launching 4 light or 2 heavy planes per minute.

All available BLUE aircraft had been hastily concentrated at Ellington Field to form the 2nd Provisional Air Brigade, composed of the following Units: First Group (Pursuit), Second Group (Bombardment, heavy), Third Group (Bombardment, light), Fourth Group (Observation), Fifth Group (Attack). Extraordinarily heavy rains continuing throughout June 9th frustrated the attempts of the Air Brigade to dispose of the enemy, who, overcoming the scant Coast Defenses of Galveston Harbor and the opposition of the undermanned and incompletely trained Division hurriedly brought from the interior, effected a landing at Galveston and consolidated a strong position with nearly two Divisions of Marines on a line about 25 miles in extent and 10 miles inland from Galveston, with the evident intent of seizing the great oil resources found within a radius of 100 miles.

(A serious foot-note: Suppose this, or anything like it, or even half of it, came to pass, what would we do about it?)

Such was the situation on the morning - early morning - of Sunday, June 10th, except that the 27th Squadron, who admit being a rattling good outfit, had the job of representing the entire RED Navy, Air Force, Marines, and all; and the rest - one is tempted to say residue - of Ellington Field acted in the capacity of 2nd Provisional Air Brigade, The Commanding Officer, Major Carl Spatz, who knew the pilots of the 27th, having played enemy for them during the tactical training this spring, very thoughtfully declared himself Umpire, i.e. Neutral, and gave daily caution that his SE-5 and Lieutenant Auby C. Strickland's Jenny - official courier ship - were not to be mistaken for BLUE ships. Fourteen SPAD XIII's and two DH-4-B's to a side made up the fighting forces.

On the morning of the 10th Reconnaissance with Pursuit protection was the problem, all work being restricted to the air between 2000 and 8000 feet. The 27th took off with a formation of twelve ships in units of three, with the top unit sticking at maximum altitude, while the two DH's made their way separately to the lines, one at 8000 feet, piloted by Sergeant Mitchell, and the other at 2000 feet, piloted by Lieutenant Denny Lunt. Now it happens that "Denny", at post hops and other festivities, has practiced the gentle art of being conspicuously the life of the party, wherefor, when he arrived at the lines to serve as decoy, all the world, even the 94th Squadron, knew he was there, with the result that they gave him all of their attention, while Sergeant Mitchell undisturbedly flew his patrol and gathered up all the information there was within the area of operations. Where the Pursuit patrols met, things were a bit too lively for detailed description, but the 27th Squadron carried off the day by reporting all troops and activities, both simulated and actual, and obtaining the greater number of confirmations on ships shot down.

At the critique and Vortrag following immediately upon the landing of the combatants, the C. O. demonstrated the power and importance of a Group Commander by forthwith resurrecting all the dead in preparation for the subsequent maneuvers. Being, thus, very much alive, the Squadron felt that it could ill afford to let the captured city think that the pilots were dead ones, and made their arrangement for the evening accordingly. As some of them are married, we remain diplomatically non-committal as to details.

At daybreak on Monday, both sides took off on an Infantry-contact mission, the BLUE forces essaying an attack on the RED Marines. For this flight the 27th used the standard Pursuit formation of twelve ships in three-ship V's, but added two SPAD's as free lances, and proceeded merrily to the complete defeat of the BLUE attack, and having generally a first rate time of it.

In the afternoon the same formation took off for protection of a bombing attack upon the BLUE Airdrome (Ellington Field). Our Bombers, represented by Lunt and Mitchell again in their DH-4's, eluded the enemy observation, and the Pursuit formation traveled in undisturbed peace at the maximum altitude permitted. Bombers and Pursuiters met at the appointed rendezvous and descended upon Ellington Field where the BLUE ships were still waiting for word from their observation. Nothing whatever happened to interfere with the peaceful and orderly dropping of our bombs, which, because live ones were obviously impracticable and dummies of tile or concrete are not to be sneezed at, were represented by the conventional substitute currently packed in rolls; so, having won the third successive battle, the 27th returned to their base at Galveston.

Soon after they landed, Ellington's genial Executive, Captain H.M. Elmendorf arrived to protest that it wasn't fair, that the war was all wrong, etc., wherefor he was promptly made Prisoner of War and his ship confiscated. A Kangaroo Court was assembled to try him on charges of spying, damaging our airdrome by poor landing, using propaganda against us by letting the citizens of Galveston believe that his poor flying had been done by one of their conquerors - the 27th Squadron - and sundry other high crimes and misdemeanors. Counsel was appointed for him in the person of Lieutenant Roberson, who, displaying commendable loyalty to his own organization, governed his defense accordingly, and brought to the attention of the Court much pertinent evidence against the Prisoner. The Accused was, therefore, properly found guilty, the water cure was thoroughly administered, and, since neither the Prisoner nor his ship were of sufficiently high standard to be useful to the 27th Squadron, they were sent back to Ellington to serve as a fitting bad example.

It should be mentioned here in passing that the moral effect on Ellington Field was great, except in the case of Captain Frank O'Day Hunter, Operations Officer. Now Frank O'D. had been very much in it in France, coming back an Ace, and owning a Croix de Guerre, a D. S. C., and a mustache he prized above both his other decorations, so it was only natural that he should take umbrage at the ungentle handling his brother in arms had received at the hands of the enemy. He vowed vengeance and swore that no RED pilots could fox him. Thus put upon their mettle, and disdaining anything so unoriginal as repetition, the 27th invited him to his own pet kind of a party at Galveston that night. He arrived in full regalia about nine o'clock, bearing upon his person indisputable evidence of our prowess: His wonderful mustache, the product of a life-time of patient care and cultivation, the pride and delight of his existence, if not it's object, and his principal outward glory, had been lost in the day's battle, a tribute to the superiority of the RED pilots' marksmanship. Shorn like Samson of old, he must, like that worthy, have lost his wits: Having fasted for a day and saved a tremendous thirst to be slaked at the wine-casks of his friends, the enemy, he trod the streets of Galveston in lonely state looking for the festivities at which he was to be hero and guest of honor - - he is still looking.

On Tuesday, the 11th, all operations were called off and all flying suspended out of respect for Sergeant L.I. Wright, of the 94th Squadron, who died in a crash the afternoon before.

The critiques, by Wednesday morning, had established that to carry out the one remaining mission on the schedule, the contest for the supremacy of the air, would be unnecessary and inept, since in previous operations the 27th Squadron had already obtained it beyond the shadow of a doubt; so the C.O., directed the return of the 27th to Ellington Field. Word of the thoroughness with which the 27th had accomplished their mission and the completeness of the defeat of Ellington Field must have reached the ears of the powers that be in Washington, for, simultaneously with the order for the return of the 27th Squadron from Galveston, came advance information from the War Department that Ellington Field would be evacuated, the troops retiring as far North as Selfridge Field, Mount Clemens, Mich.

AIR SERVICE ACTIVITIES OF THE TENNESSEE NATIONAL GUARD

The past two weeks have been unusually busy ones for the 136th Aero Squadron Tennessee National Guard, despite many showers. The three JN6H's have been used considerably. Four pilots have been flying quite frequently, and their work after the three years' lay off is very commendable.

The River Terminal Exposition took place in Nashville the second week in June, and the National Guard Recruiting Booth created much favorable comment. It was situated on the main floor of the building and was decorated with the new Air Service colors. Suspended from the ceiling was a model Spad which ran by electricity, describing a circle about 16 feet in diameter. In the center of the booth mounted on a stand was a Hispano motor with propeller attached, and suspended over the entrance to the booth was a scale model of a JN4B, made by Lieut. N.S. McEwen of the local Squadron. To stimulate interest in securing high calibre recruits, a formation was flown over the terminal every day, and each night the airmen cooperated with the Exposition people in showing the motion pictures of "Project B."

NATIONAL GUARD AERO SQUADRON RECEIVES FLAG

Formal presentation of the flag, given by the Andrew Jackson Society to the 136th Aero Squadron, was made at Blackwood Field, Nashville, Tenn., on Sunday afternoon, June 18th. The Hon. Clyde Shropshire, former Speaker of the House of Representatives, made the presentation speech. After sketching the history of the flag and its development up to the present day, he spoke of the historic location of Blackwood Field, stating that in the days of Andrew Jackson, while he was living at the Hermitage, the present aviation field was a part of the Hermitage estate.

Dr. W.F. Powell, pastor of the First Baptist Church, pronounced the invocation and as the band played the "Star Spangled Banner," Miss Bettie Hooper Turner unfurled the flag. Adjutant General Philip I. Brumit, Col. William Newman, Col. Allen, Major J.C. Bennett, Lieut. Vincent Meloy and other officers then reviewed the troops as they passed in battalion review. The units taking part in the demonstration were the 136th Aero Squadron, Company F of the 117th Infantry and the Service Company of that regiment, together with the band.

Following the presentation ceremonies, Lieut. Meloy and Major Bennett, Capt. Duncan Potter and Capt. M.H. Dobson, Jr., and Lieuts. Herbert Fox and Charles Blanchard gave a number of exhibition flights.

DEDICATION OF MAINE'S FIRST MUNICIPAL LANDING FIELD

The progressive town of Brunswick, Maine, was on Saturday afternoon, June 10, the scene of the official opening of the first municipal airplane landing field in that State. Among those present during the dedication of this field were several Regular Army officers stationed in the 1st Corps Area, National Guard officers of the State of Maine and Army and civilian airplane pilots.

ASSIGNMENT OF GRADUATES FROM THE AIR SERVICE MECHANICS SCHOOL

Two classes were graduated on June 9th from the Air Service Mechanics School at Chanute Field, Rantoul, Ill. The first class, consisting of eleven armorers, will be distributed as follows: three to the Panama Canal Zone and four each to the Philippine and Hawaiian Departments. The second class, consisting of sixteen mechanics (airplane engine) will be distributed - five each to the Philippine and Hawaiian Departments, three to the Panama Canal Zone, two to the Mechanics School, and one to the 5th Squadron at Mitchel Field. These men will be transferred shortly after July 1, 1922.

GENERAL MITCHELL VISITS CHANUTE FIELD

Brigadier General William Mitchell, Assistant Chief of Air Service, accompanied by his aid, 1st Lieut. Clayton L. Bissell, landed at Chanute Field on Friday afternoon, June 9th, but remained only long enough for the planes to be serviced and took off immediately for McCook Field, Dayton, Ohio.

AN AERIAL TREAT FOR COLORADO SPRINGS, COLO.

A visit of ten DH4's was recently paid Colorado Springs, Colo., where the headquarters of the 103rd Division, Air Service, is located. The flyers were from Fort Sill, Okla., and consisted mostly of students on a practice cross-country flight. All planes landed safely except the one piloted by Lieut. Stackhouse, who hit an old road bed that threw him over on his back, washing the ship out completely except for the motor and a few spare parts. The pilot and observer did not sustain as much as a scratch, to the surprise of the crowd of civilian onlookers.

A reception committee from the Colorado Springs Chamber of Commerce, with the Executive Officer of the 103rd Division, Air Service, met the flyers at Kelker Field, a large crowd being present to watch the ships land, among them the noted aviatrix, Miss Ruth Law. It was a red letter day in the history of aviation for Colorado Springs, as never before had so many planes visited the Pike's Peak Region. The DH's were quite a contrast to the small standard on the field, owned by a local flyer. The citizens had an opportunity to make a comparison of the Army planes with the type of barnstorming plane commonly seen in this section. Lunch awaited the flyers at the Million Dollar Hotel, the Broadmoor. In the afternoon, two formations of three planes each took the air and flew over the city and vicinity. It is estimated that 5,000 people visited the field in the afternoon to see the planes and watch the flyers take off. This is considered quite a turnout, considering that there was a circus in town with street parades, elephants, etc. No doubt the flyers created a greater attraction than the circus.

A sport dinner dance was given at the Broadmoor in the evening in honor of the aerial visitors, and it was well attended by the leading citizens of the city. The officers expressed themselves as having a wonderful time.

XB-1A AIRPLANES IN CROSS COUNTRY FLIGHTS

Captain Shea, flying from the 13th Squadron, made a cross country flight from Kelly Field to El Paso, Texas, and return, in an XB-1A airplane on June 3rd and 4th. Practically every airdrome in Texas has been visited by an XB-1A plane during the past two months. These flights included Brownsville, Ellington Field, El Paso, Austin, Waco, Dallas and Fort Sill, Okla. In addition to these cross country flights, the 13th Squadron has been using these ships for photographic, radio, infantry contact, courier service and bombing missions.

DH-4-B PLANES SHOW CONSISTENT PERFORMANCES.

An interesting experiment was recently conducted at Kelly Field, Texas in connection with the DH4B airplane. In an effort to find the best ship for speed in the 20th Squadron, a ten mile race was flown by five ships. After circling the airdrome in close formation the ships were aligned beside each other and at a certain road crossing a signal was given and the throttles were jammed forward. The first ship back to the starting point, after turning at Brooks Field, was to be declared the winner, but it would have taken some better instruments than those given by Mother Nature to select the winner, as the ships crossed the line as if they were all propelled by the same motor. The pilots reported that their motors turned up between 1750 and 1800 R.P.M.

In order to determine the best ship for the altitude, the five ships were again placed in the test, and after arriving at the rendezvous of 3,000 feet over the airdrome a signal was given and the noses raised to higher altitudes. At the end of the twenty minutes the ships returned to the ground and altitudes averaging between 12,000 and 13,000 were reported as reached. All of the tests were made with standard DH-4B's and no changes were permitted to be made to enable one to perform differently than any other. One of the pilots had an unusual thrill in taking off for one of the events, as after he had cleared the hangars he felt a decided rap on the rudder and then on the "stick". After attempting a little altitude the stick was almost yanked out of the pilot's hand, thereupon the rudder control bar sought positions other than regular flight, causing the ship to nose over and skid. The pilot asked the mechanic if he was playing with the controls and received the reply - "No, sir, but there is a good size tent hanging on the tail skid which is flopping around in various directions." After returning to the ground a huge tarpaulin was removed from the tail surfaces, and after an inspection of the controls, during which everything was found O.K., the pilot took off and found the ship flew more to his liking. The tarpaulin was evidently picked up on the take-off, as pieces of canvas had been placed on the ground to mark spots for accuracy landings.

INAUGURATING AERONAUTICAL OPERATIONS IN THE SOUTH SEAS

The Air Service contingent in the Philippines certainly can boast of a large variety of experiences calculated to make their tour of duty in the Archipelago one of lasting memory. An interesting report has just been received from the NEWS LETTER correspondent on duty with Flight A, 3rd Squadron, stationed at Clark Field, covering the temporary duty of that organization at Jolo, Sulu, P.I., as follows:

"The desires of all our personnel have at last been satisfied with the transfer of Flight 'A' of the 3rd Squadron to the Southern Islands, with station at Jolo, Sulu Archipelago. A remarkable and novel duty it is, indeed, calculated to create thrills of romance in the minds of those who hanker after the bizarre, or the real "McCoy" in all that is savage and close to the dregs of civilization. Think of being quartered within a few hundred yards of the famous Sultan of Sulu who, by the way, is far from being a myth. Think of flying over people who call you "devil birds" and bow their heads to the ground in fear of the dire will of the Almighty being exercised through you, who have never seen a plane before, not even on paper, and who explain it all with the statement "it is the Americans". It is an experience not soon to be forgotten.

On April 15th, under orders from Headquarters, Philippine Department, one flight, consisting of 13 officers, 51 enlisted men and 6 planes embarked on the U.S. Army Transport LISCUM for Jolo, via Bulalacao, on Mindoro Island, New Washington and Calivo on the Isle of Panay, and Zambeanga on Mindanao. The officers consisted of Major A.H. Gilkeson (commanding), Captains Mideap, Keesling, Moore, Bedinger, Lieutenants Riley, Pardy, Lindorff, Barrett, Woodward, Thompson, Evans, and Batten, assigned as pilots and observers.

A landing field inspection was conducted at Bulalacao, New Washington and Calivo, with the idea on view of establishing a chain of fields throughout the length of the Archipelago. These inspections gave fairly satisfactory results and under favorable weather conditions, it is believed quite possible to fly from Sulu to Manila via Zambeanga, Lake Lanao, Iloilo, New Washington and Lucena, a distance of approximately 780 miles air line, with the course lying over about seventeen islands worthy of note and many more not generally mapped. It was hoped that authority would be granted for several planes to return by air over this route, instead of being disassembled and returned by boat, as on the trip down. The rainy season, however, is fast encroaching upon our flying weather, and, from observations made since arrival at Jolo on April 20th, it appears that this may be impossible.

With the exception of Zambeanga, there were no docking facilities at the places visited, and it was necessary for the inspecting party to go ashore in small boats. At New Washington, the two motorcycles used were rowed over two miles to a landing through the breakers.

It is believed a splendid record has been made by the Flight Engineering Department, in charge of 1st Lieut. E.C. Batten and Master Sergeant William C. Hunter, in their disassembly of the six planes for loading aboard the ship at Manila and assembly at Jolo. Subsequent to landing upon the road paralleling the Luneta seawall in Manila, five of the planes were taken down by removal of wings towed and hauled a distance of one mile to the dock, and were ready for loading in a little more than three hours. Had it not been for other cargo which necessarily had to be loaded first, the LISCUM might have pulled out much sooner. Seven hours after the arrival at Jolo, with a haul of one mile to the field and many other interferences intruding upon the erecting crew, Major Gilkeson took the air and made the first flight in a land plane over the Southern Islands. Tom Gunn, the Chinese pilot, is said to have made a seaplane flight here many years ago, but judging from the effect this flight had on the assembled mob of Moros, Zamboangians, Filipinos, Chinos, etc., it must have long since been forgotten. They cheered wildly, yelling "Americano" again and again. An incessant downpour prevented further flights, but the coming week is looked forward to in the hope of an improvement in weather conditions. It is interesting to note that Sandakan, British North Borneo, approximately 200 miles to the east of Jolo, is reported as having a fine government flying field.

We found Jolo, lying as it does but six degrees north of the equator, "hotter than blazes", nor does the incessant downpour of rain seem to alleviate the heat of the day save to make it sticky. It is the land of the "Juramentado", a Mohammedan religious fanatic, usually a criminal being sought by the authorities, who by physical abuse of his person finally becomes crazed and runs amuck. Seizing his barong - a razor sharp blade somewhat like a longitudinal cross section of a banana, he races afield in search of Christians, yelling the while "Whoooo-eee, whoooo-eee" with blood-curdling pitch of voice and intonation. The last victim to the knife of a "Juramentado" several months ago received over nineteen slashes, lost his head and was left in an unrecognizable condition. It is said that the news travels like wildfire and that but a very short time elapses before every entrance to buildings in the vicinity is locked and barred. So strong is the will power of these fanatics that even after being riddled in vital spots they continue on and more often accomplish their gruesome missions. Once their Christians are killed and their place in Heaven assured, their own fates, inevitable as they are, are matters of small interest to them. Outlawry seems to be extremely fashionable at the time of present writing, and the peaceful citizenry place great confidence in the efficacy of our planes to scare them into subjectivity.

A promise of excellent hunting and fishing is held out to us while here. Arolas, who was General Pershing's interpreter during the General's stay at Sulu, now has a farm about 15 kilometers inland, and has offered to guide us to such a herd of deer as we have never seen before. It is said that a ruthless hunter can kill as many deer in an evening as he can shoot at - a cruel and senseless practice but illustrative of the hunting conditions. One can see the fish in huge schools - of all colors and combination of colors and of all shapes and sizes. It is, indeed the hunters' and fishermen's paradise.

It is expected the present duty will continue until about May 10th, on the arrival of the next transport, when it is quite possible an additional month's duty may be ordered at Zamboanga, Mindanao."

Ed. Note. A further report on this interesting tour of duty of Flight "A", 3rd Squadron, will be published in the next issue of the NEWS LETTER.

PLANES SENT OUT ON RESCUE MISSION

During the violent storm that swept over New York on Sunday evening, June 11th, a yacht with two persons aboard was blown out into the Sound from Milford, N.J. Early Monday morning a request came in from the Chief of Police of Milford asking that two planes be sent out to locate this missing boat. Shortly after daylight, planes piloted by Lieut. Eugene H. Barksdale and Lieut. Newton Longfellow left Mitchel Field and spent 3½ hours flying up and down the Sound in an effort to locate this missing craft. No trace could be found of it, however, and it is presumed it must have sunk.

RESERVE OFFICERS TRAINING CAMP OPENS AT MITCHEL FIELD

The Reserve Officers' Training Camp opened at Mitchel Field on June 17th, all preliminary arrangements having been made to properly effect the receipt of the students and initiating instructions. Major John C. McDonnell reported for temporary duty as Senior Instructor of the Camp, as did Captain William B. Wright, who was assigned to duty as an instructor of the Camp. These officers come from the Massachusetts Institute of Technology, where they were on duty during the past year, and will return to that duty upon the completion of the camp. First Lieut. Evers Abbey reported at Mitchel Field on June 5th, and was also assigned as an instructor of the Camp.

The first of the students have already arrived, and a total of 26 are listed to arrive for training. The instruction contemplates the use of 14 officers, 11 of whom are officers regularly assigned at Mitchel Field, as instructors in the various phases of the course. Eight airplanes will be used in the aerial section of this training. All of these planes are equipped with special apparatus, such as photographic equipment, radio instruments, etc. The Camp will continue at Mitchel Field until July 27th.

AIRWAY FLIGHTS

Captain F.M. Brady, Air Service made flights on June 4th, 5th, 6th and 7th from Mitchel Field to Buffalo, N.Y., thence to Albany, N.Y. and Binghamton, N.Y. and returned to Mitchel Field, the purpose of these flights being to open up a new air route, secure information as to intermediate landing fields, confer with weather bureaus at those stations, and secure other data for civilian and military aeronautics. Flights were delayed and several landings made enroute due to heavy rains which fell on those days.

PRACTICE FLIGHTS FOR RESERVE AND NATIONAL GUARD OFFICERS

Two JN6H Gunnery planes were recently received by the Air Officer of the 1st Corps Area to be used in giving practice flights to Reserve Officers and National Guard officers in that Area.

GRADUATION OF PRIMARY FLYING STUDENTS AT CARLSTROM FIELD

A class of forty-nine student officers and cadets taking primary flying training at the Air Service Primary Flying School, Carlstrom Field, Arcadia, Fla. were graduated on June 8th, 1922. This class began training January 1, 1922. Ten percent of the class were recommended for advanced training in Pursuit, viz: Lieut. W.A. Ball, Alvan C. Kincaid, Cadets L.Q. Wasser, L.N. Thomas, G.C. Perry; Twenty-five percent recommended for Bombardment, viz: Major C.J. Browne, Captain D. Wilson, Lieut. C.L. Williams, Lieut. R.C. Wimsatt, Capt. R.F. Cole, Lieut. C.C. Paulsen, Cadet L.D. Sugg, Cadet R.F. Gray, Cadet G.C. Thompson, Cadet R.W. Phillips, Cadet G.L. Davasher, Cadet W.A. Blizzard, Cadet E.A. Rees, Cadet G.F. Hebert; and sixty-five percent for Observation; viz: Capt. J.H. Davidson, Capt. R.C. Breene, Capt. W.L. Lynd, Lieut. L.J. Carr, Lieut. R.H. Finley, Lieut. R.S. Jett, Lieut. A.R. Rich, Cadets, L.L. Jonas, A. Hruza, R.N. Huguet, C.W. O'Conner, R. Fitz, C.R. Bowman, J.J. Welker, J.F. Milatze, H. Gamble, H.M. Newstrom, R. Pyles, O.R. McNeal, E.E. Matucha, M.B. McLean, R. White, F.C. Huffman, P.R. Greenhalgh and J.B. Giles, T. Gize.

The graduation of this class practically closes flying training at Carlstrom, and the next class will receive their training at Brooks Field, San Antonio, Texas. A total of 79 student officers and cadets reported for training on January 1st, 31 being disqualified during the course and one held over for next class. This class is the second to complete training without casualty (other than academic board) during training. The graduating class were given the usual interesting

lecture by Major Royce, Commandant, and the class received the benefit of Major Royce's long and varied experiences as a flyer both in peace and war times.

AERONAUTICAL NEWS FROM OTHER COUNTRIES

France

From Paris it is reported that in 1923, a competition is to be held for commercial airplanes. It is stated that the French Under-Secretary of State for Air will offer a prize of one million francs, and possibly other bodies will offer prizes. At the moment, however, nothing definite is known as regards the rules, etc., nor has it been decided whether or not the competition is to be international.

The number of entries for the French Gliding Competition to be held at Puy de Combegrasse from August 6-20 has now reached 30.

It is now announced that the second annual contest for the Coupe Deutsch will take place at Etampes on Sept. 22nd. In France, a Nieuport entry is regarded as certain, and it is said that the "Sesquiplan" is being altered accordingly. The plane surface is being reduced by, roughly, two square metres and the power is being increased, but whether by "boosting" or a different power unit is not yet known.

A Hanriot entry is contemplated, but it is not known whether the DH-22, which was designed for last year's contest, and so far has not flown, or a machine at present being designed, will be used.

There is a possibility that the United States Government may enter the contest. The Aero Club of America have definitely fixed August 15th or thereabouts as the date for elimination trials to be held, if necessary, at Mitchel Field, L.I. New York, should any entries materialize.

At least one entry from Italy is expected, and it is hoped Great Britain will again be represented, at least by the "Samel", as even with all the prospective "dark horses" that one occasionally hears of, it is still believed Mr. Falland the designer, has produced the fastest machine in the world. There also seems to be a question of an entry by Fokker, so that taken all around the coming Coupe Deutsch contest will, if all rumors are true, assume a true international aspect.-
THE AEROPLANE (London).

Argentina

From December 17 to January 16, the first month's operation of the air route from Buenos Aires to Montevideo, 113 passengers were carried and 10 extra trips were made in addition to the regular bi-weekly service.

Brazil

Two lines of aerial navigation under federal control are to be inaugurated September 7, 1922, between Rio de Janeiro and Porto Alegre, capital of Rio Grande do Sul.- Pan American Union.

Roumania

The Roumanian Government has at last awakened to the importance of aviation from a national defense point of view, and considerable development has taken place recently in the military air service. Sixty modern machines, mostly of the D.H.9 type, have been purchased from a British firm, and delivery has already been made of most of these, which are being distributed among the flying schools of the country. A British demonstration pilot brought over the first machine a few weeks ago, and astonished the King and the military chiefs by his feats.

Since that date a batch of ten airplanes of the Brandenburg type has been manufactured by the National Aircraft Factory, near Bucarest; these are the first native machines in Roumania, and their final tests have been entirely satisfactory. The cost price of these machines has been reduced to 285,000 lei with a 220 h.p. engine, whereas if they had been ordered from abroad they would have cost at least one and a half million lei. The King was present at the baptism ceremony of this first batch of Roumanian airplanes, and the Metropolitan of Bucarest himself performed the necessary rites.

In the matter of civil aviation, the month of July is to see the inauguration of the long-postponed Paris-Bucarest passenger air service. For the wedding of Princess Marie and King Alexander of Jugo-Slavia, a special advance service is to be run in connection with this line from Budapest to Belgrade. An airport, which should become one of the most important in Europe, is in course of construction on the Plateau of Boneasa, two kilometers from the best residential quarter of Bucarest. Plans have been drawn up for the construction of a garden suburb complete with hotel and country club on this plateau. - The Observer (London).

Siam.

Failing to obtain the necessary grant for the development of her Air Service, Siam is holding a million tical lottery as an alternative method of getting things aerial going. Fifty thousand pounds will be distributed in prize money, and the Air Service will benefit by the same amount. The first prize will be £ 10,000.

Siam's air force consists of 115 airplanes and a staff of 650. There are five airdromes and 25 prepared landing places in the country. - FLIGHT.

Colombia.

Colombia is considered to be ahead of other South American countries in civil aviation, and the latest developments confirm this view. Since the beginning of September, the German-Colombian Aviation Company established a regular service for mail and passengers along the following routes: Barranquilla-Girardot-Neiva and Barranquilla-Cartagena. Other routes are under consideration. Five machines are employed in the River Magdalena, covering in 7 hours the distance which usually takes 9 days by steamer and rail.

During September last, two hydroplanes covered 4,956 miles in 41 flights, transporting 27 passengers and four tons of mails and parcels. In October, three machines covered 9,114 miles in 67 journeys with 57 passengers and $5\frac{3}{4}$ tons of goods. In November, four machines accomplished 105 flights, traveling over 10,224 miles and carrying 126 passengers and just over 10 tons of goods. The figures for December were 94 flights, distance covered, 10,256 miles, 93 passengers and $9\frac{1}{3}$ tons of goods. The total flights for the last four months of 1921 were 307; miles covered, 34,550; mails and parcels, tons, carried, $29\frac{1}{3}$ and passengers carried 303.

The above figures clearly show the high degree of prosperity of civil aviation service in Colombia. In the routes mentioned not a single accident has been registered. In Manizales, Medellin, Cali and Pasto, Italian, French and Colombian Aviators give frequently spectacular flights, and all the principal towns are considering schemes for regular aerial transport. Before the end of this year, it is expected to have a complete net of aerial routes. The great gold and platinum mines of the country will be able to save two or three weeks in the conveyance of their valuable metals to the coast.

The Government has a Military Aviation School under French tutors, and considerable progress has been already attained by the Colombian pilots. - Colombian Trade Review (London).

England.

By the generous gift of Mrs. Louis Bennett of West Virginia, whose son, Lt. Louis Bennett, was killed in 1918 while serving in France as a pilot with No. 40 Squadron, Royal Air Force, a window to the memory of all officers and airmen of the British Flying Services who fell in the Great War has been erected in Westminster Abbey.

The London Terminal Airdrome at Croydon is indeed beginning to simulate a passenger quay at a thriving seaport. Six air lines are now in possession of offices which include accommodation for waiting passengers, in the vicinity of the Customs House, and altogether the approach to the landing ground presents a most business-like appearance. The London-Paris services are being further augmented, while a morning and afternoon service, each way, is arranged between London-Rotterdam and Amsterdam. The new subsidized British service is now operating one machine each way daily between London and Brussels.

As a spectacle the airplane racing at the Royal Aero Club's Third Croydon Aviation Meeting, recently held at Waddon airdrome, was better than anything of the kind since the war. A good program was carried through with fair punctuality, in spite of two interruptions due to the arrival of four or five machines with passen-

gers from the Continent, and the necessity of keeping the field clear for them. Between the races there were sensational displays by Mr. James on the "Lamel" - 450 h.p. Napier, holding the British speed record of 196.6 miles per hour; a parachute descent; and an amusing balloon sniping contest in which Rear Admiral Mark Kerr brought down all three balloons with wonderful shots. Armed with an ordinary shot gun, he was a passenger on an Avro. Only one of the other two competitors succeeded in getting a single shot. The majority of the races were very close, and all the starters in the races completed the course.

UNUSUAL AERONAUTICAL INCIDENTS.

Monoplane and Balloon

According to the London DAILY MAIL, research work is to be carried out in France on a scheme devised by M. Maurice Armenjé for perfecting a new flexible aircraft fabric, so that it will retain without leakage gas pumped into it under pressure. If the experiments are successful, M. Armenjé proposes the building of a monoplane with a hollow wing formed of the new flexible fabric, or "air skin" as it has been called, into which could be pumped a non-inflammable lifting gas such as helium or currenium. In this way he hopes to combine the heavier-than-air and the lighter-than-air principles in one machine.

Doctor Cloudland.

Daily airplane "flips" as a cure for lung troubles, now being suggested, is not, of course, a new idea. One of the first to discover the curative qualities of the upper regions was Flammarion, the French astronomer. Ascending to a great height in a balloon, when suffering from a severe attack of influenza, he discovered, on landing, that he had been completely cured. So enthusiastic was he over his recovery that he at once recommended this course of treatment to the medical world. He even went so far as to suggest that doctors, instead of sending patients to Trouville or Biarritz, should order them to take frequent trips to cloudland. In England, to obtain the most beneficial results and avoid the smoke-laden atmosphere, it would generally be necessary to reach a height of between 4,000 and 6,000 feet. - London Daily CHRONICLE.

Chickens Come High

The above heading to this item is generally admitted, but we are not going to discuss the price of fowls but the discovery of another use for the airplane. A number of London newspapers recently printed an item on the shipment of day-old chicks by airplane, a lady farmer in England using this latest method of transportation in going to Holland to purchase a special breed of poultry in the belief that the quicker journey by air would reduce the rate of mortality among the "peeps".

In view of the tremendous strides being made in this country in the baby chick industry, poultry farmers may well give serious consideration to the proposition of shipping chicks via airplane, thereby avoiding delays often occurring thru the other means of transportation, insuring a larger percentage of chicks remaining alive upon reaching their destination and much more satisfied customers.

Where Airmen Cannot Come Down

London newspapers have recently printed a story to the effect that airmen who have flown along the coast of New South Wales, facing the Pacific Ocean, have just discovered the solution of an unusual atmospheric phenomena.

One airman, in piloting a medium powered airplane, put the nose earthward in order to gracefully glide down, but upon looking at his height-recorder a moment or so later was amazed to see that the dial registered him as going up in the air backwards! The explanation is that great upper wind-trends, rushing in from thousands of miles seaward, impinge upon the long mountain chain, and being deflected send vast eddies upward almost to unknown heights, to the intense bewilderment of airmen.

SQUADRON NEWS

Crissy Field, Presidio of San Francisco, Calif.,

June 6.

Lots of trips have been made to San Diego and back this week. Sergeants Cecil B. Guile and Thomas J. Fowler went down to Rockwell Field and brought back two JN6H airplanes for use in connection with the Summer Training Camps. On Friday, June 2nd, Major George H. Brett and Lieutenants Leo F. Post, Burnie R. Dallas, Robert E. Self, Warren A. Maxwell and John W. Benton left on the "Harvard", arriving there Sunday morning. Lieutenants Post and Dallas having "urgent business" at San Francisco returned the same day, making the trip in five hours and ten minutes flying time.

Major H. H. Arnold, Air Officer, wanted to be sure that the young fellows behaved so he jumped into his trusty DeHaviland, took Sergeant Charles F. Gravin with him, and arrived in San Diego the same day. The real purpose of his trip, however, was to confer with the Commanding Officer, Rockwell Field, relative to the supply and equipment of the 18th Squadron, Observation, at that station.

Captain Lowell H. Smith, with Sergeant William B. Whitefield, left Friday morning on a seven-thousand mile photographic trip. We expect some excellent photographic data on various landing fields upon his return.

Lieutenants William R. Sweeley and Arthur G. Liggett were kept busy observing a Coast Artillery shoot this week. The "C.A." is now a "regular customer".

Our Baseball Team added another scalp this week, beating the Daley City Ground Hogs to the tune of 19 to 0.

The Crissy Field Post Exchange has fallen victim to the "Paint and Varnish" slogan. It certainly looks keen with its new coat of paint and kalsomine, --and the Steward, Sergeant Echols, says: "Business sure is pickin' up".

Our golf veterans, Majors H. H. Arnold and Geo. H. Brett, purchased four new golf balls this week, --the same for turning over to Captain Lowell H. Smith and Lieutenant William C. Goldsborough, the youngsters having "two up" on them at the end of their Air Service Tournament.

Major and Mrs. Geo. H. Brett entertained at a farewell dinner in honor of Lieutenant and Mrs. Kiel, who left last week for the East on a three months' leave of absence. Lieutenant and Mrs. Kiel will visit in Omaha and Michigan.

Among other affairs given for Lieutenant and Mrs. E. C. Kiel was a beautifully appointed dinner, with Mrs. H. A. Halverson as hostess, and a farewell breakfast in the quarters of Lieutenant and Mrs. Warren A. Maxwell.

Mrs. H. H. Arnold and Mrs. Geo. H. Brett flew to Sacramento to the '49 Celebration. The trip was made in a civilian Ansaldo plane piloted by Captain Lowell H. Smith. Majors H. H. Arnold and Geo. H. Brett followed in DeHavilands.

The officers of Crissy Field and their wives planned a novel surprise party for Mrs. H. H. Arnold in honor of her birthday. A buffet dinner was served after which there were several tables of bridge.

Mrs. Hiram W. Sheridan, bride of Lieutenant Sheridan, now stationed with the Pursuit Squadron at Scofield Barracks, was the house guest of Lieutenant and Mrs. John W. Benton, prior to the sailing of the Transport "Buford" on June 1st.

March Field, Riverside, Calif., May 20.

Friend Gus:

Well I suppose I might as well leave you know 1st as last why I didnt write you no letter last wk & if this is a demmocratick army Gus with free speech & the etc. then the prushen guard must of been a welfare leeg. Sergent Redfern says it will all come out in a popular magazene called the arm in Navey journal & I might as well write you the facts because he says this arm in Navey journal goes in mostly for light fixion as for inst pay bills & appropryasions for new airopplanes & promotion lists & other amusing incidence & their libble to put you down as too late to clasify where as the facts of the matter was you was too late for revelley.

This is what come off Gus Friday a m just as Im coming out of the barracks for revelley the 1st Sargent blows his wissle and yells fall in. stand fast there you on the steps with only 1 leggin Ill lern some of youse guys to be late. When I say fall in I want to see a clowd of dust & a living statyou. come here he says what do you mean by laying in bed all morning but no 1st sargent can ball me out & get away with it & I says whom are you speaking to dignified see

MARCH FIELD, RIVERSIDE, CALIF., MAY 20. (Cont'd.)

Gus & he says Im speaking to you you dumbbell get your fatig cloes & report to the kitchen & I says I guess youre not aware of the fact that I finished my k p yesterday & he says well youll begin again today & I says O is that so & I cant spell what he said. Well next thing I had to go up to the summery court & lt. Mellin says what have you got to say before I put you in the can for 1 or 2 wks & I says let me take 1 good swing at the recruiting sargent that told me the army was composed excloosively of young gentlemen of high morel character & you can putt me in the can for 6 mos & he says lock him up & they did & thats the reason Gus I didnt write no letter last wk.

Well as regards my stay in the guard house this sargent Redfern-hees called the provo sargent Gus & has charge of the priseners & if all the nonkmissioned officers was like him there wouldnt be no kick comeing & he told me that it wasent no disgrace to be putt in the guard house on acct if the truths was known about seventy 5 percent of the nonkmissioned officers should ought to be in the mill right now & I says how do they get away with it & he says well you woodent understand about ekonomy and effishency & all them new artickles of war but the idear is that its a waiste of time putting a nonkmissioned officer in the guard house on acct he dont do any work when there & allways getting in the other priseners way & etc & he says whenever they need a good bright prisener the prisn officer calls up the squadren & putts in a request for a a one man no corporals or sargents need apply & the 1st sargent picks out the best he has & sends him up to the summery ct officer & the summery ct officer gives him the lce over & if hees a fine looking strong bird like you hees libble to get anywheres up to 30 days & then all as you half to do is eat work & sleep & nothing to worry abt what do you know about that Gus live and lern.

Well Gus as regarding news of the air so to speak here the other evening after supper we heard a ship comeing & the sargent of the gaurd says take the priseners out to the line & bring in that ship & we went out to the flying field & waited & along came a ship & took a good look at the field & landed in the farm on the other side all plowed ground Gus & difficult to land in. The Gaurd says that must be one of them navel birds & what the h--l do them guys know about the diferents between plowed ground vs grass. go back to the gaurd house he says. Well it seems that it aint no navel ship at all Gus because the next day I heard sargent Redfern tell the sargent of the gaurd that its a ship from Crissy field & he says them guys would be ashamed to land in a regular field on acct of being 2 easy & further & more major Arnold dont give them no credit for landings that aint complicated by such difficultys as for inst church steeples telegraft wires bowlders oceans foggs & the etc. keeping the boys in good trimm for the home field & he says if these pilots was to go back to san Francisco & say well major we landed at March field he would say are youse guys criples or something landing in a easy place get the h--l back there & show those birds at March field that a Crissy pilot dont need no landing field & thats the reason why lt Goldsburro & lt Self landed in the plowed field & not because they were dummm or nothing like I might think. you cant beat military training Gus.

Well Im on the baseball squad now Gus & half to quit work at 3 to play ball. all play and no work makes it Jake with me as the fellow says so no more for the present.

Ed.

KELLY FIELD, SAN ANTONIO, TEXAS, JUNE 3.

The annual Kelly Field Track and Field Meet was held on May 31st. Featured by a large throng of spectators, both civil and military, and many unusual and brilliant athletic contests, the meet was a huge success. The morning was devoted to the track and field events between the 2nd and 3rd Groups, with music furnished by the Kelly Field Band. The Bombardment Group won the meet, scoring 80 points against the Attack's 68. Private Prudholme, of the 11th Bombardment Squadron, was the individual star of the meet, piling up a total of 21 points. The Attack Group won the mile relay and tug-of-war by a large margin. Lieut. T.L. Gilbert, of the 20th Squadron, was high man in the track events - his 100 yard dash in 10-1/5 seconds is not easily beaten especially by much overworked lieutenants.

Kelly Field, San Antonio, Texas, June 3. (Cont'd)

The afternoon was occupied by a championship ball game for the field honors between the 11th Squadron (Bomb.) and the 13th Squadron (Attack). It was a hard fought, well played battle, the 13th coming out on the long end of a 6 to 2 score. Prudholme, the star of the morning games, pitched for the 11th, but his brilliant work of the morning lends forgiveness easy for the afternoon's defeat.

After the game Lieut. Col. Howard, the Field Commander, presented trophies to the winners of the morning's games, and in a short talk expressed his satisfaction with the conduct of the meet, stating it was one of the most successful he had yet seen in the army. Prudholme received a cup for his work and left for home on a furlough. He has just completed the course at Camp Travis for applicants to West Point, graduating second in his class.

Following the championship ball game, the officers of Headquarters tangled with the Bombardment officers, and were badly messed up by the Group in the seven innings to a tune of 17 to 10. The Attack Group officers defeated the A.I.D. after a wierd struggle - thus finishing a brilliant day of athletics.

Captain Shea, the Post Executive Officer, now holds the long distant record for the XBIA, when he and Staff Sergeant Maddew flew to Post Field last Sunday with no forced landings to mar the sheet.

The 26th Squadron has now a total of six officers, Lieutenants Greenslade and Cumberpatch being assigned during the last week. Lieut. Greenslade dragged in from Germany a short time ago and Lieut. Cumberpatch hails from Carlstrom.

The six pilots of the 90th Squadron flew for a total of one hundred and eighty hours and forty five minutes during the month of May. Considering the fact that the organization spent nearly two weeks on the pistol range, the 90th feels justified in regarding this time as just a little bit unusual. Lieut. Doolittle, individually, flew sixty-eight hours and ten minutes. These figures remind us of the old days of border patrols when sixty hours per month was an average for each officer. Capt. Hayes, Lieutenants Andrews, Moor and Doolittle made a hop to El Paso during the week. Lieut. Doolittle made the return trip the same day - approximately one thousand flying miles in ten hours and fifteen minutes.

The class of students are completing formation with the 49th Squadron. Lieut. Raley, formation leader, is surely putting them thru the paces, and the work of the last few days has been very gratifying - in some excellent five-ship formations.

The 96th Squadron, after many unavoidable delays, has finished the sketching mission assigned to them. Lieut. Curry, who was conducting the work, was transferred to Marfa on temporary duty in the midst of the problem.

The work by the Bombardment Group of locating landing fields has been temporarily postponed due to the unusually heavy rains of the last few weeks. After the several ships were gumboed down in ordinarily good fields, it was believed to be an unnecessary risk to attempt further work until the ground dried out a bit.

Rockwell Air Intermediate Depot, Coronado, Calif., June 16.

Major FitzGerald and officers of this Post attended a luncheon at the Marine Base last Thursday, given in honor of the Secretary of the Navy Denby. Most of the officers also attended a ball Thursday evening given in honor of the Secretary by the citizens of San Diego, in the auditorium in Balboa Park.

Captain Ervin, Commander of the 18th Squadron (Obs.), with several other officers, flew in formation to greet the Transport "Henderson", which brought Secretary Denby and his party to San Diego.

Lieutenant Morrison and Sergeants Templeman and Cornell have about completed transferring planes from March Field to this Station. All planes at March Field are being brought to this station for storage, due to the expected closing of March Field.

The squadron carpenter has completed policing and repairing the trap-shooting shelters and equipment and all those interested in this sport will soon be able to try to break all the "birds" they care to.

On Saturday the entire 18th Squadron (Obs.) moved out into the country about forty miles from this Field for an all day party and picnic. The men left in trucks early in the morning and returned some time before sunrise Sunday morning. The weather has been excellent here and all had a wonderful time on the picnic.

Many men of the 18th Squadron (Obs.) are being discharged gradually, and very few recruits are being obtained to fill their places. By the end of July it

Rockwell Air Intermediate Depot, Coronado, Calif., (Cont'd)

is expected that the squadron will be only a skeleton organization.

Mr. Van Dusen, 1st Lieut. A.S., O.R.C., Adjutant of the local Aero Reserve Squadron, obtained permission from the Chief of Air Service to make a cross country trip, accompanied by one of the regular Army pilots. Today he went to March Field and returned with Lieut. Vanaman in a DH4. Mr. Van Dusen greatly enjoyed the trip and is very enthusiastic over it as a privilege that can be extended to or obtained by many more of the reserve Air Service officers.

Mather Field, Mills, Calif., June 5.

The members of the 28th Squadron (Bomb.), participated with the City of Sacramento in the observance of Memorial Day on the 30th. Patriotic exercises were held in the cemeteries during the morning, and a huge number of city, state and federal organizations paraded at 1.30 in the afternoon, Lieutenant S.O. Carter commanding the Mather Field contingent.

Civilian fliers at the Field during the week were Mr. L. Morris, with mechanic, en route from Crissy Field to Reno, Nevada; and Mr. Robert Tanner (a former member of the command) in a JN 4-D, on his way from Gridley to San Francisco with Mr. M. Delarno as observer.

Lieutenant A.E. Waller, A.S., took advantage of a few days' leave to motor through Yosemite Valley. His wife, her mother and father, (Mr. and Mrs. C. Skillman, who are visiting here from Kentucky), Mrs. Hessloehl and little Charlie Waller, were in the party. Lieutenant N. R. Laughinghouse is temporarily in command of the 28th Squadron during Lieutenant Waller's absence.

On behalf of the farm owners adjacent to Mather Field a very active campaign against gophers and squirrels is being waged here under the direction of Mr. W. Jackson, of Sacramento, in charge of rodent-control for this part of the state. Regardless of all precautions taken by farmers to rid their property of Rodentia, the butt of the target range on the Field made a safe haven for the animals after they had raided the nearby wheatfields, and a corps of workers from Sacramento are getting rid of the pests very quickly.

A puff target range is being installed in the southwest part of the field, under the direction of Lieutenant A.G. Liggett, A.S., of Crissy Field. The range will be ready for use as soon as the smoke bomb targets are received.

Overhauling of all flying equipment is going steadily forward; ships are being equipped with machine guns, radio and bomb racks, and routine duties are being gotten out of the way for the Field to be in readiness for the six weeks' R.O.T.C. to be held here during the last two weeks of June and the month of July.

Kindley Field, Fort Mills, P.I., April 24.

Regulation of Artillery Fire was conducted by the combined balloon companies at this station on April 18, for a battery of 75's from the 59th Mobile Artillery stationed at Middle-side. The balloon was flown from the 17th Balloon Company's hangar at Kindley Field; the battery being stationed at breakwater point, a distance of about three miles. The battery opened fire at 9:15 and fired until 11:56, a total of seventy-three shots being fired; the target was towed on the water at ranges from three thousand to six thousand yards. The average angle between the battery target line and the balloon target line was about twenty degrees. For this extremely adverse condition in observing, Captain Wittman and Lieutenant Creighton, the observers for the day, made some very good regulations, their average difference from the Artillery's own observations being five yards, and in five instances they gave accurate observation when the Artillery observations reported "Shot location as doubtful". Two complete problems were fired by using balloon observation alone, and in both instances the battery was brought under the target in the second shot. Direct communication was effected between the balloon basket and the battery; a balloon officer and telephone operator being detailed at breakwater point. The average time of transmission of data to the battery commander was three seconds after the splash of the shot occurred. The battery commander was very much pleased with the ease with which data was transmitted, and requested permission to fire a problem at some time in the near future by regulating fire of his battery from the balloon basket. This will be carried out at some future time by using one balloon observer and the battery commander. Average altitude flown at during the shoot was 2,700 feet.

Kindley Field, Fort Mills, P.I., April 24 (Cont'd)

Eight officers recently assigned to the 2nd Squadron (Observation) are undergoing a course in transition flying from land planes to HS-2-L type flying boats. Flying conditions as regards atmospheric and water conditions were ideal for this work, but the lack of a launching ramp prohibits the carrying out of any extensive flying operations.

Three cross-country missions to Paranaque Beach and return were carried out this week. The pilots were Major Hanley, Captain Houghton and Lieutenant Dinger.

The Air Officer, Philippine Department, Major Byron Q. Jones, made the first landing on the new Kindley Field landing field on April 18th. The field is not yet fully completed, but a space sufficient for landing and taking off has been cleared and leveled. The 2nd Squadron has requisitioned for DH-4-B's, with which they will be equipped instead of seaplanes upon completion of the new field.

The enlisted personnel of the Squadron has been increased by the assignment of 13 men who recently arrived in this Department.

On April 24th a course of instruction for all commissioned personnel of the 2nd Squadron was initiated. The first course is in radio, theory and practice. Lieutenant George H. Burgess, Radio Officer, is instructor, and has planned an extensive course, upon the completion of which all Officers will be able to perform the duties of an observer.

Captain J. H. Houghton, 2nd Squadron (Observation) has been transferred to Camp Nichols, Rizal, P.I., where he will assume command. Captain Houghton was in command of Kindley Field from December 6, 1921 to March 6th, 1922, when he was relieved by Major Thomas J. Hanley, Jr. The departure of Captain Houghton is regretted by all officers and enlisted men. Lieutenant Dinger, Engineer Officer of the Squadron, has been ordered to Clark Field on temporary duty to supervise some special engineering work at that station. During his absence Lieutenant Edwin Johnson is acting as Engineer Officer.

First Lieutenant Elmer J. Bowling, Air Service, has been directed to return to the United States on the May transport, reporting upon arrival to the Commanding Officer, Langley Field, Hampton, Virginia, to pursue a course of instruction in Airship Training.

The following named non-commissioned officers are returning to the United States on the May transport for assignment to the Ninth Corps Area, San Francisco, California:

Staff Sergeant John J. Marantic,
Sergeant Ray Horstman,
Sergeant Raymond L. Puttcamp,
Sergeant Angelo J. Sodini,
Sergeant Robert J. Mitchell.

In addition, there are forty-nine enlisted men returning on the same transport, for assignment and discharge. This will leave the 17th Balloon Company with a complete personnel of two officers and thirteen enlisted men; this being an unlucky number, the arrival of recruits and replacements is anxiously being awaited. Sixty five enlisted men of the 27th Balloon Company are to return to the States on the same transport. This will reduce the enlisted strength of this organization to eight enlisted men. Unless replacements are received, all Balloon Operations will cease at this station after May 15th.

A farewell "Bon Voyage" smoker was given in the recreation room of 17th Balloon Company on the night of April 8th for the members of this command who are leaving for the States. A large time was enjoyed by all. Private Elwood E. Johnson has taken back with him the undisputed championship of company pie-eater, wresting the laurels from numerous competitors midst great excitement and applause. Several excellent six-round bouts and wrestling matches were carried on. Private Slockbower, the Air Service Lightweight Champion, and Private McClara, the Lightweight Champion of the 59th Artillery, made a clever showing of ring generalship when they fought a fierce six round draw. The entertainment was finished off with a strong man act, an original recitation by Private Hirsch "Come back you soldier boys and pay your jaw-bone bills"; a speech by the Company Commander, Captain Ivan B. Snell; and large quantity of things to eat and drink.

Camp Nichols, Rizal, P.I., April 24.

Lieutenants Aldrin, Hurd, Nutt, White, Lawton, Glascock, McReynolds, and fifty (50) enlisted men from the 11th Air Park and Headquarters Detachment, 4th Group (Observation) left this week for Clark Field, Pampanga, in order to uncrate and assemble twenty-five DH4 airplanes. This work is being done at the Branch of the Philippine Air Depot at Clark Field. The complete overhauling of these planes will be necessary in order to bring them up to present-day flying conditions. It is desired to rush this work to completion before the rainy season sets in, which in the Philippine Islands is usually around the first part of June.

The departure of the above contingent has resulted in cutting down the engineering activities at Camp Nichols to the proverbial irreducible minimum, and correspondingly increased the labors and various assignments of the four (4) Air Service officers remaining here. Authority has been granted by Department Headquarters to suspend all drills and other routine work at this Post in order that personnel may be utilized to accomplish the erection of new barracks and to complete three hangars. Minimum working hours of the day have been lengthened to seven hours.

Scott Field, Belleville, Ill., June 5.

A field meet was held on Wednesday, May 31. Airship Co #9 scored the greatest number of points. Pvt. Schulte, Airship Co. #12, scored the greatest number of individual points. The baseball game between the Companies was won by Airship Co. #12 by score of 17-4.

Col. S.M. Rutherford, I.G.D. made an inspection of the post during the past week.

Each Wednesday the ladies of the Post entertain at bridge in the Officers Club.

On Tuesday evening last, an informal dancing party was held in the Officers Club. Music for the function was furnished by the newly organized post orchestra.

The bachelors of the post entertained the married officers and Belleville friends with a dance on Friday evening. Music was furnished by Merrit's orchestra of Belleville. A most enjoyable time was had by all. Everyone is speaking loud praise of Lts. Healy, Hill and Brown as hosts.

The Cleo Quartet of McKendree College rendered a number of selections in connection with the religious service on Sunday evening last. It is planned to make these services more attractive by inviting outside talent to help on these occasions.

Air Service, Tennessee National Guard, Nashville, Tenn. June 6.

Saturday, June 3rd, was American Legion Day at the State Fair Grounds. The National Guard played a prominent part in the events of the day, and the Squadron carried out successfully a problem with two Infantry companies.

The Infantry was camped directly in front of the grand stand and had their panels displayed on the track between the grand stand and camp. Two planes participated and carried out successfully, by panel communication, the problem of the day. The enemy were located in a small wooded gully, their exact position and approximate strength noted and given the Infantry by means of drop messages. The plane directed the advance of the dough-boys, and simulated a ground attack on the enemy. The firing of several Very pistol flares from the planes to take the place of machine guns added much realism to the manoeuvre and aided the advancing Infantry in locating their foe. From the standpoint of the Guard and the spectators the event was most successful.

Lieutenant Fox was the first pilot to solo and will be closely followed by Lieutenant Ratterman. Other pilots will be turned loose just as soon as their 609 Exams are returned. Some of these had to be forwarded to the Surgeon General for approval, and the pilots are patiently waiting the necessary papers which will permit them to fly.

Recruiting has picked up to a marked degree lately due to daily sight of a plane over town. We also had many inquiries from former air service men, and expect a number of them to enlist before the Squadron leaves for Camp.

A big worry from now on will be spare parts. In fact, it is already noticeable especially with the inner tubes. The ancient vintage of said tubes do not render them very satisfactory especially when they will hardly be heated gently for the next week or two.

316th Squadron (Obs.) Reserve, Presidio of San Francisco, Calif., June 6.

The 316th Observation Squadron, with headquarters at Crissy Field, Presidio of San Francisco, made its bow on Sunday, April 21, by participating in a circus, held by the officers of the Field for the Army Relief Society.

In view of the fact that these pilots have been "on the shelf" since the end of the "Big Fuss" they made a fine showing. The formation that was flown was a credit to the Field. These boys are very enthusiastic and "stepping on the gas" every minute. Lieutenants McDonald and Boggs were there with their "Thrillers" and showed the large crowd of onlookers many breath-taking stunts. They still remember how.

The formation was led by Capt. A.F. Herold, and was followed by Lieutenants Cavagnaro, Boggs, McDonald, Hayse, Farmer, Haffling, Stewart, Buttner and Capt. Howard.

On the previous Saturday, a formation was flown over San Francisco for the purpose of distributing C. M.T.C. circulars. It is true that the usual San Francisco winds took most of the circulars out over the Pacific Ocean but at least San Francisco knew that the 316th was in the air. On Sunday, the 21st, the same formation flew across the Bay and showered Oakland and Alameda. From reports received later, some of the circulars did reach the right place.

The usual week end flying saw quite a let up in proficiency. Must have been the after effect from the Circus. A close examination of all the Hissos shows at least one wing skid still in condition.

Captain Edward P. Howard, formerly Commanding Officer of the 4th at Post Field in 1918, and later of the 190th at Houston has been recommended for assignment as Commanding Officer of the 316th. The entire Commissioned personnel is being reassigned so as to place the most active members in the positions of responsibility. Pending orders to that effect, Lieut. Raymond Kearney is acting Operations Officer; B.A. Palmer, Liaison Officer; W.I. Farmer, Adjutant; Jas. L. Kinney, Engineer Officer; R.B. Owens, Armament; R.B. Stewart, Communications. "A" Flight is commanded by Marshall Boggs, and "B" Flight by R.P. McDonald. The interest shown by these Officers should make the 316th a very efficient squadron.

Hqs. 103d Div. Air Service, Colorado Springs, Colo., June 8.

The first enlistment for the 328th Observation Squadron was made April 19. The Squadron is congratulating itself because of the excellent type of enlisted personnel it is starting off with. It is hoped that soon others with equal ability will fall in line. The Applicant, Mr. Charles M. Steward, was with the Canadian Infantry in the early part of the World War. He transferred to the Royal Air Force as a Cadet; was commissioned in that branch in the early part of '16 and a year later promoted to the grade of First Lieutenant and served in that capacity until the end of the War. He accepted a 1st Lieutenancy in the American Red Cross after the Armistice, and served in London for a considerable time. He later enlisted in the United States Air Service and was given the rating of Enlisted Bomber, took part in the bombing experiments last June at Langley Field and is accredited with hits on some of the battleships used as targets. He was discharged from the Regular Army last July, upon the reduction of the Army. The Reserves extend a glad hand of welcome to this soldier of the Air.

Ross Field, Arcadia, Calif., May 21.

"Mothers Day" was fittingly observed at this post Sunday, May 14th. A cantata composed of more than fifty voices, mostly Community Service Workers, visited the post and rendered an excellent musical and vocal program. They were ably assisted by the ladies of Monrovia Post, American Legion, under direction of the Hostess. Cake and lemonade were served during the afternoon, and the affair was voted an unqualified success.

During the week seventy three flights for a total of fifty one hours (man) and fifty two minutes were had.

Owing to necessity for overhauling motor of BLIMP, no flights were had in that craft during the week.

Ross Field, Arcadia, Calif., June 7.

Memorial Day was observed at this post with appropriate ceremonies.

Balloon Company No. 1, under command of Captain W.B. Gates, participated in the American Legion Parade at Pasadena, Cal., in the morning, while various firing squads were employed in adjacent towns and Los Angeles, with other organizations and societies.

The Glee Club from this Post visited San Pedro, Cal., Saturday evening May 27th, and appeared before the Navy Enlisted Men's Club, where they were very well received.

Good weather prevailed during the past week and considerable flying was accomplished, observation balloons being flown on Artillery work for a total of sixty seven hours and nine minutes, the BLIMP for a total of eighteen hours and forty minutes, and Spherical Balloons for a total of seven hours and twelve minutes.

Ross Field, Arcadia, Calif., June 14.

Lieut. and Mrs. J. Jordan and Lieut. J. T. Neely arrived at the post Friday June 9, from Milwaukee, where these officers participated in the National Balloon Race, in which they placed sixth.

Lieut. J.B. Bailey leaves shortly for Mather Field, Sacramento, Cal., where he will be on temporary duty with the Reserve Officer's Training Camp for a period of approximately six weeks.

Lieut. C.P. Kane returned to the post from a fifteen day's sick leave, which he spent in the vicinity of Big Bear Lake. He reports having a most enjoyable time.

The Ross Field Glee Club is attaining considerable popularity in this vicinity by its activities. Many calls are received for the services of this organization, which are always granted provided same can be accomplished without interfering with their military duties. They entertained at the Soldier's Home at Sawtelle last week and scored a decided hit.

Last week was a banner one for flying, and balloons were flown on Artillery work for a total of ninety-three hours and thirty-seven minutes.

Ellington Field, Houston, Texas, June 11.

Lieutenant J. K. Cannon, who crashed in a SPAD XIII a little over a week ago, following a collision in the air with another SPAD piloted by Lieutenant D.F. Stace, is well out of the woods at this writing. Both his wife and his mother have arrived, as guests of Lieutenant F.B. Johnson, and are seeing to it that his recovery proceeds with more than the usual rapidity.

The 27th Squadron, officered mainly by the instructors and students of the last class in advanced pursuit training, has moved to a temporary airdrome at Galveston to represent the RED Forces in the manoeuvres of the First Group. Changing station by air and by truck was accomplished early in the morning of Thursday the 8th, and everything was in order for the C.O.'s inspection in the afternoon, when the flood-gates of heaven opened and converted both Ellington Field and the Galveston airdrome into lakes capable of floating whales, and continued generously wide open during Friday. Saturday, however, remained reasonably dry, so that operations are hopefully scheduled to begin on Sunday morning.

The trip of Major E.H. Brainard, of the Marines and Lieutenant Dick Allworth to Washington, D.C., and back to Ellington, was unfortunately interrupted at Augusta, Georgia, yesterday. Motor failure at the take-off forced the plane into a tree, Major Brainard sustaining a compound fracture of the left arm and Lieut. Allworth a fractured skull, his condition being considered serious. Both are at the University Hospital at Augusta.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE July 27, 1922.

THE AIRPLANE AS A TIME-SAVING FACTOR.

A great deal has already been written concerning the great utility of the airplane as a time-saving medium, especially on prolonged journeys. Ask the average traveling salesman how he likes his job, and he will invariably tell you that it would be first rate if it were not for the continual riding on trains and spending uncomfortably warm nights in sleepers.

Judging from the comments appearing in the sporting pages of the daily papers, we would gather that professional baseball players, especially those playing in the major leagues, consider their lot a hard one, due mainly to the fact that they have to do so much traveling. Frequently we see offered as an alibi for the home team losing games on the road that the long train rides, coupled with the inability of the players to secure sufficient sleep, throws them off their stride and renders them incapable of putting up their best efforts.

The time may not be far distant when all our business men, professional ball players, etc., will be utilizing the airplane as the means of conveying them in a few hours to destinations which would ordinarily take them a day and a night on the train. The home team, scheduled to take the road and play a team some five or six hundred miles distant, may settle themselves comfortably in one or more large aerial limousines, according to the number of players carried on the trip, and in several hours, refreshed by the breezy and invigorating ozone of the upper atmosphere, arrive at their destination in ample time to get into the game that afternoon, ready to put up their best efforts. But we are soliloquizing and digressing from our main story.

Recently, Major General C.S. Farnsworth, Chief of Infantry, was on a tour of inspection. One of his stopping places was Fort Sill, Oklahoma, from which place he intended to go to College Station, Texas, to inspect the Agricultural and Mechanical College at that place. This inspection would have required a journey of three days by train. Evidently, the General had had his fill of train rides and spending nights in sleepers, and the prospect of spending two more warm nights on the train did not appeal strongly to his imagination. The airplane was a simple solution of the problem, and by using the aerial route he was able to complete his mission in one-third of the time, much to his satisfaction and pleasure.

General Farnsworth left Post Field, Fort Sill, Oklahoma, at 6:30 a.m., on June 6th, in a plane piloted by 1st Lieutenant Fred C. Nelson, Air Service, for Dallas, Texas; College Station, Texas, and San Antonio, Texas. The General was accompanied by three other planes; one with the aide to General Farnsworth, Major Jerow, piloted by 1st Lieutenant Harry H. Mills, A.S., the other two escort planes, piloted by Captain Calvin E. Griffin, A.S., and 1st Lieutenant Everett S. Davis, A.S. The ceiling to Dallas was about 3,000 feet, and a loose formation was flown to that place. The field at Dallas was covered with about three inches of water, and some of the party acting as passengers got a shower bath upon landing. While gassing the planes at Dallas the weather began to thicken to the South, the direction of flight to College Station. The formation took off and attempted to go above the clouds, but when an elevation of about 5,000 feet was reached the clouds were so heavy and high that all were forced to hunt a hole and come down to within 1,000 feet of the ground, at which altitude the remainder of the flight was made. The true course from Dallas to College Station could not be flown, as a number of local storms had to be flown around. A landing field just east of the A. & M. College at College Station was picked out, and all ships got in without difficulty at about 11:30 a.m.

Although the people at College Station were not expecting a visit from the General until a few hours before his arrival, he was warmly received. The afternoon up until 4:00 p.m. was spent by General Farnsworth inspecting the military units of the University and watching the graduation review of the cadets. The planes hopped off from College Station about 5:00 p.m., and arrived at Kelly Field No. 2 at 6:30. Lieutenant-Colonel Howard, Commanding Officer of Kelly Field, welcomed the General and drove him over to Fort Sam Houston. The General enjoyed

himself throughout the flight and was very much pleased to be able to complete in one day what would have taken him about three days had he gone by train.

A striking example of the adaptability of the airplane as the means of getting quickly and in perfect comfort to different places is furnished by the following story which appeared in a recent issue of THE AEROPLANE (London):

"It so happened that a South American Stock Exchange man, Mr. W.H. Gosling of Buenos Aires, made a hurried visit to Europe, partly for health's sake and partly business. He wished to run 'round all the European countries to try and solve the riddle of the exchange, and considering that his boat to America went back in a fortnight and not wishing to spend his entire time in railway carriages, he decided to go by air, and so rang up the DeHaviland Aeroplane Hire Service at Stag Lane (London.) Within 20 minutes the whole scheme was arranged and quoted for, and the following day he set off at 9 a.m. from Stag Lane Aerodrome for Paris, via Croydon, piloted by Mr. Alan Cobham.

The flight to Paris passed without unusual incident except that they flew side by side with a DH 18. After Paris, where they stayed two days, the route lay to Cologne, Hannover, Berlin, Vienna, Munich, Strasburg, St. Inglevert, London. The machine used was a D.H. 9-c (Siddeley 'Puma' engine).

The tourists arrived at Cologne in 2 hours, 40 minutes, landed at the British Aerodrome, and that night went into Dusseldorf. Here they were struck by the apparent and evident prosperity of the place, and everyone seemed quite happy.

After doing business in Dusseldorf they flew on to Hannover in 2 hours and had lunch there, an excellent affair with two bottles of very fine Rhine wine. For three of them (for there was a German friend as passenger now) the bill came to 700 marks (i.e. 10 s.). Food is very good and very cheap in Germany.

After lunch they flew on to Berlin in 1 hour, 35 minutes, and were there in ample time for an excellent dinner. It must be remembered that flying is not in the least fatiguing to a passenger, and he steps out of the bus just as fresh as when he steps in, only with a much better appetite.

At Berlin they were received with every courtesy at the aerodrome and Mr. Cobham felt that the machine was in such competent hands that he forsook his usual rule of filling and doing everything himself and allowed the German mechanics to carry on. They found that there was far more enjoyment in Berlin than Paris. Cabarets, restaurants, dance rooms were thronged - London is a dead city compared to Berlin.

After two very enjoyable days they continued their flight to Vienna, non-stop from Berlin via Prague, in 4 hours. At Vienna they were as well received at the aerodrome as in Berlin, but found that the City was really poor, having lost its support. The passengers' impressions were that Paris was good, Berlin wonderful, but Vienna was beyond all dreams. Three great days were spent there, many purchases were made, and one afternoon there was a little aviation meeting at which Mr. Cobham demonstrated the old D.H. 9-c with a few landings and one or two stalling turns, much to the delight of the Viennese aviation people.

On May 26th, the tourists set out at 5 p.m. for Munich, but could not get into the aerodrome there owing to a terrific storm in the vicinity, and so they landed in a field outside, having taken 2-3/4 hours. The next day their's was the only machine that crossed the Black Forest owing to the fog, but by sticking to the map and hugging the contour lines along a winding route they got to Strasburg in 2 1/2 hours.

After a brief lunch they started for Calais, all over the old battlefields, which was most interesting, especially Verdun, Cambrai, Bethune, etc. They finally reached Stag Lane at 8 p.m., having been away eight days, covering 2,000 miles with 24 hours' flying and not the slightest 'snag' in any way about the machine or engine. An ideal way of travelling."

RECORD BREAKING CROSS COUNTRY FLIGHT

Cross country airplane flights from Kelly Field were smashed to smithereens when Lieut. Delmar H. Dunton, of Kelly Field, alighted from his plane at Selfridge Field, Mt. Clemmens, Mich., having completed a journey of 1,350 miles in 15 hours and 5 minutes. Lieut. Dunton's average flying time was 103 miles per hour. The route followed was via Dallas, Tulsa, Belleville, Ill., and Selfridge Field. One stop was made Tuesday night, June 20th, at Belleville, where Scott Field is located, for rest and replenishing gas and oil.

Lieut. Dunton's trip was made for the purpose of studying air currents and securing information to be used by army aviators in other long cross-country trips. The type of plane used by Lieut. Dunton was the regulation DeHaviland 4-B, with a larger gas tank. The tank capacity was 110 gallons, while the ordinary DeHaviland 4-B carries only 80 gallons.

Lieut. Dunton has been stationed at Kelly Field for over a year, and is recognized as one of the most expert pilots in the Air Service.

AIR SERVICE R.O.T.C. SUMMER CAMP OPENS AT KELLY FIELD.

The Air Service R.O.T.C. Summer Camp, under the command of Major C. W. Russell, A.S., (D.O.L.), opened at Kelly Field on June 15th with sixteen Texas A. & M. College students in attendance. It was originally planned to have about thirty students at the camp this summer but, due to the rigors of the 609 (physical) examination for pilots, the remainder were disqualified.

The course of instruction is very practical, and is being made as comprehensive as possible for the six weeks' duration of the Camp. Theoretical instruction is being reduced to a minimum, due to the fact that this has been largely covered during the students' course at College. The mornings are devoted solely to flying, while the afternoons are given over to necessary lectures and conferences on the next day's missions. Instruction and practice is being given in every phase of back seat work.

The students are all very enthusiastic about the flying game, and will undoubtedly prove consistent boosters for the Air Service.

A BRAND NEW FISH STORY

During the temporary duty of Flight "A", 3rd Squadron, at Jolo, Sulu Archipelago, P.I., in April and May, Captain Lloyd N. Keesling and Lieut. B.S. Thompson brought back after one of their flights a great fish story to enliven mess conversation. Captain Keesling related how, while on machine gunnery practice, he saw a huge whale - a whopper - about thirty feet long by ten feet wide, idling along just below the surface out in the Sulu Sea. All excited over the prospect of a shot at such a novel target, he directed the attention of Lieut. Thompson towards it, and the latter when he saw it also became very excited. Down they dove, and from the Captain's story the poor mammal is now rotting in its watery grave in Davy Jones' Locker. Both Captain Keesling and Lieut. Thompson report about fifty hits, although no bloodshed was noted. The last seen of the whale he was on his way down, bent for election.

ENGINEERING MEN VISIT CHANUTE FIELD.

The Society for the Promotion of Engineering Education, consisting of professors and instructors in Engineering and Mechanical Work from the various technical schools and universities in the United States, were guests at Chanute Field, Rantoul, Ill., on Friday afternoon, June 23rd. A special car brought the visitors to the field, where they were conducted in small parties through the Air Service Mechanics School by the officers, noncommissioned officers and civilian instructors. Each party visited each course of instruction in operation, which was explained very carefully by the guide.

At the completion of their tour of the departments and hangars, a flying exhibition was given to afford the visitors an opportunity to study the various types of airplanes in use. The airplanes were DH4-B's, Fokker, SE5's, and the T.M. Scout. The visitors expressed themselves as greatly pleased with the afternoon spent at the field and at the manner in which the training of mechanics is being conducted at this school.

A FLYER'S LUCK

Under the above heading the "Airco News", published by the Air Service personnel at Cristobal, Canal Zone, is running a series of stories on miraculous escapes from airplane accidents. The first story, entitled "Blown Up", is quoted as follows:

"Far be it from any flyer to say that the age of miracles is over. From his personal experiences and observation, the old timer with nigh on to a thousand hours in the air will tell you that he's seen many first-rate miracles occur; in fact, probably experienced a few himself. It seems that the average flyer has more good fortune than bad; that for every disaster there are dozens of episodes wherein the principal actor or actors come off unscathed.

One such happening occurred at Kelly Field around the middle of March, 1921. The First Group there, consisting of four pursuit squadrons, were giving advanced flying training to a considerable number of officers and cadets. Part of this advanced flying course consisted of pursuit bombing, which is very different in method than any other aerial bombing. The pursuit bombs are small affairs, intended to be dropped from a rapidly moving fighting plane close to the ground and to be effective against troop trains or wagon trains. For training purposes, the bomb used is a clay 'dummy' with a hole running down the center. Into this hole is packed about eight ounces of black powder, then a shotgun shell for a primer, and lastly a wooden plug and a firing pin, which latter upon contact with the ground when the bomb is dropped (the bomb has tailfins to keep it falling nose downwards) fires the shell which explodes the charge of powder.

In practice as carried out in the First Pursuit Group, the planes would "take-off" in V-shaped formation about five planes at a time; then, when over the vicinity of the target they would string out in line and circle around the target diving for the target and releasing one bomb at a time, all in their turn.

On the day in question the planes of the 17th Squadron were loaded each with four of these bombs, and taxied out in formation on the field ready to take off at a signal from the leader. While the wind was coming over one corner of the hangar line it was deemed unsafe to take off into this wind on account of the planes having to pass over the hangars and the barracks beyond, there being an order in effect against planes laden with bombs passing over any building. Therefore it was decided to take off slightly cross-wind, down the length of the field so as not to pass over the hangar line. Now the planes they were using then were SE5-A's, an English type, very steady little flying machine but very cranky on the ground, especially when taxiing across wind. This is because of their excessive dihedral or angle with the horizontal at which their wings are cocked up on the fuselage, catching the slightest side wind. Consequently, no one observing the formation take off was greatly surprised when one of the planes, No. 5 in the formation, hopped sideways directly behind No. 3 plane. Both planes were about fifty feet off the ground; then "it happened". Getting in the propeller wash of the plane in front, No. 5 became unmanageable and went into a flat spin. Still level, but turning completely around in direction, it dropped to the ground with a crash. Immediately the four loaded bombs slung underneath the plane exploded upon their firing pins striking the ground. Apparently this explosion ignited the gasoline flowing from the shattered tank of the plane, for the first explosion was immediately followed by a second, and what had been an airplane now became a mass of seething flames, and dense black smoke. Simultaneously with the first explosion there shot up from the cockpit of the plane the figure of the pilot. This was Flying Cadet Jett, of the 17th Squadron, a big husky chap, and considered by his advanced instructor to be a very good pilot.

The figure of the pilot was in flames, probably sprayed with gasoline which had ignited. The luckless cadet was seen to stagger a distance and then roll over on the ground. To the mechanic rushing out on the field to aid him, it seemed that he was down for the final count. But no! He was seen to get quickly to his feet again, and extinguish the few remaining spits of flame on his clothes with his hands.

His instructor, the Operations Officer of the Squadron, never expected to see his star student alive, and was more than surprised when Cadet Jett walked in on him only a bare minute after the accident. The Operations Officer had dived into the office in the hangar and telephoned to the Post Infirmary to get ready for a patient (or a corpse), upon witnessing the first part of the crash. Recovering

from his surprise at seeing Jett alive and not badly injured, he relieved his feelings by properly bawling out the luckless (or rather lucky) pilot for getting his plane into the propeller wash of the one-ahead.

Which is as it should be when dealing with flying K-dets."

A SUCCESSFUL RECRUITING CAMPAIGN.

Lieutenants R. L. Maughan and John R. Morgan, Air Service, reported back to Mather Field, Mills, Calif., by plane on June 7th from a recruiting campaign through Utah, Idaho, Wyoming and Montana for the Citizens' Military Training Camp. Their endeavors were very successful, as Captain H. H. George, Air Service, at Fort Douglas, Utah, stated that as soon as the planes arrived in that region the number of prospective attendants at the camps was increased over 200%. The pilots' flying time for the trip was 88 hours.

SPRAYING FRUIT TREES FROM THE AIR.

Last summer the experiment of spraying from an airplane a grove of Catalpa trees near Troy, Ohio, which had been practically defoliated through the ravages of caterpillars, proved a highly successful one. We now hear of a similar experiment which was recently conducted in England on a grove of fruit trees, the particulars regarding which are given by a correspondent of the British Aeronautical publication FLIGHT, as follows:

"Daimler Airways had a novel enquiry during the week, when a big fruit farmer in Kent asked them to provide an aeroplane to sprinkle powder from the air on 50 acres of fruit trees that were over-run with caterpillars. They enlisted the aid of the DeHaviland Aircraft Company, and one of this company's D.H. 9's duly carried out the operation. The machine first landed in a large field on the farm and took on board half a ton of powder, and then, flying at a height of about 15 to 20 yards, distributed this over the fruit trees. The experiment was a complete success, and I understand that other farmers in the neighborhood are already enquiring the cost of similarly treating their fruit trees and crops. It is stated, in fact, that, considering the short time the aeroplane takes to do the job, the 50 acres in question was sprayed in half an hour - it is actually cheaper and much more effective than by any other method."

TO ATTEMPT TO BREAK THE TRANSCONTINENTAL FLIGHT RECORD.

Those two intrepid army pilots, Lieutenants James H. Doolittle and Leland S. Andrews, who have already negotiated a long-distance flight from Kelly Field, San Antonio, Texas, to Rockwell Field, San Diego, Calif., a distance of 1907 miles, in 12½ hours actual flying time, are now seeking to add fresh laurels to their credit. Their latest venture is a transcontinental flight from the Atlantic to the Pacific Coast, which recently received the approval of the Chief of Air Service. The plane to be used by Lieut. Doolittle, a DH4B, has been remodeled to carry a 13 hours' supply of gasoline and oil.

At this writing Lieut. Doolittle is at Dayton, Ohio, where he is in consultation with the officials of the Engineering Division at McCook Field, with the purpose in view of securing approval to certain modifications which he desires made in his ship prior to embarking on his transcontinental flight, on or about August 1st next. Before starting on this flight, Lieut. Doolittle will make a non-stop test flight from San Antonio, Texas, to New Orleans, La., and return.

Lieut. Doolittle made a roundabout trip in going to Dayton. With Kelly Field as the starting point, he and Lieut. Andrews left on the morning of July 3rd for Bolling Field, Anacostia, D.C., via Jacksonville, Fla. After making brief stops at Houston, Texas, and Pensacola, Fla., they arrived at Jacksonville in the afternoon of the same day, after ten hours in the air, covering a distance of about 1220 miles. Leaving Jacksonville on Tuesday morning, July 4th, they arrived

at Bolling Field eight hours later and covered a distance of about 860 miles. Their only stop en route on this flight was at Langley Field, Hampton, Va.

On the afternoon of July 6th they left Bolling Field for Dayton, and arrived at McCook Field at 7:00 o'clock that evening.

THE NEW RUSSIAN-GERMAN AIR LINES

A most important development in air transportation was inaugurated May 1st by the opening of a direct and regular service between Konigsberg in Eastern Germany and Moscow. During the coming months the line is to be extended to Berlin and the service will become a daily one in both directions. The importance of this development lies in the fact that the line is one of the very few, perhaps the only one, which is an undoubted economic necessity, all previously existing means of communication between Russia and Germany being in a state of chaos through the war and its aftermath.

At the present time it takes about five days, and a considerable amount of persistence, to travel between the two capitals. The mail takes an average of eight days and even telegrams four days in transmission. The section already in operation, Konigsberg to Moscow, a distance of 780 miles, is flown during the day in two stages of four hours each. The airline shortens the trip to 30 hours. For the present, the entire passenger and mail space has been reserved by the German and Russian Governments for the use of couriers and the carriage of official correspondence and documents.

Although operated by a German company, backed by several of the greatest German industrial and shipping interests, the planes used are made in Holland and the motors are English. Ten Fokker F3 monoplanes of the latest type were built at the Netherlands Aircraft Mfg. Co.'s plant at Veere, Holland, and successfully delivered by air. They are fitted with 340 h.p. Rolls Royce motors and develop a speed of 115 miles per hour. The cabin arrangements are even more complete than in the three machines which are so well known in the United States. A large baggage compartment has been added behind the cabin, and for the use of the couriers three sleeping berths are provided, which can be instantly converted to seats for six persons for use in ordinary day time traffic. A very effective arrangement for heating the cabin with clean, warm air is also installed.

FLYING IN THE SULU ARCHIPELAGO.

The following is a further account of the activities of "Flight A", 3rd Squadron, while on temporary duty at Jolo, Sulu Archipelago, Philippine Islands, submitted by the NEWS LETTER correspondent on duty with that organization, under date of April 29th:

"The past week of our tour of duty at Jolo has been fraught with flying of an interesting, instructive and highly profitable nature. The day's work from first take-off to the last landing has been turned out with enthusiasm, and in consequence, the 3d Squadron will return to Clark Field a far and above more efficient organization in its field of operations, the Philippine Islands, than ever before. From the date of landing at Jolo on April 20th until the first of the present week, the rains and generally poor weather made it appear as tho we were about to suffer such another experience as was had at Lucena last November, when for many days we were bogged in and all but grew webs between our toes. However, Monday "Old Sol" showed his face in a big broad grin of sunshine, and with a prompt erection of additional planes taken from the bodega, from three to four DH's have been kept in the air and much lost time regained. Photo reconnaissances with radio, machine gunnery and bombing have very nearly bared the innermost secrets of the Island of Jolo, and the coming week will find us going afield for data on additional and more remote islands farther to the south - all of them globe trotter's delights and lands strange to all but a very few and also strange white men. From Tawi Tawi and almost Borneo thru Kinapusan, Siasi, Pata, Jolo,

the Pangutarang Group on the south and northwest - to Mindanao via Bolod, Tamuk, Pilas and Basilan, with the Samales and Tapiantana Group standing forth on our southern horizon, we have left strange, sometimes fearful and an always marveling people with mouths agape and eyes bulging at the "devil birds" winging their ways over them. Our bombs have rent the crater of old Dajo Mountain, and our machine guns have left their marks on old Bagsac where General Pershing and General Wood waged battle with such notable success. It has been great exercise for the imagination to transport us back into those days when head hunting among the natives was the all absorbing occupation and fame was to be acquired among these hills. And it wasn't so very long ago at that, with the last battle but seven or so years ago.

On April 28th, Major A. H. Gilkeson, commanding the Flight, and 1st Lieut. G. W. Parady, Flight Adjutant, piloting two planes, with Captain John I. Moore and Sergeant Mickey as observers, participated in the first southern inter-island flight ever made, from Jolo, Jolo to Zamboanga, Mindanao, with return flight on the 29th. The distance covered being merely ninety-five miles would ordinarily be a flight of small consequence, but on the going trip, following a direct compass course, one stretch along of fifty miles lay over the sea without relief by sight of banca, sailboat, rock, island or driftwood within gliding distance. When sharks infest the waters and shipping is few and far between, one gets a kick out of it. The course of the return flight was deflected to more closely follow the chain formed by the Tapiantana and Samales Groups of islands. They are beautiful gems - most of these tropical islands - lying in seas of Venetian blue with their strands and beaches of pearly sands, their shoals of red and peagreen coral, their dense verdant vegetation and sometimes picturesque nipa barriers.

From the air they are indeed the fulfillment of our childhood dreams of tropical islands in south seas, but with little shipping, strange and sometimes hostile people and sometimes none at all, and undergrowth and mangrove swamps, one could not go far thru, and we can't say we'd relish a forced landing and forced residence on one. At Zamboanga a landing was made on number four fairway of the country club golf course - a small fast field. Flying time over all was two hours and fifteen minutes. Major Fletcher, Commanding Officer of Pettit Barracks, at Zamboanga, returned to Jolo with Lieutenant Parady. While the Major has been in many a battle and knows most of the islands like a book, he had to admit that they assume an extremely singular appearance from the air, a new way to him of viewing them.

MASSACHUSETTS RESERVE SQUADRON PROGRESSING

The officer personnel of the 319th Squadron (Obs.), 94th Division, Organized Reserves (Massachusetts), is practically complete. The activities of the Squadron have been more or less hampered to date through lack of an airdrome and equipment. These obstacles, however, are soon to be overcome by the construction of the airdrome at East Boston which has recently been authorized by the Legislature. Bids for levelling the field, erecting hangars, etc., have been requested, and it is hoped that flying may be commenced by November 1st. Until the completion of this field, it is planned to utilize such planes and equipment as are available at the existing field at Framingham, Mass., but this airdrome is not adapted to extensive dual or solo work.

The squadron is in command of Major Arthur L. Richmond, and numbers among other officers Captains Morris E. Knight and T. F. Joyce, and 1st Lieuts. Chester E. Wright, David Gregg, John Lavalley and Theodore Hedlund. A great many more officers have applied for assignment than can be taken care of at present, and their names are being kept on a waiting list.

AIRPLANE FORMATION GREET'S PRINCE OF WALES.

A great deal of excitement prevailed recently in Manila anticipating the arrival of the Prince of Wales for a three days' visit. His ship, the H.M.S. RENOWN, arrived in Manila at 8:00 a.m., Saturday, May 13th. Activities at Camp Nichols, Rizal, P.I., began that morning at 4:00 a.m., and at 5:30 a.m., a formation of five airplanes, led by Major B. Q. Jones, the Department Air Officer, with Lieutenants Hurd, Taylor, McReynolds and Beveridge as the other pilots, took off from Paranaque Beach, and headed out over the Bay. They located the RENOWN two or three miles beyond Corregidor, about 35 miles from Manila, and flew around it for more than half an hour, sometimes going within twenty feet of the side of the vessel, and then returned in formation to Paranaque Beach.

BOMBING MANEUVERS AT GALVESTON, TEXAS.

A crowd, variously estimated between 25,000 and 50,000 people, witnessed the bombing of the schooner NAVIDED off Fort Crockett, Galveston, Texas, on Sunday afternoon, the 18th. The seawall was black with spectators and cars were parked wherever room was obtainable. From a tactical standpoint, the exercises were a marked success. Those who knew what it was all about had ample demonstration of what the Air Service, properly equipped, can do to ships at sea, and the pilots who took part are entitled to the satisfied smiles they are wearing. All of the bombing was done with dummies of tile, since the live bombs obtained could not be used in racks of the type with which the ships are equipped. Even so, the last attack left the NAVIDED on fire in the hold, to burst into flames upon the withdrawal of the planes. The opening attack was made with two 5-ship formations of SPAD XIII's dropping four 25-pounders and getting a very creditable percentage of hits on deck, in spite of the fact that the minimum altitudes for live bombs were adhered to. The SPADS were followed by a formation of five DH4B's from Kelly Field dropping full loads of 25-pounders.

It was obvious to any observer that, if bombs of the types ordinarily used against craft of this type had been employed here, every seam in the hull would have been wide open to the sea after the DH's were half through. This attack was followed by two formations of SE5's dropping 4 bombs each, 3 of the planes remaining to attack with machine guns.

The First Pursuit Group expects to have more of this sort of thing at Selfridge Field, the unused shallow portions of Lake St. Clair offering a convenient location for either practice or demonstration.

DEATH OF CAPTAIN THOMAS H. SHEA, AIR SERVICE

On the afternoon of Saturday, June 17th, Captain "Tommy" Shea, of the Second Group (Bombardment) who went from Kelly Field to Ellington Field to ferry back an SE5, crashed on the airdrome soon after taking off. Captain Shea was instantly killed and the ship burned.

The following tribute to the deceased officer is paid by our Kelly Field correspondent:

"The death of Capt. Thomas H. Shea at Ellington Field on June 17th has cast the entire Bombardment Group into sorrow. As Executive Officer of the Field he endeared himself to every officer and enlisted man of this command by his unfailing helpfulness in times of difficulty; his ready smile and word for each of us, and his enthusiastic flying activities. Even before rejoicing over his assignment to us as Commanding Officer of the Eighth Squadron had waned, the tidings of his untimely death while taking off in an SE5 at Ellington Field blotted out our sun of happiness. Although he had been flying for little more than a year, his love of the game kept him in the air even on holidays, and he was considered one of the most capable and fearless pilots on the Field. Before transferring to the Air Service, Captain Shea served in the Infantry of the First Division, and had been decorated for gallantry in France. The passing of this brave life leaves to us but scant satisfaction in knowing that he died as he lived: "First, a MAN; always a true soldier; he left us with his boots on!"

OPENING OF R.O.T.C. STUDENTS' CAMP AT
MITCHEL FIELD.

The R.O.T.C. Students' Camp for the 25 students of the Massachusetts Institute of Technology officially opened at Mitchel Field, L.I., New York, on Monday, June 19th. The students arrived June 15th, and were immediately quartered in barracks previously provided for them. The mess was opened and the camp route fully established in order that the schedule of instruction might start promptly at 8:00 a.m., Monday, June 19th. To date the schedule as previously submitted for this camp has been carried out fully. There have been interruptions in the flying portion of the schedule due to inclement weather. This, however, has been made up in the afternoons and on Saturdays. The students are receiving on an average of one hour of flying per day. No pilot instruction is, of course, being given them, but they are being given flights in connection with the instruction in photography, aerial observation, map making, etc. The school is operating more smoothly and harmoniously than was anticipated. It would appear from reports that the students are enjoying the course and are finding it very instructive. In order to carry out the program, eight airplanes are being detailed daily to the duty of flying these students.

AERONAUTICAL NEWS FROM OTHER COUNTRIES.

ENGLAND

The Napier-engined D.H. 34 machines at present used by the Daimler Airway Company carry out a double return journey between London and Paris each day, and during the month of June for the first time in one week this double return journey was made each day for five days by the same engine and machine, and it says much for the reliability of the 450 h.p. Napier engine that at the end of the week - after having completed 4,600 miles in that week - it was running as smoothly and efficiently as ever.

- London Financial TIMES.

ITALY

The Aero Club of Naples has announced that elaborate preparations are being made for an international hydroaviation meet to be held in that city during the month of August. The feature of the meeting will be a race for heavy transport planes, carrying a ballast load of 250 kilos, over a distance of 2,000 kilometers. The first prize for this race, for which only Italian planes are eligible, is the Tirreno Cup and 150,000 lire; the second prize is 50,000 lire. - Commerce Reports.

According to London newspapers, Signor M.G. Pegna, the Italian airman, has designed a 5 h.p. single-seater airplane, which it is claimed will be the smallest flying machine in the world. The machine has a single lifting wing, designed from data secured in motorless gliding, and this is easily detachable, so that the machine can be garaged in quite a small shed. The airplane is now being built in Rome, and is to be fitted with an engine designed to facilitate mass production.

SPAIN

It is announced that the Spanish Government has given its consent to the inauguration of an aerial postal service between France and Spain. An agreement is being drawn up between the Spanish Government and the Latecoere Company, which will undertake the transport of mails to and from Spain by utilizing the airplanes already plying on the Toulouse-Casablanca route, which land at Barcelona, Alicante and Malaga. It is also likely that an agreement will be made with regard to the transport of goods by air between France and Spain.

DENMARK

The Danish Airship Co., having obtained official guaranty for one-half of a possible deficit, is arranging express traffic connections with Central Europe. The company is to take certain mail in exchange for the Government's promise of assistance.

The daily service to Hamburg can take 300 kilos of freight or three passengers, but the route is established only with the idea of taking freight and mail. Germany will furnish three and Denmark three of the machines used on the Copenhagen-Hamburg line. The Danish planes are rebuilt and improved DeHavilands.

Another air route, embracing Essen, Brussels, London and Paris, is expected to be opened the 1st of July. - Commerce Reports.

THE NETHERLANDS.

The Belgian Aerial Navigation Co., which for some time past has been conducting the aerial service between Amsterdam, Brussels and Paris, discontinued the operation of that line on June 1, and the service was taken over for operation by the Royal Aerial Navigation Co. of the Netherlands. This Amsterdam-Brussels service comprises a part of the Amsterdam-Paris service, the Brussels-Paris section of the line being operated by the Compagnie Francaise des Messageries Aeriennes. Commerce Reports.

BRAZIL.

Commander Sacadura Cabral and Capt. Cago Coutinho have at last successfully accomplished their flight from Lisbon to Rio Janeiro on the third Fairey (Rolls Royce) seaplane, having, it will be remembered, started from Lisbon on March 30th last. After arriving at Pernambuco (Brazil) from St. Paul's Rock on June 5th, they completed the remainder of the journey in stages along the coast, eventually arriving at Rio at 2:32 p.m. on June 17th. They were given an enthusiastic reception on their arrival, being met by Brazilian warships, together with a squadron of airplanes. Their arrival was the occasion of a general holiday in Rio, when the inhabitants "let themselves go" in true South American style. The last stage of the journey from Victoria, a distance of 280 miles, was accomplished under very bad weather conditions.

AUSTRALIA.

Australia has now for the first time a regular air-mail service, which is a weekly one between Geraldton and Derby along the Northwest Coast, the distance each way of 1200 miles being covered in two days. The service began irregularly over part of the distance last spring. A mail service, combined with passenger and general transport, is now in full swing, and the residents of the Broome district regard it as a great blessing.

Two other services, one on the Adelaide-Sydney direct route and the other the Cloncurry-Charleville (Queensland) route, are awaiting the arrival of the latest designed commercial machines. All the service arrangements are carried out locally.

FRANCE.

Captain Madon, a famous French air "ace" has been experimenting at Etampes with an extraordinary "tailless" airplane designed by M. Arnoux, and adapted for the practical purposes of flight by the airman.

This strange machine can do 180 miles an hour, and lands at a little over 30. The sporting newspaper "L'Auto" gives an account of the new machine in the words of Captain Madon himself, viz:

"There is no fuselage and no stabilizer; there are two planes, a shell covers the pilot and the motor, and there are two rudders for steering, one on either side of the pilot. The machine is flown like an ordinary airplane. For altering direction upwards or downwards there are ailerons, or small wings, behind the two wings of the lower plane, and these act like an ordinary elevating rudder. For lateral equilibrium these same ailerons are used, one being turned up while the other remains stationary".

Captain Madon claims that the new machine cannot go into a spin and that it recovers lost speed with great promptitude. He made his first flight after a few weeks' work upon M. Arnaud's models, and now, after some more modifications in the machine, he intends to continue his experiments at Issy-les-Moulineaux. His first more extended flight will be Paris-Stampes-Villars-Campley-LeBourget-Paris, and if that is successful he will attempt a long flight from Paris to Nice.

SQUADRON NEWS

Ellington Field, Houston, Texas. June 21.

Spring field maneuvers of the 1st Group occupied the week from Sunday to Wednesday. The 27th Squadron, which moved to Galveston on Thursday last opposed the 94th Squadron, stationed at the home airdrome. Major Carl Spatz, flying the sacred yellow SE-5, acted as Umpire from the air and critiqued the day's problem both at Galveston and at Ellington Field. Contact between the opposing forces during their friendly moments was maintained by field telephone, radio, and by courier ship, flown by our booming Jenny pilot, Lieutenant Aubrey C. Strickland. Each day a fresh development of the original situation was announced, and reconnaissance, Infantry contact, bombing, protection patrol, and other missions performed. Much to the regret of everyone concerned, the last mission scheduled, contest for the supremacy of the air, was called off, due to the unexpected necessity of recalling the 27th Squadron to the field, in preparation for the contemplated transfer of the Group to Selfridge Field.

Word of this happy contingency reached the Group on Tuesday evening, and, pending the issuance of travel orders, work was begun on the preparation of ships to be ferried to Selfridge Field for the Group, and to Kelly for the Pursuit Training Detachment, also on the disassembling of planes to be shipped, etc. Conversation these days is made up of such phrases as weights, cubic feet, allowances, property credits, etc., to the complete exclusion of normal topics like full houses, moonshine, sweeties, and other standard interests of pilots in good standing.

Sergeant Leslie I. Wright, 94th Aero Squadron took his last flight on June 12th. Attached to the 27th Squadron at Galveston for field maneuvers, he was standing by as alert Pilot on that afternoon. About two o'clock he took off to engage a plane coming toward the field, and, in combat near the ground, fell off on one wing and crashed. He died about half an hour later at the Hospital at Fort Crockett without regaining consciousness. His death is deeply regretted by the Group. A splendid soldier and an unusually likeable chap, he was one of our best combat pilots. The remains were shipped to his home at Flint, Michigan on Tuesday afternoon; at the entraining of the casket, a five-ship formation with his place left vacant flew over the station and escorted the train on its way.

Kelly Field, San Antonio, Texas. June 10.

Lieut. Curry, of the 96th Squadron, returned from temporary duty on a photographic mission in the El Paso district. He flew 19 hours and 30 minutes during the week on this duty. The 96th Squadron carried out an artillery mission with Camp Bullis during the week. Capt. Black conducted the relays, and both the Artillery and Air Service officers were highly satisfied with the results obtained.

The 49th Squadron has completed a series of highly successful photographic missions over the cities of Austin and Pearsall and adjacent territory.

In an estimate made last week on the cost of transportation of the Bombardment Group to Langley Field, Va., it was discovered that, if a part of the personnel were moved by air, thousands of dollars could be saved to the Government.

Lieutenant Delmar H. Dutton, of the 4th Air Park, has had a cross-country request to Detroit, Michigan, approved. The 4th Air Park claims to have a D.H. that starts so easily that if the pilot cuts in the switch and calls "Contact?" it starts right off.

There has been some controversy over a short landing. A few of the new officers in the Air Service want to know if a landing will count if the ship stops right where it first touches the ground. The answer is "YES" if the pilot can walk away from it.

Kelly Field boasts one of the most original flying "T's" in the world and the most unique in the history of aeronautics; it is an orange colored "T". It is safe from enemy bombardment because it cannot be seen from the air. It always points North, just like a compass and sure is "purty" to look at on the ground. The paint job is an experiment, and we are open for suggestion.

Kelly Field, San Antonio, Texas. June 10 (Con'd).

The first Photo Section, after being on an inactive status since coming to this field last July, has returned to Fort Bliss, Texas by truck train. Lieut. Masley Bingham relieved Lieut. James A. Woodruff as Commanding Officer before departure. The orders for the Photo Section's move were received some time ago, but weather conditions prevalent recently had rendered the roads between here and El Paso practically impassable until this time. The personnel of the Section upon departure consisted of three enlisted men and one officer, with one Technical Sergeant attached.

During the past week bombing practice has developed a spirit of rivalry between the participating teams, the only regret displayed being due to the fact that the ships will not carry sufficient dummy bombs to permit of all day bombing.

The 26th Squadron completed its range firing for 1922 during this week and is also engaged in bombing practice with dummy bombs, the bombing teams being formed by the available pilots of the organization.

A number of recruits and men transferred from other branches are in a measure making up for the men we are losing steadily by discharge. It is expected that the end of July will see the enlisted personnel upon a more permanent basis than has been the case during the last four months.

The work of painting the 90th Squadron's hangars has been carried on steadily with the personnel available and is now nearly completed. The engineering Department has also had a house-cleaning with the result that the interior of the hangars are looking spotlessly neat.

Lieut. Edward V. Harbeck has left on an extended motor trip thru the East, Middle West and North, expecting to be gone three months. Lieut. Harbeck is accompanied by his wife, and we all join in wishing them a pleasant leave.

The Attack Group Officers' Baseball Team defeated the Headquarters Officers' Team on Wednesday afternoon by the score of 20 to 6. A keg of iced "near-beer" stood in the shade of the Grand-stand and was enjoyed by the "in team" each inning. It was free beer for the attack as indicated by the above score. This is one of the many games scheduled on Wednesday afternoons and is looked forward to by all officers of the field as games of high enjoyment as well as exercise. This coming Wednesday the Headquarters Officers play the S.A.A.I.D. on their diamond and the "Bombardment" officers play the "Attack" on our home field.

Kelly Field, San Antonio, Texas. June 17.

Lieut. D. G. Duke, pilot, and Sgt. McDaniel, alternate pilot on the Blue Bird, the Air Officer's ship, gave it a five-hour test on one tank of gasoline which contained 110 gallons. They said that after they had made an altitude of more than 10,000 ft., the gasoline in the main tank gave out. They then made use of the reserve tank, but only after having flown fully five hours.

The activities at the Airdrome at Del Rio, Texas, which have been directly under the 90th Squadron for the past two years, underwent a change this week when the Airdrome was turned over to the 26th Squadron (Attack). Capt. McDaniel, C.O. of the 26th Squadron, made a flight to Del Rio for the purpose of inspecting his new command. Capt. Hayes, commanding the 90th Squadron, also made a flight to the Del Rio Airdrome, by way of Laredo to see that everything was O.K. before turning same over to the 26th Squadron.

On June 16, 1922, Pvt. Gunderson of the 90th Squadron made a successful parachute jump from an altitude of 2,500 feet.

Cross country flights from Kelly Field during the past week have included many Border Stations as far west as El Paso, Texas. Other points visited were Mineral Wells, Dallas, Ellington Field, Waco, and Shina, Texas. Several flights were made to Laredo, Texas.

The G.A.X. Oil Well Company has a strong gasser producing 20,000,000 cubic feet and still going strong. The past two days flow of gas has brought a showing of oil, though no estimate is made of the amount. The G.A.X. Co. is composed entirely of Kelly Field Aviators and the oil spattered derrick has done wonders for the morale of the Kelly Field men.

Due to the recent shake-up in the personnel of the Air Service, a Board of officers saw fit to move the Attack Group to the west end of the field, taking the buildings occupied by the Bombardment Group as soon as they vacate. This is due to the necessity of having a fitting location for the observation and other Primary Schools due to arrive here in the near future.

Kelly Field, San Antonio, Texas. June 17 (Cont'd).

It is contemplated erecting another frame building to care for at least one hundred Cadets, expected to undergo training in these Primary Schools. This will make Kelly Field a centralized Primary Training School for the Air Services.

Little activity is noted within the Bombardment Group, due to their preparations for the movement to Langley Field, Va. However, a formation of five De Havilands made a flight to Ellington Field in connection with the Bombing Problem which took place in Galveston Bay, on Sunday, June the 18th.

The 49th Squadron (Bomb) has the student officers in charge and are endeavoring to give them their undivided time before the Squadron moves.

Crissy Field, Presidio of San Francisco, Calif. June 14.

A Coast Artillery Shoot was conducted with Fort Baker this week by First Lieutenant William R. Sweeley and Staff Sergeant Cecil B. Guile.

Major H.H. Arnold, Major Geo. B. Brett, and Lieutenants John W. Benton, Robert E. Self and Warren A. Maxwell, returned to Crissy Field Tuesday, June 6th, from Rockwell Field, ferrying new De Havilands. Lieutenant Self flew the new photographic ship, especially constructed for photographic work. This ship is to be used by the 15th Photographic Section at this field.

The 91st Squadron, Observation, has been busy this week polishing up the ships in preparation for the Shrine Convention to be held in San Francisco during the period of June 12th to 18th, inclusive.

A DeHaviland airplane with a full radio set has been assembled and placed in operation at "The Emporium", the largest department store in San Francisco. This is for exhibition purposes during the Shrine celebration.

A three-ship formation was flown by the 316th Reserve Squadron at the opening of the San Francisco Cliff House on the Ocean Shore Highway.

First Lieutenant John B. Patrick returned to Crissy Field June 9th from a month's leave of absence in the East. Welcome home "General".

Mather Field, Mills, Calif., June 12.

An event of considerable social interest to the Post was the marriage of Miss Alyse Monteverde of Sacramento to Lieutenant William S. Sullivan, A.S., on Tuesday, June 6th, at 5.00 P.M., in "All Saints" Episcopal Church of Sacramento. Miss Monteverde has such a host of friends in this vicinity that the church was crowded to its limit. The floral decorations were very effective against the dark wood of the building. The bridal party was an unusually attractive one, the bridesmaids in dresses of dainty tints contrasting prettily with the white bridal gown of the bride. Lieutenant F. S. Gullet, A.S., was best man, Lieutenants Samuel Carter, A.E. Waller, A.S., and Lieutenant F. V. Bockey, D.C., (the latter taking the place of Lieut. J.R. Morgan, A.S.,) were the ushers, and, being in uniform with sabers, brought additional formality to the ceremony. Dinner was served at 6.00 P.M. to about 90 guests, at the Del Paso Country Club, with a reception at 9.30 P.M. While the guests were dancing, the couple slipped away on their honeymoon which, on account of the need for officers at the Field, had to be a very short one.

Captain F. I. Eglin, A.S., who is to be in charge of the R.O.T.C. work at Camp Lewis this Summer, left by plane with Sergeant Ward H. Rice, mechanic, on the 8th. Lieutenant G.A. McHenry, A.S., with Private J. F. Smith, radio worker, is also detailed to Camp Lewis for temporary duty under Captain Eglin's command.

Lieutenant P. L. Williams, A.S., reported back from leave on the 5th, ferrying a new De H 4-B-1 plane from the Repair Depot at Rockwell Field. His leave of almost two months, spent with his parents in South Pasadena, was shortened on account of his being detailed as one of the instructors here beginning June 15th.

Major H. C. K. Muhlenberg, A.S., of the University of Washington, reported here on June 8th to take charge of the Reserve Officers' Training Camp to be in session from June 15 to July 26. Warrant Officer Harry B. White, detailed as one of the assistants at the camp, arrived from Seattle, Wash., on June 5th. He was formerly a staff sergeant in the 91st Squadron when that organization was stationed here.

~~CONFIDENTIAL - SECURITY - INFORMATION - (SECRET)~~

Among the other changes in commissioned personnel at the Field was the transfer of Captain E. G. Reinartz, M.C., to Camp Lewis for duty as Flight Surgeon of the Reserve Officers Training Camp at that Station. Captain John P. Beeson, M.C., from March Field, relieved Captain Reinartz as Post Flight Surgeon here.

Air Service, Tennessee National Guard, Nashville, Tenn., July 6.

The advent of the new fiscal year will, we hope, get us out of our hand to mouth existence. The need of air service supplies and more planes is urgent and nothing would please us more than to see some of our many requisitions filled. The three Hisos now in commission are being used a great deal and the fourth is idle because of the need for parts.

On July 1st, five men were placed on regular duty, and the efficiency of our Squadron will now be greatly increased. The men put on active duty are Master Sergeant A. J. Sewart and Technical Sergeant J. L. Wilson, formerly of the Montgomery A.I.D. and Sergeants Brooks and Berkeley and Private 1st class Marshall of the 136th.

On Sunday, July 2nd, we staged a Military Field Day and Flying Circus. It was the first time we charged admission, but the buying of an admission tax did not cut down our crowd. We made somewhere in the neighborhood of \$300.00, one third of which will go to the infantry companies. The day started with a band concert by the Service Company of the 117th, and was followed by formation flying, acrobatic flying and exhibition drill by "F" Company, 117th Infantry, and concluded with a sham battle which kept the crowd on its toes for nearly forty minutes. The airplanes directed the advance of the troops by drop messages and in lieu of machine guns used Very pistols to harass and strafe the enemy machine gun nests. Pilots and Observers participating were Major John C. Bennett, Jr., Captains Matt Dobson, Duncan Potter, Justin Potter, Lieutenants Bailey, Rascoe, Williams, Jetton, Fox, Blackard, Millam, Burton, and Percy, and Lieutenant Meloy the Air Service Instructor.

Last week Major Bennett flew to Montgomery with Lieutenant Meloy, and Captain Dobson went down via rail. Both officers successfully passed their 609 examinations. They, of course, were pleased with their success, but the hospitality of the officers at Montgomery pleased them even more. They were high in their praises of Major Brown's outfit.

On the afternoon of July 4th a formation of three planes flew to Franklin, Tennessee, on an authorized cross-country flight and put on a formation over town at the request of Battery "F", 114th Field Artillery, which unit was having a reunion. During the afternoon the visiting airmen were feted by the local ladies auxiliary.

Mitchel Field, L.I., New York, July 8.

During the period covered by this report, on the days when the weather has permitted, an average of about fifty hours flying has been done at this station daily. This in connection with flying the R.O.T.C. Students and the reserve officers recently ordered to active duty, as well as practice and training flights by the regular officers on duty at this station.

During this period four Martin Bombers have been delivered at this station, flight tested, and received by the Government. These planes have been built by the Curtiss Aeroplane & Motor Corp., and the L-W-F Motor Corp., on Government contract. According to the plans as outlined by these companies, at least one Martin Bomber will be set up and tested at this station each week.

The Curtiss 'Eagle' owned by the Government and recently transferred to this Station, has been turned over to the Curtiss Aeroplane & Motor Corp., for complete overhaul and repair. It is understood that this plane is being rebuilt because of its long cruising radius.

Scott Field, Belleville, Ill., June 26.

It is expected that large crowds will turn out for the Flying Meet to be given, with the aid of Chanute Field, on July 29. This field in August, 1918, realized in the neighborhood of \$35,000 from the first flying meet held at the field. The committee hopes to realize sufficient funds to replace obsolete equipment in swimming pool and equip a recreation hall for the benefit of the command.

Scott Field, Belleville, Ill., June 26.

Every effort has been put forth to put barracks and quarters in shape for the incoming personnel from Ross, Langley and Brooks Fields. A transformation has been wrought in the general appearance of the post. All quarters have been repainted and repaired, inside and out.

A new schedule for bus line is being prepared. It is expected that hourly trips will be inaugurated as soon as the new personnel is established on the field. Representations are being made to the Southern Railroad to institute a local service at frequent intervals to Belleville.

To take care of those who will be unable to live on post, every available house or apartment has been listed by the Board of Trade.

The regular monthly hop of the Officers Club was held on June 9th. Invited guests were present from Belleville and St. Louis.

Major Martin, Commanding Officer of Chanute Field, visited the Post on June 19. During his visit he was the guest of Col. and Mrs. Hall.

Two splendid tennis courts are in use by officers of the field. Work is being pushed on tennis courts for the enlisted personnel of the post.

The swimming pool is the most popular place on the field during the hot weather. Outside of two hours a day, which have been set aside for officers, the pool is always in use by the men of the command.

Chanute Field, Rantoul, Ill., June 28.

At the present time there are 535 students undergoing instruction in the various courses at the Air Service Mechanics School. During the week 26 men were graduated, having satisfactorily completed their courses of instruction. Nine men were graduated from the Clerks General C Course, fourteen men from the Mechanics Airplane Engine Course and three men from the Draftsman C Course. Travel orders have already been received on two of the above graduates, ordering them to Honolulu. The balance of the graduates are being held pending receipt of travel orders. Only two classes remain to be entered in school at this writing. Four men to be entered in the Course for Vulcanizers and six men in the Fabric workers course.

A recruiting campaign being conducted at this post to secure men for foreign service in the Infantry and Field Artillery is progressing very satisfactorily. Forty-six men have already been secured and accepted for enlistment. Thirty-four men were enlisted for the Infantry and twelve for the Field Artillery.

The Chanute Field Track and Field Meet was held on Saturday morning, June 24th. This meet was a great success and brought out many good men who gave a good demonstration of their athletic ability. The team representing Section "B" (Airplane Mechanics course) won first place for high total score, and thereby won the Pennant given by the Athletic Officer to the Section or organization securing the most points in this meet. The enthusiasm shown by the supporters and rooters of the various organizations was fine, and it is believed this meet served to stimulate the morale of the men to a great degree.

Rockwell Air Intermediate Depot, Coronado, Calif. June 26.

On Saturday June 17th, the 18th Squadron spent a most enjoyable holiday at Hulburd Grove, some forty-three miles in the back country. The party left at seven A.M. and spent the day in various amusements and after a late dinner at the inn indulged in a dance, which was enjoyed by all. The men returned, reaching the barracks at five A.M. the following day very tired and sleepy, but very enthusiastic over the success of the outing.

All members of the Quartermaster Corps at this Field, including commissioned and enlisted personnel and civilian employees, celebrated the birthday of the Quartermaster Corps, by going on an all-day picnic at Flynn Springs about twenty miles from San Diego. All enjoyed a wonderful time and wish that Quartermaster holidays came once a month instead of once a year.

Lieutenant McCulloch, Post Adjutant, is on sick leave. He is practicing daily to improve his golf technic and is in hopes of winning the golf championship of the Field from the present holder, Lieutenant Vanaman. During Lieutenant McCulloch's absence, the Adjutant's chair is being filled by Lieutenant Webber.

Lieutenant Goldsborough, of Crissy Field, arrived at and departed from this Depot Wednesday afternoon. "Goldy" brought in a worn out DH4B and traded it for a new rebuilt DH4B1.

Rockwell Air Intermediate Depot, Coronado, Calif. June 26 (Cont'd)

Lieutenant Richter, with Lieutenant Van Dusen, O.R.C., flew to Crissy Field Sunday and returned to this station Wednesday. Van Dusen is Adjutant of the local reserve Air Service organization, the 479th Pursuit Squadron, and made the trip to San Francisco in the interest of the reserves and upon authority granted him by the Chief of Air Service to make a cross country flight. He enjoyed the trip very much and obtained a great deal of information, which will be of benefit to the local reserve organization.

Warrant Officer Scott, better known as "Sir Walter Scott", drove up to Headquarters this week with a big Stephens Salient Six all dolled up with glass wind shield wings both front and rear. Lieutenant Webber's Dusenberg Roamer has been the last word in automobile class on the Field up to the present time, but now there is strong competition with the new Six. Scotty's car has been nicknamed the "Crystal Palace".

Lieutenant Alfred W. Marriner has just reported to this Field from his former station Luke Field, near Honolulu. He and his wife will occupy quarters on the Post.

Sergeant Parshall, of the Quartermaster Corps, who is noted for his good nature and some three or four hundred pounds of weight has been requested by the Post Surgeon to reduce. The Sergeant states that walking interferes with his good nature, even if his feet would permit, so he has taken another suggestion for weight reducing and spends all his spare time fishing. Making due allowance for fish stories, Sergeant Parshall states that in one catch he got enough fish to last his family for four days, furnish everybody in the neighborhood with a fish dinner, and had enough left to feed Queenie, his dog.

Hqrs. Camp Nichols, Rizal, P.I., April 29.

Lieut. Cyrus Bettis who recently returned from a visit to the Southern Islands, underwent an operation for appendicitis on Wednesday. He is reported to be recovering rapidly, and expects to be out in another week.

Sixty-three enlisted men of this command are due for return to the States next week, and their spirits are correspondingly high, but just the same we believe that when they hear the transport band playing "How Dry I Am", as the ship pulls out into Manila Bay, more than one will regret that his tour in the Philippines is ended.

Hqrs. Camp Nichols, Rizal, P.I., May 6.

The family of Captain John E. Stanton, Flight Surgeon, left for Baguio on Monday to spend a month at the far famed mountain resort, where the Captain will join them later for a well earned period of rest.

Captain Junius H. Houghton has reported for duty at this station, and will assume the duties of Post Commander and Commanding Officer of the 11th Air Park. Captain F. R. Lafferty, the former Commanding Officer becomes the Commanding Officer of the Philippine Air Depot. Captain Houghton and his family have been stationed for the last five months at Kindley Field, Corregidor. Captain Houghton received his flying training at San Diego in 1917, was later Officer in Charge of training at Gerstner Field, and has also been stationed at Carlstrom, Selfridge Kelly and Scott Fields.

Forty-six recruits were received from the States on the transport Sherman this week, and have been detailed as a construction gang to erect the hangars at Camp Nichols. The concrete is being laid, and the hangars assembled at such a rate that they will be ready for use in about ten days. As soon as they are finished it is intended to bring all the airplanes from the small flying field at Paranaque to the new field at Camp Nichols.

Fairfield Air Intermediate Depot, Fairfield, Ohio, June 22.

Lieut. Robert V. Ignico made a free balloon flight on Thursday of last week. Evidently the wind overslept on that particular morning, and it took the pilot approximately one hour to get away from the field.

Captain Thomas Boland visited the field within the past week in connection with the ferrying of some photographic planes to Fort Riley for the use of the Observation Squadron there.

Fairfield Air Intermediate Depot, Fairfield, Ohio, June 22 (Cont'd)

Lieut. Walter K. Burgess from Bolling Field was a visitor at the field with in the past week.

Captain E. E. Adler, in charge of Property, Maintenance & Cost Compilation, is on temporary duty in the Washington Office in connection with supply matters. It is expected that he will visit Mitchel and Langley Fields before his return.

Lieut. Ballard, while on a cross-country trip to Indianapolis, Ind., had the misfortune of throwing a connecting rod through the crankcase. This necessitated a forced landing near Dunrith, Indiana. In landing, due to the extreme roughness of the ground, the landing gear collapsed. There were no injuries reported by Lieut. Ballard. On Monday a new landing gear and motor were dispatched to him and he was able to return to this station on Tuesday afternoon.

Ross Field, Arcadia, Calif., June 20.

Considerable activity is being displayed at the field at the present time, due to orders being anticipated moving the School with its staff and 75 enlisted men to Scott Field.

Wednesday, June 14th, was celebrated at this post by holding a "Field Day", which was won by the 13th Balloon Company, said company gathering a total of 42 points, while the 1st Company finished second with a total of 31 points and the Balloon School Detachment third with a total of 14½ points.

Considerable flying was accomplished during the past week - 46 hours in captive balloons, 17½ hours in the BLIMP and 23 hours in spherical balloons.

Major M. F. Davis, A.S., formerly of this post and now located in San Francisco, Calif., on duty with the Organized Reserves, was a visitor at the post on Friday, June 16th.

Kindley Field, Fort Mills, P.I., May 1.

During the week ending April 29th, three cross-country flights were made to Paranaque Beach and return. Major Hanley, Captain Houghton and Lieutenant Edwin Johnson were the pilots. On Wednesday, Lieutenant Johnson while returning from Paranaque Beach had a forced landing midway between Cavite and Corregidor. The bay was unusually rough and the hull of the flying boat quickly filled with water. He was picked up by the "San Pedro", a small inter-island boat enroute to Iloilo, and towed to Corregidor. A flying boat piloted by Major Hanley went in search of the missing plane and located it a few miles out of Corregidor being towed by the San Pedro. When it finally reached Corregidor, the plane was a complete wreck, caused by being towed thru the heavy seas. The pilot, Lieutenant Johnson, and passengers, Lieutenants Wilson and Hicks, were none the worse for their exposure in the middle of the bay for several hours.

All officers of the 2nd Squadron are attending the radio class which is being conducted by Lieutenant Burgess, Squadron Radio Officer.

The foreign service tours of practically the entire personnel of the 17th and 27th Balloon Companies expire in May and orders were received during the past week to send all such personnel to the States on the May transport. This will reduce the strength of the 17th and 27th Balloon Companies to 14 and 7 enlisted men, respectively, and the 2nd Squadron will be reduced to about 55 men. All operations must necessarily cease, as there will be barely sufficient personnel available for supply, guard, maintenance of supplies and equipment and routine administration. To date no information has been received as to when replacements may be expected.

Orders have been received assigning 1st Lieutenant J. R. Drum, Air Service, to the 2nd Squadron (Observation). Lieutenant Drum is due to arrive in this Department on the transport "Sherman" on April 30th.

Information Division

Munitions Building

Air Service

August 10, 1922.

Washington, D.C.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE August 11, 1922.

FLYING 'NEATH THE STARS.

One might imagine that flying an airplane at night would be very risky business and that only the most daring airman would undertake it. As a matter of fact, however, judging from the experiences of Lieut. Clayton Bissell, Air Service, it would appear that flying at night, provided there are no clouds to obscure the visibility, is just as safe as during the day and, furthermore, the moon and the stars are not only great aids to visibility but serve as an unailing guide in the matter of aiding the pilot in his direction of flight, something which cannot always be said of the airplane compass.

One phase of Lieut. Bissell's experience merits special emphasis, and we may gain from it the satisfying knowledge that no longer will it be possible, in the event of war, for enemy battleships to glide in near our shores during the dark of the moon and "get away with it". On his second night flight from Bolling Field to Langley Field, which was made on the night of June 22nd, the moon was almost gone, and before proceeding any distance it was entirely out of sight. Many stars were in evidence, however, and these provided ample light for flying. Objects could be seen on the ground just as easily as in the bright light of the moon. In crossing the York River, Lieut. Bissell picked up four battleships and three destroyers, lying at anchor just east of Yorktown. He states that it was very easy to see these ships due to the lights on them, but adds that even had there been no lights on them at all the ships could have been picked up by the glow of the fire coming out of their funnels, and concludes that this ability of air pilots to pick up seacraft at night may have an important bearing on the utilization of the Air Service in future military operations.

Lieut. Bissell conceived the idea of making several night flights from Bolling Field, Anacostia, D.C., to Langley Field, Hampton, Va., purely for training purposes and to prove that night cross-country flights are feasible at the present time over routes that are properly organized and sufficiently known by the navigating personnel. He requested authority to make these flights during the months of May and June, depending upon weather conditions. He expressed a desire to make the first flight during the full moon, in order to take advantage of the maximum amount of light; his second flight during the last quarter of the moon, and his third flight in the dark of the moon. The route from Washington to Langley Field was selected, because it was intended to fly at such an altitude as would make it always possible to land in the water in case of an emergency. No radio equipment was used, because it was considered that the added complications incident to adding this installation on the ship would not be compensated for by the advantage to be gained by constant communication.

Before commencing the flights, a careful check was made upon the night landing lights at Langley Field, and these were found to be in first class condition. Arrangements were made for re-servicing the ship at night, and a careful survey of the field was made in order to insure that there would be no holes in the part selected for landing. Tested parachute flares were procured from the Engineering Division at Dayton, Ohio, and, through the courtesy of Lieut. Colonel James E. Fechet, Chief of the Training and War Plans Division, Office Chief of Air Service, the "Seagull", a very good DH, was procured for the test. The entire ship was carefully checked over to insure that all working parts were in first class condition, the motor receiving special attention.

A parachute was used on all the flights, same having been tested with a 300-lb. weight at McCook Field. With the exception of the parachute and the flares, everything about the ship was standard equipment. No alterations were made on the exhaust.

As a further evidence of the feasibility of night cross country flights, each of Lieut. Bissell's flights were made on scheduled time, and he arrived at his destination exactly at the time he expected to.

Lieut. Bissell's story of his experiences on these night flights, omitting reference to the second flight, which has already been covered in a preceding paragraph, is as follows:

"During the month of May it was necessary for me to be in Milwaukee practically during the entire time, so that flights could not be made during that month. On June 16th, the first flight to Langley Field was made. Left Bolling Field at 11:50 p.m. under ideal conditions. The forecaster at the Weather Bureau had predicted clear conditions all the way to Langley. Climbed to an altitude of 2,500 feet and got my bearings at Bolling Field. I flew over the edge of Washington in order to make a definite check of the compass readings on the street which run true north, south, east and west. Everything was in perfect condition, so I started for Langley at about twelve o'clock. It was possible to distinguish the Potomac River very distinctly, and many objects on the ground could be recognized. My plane passed directly over the little cleared field on the course between White Plains and Waldorf, which is on the route from Washington to Langley, and crossed the Potomac at the usual place just east of the Great Wicomico River. For about 15 minutes after crossing the Potomac white a few clouds were encountered, which entirely cut off all visibility, making it necessary for me to come down to an altitude of 1200 feet in order to see anything at all. Before the Rappahannock River was reached, however, everything was clear again, and from there on to Langley the flight was made without incident. The landing lights were working perfectly, and no difficulty was experienced in landing.

I remained at Langley Field until three o'clock and then returned to Bolling. On all these flights it was planned to leave Langley Field at such time as to enable me to arrive at Bolling Field just before daylight, in order to obviate the necessity of using my parachute flares. On this trip the start from Langley was about ten minutes too late, so that it was possible to see very well before arriving at Bolling Field.

A third flight was made on the night of June 29th and a fourth on the night of the 30th. There was very little moon on these nights, but no difficulty of any kind was experienced. These eight night cross country flights were made without any trouble, either with the equipment on the plane or in regard to navigation. The visibility on all the trips was such that it was not necessary to resort to parachute flares. A flash light was always carried in the cockpit, but it was not necessary to use it at any time.

The only difficulty experienced was with the exhaust pipes which, when they became red hot, made it very difficult to focus the eye quickly on objects on the ground. Some device should be developed in order to eliminate this light when the motor is running full out. When the motor is throttled, slightly over fifty percent of the red hot carbon which is flying back from the exhaust can be eliminated, and slight changes in the adjustment of the moisture in the carburetor which can be effected with altitude adjustment will further reduce this discharge.

On a standard DH which is equipped with ammunition boxes, it will be less difficult to fly at night because the ammunition boxes will almost entirely obviate the lights from the exhaust pipes and allow a better focusing of the eye on objects on the ground.

All DH's should have the little hand on the ammeter painted with a luminous substance in order to make it possible to see whether or not the batteries and generators are functioning properly. The other standard instruments are sufficiently luminous for night flying purposes.

On these flights (different altitudes between 1,000 and 7,000 feet were flown, and it was found that the best visibility was usually obtained around 4,000 feet.

On cross country work at night, the moon and the stars are very useful as a positive check against the compass when the proper bearing has once been determined, and it was much easier to fly with these aids than with the compass."

J J J
PARACHUTING FROM 24,000 FEET.

Hurling $4\frac{1}{2}$ miles through space with a parachute was the recent experience of Captain A. W. Stevens, Air Service, stationed at McCook Field, Dayton, Ohio, who contributed an interesting article in the U.S. Air Service Magazine on his parachute jump on June 12th last from the high altitude of 24,206 feet from a supercharged Martin Bomber, piloted by Lieut. Leigh Wade, with Sergeant Roy Langham as the other passenger. Captain Stevens' fall lasted approximately 20 minutes, and the oscillations of the chute, due to the prevailing winds, made him thoroughly sea-sick by the time half of the descent was over. He admits that it was a pretty rough voyage, but is willing to try a jump from

a still higher altitude as soon as he recovers from a few broken foot bones which he sustained upon landing. These airmen had been prepared for some two weeks to make a flight in the Bomber for the purpose of making negatives at the highest altitude possible with this machine. These negatives were to prove what can be secured photographically through 4½ miles of air and haze, and incidentally to check the altitude of the plane, through measurements of the ground, distances recorded in the negatives, knowing the focal length of the camera lens. The parachute jump was simply another way of getting down after the real work was done. Captain Stevens goes on to state:

"The weather had been cloudy, but June 12th dawned clear and bright, with a moderate surface wind. A few scattering clouds at about 8000 feet showed the upper air to be rough, as the clouds were breaking and suddenly separating into wisps of vapor. Our preparations for the trip consisted of heavy clothing and face masks, and parachutes all around. Three oxygen bottles were carried in the front cockpit; I carried two in the rear cockpit, a 200 cubic inch bottle for general use, and a 70 cubic inch bottle strapped to one leg. My parachute equipment was double, a 28 foot 'chute behind and an 18 foot 'chute in front. The small 'chute was not opened at all; it is for use only in the extremely remote possibility of the large parachute fouling. I weighed about 250 pounds with all equipment as I climbed in the plane.

The ascent was quite uneventful, and I made negatives from time to time, keeping a record of the indicated elevation at which each was made. I started to use oxygen at 20,000 feet. As we got near the 24,000 mark it became evident that we could not hold our position over Dayton - the west wind was blowing us east faster than our motors would pull against it. For some fifteen minutes we hovered around the 24,000 mark, now a little above and now a little below. The big plane rolled sluggishly in the thin air, inclined at a considerable angle upwards, with the motors doing their best to put us higher. Finally Langham gave me the sign that we could go no higher. I cut over from one oxygen supply to the other and then piled over the side of the ship, and sprang clear of the rudder wires. It was very quickly over - in fact, Lieut. Wade did not know I was gone until Sgt. Langham pointed my parachute out to him a few seconds later, far below and a quarter of a mile behind.

A sharp pull of the small steel rip cord; almost instantly a tug from behind, and my eyes, already turned toward my right shoulder had a momentary glimpse of the parachute partly open - pear shaped in appearance. A violent jerk followed the merest fraction of a second later, and I knew that I was successfully launched.

The estimated speed of the ship, in the thin upper air, with motors full on, was 110 miles an hour, and the eleven-pound steel oxygen bottle strapped to my leg was reluctant to stop when the parachute called a halt. I realized that something was giving way and made a grab for the steel bottle just as it slipped out of the lower straps, the upper ones having broken. I took a few puffs from the tube, but I was falling so fast that I soon realized I did not need the tank, so I tucked it under one of my shoulder straps.

Far above me I got an occasional glimpse of the big bomber still fighting its way toward Dayton, but I soon lost sight of it. The 'chute rocked and tossed in the rough air like a wild thing trying to break free. Now it would be at an angle of forty-five degrees, to the north, then at a similar angle to the east, and instantly whop over to the west or south. After ten minutes or this I began to get awfully seasick. The country passed under me rapidly, in fact very much as if I were being carried along in an airplane. Back of me was Dayton on one side and Springfield on the other; Kenia was off to the right. I could see perhaps 60 miles in any direction in the clear air. Ahead I noticed that my line of flight was almost exactly in line with a straight stretch of road leading into Jamestown. For a time I thought I would land near Jamestown, but such was the strength of the wind that I really landed five miles beyond the town, or nearly thirty miles from where I left the bomber.

I was miserably seasick and I pulled the side of the 'chute way down to side-slip it and make it fall faster. The oxygen bottle had slipped from time to time, only to be pushed back, but suddenly it slid from under my shoulder strap as if it had been greased. A frantic grab for it, but it was gone. I looked down to see it tumble over and over, until in a few seconds it vanished as a speck. Fortunately, I was over open fields at the time.

Now Jamestown is far behind me. I am getting within a couple of thousand feet of the ground. The air is still rough, but not nearly so bad as higher up. Ahead is a small forested patch of some ten acres. I side-slip the 'chute to the right to avoid these trees. Now I can see my shadow traveling across the

fields. Ahead is a freshly plowed field that I would like to land in, but the wind carried me over it. There is a big single tree, but I pass to the right. Then a barbed wire fence, which I am glad not to be swept against. Ahead is a grain field, with the grain some two feet high. The whole field rises at me, as a whole, with terrifying swiftness. I realize that I am going to hit hard, and assume a crouching position in the harness. Now --- Whoof!

Well, that's over! The chute whips and billows its silken folds along the waving surface of the grain. Some farmers appear in the distance, but I have already gotten out of the harness and heavy flying suit. They tell me I looked rather gray for ten minutes. I don't deny it; it was a rough voyage."

Other additional features of the parachute jump are described by Captain Stevens in the following official report to the Chief of Air Service:-

The pack-cord was ripped about ten feet below the fuselage of the bomber. The parachute opened instantly and was fully open in less than 100 feet below the plane (estimated). The writer has made several jumps before; viz: from 1500 feet, at 85 miles per hour; 1500 feet at 65 miles per hour; and 5600 feet at 65 miles per hour. Although the plane speed is estimated by the pilot at 110 miles per hour, the shock of opening was less, if anything, than on the previous jumps by the writer at lower altitudes and speeds - due very likely to the lower density of atmosphere.

The writer had complete confidence that the parachute would open fully - sooner or later. The only question with him was whether the passage of the silk fabric through the cold, rarefied upper air might generate enough static electricity to hold the folds of the chute tight together for a time, until when it did open the shock might result in rupture, either of the operator's body, or of the shroud lines. This fear was groundless, as the chute opened instantly - or practically so. The chute used had the vents sewed right; it had been tested with both 100 and 200 lb. weights in the usual manner over McCook Field from about 600 feet altitude.

The time of descent was not over 20 minutes, from the writer's estimate. It may have been less than 20 minutes, but was over fifteen minutes. The writer would like to make another jump from a still higher altitude, 30,000 feet or more, when he recovers from a few broken foot bones, and if this is done, a recording barograph will be carried as part of the jumper's equipment. Needless to say, a comparatively windless day is best to choose for a thing of this kind as the chute may get caught in a down current on a windy day and land twice as hard as usual. Also, the jumper from high altitudes is burdened with heavy flying clothing, which increases his weight considerably.

Attention is called to the fact that the parachute averaged a ground speed of one and one-half miles a minute, based on a total travel of 30 miles and a time descent of less than 20 minutes. The ordinary time of descent is about 1000 feet per minute at ordinary altitudes; for instance, in the 5600 foot jump previously referred to, the time was six minutes. In the thin upper air the chute undoubtedly falls faster, especially when it is oscillating and spilling air, as was the case all the way down on the recent jump.

Ten minutes of such oscillation will upset anything but a cast-iron stomach. In the writer's case, he was thoroughly seasick by the time half of the descent was over. He could get little relief by closing his eyes, and if his eyes were open the landscape below heaved and tipped in all directions. It is of interest to note that temporary relief was experienced by fixing the eyes for a few seconds on the center of the parachute, this being the only point in space reasonably at rest with respect to the body of the jumper.

It is inadvisable to open the second chute for the purpose of checking oscillation, as one then loses control of movement. With a single chute it is possible to change the direction of one's flight very considerably, even on a windy day. On a calm day one can do much better even to the extent of picking out a particular field in which to land. On a windy day the air currents carry you irresistably ahead, and the best that can be done is to side-slip to the right or to the left of the line of flight.

About the land, if one imagines that he has just jumped from a twelve foot wall and crouches in a jumping position, he will be in the best position for landing. Too great tension of the leg muscles may result in ruptured tendons or broken foot bones. You are sure to collapse in a pile on the ground; it is better to relax with that in view, and thereby get a more even distribution of bruises. The jumper should face the way he is traveling; to accomplish this it is possible to make

the 'chute revolve, earlier in the drop, by taking a few of the shroud lines and pulling diagonally, with the idea of working a "propeller" surface into one point of the 'chute circumference. The second 'chute may be pulled about 50 or 75 feet before landing, chiefly to get rid of the extra weight. If pulled earlier, the two chutes will soon stand well apart, at 60 degrees or more, and will spill air between them, so that the jumper will fall nearly as fast as ever, and with practically no control.

The bomber carried four recording barographs, as well as an indicating altimeter. The result of McCook Field laboratory measurements showed that the elevation was 24,206 feet.

It was the intention of Lieut. Wade to take the plane, relieved of 250 lbs. of weight, still higher, but one of the superchargers developed trouble and it was necessary to cut the flight short.

MONMOUTH, ILL. STAGES SUCCESSFUL AVIATION MEET

One of the most notable aviation meets ever held in this country took place at Monmouth, Ill., on June 15th, 16th and 17th last. Sixty-one participants came in 31 airplanes to compete for the various prizes, and nine cups valued at \$2,100 were presented to the winners before their engines had time to cool. Monmouth, with its population of only 10,000 people, has set an example for the rest of the country, for it has conducted a meet in which everybody that came was satisfied, and one that was free from any accidents.

Major R.W. Schroeder, former Army pilot, who officiated during the entire meet and was largely responsible for its success, presented the cups to the winners. There was no waiting to decide the winners of the various events, and when the final event of the last day ended, the cups were placed upon a table in the center of the field, 300 National Guardsmen formed a circle, 200 ft. in diameter, around it, and all the spectators were invited upon the field to witness the presentations.

In a short talk, Major Schroeder complimented the town on its progressiveness in arranging for one of the best landing fields in the country and in putting up the prizes. As a grand finale on the last day of the meet, 28 planes were in the air for 15 minutes for formation and other kinds of flying, and the thousands of spectators were awed at the spectacle.

The attendance during the three days of the meet was over 10,000. The last day of the meet saw over 6,000 people and 3,000 automobiles. The farmers for miles came in to Monmouth. The Curtiss-Iowa Aircraft Corporation was largely instrumental in having the landing field established at Monmouth, and cooperated with the city in putting over the meet. They also arranged that everybody connected with the aviation industry that came to Monmouth by air or otherwise was to be the guest of the town, everything free of cost. Every airplane was given free gasoline and Lakeside oil. The pilots, passengers and crews got all their expenses paid, with free use of the Country Club and the swimming tanks.

The talk of the meet centered on the performance of the new 5-passenger Ballanca monoplane, with its 90 h.p. Anzani motor, speed about 100 miles per hour, which arrived from Omaha. Even the old timers who were present had to comment upon the wonderful performance of this new creation of Professor Ballanca, which was flown by a most capable pilot, Harry Smith of the Air Mail Service. This machine won every event in which it entered, winning 4 out of 9 cups.

Another surprise came when a strange, yet familiar, looking ship came in over the field during the first day of the meet -- a Breguet (300 H.P. Renault engine) piloted by Mr. W.A. Yackey, another capable pilot of the Air Mail Service. In the machine with him was Mrs. Yackey and four of their friends, six heads protruding above the cockpit to get a view of the doings on the ground as they passed over the field at about 25 feet. It proved a most interesting sight to the spectators, for it was announced that they had just arrived from Chicago, making 160 miles in one hour and 35 minutes. This machine started out on the second day of the meet for altitude, piloted by Shirley Short, who climbed until he was out of gasoline, to 20,000 feet altitude, winning the altitude cup contest.

Three Air Mail planes and six army planes participated in the meet, the former being piloted by E.H. Lee, Tex Marshall and P. F. Collins, and the latter by Majors W.C. McChord and F.L. Martin and Lieutenants Carter, Givens, Eller and Houston.

The big event of the meet was the free for all, Class "A" race, between E. Hamilton Lee, in his mail plane, and James M. Curran in his S.V.A., the crack pilot of the Diggins Aviation Company of Chicago. Curran put up one of the finest races ever witnessed against the mail plane, but in the final heat run on the last day, he was nosed out by only three seconds, which made the spectators wild, for they were all with Jimmie Curran. Jimmie was a good loser, but his engine was too tight, having just been overhauled.

An OX motor race was planned to accommodate the Laird Swallow, the Petrel and the Waco. The Waco did not show up, and the Petrel did not arrive in time for the events. During the OX Race the Petrel flew along with the other entries, and while it was apparently faster on the straight ways, it would loose on the turns, due to the pilot not being familiar with the course.

As above stated, Pilot Harry Smith with his Bellanca Monoplane, won four of the nine cups, capturing the Free For All Cup Race, Class B, the Gliding Contest and the Climbing and Descending Contents. E. Hamilton Lee, piloting a Special Mail DH won the Free for All Cup Race, Class A, and Walter H. Beech, piloting a Laird Swallow, the Free for All, Class C, and the Acrobatic Cup Contest. Shirley Short won the Altitude Cup Contest, as already noted, and Edward Kohlstedt, using the Smith Pack, won the Parachute Jump for spot landing.

Among the various types of airplanes at the meet were the following: 3 DH4B, 2 SE5, 2 Curtiss Standard, 1 Fokker, 3 Special Mail DH, 1 Breguet, 1 Bellanca Monoplane, 3 Laird Swallow, 1 S.V.A., 1 Huff-Dalland, 1 Oriole K-6, 3 JN4D, 4 Canuck, 3 JN4, 1 Ansaldo and 1 Standard Tourabout, total 31.

AMERICANS ENTER INTERNATIONAL GLIDING CONTEST! ✓

It is almost twenty years ago since the Wright Brothers successfully conducted their gliding tests at Kitty Hawk, N. C. Since that time all efforts in this country have been directed towards the improvement of motor driven airplanes.

The successful results attained last year in the gliding experiments in Germany, and the fact that a Gliding Competition is to be held in France next month, prompted three students of the Massachusetts Institute of Technology to try their hand at the game and enter the competition. Otto C. Koppen, age 22, was the chief designer of the glider, and Harry C. Karcher, age 20, had charge of the practical construction thereof. The glider was constructed at the M.I.T. laboratories, and on June 12th Edmund T. Allen, formerly an Army Air Service test pilot, and the third member of the party, took the glider to a 50-foot elevation at Ipswich, Mass., and made five successful flights. He rose in a 15-mile head wind. The velocity of the wind was such that the machine hovered practically the entire time. It reached a maximum elevation of twenty feet and advanced a maximum distance in one flight of 200 feet.

These three young men sailed for France recently to participate in the First International Gliding Contests to be held at Clermont-Ferrand, and their frail little aircraft, stowed in the ship, has a span of 24 feet, a chord of 4 ft. 9 inches, and weighs but 80 pounds. The most successful of the German gliders weighs 149 pounds, yet the Cambridge craft has a factor of safety of four. It is asserted by the builders that the craft has greater ease of control than the ordinary type of plane, having ailerons, rudder and flaps, the full length of the monoplane wing.

DEATH OF MAJOR WILBUR M. FAGLEY.

The Indiana National Guard lost one of its most valuable officers when Major Wilbur M. Fagley, commanding the 137th Observation Squadron, was fatally injured in an airplane accident on June 29th.

During the war he enlisted as a flying cadet in the Air Service, was subsequently commissioned a 2nd Lieutenant, and served as a flying instructor. After his discharge from the military service he organized the 137th Observation Squadron, Indiana National Guard, and was assigned to the command thereof with the rank of Major.

At the time of the fatal accident Major Fagley was en route from Kokomo, Indiana, to participate in the field exercises of the Infantry Officers' School being held at Frankfort, Indiana. He had offered his services in order to demonstrate the usefulness of the Air Service in connection with an infantry attack, and he had taken a great deal of personal interest in this connection.

In civil life Major Fagley was Secretary and General Manager of the Curtiss-Indiana Airplane Company of Kokomo, Indiana. He was considered one of the most experienced fliers in the country, having had over 3,500 hours of flying without serious accident.

BOOSTING AVIATION IN COLORADO

Educating the public in the safe and sane usage of the airplane is one of the functions being performed by Captain Charles A. Pursley, Air Service, on duty with the 303rd Division, Air Service, stationed at Colorado Springs, Colo. Captain Pursley contributes a weekly article to the Sunday newspapers of Colorado Springs, embracing at times extracts from the Air Service NEWS LETTER. He finds that these articles are read with a great deal of interest.

Recently, Captain Pursley wrote a letter to the Colorado Springs Chamber of Commerce, urging the city to establish a municipal flying field, which letter was published on the front page of the morning paper. After commenting on the decision of the War Department to establish a permanent flying field at Denver, which would result in regular flying from the field by reserve and National Guard officers as well as by commercial fliers, he stated that in the training of the National Guard and the Reserves, which will necessitate maneuvers and cross-country flying, Colorado Springs would be the most logical city close to Denver to be used as a terminal, as there are no suitable emergency fields between these two cities. He outlined the great many benefits Colorado Springs would derive through the establishment of a landing field, since there would then be a likelihood of commercial aircraft corporations with a real business organization behind them being established there, radiating air lines to Texas, Oklahoma and Kansas, the source of the city's tourist trade, and to other points too numerous to mention.

Captain Pursley called attention to the present site of Kellner Field as a most ideal one for the location of such a landing field, adding that it could be made a first class field at very little cost to the city. He asserted that a hangar could be erected which would soon pay for itself and could no doubt bring in enough revenue to cover the cost of maintaining the field if a nominal charge be made for civilians using the field and the hangar.

The greatest hindrance to the advancement of aviation in the United States today," Captain Pursley stated, "is the lack of good landing fields. Would a seaport city expect commerce by water to any great extent if she did not have a harbor? The same applies to aviation. Cities cannot expect the development of aerial activities within their vicinity without landing fields. Deprive the rail and ocean carriers of depots and docks, and operations must cease. Withhold terminals from the American aircraft industry and aerial transportation can achieve neither size nor reliability. If all the cities of the United States with the population of Colorado Springs or above would establish suitable landing fields it would be the greatest steps taken toward the advancement of aviation in this country."

MORO WARRIERS DREAD THE AIRPLANE

Army pilots assigned to the 3rd Squadron, which recently served a temporary tour of duty at Jolo, Sulu Archipelago, have been bringing back interesting tales of how the natives act and what they think of the aerial activities on and about Jolo. Some Moros believe the airplane an emissary from Allah. Others believe the superhuman occupants all seeing and all powerful, and still others that the plane is a dragon flown out of the South Seas come to wreak dire vengeance on all bad Moros, according to an old Arabic legend. Captain John E. Moore reports that while on a reconnaissance flight near Maimbun in south Jolo he was at a loss to account for a native who was riding along the highway, holding aloft in outstretched arms a small white sheet, as if in supplication. In mentioning the fact later to Major Stephens, Commandant of the local Constabulary, that officer, having heard of similar incidents, stated that certain natives are authorized to carry barongs or knives by written permit. Those who are apprehended with knives, but without permits, are severely punished. The native in question, who was carrying a barong, was holding his permit aloft for Captain Moore to read from his plane, in fear that one of the fearsome bombs he had heard so much of might be dropped on him otherwise or that the plane might swoop down upon him and confiscate his weapon.

AIRMEN SAID FLOOD VICTIMS

Last year at the time of the great flood at Pueblo, Colorado, when a formation of airplanes from Post Field, Fort Sill, Okla., was sent to the flood district to warn the people in the event a further rise of water seemed imminent, the utility of the airplane in an emergency of this kind was amply demonstrated.

Just recently Army airplanes performed the same function along a part of the Mexican Border in connection with the overflow of the Rio Grande River. Air Service

officers sent to the flooded area were assigned the duty of warning all persons in the danger zone, keeping ahead of the crest of the water, which was traveling at the rate of five miles per hour. Drop messages have been used in a most satisfactory manner, and proves further the possibilities of airplane observation.

Under date of June 24th, the following report was received from our Kelly Field Correspondent:

Kelly Field officers made a fast "get-away" upon receipt of emergency flight orders to proceed to the Airdrome at McAllen, Texas, reporting to the Commanding Officer at Camp McAllen for further instructions and duty. Orders were issued from the Wing Operations Office at Kelly Field at 4:31 p.m. June 20th, and at 4:58 three airplanes had almost passed out of sight over the mesquite, towards the border. The orders were received when the hangars were closed and operations had ceased, due to the movement of the Attack Group within the field. Lieutenants Biggs, McCormick and Selzer were assigned to the duty above mentioned, and at the time of the receipt of this report were still patrolling the border south along the main bed of the Rio Grande River as far as Brownsville, Texas.

The Rio Grande Valley had just weathered a big flood, caused by torrential rains in the mountains around Monterrey, which put the San Juan River on a rampage. The San Juan empties into the Rio Grande just above Rio Grande City. Heavy rains above the valley during the last ten days also added to the rise of the San Juan river and forced the big international stream out of its banks on all sides. The water had spread over the American and Mexican sides of the river, from five to twenty miles wide in places. The river, with arroyos and drainage canals, is between six and eight miles wide at Mission, Texas.

There are no families in the vicinity of McAllen on the Rio Grande that are marooned without a boat, according to the daily reports from the Flight Commander. A radiogram from the flight commander states further that the crest of the flood has not yet reached Mercedes, and that warnings have been given to the farmers in this vicinity. The Rio Grande River has risen over fifty feet in some places, washing away bridges and buildings. Airplanes have been operating from McAllen Airdrome for the past three days, and it is believed that they will continue to work from this base as long as relief missions are necessary, the airdrome itself being high and dry.

FLYING IN NEWFOUNDLAND. ✓

Under the name of the Aerial Survey Co., a small band of Englishmen have been doing some extraordinarily good work among the snow, ice, hurricanes, blizzards, and so forth of Newfoundland and Labrador. Under the command of Capt. F. Sidney Cotton, and with a collection of aircraft consisting of a DH9 (Siddleley "Puma"), Martinsyde "A" type (Rolls-Royce "Eagle"), and a Westland "Limousine" (Napier "Lion"), it has been demonstrated that aeroplanes can with a little organization do all that other means of transport can do, and considerably more, particularly where the more antiquated means of communication is subject to the idiosyncrasies of the notorious weather common to Newfoundland.

During November the weather was of the worst, and the temperature ranged anywhere from 44 degrees to 10 degrees below zero, with the lower temperatures predominating. During this time the difficulties of landing in snow were overcome by using a special type of ski undercarriage; and by using a special mixture in the radiator the low temperatures were defeated. During the later winter the temperature went to about 20 degrees below zero, and as low as 50 degrees below in some parts.

Nevertheless, a contract was signed with the Postal Authorities to carry mails to Halifax from St. John's with the Martinsyde seaplane. Unfortunately the bay froze weeks earlier than it should have done. It was then decided to fit skids and use the D.H. 9 as soon as the ice got strong enough to bear the weight. What may be termed the inaugural flight of the season was, therefore, begun on December 9th, when the D.H.9 left for Halifax, but there was very little ice across country at that time to make forced landings. A howling blizzard was met when crossing the most mountainous part of the route, and at the same time the engine developed signs of trouble.

By the time the 9 had got through the clouds the engine was cutting out altogether, so that a reconnaissance was made for a piece of ice large enough on which to land. A landing was made on the frozen end of Deer Lake, along the beach, the machine crossing a ditch four feet wide and three feet deep and running over some logs without anything being noticed! On attending to the engine it was found that the joints of the cylinders had carried away and were letting water over the magnetos, etc.

It was then decided to fit the skids to the Martinsyde, but the undercarriage showed weak knees from the start, and in a test flight it collapsed completely. As the only spare undercarriage belonged to the D.H.9, this was modified to suit. It was then agreed by the Post Office that the flight should be postponed until the Spring, and the mail was therefore consigned to the antiquated methods of rail and water transportation and delivered in due course with disheartening punctuality.

The jobs on hand at the time were various mail contracts throughout the Island, mail to Labrador and the seal fishery patrol. As always happens, but is never anticipated, all communications become demoralized by heavy snowstorms and blizzards. Trains were making about 20 yards a day and shipping was entirely held up.

A few demonstration flights were carried out to isolated points, giving them newspapers gratis, but no mails. Business men and politicians were taken to spots in a few hours which they would have reached three weeks later with luck by rail. And then the Post Office asked Mr. Cotton's concern to carry mails which, after certain persuasion, they did.

Mr. Alan Butler, known in this country as the private owner of a Bristol "Tourer", and a Director of the DeHaviland Aircraft Co., Ltd., tuned up the Westland, assisted by Capt. Bennett, and proceeded to deliver mails to about fifteen points on the north of the Island. These mails were delivered to all points within four hours, a trip that normally takes four or five days with a small army of couriers, provided the weather is fair.

Captain Cotton, with Mr. Stannard, his mechanic, and Mr. Hart, a local woodsman, proceeded to investigate the mysterious hinterland of Labrador. From Botwood, their H.Q., they flew to St. Anthony, the northern port of Newfoundland, 150 miles N. of Botwood. From there they pushed off to Battle Harbour, a wireless station in Labrador.

The wireless operator in charge there first heard the magnetos of the Rolls "Eagle" when the Martinsyde was twenty miles away, and the noise getting louder in his receivers, he rushed out into the snow and prepared himself for the end of all things. His astonishment was only equalled by the dumbstruck wonder in the faces of the other inhabitants when the "Tinsyde" landed.

A stay of a few days was made at Battle Harbour, and a course was made for Cartwright, a Hudson Bay Co. post, 210 miles N. of Anthony. The people there are cut off from the world from November to June, so the arrival of the aeroplane with mails and newspapers less than a week old has probably done more to demonstrate the utility of aircraft in that part of the world than anything else could have done.

A blizzard was weathered there. But with the machine tied down and covered up, with catalytic lamps under the cowl and antifreezing mixture in the radiator, it suffered no damage. Cartwright was left on March 12th, and St. John's, a distance of 600 miles, was reached in seven hours, with mails and furs on board. The normal route from Cartwright is by courier down the N. side of the St. Lawrence River to Quebec and by boat and rail back to St. John's, a journey that takes 80 days.

On the return to Botwood both machines were prepared for the sealing jobs, Capt. Bennett and Mr. Butler with a wireless operator taking the Westland, and Mr. Cotton and Mr. Stannard the Martinsyde over the icefields. The sealing ships were located about 50 miles to the E. of Fogo Island. After the patrol around the vicinity of the ships the Westland returned to Fogo to stand by while the Martinsyde carried on. A patch of seals was located in a different direction from the way the ships were steaming, so they returned and landed alongside s. s. SAGONA. Although the sealing owners did not give a definite contract, the Aerial Survey Co. felt that they would eventually be wanted.

To prove that they could observe the seals without difficulty the steamers were put onto one or two small patches quite near that they had missed. The information regarding larger patches was withheld, and the sealing owners were informed that their ships could be filled. Thinking that the ships would find the seals the owners held off as long as possible, but on March 22nd they asked assistance and came to terms. By this time the ships and seals had moved considerably off the land and it was a much more difficult and hazardous proposition to locate them again.

The owners are now definitely convinced that cooperation with aircraft will ensure good catches for them in future years, and no difficulty is expected in getting yearly contracts for seal spotting.

The Aerial Survey Co. can no doubt claim the honor of being the only company to inaugurate and carry out successfully flying in Arctic America. When the obstacles they have had to contend with and have successfully overcome are taken into consideration, the accomplishment becomes even more meritorious.

The weather conditions alone are sufficient to dishearten the most enthusiastic but many other little trials have been met and treated as being a part of the day's work. To see a hangar go through the ice in a storm and then be torn to shreds, as happened at St. Anthony early in their venture, must have been galling. And having to work in the open in a temperature of about 20-30 degrees below zero, as the result, apparently had no effect whatever on their determination to see the thing through.

As the result of this year's work, considerable experience has been gained. It is expected that they will have several new machines out there this Fall, and will have the company thoroughly established by next Winter, in order to attack the seal spotting and mail carrying work in a thorough manner.

- The Aeroplane (London).

A NEW AERIAL "ANT". ✓

They are making them small these days. We refer to airplanes and not to 10¢ perfectos. After seeing the Sperry Messenger plane in one of the back yards of the Munitions Building, where the Office of the Chief of Air Service is located, we had good reason to believe that the limit in vest pocket planes had been reached, but it appears that a contrivance - the joint idea of Captain Aubrey I. Eagle and Lieutenant Melvin B. Asp, of the Army Air Service - goes the Messenger considerably more than one better.

Before proceeding any further with our argument, and in order that one may get some idea of what we are talking about, we are taking the liberty of quoting the remarks of our humorous Ellington Field correspondent regarding this miniature plane, which appeared in a recent issue of the LEWS LETTER:

"Early Saturday morning, May 6th, a sound of a running motor was heard. It was a purr quite unlike that of motors familiar to the trained ears of the Group pilots. There was a rush to the line; and Behold! there was Lieutenant Asp with his home-made scout plane, equipped with a new 60 h.p. Lawrence, ready for flight. It looked like a box kite and compared in size with the Messenger Scout as a humming bird compares with a robin. Lieut. Asp "screwed his courage to the sticking place" and gave 'em the gun. Off he went, but the little ship was not exactly balanced. It wanted to go either up or down, so the pilot attempted the landing about 75 feet. Alas, the ground was too close and the little "Asp" lay prostrate. It was dragged to a hangar for repairs and a few modifications."

In giving this quotation it is not intended to make light of the efforts of the two officers above mentioned, nor to take to task the Ellington correspondent, but simply to cite another illustration of the unhappy tendency of us poor mortals from time immemorial to scoff at and cast ridicule upon new ideas. Happily many of those who have come forth into the world with new ideas were built of the sterner stuff, have risen above all jibing and scoffing, and have convinced the Doubting Thomases that there was something to their ideas after all.

The other day Captain Eagle, in an apparently happy frame of mind - something not unusual with him - and weighted down by a telegram in his hand, accosted the Editor and stated he had a good story for the NEWS LETTER. The Editor, always on the lookout for good stories, expressed his great desire to receive it, whereupon Captain Eagle mentioned the fact that the airplane, which he and Lieut. Asp had designed, had made a successful test flight at Ellington Field on July 3rd. Good cause for celebration on the Fourth!

Captain Eagle stated that they designed this plane in 1920, and that it is built on lines quite different than that of any other plane now in existence. The span of the upper wing is 18 feet and that of the lower one 14 feet. The chord is $3\frac{1}{2}$ feet and the gap $5\frac{1}{4}$ feet. As thus constructed, the efficiency of the plane is practically that of two monoplanes. The main support of the wings are two solid struts running diagonally across each other from the top wing to the lower one, both passing straight through the fuselage and making them have the appearance of a huge X. The plane is then trussed up at each end of the wings by two K struts, with a small truss running to the axle.

Being trussed in this manner gives the little plane great strength, and this was recently demonstrated when it was pancaked from an altitude of 75 feet. The resulting shock was absorbed in all parts of the wings and nothing but the landing gear was damaged. The stagger of the wings can be changed $4\frac{1}{2}$ inches by loosening four U-bolts, at the bottom of the fuselage. Both the upper and lower wings are in one piece, and the combined landing gear and struts from the fuselage to the upper wing are in one piece.

The wings have a flexible trailing edge made to accommodate the varying air currents and to cause them to pass away in slipstream. Captain Eagle explained that

the failure of the machine last May was due to the fact that it was tail heavy.

Referring to the trial flight of July 3rd, Captain Eagle stated that Lieut. Asp gave it a thorough test that day and that it fulfilled all expectations. Equipped, as above stated, with a 3-cylinder Lawrence, 60 h.p. motor (the same engine installed in the Messenger plane) and an ordinary propeller, the plane took off in less than 50 feet, attained an altitude of 1,000 feet in thirty seconds, outflowed the DH and SE5 by a considerable margin, and climbed fully as rapidly as the MB 3. Captain Eagle estimates the speed of this machine at 135 miles per hour, and says that it will fly rings around the Messenger, the maximum speed of which is only 90 miles per hour. He states that the landing speed is about 30 miles an hour, this being brought about by it being so designed that when it reaches the ground both ailerons can be pulled down without affecting their coordination and they serve to act as airbrakes.

Captain Eagle is of the belief that the "Asp" is a splendid ship for light cross-country work. He states that he has made application to enter the little fellow in the Pulitzer Races this coming fall.

BALLOONING IN THE PHILIPPINE ISLANDS.

Free balloon flights in the Philippines heretofore have, as a rule, furnished the aeronauts with plenty of thrills, and the flight made from Kindley Field, Fort Mills, P.I., on May 3d, proved no exception to the rule. Avtype "R" Observation Balloon was used, and though it had finished its best days and was considered unsafe for further observation work, the fabric was still good and the gas did not leak out at too alarming a rate, so it was considered safe for a free balloon flight. Some minor changes were made in the rigging of the basket but, taken as a whole, it was an excellent representation of the action of an observation balloon when cut adrift. The flight was a part of the examination ordered by Headquarters Philippine Department. Lieutenant W. A. Gray and Captain Ivan B. Snell, were to be pilot and assistant pilot, respectively, Captain Snell, 17th Balloon Company, to represent the examining board. The balloon left Corregidor Island at 3:40 p.m., with a lift of about 66 pounds, and rose rapidly to three thousand feet altitude. At the beginning of the flight the balloon had about 30,000 cubic feet of gas in the envelope, and at 3,000 feet had completely expanded the envelope, and was showing $2\frac{1}{2}$ inches of pressure on the manometer tube. Upon valving the balloon, a slight accident occurred, pulling out the valve cord gland and making a slight leak, which, it was computed, lost the balloon about 500 feet of gas every fifteen minutes. This was compensated for by using between one and two sand bags of ballast during the same interval of time. The balloon was valved down to six hundred feet and checked. It was then decided to lower the drag rope and take advantage of the strong north-east wind blowing across Manila Bay. This wind was approximately five miles an hour at six hundred feet elevation, where equilibrium was reached and the flight continued. The two Air Service launches on detail between Corregidor Island and Manila were met and left far behind. Cavite was passed three miles to the north about the time that the afternoon boat from Manila to Corregidor was met. Vessels in Manila must have believed the balloon to be a run-away, because when Manila came into plain view, it was dotted with launches and steam boats pulling out, evidently "rescue bound". A landing was decided upon ten miles north of Manila, at a fishing barrio by the name of Navotas, and the balloon was valved to one hundred fifty feet of the ground and ripped at that altitude as the beach came below, with its some fifty thousand brown, howling Filipinos. Plenty of assistance was on hand for deflating the balloon but a rather hard time was experienced in getting the native population to do anything but stand on top of it, or roll about on the fabric. Finally the balloon was rolled and the two officers were conducted by the native population up to the Presidente's house, where the utmost hospitality was tendered them. At this time a Filipino Reserve Captain came in and reported that Governor General Wood's launch was waiting for their return, just beyond the fish corrals off shore. After being driven to an immense banca by the Presidente, the two officers were then paddled swiftly through the phosphorescent waters to the launch and returned to Manila, accompanied by some twenty launches which had remained to await the news of their safe landing. At Manila they found themselves just in time for the Charity Ball and, quickly changing into whites at the Elks' Club, proceeded to thoroughly enjoy themselves at Manila Hotel, and returned to Corregidor on the morning boat the following day.

SQUADRON NEWS

HQRS. 3D SQUADRON, JOLO, SULU, P.I., MAY 7.

The past two weeks in the field at Sulu are believed to have been the busiest in the history of the 3d Squadron. In consideration of the fact that the organization is practically isolated from supply sources and is operated under conditions foreign to past experiences, with its commissioned personnel forty two percent new and more or less inexperienced with the D.H., the following summary of operations for the period since April 20th is gratifying:

	<u># of flights</u>	<u>Time</u>
Bombing	13	850 mins.
Rear Gunnery with Duplex guns (Lewis) on sea target and silhouettes	14	440
Twin Marlin forward gunnery	3	90
Aerial Radio reception and transmission	11	275
Vertical Photography with K-1	2	140
Oblique Photography	10	345
General Reconnaissance X-country	19	1220
Practice	27	705
Test	15	760
Formation	4	260
TOTAL FOR PILOTS (121 flights) 87 hours, 20 minutes.		
NUMBER OBSERVER FLIGHTS, 80.		

With a personnel of ten pilots, two observers and forty eight soldiers, six planes have been maintained with complete auxiliary radio and armament equipment. Three to five planes have been flown daily, with the remainder held in reserve for maintenance.

The Flight Commander, Major A.H. Gilkeson was granted authority on May 4th, for a three-plane flight from Jolo, Sulu, to Manila and with its receipt preparation was commenced by the choice of three planes and their teams for the long hop. Major Gilkeson, Lieutenant G. W. Pardy and Lieutenant E. C. Batten were the fortunate pilots while Captain J. I. Moore with Master Sergeant Hunter and Staff Sergeant Sherin were designated as observers and mechanics. During the last two days of the week the three D.H.4-B's were tested for fuel and oil consumption, stripped until their splendid original form again became visible, and thoroughly gone over. The tests developed an average hourly gas consumption of approximately 21 gallons, and of oil, 1 1/2 gallons, which leaves an ample margin of safety for the longest leg of the flight, - from Zamboanga on Mindanao to New Washington on the Isle of Panay - about 340 miles. It is proposed to make the Jolo-Zamboanga flight the first day, lay over at Zamboanga firstnight and fly thru to Manila via Manucos, Mindanao, Siaton Point and Ilog, on Occidental Negros, Iloilo and New Washington, on Panay, thence direct to Manila over Tablas, near Marinduque, and across south western Luzon. But one landing is planned after leaving Zamboanga, and that at New Washington, but, in the event a field is available, a landing may also be made at Iloilo in Southern Panay. The flight over all, as plotted, is but 660 miles. The start is now being suspended pending receipt of accurate data on the tides for beach landings and Luzon weather conditions.

Notwithstanding the fact that all present, especially the married officers, are beginning to show signs of weakness and talk in retrospect of home and its comparative comforts, everyone seems to be making hay while the sun shines and taking advantage of opportunities to stock up, on native junk of all descriptions - razor-sharp and dangerous looking barongs that have many notches for heads taken on their handles, bloody spears, beetle nut boxes, whose contents are responsible for the full mouth of black teeth all Moros exhibit when they give their war cry, brass chow pots, tea kettles, parrots, rugs, rocks, wrecks and sarongs - anything that will advertise the Sulucampaign of May, 1922, when we again reach civilization. Truly, - it's awful. Our gullability has been so spread about that we can't get air through the windows of the bodega we are quartered in. They push and jostle and exude vile odors and shove their wares under our noses from morning until night - 6 pesos, sir - 20 pesos, sir - and always the inevitable argument and compromise, until the seller leaves in disgust or the buyer triumphantly carts off his purchase to add one more piece of junk to the store. As examples of what good salesmen the Moros are, the Major has at least a dozen beetle nut boxes alone,

to say nothing of fifteen or twenty coral bracelets; coral earrings, grass mats and other what nots. Six mangy looking and garrulous parrots, alleged to have come everywhere from Mecca to umpty umph ump -- rend the early morning peacefulness with their d_____ cries for lost mates. At first they occupied the barracks; then, under pressure of later developments, the fine porch, when it took legislation by Headquarters to move them a reasonable distance off. One hears threats of murder on all sides, both against the birds and their owners.

The officers' quarters have just been purged of a mysterious and mortifying odor that has intruded itself upon our friendly little evening casino games. Finally, Captain Keesling traced it down with the keen scent for which he is noted and found a dead and much ripe yellow pup under the floor beneath Lieutenant Evans' bunk. A confession was finally rung from Lieutenant Pardy, who owned up that he had, in consideration for the outfit's peaceful slumbers and under pressure from the Major, shot the poor beast and had been unable to polish it off with the teeth shot before it had secreted itself where found.

KINDLEY FIELD, FORT MILLS, P.I., MAY 6.

May 1st, national moving day, was appropriately celebrated at Kindley Field by moving field headquarters into a new set of offices in the 2nd Squadron barracks. This move was made to promote greater efficiency in the administration of the Squadron and to enable the Squadron Commander, who is also Field Commander, to exercise closer supervision over the internal economy of the organization. The various respective functions in both field headquarters and Squadron headquarters will be handled by the same personnel, the post Sergeant Major acting as Squadron Sergeant Major, file clerk as Squadron file clerk, etc. This arrangement has been in effect for a week, and during this time the efficiency of the plan has been demonstrated.

The organization of the field, both balloon companies and the 2d Squadron have been disrupted by the loss of 125 men, who are returning to the United States on the transport "Sherman", sailing May 10th. Their departure will take many valuable men from all organizations, and will leave a total personnel of but 78 men on the field. All operations have ceased, and this personnel has been assigned to administrative duty and to supply departments to safeguard and maintain supplies and equipment. Each balloon company will retain 7 men for company duty while the Squadron personnel has been reduced to 1 man in Armament, 1 in transportation, 3 in radio, 7 in flight and engineering and 9 in headquarters. The balance of the personnel are on necessary Special Duty with the Kindley Field Quartermaster, Kindley Field Branch, Philippine Air Depot, and the permanent guard.

1st Lieutenant John R. Drum, Air Service, who arrived in this Department on the transport "Sherman", April 30th, has been assigned to the 2nd Squadron (Observation).

1st Lieutenant Ray L. Owens, Air Service, has been assigned to duty as Squadron Adjutant and Assistant to the Field Adjutant.

1st Lieutenant Palmer, Squadron Operations Officer, announces to all his many friends in the Air Service, that Mrs. Palmer and he are the proud parents of a "son and heir", who arrived on May 5th.

The Squadron School during the past week was devoted to a series of lectures by 1st Lieutenants George A. Burgess and William S. Gravely on communications and aerial observation.

Flying activities were reduced to a minimum during the week. Major Hanley gave Lieutenant Gravely an hour's transition flying instruction from land planes to seaplanes. On Saturday, May 6th, Captain Edwards acquired the distinction of being the first pilot to "pile up" on the new landing field. In attempting to land a DH-4-B, which he was ferrying over from the Air Depot at Camp Nichols, he ran into a plot of freshly turned earth and executed a complete somersault. The plane was badly damaged but Captain Edwards escaped unhurt. The wrecked DH-4-B was the first installment of the planes with which the 2nd Squadron will be equipped when the landing field is completed.

A "despedido" was given to Lieutenant W.A. Gray, 27th Balloon Company, by the bachelors at Kindley Field on Thursday, May 4th, prior to his departure for a one month's leave of absence in China and other points of interest, and then returning to the United States. Lieutenants W. A. Gray and E. J. Bowling, have just completed the examination prescribed and ordered by headquarters Philippine Department. A board, consisting of all the Lighter-than-Air Officers at this Field, has been examining these two officers in all work with which they have come in contact during their entire two years' stay in the Philippine Islands. The

scope of the examination was quite similar to that which is given at the completion of any of the Airship or Balloon Schools in the United States, and was very far reaching in its attention to details and scope of the work covered. The Department Air Officer, Major Byron Q. Jones, was present during most of the examination.

CAMP NICHOLS, FIJAL, P.I., May 20.

event of

The chief interest at Camp Nichols during the past week, was the arrival of two airplanes from Jolo, in the Southern Islands. Major Gilkeson and Lieut. Batten were pilots and Capt. Moore and Sgt. Hunter passengers. Jolo is approximately 750 miles by air route from Manila and more than half of the journey was made over water. This trip was particularly hazardous on account of the lack of landing fields and also the almost unexplored nature of the terrain flown over. The start was made late in the afternoon of May 14th and a stop was made overnight at Zamboanga. The following morning the airplanes took off at 5 AM and arrived at Camp Nichols at 2:50 PM, making only one stop on route at New Washington. The beach at New Washington was the only known landing field between Zamboanga and Manila, a distance of more than 600 miles. No mishaps or troubles were encountered by the flyers on the trip. The personnel making this long flight have been highly commended by the Commanding General for their successful accomplishment.

On Tuesday, May 16th, Lieut. Leonard enjoyed the unusual experience of a trip in a submarine during fleet manoeuvres. He reports that the submarine is not without its exciting and interesting features. Nevertheless, he prefers the view of Manila Bay from one thousand feet or more above its surface to that obtained fifty feet below. During the manoeuvre, four dives were made, one of which lasted for over an hour. The target being located during the long dive, the submarine emerged quickly, fired a string of sixteen shots at the enemy and immediately submerged and escaped. The time taken for emergence, firing and re-submerging, was very short, and the rapid fire action compares favorably with fleet manoeuvres.

CRISSY FIELD, PRESIDIO OF SAN FRANCISCO, Cal., June 30.

The Shriners Convention closed on June 17th when the Imperial Potentate and a large number of his loyal subjects departed for Honolulu. Lieutenant Self, Commanding Officer of Aerial Photo Section No. 15, Crissy Field, took aerial photographs of the two special Shriners' transports leaving the docks, and approximately thirty-five minutes later the pictures, developed and printed, were dropped on board the transports by Lieutenants Benton and Self, shortly after the transports had steamed through the Golden Gate.

The Shriners were very appreciative of the cooperation of the Air Service during their convention here. Formations of planes from Crissy Field were flown over their parades, and an "Aerial Day" at Crissy Field proved to be one of the greatest attractions of Shriners' Week. On this day the visiting Nobles were given demonstrations of varied types of formation flying; aerial bombing; aerial combat, etc.

The Shriners' Convention had hardly closed before San Francisco welcomed the convention of the Disabled War Veterans, and once again the flying personnel at Crissy Field was called upon to cooperate in every way possible to make the parades of the Vets. a success.

Seventy-five Reserve Officers visited the field during the past week for the purpose of inspecting it. These officers are undergoing a course of training at the Presidio of San Francisco. Special demonstrations of bomb dropping; shooting machine guns; formation flying; etc., were given immediately after inspection of the field was completed. The Reserve Officers obtained considerable insight into Air Service activities through this visit, and left with a very favorable impression of Crissy Field.

The Ninety-First baseball team is going strong, winning an eleven-inning game from the strong Goat Island team by the score of 9-8.

The contemplated arrival of approximately 250 enlisted men at Crissy Field from the 19th Squadron at March Field and the 9th and 28th Squadrons at Mather Field means that the accommodations of the Post are going to be rather severely taxed for a few days. These men will be held here pending sailing of the transport to the Philippines and Hawaiian Department.

The officer personnel at this field are making preparations to begin their work in connection with the R.O.T.C. camps. Captain Herold and Lieutenants Maxwell, Self and Post, together with Mechanic Royster and Sergeants Wignall and Gravlin left on July 3d for the R.O.T.C. camp at Camp Lewis where they will act as instructors of Air Service subjects. Lieutenant Patrick and Sergeant Helpman will go to Fort Douglas, Utah, for this purpose. Captain L.H. Smith and Lieutenants Sweeley, Benton, and Goldsborough will remain at Crissy Field for the purpose of cooperating with the R.O.T.C. at Monterey and also for the purpose of carrying on the routine operations of the Ninety-first Squadron at Crissy Field.

At this writing Captain L.H. Smith is on the last leg of an extensive photographic flight, which included the states of Idaho, Wyoming, Nevada, Utah, Oregon and Washington, and which covered approximately 7,000 miles. The flight was made for the purpose of taking aerial photographs of the landing fields in the Ninth Corps Area. Details of this trip will be given in our next letter.

With reunions, conventions and the carrying on of regular routine training and operations, Crissy Field has been an exceptionally busy place for the last two weeks.

KELLY FIELD, SAN ANTONIO, TEXAS, JUNE 24.

With the movement of the Bombardment Group to Langley Field, the Attack Group will take up residence at the west end of the field in the quarters vacated by them. The move is necessitated by the fact that all buildings available for school use are located at this end of the field and will be needed by the new Tenth Group School to be formed here upon arrival of the majority of its personnel, who are being transferred in from Post Field, Okla. All squadron operations have been suspended for a period of two weeks, commencing June 19th, in order that the squadrons may move to their new quarters and become comfortably settled therein before resuming general flying.

Lieutenants Biggs and Wheeler, until recently conducting classes for the Air Service R.O.T.C. students now training at this station, left late Tuesday for McAllen, Texas, where they will be employed in locating stranded refugees in the Laredo flood district. Lieut. Biggs will remain at McAllen while Lieut. Wheeler will later go to Laredo for other duties.

After three years' service at Kelly Field, the 2nd Group (Bomb.) left for Langley Field, Hampton, Va. on June 26th, under command of Major Blackburn-Hall, A.S. The Group came to Kelly Field from Ellington Field, Houston, Texas in the Fall of 1919, when the latter field was temporarily abandoned. At that time it was known as the First Day Bombardment Group, and consisted of a Headquarters Detachment, the 96th, the 166th, the 20th and the 11th Aero Squadrons. Last year it received its new designation as the 2nd Group (Bombardment), and at the same time the 166th Aero Squadron was changed to the 49th Aero Squadron.

During its stay at Kelly Field, the Air Park and the 2nd Photo Section have been added to the organizations that comprise the Group. During this period it has been under the command of Captain Marcus H. Rice, A.S., 1st Lt. Jack Palmer, A.S., Maj. J.Y. Chisum, A.S., Maj. Henry G.F. Miller, A.S., Capt. W. P. Hayes, A.S., 1st Lt. J. V. Meloy, A.S., and Maj. Blackburn Hall, A.S.

Last year the 96th and the 49th Squadrons, with a majority of the officers of the Group, under command of Maj. H.G.F. Miller, were detached for service at Langley Field, in connection with Project B, the bombing of the captured German battleships.

For the last year the Group has been a school in advanced bombardment flying, and has qualified many well known officers of the Air Service, including Lt. Colonel Danforth, now commanding Langley Field; Lt. Col. W. E. Gillmore, of the Supply Branch of the Air Service; Maj. H. C. Pratt, Major W. R. Weaver, now commanding Mitchel Field, Maj. J. H. Pirie, now commanding Aberdeen Proving Ground and Maj. F. L. Martin, now commanding the A.S.M.S. at Rantoul, Ill. This work is now being assumed by the newly organized 10th Group School, which ^{is to} maintain at Kelly Field a squadron ^{representative} of each kind of military flying.

The actual movement of the group is to be accomplished in two trains, one, consisting of the 96th and 20th Squadrons, the Headquarters Detachment and the 2nd Photo Section, under command of Major Hall, going via Memphis, Tenn., and the other, consisting of the 11th and 49th Squadrons and the 4th Air Park, under command of Capt. Early E. W. Duncan, going via St. Louis. The Group is taking no airplanes or motor transportation with it.

FAIRFIELD AIR INTERMEDIATE DEPOT, FAIRFIELD, OHIO, JULY 8.

Through an unusual amount of effort, 16 JN4H's were completed in the Engineering Department by the last of June and were shipped to the Supply Officer, at Mitchel Field, L.I., New York, where they are to be used for the training of reserve officers.

Work has been started on three DH4B special type Messenger Airplanes with 135-gallon capacity gas tanks to be used by the Office of the Chief of Air Service. Major J. E. Fickel, Chief of the Supply Division, was a visitor at the field on July 3rd and 4th. Major Fickel succeeded Lieut. Colonel W. E. Gillmore as Chief of the Supply Division, and this was his first visit to Fairfield in connection with supply matters affecting the two offices.

Lieut. Edwin R. Page reported at the Depot for duty, being transferred from the Office of the Chief of Air Service in Washington. Lieut. Page will be the Chief of the Requirements Branch at this Depot.

Captain Christine and Lieut. Mills, recently reported here for duty in the Engineering Department. Captain Christine comes from the Office of the Chief of Air Service in Washington, and has been detailed for duty in the shops. Lieut. Mills is from Post Field, Fort Sill, Okla., and has been detailed as Officer in Charge of Final Assembly.

MATHER FIELD, MILLS, CALIF., JUNE 19.

During the week 13 students reported to Major H.L.K. Mühlenberg, commander of the Reserves Officers' Training Camp; 3 from the University of Washington, 10 from University of California, five additional young men will arrive from Washington in a few days. All students were given airplane rides, and the classes in reconnaissance, communications, topography and map reading started promptly according to schedule. Trouble shooting and other instruction on motors will be started next week.

Lieutenants A. Liggett and B. R. Dallas reported from Crissy Field on the 15th for duty as instructors in the training camp.

A miniature range, consisting of a map of the field and its vicinity within a radius of several miles, was built in Hangar 2, electrically wired, and is being employed in preliminary observation aviation prior to the students doing this work from ships.

Lieutenant H. C. Minter, who is also to be one of the instructors here, under direction of Major Mühlenberg, in addition to his duties as Aero Supply Officer, returned from Vancouver Barracks, Wash., on the 15th. He and Sergeant Dotta had been in Oregon and Washington on C.M.T.C. recruiting work since May 20th.

As many officers and enlisted men as could possibly be spared from their duties took advantage of short absences to attend the Shriner's Convention at San Francisco. All returned with glowing reports of pleasant renewals of old acquaintances, brilliant meetings, parades and dances-- the convention having surpassed any other ever held.

Lieutenant J. A. Madarasz, A.S., reported back from two months' leave, the last month of which was spent in California. He is scheduled to leave for temporary duty with the R.O.T.C., at Camp Lewis, Wash., on July 3d.

Lieutenant Mark R. Woodward, A.S., was transferred from the 9th Squadron (Obs.), and assigned to the command of the 28th Squadron (Bomb.). He has also been appointed Post Operations and Engineering Officer.

Lieutenant William S. Sullivan and his bride returned from their short honeymoon spent in the Bay cities. They plan to live on the Post, and are very busy arranging their quarters.

POPE FIELD, CAMP BRAGG, N. C., JULY 11.

The mapping of airways and landing fields called for in the letter of the Chief of Air Service of May 16, 1922, was completed by the Detachment of the 22nd Aero Squadron at Pope Field on June 30th. Three airways were mapped from Camp Bragg to the following points: Louisville, Ky.; Macon, Ga., and Savannah, Ga. Lieut. Arthur G. Watson mapped the course between Pope Field and Savannah, Ga., Lieut. E. P. Gaines that between Pope Field and Macon, Ga.; and Lieut. L.A. Walthall, in cooperation with Lieut. Gaines, the one to Louisville, Ky. In addition to this work, several landing fields are within a radius of 500 miles of Pope Field have been mapped, the total number of maps thus far secured being about thirty.

The following is a summary of the accomplishments in flying of the above detachment during the past six months, aside from the mapping work mentioned above:

Command Missions, 141 hours, 43 minutes; practice flights, 12 hours, 15 minutes; reconnaissance missions, 29 hours, 35 minutes; formation flights, 2 hours; recruiting missions, 5 hours, 35 minutes; fire patrol, 15 hours, 20 minutes; test flights, 13 hours, 16 minutes, and artillery reglage adjustment, 21 hours, 45 minutes. The total aircraft flying time was 231 hours and 35 minutes; total number of man hours, 462 hours, 58 minutes; and total number of man miles, 23,135. The average number of pilots on duty on the above work was three.

During the period above mentioned, the detachment has successfully flown twelve artillery problems with the Field Officers' Artillery School.

In the recent Camp Bragg Tennis Tournament, Major Goolrick and Lieut. Walthall, who represented Pope Field, won laurels for themselves and for Pope Field when they emerged victors in the male doubles. The feat was doubly difficult and the honor correspondingly greater when consideration is taken of the fact that several members of the Field Officers' School participating in the tournament were the Army's foremost tennis stars.

The June Ball by the enlisted personnel on June 14th was attended by fifty guests from Fayetteville and other neighboring cities. The music for the occasion was furnished by the well known Grace's Orchestra of Fayetteville and was in every way satisfactory, adhering to their well bestowed cognomen of "Harmony Niggers". Dancing was engaged in from 8 to 10 p.m., at which time a dinner of several courses was served in the enlisted men's dining hall. After dinner, dancing was resumed with renewed "pep", and at midnight all said their adieu with satisfaction of an evening well spent.

Major Goolrick, of Pope Field, and Major Pendleton, of the Field Artillery, recently had an automobile trading contest. Major Goolrick emerged from the fray with a "Stuttering Stutz" in place of his Studebaker Six, but very well pleased, however, because he had also reaped a goodly roll of hush money.

ROCKWELL AIR INTERMEDIATE DEPOT, CORONADO, CALIF., JULY 8.

The regular weekly party held on Thursday evening at the Officers' Club was in the form of a buffet dinner followed by bridge, Mrs. Erwin and Mrs. Field being the hostesses. Mrs. Randolph won the ladies' prize and Lieut. Harriner the Officers' prize.

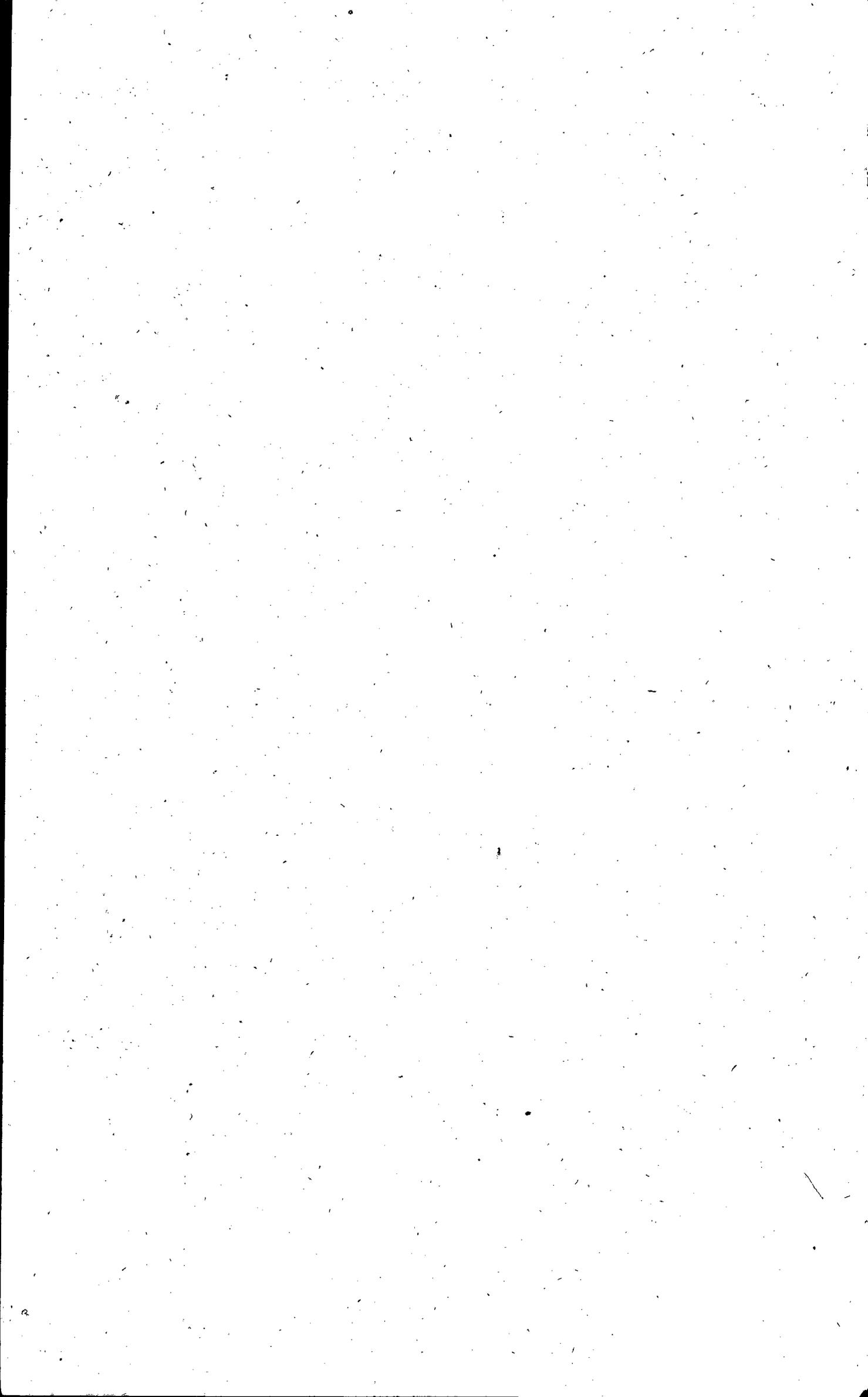
Captain W. A. Bevan, familiarly known as the "Sheik of Rockwell Field", who has been Engineering Officer at the Field for the past year, was recently ordered for station in the Hawaiian Department. He and Mrs. Bevan left this station on June 30th. Lieut. C. L. Wobber has taken over the duties of Engineering Officer.

Lieut. Alfred W. Harriner, who recently arrived at the field from the Hawaiian Department, has taken over several jobs, such as the Post Signal Officer, Information Officer, Meteorological Officer and Summary Court Officer.

Master Sergeant Steinle and Staff Sergeant McComas were recently transferred to this station from March Field. They were assigned to the 18th Squadron, and will spend most of their time in duty on the line.

No funds being available for the special work being done in the Supply Division of reclassifying, storing and salvaging certain Air Service material, it was necessary to dispense with 25 civilian employees at this Depot at the close of work on June 30th.

A number of civilian employees of the Depot departed recently to attend National Guard and Civilian Military Training Camps.



The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE August 18, 1922.

DD NIGHT FLYING FROM MCCOOK FIELD

Night flying in the vicinity of Dayton, Ohio, has become almost as commonplace as day flying, and the citizens no longer hurry from porches and dinner tables to the pavements at the sound of overhead motors at night to peer into the clouds in an effort to locate the humming shadow so picturesquely tipped by its red and green lights. Now and then they still exclaim over the beauty of a long-dropping parachute flare or the shorter-lived signal flare, wondering what and why they are, but gradual familiarity is a very good antidote even of curiosity. Lieutenants L.D. Bruner and H.R. Harris, in charge of night flying, have been carrying on some rather intensive experimental work. The airplane used for this purpose is a remodeled DH4B, fully fitted out with pyrotechnics, night flying and emergency equipment. The testing and development of this equipment is of prime importance.

A group of Ordnance officers who came to witness a demonstration of pyrotechnics were recent visitors at the field. One of the problems in this connection is reducing the size of the parachute flare, in order to avoid danger where it falls, without sacrificing the lighting qualities. This is the brilliant flare used for picking out landing fields and for military observation. The landing light mounted on this airplane is a 100-ampere, 12 Watt lamp, operated by the same generator used for ignition and starting. It is planned to streamline the body of this lamp, in order to reduce the resistance to the wing tip. A new non-glow manifold has been designed and is used on this airplane, which cuts out the illumination from the exhaust.

The night flying at McCook Field has not been confined to airplanes only. At 7:30 p.m. on July 3rd, Major Harold A. Strauss and Lieut. Richard E. Thompson set forth in Balloon No. 25 (35,000 cubic feet) presuming, after a study of the weather maps, that they might spend the Fourth in Washington, D.C. All conditions seemed ideal for the trip. The balloon was one with which they were thoroughly familiar, since it had been in use at Fort Omaha, Neb., continuously for three years. Incidentally, it also had more flights to its credit than any other balloon in the service. The winds were favorable, there being high winds east, which would swing them in a large arc in the vicinity of Washington and ground winds, south by southwest. The start was made due south, over Lebanon and Loveland, crossing the Ohio River into Kentucky, ten miles east of Cincinnati. The night was pleasant, partly clouded, but with the moon slipping through every once in a while with fine effect. North of the Ohio, fireworks and rockets were much in evidence, lending a note of festivity to the trip. In decided comparison, however, not a sign of fireworks appeared south of the Mason and Dixon line. This territory was strictly "sane". At two thousand feet the balloon seemed to act as a sounding board, and bits of conversation floating up from the ground were as audible in the high stillness as if the speakers had been in the basket.

Crossing over Frankfort, Kentucky, about one a.m., it was decided to ascend to catch the direct east wind, which could be seen driving the clouds across the face of the moon, at 10,000 feet. The ascent was begun, but one contingency that had not been provided for was the extreme cold. At 4,500 feet both occupants were so shaking with cold that the basket literally shook with them. They concluded that were they to ascend to the 10,000 ft. level their arrival in Washington would be as frozen corpses, and agreeing that this was somewhat out of keeping with the spirit of their trip they gradually descended to the friendly south wind's level and continued in greater comfort.

At about 5:30 a.m., they passed over Glasgow, Ky., continuing in the general direction of Nashville, Tenn. The country in this locality was wild and rugged, few towns and many mountains, landing places for aircraft of any kind being at a premium. At 7:30 a.m. on July 4th, a landing was made at West Moreland, Tenn., a

small town on a branch line of the L. & N. Railroad.

Lieut. Thompson's description of the delights of free balloon travel by night would have given the Arabian Nights maiden, who saved her head from day to day by telling a captivating story to the king, yet another day to live.

MUNICIPAL LANDING FIELD FOR DANVILLE, VA. ✓

Prospects appear bright for the establishment of a municipal landing field at Danville, Va., in the very near future, according to Messrs. F.E. Young and Wm. Filmore, civilian aviators, who have started a movement for such a field in that city. Aviator Young states that he has been receiving many applications from land owners near Danville to have him consider their fields, and that much interest is also being shown in the project in Danville proper.

J J J A NEW SCHOOL GROUP IN THE AIR SERVICE.

Orders have been issued creating a new group in the organizations of the Air Service, to be known as the 10th Group (School), to be located at Kelly Field, San Antonio, Texas, and to consist of the following organizations:

39th Squadron (School) Pursuit
40th " " Bombardment
41st " " Attack
42nd " " Observation
43rd " " Service
13th Air Park
22nd Photo Section
10th Group Headquarters Detachment.

Major John N. Reynolds, Air Service, will be in command of this new Group, which is to form the Advanced Training School of the Air Service. In its organization, it is contemplated that each of the present tactical groups of the Air Service shall furnish the nucleus of the new squadron which is to carry on its specialized work in the school. With this in view, the 2nd Group (Bombardment), which has been transferred to Langley Field, Va., has left some 14 officers and 100 enlisted men at Kelly Field to form the nucleus of the 40th Squadron. The 1st Group (Pursuit), formerly at Ellington Field and lately transferred to Selfridge Field, Mt. Clemens, Mich., is transferring some 10 officers and 100 enlisted men to form the nucleus of the new 39th Squadron. The 3rd Group (Attack), Kelly Field, will furnish the nucleus of the 41st Squadron. Seventeen officers and 350 enlisted men are being transferred from Post Field, Fort Sill, Okla., to form the nucleus of the new 42nd Squadron, the 13th Air Park and the 22nd Photo Section. About 100 enlisted men are being transferred from the Lighter-than-Air branch (Brooks Field) to form the nucleus of the 43rd Squadron.

When the School Group is completed, it is contemplated that the four different courses, which are now being given at three different stations, will be coordinated and fitted together in order that they may be given at one station. Pilots who graduate from this school will have good general knowledge of all tactical branches of the Air Service, as well as a very thorough knowledge of their own special branch.

The 40th Squadron is already organized and functioning. The others will be organized as rapidly as troops being transferred reach Kelly Field.

J J J AN AVIATION BEACON ✓

A representative of the Lawrence Sperry Aircraft Corporation recently visited McCook Field, Dayton, Ohio, for the purpose of demonstrating in connection with night flying a new truck and searchlight combination known as the Sperry Duplex Truck. The purpose of this light is to serve as a beacon to mark landing fields for night-flying airplanes. The light, which is of high intensity (three hundred million candle power), with a reflector measuring 36 inches in diameter, is the same type as that used on battleships at sea, but this is its first adoption for land purposes. By its radiation a landing field should be located from 75 to 100 miles away. The engine of the truck performs double duty, serving as power for the truck when in motion and for the searchlight when the truck is still.

SOME CROSS COUNTRY FLYING

The shade of Jules Verne sneaked out of the flying headquarters at Kelly Field on July 4th, after reading "Cross Country Reports" that made his once fantastic accounts of voyages of the future as tame as trekking over the Texas plains behind a yoke of oxen. "I never dreamed of anything like the trips of Doolittle, Andrews

and Dunton," Jules grunted, as he took off in his "sky-skeeter" for the Mexican Border.

Lieut. Delmar H. Dunton left Selfridge Field, Mt. Clemens, Mich. for his return trip to Kelly Field on Thursday, July 6th. He arrived at Dayton, Ohio, on Thursday afternoon, and on Friday he visited the Air Service Engineering School. He left Dayton Saturday morning en route to Tulsa, Oklahoma, making a stop at St. Louis. He was forced to remain at Tulsa Sunday, having flown the last four hours before landing in a driving rain. He flew from Tulsa to Dallas, Texas, in two hours and ten minutes, gassed at the latter place and arrived at Kelly Field two hours and twenty minutes later.

Lieutenants James H. Doolittle and L. S. Andrews landed at Jacksonville, Fla., on July 3rd, in time to take supper of Florida "crackers". Lieut. Doolittle acted as pilot and Lieut. Andrews as assistant pilot. They left Kelly Field at 5:15 in the morning, almost before the break of dawn, and were "long gone" when the sun rose. They gassed at Ellington Field and again at Pensacola, Fla., leaving there at 12:30 and landing at Jacksonville, Fla., at 5:40 of the same day, making the total time to the Atlantic Coast in nine hours and fifty minutes for 1,025 miles.

The ship was a BeHaviland of the same construction as the one used a few weeks before on the trip to Rockwell Field, San Diego, Calif., which was made in 12 hours and 30 minutes, constituting a record flight between the two fields. This makes a total flying time of 22 hours and 20 minutes for Lieutenants Doolittle and Andrews from Rockwell to Jacksonville. The last transcontinental flight from San Diego to Jacksonville, made on February 22, 1921, by the late Lieut. W. D. Coney, was negotiated in a total flying time of 22 hours and 27 minutes, so that Lieutenants Doolittle and Andrews bettered this record by seven minutes.

FLYING ALONG THE NEW AIRWAY

The first official regular trip on the new airway connecting McCook Field, Dayton, Ohio, with Mitchel Field, Long Island, New York, and Langley Field, Va., via Bolling Field, Anacostia, D. C., and Moundsville, West Va., was recently made by Lieutenant Samuel P. Mills, pilot, and Lieut. Van Meter, passenger. One hundred pounds of photographic supplies, destined for Washington, were carried. Excellent weather was encountered, the round trip from McCook to Langley and return being made in about 10½ hours' flying time. One unscheduled landing was made close to Cumberland on the return trip but no damage resulted.

Lieut. Mills declared himself very enthusiastic over the airways development.

ENLARGEMENT OF ACTIVITIES AT CHANUTE FIELD

Chanute Field, Rantoul, Ill., is a busy place nowadays. Since the arrival of the Communication School from Post Field, Fort Sill, Okla., and the Photographic School from Langley Field, Va., the already busy routine of the post has been considerably enlarged. The question of room to be allotted to these various schools for purposes of instruction is somewhat of a problem, but is being met by the erection of additional steel hangars. One hangar has already been completed, and three others have been contracted for. The erection of several hangars in addition to this number is contemplated in the near future.

Among the new officers reporting at Chanute Field for duty with the Photographic School are Captain W. C. Wheeler, Air Service, Commanding; and 1st Lieutenants Robert Cronau, J. P. Hodges, Stewart W. Torney and E. B. Robzien.

The school detachment consists of 25 enlisted men. With the exception of Capt. Wheeler, all of the above officers came by airplane, ferrying over photographic planes from Langley Field.

The Officers of the Communications School are Capt. L. P. Hickey, Commanding, 1st Lieutenants J. H. Gardner, Stanley Smith and J. T. Harris. The Communication School Detachment consists of 21 enlisted men.

Both of the above schools are shortly expected to be in operation.

MAPPING MIDDLE WEST AIR ROUTES.

During the early part of July Army pilots from Chanute Field have been engaged in aerial mapping work over the States of Illinois, Iowa, Wisconsin and Michigan. The route from Rantoul, Ill., to Chicago, to Minneapolis, to Iowa City, to Rantoul was mapped by 1st Lieutenants F. A. Lundell and H. H. Carr. The route

from Rantoul to Detroit, to Chicago, to Rantoul was mapped by 1st Lieutenants W. R. Carter and James S. Eldredge.

39th. AERO SQUADRON ORGANIZED.

The new 39th Aero Squadron, consisting of 100 enlisted men and 12 officers, was organized at Ellington Field, Houston, Texas, on June 27th last. The 100 enlisted men were formerly members of the 1st Group (Pursuit) at that station, these men volunteering to come to Kelly Field to start organizing the new advanced training school. The majority of these men are volunteers from the famous 94th Squadron (Hat in the Ring), which squadron ever since the World War has maintained its reputation throughout the Air Service.

Captain Baucum, now Commanding Officer of the squadron, also late Commanding Officer of the 94th, will, with the cooperation of these men and officers now in his command, attempt to make the 39th equal to the reputation of the noteworthy 94th Squadron, and try to make the 10th Group one that will be prominent and noteworthy as the 1st Group (Pursuit).

At the present time, due to the organization just starting, operations have not begun. Every member of the new Group is doing his utmost getting things together for a big start. They are putting their hearts in their work to see that this new squadron and group become successful.

PROGRESS OF AIR SERVICE MECHANICS SCHOOL DURING PAST SIX MONTHS

A recapitulation of the instruction carried on in the Air Service Mechanics School at Chanute Field, Rantoul, Ill., for the period from January 1 to June 30, 1922, shows that 185 students have thus far graduated from this school, viz: Armorers, 38; Blacksmiths, 6; Clerks, 9; Draftsmen, 3; Ignition Experts, 6; Fabric Workers, 4; Airplane Mechanics, 31; Engine Mechanics, 66; Auto Mechanics, 16 and Machinists, 6.

Practically the entire number of graduates have been assigned to Air Service tactical operations.

There are now 489 students in attendance at the school, with 3 additional students awaiting instruction, due to sickness or other unavoidable causes.

R.O.T.C. SUMMER CAMP AT KELLY FIELD

The Air Service R.O.T.C. Summer Camp began at Kelly Field on June 15th, with 16 cadets from the Texas A. & M. College in attendance. There are a few more weeks yet to go, and the camp has already exceeded the highest expectations. The other R.O.T.C. units located at Camp Travis are close enough to watch operations. They have forgotten the remarks they used to throw at the Air Service personnel and are rolling envious eyes at "The Buzzards" located at Kelly Field. Many have already expressed their desire to groom Liberty motors rather than horses, and to fly in the clouds where the air is pure than to lay buzzer lines where the dust is hot. The Air Service Unit at the A. & M. College next year is apt to be overcrowded.

The course given is intensive, instructive and, above all, interesting. It includes radio, motors, aerial photography, aerial sketching, artillery reglage and bombing. The dry theory of bombing and photography loses most of its dryness when it can be applied in actual flying.

R.O.T.C. ADVANCED CAMP AT CHANUTE FIELD.

Six students from the University of Illinois are attending the Reserve Officers Training Corps Advanced Camp for the Air Service, now in operation at Chanute Field, Rantoul, Ill. Captain John G. Whitesides and 1st Lieut. C. P. Talbot, Air Service, who are detailed for duty with the Department of Military Science and Tactics of the University of Illinois, are in charge of the students.

The actual instruction itself, which consists of a total of 168 hours, is carried on under the supervision of the Commanding Officer, Chanute Field. Different officers on the post are detailed to assist in training and to deliver lectures. Daily flying missions are carried on, and lectures and demonstrations of Air Service work cover the remainder of the time. The course is comprehensive and its purpose is to give the students a knowledge of Air Service work in general, to stimulate their interest in this branch of the service and to give an idea of the many things a successful Air Service officer should understand.

ECUADORIAN OFFICER GRADUATES FROM A.S. MECHANICS SCHOOL.

Lieut. Freile, Air Service, Army of Ecuador, successfully completed the course in Engine and Plane Maintenance at the Air Service Mechanics School, Chanute Field, Rantoul, Ill., and is now awaiting orders for his return to Ecuador.

CANADIAN AIR BOARD ABOLISHED ✓

An Act was recently passed by the Canadian House of Commons by which the duties of the Canadian Air Board and of the Naval and Military Departments are to be taken up by a Ministry of Defence. A Defence Council is to be set up which will consist of the Ministry of Defence (President), Deputy Minister (Vice Pres.) a member who will perform the duties vested in the Deputy Minister of the Naval Service, and four other officers.

A FLYER'S LUCK The Ground Loop From the AIRCO NEWS

It was after flying the humble Jenny that Lieut. Bob Terrel suddenly found himself assigned to T.M. Scouts. Up to the time of receiving his R.M.A. rating and likewise his commission, his whole course of training had been on the Curtiss JN4B's. Upon receiving his rating he had flown a few hours more in the JN4H until orders came assigning him to the advanced pursuit school at Carlstrom Field, Florida. Reporting to the field a week before the start of the next instruction class, he "fiddled around" a few hours more on the H's. And now he was assigned to the Thomas Morse for air work and landings. Whow! Oh, Well, worse men than he had gotten them up and taken them down, or vice versa, so he should give a hang.

The next morning he trotted out to the line. The mechanics were "winding up" the LeRhone motors, optimistically expecting them to pop off on the first swing, which they never did. Soon, however, the air was full of noise, as of a battery of sewing machines, punctuated with numerous "bangs" and "whoofs". The air was just full of that peculiar odor of burned castor oil, the lubricant used in the rotary motor. The instructor motioned the new class to one side and gave them some preliminary instructions in the science of handling the little tricksters. The science, indeed, but not the art. That was up to them. Briefly, he operated the working of the minette throttle, the two arms should be adjusted to each other so as to give the most efficient mixture of air and gas. Oh, sure, they knew. "All right, then, let's go", were the instructor's words. "Terrel, you first, take No. 14. Take off, climb to 2,500 feet, and do simple barks. Let her cool off every ten minutes or so, and be careful and do not "kill" the motor when you shut her off. Ready? All right. Take her off". And Lieut. Terrel climbed into the single cockpit of the little scout ship.

The field was clear ahead of him. The air was moderately so, although a few Jennys were making landings off in one corner of the field.

"Here goes nothing" was his one thought, as he pushed the minettes, and with a cloud of foul white smoke and sundry "bangs" the little plane hopped its way down the field. Let us leave him hopping thus, while we digress for the moment.

Have you ever ridden an old work horse around the barn for a long time and then suddenly find yourself mounted on a spirited polo pony? Or even had the valves ground, and new rings, and tires that will stand higher inflation on the old driver, and then go to stepping through the traffic with her? Or practice baseball on a dirt court with a soft ball, and then play a real game on a real court with a real ball? Yes, that is about how our hero felt when his T.M. started lickety split down the length of the field in the direction of Interior Florida.

No sooner was he off the ground than he started fooling with the throttles, watching the meantime till the engine was buzzing at its maximum speed. And then across his path lumbered an ancient Jenny, a buzzard obstructing the flight of a swallow. Right on the job, our brave pilot yanked the stick, intending to zoom over the wobbly tub and continue merrily. And zoom she did. The aircraft that he was used to flying would no more have cleared the ship in front in responding to the pull that he had given the stick of his little scout. The plane that he was now in, however, acted differently. She zoomed, all right. But she kept right on going up, up and over, until on its back 150 feet off the ground. He cut the gas completely, the plane meanwhile settling slowly and, for a wonder, steadily, as he pushed the stick well forward. Down it came, slower than that type had ever been flown before. Then, and this was one of the miracles, it settled lightly on earth

with a splintering sound rather than a crash. The top wings flattened out, of course, and the landing gear was sticking up in the air, but the fuselage was not damaged.

But where was the pilot? To the engineer officer, one of the many assistant officers in charge of the flying, and the mournful crew chief who ran out to the wreck, he was nowhere to be seen. Had he dropped out when it went on its back? No, for as they came up, the pilot, like the plane, on his back, plumped down out of the inverted cockpit and hit the ground hard. The belt had, meantime, been holding him to the seat, and he had just released it, coming down to earth a bit faster, it seemed, than the plane he had just wrecked.

"Bring on another" he exclaimed cockily to the instructor when that worthy asked him if he were game for more that day. To his "lady friend" that night he wrote of his mishap. " - - came out of it entirely unhurt", part of it read, (that part without the x x x x in it), which was not entirely correct. It seems that in falling out of the cockpit his spine had picked out the only stone in that part of Florida, and the next day, in settling the argument with his fellow pilots, he was able to exhibit a beaut of a "blue onion" on his back.

A LIGHTER-THAN-AIR MECHANICS SCHOOL.

Mechanical instruction of Air Service personnel in connection with heavier-than-air craft, conducted with such excellent results at the Air Service Mechanics School at Chanute Field, Rantoul, Ill., is soon to be augmented by the introduction of courses for lighter-than-air mechanics.

Lieutenant John W. Shoptaw, Air Service, who was detailed on the duty of organizing this branch of the Mechanics School, has completed his work and is now ready to take up actual training work. The seventeen courses of instruction which he has formulated have been so laid out that much of the work can be carried on in the Departments for the training of heavier-than-air mechanics.

The instructional staff of the Air Service Mechanics School will be utilized, with the exception of nine enlisted lighter-than-air specialists, who will conduct courses for gas plant operation, mechanics (Balloon and Airship), fabric workers, auto mechanics, and winch drivers. The dovetailing of the training of these two branches will result in a large saving of time and money. The duration of these different courses is six months, with the exception of the courses for Welders, Mechanics (carburetion), Blacksmiths, and Riggers (Parachute), which are for four months. A list of the courses follows:

HYDROGEN GAS PLANT OPERATION: Preparatory Training, Blacksmithing, Oxy-acetylene Welding, Machinist Primary Work, Hydrogen Plant, General Field Work.

MECHANICS, BALLOON AND AIRSHIP, Preparatory training, Airship Repair, Balloon and Airship Rigging, Engine Adjustment, Engine Installation and Operation, Advanced Field Training.

FABRIC WORKERS: Preparatory Training; Airship Repair; Grading Textiles and Pattern Making; Fabric cutting and machine sewing; Fitting and Hand Sewing; Patching, doping and varnishing; Rubberized fabric, rope and its uses; Hydrogen Gas; Parachutes, General Review, final examinations.

MECHANICS, AUTO AND WINCH DRIVERS: Preparatory Training; Elementary Mechanics; Starting, Lighting & Ignition System; Engine Overhaul and Adjustment; Engine Testing and Carburetion; Chassis Overhaul and Adjustment; Winch Overhaul and Adjustment; Shop Practice, general.

Course for Clerks, General.

Course for Electricians, Ignition.

Course for Welders, Gas.

Course for Mechanics, Airship Engine.

Course for Metal Workers.

Course for Machinists.

Course for Mechanics, Carburetion.

Course for Cabinet Makers.

Course for Draftsmen, Mechanical.

Course for Blacksmiths.

Course for Riggers, Parachute.

Men now assigned to organizations who have not had the benefit of this training are to take the course, as well as recruits. The authorities of the ^{Mechanics} School for training should take pains to select the very best men available, as these courses are comprehensive and complete and will benefit the organization and the man to a marked degree. Poor student material is not desired.

R.O.T.C. STUDENTS OF CAMP TRAVIS VISIT KELLY FIELD

Following a lecture given by Captain Walter F. Kraus, A.S. to the students attending the Reserve Officers Training Camp at Camp Travis, San Antonio, Texas, on July 6th, on the "Duties of an Airplane Observer", in connection with ground troops, 114 of these students visited Kelly Field early the following morning for a practical demonstration of the points covered in the lecture of the day before. A dropping ground was selected and a radio station erected on the flying field. Captain Crom acted as Observer on an Infantry Contact and Artillery Reglage Mission, while the students remained at the radio and panel station to view the operation of the panels. Upon the ship landing at the panel station the observer explained the mission. The R.O.T.C. students were then assembled at another point, where the different type ships and their functions were explained. Lieut. R. D. Biggs spoke from the cockpit of an XBIA, showing how it differed from a DeHaviland that stood on the "line" nearby. Some interesting data pertaining to aviation was given, and examples cited of experiences gained during the late war, which created a desire among many to join the Air Service unit.

After the students had visited the shops and hangars with the different types of ships therein, they were again assembled for a lecture by Major Russell, who outlined the organization of the Air Service and the functions of the Pursuit, Observation, Attack and Bombing Groups.

From the remarks dropped as the students climbed into trucks for their return to Camp Travis, it may be understood that a most interesting and instructive morning was spent at Kelly Field.

TO CATALINA ISLAND VIA AIR.

The trip to Catalina Island, a point of interest tourists in California rarely neglect to visit, is now made possible by airplane.

The Pacific Airways inaugurated during the month of June an aerial service from Los Angeles to Catalina Island, using two converted HS-2L Flying Boats, each making three round trips per day. One of the boats, a closed model limousine, which was put in service during the middle of the month, instantly found popular favor with the flying public. Up to June 21st, 218 passengers were handled, the majority of them going from Catalina to the mainland. The distance of 27 miles to Catalina is negotiated in an average time of 20 minutes.

AIR SERVICE AIDS IN FLOOD RELIEF WORK

The following is a brief summary of the flood relief work done by pilots of the 3rd Group "Attak", Kelly Field.

Telegraphic request for airplanes to assist in flood relief work in the Rio Grande Valley was received at the headquarters of the 8th Corps Area late in the afternoon of June 20th. Kelly Field was immediately notified, and less than a half hour later three planes were enroute to render assistance. The leading plane, piloted by Lieut. Selzer, circled a storm and reached the McAllen Airdrome before sundown. The two other planes, piloted by Lieuts. Biggs and McCormick, were cut off by a heavy rain storm and turned inland to the Laredo Airdrome where they passed the night. The storm passing with the night, the morning of the 21st found all three ships on the line at McAllen to cooperate with the Commanding Officer of McAllen in rendering assistance to the local authorities. A conference was held by the Commanding Officer of McAllen, in which civilian conferees outlined patrols to be made and the information desired to be obtained. Patrols were made from Laredo to Mercedes on the 21st, and warning by means of drop messages were given to Hidalgo and Mercedes. Reports were rendered to the civilian authorities after each of the daily patrols. The condition of canals, levees, roads, farm lands, houses and cattle were reported. Stranded flood refugees were pointed out, and boats were detailed to rescue them. Mail and official correspondence was carried between Fort Ringgold, Camp McAllen, and Fort Brown. The Engineer Officer at Fort Brown was taken on a flight to survey the situation in the immediate vicinity of Brownsville. Officers and soldiers with urgent military duty to transact at any of the three army posts were furnished with the only possible means of transportation - the airplane.

The total time of more than fifty hours flying was spent in reconnaissance over the region comprising Rio Grande City, Hidalgo, Brownsville, San Juan and

McAllen.

Representatives of the towns of the flooded areas, in joint session, passed a resolution of appreciation to the Air Service for its promptness and efficiency in rendering assistance.

AERO CLUB OF PITTSBURGH PRESENTS LANDING FIELD TO GOVERNMENT ✓

Work has been started upon hangars, and a contractor is on the ground to commence the grading of the 99th Division Flying Field at Pittsburgh, Pa. This field, which was presented to the government by the Aero Club of Pittsburgh, is located about one mile from Hoboken, Pa., -- a short distance above Pittsburgh on the Allegheny River. It will be in shape to receive flying equipment in about two months.

Besides being the headquarters of the 324th Aero Squadron of the 99th Reserve Division, this field will serve for the Army Corps Squadrons of the surrounding counties. Here it is hoped that the many Reserve Pilots of Western Pennsylvania will be able to get in sufficient refresher work to keep them actively interested and in touch with all new developments in the Air Service.

At the Camp of Instruction recently held at Langley Field, Va., the 324th Aero Squadron was represented by two officers. Other squadrons of Western Pennsylvania represented were the 304th Squadron (Pursuit) and the 305th Squadron (Attack).

At an early date landmarks and directions for locating the 99th Division Field will be published.

ECONOMIZING IN TRANSPORTATION. ✓

Whenever an Air Service organization receives official orders directing a change of station it does not always have to rely entirely on the railroads to effect the move, and the probability is that more often than not a saving in transportation expenses will be effected. In the recent change of station of the First Group (Pursuit) from Ellington Field, Houston, Texas, to Selfridge Field, Mt. Clemens, Mich., its new station, 14 Spad XIII's, 2 SE5A's and 5 DH4B's were transported by air, the balance of the personnel and equipment going by rail. It is estimated that had the entire move been effected by rail the cost would have been \$8,789.00, and since the estimated cost of this movement was \$2,340.67 it is seen that there was a clear saving to the government of \$6,448.33.

PREPARING FOR PULITZER RACE. ✓

Selfridge Field, Mt. Clemens, Mich., is to be the scene of the next Pulitzer Race, to be held on October 12, 13 and 14. The officers of the 1st Group (Pursuit) are preparing for an attendance of about 100,000 people, and are of the opinion that the event will undoubtedly surpass anything that has ever been done hitherto in races.

A WORD TO PROSPECTIVE FLYING CADETS

At Fort Omaha, Neb., recently, an army examining board was in session to examine candidates for appointment as flying cadet. Only 12 candidates reported to the board out of 19 who made application, and of these 12 only 4 passed the physical examination. Most of those who failed had physical defects which could have been picked up by any physician. Candidates presented themselves from places as far distant as Colorado. Had these candidates prior to making their trip taken the precaution to submit to a preliminary examination by their home physician they would have been found disqualified and would have saved the time and considerable expense which their trip entailed.

JOY RIDING IN SPOKANE

A Chinese recently went up as a passenger in a Foster Russell plane at Spokane, Wash. The ship moved so steadily that he thought it was stationary, although it was advancing at the rate of a mile a minute.

"Whalla malla, no go?" he demanded after a minute or more of frowning reflection.

"Walla Walla? You want go Walla Walla? asked Claud Owen, the pilot, whose linguistic accomplishment has not reached pidgeon English. "Fifty dollars go to Walla Walla".

"No Walla Walla! No. \$50. Whalla malla no go? All time stop?"

"Oh," said Owen. "You want me makem go?"

"Yes, makee go like hellee."

At that moment the ship entered a zone of irregular currents. It did not go ahead so fast, but it hopped up and down like a canoe in a seaway. The Chinese held on for dear life and placed his hand alternately to his stomach and head. He evinced relief on returning to land, but stated that he would return some day for a stunt ride.

ROYAL AIR FORCE AERIAL PAGEANT.

The following report on the Royal Air Force Aerial Pageant, held at the Hendon Aerodrome on June 24th, was submitted by the American Military Attache, London, England:

"In spite of the unfavorable weather, it has been estimated that nearly 80,000 people attended the Aerial Pageant.

The program was carried out as listed, with the exception of events No. 6, 11, 13 and 16, which were cancelled due to the rain and high wind. From a spectacular point of view, the Aerial Pageant was probably not as good as those held in the past, but as a demonstration of the high efficiency of the Royal Air Force, it surpassed previous ones, as the program was carried out without a delay and without accident in spite of the fact that it rained almost continuously; that there was a strong wind blowing, and that a ceiling over 700 feet could not be obtained.

Due to engine trouble at the start, the Siddeley "Siskin" did not fly in the Handicap Race, Event No. 5. This race was won by the Avro Aldershot Condor, the only new airplane in the Pageant. It is a long distance bomber, fitted with a 650 h.p. Rolls-Royce "Condor" engine, slightly smaller than the Martin Bomber. It is fitted to carry 12 bombs of approximately 200 lbs. hung vertically in the fuselage, or two aerial torpedoes hung horizontally between the landing gear. The only special feature is that the fuselage, which is extremely deep, is one of the double-decktype. By means of a ladder, the observer or bomber, who sits beside the pilot, is able to descend to the lower deck or bottom of the fuselage to the compartment which contains the mechanism for releasing the bombs and a small opening on the bottom of the fuselage and windows on the side in order to permit the bomber to observe his target.

The last event, which was an attack on a Desert Stronghold, was very spectacular and well carried out, except for the fact that it failed to burn due to the soaking rain.

In addition to raising money for the Memorial Fund, the Aerial Pageant tends to popularize aviation with the public and to educate it to the actual work carried out by the Royal Air Force. There is no doubt that many enthusiasts for aviation are gained by this type of demonstration, which is also a great aid to recruiting."

AERONAUTICAL NEWS FROM OTHER COUNTRIES

England.

London newspapers recently have printed rumors to the effect that an increase of the Royal Air Force by ten squadrons is about to be sanctioned, adding that, while the Air Ministry has not yet received definite orders, about 500 officers who were granted commissions for three years in 1919 have been invited to continue their service.

At present the Royal Air Force has only 32 squadrons of war airplanes, and of these only 12 are on duty in the British Isles.

It is stated that an important effect of the increase will be to bring orders to the airplane industry, which has been crippled during the past year or two.

Protests are being registered by London newspapers over the fact that, through lack of support on the part of the British Government, airplane and engine manufacturers are closing down their works one after another and dismissing their engineers. The London DAILY MAIL calls attention to the fact that following a statement recently published to the effect that the Rolls-Royce Co. were consider-

ing the closing of their works at Derby, it now appears that a similar course may have to be taken by the Bristol Airplane Company in the department of their works in which the Jupiter engine has been developed.

This 450 h.p. 9-cylindered radial air cooled engine, evolved after years of research, has 25% fewer parts than a water-cooled engine, occupies a longitudinal space of only two feet in the airplane and is so light that it can be lifted by four men. Submitted to the most rigorous tests of the British Air Ministry, it emerged from them triumphantly. Government orders, however, for this engine were not forthcoming in the number required to keep the workshops sufficiently employed and the probability is that France will eventually be the sole producer of this engine. Several months ago the engine was exhibited in France, and the Gnome Company, one of the most famous of aero engine builders, succeeded in completing negotiations with a view to building the Jupiter in France. The engine successfully passed through the French official tests and is now to be built in that country and fitted to French military and commercial airplanes.

The 14-cylinder Armstrong-Siddeley "Jaguar" radial air-cooled engine recently passed the new Air Ministry type tests, which include five non-stop runs of 10 hours each, the first half of each period being run at full throttle, and the remaining $9\frac{1}{2}$ hours at 90% of full power. At the end of each period a five-minute run at full power was given. After the tests the engine was dismantled, and it appeared to be in perfect condition, no appreciable wear being noticeable anywhere. The fuel and oil consumption were very low, and the engine should be very useful when the R.A.F. comes to be equipped with new flying stock. The 14 cylinders give very even torque and smooth running generally - FLIGHT.

Germany.

The invention of a wing-strain indicator by Klemperer, of Berlin, should prove of interest to the airplane industry. This instrument works on the theory of mass and weight pressure. When the plane is at equilibrium the indicator points to "1", and when the component forces are increased the indicator moves correspondingly, warning the pilot that there is too great a pressure on the wings. This device will be very useful when the pilot takes sharp curves, ascension curves, or when pulling up for a dive, and a great number of accidents should be prevented through its use.- Commerce Reports.

The German Minister of Posts has given his approval to the opening of a postal air service between Geneva, Nuremberg, Berlin, Konigsberg and Moscow. From July 1, the Moscow mail will leave Geneva twice weekly, on Wednesdays and Saturdays, by the ordinary Geneva-Nuremberg airplane. The mail will start from Geneva at 7 a.m. and will arrive at Berlin at 3.55 p.m. Then it will be carried by the evening train to Konigsberg, from where it will start next morning at 8:30, and arrive at 7:15 p.m. at Moscow. An extraordinary tax of 25 centimes per twenty grammes ($3\frac{1}{2}$ d. per oz.) will be charged on letters sent by this mail. Negotiations are being carried on with a view to establishing new air services linking Nuremberg with Copenhagen, Prague, Warsaw, and Budapest.

Belgium.

The first international air reliability trial ever held has just been completed at Brussels, and was won by a Handley-Page machine fitted with two Rolls-Royce engines. It was an open competition, but the Handley-Page was the only British competitor. Eight foreign machines, including a Farman Goliath, a Spad and a Breguet participated. The course was over two circuits near Brussels, each circuit being 25 miles. The pilot had to state exactly how long he would take over each circuit, and marks were taken off for the amount of time by which he increased or was short of his declared time. Marks were also given for speed and climb and weight carrying.

The Handley-Page pilot estimated the time exactly for the first circuit, and was $12-1\frac{1}{5}$ seconds too quick in the second one. The machine scored 100 per cent. marks for take off, speed, climb, and weight-carrying. The first prize was £200, and there were numerous other awards and cups given by various aero clubs. - London EVENING NEWS.

France.

The all-metal Breguet "Leviathan," the fuselage of which was exhibited at the last Paris Aero Show, has been flown. Pilot by M. Thierry, the machine first made

a straight climb to 1,000 feet, and the pilot then made a complete circuit of the Villacoublay airdrome. No sharp turns were attempted, as the machine is a large one, and it was thought wiser to proceed slowly with the tests. The "Leviathan", on which the late Lieut. Henry Roget was to have attempted a flight from Dakar to Pernambuco, is fitted with one of the Breguet-Bugatti quadruple engines, in which two groups of double vertical engines drive a common tractor screw via automatic clutches. - FLIGHT.

Uruguay.

The superintendent of shops of the Uruguayan Military School of Aviation recently returned to that country after a six months' trip in Europe, where he bought a stock of aviation supplies and parts amounting to 433,400 francs, which he estimated would have cost 3,000,000 francs if bought new.

Some idea of the reductions in price may be obtained from the fact that he paid 2,900 francs each for 110-130 h.p. LeRhône motors and for 130-h.p. Clerget motors, and 4,000 francs each for 220-h.p. Hispano Suiza motors. He also purchased six new "Nieuport" airplanes complete, as well as large quantities of spare parts for other machines now being used by the Uruguayan Military School.

The superintendent states that while in France he encountered commissioners from Bolivia, Czechoslovakia, Greece, Mexico and Japan, who were there for the purpose of studying aeronautics and securing material for aviation in their respective countries.- Commerce Reports.

SQUADRON NEWS.

Kelly Field, San Antonio, Tex. July 1.

The 3rd Group (Attack) is busily engaged in completing their move to the west end of the field. A large amount of policing and repair work on buildings is necessary, and work is progressing with all available personnel. Operations are confined to instructions to the R.O.T.C. Unit which, however, necessitates considerable daily flying. Instruction of recruits and morning drill is again in effect for all squadrons of this command.

Lieut. James Douglas returned from the Air Service Communications School at Post Field and relieved Lieut. E. D. Jones as Group Radio Officer. The radio section is engaged in erecting a station at the far end of the reservation, west end, and expect to form a Communications Section that will eclipse any other in the army.

Kelly Field, San Antonio, Texas, July 8.

The organization of the Advance Flying School (Tenth Group) is rapidly taking place. The school personnel of the Tenth Group is composed of Observation Personnel from Post Field, Pursuit Personnel from Ellington Field, and Bombardment and Attack Personnel from Kelly Field #2. At present there are approximately ninety students scheduled to begin training on July fifteenth.

Shortly before July first, the incoming personnel from Ellington, Post Field and Carlstrom arrived and took possession of the east end of Kelly #2.

Over the last week end and July 4th, San Antonio and vicinity was carefully explored. Medina Lake, New Branfels, various eating places and roof gardens have been reported on by officers who have been in exile at Post Field for the last few years. The new swimming pool at Kelly #1, however, holds the greatest amount of attraction for the newcomers.

Although all were somewhat reluctant to leave their last station (those from Post Field being especially sorry at leaving their old friends) the outlook for a very pleasant stay at Kelly is excellent.

Owing to the fact that most of the men of the 39th were formerly members of the 94th, which squadron has been highly commended by the Chief of Air Service for the efficient manner in which it maintained such a large number of ships and conducted operations for the period Jan. 23rd to April 8th 1922, we are expecting to see the 39th develop into one of the most efficient squadrons of the Air Service.

The 3rd Group "Attack" is now fairly well settled in its new location, although full operations have not yet been resumed. The respective squadrons are taking advantage of this brief respite and are rapidly getting their buildings and areas in first class shape.

Lieut. Douglas has been transferred to Group Headquarters Detachment and has taken over his new duties as Operations and Communications Officer, The Communications Section, not being able to find a location which would permit of a sixty five foot antenna, are building a radio station at the far west end of the field, using scrap lumber from Kelly #3. This work is progressing steadily and the Communications Section expects to be permanently located again in the course of the next several weeks. At present the work is being handicapped by the great amount of radio work necessary in the instruction of the R.O.T.C. unit.

First Lieut. E. T. Selzer, Squadron Operations Officer of the 8th Squadron, who for the past three weeks was engaged in flood relief work along the Mexican Border, has returned to Kelly Field.

Mather Field, Mills, Calif., June 28.

Another musical program given by the Veterans of Foreign Wars was the attraction at the Service Club on Monday evening, the 19th, The 40-piece band was led by Sergeant Alexander Olsh, A.S., of this command, who has demonstrated his ability as a leader on numerous occasions. Everyone in the Post attended the concert and upon its completion the members of the band were served with a supper.

Captain A. D. Smith, who has been on a six months' sick leave (the last two months of which he and Mrs. Smith spent in a motor trip from San Diego to Oklahoma) reported back to the Field for duty. Captain Smith, who was in charge of the Air Service Rest Camp near Blairsden, Calif., last year, has been assigned to that camp again.

With the arrival of more students for the R.O.T.C., activities are in full blast. Classes in gunnery and motors have started, as well as instruction in trap shooting, and plenty of opportunities for athletics are afforded in tennis, boxing and baseball.

We find here that June is living up to its reputation as the month for weddings. The surprise event of the month was when Lieutenant C. H. Myers, A.S., familiarly known as "Pop", suddenly left for Merced on the evening of the 21st accompanied by Lieut. H. C. Minter and Radio Engineer C. W. Richard. They all met the bride-to-be, Miss Knapp, when she arrived early Thursday morning and that afternoon Lieut. Myers became a benedict. Mrs. Myers came from Cleveland, Ohio, about a month ago, stopped at Sacramento for a few days, then went on South. Lieut. Myers has been assigned to duty in Hawaii, due to sail July 6th.

The family of ^{Capt} John F. Beeson, M.C., arrived from March Field on Sunday, the 17th. He has been assigned to Crissy Field but is on temporary duty at Flight Surgeon here during the absence of Captain Reinartz. Mrs. Beeson and two children came up by motor with Mrs. G. H. Peabody of March Field and her young son "Buddy". Mrs. Peabody was the guest of Mrs. Eglin for the past week.

Visitors at the field on official business were: Major G. H. Peabody, en route to Crissy Field from March; Captain A. F. Herold, and Lieutenant R. E. Self of Crissy Field, the latter having come up for the purpose of taking photographs of the officers for use in the Adjutant General's office.

Chanute Field, Rantoul, Ill., July 14.

The Officers of Chanute Field gave a stag dinner in honor of the business men of Rantoul Thursday, July 6. Over 135 were seated. At the conclusion of the banquet, the guests were taken to the Post Gymnasium, where an illustrated lecture on "Lighter-than-air, its development, operation, present use, and possibilities," was delivered by 1st Lieut. John W. Shoptow, who is establishing a Lighter-than-air mechanics training school at Chanute Field. The lecture was interesting and instructive. The purpose of this gathering was to promote closer cooperation and good fellowship between the officers of the field and the business men of Rantoul. From this angle it was a complete success.

Capt. G. E. Brower and Lieut. R. R. Fox, with a detachment of ten enlisted men from the 15th Sqdn. (Obs.) and two airplanes are now on detached service at Camp Custer, Battle Creek, Mich. with the Summer Training Camp at that station.

1st Lieut. T. E. Koenig, A.S. from the Office of the Chief of Air Service, reported July 9, for temporary duty in connection with the reorganization of the Air Service Mechanics School. It is believed that the permanent detachment will be enlarged, as the present organization is not sufficient to efficiently carry on the work of the school. Upon completion of his duty at this station, Lieut. Koenig will proceed by airplane to Scott Field, thence to the Air Service stations in Texas.

Capt. G. E. Brower, Capt. H. Ballard and 1st Lieut. Thomas H. Chapman reported for duty with the Summer Training School. Lieut. J. K. McDuffy and H. W. Hammond are shortly expected to report at Chanute Field for duty.

Ross Field, Arcadia, Calif., July 10.

On June 26 a farewell party was given to the Officers leaving for Scott Field, and on Thursday morning June 29, the whole Post turned out to wish them goodbye and good luck. Promptly at ten o'clock, the "Balloon School Special", in command of Major Archie W. Barry, started for the new station at Scott Field, Ill. The party consisted of Major Barry, Captains L. F. Stone, L. T. Miller, R. E. O'Neill, Lieutenants K. S. Axtater, F. M. McKee, Frank Kehoe, Warrant Officer R. H. Diamond, eight Flying Cadets and seventy-five enlisted men. All the School property was loaded on the train. Since August, 1918, the Balloon School has been in constant operation at this post.

Captain E. W. Hill and Lieutenants A. I. Puryear and Jas. B. Jordan, now on leave, will upon termination of same join the Balloon School detachment at Scott Field.

Lieutenant LeRoy Ponton De Arce has left to take an advanced course in observation at Kelly Field.

Captain H. C. Gray has left for the Presidio of San Francisco to act as Instructor at the Citizens Military Training Camp, upon completion of which he will take thirty days' leave and then report for heavier-than-air training at Brooks Field.

A swimming party was given by the Officers and ladies of the Post at the Anita Baldwin Club Thursday afternoon, after which supper was served at the club.

Captain Garth B. Haddock has relieved Captain L. T. Miller as Commanding Officer of Balloon Company No. 13.

Since the removal of the Balloon School, all officers of the Post are now occupying quarters on the Field. As there are now but two bachelor Officers left, the Officers' Mess has been discontinued.

On Sunday evening Chaplin Harkins gave a very interesting lecture on "The Empire of the Northwest", illustrated by slides from the famous Underwood collection.

Kindley Field, Fort Mills, P. I., May 15.

Five planes from the 3rd Squadron (Pursuit) flew over Kindley Field in battle formation to greet the Prince of Wales on his arrival in Manila, Saturday morning.

During the past week there has been five hours theoretical instructions in observation and liaison work.

Major Hanley escorted the U. S. A. T. "Sherman" through the Corregidor Channels on May 10th.

17th Balloon Company (C.D.)

First Lieutenant Elmer J. Bowling, for eighteen months a member of this organization, departed for the United States May 10th, on the Transport "Sherman". Lieutenant Bowling has always taken an active part in the affairs of the organization and at one time was Company Commander, and it is with deep regret that the remaining members see him depart. Lieutenant Bowling will pursue a course of air-ship instruction at Langley Field, Va.

A course of instruction for lighter-than-air officers, outlined by the Balloon Operations Officer, Captain Snell, and approved by the Commanding Officer, Major Hanley, will start Monday, May 15th, 1922; covering the following subjects: miniature range, chart room operations, observation of sectors and contact with ground troops, field telephones, operation and maintenance, naval vessels, aircraft silhouettes, hydrogen generating, balloon maintenance and repair, balloon maneuvering, balloon winch, machine gun anti-aircraft, and company drill. It is expected that this course will continue through the inactive period and until such time as replacements are secured from the United States, and active operations resumed.

27th Balloon Company (C.D.)

Wednesday this week all members of this organization, with the exception of 8, sailed on U.S.A.T. "Sherman" enroute to the United States, on account of expiration of foreign service or discharge. No Balloon operations carried on during period of May 6 to 12 owing to shortage of maneuvering personnel. On May 15th, First Lieutenant William A. Gray, a member of this organization for 18

months, departed for China and Japan on his way to the United States; Lieutenant Gray was at one time Company Commander of this organization, and was ordered to the United States ^{to pursue} an airship instruction course at Langley Field, Va.

Flt. "A", 3d Sqdn. Pursuit, Sulu, P.I., May 13.

The past week has brought operations at Sulu to a close for Flight "A" of the 3d Squadron, and preparations have been concluded for return to Clark Field aboard the U.S.A.T. "Liscum" on May 17th. The training schedule, calling for an approximate total of ten hours daily flying for our eight pilots, has kept a shift of three planes busy in the air throughout each morning, and the respite of four days during the return voyage to the home station will be welcomed. While the weather cannot be called torrid, it is largely its monotonous sameness day in and day out that wears one down.

On May 13th the start of the Jolo-Manila flight was made with the departure of two D.H.4B's for Zamboanga, Mindanao, piloted by Major A.H. Gilkeson and 1st Lieut. E. C. Batten. Captain John I. Moore and Master Sergeant W.C. Hunter accompanied them. Additional data on landing fields, tide and weather covering the route to be followed will be awaited at Zamboanga and resumption of the flight is planned about the 15th. Undoubted success should attend the flight as the planes are in prime condition and the pilots confident, eager and entirely capable of carrying it to such a conclusion.

A summary of operations for the period of duty at Jolo from April 20th to May 15th, 1922, shows the following gratifying results:-

	Flights	Minutes
Aerial Radio	12	405
Message Dropping	8	95
General Reconnaissance	16	945
Formation	28	1878
Cross Country	4	290
Practice	37	1225
Dual Instruction	6	70
Air Tests	15	760
Marlin Machine Gun	16	614
Lewis Machine Gun	15	495
Bombing	18	1070
Aerial Photography	20	850
TOTAL	195	8352

Those who will return with the detachment, and their assignment, are:

Capt. L. N. Keesling	Flight Commander.
1st Lt. G. W. Pardy	Operations, Adjutant.
Capt. C. L. Midcap	
" D.W. Bedinger, Med. Corps	Flight Surgeon.
1st Lt. T.J. Lindorff	Armament
" " C.R. Evans	Assistant Operations.
" " H.I. Riley	Transportation, Mess.
" " C.H. Barrett	Salvage, Engineering.
" " B. S. Thompson	Radio
" " H. G. Woodward	

Selfridge Field, Mt. Clemens, Mich., July 15.

The First Pursuit Group was ordered on June 17th to move from Ellington Field, Texas, to Selfridge Field, Michigan. Fourteen Spad XIII's, two SE5A's, and five DH4B's were transported by air; the balance of the personnel and equipment proceeded by rail.

Lieutenant E. C. Whitehead, with Sergeant Fryman as passenger, set out in his "Pathfinder" DH4 on June 23d to pick out "soft places" for the Group to land enroute. Since Spads have a limited gas capacity of two hours, the route selected contemplated ten hops of approximately 160 miles each. Stops were made at the following cities: Bryan, Texas; Dallas, Texas; McAlister, Okla.; Tulsa, Okla.; Pittsburg, Kans.; California, Mo.; Belleville, Ill.; Rantoul, Ill.; Ft. Wayne, Ind., and Selfridge Field. Major Spatz, leading the Group, with Lieut. S. G.

Frierson, left Ellington in two SE5A's during the afternoon of June 24th and flew to Bryan to arrange for the servicing of planes on their arrival early in the morning of the 25th. Major Spatz preceded the Group by approximately one hour throughout the remainder of the trip.

The Group, divided into 3 flights, pushed off at intervals of fifteen minutes, beginning at 6:00 A.M. on the 25th. Pilots assigned to flights were as follows:

"A" Flight - Capt. F. O'D. Hunter, Capt. G. C. Tinsley, Lieuts., G. P. Tourtellot, H.R. Yeager, R. B. Mosher, in SPAD XIII's and Staff Sgt. Newcomb and Anderson in DH4B.

"B" Flight - Lieut. T. W. Blackburn, Capt. O.W. Broberg, Lieuts. D. F. Stace and J. D. Summers, Staff Sgt. E. L. Preston in Spad XIII's, and Pvt. Mitchell and Sgt. Ogden in DH4B.

"C" Flight - Lieut. T. K. Matthews, Capt. H. M. Elmendorf, Lieut. R. W. Camblin and W. H. Reid in SPAD XIII's, and Corporal Pomeroy, Sgt. Heidenreich and Johnson in two DH4B's.

The distance of approximately 1500 miles was covered in an average time of 17 hours, with a total elapsed time for all planes of 393 hours.

Several bad rain storms were encountered on the trip but were successfully flown through or circumvented. On two occasions an entire flight was forced to land short of their objective on account of rains. Three forced landings were made by SPAD's, but on each occasion they were pulled out by the mother DH4 accompanying each flight. The First Pursuit Group feels that a new record has been set in the history of aviation in bringing this large number of delicate and erratic planes this great distance without the loss of a single plane. We are confident now that the entire Group could start moving by air to either coast one day after the receipt of orders, and arrive at destination on schedule time.

The Officers' wives are beginning to arrive on the post and it is planned when they ^{all} arrive, to have a very large formal dance at the opening of the Officers' Club.

Lieut. Doolittle and Andrews passed the night at Selfridge on their flight from Washington to Kelly Field. They planned to make the flight to Del Rio, Texas, and return to Kelly in one day.

An inspection and aerial review by the Commanding Officer was held Saturday, July 15th, in honor of the retirement of Master Sergeant Albert Olsen. This was the first Group flight since arriving on the post. Eighteen SPAD's were put into the air. We expect to have twelve more set up and ready by the end of next week.

We regret exceedingly to announce the death of Capt. George C. Tinsley, who was killed in a SPAD XIII on July 6th. Capt. Tinsley had taken off and had gained about 75 feet altitude when his motor ^{cut} out. In attempting to turn back into the field his plane stalled and side slipped into the ground, catching fire on impact.

The regular tactical flying for the Group will start about the 20th, and continue throughout the Fall. General Mitchell has promised to come to Selfridge frequently and participate with us.

16th Squadron (Obs.) Fort Riley, Kans., July 14.

Since the last words printed in the NEWS LETTER of the 16th Squadron (Obs.), things have been moving to such an extent that we are now able to present an appearance such that a layman would guess to be an Air Service organization, with all the appurtenances thereto.

Our hangars are nearly completed, and it will be a glad day when we are able to put our ships under cover, all the more so since Major Tinker, Captain Boland, Lieut. Griffin and Lieut. Nowland last month ferried two new Photographic DH's, one new DH4B and one reconstructed DH from the Fairfield Air Intermediate Depot.

On June 16th Captain Boland and Lieut. Griffin flew to Kansas City and St. Louis to study and submit recommendations for the chartering of National Airways.

On the following day Major Tinker and Captain Way left on a similar mission for Omaha, North Platte, Nebr., Cheyenne, Wyo., and Denver, Colo. The time on leaving was 7:20 a.m., and Denver was reached at 5:40 p.m. (mountain time) that afternoon, which is pretty fast traveling considering that business was to be transacted at each of the places above mentioned.

The 16th Squadron (Obs.) and 9th Photo Section, with the exception of one officer and 36 enlisted men, left by airplane and truck train for Des Moines, Iowa, via Omaha, July 8th, to participate in the summer training camp for Air Service Reserve Officers. There is a possibility that part of those now at Des Moines will remain to cooperate with the Citizens Military Training Camp which starts upon the completion of the Reserve Officers' Camp.

Lieut. John D. Barringer reported for duty with the 16th Squadron.

The "Photo Hut" for the 9th Photo Section, the new addition to the Operations Office, is practically completed.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in General, and for release to the public press.

FOR RELEASE September 1, 1922.

✓✓ THE BERLINER HELICOPTER ✓
By L. D. Seymour

Newspapers, magazines, and various other publications have recently printed some story or other telling of the navigation of the air by the helicopter. Few, however, have described a flight actually witnessed or taken up the subject of construction. In company with officers of the Army, representatives of foreign governments, and civilian engineers, the writer was privileged a few weeks ago to personally witness a test of the only American machine yet to actually achieve a man-carrying flight.

By previous arrangement, the party which was to witness the flight gathered together about 4:30 a.m., proceeding at once by automobile from Washington to College Park, Md. The hour, as described by Major H. M. Hickam, Chief of the Information Division, Office Chief of Air Service, was a "wicked one". It was chosen, however, so that the chances of finding the air perfectly calm might be as great as possible.

Arriving at the Berliner hangars, we found that Mr. Emile Berliner had already preceded us and that the craft had been prepared for flight and was ready to be rolled from the hangar.

The machine looked like the conventional airplane, in that the fuselage and rotary engine might easily have been that of a Nieuport. The wings were replaced by two well braced horizontal duralumin spars extending on either side sufficiently to allow the two large airscrews, mounted in a horizontal plane on the outer ends of the spars, to describe circles, circumference of which were only a short distance from the pilot located in the usual position. Under the airscrews on each side of the machine were a set of vertical control surfaces actuated like ailerons by a stick in the cockpit.

On the tail we found that the control surfaces had not been changed and that they, too, were operated by the stick. In fact, the system of control was identical with that of any airplane. The only addition to the tail units was a small variable pitch propeller, revolving in a horizontal plane just forward of the vertical stabilizer. The pitch of this small screw was controlled simultaneously with the movement of the elevators.

The helicopter was wheeled out in front of the hangar. Mr. Berliner's son, Henry, took the pilot's seat and gave the signal for starting the engine. Everyone moved back a bit as the motor was tested in the usual fashion. The two large horizontal propellers were revolving slowly while the small one on the rear of the fuselage was turning at a very high rate of speed. Suddenly, with only a slight increase in the speed of the engine, we noted the turning down of the elevators, accompanied by the tail rising to the usual horizontal flying position. But the machine as a whole was stationary. The sight was most uncanny to a man accustomed to seeing the tail of an airplane take the "flying position" only after a speed of fifty or sixty miles per hour has been attained preliminary to "taking off". We watched to see what would be the next move and were rewarded at once by seeing the wheels lift about three feet from the ground and the machine first slowly and then somewhat faster start to move forward. We had witnessed the successful flight of a helicopter!

Two early hours of the morning, while most of the city slept, had been filled with an experience such as few in this country, and probably none abroad, had ever been afforded. Mr. Emile Berliner and his son had demonstrated after a lifelong effort that vertical flight in a heavier-than-air craft was not only possible but practical. Certain refinements are now being made, after which public demonstration may be expected.

Just what effect such a craft will have on military aeronautics cannot be said at present. It would seem that, capable of rising vertically out of a clearing in

the forest, from the deck of a battleship or from within a secluded fortress, the possibilities may be too great to predict now.

As to the commercial aspect of this invention, some one had said that the commuter to the city may keep his machine in the back yard under a small shed, go to work and land on the roof of his office, from which at night he can "take off" for his home and land vertically once more in the back yard of his suburban cottage. His trip to work will be shortened by many minutes; he will have no journeys to and from the station, and a new means of transportation will have made him independent in another way. Railroad strikes, congested traffic, and crowded cars will no longer bother him. Once more we see, even though just in part, how the strides of civilization and commercial development are dependent with and coincident to the birth of every new means of transportation.

COLLEGE STUDENTS COMPLETE TRAINING AT KELLY FIELD

Considering the fact that it was the initial attempt, the R.O.T.C. Camp at Kelly Field, San Antonio, Texas, which was just concluded, proved to be very successful, and the cadets, who are students of the A. & M. College, College Station, Texas, were greatly benefitted by the training and the general working knowledge of the Air Service which was imparted to them. Not an accident marred any part of the training.

It was realized that in the short time allotted for the training, very little actual dual instruction could be given them, but the course was so arranged that they received all the training necessary to give them an idea of how the Air Service operated and, at the same time, enough flying as observers to accustom them to the air.

The first operations order for carrying out the training program was issued on June 20th. The program was divided into four classes, viz: Bombing, Observation, Artillery Reglage and Radio.

The Bombing Course was superseded by the latest data on sights and bombs, covered in a complete lecture. The Cadets then acting as Observers and directing pilots were required to figure out windage, drift, etc., and bring the plane over the camera obscura house where their work was carefully checked. Actual practice in bombing was then taken up by single planes and also in formation.

In the Observation Course, a great deal of information was secured by the students because of the observation under actual conditions. Cooperation with Camp Travis made it possible for them to be able to get the actual practice in panel work with troops, and various problems were worked out. Along with this work they were required to direct pilots on compass courses cross-country, where imaginary missions were performed.

The Artillery Reglage consisted of pin-pointing targets, use of the latest approved code of signals and the working out of problems until the target was bracketed. This gave them actual practice in applying their radio which, under actual conditions and rough air, is very different than at a practice table. By this time they were proficient in their panel work, observation and radio; and all combined, their general ability was manifested in working out these problems. This tended to produce automatic functioning, as they did not have time to study any particular detail.

A Radio Truck with antenna on the top of it was used in checking their radio, and the results were very successful. They were required to be proficient in it before attempting it from the air, and practically every flight that was made had some radio connected with it. Even in the bombing radio was used in some cases to check when the cadet would have dropped the bombs. Replies were made to him by panels and problems given him which required that information be returned by radio.

The students of the A. & M. College receive, in addition to an approved education, a first class military education and training. They are commanded by Major Clinton W. Russell, Air Service, U.S. Army. Their aeronautical education at school covers all of the principles of modern aeronautics, motor operation and maintenance, rigging, etc., and they were brought to Kelly Field, Texas, with the idea in view of giving them some practical training in flying.

A NIGHT FLIGHT TO NEW YORK

The first cross-country night flight ever made in an airplane from Washington to New York City was made by 1st Lieut. Clayton Bissell, Air Service, who recently negotiated four night cross-country flights from Bolling Field, D. C. to Langley Field, Va., and return.

Piloting a standard DH4B airplane, Lieut. Bissell took off from Bolling Field at 9:30 p.m. August 3rd and returned at 4:35 a.m. the following morning. Not an accident marred the entire journey and, except for a certain stretch of his trip north of Philadelphia and before reaching Trenton, N.J., when he encountered low dark clouds which forced him to alter his course in order to rise above them, excellent weather conditions prevailed.

Flying between Washington and Baltimore Lieut. Bissell saw the lights of both cities during the entire time. Philadelphia, with its myriads of bright lights, presented a very beautiful spectacle. Independence Hall, the cradle of liberty, was so illuminated as to be easily discernable from quite a distance and proved to be an excellent land mark. The river front of the Quaker City presented considerable activity, and the inky blackness of the Delaware River presented a sharp contrast to the brightly lighted streets nearby. Elizabeth, Staten Island, Jersey City, New York, Brooklyn, and the various beach resorts loomed up before the pilot in a confusing jumble of lights and rendered it difficult to pick out land marks.

From Baltimore Lieut. Bissell flew parallel to the railroad until he reached the head of the Chesapeake Bay, which took him over the Aberdeen Proving Grounds. He then cut across to the Delaware River, finding himself in the vicinity of Wilmington, Del., and proceeded along the river to Philadelphia and Camden. About fifteen miles north of Philadelphia along the Delaware River the sky became overcast and indicated the approach of a storm. Lightning flashed intermittently, but as the storm seemed to be moving to the southeast, there appeared to be no reason for changing the course. The clouds, soon, however, obscured the ground, rendering it necessary to descend from the altitude of 4,000 feet to about 600 feet, so as to fly underneath them and be able to pick up landmarks without being forced to rely entirely on the compass. This maneuver subsequently proved futile, as the cloud bank dropped lower and lower until the plane was down to 400 feet altitude. It was then necessary to fly southward for a short distance in order to get above the clouds, which at that time were so thick that it was impossible to see anything on the ground through them. Weather reports had been received to the effect that clear conditions prevailed in New York City, but as local storms had been prevalent in this section through out the day some apprehension was felt about going over the clouds and taking a chance of being able to come through in the right place. After having flown about ninety miles by dead reckoning, the plane ascended to a height of between 10,000 and 12,000 feet, from which altitude the lights of Trenton could be seen. This was reassuring, for although Trenton was over ten miles away it was positive evidence that clear conditions prevailed in that vicinity. Upon arrival in Trenton, ideal weather conditions were found. The sky was still overcast, however, and the moon was not seen again until the plane was over lower New York Bay.

The plane flew along the eastern shore of Staten Island, over upper New York Bay, along the eastern part of Jersey City, and across Manhattan in the vicinity of 42nd Street; then directly over Brooklyn and Jamaica, and finally to Mitchel Field, Long Island, where a good landing was effected.

The landing lights established on the airdrome at Mitchel Field renders that station an excellent one for night flying. The personnel at Mitchel Field fired colored rockets which were distinguishable at a considerable distance and proved of great aid to Lieut. Bissell in picking out the field.

The flight from Washington to New York by this slightly roundabout course, including the time lost in the vicinity of Trenton, N.J., consumed three hours and five minutes.

After carefully going over the plane in preparation for the return flight, Lieut. Bissell left Mitchel Field at 2:15 a.m., Washington time, followed a straight compass course, and landed at Bolling Field at 4:25 a.m., the distance of 225 miles being covered in 2 hours and 10 minutes. During this return journey the same cloud bank was encountered in the vicinity of Trenton and entirely obscured the city. It was only recognized, however, by the peculiar light effect on the clouds over the city. Ten miles south of Trenton the sky cleared, and the remainder of the trip was made under perfect weather conditions.

THE MARYLAND AIR SERVICE

The 104th Aero Squadron, Maryland National Guard, is considerably "het up" over a statement recently made by Major Littauer, of the New York National Guard Air Service, in an article he wrote in one of the aviation publications to the effect that "the National Guard is not flying". The Maryland organization wishes it to be understood that it is actually flying and that it has been doing so

continuously for over a year. It suggests that, if Major Littauer is still skeptical as to whether the National Guard is flying or not, he borrow a ship from Mitchel Field and fly down to Logan Field, Baltimore, and see the National Guard, or at least a part of it, flying every Saturday afternoon that the weather permits. Not only will he see the flying but he will see the technical classes being conducted in the hangars and in the large machine shop, and the officers will be delighted to entertain him as their guest and tell him how it can be done even though New York can't do it.

The Maryland squadron was Federally recognized on June 21, 1921, which means that on that date the required number of officers and enlisted men had been enrolled, equipped and passed at Federal muster. On the following day, Saturday, the first flights were made in Curtiss "H's" at the Squadron's own airdrome, Logan Field, just outside of Baltimore. From that date over a year ago to now the pilots have been flying continuously and without a single casualty. Several of the pilots have put in over a hundred hours with this organization.

Joy-riding is strictly taboo, and every flight is made for a definite military purpose. Observation training is given to pilots and observers alike, and, in view of the dearth of trained observers, each pilot must take his turn as observer. In addition to its observation duties, the squadron is rapidly locating landing fields throughout the entire State, and not only is the usual Air Service questionnaire filled out for such fields but aerial photographs are also taken to show the exact appearance of the field from the air. The map of the State has been cross-sectioned so that these fields can be located within a few hundred yards. Airways are being plotted so that in the event of an emergency the squadron can send a flight of ships to any part of the State and find there a good, safe landing field with gas, oil and water nearby.

In addition to functioning as a "service squadron", the 104th Maryland is also a training organization. Under the direction of the Engineering Officer, classes are conducted in engines and rigging, and some first class mechanics have been turned out. The fact that five out of the six Curtiss "H's" allotted to the Squadron are always in first class shape is a tribute to these mechanics. The sixth ship has been dismantled for instruction purposes. The remarkable part of this is that all this maintenance is conducted without any spares other than two extra motors. However, the "steenth" requisition has just been sent in, and our Correspondent, in a very hopeful frame of mind, states that possibly by the time that helicopters take the place of planes these spares will be received.

The commissioned personnel of the Squadron is as follows: Major P.V. Burwell, commanding officer; Captains W.D. Tipton and C.A. Masson, Lieuts. Lyman Patterson, Townsend Scott, Kent D. Currie, Sylvan Gusdorff, O.H. Williamson, Dana V. Clark, James C. Hooper, Harold Bohlman, Louis Lemke, John Hesse, George G. Carey, Carroll Gorman, George Cobb, and Captain A. J. Gillis, Medical Corps.

DETAILS OF LT. DUNTON'S CROSS-COUNTRY FLIGHT.

Our Kelly Field Correspondent has just furnished us with a detailed report of the record-breaking cross-country flight of Lieut. Delmar H. Dunton, Air Service. The plane used was a DH4B with a gasoline capacity of 110 gallons and an oil capacity of 14 gallons. The start was made from Kelly Field at 5:10 a.m., June 20th, and the course was set at 23° east of north, which course was maintained until Dallas, Texas, was reached, when a landing was made at Love Field. This leg of the journey, a distance of 240 miles, was covered in two hours and 45 minutes. This stretch is a good country to fly over, as several fields were sighted where landings could be made. Fuel consumption amounted to 64 gallons of gas and 18 quarts of oil.

After replenishing the gas and oil supply, the flight was resumed at 8:55 a.m., the course being set 11° east of north. This course was maintained until Tulsa, Okla., was reached, when the course was changed to Northeast, and the Southwest Aircraft Company's field, 9 miles northeast of Tulsa and 2½ miles northeast of Dawson, Okla., was reached at 11:45 a.m., and a landing made. This field is high in the center, and landings can be made in wet weather. Maintenance and gassing facilities are available. The flying time from Dallas, Texas, to Tulsa, Okla., was two hours and 50 minutes, a distance of 225 miles. This country is fair to fly over, as it is considered that landings could have been made at various places. Gas consumption amounted to 67 gallons and oil 18 quarts.

The flight was resumed at 1:00 p.m. after refuelling the ship, and the course was set at 63° east of north; this course passing over Springfield, Mo. - where a flying field is maintained - directly into Scott Field, Belleville, Ill. The country flown over in this course for 100 miles out of Tulsa offers very few places where a landing could be made with any degree of safety, but from this point to fifty miles past Springfield the country is better to fly over. From a point fifty miles beyond Springfield until the Mississippi River is reached the country is very rough and irregular, and it would be a very difficult matter to make a safe landing at any point. Scott Field was reached and a landing made at 5:20 p.m. The flying time for the distance of 365 miles from Tulsa was 4 hours and 20 minutes. Gas consumption amounted to 105 gallons and oil consumption 29 quarts.

After spending the night at Scott Field, the trip was resumed at 9:20 a.m. on June 21st, the course being set 66° east of north to Indianapolis, Ind., passing over Terre Haute, Ind. The Indianapolis course was changed to 89° east of north, this course leading directly into McCook Field, Dayton, Ohio, where landing was made at 1:20 p.m. The country flown over was very good, and the distance of 310 miles from Scott Field was covered in 3 hours and 50 minutes, with a gas consumption of 92 gallons, and oil consumption of 25 quarts. At McCook Field the Eagle type propeller with which the ship was equipped was replaced by an M.B.2 propeller in an effort to cut down the gas consumption.

At 4:20 p.m., after replenishing the fuel supply, the flight was resumed, the course being set 18° east of north directly into Selfridge Field, Mt. Clemens, Mich., where landing was made at 8:55 p.m., June 21st. The country flown over was very good, and the distance of 210 miles from McCook Field to Selfridge Field was covered in 2 hours and 25 minutes. Gas consumed amounted to 57 gallons and oil 15 quarts.

The distance of 1350 miles from Kelly Field to Selfridge Field was covered in 16 hours and 10 minutes flying time, the average speed being 84½ miles per hour. Total gas consumption amounted to 385 gallons, and oil 105 quarts.

The return trip was started on June 29th, a stop of a day and a half being made at McCook Field for the purpose of inspecting some of the new improvements in aircraft. Our correspondent is of the opinion that if Engineering Officers of all the organizations throughout the country would spend from ten days to two weeks at stated intervals at McCook Field it would serve to increase the efficiency of the Air Service to a great extent.

Stops were made at Scott Field, Tulsa, Okla., and Dallas, Texas, the plane landing at Kelly Field at 4:00 p.m. July 3rd. No repairs were necessary to ship or engine. The engine, a Liberty 12, manufactured by Nordyke-Marmon Co., ran perfectly at all times.

Recommendation is made that in future, if any trips are contemplated between Tulsa and Scott Field with a standard DH4B, a stop should be made at Springfield, Mo., for gas, or, of the trip between Scott Field and McCook Field be undertaken, a stop should be made at Indianapolis, Ind., for fuel, as the gas tank on the service type ship has insufficient capacity to make these "hops" without refilling with fuel.

RESUMPTION OF FORESTRY PATROL. ✓

Once more the hum of the Liberty engine is awakening the echos of our forests, although the forestry patrol operations of the Air Service this year as compared with preceding years is considerable curtailed. Official authorization was given to conduct the aerial patrol of the forests in Oregon only, and it was decided to have no regular patrol routes during the present season. Observation flights will be made over the various State forests at the direction of the State Forester of Oregon. National Forests will be given attention only upon the request of the District Forester, who will make the requests only during fire crises. Radio stations are being installed at Salem, Eugene and Roseburg, Oregon, to properly function with the Forest Service.

Within 28 hours after authority was received from the Air Officer of the 9th Corps Area, personnel from the 91st Squadron (Observation) arrived in Eugene, Oregon, ready for patrol duty. A five-ship formation, consisting of Captain Lowell H. Smith, with Sergeant Turner as observer; Lieut. R.L. Maughan with Sergeant Smith; Lieut. Wm. C. Goldsborough with Sergeant Gravlin; Lieut. John Morgan with Private Dowd, and Sergeant Fowler with Private W.B. Smith, left Crissy Field, Presidio of San Francisco, Calif., at 10:15 a.m. on Saturday,

June 15th, and at 6:00 p.m. the formation was circling Eugene, Oregon, preparatory to landing at the Municipal Flying Field. A stop was made at Montague, Calif., for gas and oil, and dinner for the fliers. No trouble was encountered en route, the flying time for the trip being 5 hours and 20 minutes.

The motor convoy, consisting of five vehicles and a personnel of 17 enlisted men, in charge of Lieut. Leo F. Post, left Crissy Field at 5 a.m. July 15th and arrived in Eugene at 7:30 p.m. July 20th. Stops were made overnight en route at Lincoln, Redding and Dunsmuir, Calif., and at Grants Pass, Oregon. The trip was made without incident.

This will be the fourth successive season for Forest Patrol in Oregon, and during each of these there has been a detachment on duty at Eugene, Oregon. Some of the personnel of last summer's patrol season returned again this year and were welcomed by their old friends. Eugene is a beautiful little town on the Willamette River. It is the seat of the University of Oregon and has the most delightful summer climate imaginable. It occupies a high place in the regard of all fortunate aviators stopping in that vicinity.

During the past several weeks several special patrols have been made with local Forresters, as well as with the State Forester of Oregon and other officials. Many new fires have been located, and valuable information otherwise obtained about fires already existing.

WHEN THE WIND BLEW

By 1st Lt. Homer B. Chandler, Air Service.

Ed. Note: The following story, taken from that bright little publication the "Airco News", published by the Air Service personnel at France Field, Panama, Canal Zone, recounts incidents connected with the violent hurricane at Gerstner Field, Lake Charles, La., during the early part of August, 1918.

We had been expecting one of those ever-recurring Gulf Hurricanes to hit somewhere near the field, but near, mind you, not nearly as near as it actually did hit. The ordinary daily weather report had said "Gulf storms reported approaching. Mean velocity 80 miles." "Mean velocity" was the word; exceedingly mean it turned out to be.

"Think she'll hit here"? was the query. To which the wiseacres responded, "Oh, probably not. These hurricanes cut a swath only about ten miles wide, and soon peter out. Louisiana is a pretty big state, and it's not probable that it would strike right here". "Yes, but if it does hit?" "Oh, well, then you'll see every window in the place blown in, the tents take to the air, and likewise any stray ship left outside the hangars or any ship inside a hangar if the doors are left open. Close the hangar and shop doors and you will be all right. Those 140 ft. water towers will probably go by the board."

Flying was called off rather early that morning. Of course, the hurricane would not hit the field, and if so there was nothing to fear. However, some of us on cross country work had flown over some funny looking stretches of forest, with the trees lying prone and pointing all in one direction for miles at a stretch, all the result of a hurricane several years ago, similar to the one now reported on its way. Nevertheless one by one the planes flew in and landed abruptly into the ever increasing wind. Few planes were out after 9:45 a.m. Then the wind suddenly blew a bit stronger, until one could lean against it at quite an angle and yet not fall over. By 11 o'clock it was roaring away at 80 miles an hour, and those tents sheltering the cadets which had not been taken down started on their way North. "Good-bye, dear home", exclaimed one cadet, busily cramming his new serge suit into a trunk-locker.

Someone started a report of the Gulf of Mexico, thirty miles away, rearing up in a tidal wave that was starting out to sweep the region. And the nearest hills 60 miles away! Pleasant thoughts. The conscientious crew and hangar chiefs were busily stowing away the planes, G.I. cans and other hangar impediments, closing the hangar windows and doors and making things safe for the big blow to come. Which did come at 11 a.m.

The men in barracks then started stowing their personal effects away, making more haste as the windows blew in one by one. Dinner that day was eaten hastily, if at all. By 12:40 p.m., the rain had come in torrents, as if the wind (it was now going 100 miles an hour, flat) had picked up the Gulf bodily and had dropped it in on Gerstner Field. And then the fun began.

The hangar doors started waving back and forth, and at last blew in. That started things with the planes. Most of them just piled up in a corner of the hangars, but several of them started out solo. It was a miracle that they were not all blown to ribbons. Nevertheless, except where they had struck something real solid, they were little damaged, beyond being put permanently out of commission. One "Jenny" bumped its way out through an open doorway, did a right face, and stood on the tip of one wing, wrapping the upper wings around the door post of the hangar. By this time the roofs began to go, one by one, some by halves, others by pieces, board by board. The steel hangars and shops stood up pretty well throughout the whole thing, except that they were half denuded of the sheet roofs and the sides.

Those at the field felt that the only safe bet was to get behind something solid. But why? Finally, all thoughts turned to the gravel cars on the rail siding back of the barracks. It would have been impossible for one man alone to make it. One man there was who took off alone. The wind got behind him and forced him into a run. Down the road to Lake Charles he went. Off the road over the rice paddies, on the road again, always on the run. He made the 17 miles to town in nothing, flat, at twenty paces to the mile. Arm in arm, in batches of five or so, the men fought their way clear of obstacles, and brought up under the gravel laden gondolas on the railroad siding. Then they watched the field go by in review.

By this time the wind had risen to 120 miles an hour. The bearings on the wind meter (a whirling anemometer) had overheated and did not register higher than 120 miles per hour wind velocity. Even after that had happened, the velocity increased. It is useless to even make a guess at the actual force of the wind. Suffice is to say that after it had officially registered 120 miles an hour, it kept rising continuously for a full forty minutes. The rain, meantime, was still on the job, going more horizontally than vertically in direction. It was not long before the gravel cars started rocking violently, they having been robbed of their contents by the wind, which neatly scooped the sand and gravel and sent it sky-hoetin' northward.

But the water towers, although they were a bit out of plumb afterwards, still held, as did the flag pole by headquarters, also some of the many structures on the field. But oh! The hangars, and the shops, and some of the barracks! At four in the afternoon the rain and the heavy wind had subsided. Who should we see come along on a tour of inspection but the Quartermaster Officer, mounted on an old white mule. At every fresh scene of destruction and havoc, a streak of sulphur left his lips. And, verily, brother, he had much to vex him that fateful evening.

MORE ABOUT LE. DOOLITTLE'S FLIGHT

Our Kelly Field Correspondent has sent us some more details concerning the recent long-distance flight of Lieutenants Doolittle and Andrews, as follows:

Once again the lucky seven (The Flying Doves) proved to the high military authorities, the commissioned and enlisted personnel of the Army, and aeronautical geniuses its efficiency in flying. This is and can be easily understood by placing an optic over the wonderful record of flying accomplished by the two most efficient fliers in the American Army - Lieuts. J. H. Doolittle and L. S. Andrews. The airplane used by the officers mentioned was a DH4B especially constructed by both Lieuts. Doolittle and Andrews, both working from daylight to dark to complete the ship before July 1, 1922. Beyond the limits of this field and the authorities in Washington, no one had knowledge of the proposed flight.

Like a panther jumping upon its prey, the two officers sneaked into their ship at 5:10 a.m. July 3rd, 1922. Sergeant Chester W. Polinsky and several other members of the organization turned the propeller, and at 5:20 a.m. they were on their way to Carlstrom Field, Arcadia, Fla. At 7:20 a.m. they dropped into Houston, Texas, and soon started off again, arriving at Pensacola, Fla., at 5:20 p.m. They hopped off to Pablo Beach, Fla., completing the flight from the Pacific Coast to the Atlantic Coast, a distance of 2100 miles, in 21 hours and 30 minutes. At 10:15 a.m., July 4th, after a good night's rest, they started for Langley Field, Va., arriving there at 3:45 p.m. At 6:25 p.m. they arrived at Bolling Field, Washington; July 6th at McCook Field, Dayton, Ohio; July 8th at Napoleon, Mich.; July 9th at Selfridge

Field, Mt. Clemens, Mich.; July 10th at Charleston, Ill.; Tulsa, Okla.; and Dallas, Texas; and at 2:00 p.m. July 11th they arrived at their home field. And now Lieut. Doolittle is back on the job building another ship for a transcontinental flight.

DELIVERING AUTOMOBILE ACCESSORIES BY AIRPLANE.

Responding to an urgent call from General Motors, Limited, of Canada, Oshawa, Ontario, for steering wheels which the Dayton Wright Company have on order for the above Company, the Dayton Wright Cruiser #4 left Dayton at 7 a.m. July 24th, B.L. Whelan piloting, with a quantity of steering wheels. The Delco Company has included in this shipment a number of automobile switches, an item which was also holding production of the General Motors of Canada. The plane arrived at Oshawa before noon.

The usefulness of the airplane for quicker transportation is daily proven, such as the above instance, and is rapidly becoming an economical necessity to the business world.

Accompanying B.L. Whelan was a student of the Dayton Wright Flying School. This sort of practical experience in cross-country flying is included in the course which this school offers.

The Dayton Wright Cruiser #4 has flown approximately 200,000 miles without mishap. It is equipped with one 400 h.p. Liberty twelve engine.

INSTRUCTIONS COURSE ORGANIZED

In an effort to standardize all dual instruction under the Gosport system, an instructors' course has been organized at Brooks Field, San Antonio, Texas, the new station of the Air Service Primary Flying School, and all dual instructors and permanent officers of the field are required to take the course. It is expected that this course will be completed before the course of instruction of the new class of student officers and cadets begins.

GENERAL PATRICK INSPECTS C.M.T.C. AT LANGLEY FIELD

General Mason M. Patrick, Chief of Air Service, paid a brief visit to Langley Field, Va., recently, for the purpose of making a general inspection of the post as well as the Citizens Military Training Camp which opened on July 27th. His trip was made via the air route, three planes participating. Other members of the party were Major Kilner, Lt. Beaton, Lt. Maitland and Colonel Howard. The formation left Bolling Field at nine o'clock Tuesday morning and arrived at Langley Field shortly after ten o'clock. The return trip was made on Wednesday morning.

NIGHT FLIGHTS OF THE AIRSHIP C-2.

The night flights recently made by the Airship C-2, one from Aberdeen, Md. to Philadelphia, Pa., and return; and the other from Bolling Field, Anacostia, D.C., to New York City, and return to Aberdeen, served as an ample demonstration of the ability of airships of this type to successfully negotiate long distance night flights despite unfavorable weather conditions, and that they can be navigated sufficiently close to the ground to pick up lights and land marks under such conditions, even when confronted by fog and rain, with relative safety to the passengers on board and to people on the ground.

The first trip, the purpose of which was to make a night practice flight in order to give the crew some good experience in handling the ship at night preparatory to the trip to New York City, and at the same time to test the new type of bomb rack which is being installed on the ship, was started from Aberdeen Proving Grounds at 6:00 p.m. The crew on board consisted of Major James A. Mars, Captain W. E. Kepner, 1st Lieut. E. S. Moon, Lieut. R.J. Parker, R.O.T.C. and Sergeant A. D. Albrecht. The bombing was conducted from an altitude of 2,000 feet, dummy bombs being used, one weighing 300 lbs. and the others 100 lbs. The bomb rack functioned satisfactorily.

Upon concluding the bombing practice, the ship proceeded on a cross country flight to the Delaware River, and thence up this river to the vicinity of Philadelphia, Pa. It returned via the same route and arrived at Aberdeen shortly after 11 p.m.

In the early evening and for some time after dark, land marks were easily discernable, but around nine o'clock a thick fog was encountered. The wind was quite dusty and rain fell at intervals. At times land marks were very hard to distinguish, and only a few lights were visible. It was necessary to steer entirely by compass, but the course was held very accurately. The radio apparatus on board functioned splendidly, and communication with the Aberdeen Proving Grounds was maintained practically during the entire time of the flight.

The appearance of the ship at night over the various cities and towns en route apparently created considerable excitement, as evidenced by the flashing of small searchlights and the burning of some flares at various times, evidently for the purpose of attracting the attention of the aeronauts. The trip was made in a northeast wind, which was blowing at the rate of about 15 miles an hour, at times rising to a higher intensity, the average altitude maintained being between 1,000 and 1,200 feet.

In commenting on the trip, Major Mars stated that altogether it was a very enjoyable and instructive practice flight, and he sees no reason why a ship of the C-2 type should not operate very successfully at night under average conditions.

On the following day, the C-2 took off from Bolling Field at 4:30 p.m., and arrived in New York City at 11:30 p.m., standard time. Very good visibility was had while over Philadelphia, and the ship flew over the Quaker City about 20 minutes. After passing Trenton, N.J., heavy fogs and rain were encountered. Flying across the mouth of upper New York Bay at about 600-foot altitude, the lights of the bay could not be seen, and it was not until Coney Island was reached that any lights were picked up. The ship next flew over New York City at an altitude of 500 feet, but again fogs were encountered and the lights of the city could not be seen. It hovered over the city for about 1½ hours, being alternately in and out of the fog, and while circling the Statue of Liberty it was picked up by the searchlights at this point.

The radio apparatus on board functioned until Trenton was reached, so that while the C-2 was over New York City no radio communication was possible.

The return to Aberdeen was made without incident and the ship landed at 5:30 a.m. July 28th.

AERONAUTICAL NEWS FROM OTHER COUNTRIES

England.

In their efforts to surround their activities with every possible safeguard, the Daimler Airways Company, operating aerial expresses between London and Paris, have installed in their engine repair sheds at the Croydon Airdrome, London, an aero engine testing plant. By an ingenious combination of electrical and hydraulic apparatus, the slightest defect in an engine under test can be detected and located and, in addition, the plant shows at a glance the exact power the engine is developing when running at various speeds.

The Daimler expresses are so constructed that the entire nose of the airplane, in which the engine is mounted, is interchangeable with a spare nose and engine with which each express is provided, thus enabling schedules to be run without interruption for repairs. Whenever it is desired to change engines, the express is run into the testing shed where, by means of specially arranged cranes, the nose, complete with engine, is swung out of the airplane and the spare nose with the overhauled engine substituted. The whole operation is completed in less than an hour, and as more familiarity is gained with this ingenious operation this time will be considerably shortened.

The Royal Aero Club announce that an International Race Meeting will be held at the Waddon Airdrome on Monday, August 7th, when the Aerial Derby for 1922 will be decided over a course of approximately 200 miles, consisting of a double circuit of London, starting from Waddon Airdrome, Croydon. The prizes will be the trophy and £300 for the fastest time - winner of the race - and three handicap prizes of a trophy and £150, £75, and £50.

A new air service with water planes, between Southampton and the French ports of Havre and Cherbourg, is being organized by the British Marine Air Navigation Co., largely for the convenience of trans-Atlantic passengers landing at French ports who desire to go to London. The cross-channel flight to Southampton will take about an hour and will connect with a fast train to London. Service will probably begin in October.

The flying boats will have the advantage over land aircraft in that they will not be obliged to fly at a high altitude to insure safe landing in case of engine trouble.

The company will receive a subsidy from the British Government of 25 per cent on the gross earnings from passengers, goods, and mail, in addition to a payment of £1 10s. per passenger and 1¹/₂d. per pound of goods.

The plan is said to have the cooperation of the London and Southwestern Railway, and the French authorities have promised to furnish the necessary customs facilities and train connections. - Commerce Reports.

France.

The Toulouse-Casablanca Line has been in operation since June, 1920. Up to the end of 1921 this line has made 522 trips, aggregating 602,332 miles, on which 1,082 passengers, 179,768 pounds of parcels, and 28,855 pounds of mail were carried. The normal flying time from Toulouse to Casablanca, a distance of 1,155 miles, is 13 hours. The scheduled transit time is 32 hours, allowing for an overnight stop at Aliconte, although the flight is frequently made in one day.

Two new lines will soon be operating in the Bordeaux District, one from Bordeaux to Lisbon and the other from Bordeaux to Nantes. The latter will connect Bordeaux by air with Geneva, through the Geneva-Lyon-Nantes Line already in operation. The Bordeaux-Toulouse-Marseille service is to be extended to Genoa and to Tunisia, while the Toulouse-Casablanca Line will evidently be extended to Dakar, Senegal, where many Bordeaux commercial interests are established.

Germany.

According to London newspapers Germany, despite Peace Treaty Regulations limiting single-seater airplanes of German manufacture to not more than 60 h.p. has developed an all-metal airplane with a 60 h.p. engine which compares favorably with the Standard British scouting plane equipped with a 300 h.p. engine which recently participated in the Royal Air Force Pageant at the Herdon Airdrome, London. Furthermore, the well-known German aircraft designer, Dr. Junkers, has now produced an all-metal cantilever wing monoplane, which, although equipped with an engine of only 180 h.p., is capable of carrying nine passengers.

Switzerland.

An Aeronautical Festival has been organized by the Swiss Aero Club and its Geneva section, the Swiss Aviation Club, the Association des Interets de Geneve, and the town of Geneva, to take place at Geneva between July 30 and August 9. The program will be opened with an international cycle race at the Geneva Veleodrome on July 30. There will be a night festival, with fireworks, on the Lake on August 1, and the rowing championship contests of Western Switzerland will take place on August 4. But the great event of the festival will be the start on August 6th of twenty balloons representing various countries in the competition for the Gordon Bennett Cup.

A postal Air Service between Geneva, Nuremberg, Berlin, Konigsberg and Moscow started on July 1st. Mail for Moscow leaves Geneva twice weekly, on Wednesdays and Saturdays, by the ordinary Geneva-Nuremberg airplane. According to the schedule formulated, mail starts from Geneva at 7:00 a.m., arrives at Berlin at 3:55 p.m., is carried by the evening train to Konigsberg, from where it starts next morning at 8:30 a.m. and arrives at Moscow at 7:15 p.m. An extraordinary tax of 3¹/₂d. per oz. is charged on letters sent by this mail. Negotiations are being carried on with a view to establishing new air services linking Nuremberg with Copenhagen, Prague, Warsaw, and Budapest.

Australia.

A London TIMES correspondent writes that Sir Keith Smith, who with his brother, the late Sir Ross Smith, made aviation history by their successful flight from England to Australia, intends to submit to the Prime Minister a new airship transport scheme between England and Australia backed by the Vickers Shell Company. The proposal takes over the existing fleet of airships in Great Britain and adopts a route

through Egypt and India. The estimated cost to Australia is about £40,000. There is accommodation in one airship for 35 passengers and four tons of mail. The passenger fare will be £130, and the postage rate about seven pence.

By August or September it is expected that commercial aviation service, carrying mails, passengers and freight, will be operating over routes equalling three thousand miles. The inauguration of the services from Adelaide to Sydney and from there to Brisbane has been delayed owing to delay in airplane construction caused by strikes in England.

The manufacture of airplanes is now being undertaken in Australia.

SQUADRON NEWS.

Kelly Field, San Antonio, Texas, July 15.

EIGHTH SQUADRON (ATTACK)

Lieut. Edgar T. Selzer made a cross-country flight to Del Rio, Texas over the week end. Carrier pigeons were taken and the birds made exceptionally good time on the return flight.

The men of the 8th Squadron have had their shoulders together and have just cleaned their new quarters and sector to their particular liking. This is the spirit that dominates throughout the organization from the Commanding Officer to the latest recruit. Irrespective of what must be done, it is carried out with a spirit of good will on the part of all.

The R.O.T.C. Cadets are still with us. It seems as though the cadets like the 8th Squadron as they make this their headquarters while waiting their turn to make a flight.

The band has moved some men over to the 90th Squadron. This is very gratifying to those who occupied the section adjacent to theirs - no more blasts on the cornet or other musical instrument to disturb their slumbers. We are looking for a place to move the rest of the band, whereupon there will be more peace in the family.

TWENTY SIXTH SQUADRON (ATTACK)

Captain McDaniel, who has been in Command of this organization since the Squadron was organized, has been transferred to the Tenth Group (School) at this Field, recently organized. The organization is losing an officer who has had and always will have the utmost respect and confidence of every man who has served under him. The organization, to a man, has hopes of soon having the Captain with them again.

1st Lieut. Russell M. Greenslade, A.S. has succeeded to the Command of the Squadron. The Lieutenant has been with the American Army of Occupation in Germany for a period of eighteen months, having recently returned to the United States. He states that the American Air Service on the Rhine was, in the opinion of the Inspecting Officers, second to none both in appearance of ships, airdromes, and in the discipline of both the commissioned and enlisted personnel.

1st Lieut. H. T. McCormick has returned from McAllen, Texas, where he has been assisting in relief work for the flooded sections at that place. Lieut. McCormick is in receipt of a congratulatory letter from the Commanding Officer, 8th Group Area, commending him highly for services rendered to the people in the flooded districts. The assistance rendered demonstrates the ability of the Army Air Service to cooperate with the civilian authorities in times of such emergency.

Lieut. J. T. Cumberpatch has been flying the R.O.T.C. Cadets for some time, instructing the students in flying, mapping, bombing and observation. All work with the R.O.T.C. has been indefinitely suspended.

This organization has started painting the hangars and barrack buildings, lawns have been cut and surroundings thoroughly policed, and all are in fine condition. Quite a number of enlisted men are being transferred to the Tenth Group (School), and these men will form the new 41st Squadron (Attack).

"SCHOOL GROUP"

The Tenth Group's visitors during the past week were Captain Mayer, Lieutenants McBlain, Walker and Shrader from Post Field, Fort Sill, and Lieutenant H. S. Kenyon from the Office of the Chief of Air Service.

There has been very little flying activity in the Tenth Group since July 1st, due to the organization of the school and preparation of schedules and courses. Arrangements have been made for giving transition flying to ninety students beginning July 15th. In addition to these incoming students, there are eight bombardment students who have another month's work to complete.

The 13th Air Park Squadron, 42nd Squadron and 43rd Squadron are composed of men from the 4th and 5th Balloon Companies, Brooks Field; and the 23rd Balloon Company and A.S.O.S. Detachment of Post Field. Captain V. L. Burge commands the 13th Air Park Squadron, Captain Frank H. Pritchard the 42nd Squadron, and Lieutenant James B. Carroll the 43rd Squadron.

THE 39TH SQUADRON (SCHOOL)

The 39th Squadron is now organized and consists of three officers and ninety-eight enlisted men, all of whom were formerly of the 1st Group (Pursuit). Due to lack of supplies, this organization as yet has not started operations. This organi-

zation was busy all the past week getting everything in shape and, as soon as operations start - which it is hoped will be at an early date - every man will be ready to do his work for the benefit of the Squadron and the Group.

Lieut. Fonda B. Johnson, formerly our engineer officer, has surely been working hard this past week and wearing out the tires of his car trying to get everything possible done to make fit the class in Liberty engines which he has in charge, also to train and lecture all the new student officers coming to this Group. Despite all the hurried work he has been doing this past week, Lieut. Johnson is carrying his smile over the field and is feeling rather happy. It's a good thing cigarettes are on hand, otherwise he would lose the smile.

Captain B. V. Baucom, Squadron Commander, has been scheduled to give a series of three lectures to the Reserve Officers who are on the field for a few weeks "refresher" course. Captain Baucom's lectures are on Pursuit Aviation and the subjects are, - "Early history of pursuit tactics", "Present pursuit tactics", and "Technical progress in pursuit aviation".

Hard. 91st Sqn. Forest Patrol Flight, Eugene, Ore., July 22d.

Lieut. W. A. Maxwell, and Privates E. H. Halverson, flew down from Camp Lewis Washington where they have been on ROTC and CMTC duty. They will remain in Eugene during the Forest Patrol Season.

Sergeant Templeman, a recently enlisted pilot, flew from Crissy Field the past week, arriving Friday afternoon in Eugene. Running out of gas, he was forced down in a field adjacent to the Local Flying Field, and temporarily disabled his ship.

The personnel of the detachment are busy installing radio stations and work shops, etc. No camp will be maintained this year as in past seasons, and the enlisted personnel will be on per diem status, and live in the city.

Scott Field, Belleville, Ill., July 24.

The consolidated schools from Ross and Langley Fields, although not quite settled, have started the class off on their course of instruction.

The newcomers at the post are getting settled in their new locations, and it is felt that everyone is fully satisfied with the new surroundings and the people of the community.

Permission has been granted to hold a flying meet on August 27th. Through this meet enough funds are expected to be raised to rehabilitate the swimming pool and install modern sterilizers, also to erect a building suitable for recreation purposes.

A number of reserve officers are taking refresher courses of study at the field. These courses are being handled by the school.

Announcement has been made of the marriage of Lt. A.C. McKinley to Miss Grace L. Houser of St. Louis.

A fairly good program is being followed for the recreation of the command. Moving pictures are shown in the War Department Theatre on Mondays, Wednesdays and Fridays. Bookings are made for the theatre by the U.S.A.M.P. Service, Kansas City, and these compare favorably with the larger civilian theatres. On each Thursday a dance is held in Hangar #10, which temporarily serves as a recreation center. The best orchestra of the locality has been contracted for, and these affairs boast the largest attendance of any amusement on the field. Each Sunday a free movie is held in connection with a short religious service.

As a result of the influx of the newcomers to the field, the personnel of the Post Band has been considerably augmented, and now 28 experienced musicians, with a large number of beginners are practicing daily. Within a few weeks, an evening parade will be instituted. The band will add much to the morale of the command.

Mrs. F. L. Pratt is spending a month in the Ozark Mountains.

Fairfield Air Intermediate Depot, Fairfield, Ohio, July 22.

Captain Edward Laughlin, from Kelly Field, San Antonio, Texas, was on the visiting list this week on official business relative to Repair Depot activities.

Last Saturday afternoon Lieut. Bartron, while returning from Washington, D.C., had the misfortune to break a crankshaft while over the mountains in West Virginia. He had approximately 5,000 feet altitude, and finally picked a small field which lay in a ravine in which to land. In landing he was compelled to go through some telephone wires and landed on one side of the ravine, and on taxiing across the ravine lost the landing gear, which probably saved him from going over a fifty-foot embankment which was opposite the ravine. Fortunately neither Lieut. Bartron nor

his passenger was injured, and they walked to Hedgesville, West Virginia, from which point they will continue home by rail.

Camp Nichols, Rizal, P.I., May 27.

Lieutenant and Mrs. Willis R. Taylor are receiving congratulations on the birth of a son, who arrived on May 23rd. According to reports received as to his lung power, the Air Service is assured of having an excellent Drill Master at some future date.

Captain and Mrs. George B. Patterson spent the past week-end in Stotsenburg as guest of Lieutenant and Mrs. DeSaussure.

Camp Nichols, Rizal, P.I., June 3.

The detail from 11th Air Park completed the assembly of 25 DH4-A's during the past week and returned to Camp Nichols. Lieutenant McReynolds is keeping a small detail at Stotsenburg to accomplish salvage of unserviceable airplanes. The wing covering gang, from 11th Air Park, is also remaining at Clark Field, Stotsenburg, to recover all repairable wings in the Department.

Lieutenant Edwin E. Aldrin spent the past week end at Camp Nichols. The telephone operator states, that 231 calls from Manila, more or less, were received, asking for "Eddie". How do they get that way.

Hrs. Flight A, 3rd Sqdn. (Obs.) Manila, P.I., May 20.

Flight "A" embarked on the "Liscum" May 17th bound for Manila and home. The dawn of the day with whose advent the transport entered the port of Jolo will long be remembered as a red letter day for the officers, all of whom are married and have been languishing far, far away - - when the old whistle announced the Liscum as entering port at 4:00 A.M. in the morning, that bodega that had housed us for a month must have gotten the surprise of its existence to see its occupants rise as one man and beat it for the dock in all degrees of dishabille. To the extreme disappointment of all hands, their families were found among those absent on the passenger list, and there was much crying and wailing and gnashing of teeth - especially among the several newlyweds of whom 1st Lieutenant Theodore "Goofey" Lindorff and Guy "Chinstrap" Harry Woodward stood forth in noticeable prominence. By the way, it may be of grave interest to the several friends of "Chinstrap" that his recent enforced and prolonged absence from his bride is believed to have occasioned a further noticeable diminution of his fringe of cranial hirsute adornment with a consequent removal of the remaining obstructions to the municipal landing field he maintains topside for cooties on flying status. We will be glad to at last gain surcease when "Goofey" is again joined in happy reunion with his blushing bride, from his perpetual interrogations such as "When do you think the boat will get into Manila?" and "Say, is there any chance of me being O.D. the night we land?" and "Radio operator, can I send a personal message to Clark Field?".

After a pleasant voyage, with one stop at Cebu, for recruits, Manila was reached on May 21st, and the trip of sixty miles to Clark Field begun.

Clark Field, Pampanga, P. I., May 27.

The return of Flight "A" from field duty at Jolo, Sulu, consummated a most pleasurable duty for all, with the possible exception of the married officers who could not quite get accustomed to being away from their families.

A mass of official paper work confronted the Headquarters, which meant late hours for several days, and now affairs are being run routinely enough with existing shortage of personnel taken into consideration.

The menagerie brought back by the Flight is sorely depleted by the loss of two monkeys, both of whom "went over the hill", upon no provocation whatsoever. Captain Midcap's deer is still up and standing, and is the object of much attention by the personnel of the field, especially by the Filipino servants.

Clark Field, Pampanga, P.I., June 3.

1st Lieuts. Edward L. Searl, Jr., Frank D. Hackett, Harry Weddington, Frank L. Cook, and William J. McKiernan, Jr., who arrived on the U.S.A.T. "Sherman" April 30th, have been assigned to the Third Squadron (Pursuit).

After many rumors to the effect that the Flight at Jolo would remain there for an indefinite period, word was received that permission had been granted for two planes to make the flight from Jolo to Clark Field. Two DH 4 B's were used, one with Major A. H. Gilkeson, pilot, and Master Sergeant William C. Hunter, Mechanic, and the other with Lieut. Eugene C. Batten as Pilot, and Captain John I. Moore as observer. They arrived at Camp Nichols on the afternoon of May 15, seven hours and ten minutes flying time from Jolo. The trip was completed the following day with a forty-five minute hop to Clark Field. Two landings were made for gas, the first on the golf links at Zamboanga, and the second on the beach at New Washington. At the latter place it was a race against time to service the ships before a rapidly rising tide that would have prevented their taking off, and Lt. Batten, the last to leave, got away in a shower of sand and water.

The remainder of the Flight arrived on the U.S.A.T. "Liscum", May 21st. Every one was glad to be back at the home field. As reminders of the expedition they brought back a large assortment of souvenirs, consisting principally of gaudy Moro costumes and wicked appearing Moro bolos and spears. Last, but not least, the post is now overrun with squawking parrots and chattering monkeys, all direct importation from the Solu Archipelago.

In addition to his other duties Lieut. John Beveridge, Jr. now has the care of John the Third, who arrived May 2. Mrs. Beveridge and baby are doing nicely.

Pvt. Vincent Gervais was ferried to Manila last week by Lieut. Thompson, in compliance with rush orders sending him to the United States. Pvt. Gervais sailed next day, enroute to the U.S. Military Academy, West Point, to visit Cadet Gervais.

Kindley Field, Fort Mills, P.I., May 22nd.

During the past week commissioned observers of the 17th Balloon Company have been given training and problems in observation on a large "Relief Map", located in the chart room, which represents the territory covered by the range of batteries of Corregidor and surrounding fortifications. This map has been constructed of cement and has raised parts on it representing the land and mountains; rivers are shown by means of white lines, and the China Sea and surrounding waters are painted blue. At different intervals about the map are placed small electric lights to represent the burst of the shot. The map is divided into sectors and coordinated in order to facilitate the location of positions on the various sectors. The position of the observer is a raised platform some distance in rear of the map. On notification that the balloon and battery is ready, the time of flight is given and the burst of the shot is registered by means of an electric switchboard. Upon completion of each problem coordinate positions located from the observation platform are checked with co-ordinate positions on the map. During such time as the organization is unable to fly the balloon, due to lack of men, this is thought the best means of keeping observers in training.

Kindley Field, Fort Mills, P. I., May 27.

On Tuesday, May 23rd a "typhoon", having its origin somewhere in the vicinity of Corregidor, swept the Island, but did very little damage. The storm was first felt at about 9:00 A.M., when number four signal was hoisted, and at 11:00 A.M., it became a raging gale. No damage was done to the balloon in the hangar, notwithstanding the fact that the wind was blowing directly into the hangar. The Coast artillery, quartered on the parade ground, of this Field, in tents, first felt the gale at about 9:00 A.M., and immediately obtained permission from the Commanding Officer, Kindley Field, to move into the barracks of the 17th and 27th Balloon Companies, which are practically empty, due to the return of nearly all the enlisted personnel to the United States on the May Transport. The men started moving about 9:30 A.M., and had not finished until noon. During the entire time a terrific wind was blowing, accompanied by rain, and the men who were required to move all their equipment including beds, packs, and mess and cooking gears, suffered considerable hardship from the storm. There are now about eight officers and two companies of Coast Artillery quartered in the barracks of this organization.

Five hours' theoretical instruction have been given officers of the 2nd Squadron (Obs.) during the past week.

17th Balloon Company (C.D.)

On Monday, May 22nd, the 17th Balloon Company attempted to observe for the 59th Mobile Artillery. Fifty men from the Artillery were sent to this Field to

handle the balloon, and after a few minutes of instruction these men, under the supervision of officers and non-commissioned officers of the balloon companies, were able to maneuver the balloon to the field and place it in the air. The observers, after ascending to an altitude of about fifteen hundred feet, found the wind velocity so great that it was considered dangerous to fly any more, so the balloon was hauled down and put away. A barge in front of the target prevented the artillery from firing, and when this was finally removed a fog and rain came up and prevented any further firing that day.

Captain Ivan B. Snell departed for Fort William McKinley to take part in the competition for a place on the Department Rifle Team. Captain Snell will be on detached service at Manila for approximately ten days.

Kindley Field, Fort Mills, P. I., June 3.

The activities of the 2nd Squadron (Obs.) during the week consisted of two hours' flying in DH's (practice flights and photographic missions); flights in seaplane for 1 hour and 35 minutes (transformation practice) 4 hours' practical instruction in aerodynamics and 1 hour's pistol practice.

17th Balloon Company (C.D.)

Brigadier General Todd, in command of the Coast Defenses of Manila and Subic Bays, inspected the transportation at this field on Monday, May 29. No irregularities have been reported. On May 29th, the balloon was flown for the purpose of regulating artillery fire for the 59th Artillery. The target was located on land and forty-eight shots were fired. Balloon observation was used for adjustment, the results being excellent. In the Department Rifle Competition Captain Ivan B. Snell, on detached service from this organization, finished seventh in the list of officers. During the week the 17th Balloon Company devoted much of its drill period to aiming exercises preparatory to going on the range in July.

27th Balloon Company (C.D.)

Balloon operations were carried on during the week, including a shoot with the 59th Mobile Artillery on June 1st. Regulation Model "A" moving target was used. Though badly handicapped by lack of men, the two companies were able to maneuver successfully with the aid of a detail of 50 men from the 59th Artillery. Usual drills and instructions were carried on during the week.

Rockwell Air Intermediate Depot, Coronado, Calif., July 22.

The week was started by a very successful dance given by the officers of the Field in honor of Colonel Landon, C.A.C., the Commanding Officer of Fort Rosecrans and the Border District of Southern California, who is to retire from active service in the near future. The Officers' Club was all "dolloed-up" for the event, and refreshments were served during the dance intermissions. "Bill" Bailey's orchestra furnished the music. There was quite a representation of Army and Navy folks from all nearby stations.

On Wednesday evening, the 18th Squadron (Observation) which has been ordered disbanded, gave a farewell dinner and dance at the Officers' Club, which was thoroughly enjoyed by all. There are twenty enlisted men to go to the Hawaiian Islands; twenty-six to Langley Field, and the balance, which consists of short-timers only, are to remain here until the end of their enlistments.

On Thursday night the majority of the officers of the post went to Fort Rosecrans to a farewell dance given for Colonel Landon.

There being so few Reserve Officers reporting for flying on Saturdays and Sundays, Major FitzGerald decided that only one officer need be present to fly them, when low and behold a gang of about twenty, the majority from Imperial Valley, arrived on Sunday morning. Lieut. McCulloch, who was on duty that day, immediately called for reinforcements which arrived in the form of Lieut. Webber and Staff Sergeant Steinle.

The Compass Base, which was designed by Major FitzGerald, was completed this week. It has several original and extremely practicable features embodied in the turn-holds.

Our new radio station is gradually being constructed. The building has been moved and spotted, and concrete is in for motor generator. The towers, 86 foot

telephone poles, are ready to be set.

Lieuts. Webber and Hine start early next week on an interesting mission of mapping airways and spotting landing fields within a radius of 1,500 miles of Rockwell Field. They will touch at Salt Lake City, Denver, Post Field, Kelly Field, El Paso and Nogales, Arizona.

Due to the disbanding of the 18th Squadron (Observation) and transferring of all Air Service enlisted personnel to other stations, classes in the E. & R. Schools have been closed for an indefinite period. Also, all members of the Soldier Guard have been relieved and the places filled by civilian watchmen.

Air Service, Tennessee National Guard, Nashville, Tenn., July 24.

With the opening of our summer camp rapidly rolling around the pilots and observers are getting a lot of practical experience. The week before last two planes made the trip to Lebanon, but a wet field prevented them from landing. The next day three planes flew to Springfield and negotiated a landing in a very mediocre field. Needless to say, the whole town came out to see "them there big buzzards", as one native termed the planes.

On Saturday last, three planes made a successful trip to Carthage and return. Right here let it be said that it took more than an average amount of skill to land in and take off from the field we had to use. Although located on the Cumberland River, this little town is surrounded by almost mountainous hills and the field we use was the only possible place a safe landing could be made.

The Air Service Instructor returned last week from a four day visit to Montgomery, the purpose of said trip being to make a raid on salvaged parts, etc., which we need to keep operating. He claims the outfit here is similar in many ways to the early border squadrons which survived in their early days through the means of aerial express planes flying back and forth between Kelly Field and their respective border airdromes.

In conclusion let us add that we would like to see something once in a while about our other five competitive National Guard squadrons. Maybe they are putting something over on us for all we know.

Selfridge Field, Mt. Clemens, Mich., July 24.

Group tactical training began on Monday, July 17th, and will continue throughout the summer and fall. The First Group is working out a set of brand new tactics which is expected to change the whole scheme of the disposition of forces in pursuit attack and defense. General Wm. Mitchell has promised to participate with us in maneuvers during his spare time during the summer, and by fall we expect to spring it on the powers that be with every assurance that they will be unable to "shoot it full of holes."

In addition to pursuit tactical flying a considerable amount of cross-country flying is being done by Officers of the Group, in SPAD, SE5A and DH4B planes. Cities visited during the last week end included New York, Cleveland, Buffalo, Dayton, Fairfield, Chicago, and Grand Rapids. Total flying time for this type of flying during the week was 56 hours and 15 minutes.

The ladies are arriving one by one and, with the arrival of Mrs. T. K. Matthews and daughter today, only one officer, Lieut. E. C. Whitehead, is still enjoying his nightly "Pass".

The floor of the Officers' Club is now being sanded and polished in preparation for the opening dance, the date of which will be announced later.

The Officers of the First National Bank of Detroit have invited the Officers of the First Group (Pursuit) to a luncheon at the First National Bank Building on July 26th to be followed by an inspection of their new building. This invitation is not intended as a business getting affair but is planned as an opportunity of a social meeting with the business men of Detroit.

Primary Flying School, Brooks Field, Texas, July 22.

3 a.m., June 29th ended the troop movement of the Air Service Primary Flying School from Carlstrom Field, Arcadia, Florida, to Brooks Field, San Antonio, Texas. The troop movement was accomplished without delay or mishap and a great deal of credit is due for the systematic manner in which the movement was handled. The move was made in two sections, the first train leaving Carlstrom on June 25th, arriving at Brooks Field on June 27th; the second train leaving Carlstrom on June 26th, and arriving at Brooks on the morning of June 29th.

All officers are busily engaged in getting their departments into working order at Brooks these days. Due to the run down condition of the buildings and flying field, considerable work is necessary. The exact date of the beginning of the course is still undetermined, but September 20th. is the approximate date. Under the new schedule, all academic work will be completed before students are allowed to commence flying training. January 2, 1923, is the tentative date for flying training under the new schedule. About one hundred cadets have reported and are at present undergoing instruction in basic military subjects. Word has been received from Washington that a number of recent West Point cadets, now second lieutenants, have been assigned to Air Service and are to receive primary training at Brooks Field.

Major Paul T. Bock has been detailed Assistant Commandant, and will be in charge of all school work. He is a recent graduate of the advance bombing school at Kelly, receiving his primary flying training at Carlstrom last winter.

1st Lieutenant Leland R. Hewitt has been detailed Post Exchange Officer, vice Capt. Robert C. Candee, has been detailed mess officer and secretary of the Air Service Primary Flying School Officers' Club.

A contract entered into by the Officers at Brooks Field, Texas, and the Officers of the Air Intermediate Depot, San Antonio, Texas, a transcript of which follows, may be of interest to Air Service News readers.

CONTRACT.

State of Texas)

ss.

County of Bexar)

Know all men that the following premises and covenants have been solemnly agreed to by the Officers of the AIR SERVICE PRIMARY FLYING SCHOOL, hereinafter referred to as the party of the first part, or School Officers, and the Officers of the SAN ANTONIO AIR INTERMEDIATE DEPOT, hereinafter referred to as the party of the second part, or Depot Officers.

NOW in solemn remembrance of the fact that on the afternoon of Wednesday, July 19, 1922, the School Officers did unmercifully clout the ball in such a manner that their less skillful Depot brothers did get sunburned tongues chasing it; furthermore, in that they, the Depot Officers looked like school boys playing marbles, with the marbles getting lost on frequent and sundry occasions. Further, in that all of the Depot Officers got a chance to pitch - which they did; and further also, in that all the School officers got a chance to hit - which they did; and furthermore, in that Lieut. Strahm, the singing pilot, was hitting them on the nose; and Lieut. Bivins, the Sanford wildcat, was leaning on them heavily; Lieut. Williams, the Brooks Field Adonis, was poling them out; and that handsome John Corkille knocked out so many that they got tired running around the bases. Now, in view of these facts, and in view of the further fact that Major Royce, the sturdy school boys' sturdy leader, was pitching a masterful game, and was bending them 'round their necks, and in view of the further fact that the heroic efforts of Major Johnny-Evers-W.H. Garrison, Jr., to stem the tide from second base, by giving the Depot officers vocal instruction and "hell", and further, also, because of nineteen separate, distinct and individual occasions, the School officers made the complete circuit of the bases and then touched the home plate in the legal manner as prescribed by the National Baseball rules, thereby entitling them to the coveted reward of a glass of near beer. And furthermore, because on only three occasions when it looked as tho some throat-parched Depot officer would refrain from the unequal struggle, the School Officers would allow him to get to the home plate and the near beer.

NOW in view of all these facts, hereinbefore recited, the Depot officers in general, and Major Garrison, Capt. Laughlin, Barney Giles, Powers, Woody and Ray Harris, in particular, do agree never to refer to various and sundry newspaper clippings purporting to show that the Depot baseball team romped on a Camp Normyle Quartermaster team, nor will they ever again get cocky about their ball team; and further, because of these agreements and these considerations, the School Officers all agree that hereafter, in all contests of athletic prowess on the baseball diamond, between the School and the Depot, they, the School officers, will refer to these contests as "Track Meets". This, notwithstanding the fact that they are in reality base ball games, and should ordinarily, and would, were it not for these covenants, be designated as baseball games.

THE above covenants and promises entered into, etc.....

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE September 9, 1922.

PARACHUTE JUMPING. ✓

By Master Sergeant Ralph W. Bottriell, Air Service.

I have been jumping parachutes for the past twenty years, but all my jumps up until the war were from balloons. During the war I made my first jump from an airplane over San Antonio, Texas, using at that time the balloon type parachute. When over a town, a safe distance to jump from is 5,000 feet. While in the Parachute Department at McCook Field, Dayton, Ohio, I jumped from altitudes of 1,000 to 20,000 feet.

All pilots and observers should wear a parachute at all times while flying, for they never know when they will be called upon to use it. There have been instances when two ships have collided in the air from two to five thousand feet altitude, where both the pilots and observers could have been saved had they worn parachutes. Even at a low altitude a pilot would have a chance if he would stand up in his seat and pull his rip cord. He might get bruised, but that would be better than no chance at all. Only the other day I read in the paper of a pilot, about to make a long cross-country flight, who was asked if he would wear a parachute. His answer was that "A parachute was too much bother."

The Air Service has spent thousands of dollars to perfect a parachute to stand up under a test of 300 pounds at a speed of 300 miles an hour, which they now have, and it is carried in the ship to take the place of the cushion and may be put on or taken off by unbuckling ^{or buckling} three snaps, and left in the plane.

Every pilot and observer should know how to pack his own chute. One important thing for him to remember is to look up into his chute as ^{soon as} it is opened to see that the shroud lines are not twisted. Parachutes should be tested and repacked at least once every six months. If it becomes moist or wet it should be immediately unpacked and dried.

Precaution should be taken to rescue jumpers who may fall into the water. The best thing for a jumper to do in a contingency of this kind is to get out of the harness when about one hundred feet from the water.

One experience I shall never forget occurred when I made a jump from 20,600 feet, with Master Sergeant Strong B. McDan as my pilot. I took off from McCook Field with the intention of beating a parachute leap record of 18,000 feet which had been made a few days before at Kelly Field, Texas.

We had been in the air some little time, climbing higher and higher, when I noticed that McDan was unable to reach a higher altitude. I was finally able to learn from him that the altimeter which he was wearing showed a height of 19,500 feet. I asked him to go still higher, but he told me that he had reached the plane's limit. Knowing that even 19,500 feet would eclipse the Kelly Field record, I told McDan that I was going to jump and to prepare for my leaving the ship. This he did by turning his rudder slightly and nosing his plane into the air. In the meantime I had thrown off my moccasins and fur-lined coat and had just signalled him that I was leaving the pit when some part of my parachute harness must have caught on the gun turret, pulling the rip cord of my pack and ripping the parachute. By ripping I mean that it was released.

We were traveling at a speed of about sixty miles an hour and, quicker than I could think, the wind caught the chute, I was jerked out of the cockpit and whipped right through the rudder of the ship. The pull was so terrific that my impact with the rudder caused it to give way entirely and broke my guy cords. I am sure that if the rudder had not given way my arm would have been torn off. The force of the blow on my arm evidently rendered me unconscious, as I had dropped five thousand feet before I regained my senses and realized what had happened.

I looked for the plane but could not see it anywhere. Then I noticed that one panel of the chute had been ripped its entire length by its contact with the rudder. I next noticed a numbness in my left arm, and when I tried to raise my hand I was unable to move it or work my fingers. The arm was hanging back of me, so I used my right hand and reached around to see what had happened. I discovered that my arm was entirely useless and thought at once that I had merely broken it until I found that blood was streaming from my hand and that my sleeve was saturated with it.

With my right hand I then pulled my left arm around in front of me and saw that the flow of blood was very strong. I knew that if I continued to bleed at that rate until I landed I would probably bleed to death. Lifting the arm high above my head I fastened the hand in the webbing of the chute. By this time my arm was painning me terribly and I had no control over it whatever. Three different times my hand worked out of the webbing and dropped down, but each time I was able to lift it up again and fasten it above my head, realizing that this was the only way in which I might hope to stop the flow of blood.

All that time the wind was carrying me further and further away from Dayton, and at last I noticed that I was within 500 feet of the ground. With the wind rushing through the rent panel of the chute, I knew that my landing would be much harder than usual. I therefore pulled the jerk cord of my emergency parachute, which checked my drop, and I alighted in a field near Germantown.

I was completely exhausted upon landing, and first aid was given me by some farmers who had been watching my jump. Then Major Hoffman, who is in charge of the Equipment Section at McCook Field, together with Guy M. Ball, Engineer in Charge of Safety Appliance Development in the Army Air Service, also stationed at McCook Field, and who had been following me, came to my assistance and took me to the post hospital. It developed that the rudder had torn into the fleshy part of my arm on the front side, just below the shoulder and had ripped deep into the flesh, tearing it in two directions for several inches. It had not only lacerated the flesh but had torn the five membranes that encase the muscles.

The descent to the ground, after I was jerked out of the plane, took 22 minutes, and I had drifted a distance of eight miles.

McDan did not know that I had left the plane until he attempted to use his rudder. He then made the unpleasant discovery that it was gone and that he would have to maneuver his ship to the ground without it. He looked for me but could not locate me anywhere, so he turned his attention to gliding his plane to a landing and finally succeeded in alighting without further mishap or injury to himself. In this he certainly accomplished a fine feat.

A NEW CURTISS AVIATION SCHOOL.

During the last two years the Curtiss Company has felt a growing demand for a flying school which would not only teach a man to solo, but would give him a chance to acquire enough time after his preliminary training to give him experience. It is a recognized fact that a young man of average ability and intelligence, in proper physical condition, can learn to fly sufficiently well to handle a machine in safety in a period of six to ten hours of flying instruction, and it is this instruction that commercial schools have been able to give. However, to send a pilot on a commercial job with this amount of training is suicidal, and no commercial company would consider employing him. Consequently, there has been little incentive for a young man to attend a flying school under these conditions (if he knew them) and the problem has been to supply this fifty hours of flying in which a student can acquire the experience necessary to make him a capable pilot without too great expense. To date no school has been able to do this, and few students are able to afford the three thousand dollars that such training would cost.

With this in mind, the Curtiss Aeroplane and Motor Corporation has arranged, through the Curtiss Exhibition Company, to operate its Aviation School at Garden City, L. I., offering the following inducements to students with the idea of solving the above problem:

A flying course in ten hours.

Eight weeks intensive training in aeroplane mechanics and its auxiliary subjects.

A complete Radio course.

Presentation to graduates of a JN aeroplane equipped to take OX motor, less motor.

The cost of the complete course, including flying training and the aeroplane, will be five hundred dollars. A great quantity of OX motors are available through-

out the country at reasonable prices, so that at a minimum cost a student can get his preliminary training, together with an aeroplane, on which he can acquire the experience mentioned above, at the cost of his gas and oil, and become a pilot capable of demanding a good position. In fact, after a little practice, he will be able to use his machine for passenger carrying, advertising, etc., with a good chance of fair profit together with his training.

A part of the work in the school will be the reconditioning of the machine and overhauling of motors by the students themselves under competent supervision. This will familiarize them with their own machines and give them practical training that no other method could give.

Furthermore, classes will be given to a limited number in aeroplane and motor work alone, at a cost of one hundred dollars, and those attaining the required standards will be placed in the Curtiss Organization. Plans are under way for a Club where the students can get room and board at minimum rates.

The Curtiss Company believe that this scheme will fill a long felt want and will go a long way towards popularizing and commercializing aviation.

CONCLUSION OF R.O.T.C. STUDENTS' CAMP AT MITCHEL FIELD.

Twenty-three R.O.T.C. students from the Massachusetts Institute of Technology, who have been in camp at Mitchel Field for the past six weeks, departed from that station on July 26th. Major J. C. McDonnell and Captain Wm. B. Wright, Air Service, who were on duty at this station in connection with this camp and who have been for the past year instructors in the R.O.T.C. Unit of the above institute, remained at Mitchel Field to assist in the training camp for Reserve Officers which was already in progress at the conclusion of the R.O.T.C. Camp.

NEW ALTITUDE RECORD IN BOMBING MACHINE ✓

Ascending to an altitude of 23,350 feet in a Martin Bomber, Lieut. Leigh Wade, test pilot at McCook Field, Dayton, Ohio, broke his own altitude record made several months ago for an airplane carrying three passengers. Lieut. Wade performed his latest feat on August 1st, and he was accompanied by Captain A. W. Stevens, aerial photographer, and Sergeant Roy Laugham, observer. The Bomber was equipped with a Moss supercharger.

Contrary to most altitude trips, this flight was without any unusual incident. The temperature was slightly below zero, while a wind, estimated at 100 miles an hour, was recorded. The flight took 2 hours and 15 minutes. One hour and 52 minutes elapsed before the ship reached the ceiling, while only 23 minutes were required for the return trip.

Lieut. Wade believed that with several minor adjustments he can climb the Bomber to a higher altitude.

AERIAL OBSERVATION SCHOOL MAKES FINE RECORD.

The most thorough course in flying ever given to any Air Service class terminated at the School for Aerial Observers, Post Field, Fort Sill, Oklahoma, on June 30, 1922.

The course opened January 16, 1922, with 3 Captains, 11 First Lieutenants, one cadet from the Regular Army and one foreign officer, Lieut. Shen from the Chinese Navy. The only changes in personnel during the course were as follows: On February 14th, Cadet Wright crashed and was killed; on March 15th Lieut. Zuniga Cooper, of the Chilean Army, was transferred to the Observation School from the Communications School; and on April 12th Lieut. R. L. Williamson was assigned to the School from Carlstrom Field. On June 30th the School graduated 15 regular officers and two foreign officers.

The subjects covered in the course were Liberty Engines, Rigging, Artillery Contact, Photography, Visual Reconnaissance, Radio, Army Regulations, Infantry Contact, Minor Tactics, Rules of Land Warfare, Gunnery and Flying. The technical part of the course was given in the Rigging and Motor Shops, and the theoretical part in the class rooms.

The remarkable thing about the course was that, in spite of the great number of flying hours, there was only one fatal accident, and that occurred in the early stages of transition work. The total number of crashes was rather heavy, 12 for the students and nine for the regularly assigned personnel of the field, but this cannot be considered an unfavorable showing when compared with over thirty crashes and ten fatalities during the period of the previous school year.

During this course the students averaged over 61 hours of cross-country flying (one flying as much as 97½ hours), 7 hours formation and 36 hours routine (missions, liaison, etc.). The average time flown during this course per student was 154 hours but one pilot made nearly 190 hours. This record far surpasses that for the previous year, when there were 32½ hours of cross-country, 6½ hours formation and 52 hours routine, or a general average of 91 hours.

Pilots, both students and officers assigned to the field, covered during this school year 470,880 man miles of cross-country flying and 399,105 man miles of airdrome flying. This was more than for a like period the year previous and, in view of the fact that this class averaged only about one-third as many students as the former class, this is indeed a remarkable showing.

Up to and including the 15th week, the course alternated weekly with one half day of flying and one half day in shops or classrooms. From the very first the tendency was to compel the students to rely upon themselves in flying by using the knowledge gained in the primary course. This policy was adopted in view of the fact that the students were here to receive instructions in Observation, the carrying out of missions, liaison problems, artillery and infantry contact work, etc., rather than additional instruction in flying. In other words, flying in the early part of the course was subordinated to observation.

The first three weeks were largely devoted to transition work. During February numerous short cross-country trips, ranging from ten to thirty miles, were made. Gradually the trips became more extended. On starting, the pilots usually took off in formation, landed, and returned to the post at intervals between ships of five or ten minutes.

During March and April the class was busily engaged in flying missions, consisting of Visual Reconnaissance, Artillery Contact, Infantry Contact, Radio and Photography.

On April 22nd, the first long cross-country flight was carried out. Ten planes participated in this flight. One-half of the students piloted to Murkogee and the observers on the up trip piloted back. The distance covered on the round trip was 380 miles.

On April 29th, five assigned officers with five student officers as observers flew to San Antonio, Texas, a distance of 360 miles one way. On the return trip the students brought back five new planes. The trip was very successful, and was completed without a mishap, despite the fact that part of the country between Post Field and Kelly Field is not the best to fly over. The remainder of the class flew to Arkansas City, upon the invitation of the Chamber of Commerce of that place. This flight consisted of nine ships, and the distance covered on the round trip was somewhat over 370 miles.

On May 5th to 7th the entire student personnel flew to Lincoln, Nebraska, via Wichita, Kansas. This was the longest trip made up to that date. The distance covered in the round trip was approximately 850 miles. The students piloted the planes both ways and made a very creditable showing, notwithstanding the fact that a severe storm was encountered on the return trip.

A flight of eight planes flew to Fort Smith, Arkansas, May 11th, to attend the opening of the new Interstate Bridge. Quite a bit of trouble in the way of broken tail skids, shock absorbers, etc., was experienced, due to the fact that the field was hardly up to the Air Service requirements. Aside from these annoyances, however, the trip of 470 miles was a very successful one. On the following day the remainder of the class flew to Ponca City, and while there attended the State Editors Convention.

The ~~next~~ trip consisted of a flight of sixteen planes to St. Joseph, Mo. via Wichita, Kansas. The trip up was made in very good time, an average of 4½ hours. The Chamber of Commerce went the limit to show the aviators a good time. On the return trip several of the pilots stopped at Fort Riley, Kansas, to say "howdy" to Major Tinker, Commanding Officer of the 16th Squadron. Fair weather, with an occasional sprinkling of rain was encountered until most of the ships arrived at Wichita, the gassing stop. At about two o'clock a strong rain storm set in, and after it had subsided the weather looked so threatening that all but a few of the pilots remained at Wichita over night.

Shortly after these few took off, the storm commenced again. Some were lucky to be far enough ahead to outride it, but most of them were forced to go right through it. Newspaper reports the next day stated that this was one of the worst storms that ever struck this region, the wind being so strong as to blow an entire train off the track. Two pilots were forced to land and in doing so wrecked their ships.

The next day the remainder of the pilots wended their way homeward. A few days later, on the 24th, the last, longest and biggest group cross-country trip was flown. This consisted of a fleet of 27 ships to Denver, Colorado, via Liberal, Kansas, and Lamar, Colorado. While at Denver, trips were made to nearby places, especially to Fort Collins and Colorado Springs. The distance to Denver was approximately 500 miles, while the return trip via Colorado Springs was longer. Four ships were cracked up during this trip, two of them being complete wrecks. The accidents were due largely to the lightness of the air at this altitude. It was impossible to make a good landing with the motors cut off, and even with the full gun on it was difficult to keep planes from sinking.

On the return trip from Denver good weather conditions were encountered. This incident is worthy of more than ordinary remark. During the entire cross-country period, week end storms seemed to prevail. The get away was usually made in good weather with generally favorable winds, but the return trip was usually one to test the best of the pilots' knowledge and ability. Where at the beginning of the School Year a few threatening clouds would have cast a veil of gloom over the trip, towards the end of the course the hardy pilots were willing to take anything from rain to lightning and hail, ^{and} if necessary, the most dangerous of all - fog.

SAFETY IN THE AIR.

Among those who have not yet had the chance of trying the modern commercial airplane as a means of travel, as so many tourists in Europe have done during the last two years, a mistaken impression often prevails as to the risks involved. Little is heard of the millions of miles covered safely by airplanes in the daily public service, in all sorts of weather, and over mountains, plains and seas, while the news of accidents, serious or otherwise, invariably travels far and wide, just because they are rare occurrences and often present sensational features. Just how safe organized transportation by airplane actually is at present is clearly shown by the following records of operation:

The U.S. Air Mail planes have carried the mail, on the transcontinental route, a distance of $1\frac{1}{4}$ million miles since May 1921, without the loss of a single life. This distance equals 240 trips from New York to San Francisco and back, or 50 times round the world at the equator.

On the daily passenger, express, and mail service by airplane between London and Paris, London and Brussels and London and Amsterdam, 3,444 trips were made during the year ending March 21, 1922 (the first year over which the British Government subsidies were paid). The occupants on these 3,444 trips numbered 16,422. Not a single passenger was ever injured. The only casualty was one Belgian pilot, who fell into the sea while ferrying an empty machine home to Brussels. The distance covered by these flights amounts to roughly 850,000 miles, or 1130 trips from New York to Chicago.

On the lines operated by a Dutch Company, between Amsterdam and London and between Rotterdam and Hamburg, the Fokker 5-passenger cabin plane used covered over 350,000 miles in 7 months, also without injury to any person or damage to mail and freight.

Such reliability has been attained in modern engines that even where considerable stretches of water have to be crossed, as on the London and Continental routes, landplanes only, not seaplanes, are used, the running expenses of the latter being too high for the carriage of passengers and freight at reasonable rates.

TRAINING CAMP FOR RESERVE OFFICERS AT MITCHEL FIELD

Sixty-six reserve officers reported at Mitchel Field, Long Island, N.Y., on July 18th for two weeks' training. A total of more than eight hours flying was given each of these officers. In addition, the previously prepared schedule of ground instruction was carefully followed. This program included airplane motors, trap shooting, firing of pistol course, machine gun instruction (ground and air) camera gun work, aerial photography, aerial navigation, and work on the miniature range. On the whole, it is believed that the reserve officers attending this camp felt very well paid for the two weeks of their vacation which they spent at the field, and it must be said of them that due to their interest, close application and attention to duty, the progress of the camp was much more satisfactory than had been anticipated.

TRAINING CAMP FOR NATIONAL GUARD

The next summer camp to be held at Mitchel Field will be for the 101st Squadron (Observation), Boston, Mass., which will report at that station for training on August 27th, and remain for a period of two weeks. The 102nd Squadron, National Guard, was scheduled to report for training on August 6th, but their plans were changed and they are now conducting their own training at Miller Field.

MESSENGER PLANES AT SELFRIDGE FIELD

The First Group (Pursuit) at Selfridge Field, Mt. Clemens, Mich., has received recently a new plaything - a Sperry Messenger - and is looking for a shipment any day of five additional planes for assignment to the squadrons. The one now at the field has a gas capacity of five hours and was flown from Fairfield, Ohio, to Selfridge Field in $2\frac{1}{2}$ hours against a 12 mile per hour head wind. This time is only thirty minutes greater than the average DH4 time for this trip. All pilots are trying their hand with the Messenger and are delighted with its remarkable performance.

LIEUT. WILKINS' TRANSCONTINENTAL FLIGHT ✓

Lieut. Paul C. Wilkins, Air Service, left Bolling Field at 5:05 a.m., August 17th on his flight across the continent and back again. He expects to spend thirty days on his trip. The Chief of Air Service approved Lieut. Wilkins' application for his flight in view of the excellent work done by this officer in connection with the investigation of landing field facilities in different sections of the United States for the Airways Section, Office Chief of Air Service. His trip westward will be via Dayton, Ohio; Scott Field, Belleville, Ill.; Fort Riley, Kansas; North Platte, Neb.; Cheyenne, Wyo.; Salt Lake City, Utah; Elko, Nevada; Reno, Nevada; to San Francisco, landing at Crissy Field. From North Platte to the Coast he will follow the Aerial Mail Route, and the Post Office Department is cooperating with him in notifying stations ahead of his anticipated arrival.

On the return trip, Lieut. Wilkins will take the northern route, traveling along the Aerial Mail Route to Salt Lake City, and then proceeding northward to Casper and Sharon, Wyoming; Miles City, Montana; Bismark, N.D.; Fargo, N. D.; Minneapolis, Minn.; Chicago, Ill.; Dayton, Ohio, to Washington.

While on this aerial journey Lieut. Wilkins will make a study of landing facilities en route, particularly with reference to terrain and servicing facilities for airplanes along that stretch of his journey from Salt Lake City to Minneapolis.

HITTING THE HIGH SPOTS IN AVIATION.

Efficiency of Forestry Patrol.

The value of airplane forest patrol was forcibly demonstrated recently near Roseburg, Oregon. One of the State Foresters in that city had received reports from the lookouts in his territory that there were no fires to be seen. It happened that just at that particular time he decided to accompany one of the Army Air Service pilots engaged in patrolling the Oregon forests. He had not proceeded very far on his aerial journey before he realized that the reports he had received from his lookouts were not as reliable as he was led to believe. To his great consternation he discovered that he had no less than twelve real fires on his hands which no one knew anything about. Needless to say, the State Forester is now converted to aerial forestry patrol for life.

A Thrilling Parachute Jump.

Hurting through space for a distance of about 1200 feet and then brought up with a jerk in mid air when his parachute began to function was the thrilling experience recently of Lieut. Benjamin R. McBride, Air Service, stationed at Kelly Field, San Antonio, Texas. After the plane in which he made his ascent reached an altitude of about 2,000 feet, he left the ship very nicely, and the chute was seen to leave his pack almost at once. To the consternation of witnesses, however, it failed to open and simply trailed out behind him. Upon reaching the ground, Lieut. McBride explained that the failure of the chute to open immediately was due to the fact that his right leg became entangled in the cords of the chute and that by kicking out furiously he managed to free himself in time to make a safe landing. Lieut. McBride is anticipating another jump in the near future.

SECRET

Airplane Struck by Lightning.

Having his plane struck by lightning, something that many pilots heretofore believed to be impossible, was the unusual experience recently of an Army Air Service pilot. A very large hole was torn in the wing, besides other minor damages, but the pilot escaped unhurt. He was a member of the class of students attending the advanced course in flying at Post Field, Fort Sill, Okla., who were on a cross-country practice flight and were homeward bound from Wichita, Kansas. During this flight they encountered one of the worst storms that ever struck that region, the wind being so strong as to blow an entire train off the track. Some of the pilots were lucky to be far enough ahead to outride the storm, but most of them were forced right through it. One pilot flew four hours and ten minutes before he landed at Post Field, although the trip normally takes two and one-half hours. Strong as the wind was on the ground, its strength was little compared to the force a few thousand feet up. The gale seized the planes and rocked them from side to side as if they were wisps of straw. Only constant and continued struggles on the part of the pilots kept their ships nosed into the wind. Two pilots were forced to land, cracking up their ships as a result. Happily, none of the fliers suffered any injuries as the result of their harrowing experience.

CIVIL AVIATION IN GREAT BRITAIN

The half-yearly report on civil aviation in Great Britain, recently issued by the Air Ministry, indicates that progress has been fairly steady, and it is pointed out with much satisfaction that for the first time there has been no fatality during a half yearly period. A decrease is shown in the number of continental flights, 485 having been made during the six months from October 1921 to March 1922 as against 644 during the corresponding period of the preceding year. An increase, however, is shown in passenger traffic, the number of passengers carried during the above mentioned period being 1686 as compared with 1418 during the same period in 1920-21 and 796 in 1919-20.

Imports and exports of goods by air did not maintain in the 1921-22 winter period the high level attained in 1920-21, possibly due to general trade depression.

That the British aviation concerns have had a major share in the total air traffic is also plain, since the arrivals and departures of machines of all nationalities flying on all cross-channel routes during these three half yearly periods were 2511, 2023 and 887, respectively.

The report states that a considerable increase in traffic is essential if the air transport firms are to obtain a commercial basis of operation, but points out that the traffic figures for the first quarter of this year are, at least, encouraging. During these three months, the total number of passengers carried by both British and foreign companies between London and the continent was 981, of which number 676 traveled by British lines. The British position has, therefore, been improved as compared with the same period last year, when British lines only carried 240 passengers out of the total number of 670.

Between August, 1919, and March, 1922, the total value of imports by air amounted to £1,157,556, and of exports £605,759, a grand total of £1,763,315.

Special attention is drawn in the report to the increase in efficiency of the British Continental air services during the winter months as compared with former years. During the three months (December, January and February) the average efficiency of the services was 79.4 percent as compared with 66.2 percent for the corresponding months in 1920-21. For the whole year 1920, the efficiency of operation was 80.2 percent, and in only four months was this figure exceeded. For 1921, the figures rose to 89.2 percent, and only in four months did the efficiency fall below 90 percent. The 90 percent efficiency rate was not reached in any month in 1920.

R.O.T.C. STUDENTS INSTRUCTED IN METEOROLOGY

During the progress of the R.O.T.C. Camp at Montgomery Air Intermediate Depot, Montgomery, Ala., in the month of July, the U.S. Weather Bureau officials in that city visited the camp on four different occasions to impart instruction to the students of the Georgia School of Technology attending the camp in making and reading weather maps. The men were instructed in drawing isobars and

isotherms and they proved themselves very apt students. Maps containing pressure and temperature data were furnished them and their work was checked up by the officer in charge. The instruction given by the official in charge was supplemented as the course progressed with lectures on types of storms, law of storms, and weather forecasting. On July 15th nearly all of the members attending the camp visited the Weather Bureau Office and had explained to them the several instruments in use there.

AVIATORS REUNION AT DETROIT, MICH., DURING PULITZER RACES.

The Advance Committee on Organization of the National Aeronautic Association of U.S.A. is now in communication with members of Air Service Squadrons who served in this country and overseas during the war, also with war time Naval units, with a view to encouraging reunions of the various units at Detroit on October 12th, 13th and 14th next, at the time of the Pulitzer and other national airplane races and concurrent with the big National Convention of the National Aeronautic Association of the U.S.A. In the 94th Aero Squadron alone, seventeen members have pledged to be present for the reunion of that unit, and the enthusiastic response from all over the country is an indication of a big attendance of veteran airmen.

Further information can be obtained by writing the Advance Committee on Organization at 307 Mills Building, Washington, D.C., or 4612 Woodward Avenue, Detroit, Mich.

AERONAUTICAL NEWS FROM OTHER COUNTRIES.

England.

The official returns show that the flight efficiency figure for the three British companies on the London-Paris route for June, flying having taken place on each day of the month, are as follows: Handley-Page Transport, Limited, made several flights, of which sixty-nine were completed within the required period of four hours, the efficiency being 98.6 percent. Daimler Hire, Limited, carried out eighty-five flights, of which eighty-two were made within the required time, showing an efficiency of 96.5 percent. The Instone Air Line made one hundred flights, of which ninety-six were completed within four hours, giving an efficiency of 96 percent. One French company carried out 111 flights, with an efficiency of 80.2 percent, and the other companies forty-two flights, the efficiency being 76.2 percent.

France.

The vote for Civil Aviation in 1922 amounts to 147,210,970 francs, including 45,382,000 francs for air transport subsidies, an increase of approximately 14,000,000 francs on 1921. In consequence of this increased assistance, air transport companies are extending and amplifying their services. The statistics of French civil aviation in 1921 show that approximately 1,460,000 miles were flown and 10,305 passengers were carried, in the course of 6,513 flights. A committee has been formed, called the Comite Francaise de Propagande Aeronautique, with the object of contributing in every possible way to the development of France's air power.

Germany.

At present there are in Germany five important air transport companies, and twelve air mail routes have been approved for regular operation by the Ministry of Transport. The amount of work carried out by German civil aircraft, flying on regular air lines, between April 1 and October 31, 1921, is shown by the following figures: Number of passengers carried, 6,820; miles flown 1,033,700; weight of mails carried, 67,000 lbs.; percentage of scheduled flights carried out 90.8.

Italy.

From Rome it is reported that the Savoia firm have commenced the construction of a new three-engined flying boat for the Portuguese aviators Cabral and Continho, in which it is intended to cross the Atlantic from West to east. The new boat is stated to have a range of about 3,000 miles. A similar boat has been ordered by the Danish Polar expedition.

SQUADRON NEWS

Kindley Field, Fort Mills, P.I., June 12.

2nd Squadron (Observation).

Flying for the week consisted of two cross-country flights in H boats and one photographic mission in a DH-4-B plane. This mission was the first flown from our new field on regular operations. Instruction consisted of two hours trap shooting. Inclement weather, a young typhoon, prevented any other outside instruction during the week.

17th Balloon Company (C.D.)

Captain Ivan B. Snell, who participated in the Department Rifle Competition at Fort William McKinley returned to this station on June 6th upon completion of his course of firing, his standing among the Officers' list being second. He made 1335 out of a possible 1680. The commissioned and enlisted personnel of this organization have been training during the week in the Manual of Marksmanship preparatory to going on the range on July 1st. Due to inclement weather, very little flying was done during the past week. One flight, however, was made on June 7th which lasted only a few minutes; as weather conditions suddenly changed.

27th Balloon Company (C.D.)

No operations were conducted during the week owing to the lack of men necessary to maneuver the balloon. Special instructions in handling the service rifle was given the men of the company. It is hoped that the weather will clear up sufficiently to permit actual practice on the range at an early date. Lieutenant John Y. York arrived on the 9th from Ross Field, California via the transport "Thomas". He will be a welcome addition to the personnel of the company.

Camp Nichols, Rizal, P.I., June 17.

Major B. Q. Jones, Department Air Officer, had a narrow escape from injury when the DH-4B airplane he was piloting struck a moving machine, while taking off. The front left spar was badly broken and the left rear spar cracked, but Major Jones succeeded in keeping the ship in the air while circling for a landing and would have accomplished it safely but for the muddy condition of the field. The airplane nosed over without injury, however, to the pilot or passenger.

Lieutenant Malcolm S. Lawton, since his return from Clark Field, Pampanga, has been a very busy man. Lieut. Lawton was appointed Radio Officer of the Post and, and being naturally endowed with a super-abundance of energy, has commenced the installation of an inter-post radio system. Upon being interviewed regarding the progress of his station, Lieut. Lawton reported it would be in commission in time for the coming Qualification Tests. "This is only possible", said Lieut. Lawton, "because of the close co-operation of all concerned".

Capt. John I. Moore and First Lieutenant Baex were on duty at this field during the past week. These Officers are on temporary duty with the 6th Photographic Section in connection with making a new mosaic photograph of the City of Manila.

Lieutenant Cyrus Bettis, who has been on Detached Service at Camp John Hay, Mountain Province, has returned to this station for duty.

First Lieutenant W. R. Taylor, Air Service, assisted by most of the commissioned personnel of the field, conducted a course of Intelligence Officers, all arms, in liaison work between Air Service and ground troops.

Selfridge Field, Mt. Clemens, Mich., August 7.

Tactical flying has continued full tilt all week, two mornings being devoted to demonstrations for General Mitchell, who arrived Tuesday evening and remained with the Group until Thursday afternoon, departing for Chicago to remain over the week end. We expect him to spend a few days with us again this week.

Pilots are flying to McCook Field as fast as planes are available for individual equipment and fitting of parachutes. All pilots, when equipped, will be required

ed to use parachutes in pursuit tactical maneuvers where combat is involved. Irving type seat packs are being supplied.

Unless gasoline shipments are received immediately, all flying will cease, as the supply found on the field when the Group arrived is completely consumed. Extraordinary efforts are being made to obtain sufficient quantities locally to keep up training and cross-country flights.

The following account contained in the San Antonio Express of August 1, 1922, is reported with pride and, we hope, without undue modesty for the consideration of other Air Service organizations:

"ELLINGTON TRANSFER SETS AVIATION RECORD" ✓

21 planes, including pursuit ships,
cover distance at big saving to
Government.

"A saving of \$6,000 to the Government was put in effect early in July when a successful cross country trip in changing station was made by the First Pursuit Group of the Air Service from Ellington Field, Houston, to Selfridge Field, Mich., according to a report received here by Air Service officials.

A distance of 1,600 miles was covered with 21 planes in 16 hours and 10 minutes flying time. The speedy pursuit planes, not built for long cross-country flights, were used and, except for minor troubles, the big jump was completed by every plane.

A total of 5,155 gallons of gas and 732 gallons of oil, costing \$1,471, was used. Air officials estimated the cost of the move by air at \$2,340. The same trip by rail would have cost the Government \$8,789, or \$6,448 more.

Six days were taken to complete the flight. Stops were made at Bryan, Dallas, McAllister, Okla.; Tulsa, Okla.; Pittsburg, Kan.; California, Mo.; Belleville, Ill.; Chanute Field, Ill., and Fort Wayne.

Crossing mountain ranges, encountering tornadoes and thunder storms in Oklahoma, and literally logging a route with 21 planes built for short flights is what the aviators did on the trip. The report shows that a few of the planes gave trouble and fliers had to topple down in cotton and hay fields for repairs, but in these cases only a few hours were lost. Lieut. T. W. Blackburn, flight leader of "B" flight, encountered a bad storm north of Urbana, Ill., landed and took lunch with a farmer, and continued the flight when the storm had subsided. Another plane landed in a soft cotton field at Kiowa, Okla.

The pursuit flyers encountered two very bad thunderstorms in the vicinity of Atoka, Okla., attempted to circle around the boiling clouds but found the electrical storm directly in their path and had to go through it in close formation. Not a mishap was experienced, however.

Leaving Ellington Field several days in advance of the Pursuit Group of 21 planes, Lieut. Ennis C. Whitehead, traveling in a DH4B plane, was the pilot pathfinder, and made arrangements with Chambers of Commerce at each stop for conveniences and supplies, such as gas and oil and water.

Each plane carried sufficient spare parts and tools for making repairs in case of forced landings.

Capt. Frank O. D. Hunter was flight commander of Flight No. 1, and 1st Lieut. T. W. Blackburn led Flight "B", and Lieut. Thomas K. Matthews Flight "C".

Never before in the history of aviation in the United States had as large a number of planes taken to the air together for a cross-country flight."

Cross country flights during the week total 110 flying hours. Five flights were made to Dayton, three to Chicago, one each to Clinton, Iowa, Toledo and Grand Rapids, and two to New York.

Rockwell Air Intermediate Depot, Coronado, Calif., August 5.

A great deal of excitement was caused at this station by Lieut. Vanaman's golf playing in the County Championship Tournament. He qualified the first day, and after eliminating his field went into the finals against Mr. Sharp. He played remarkably

good golf but lost the championship and ended as runner-up. Incidentally, some of the officers lost some of their hard earned shekles as a result. Lieutenants Hine and McCulloch entered the tournament also, but although Lieut. Hine got into the championship flight, luck was against both of them.

The regular weekly party held Thursday evening in the Officers' Club was in the form of a dinner, followed by bridge. Mrs. Moore and Mrs. Seifert were the hostesses. Miss Field, sister of Captain Field, won the ladies' prize, and Lieut. Vanaman annexed the men's prize.

Lieutenants Hine and Webber, on the Air Service mapping tour, arrived safely at Kelly Field yesterday after touching at Las Vegas, California; Salt Lake City, Utah; Denver, Colorado; Muskogee, Okla.; Post Field, Okla., and Kelly Field, Texas. Remarkably good flying time was made despite bad weather conditions.

The annual Indoor Aviators' Picnic, given by the civilian employees of the Depot, was pulled off Sunday and was a roaring success.

Mr. C. W. Richards, Radio Air Service Engineer at large, arrived this week to assist in the installation of radio equipment in new radio station being erected at this Depot.

Sergeant Teller left yesterday with Lieut. Smith, of March Field, for forest patrol service in the North.

Captain Wm. M. Randolph reporting from sick leave, has been permanently assigned to this station and has taken over the Police, Guard, Transportation and Fire Marshal duties from Captain Ervin.

Some hard fought, interesting but mostly funny, games of hand ball are being indulged in daily by two teams, the "Gumps" and the "Goofs", the "Gumps" being Lieut. McCulloch and Lieut. Marriner, and the "Goofs" Captain Ervin and Lieut. Seifert. The "Goofs" have the edge so far.

Hdqs. Forest Patrol Flight, 91st Sqn. (Obs.) Eugene, Oregon, July 29.

Lieut. W. A. Maxwell made a cross country flight to San Francisco and return, accomplishing the entire trip in about ten hours flying time. While at Crissy Field he conferred with the Air Officer on official business, and secured supplies for the local Forest Patrol Base.

Lieut. Russell L. Maughan and Lieut. John R. Morgan flew to Mather Field, Sacramento, Calif. last Friday. Before their return, they will straighten out their property accounts at Mather Field, and visit San Francisco, Calif.

The Forest Service in this vicinity, report that, due to the presence of patrolling airplanes, there is a noticeable decrease in the number of incendiary fires, as well as fires caused by careless campers.

Ross Field, Arcadia, Calif., July 29th.

This week a telegram was received from the Headquarters Ninth Corps Area stating that Lieut. Martin and the seventy-five enlisted men ordered to Hawaii would be held at Ross Field pending further orders. The Balloon Companies in the Islands have been ordered on the inactive list, so that all men who expected to go to Hawaii can probably plan on going elsewhere.

From July 24th to 29th inclusive, fifteen captive balloon flights, for a total of ten hours and nineteen minutes, were made at this Field.

Since the 1st and 13th Balloon Companies are no longer in existence, the men who were in those organizations now belong to the casual Detachment, which consists of seventy men and is commanded by Captain Henry C. White formerly in command of the 1st Balloon Company. Other Officers of this Detachment are Captains Garth B. Haddock, Earl S. Schofield, Charles M. Savage and Lieutenants Wilfred M. Clare and Harry G. Montgomery.

The Officers Club is no more. There are so few Officers on the Post and the probability of any one remaining here is so uncertain that it was decided to close the books of the club and go on the inactive list with the Balloon Companies.

The Post Exchange has sold its entire stock and we now have to go outside to make all purchases.

Clark Field, Pampanga, P. I., June 16.

The annual inspection of the Post took place during the week, occasioning much preparation and extra fatigue in order to put the Post in shape after the absence of the personnel on field service at Jolo.

The Squadron is at present greatly reduced in enlisted personnel, making it a continual problem to figure out where to get men to do the various squadron duties.

With twenty-two officers present for duty, the pleasing outlook for an organization capable of functioning per organization tables was dissipated when it was learned that no enlisted replacements were to arrive on the Transport "Thomas". . . Capt. and Mrs. Midcap are spending fifteen days at Baguio.

Kelly Field, San Antonio, Texas, July 22.

Lieut. Col. Jno. H. Howard, commanding Kelly Field, left on the evening of July 20th for a few days' temporary duty in Washington.

Lieut. Col. Seth W. Cook assumed command during the absence of Col. Howard.

T E N T H G R O U P .

Captain DeFord and Lieutenants Peck, Williamson and Davidson reported to Kelly Field from Post Field and are now assigned to the Tenth Group for duty.

Instruction for classes in the Advanced Flying School (Tenth Group) is progressing nicely. For the six weeks beginning July 15th, classes in rigging and airplane engines will be held during the afternoon and the mornings will be devoted to transition and solo flying with service type ships.

Captains Giffin, Skemp and Pritchard visited Post Field during the week. They reported that a large number of cows raided Post Field recently and ruined the flowers there. Lieutenant Stitt harvested four ears of corn before the cows destroyed his corn patch.

Photo Section No. 22 is gradually securing enough apparatus to function as a photographic unit. Captain Giffin made a cross country flight to Post Field, Ft. Sill, Okla., and brought back all the supplies his ship could carry. 1st Lieutenant Roscoe C. Wriston, A.S., formerly with the Photo Department at Post Field, has been attached to the organization for duty.

The 39th is now fully organized and began operations on the morning of July seventh. Everything is running smoothly. Two new officers, Lieutenants Cannon and Paul T. Wagner, have been assigned to the organization. Lieutenant Cannon is on Special Duty as Group Operations Officer, Tenth Group, and Lieut. Wagner is on leave at present but will report for duty on the expiration of his leave.

T H I R D G R O U P .

GROUP HEADQUARTERS - Active training of Reserve Officers in the Third Group - (Attack): Training consists of lectures on Pursuit, Bombing, Attack and Observation Aviation; also Technical subjects, such as Photography and Gunnery, and practical work in both, including Trap Shooting and Operation of all types of machine guns available; communications, including wireless, telephone, CW., and spark sets; carrier pigeon work, field phones, ground telegraphy, pyrotechnics and topography. In actual flying, dual controlwork, reconnaissance, liaison problems and panel exercises; also sketches made from airplane, bombing, camera obscura practice with bomb sights, observation work and operations of all available radio equipment.

A short course in parachute jumping was given, and Lieutenant McBride made a successful jump Wednesday afternoon, July 19, 1922.

All Reserve Officers of this class have taken up their studies, worked with a great deal of enthusiasm and have displayed a great interest. They have refreshed their minds and acquired considerable practical knowledge of the latest improvements and general advancement of aviation.

EIGHTH SQUADRON: The squadron has been hard at work keeping the ships in the air. This is being done with a minimum number of men. A check of the records show that we have had to our credit a total of 29 hours and 30 minutes for four days, and a more thorough check of the records revealed that our ships were in commission 100 per cent, with an average of 8 men working in the hangars.

Captain Connor, Lieutenants Pinkley and Lignon, Reserve Officers have been assigned to the organization for training. This makes it necessary for us to fly in the afternoon, as the ROTC Cadets receive their training in the morning. Wednesday afternoon was utilized for cross country flights for the Reserve Officers, carrying out a mission to Hondo, Jourdanon and thence to Kelly Field, an aggregate of 660 man miles.

The new hour of reveille (4:45 A.M.) has a tendency to make some of the men homesick. Anyhow, we have figures that the hours thus saved if properly utilized will have the same effect as though Congress gave us a larger authorized enlisted strength. Summing the average working day as eight hours, the extra hour is equal to twelve and one half per cent. increase in total strength, present and absent.

THIRTEENTH SQUADRON - The week ending July 19, 1922, is marked by the active training of the Reserve Officers and ROTC Cadets. A total of six hours forty-five minutes, covering twelve flights, was made by the Reserve Officers, and ten hours five minutes, covering sixteen flights, were made by the Cadets. The Squadron has two Reserve Officers assigned for training, namely Lieutenants McBride and Childress. These officers, acting as observers, have performed the missions of camera obscura, cross country observation and radio work very well. Each pilot has received enough dual instruction to allow him to get the "feel" of the ship again.

TWENTY-SIXTH SQUADRON - Lieut. H. T. McCormick, who has been with this Squadron since it was organized, has been transferred to the Tenth Group (School). By this transfer the Squadron has lost one of its most efficient officers, and the loss is keenly felt by the officers and enlisted personnel.

Lieut. J.E. Duke, Jr., Squadron Supply Officer, has been relieved of this duty and appointed Post Mess Officer. The Lieut. has been instructing ROTC Cadets since the organization of the Student Class. The Squadron has lost a very valuable and efficient officer and both the officers and enlisted men regret to see him leave.

Lieut. J.T. Cumberpatch, Engineering and Operations Officer has relieved Lieut. Duke in training Reserve Officers and instructing ROTC Cadets, in addition to his other duties, working with the students in the forenoon and the Reserve Officers in the afternoon.

Painting of hangars and barrack buildings has progressed steadily. The Mess Hall and Recreation Room have been repaired and painted, curtains have been placed in both, adding to their appearance. A Victrola, records and an additional pool table have been purchased for the recreation rooms.

Technical Sergeant McCormick, Staff Sergeants Turner and Piercen, Corporals Isaacs and Blair, and Privates Hopson, Hartley, Cox, Brown, John Marckley and Fred Markley have been transferred to the 41st Squadron, (School) Tenth Group. The organization regrets the loss of these men very much for they are very valuable and efficient in their duties and a credit to any organization.

NINETEENTH SQUADRON - Perhaps some of the officers of the Air Service are contemplating leaves, in Europe, and if so, some of the experiences of one who has spent most of the last five years there will be of some help.

Of course, first and foremost of all the places to visit is Paris, for there one can obtain unstinted amusement of all sorts. I should recommend visiting Paris just before coming home as the Parisians have solved the problem of painlessly amputating the pocket book. For a real good time for very little money, Germany, perhaps, heads the list. When the writer left Germany the Mark was around 210 to the dollar and one had more than considerable difficulty in living up to his salary. This, reckoned in the coin of the realm, meant a very excellent meal with wine or three or four bottles of Mosel "water", or about a bottle and a half of champagne, all for the small sum of one dollar. Travel in the occupied area while on leave or duty is free with an "ordre de transport", which is obtainable from the Rail Transportation Officer, and this will cover practically all the Rhineland, one of the most interesting sections of Germany. A boat trip from Mainz to Cologne gives one an excellent idea of this part of the world, and can be made in one day. Practically every city of size in Germany will repay the traveler for such time as he can spare to visit but for one that must make the most of his time, I should recommend Berlin and Dresden. Of course, Coblenz, the headquarters of the American Forces in Germany, should be one of the first stops, for there you can get all the latest information from friends or from the Ameroc News.

For sportsmen, Germany offers wonderful inducements, as game is very plentiful. The local nimrods from the Air Service outfit could during the season find a plentiful supply of quail and rabbits, and later on in the season, ducks and geese. In fact, all these could be obtained without leaving the Airdrome. The attitude of the German people in general is friendly, and it was with regret the majority of the men in the A. F. in G. returned to the U.S.A.

A high standard is maintained by all the troops in the Rhineland, and the Air Service Detachment rank with the best. Much valuable experience was obtained during the maneuvers, especially last year, when the American Troops fired service ammunition under simulated combat conditions for the first time.

Europe is an excellent place for a vacation, although one should be plentifully supplied with ready cash, as it has the habit of vanishing quickly.

Lieutenant Doolittle, Kelly Field's super-long distance pilot is again working arduously on another plane, to be especially built under his direction, he having the entire S.A. A.I.D. at his disposal. The Lieut. will attempt to make a coast to coast flight making one stop at Kelly Field, carrying a tank which will hold two hundred and seventy five gallons of gasoline. Lieutenant Doolittle is leaving no stone unturned to make this a successful trip. Reports will be made from time to time on the advancement of the new ship.

P O L O.

Polo activities are on the "high tide" towards placing Kelly Field in its proper place among the other branches of the service of the 8th Corps Area. Polo personnel has been gradually augmented by the arrival at this station of some of the best polo talent in the Air Service, headed by Lieutenant Col. Seth W. Cook, Major Brown, and Lieut. Jett. Besides, a noticeable proficiency is being shown by Lieutenants Jones and Larson. The Kelly Field Team will go into the finals, July 30th for the 8th Corps Area Summer Handicap Cups, having successfully, and with decisive score, defeated all other entrants.

Hdqs. 103d Div. Air Service, Colorado Springs, Col. Aug. 1.

July 11th to July 25th saw the first period of training for the Air Service Reserve Officers of the 103rd Division, at Fort Logan, Colorado. Only seven officers were fortunate enough to get orders to attend this camp. One was unable to attend being in a hospital with a fractured hip. The six who attended consisted of one Captain and five second lieutenants.

The plan of training as, outlined in War Department Circular 36, 1922, was followed as closely as possible. At first it looked as though we would be unable to get planes for this course, but finally were fortunate enough to get a DH with full service armament for the last week of the course. This plane was furnished from the 12th Squadron (Observation), El Paso, Texas, and flown to Denver by Lieutenant Pearson. This perked up the morale of the flyers 100%. All were overjoyed at the thought of being able to again get into the Cockpit of a DH and feel the controls. The mornings of the last week were devoted to flying. The field of the Humphrey Airplane Company at Denver, Colorado, was used, through the courtesy of the management.

The Reserve Officers pronounced the course more than a success, considering the circumstances, and are ^{anxious} to see a full squadron quota ordered to attend the camp next year, where the squadron life will be lived over again for fifteen days.

The instructors were Captain Charles A. Pursley, A.S. Executive Officer, 103rd Division, Air Service, and Lieutenant Claire L. Chennault, 12th Squadron (Observation) El Paso, Texas.

Brooks Field, San Antonio, Texas, Aug. 5.

Lieutenant Stanley M. Umstead has reported at Brooks, from a thirty day leave. Lieutenant Umstead left Carlstrom for Kentucky, via one of Uncle Sam's \$400.00 Jennies. At St. Augustine, Florida, he encountered a storm and was forced down. In landing, his plane was wrecked beyond repair, which necessitated his making the balance of the trip by rail.

A very enjoyable swim and dinner was held at the Officers' Club on the evening of July 28th. A delightful feature was the simulated bar room in one corner of the club, where near beer was served as a thirst quencher, with pretzels, potato chips and other thirst-makers. A great deal of credit is due to Captain R. C. Candee, our genial mess officer, for the delightful dinner. This affair promises to be a weekly occurrence.

The A.S.P.F.S. Officers' Club is to have an outdoor dancing pavilion. A committee has been appointed to formulate plans for the building.

The following cross-country trips were completed over last week end: Lieutenant Julian B. Haddon, with Captain R. C. Candee, to Dallas, Texas; Lieutenant Victor H. Strahm, with Major J. T. Morrow, to Laredo; Lieutenant C. C. Chauncey, with Lieutenant W. S. Wade, to Belton, Texas. All trips were completed without mishap.

Mitchel Field, Long Island, N. Y., August 5.

It is a matter of great regret that it is necessary to announce in the News Letter of this issue, the death of Lieutenant John P. Roullot, Air Service, as the result of an accidental shot from a 45 caliber automatic pistol. Circumstances surrounding his death are as follows: Lieutenant Roullot was serving as an instructor to a class of Reserve Officers in the use of the automatic pistol. While engaged in this instruction the class was grouped around one side of the table; Lieut. Roullot was standing on the other. The class of instruction for the day had practically closed. The remainder of the class were cleaning their pistols. Lieutenant R. F. Purcell, a Reserve Officer, had finished cleaning his weapon and had returned it to his holster. While engaged in this work, a discussion arose among the officers as to the ease with which the slide of the pistol might be released with the thumb of the right hand. Lieut. Purcell attempted to demonstrate with his own weapon, which, incidentally, he had brought to this station. He took it from his holster, held it to the front, pulled the slide to the rear, attempted to release it, and in doing so his finger was caught in the slide. The pain caused Lieut. Purcell for some unknown reason to place his finger on the trigger, the weapon was fired, and the bullet entered Lieut. Roullot's left side just below the heart. He died almost instantly. Lieut. Roullot's remains were held pending the arrival of his wife from the Panama Canal Zone. Funeral service was held at the Greenfield Cemetery, Hempstead, L.I., on July 30th. Interment was effected in Arlington Cemetery on Monday, July 31st.

Second Lieutenant Edward T. Lyons was killed as the result of an airplane accident on Sunday afternoon July 30, 1922, at Port Jervis, New York. Lieutenant Lake and Lieutenant Budd, two Reserve Officers, on temporary duty at this station, made a cross-country flight to Port Jervis Sunday afternoon. Lieutenant Lake took up a civilian and when about 100 feet off ground, for some unknown reason the ship fell on the earth and burned up immediately. Both Lieutenant Lake and the civilian were burnt to death.

On Friday morning at 1:30 A.M., 1st Lieutenant Clayton Bissell, A.S., arrived at this station by airplane from Bolling Field. So far as known, this is the first flight in a heavier-than-air machine made between Bolling Field and this station, flown entirely in the darkness. At 3:30 A.M. Lieutenant Bissell returned to Bolling Field. In order to assist the pilot in locating Mitchel Field at night, rockets were sent up at intervals of every five minutes between 11:30 P.M. and the hour of his arrival, 1:30 A.M. The pilot stated that these rockets greatly assisted him in locating the Field. In addition, the Field was lighted by the Field lighting set at this station; also a "T" was laid by the proper location of lights to indicate the proper landing spot for the plane. Mitchel Field is enthusiastic for flights of this type and numerous requests have been received from the personnel of Mitchel Field for authority to make similar night flights. A demonstration in night flying was given as a part of the course both for the Reserve Officers and the R.O.T.C. Students. It is believed that flights of this nature should be stimulated and encouraged, but that in each case proper equipment and facilities should be provided.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE September 16, 1922.

AN INSPECTION TRIP VIA THE AIRPLANE

Railroad strikes, delayed train schedules, etc., are matters which give General Wm. Mitchell, Assistant Chief of Air Service, little concern whenever he has occasion to travel on official business. It makes little difference whether his destination is Langley Field, Mitchel Field, Dayton, or points as far west as Milwaukee, Wis., for his popular vehicle of transportation is the airplane, and he accomplishes his various missions in a fraction of the time he otherwise would by ordinary means of travel - the railroad, steamboat or automobile. It is estimated that the General has flown approximately 200,000 miles since his return to the United States soon after the close of the war. During this period he has traveled on a train only twice.

The optimists in this progressive age of ours may inquire "Whatdyemean ordinary means of travel?" We hasten to assure them that we are not pessimistic and that we are looking forward to that day in the not far distant future, perhaps in the next decade, when we can place the airplane also in the category of "ordinary means of travel". And why not? Once upon a time the steamboat and the railroad were considered extraordinary means of travel, and not so long ago the automobile entered the field as a brand new competitor to the already well established railroad and steamboat, and it was not long before people became accustomed to it - so much so, in fact, that nowadays a man who owns a motor car feels lost and fretful when it is in a garage undergoing repairs. He uses it even if he has to travel only a block, which isn't exactly the best thing for him when the matter of physical exercise is considered. So much, however, for force of habit and growing accustomed to things.

And this recalls to mind a recent editorial comment by the Philadelphia PUBLIC LEDGER on the airplane flight of 8,500 miles from New York to Brazil. The LEDGER states that the announcement of this flight was received by the whole country in a perfectly casual sort of way, there apparently being not even the suggestion of a thrill in it, and yet it was only twelve years ago that the whole nation learned, almost with incredulity, that a chap named Charles K. Hamilton had accomplished the wonder of flying all the way from New York to Philadelphia. Countless thousands watched and waited for him all along his intended path; a special train with long streamers of white cloth sped under him so that he could see the way and not get lost, and, when he landed, the world thrilled at the accomplishment of the marvel of flying ninety miles across a busy countryside.

We may be indulging in a flight of fancy when we say that just as soon as the airplane is so perfected that we will be able to land safely and take off from restricted areas - from streets, back lots, alleys, etc., - when we will not be confronted with the vexing problem of adequate landing fields but will be able to taxi our little air fliver down our back alley and roll it into our garage, we will find airplane stock going sky high, as it naturally should do. And it may be that the helicopter, about which we have read so much lately, will bring this to a realization sooner than we expect.

But we are forgetting about General Mitchell's trip. The General returned to Washington on August 16th after a 3 weeks' inspection tour of Air Service activities in the Middle West, during which time he visited McCook Field, Dayton, Ohio; Selfridge Field, Mt. Clemens, Mich.; Culver, Indiana; Milwaukee, Wis.; Chicago, Ill.; and Cleveland, Ohio. He left Washington at 1:30 p.m. July 25th, arrived at Dayton at 5:00 p.m., left there at 6:00 p.m. and arrived at Selfridge Field at 8:30 p.m., landing after dark with the aid of a number of automobile lights.

At Selfridge Field General Mitchell inspected the First Group (Pursuit), and then proceeded to Culver, Indiana, where he made an inspection of the Quail Milit-

tary Acasemy and gave the students an illustrated lecture. One of the things he proposed during his talk was the creation of a cadet school at Culver, which has one of the best aviation study courses in the United States. He stated that if the students studying aviation at this Academy could be ranked as cadets and commissions given to those who qualified it would be a valuable asset to the Army.

Leaving Culver at 9:00 a.m. in the morning, General Mitchell arrived at Milwaukee at noon. During this trip he encountered severe rain storms and heavy clouds. A few days later he returned to Selfridge Field and put the First Group (Pursuit) through some maneuvers. He went to Selfridge via Chicago, and while in the Western metropolis made a talk to the Aeronautical Bureau of Chicago at the Apollo Theatre. Upon leaving Chicago at 3:30 in the afternoon he encountered the worst thunder storm he had ever seen. He flew for about fifty miles along the edge of the storm trying to get around it, and then turned around and came back toward Lake Michigan at an altitude of 10,000 feet. Excellent weather prevailed during the remainder of his trip to Mt. Clemens.

After spending two days at Selfridge Field, General Mitchell, on August 9th, proceeded to Cleveland, Ohio, and made the journey in one hour and forty minutes. He flew straight across Lake Erie, a distance of 35 miles, at an altitude of 10,000 feet, and landed at the Air Mail Field. After inspecting the Air Mail equipment and the Glen L. Martin Airplane Factory, he gave a talk to the Cleveland Chamber of Commerce. He impressed the hundreds of prominent Clevelanders present with the wonderful strides which have been made along aeronautical lines and the potential powers of offense and defense that characterize the Air Service. The slides, moving pictures and explanations used by General Mitchell were astonishing to the majority of his audience, as the average lay mind has not been educated to the unlimited scope of air power, both in a military and commercial way. The visit of the General was greatly welcomed by, and was of great assistance to the Organized Reserve Air Service in Cleveland, which is rapidly growing.

From Cleveland General Mitchell flew to McCook Field via Zanesville in 3 hours and 10 minutes, and inspected a lot of new equipment at the Engineering Division. Leaving McCook Field at 2:10 p.m., he arrived at Bolling Field at 6:35 p.m., weather conditions being ideal around the mountains of West Virginia and Pennsylvania and, in fact, the best he ever encountered along this region.

LIEUT. DOOLITTLE'S HARD LUCK

Just when everything looked rosy for his successful trip across the continent from Jacksonville, Fla., to Rockwell Field, San Diego, Calif., a most unfortunate and unavoidable accident prevented Lieut. James H. Doolittle accomplishing his cherished ambition. While attempting to take off from Pablo Beach Sunday evening, he encountered a soft spot in the sand, occasioned by an unusually high tide and, inasmuch as his ship with its extra equipment was unusually heavy, he was thrown into a "cheval de bois" (involuntary sharp turn on the ground) breaking the propeller and left wing of his plane.

The first leg of his transcontinental flight was successfully accomplished on August 4th. He took off from Kelly Field at 6:30 a.m., and made a non-stop run to Jacksonville, Fla. in record time. Although bitterly disappointed because of this sudden anti-climax after weeks of study and hard work, Lieut. Doolittle has accepted his fate with the flyer's usual pluck and good nature. It is hoped, however, that it will be possible for him to obtain approval of the War Department for another attempt when the ship has been put in commission, as this accident is no reflection upon his ability as a pilot and, under like conditions, the same accident would have happened to anyone.

AIR SERVICE OFFICERS COMPLETE ADVANCED FLYING TRAINING.

The following named officers and cadets of the 10th Group (School) Kelly Field, Texas, who began training with the Bombardment Group, have completed their advanced bombardment training at the Air Service Advanced Flying School: 1st Lieutenants Lyman P. Whitten, Clayton C. Shangraw, Alfred Clement, Jr., Ray H. Clark, and Flying Cadets Gilbert T. Baker, Thomas E. Halpin, Chester A. Potter and Albert C. Comdat.

A NEW WAY OF CATCHING BIRDS.

Kelly Field boasts of a bird of an engine trouble shooter, judging from the story related by our correspondent of an unusual incident which recently occurred at that field. It is safe to say that no similar circumstance has ever been recorded. It was noted that one of the Liberty engines would not idle properly, and, after a series of deductions and eliminations, the trouble shooter decided that the front carburetor butterfly valve would not function properly. After dismantling same it disclosed the fact that a small bird had worked its way into the confines of the butterfly valve, having passed successfully through the intake stack, past the jets and through the venturi, lodging against the valve seat. It was not decided whence the bird came, whether it was gathered in while the ship was in the air or in the hangar; nor is it known whether the creature was gassed, crushed or died a natural death. One thing, however, is certain, and that is that the trouble shooter has a penchant for arriving at definite conclusions by judging cause and effect.

"TOO MUCH IS A PLENTY". ✓

A typical illustration of the value of the airplane patrol in smoky Oregon was given on August 4th when Lieut. Maughan carried Forester Oglesby over his district in Western Land County. Four new fires were discovered - one of 200 acres and another of 400 acres, each one within six or seven miles of a Lookout Station. This patrol also covered about ten old fires which were still raging. Upon being asked which direction he wished to take, Mr. Oglesby handed Lieut. Maughan a note saying: "Take me home. I have counted 31 fires, and have seen all I can stand for one day."

ORGANIZATION OF THE 49TH SQUADRON.

The detachment of the 14th Squadron, stationed at the Aberdeen Proving Grounds, Md., has been reorganized as the 49th Squadron (Bombardment). Privates Mussen, Williams, Foster, Carr and Oatman, enlisted specialists, have been transferred to this new squadron from Langley Field. Lieuts. George, Melville and Bleakley made flights to Langley to arrange the transfer, which was effected by a Martin Bomber. The addition of these men was heartily welcomed by Aberdeen, as the force there had been very much weakened by discharges. Fields in this part of the country may know the new squadron by the gray wolf's head, which replaces the red lion.

FLYING BELOW LEVEL OF RIVER BANK.

During the first week in August a number of cross-country flights were made from the Aberdeen Proving Grounds to supplement the daily bombing work carried on at this station. Lieuts. Bleakley and Graybeal made a flight to Buffalo, N. Y. for the purpose of conferring with Weather Bureau personnel concerning meteorological data on this route. They left at 7:00 a.m., August 3rd, and flew to Middletown. The fog was so heavy that they were forced to follow up the Susquehanna at an elevation continuously below the level of the banks. After gassing they continued on a direct route across the Alleghenias in heavy rain and fog, arriving at Buffalo at 11:40. The next morning they left at 10:30, stopping at Berkshire, N.Y., and then proceeding to Mitchel Field, arriving there that evening. This last leg was also made in heavy rain and fog. They returned to Aberdeen the next morning. Lieutenants Graybeal, Shankle and George have been working on the Airways between Aberdeen, Pittsburgh and Moundsville.

AN EXTENSIVE MAPPING TRIP. ✓

Lieutenants Hine and Webber, Air Service, returned to Rockwell Field on August 7th from a 4,000 mile mapping trip covering Las Vegas, Nevada; Denver, Colorado; Salt Lake City, Utah; Fort Sill, Oklahoma; San Antonio, Texas; El Paso, Texas, and Nogales, Arizona. The total flying time was approximately 39 hours, embracing 10 flights. This is considered to be remarkably good time, especially in view of the fact that they encountered bad weather between Las Vegas and Salt Lake City. Some interesting data on this flight is being compiled by these two officers.

In a recent issue of "Answers", a London periodical, there appears an interesting contribution by the Manager of the Handley-Page Transport Company, London, outlining the manner in which that company conducts its aerial transport business and the precautions taken to make travel over its lines as safe as it is possible to make it. The painstaking efforts put forth by this company to guarantee the airworthiness of the airplanes in use and the thorough manner in which every detail is taken care of is worthy of note, and the article is quoted in full as follows:

"Some people who make up their minds to start their holidays by traveling to the Continent by airplane are inclined to reverse their programmes at the last minute, and go by train and steamer instead. The fact that a P. & O. Steamer went down recently off the French coast does not deter them from crossing the Channel by steamer, and severe railway accidents here, and in France and Germany, do not stop them from going by rail.

The point is that people have got used to trains, steamers and buses; they know that all precautions are taken to make them as safe as possible.

Fault Finders.

They have not yet adopted the flying habit, and if an accident does unfortunately happen to an airplane, it makes them unduly nervous. Yet the recent mishaps in the air are insignificant considering the immense distance flown by aircraft in all sorts of weather without any mishaps at all. Hundreds of thousands of miles are flown without accidents. Pilots pick up their passengers and cargo and deliver them safely to their destinations with clock-like regularity. They "deliver the goods;" and everyone accepts it as a matter of course.

There are not many people who know why there is this smooth running and comparative immunity from accidents. A peep behind the scenes will prove an eye-opener to readers, and at the same time give them a slight idea of what it means to run our cross-Channel service.

Whenever Mr. Handley-Page designs a new machine, sets of drawings have to be made and sent off to the Air Ministry. The experts at the Air Ministry examine the drawings minutely and check the calculations. It would appear that their aim in life is to find faults - if they can.

Perfecting by Precaution.

They work out all the stresses and strains to which various parts of the machine will be subjected when in the air. They verify this and that. They take nothing for granted! Wind pressure, loading capacity, and a dozen and one other things are arrived at by the experts, and if the figures do not agree with those of the designer, the design must be altered. The drawings, in short, undergo the most stringent examination that human beings can devise before they are finally passed.

This is the first step in making our airways safe. Then comes the building of the machine in our own works from specially tested and selected materials. Every stage of the process is most rigidly watched. Gauges are set to the thousandth part of an inch, so that everything shall be absolutely accurate.

The new airplane has to be as near perfection as man can expect before it is allowed to leave our works. But the fact that it has passed our own experts does not satisfy the Air Ministry.

We are not allowed to start flying the machine between London and Paris the following day, nor yet the following week. It has to be flown to the Air Ministry's testing-ground at Martlesham Heath, and the official pilots test it in every conceivable way.

Nothing left to Chance.

The record of its performance goes with it, and the Ministry's pilots find out for themselves what the machine can do. They test how quickly it takes off from the ground, how fast and how slow it can fly, its loading capacity; they test its controls, stability, and, last but not least, its landing speed.

So many accidents may occur through machines having to land at an excessive speed. To avert this danger, our latest airplanes have been specially designed to land at low speed of forty miles an hour, or less, while they can fly at a hundred miles an hour. This is another way in which we are safeguarding the airway.

The crucial test at Martlesham is the ability of our machines to fly on one engine. We believe in the twin-engine machine. It makes for safety. If one engine goes wrong, there is always the other to enable the pilot to carry on and search for a suitable landing place. The machine with two engines has two lives, and this is why we build machines of this type and run no other on our services.

Speed is important, regularity is important, but most important of all is SAFETY IN THE AIR. We aim at making the airways at least as safe as the railways. The new machine, after being passed by the Air Ministry, is taken in hand and put through its paces by our own pilots. They have to be quite satisfied with it before we think of putting it into service.

We cannot carry a passenger before the machine obtains a certificate of airworthiness from the Air Ministry. Once the airplane is passed into service, the Ministry officials examine it from time to time, and renew the certificate if the machine is in order. In addition, our own experts inspect and check each machine after each journey in order to make sure it is in perfect flying trim.

Our engine mechanics and fitters and riggers are all qualified men, who hold the Air Ministry licenses. They are the finest experts in the world, and before I let a machine take the air they go over it thoroughly, test the engines, the flow of petrol, the air pressure, the temperature of the water, and the number of revolutions per minute.

The riggers go over the wings and wires, the tail, the ailerons, and undercarriage - in fact, everything in and about the machine is thoroughly tested. The wireless telephone is tested by an official of the Marconi Company, who is always present at the airdrome. The pilot goes to the weather office to examine the weather reports, and if the weather satisfies him he signs a written statement that he is prepared to fly.

Familiarity Breeds Contempt.

The Marconi wireless telephone is the modern wonder of the world. I sit in my office at the airdrome, and can keep in touch with the pilot all the way to Paris. It is extraordinary what the wireless telephone is enabling us to do. While the pilot is some ten thousand feet up in the air, and speeding along at a hundred miles an hour, one can talk to him, receive his reports, give him instructions, and, if necessary, change his route. One literally has the machine on a wireless string, and can lead it safely home.

Fog is our bugbear, and it is practically the only thing that makes flying at all uncertain. It is marvelous to think that we have guided our machines straight home when the pilots have been lost, and unable to see the ground from the time they have picked up land this side of the Channel.

I have flown to and from Paris and Brussels at least twenty-five times, and I think it is almost more dangerous to walk across Piccadilly Circus, or ride in a Paris taxi, than to fly.

I have been so bored with flying that I have played poker in the air to pass away the time, while I know a little old lady of eighty who took up her knitting directly we left the airdrome and knitted her way to Paris. Moreover, she didn't drop a single stitch! I have seen people reading "Answers" while we were scudding through the clouds. They partake of their lunch, drop off to sleep, and only wake on landing.

This is what we are doing to make our airways safe. We have a machine which is a marvel of stability. Quite recently it flew nearly all the way from Paris to London, in all slightly over 200 miles, without the pilot touching the controls at all. The course was merely corrected with the rudder, and the machine flew herself.

After all is said and done, the pilot is the captain of the ship, and on him depends its safety. He is medically examined from time to time to see that he is quite fit. Even so, there is always the risk that he might become ill in the air. I coped with this risk long ago by carrying an auxiliary flying mechanic-observer, who can take over the control of the airplane in an emergency.

Say what you will, the airway is the best way as well as the quickest way. The effect of flying above the clouds, which look from above like millions of white chrysanthemums or mountains and valleys of snow, is too wonderful for words."

THE BRITISH AERIAL DERBY.

After reading the comments of two leading British aeronautical publications on the Seventh Aerial Derby, held at the Croydon Airdrome, London, on August 7th, one is placed in the same predicament as the hospital patient on whose case two eminent specialists disagreed. The AEROPLANE in its writeup of this event states that, despite the usual contrariness of the British climate, the Aerial Derby contrived to be a huge success. On the other hand, FLIGHT cannot honestly say that it was particularly impressed with the event and, in fact, it seemed in one way or another even duller than last year, there appearing to prevail an atmosphere of indifference and lack of interest.

Nine machines competed in the race over a circuit of 200 miles, and started at various intervals according to their handicaps, as follows:

No.	Machine	Engine	Flying Time	Speed M.P.H.
1	Bert Hinkler	Avro "Baby"	2:35:4	76.6
2	L.L. Carter	Bristol Monoplane	1:50:04/5	107.8
3	F.P. Raynham	Martinsyde F6	1:48:12	109.6
4	A. S. Butler	D.H. 37	275 Rolls Royce	Failed to finish
5	L.R. Tait-Cox	Mars III	200 B.R.2	"
6	H.H. Perry	S.E.5 A	200 Wolseley-Viper	"
7	R.H. Stocken	Martinsyde F4	300 Hispano-Suiza	"
8	A. deH. Haig	Bristol Bullet	400 Bristol Jupiter	1:21:57 145
9	J.H. James	Mars I "Bamel"	450 Napier-Lion	1:6:48-2/5 177.8

The machine first to finish was the Bristol Monoplane, followed 22-1/5 seconds later by the Bristol Bullet and then 5-2/5 seconds later by the "Bamel". Mr. James' first lap (99 miles) took 32 minutes, and it is claimed that his time of 178 miles an hour is the world's record for 200 miles. At one period of the race when traveling down-wind, it is said that he flew at a speed of 246 m.p.h.

While the race was in progress a fine display of acrobatics was given by Flight Lieut. P. W.S. Bulman on a Mars VI, fitted with a Siddeley "Jaguar" engine. There were several other races while the main event was going on and after same was completed in SE5A machines.

The last event of the afternoon was the August Open Handicap of 16 miles, in which six machines participated, and the first prize of £30 was won by Flight Lieut. Longton in an SE5A.

A SEAPLANE FLIGHT AROUND THE WORLD. ✓

According to FLIGHT (London), Captain R.H. MacIntosh, a Handley-Page pilot, is to make an attempt, in company with another pilot and a navigator, to fly around the world in a seaplane. His companions will be Capt. MacCloughrey, D.S.O., and Capt. Tymms, M.C. of the Air Ministry, who will act as navigator. The seaplane is being built at the Fairey Aviation Company's works, and will be fitted with a 600 h.p. Rolls-Royce "Condor" engine. The route to be followed has not yet been definitely decided upon, but it will be from west to east. The British Air Ministry has promised all possible cooperation in the way of meteorological and wireless assistance, and, it is believed, a spare engine will be sent to Japan.

The actual date of starting has not yet been decided upon, but it appears probable that a start will be made early next year, possibly in January or February, and it is hoped to complete the tour of the world in about three months.

FOKKER ON AMERICAN AVIATION. ✓

"Americans are quicker than Europeans to grasp the advantages of commercial aviation. This is one of the main reasons why I propose operating a system of air lines throughout America."

This was the statement of Mr. Anthony H.G. Fokker, the famous Dutch airplane designer, to a representative of the London EVENING NEWS, upon his return from a tour of the United States. Mr. Fokker is reported further to have said that he intends to use eight and ten seater air expresses on the American services, and that a factory is being opened in the United States to build the machines. He contends that the vast distances, the quickness of the people to grasp commercial advantages, and the ideal flying weather in many parts of the country make America an ideal country for the development of commercial aviation, and the possibilities of success are far ahead of anything in Europe.

Mr. Fokker's visit to London, it is said, was for the purpose of buying quantities of British aero engines for fitting his various machines.

SAFE FLYING IN FOGS. ✓

Fog, the arch enemy of the airplane, not to mention other things, will in the not distant future hold little terror for the airman, judging from the many devices being invented from time to time to eliminate uncertainty in flight in foggy weather. The latest contrivance tending to make flying safe

in fogs is an ingenious application of the gyroscopic top, the scientific toy which, when spinning, retains its balance even on a needle point. The London SUNDAY PICTORIAL, in describing this device, states that it is fitted on the pilot's dashboard in the Daimler airway "expresses" and controls a series of tiny colored electric lights, each shining through a small hole an inch in diameter. When the air express is flying at its normal position a white light is shining, but the moment the machine departs from the horizontal this white light goes out and one of the tiny colored lights appears. These lights are so arranged that not only do they tell a pilot which way his machine is leaning, but also how much, and he is, therefore, able instantly to adjust his controls to bring the plane level, the white lights showing again the moment this is accomplished. The gyroscope itself is kept spinning continuously from the moment the air express leaves the ground by the suction caused as the machine rushes through the air.

STUNT FLYING AND THE REASONS THEREFOR ✓

Earl S. Daugherty, the famous American stunt pilot, has a few words to say on the above subject in the August issue of "The Ace". To the oft repeated query put to him "Why do people stunt?" he says:

"I believe the question can be best answered by the fact that there is no thrill to straight flying. Considering the further fact that aviation, up to the present time has been looked upon by the general public as an amusement, it naturally follows that the patrons of the present day flying fields expect to get a real thrill from their flight.

With the coming of well established commercial airlines, the short joy rides will become a thing of the past. Travel by air will become commonplace and people will use the airplane as they now use the trains, steamboats and automobiles.

I completed my course in flying in 1911 and flew almost daily for six years without stunting. The World War made the knowledge of stunting and airplane essential, and early in 1917 I entered the Air Service and started out to make a specialty of stunt flying as applied to military aeronautics.

Stunt flying is an art. We read that 'Stunting causes more than forty percent of deaths and injuries in airplane accidents', and it is not surprising when you consider the fact that there are perhaps not more than half a dozen competent stunt flyers in the United States while hundreds of pilots throughout the country will not refuse a paid passenger for a stunt ride.

Stunt flying is necessary to testing and essential to warfare. We might call it a necessary evil. All pilots should know how to stunt so that in case of an emergency they will be able to act quickly, but the habit of stunting with passengers by amateurs for thrill is dangerous.

I have carried over ten thousand passengers at my Long Beach flying field, and it is interesting to note that eight out of ten of my women passengers have taken stunt rides while only five out of ten men have gone in for the thrill. Quite a number of men and women past eighty have taken stunt rides with me and they all enjoyed it.

Much can be said both for and against stunt flying, but the fact remains that a little knowledge along these lines is very desirable for your commercial airplane pilot, and I would not think of employing a pilot even for straight flying who did not have sufficient training in stunt work."

THE AIRSHIP SITUATION IN GREAT BRITAIN.

A communication from the American Military Attache in London quotes a statement recently made by the British Prime Minister to the effect that, in view of the need for economy, the Committee on Imperial Defence has decided that no money should be expended in developing an airship service, either for commercial purposes or with the object of establishing Imperial Communications; that a special sub-committee is being appointed to study in detail the technical aspects of Commander Burney's scheme (airship routes to India, Australia and China) with a view to ascertaining if Commander Burney's claims were well founded and if his scheme was likely to produce airships which would be of national value in time of war, and that full consideration is being given to the possibility of the employment of airships in connection with Imperial air communications.

The American Military Attache further states that, judging from the above statement and the fact that his office has been approached with a proposition for

the U. S. Government to buy, for £75,000 the entire airship equipment at Howden, Yorkshire, which includes Hydrogen Plant, special tools, frame structure for two airships of the R-34 type, and various other equipment, it is thought that the Burney Airship scheme has been disapproved by the Committee on Imperial Defence, and that the British Government does not contemplate spending any money on airship development of any kind at the present time.

EXPANSION OF BRITISH AIR FORCE.

In a statement to the House of Commons, replying to a series of questions on the subject of the Air Force, the British Prime Minister announced that, as a result of the inquiry by the Committee of Imperial Defence, the Government had decided to adopt the scheme submitted by the Air Ministry for a force of 500 machines for home defence at an increased cost of £2,000,000 per annum.

According to the London TIMES, the increased appropriation will permit of 300 new airplanes to be built, the balance of the number already being in commission. The general idea governing the formation of the Defence Force is to have fifteen active new squadrons and five other squadrons, the latter forming the Auxiliary Defence Force, for which the personnel is to be recruited from the big centers of industry. In each squadron there will be twelve machines in service, six in immediate reserve and six as a second reserve.

THE FOREST FIRE PATROL IN OREGON. ✓

The personnel of Crissy Field is once again spread over the Northwest in connection with the forestry patrol. Captain Lowell H. Smith, Air Service, is in command of the detachment of the 91st Squadron (Obs.) engaged on this work, which is stationed at the Municipal Flying Field at Eugene, Oregon. Other officers on duty there are Captain Eugene G. Reinartz, Medical Corps, Flight Surgeon; Lieutenants Warren A. Maxwell, William C. Goldsborough, John R. Morgan and Russell L. Maughan.

Conditions for flying in the fire-swept area of Oregon are anything but desirable; and at times it is considerably difficult, due to the rugged country over which the flying is done and the lack of visibility caused by the smoke from the numerous fires. The Air Service has surely made itself solid with the people of Eugene and vicinity, and they are leaving no stone unturned to make the airmen's duty there one of pleasure and comfort. There has been a most urgent need for the patrol from the early season but, due to the lack of funds, it could not be given. The Oregonians, not satisfied with that condition, directed their endeavors in the right direction and, as a result, they succeeded in securing the patrol and thereby have saved many dollars and their timber land as well. During the first day of the air patrol thirteen fires were located in one county, and similar results followed subsequent air patrols, with the result that now the fire hazard has been reduced to a minimum.

AIR SERVICE RESERVE ACTIVITIES IN CLEVELAND, OHIO.

The Organized Reserve Air Service in Cleveland, which has been assigned to the 84th Division, Air Service, has recently been transferred to the 306th Pursuit Group, of which one squadron and an Air Park are allocated to Cleveland and Cuyahoga County. Interest in the Reserve in Cleveland is rapidly growing, and it is expected that after the vacation season is over all units will be fully officered.

The Cleveland Chamber of Commerce is of the most valuable assistance to War Department activities in this locality, especially in the matter of Citizens Military Training Camp recruiting, Junior R.O.T.C. in the High Schools, National Guard affairs and the Organized Reserve. During the campaign for the Citizens Military Training Camp, Lieut. Langhorne W. Metley, Air Service, assigned to Organized Reserve work in Cleveland, was afforded office space, clerical help, funds and other very material assistance by the Chamber. Approximately 160 young men were sent from Cleveland to the C.M.T.C. at Camp Knax, Ky. The Chamber of Commerce also has under consideration the matter of securing a field for the use of the Air Service Reserve, and it is believed that in spite of unfavorable terrain and high real estate prices, something will be accomplished in this direction before many months pass.

THE AIR MAIL STATION AT CLEVELAND.

The Air Mail Station in Cleveland, Ohio, is upholding its end of 100% performance. Their ships are excellent and their pilots, many of whom are former Air

Service officers, are exceptionally capable. They welcome any visiting pilots of the Air Service. Their field is good and their service and courtesy are of the best.

AERONAUTICAL NEWS FROM OTHER COUNTRIES

France.

Messageries Aeriennes supplemented their transport service recently with an aerial route from London to Marseilles, machines leaving London at 8:00 a.m. and scheduled to arrive at Marseilles at 5:10 p.m., with stops at Paris and Lyons. The actual flying time is 7½ hours. The return journey is started at 9:00 a.m., London being reached at 6:30 p.m. Planes used on this service are "Spads" and "Goliaths", both equipped with Hispano-Suiza engines.

Brazil.

The London TIMES reports that the sum of £10,000, raised by popular subscription, has been presented to the Portuguese naval airmen, Commanders Coutinho and Cabral, in the form of a draft on London, for the purchase of airplanes as a gift to the Portuguese Government in recognition of the Lisbon-Rio flight.

Argentine.

In order to develop the aviation branch of the Argentine Army and to provide at the same time an improved air service from the capital to the smaller commercial centers, the director of the Aeronautic Service has suggested the establishment of an aerial mail system by cooperation between the Ministry of War and the Direction General of Post Offices and Telegraphs.

The plan meets with the approval of both departments, but the latter has stipulated that the administration of the service in peace times shall be under the executive jurisdiction of the Post Office Department, since that branch of the Government would be responsible to the public under ordinary conditions. The suggested route from Buenos Aires includes the cities of Azul, Bahia, Blanca, Patagones, San Antonio, Oeste, Rawson, Comodoro Rivadavia, Rio Gallegos, and Ushuaia. A joint committee is now preparing a detailed plan, including the schedule of deliveries, time of flights, mail capacity for each trip, charges, etc.- Commerce Reports.

Germany.

The aerial mail service initiated on May 5th from Hamburg, via. Stettin, to Danzig, Koenigsberg, Kovno, and Moscow, has made a marked reduction in the time required for the delivery of mails between Germany and Russia. The saving amounts to 24 hours in mail for delivery to Kovno and 36 hours for mail to Riga. In addition, there is a saving of 5 hours time in the Danzig and Konigsberg mails.

A daily service from Hamburg to Kovno is maintained, and from Kovno to Riga the trips of the mail planes are on Tuesdays, Thursdays, and Saturdays. From Koenigsberg the planes leave on Thursdays and Sundays to Moscow, the flying time to Moscow being in the neighborhood of 37 hours.- Commerce Reports.

Nicaragua.

A contract for freight and passenger hydroplane service on Lake Managua and the San Juan river has been approved by the President, and will be effective for fifteen years. The Company promises to carry Government troops, war material and mails free of charge.

Crissy Field, Presidio of San Francisco, Cal., August 15.

Crissy Field recently took on the appearance of a wartime garrison with its several training problems in connection with the R.O.T.C., the C.M.T.C. and the increased enlisted personnel stopping here enroute to and from the Hawaiian and Philippine Departments. The increased personnel was used to good advantage in beautifying the field and adjacent grounds. Painting and other improvements were made which will redound to the satisfaction of all.

Crissy Field, as one, extends its sincerest sympathy to Miss Helen M. Heitz, stenographer to the Commanding Officer of the Field, whose home was recently leveled to the ground by fire.

Captains Andrew W. Smith and John P. Beeson, Medical Corps, our Flight Surgeons, and Lieutenants Leo F. Post, Burnie R. Dallas and Arthur G. Liggett are now on temporary duty at Mather Field, Sacramento, California, in connection with the Training Camp for Air Service Reserve Officers. In addition to the above-named officers, Crissy Field has also contributed ten of its most capable noncommissioned officers to act in the capacity of instructors.

Captain Armin F. Herold, Air Service, who has recently been on duty at Camp Lewis, Washington, with the Reserve Officers' Training Camp and the Citizens' Military Training Camp at that station, is expected to return to Crissy Field in the immediate future, and later join those at Mather Field.

The Officers and men of Crissy Field recently gave a demonstration for the benefit of all the C.M.T.C. men taking that course at the Presidio of San Francisco, about one thousand in number. The purpose of the demonstration was to familiarize those interested in things military with the broad and never-ending possibilities of an adequate and efficient Air Service.

Staff Sergeant Philip Maloney has been holding down the billet as Sergeant Major, 91st Squadron (Observation), during the absence of Sergeant George Smith, who is now on forest patrol duty with the detachment at Eugene, Oregon.

The following officers here on temporary duty departed last Thursday for the Philippine Islands: Lieutenants George A. McHenry, Mark R. Woodward, William S. Sullivan, Erling S. Norby and Alfred E. Waller. It seems that Crissy Field at some time or other is almost bound to have a greater per cent. of Air Service Officers pass through its gates, despite the fact that it is one of the new fields. At any rate, service at Crissy Field is well worth while.

Alas, our gardener has departed for home, where it is expected that he will "carry on" in the same satisfactory manner as he did while a soldier at Crissy. Private Flart was among the few who were discharged last week and did not "re-up". It is hoped by all that another Flart will be found.

Eighty men departed from Crissy Field last week to put in their foreign service, 19 sailing for the Hawaiian Islands and 61 for the Philippine Islands,-- among them being not a few old-timers who just couldn't wait till they landed in the Philippines. The manner which some of them assumed would lead one to believe that the 18th Amendment had been repealed here in the States.

Speculation was rampant the other day when an automobile, bearing a District of Columbia license tag, appeared in front of Headquarters. Some of the stenographers who served in Washington during the war were most excited and just hoped that the owner would invite them for a ride in Rock Creek Park or even take them home from the office. However, the owner turned out to be Lt. Colonel Gillmore, our new Air Officer,-- (the stenographers did not ride that day)-- who takes over the chair vacated by Major H. H. Arnold.

Colonel Gillmore was in charge of the Supply Group, Washington, D.C., and has handled all the supply problems for the last three or four years, and it is felt that his presence in this Corps Area will strengthen our status in Washington when he has seen all we are attempting to do and what we have already accomplished. In other words, we hope that the authorities in Washington will appreciate through the good words of Colonel Gillmore as to what we have out here.

Lieutenant Robert E. Self, Air Service, has returned from Camp Lewis, Washington, where he was engaged in some photographic work, also as instructor in the ROTC and CMTC Camps at that point.

Lieutenants Walter Miller, Robert E. Self, William R. Sweeley and John W. Benton made a flying trip to San Diego and return, ferrying back four new DeHaviland 4B airplanes for use in connection with airplane forest fire patrol.

Considerable new construction is now in progress at Crissy Field,-- especially along the Officers' Line. The front porches are being made over and are to be glass inclosed.-- a feature which will give much comfort and satisfaction to all. An addition in the way of a sleeping and sun porch is also being made in the rear of the quarters. This additional room will eliminate to a great extent present crowded conditions. Further improvements are the installation of a drainage system in the basement of the quarters. This certainly is a step in the right direction, as heretofore it has been the custom for the God of Rain to periodically flood our homes and float some of the family keepsakes usually relegated to the cellar. Surface drainage is being installed, and all hope for a dry season as it affects our little homes on the hill.

At last the new furniture has arrived, and many of the quarters are now being dolled up. The ladies of the Post are vying with each other for honors.

Several of the officers and their families have recently given Mah Jongg parties, at which the ancient and Royal Chinese game of Mah Jongg held sway, invariably followed by refreshments.

Lieutenant Walter Miller, the Engineering Officer, recently rebuilt an air compressor and installed same in the blacksmith shop, where it has since been worked over time. In addition to being capable of supplying the necessary air for the forge, a line is piped to the hangars where it is used for pumping tires and also for the cleaning of motors.

Wood cut the proper size! Yes, we now have it. The Engineering Department constructed a regular saw-mill outfit and the men now say it is a pleasure to cut wood any size desired.

Some pilots are just born lucky. The other day Lieut. John W. (Tubby) Benton, our Accident and Investigating Officer, received an order to fly up the coast to a place called Eureka, California, where Sergeant Fred Kelly, 91st Squadron, a pilot on forest patrol, had a forced landing on a mountain side due to engine trouble.

Benton arrived at Eureka in due time and started a search for a field in which to land, there being very few in that rugged country. His attention was soon drawn to a field of small proportions where he saw two men and two women frantically waving a sheet as if to motion him down. He circled the field, made a closer observation and decided that he would make a happy landing, inasmuch as it was apparent that he would be acceptable to the party below.

That fellow "Tubby" Benton sure had things in his favor,-- a small town and a small field, but heap lots of instinct. In a blanket of green sky the sun was playfully shining, while the moonshine reflected from the "Green River" below,-- Amidst much, Benton made his three point. Now comes the mean part of the flight. Once on the ground (it listens to us like a "Corn" field) he discovered that his new friends had been, and were continuing, to participate in a party, and from Benton's story there was so much corn in the field they were all stewed. Of course, neither Benton nor his passenger partook--they preferred Tanlac. However, Benton completed his investigation successfully and returned to Crissy Field.

It now looks as though the Air Service is about to take its place as an adjunct to the fire-fighting organizations of the country, if not supplant the present system to some extent. Its work in connection with the control of forest fires is an accepted fact and it is at this writing the most efficient method known for the elimination of that hazard.

During the Firemen's Convention held here in San Francisco this past week, the Chief of the San Francisco Fire Department called upon Crissy Field for help, aid and assistance. After his wants were made known, Crissy Field then handled the situation, carrying it to a successful climax. It appears that it is sometimes necessary for the Chief to get in communication with the District Chiefs who are at the time combatting a blaze at some distant point. Heretofore, it has been the custom for the Chief to endeavor to get his District Chiefs on the telephone or to send a messenger. This procedure proved unsatisfactory as it often took the District Chief from a fire that needed his undivided attention.

Well! Since Crissy Field has joined the ranks of the "Smoke-eaters" that ain't no more. A really truly hook and ladder was dispatched to Crissy Field whereon a radio outfit was installed. Needless to say the radio set worked perfectly and was the topic of no little comment during the remainder of the Convention.

Major H. H. Arnold's tour of duty as Air Officer of the 9th Corps Area, which began in 1919, was terminated on August 8th, when Colonel W. E. Gillmore arrived from Washington to take over his detail. The affection and high esteem in which Major Arnold is held by all who are fortunate enough to know him sufficiently

evidenced by the unanimous regret his departure occasioned in Army circles in this Corps Area, especially amongst the Air Service personnel.

The Air Service on the Pacific Coast owes much to Major Arnold. Under his jurisdiction the Air Service in the Ninth Corps Area has been organized into an efficiently functioning unit, the accomplishments of which challenge the achievements of the Air Service in any other part of the country. The aerial forest fire patrol, which has been such a success during the past three years, is without exception the greatest public service which has been rendered by the Army Air Service in time of peace in the United States, and it is largely due to Major Arnold's initiative, executive ability and energy and enthusiasm with which he has directed this work, that it has been so successful.

The recent illness of Major Arnold, which confines him to the Letterman General Hospital, makes it uncertain as to what his future assignment will be. He is assured, however, that the well wishes of the personnel of Crissy Field go with him in the accomplishment of whatever new duties he may be called upon to assume.

Rockwell Air Intermediate Depot, Coronado, Calif., Aug. 12.

The regular weekly party held on Thursday night was most original and enjoyable. Mrs. Randolph and Mrs. Vanaman as hostesses decided on a Beach Party. A roaring fire of drift wood was built and a most delicious assortment of viands was served by its light. After chow the party adjourned to the Officers' Club for bridge. Mrs. McCulloch won the ladies' prize and Captain Field walked off with the men's prize.

Lieutenant Smith of March Field, and Sergeant Teller as observer, flew another DH plane to Oregon this week for forest patrol.

On Wednesday of this week Major Fitzgerald as pilot, with Major T. C. McCauley, Commanding Officer of the local Reserve Squadron, as passenger, flew to Los Angeles in a DH plane. Captain W.M. Randolph accompanied them in an SE-5 plane. The trip was made to attend a luncheon given by the Southern California Aero Club in honor of Lieut. John Macready, the holder of the worlds altitude record. Some interesting talks were made and an enjoyable time was had.

Hdqs. Air Service Troops, Aberdeen Proving Grounds, Md., Aug. 15.

During the course of the Ordnance R.O.T.C. camp at this post, all students who so desired were given a flight in an airplane or dirigible, to their very great satisfaction. Formations of ships were sent to the camp at Edgewood, and bombs were dropped at Camp Meade by bombing formations on three occasions. The C-2 was also sent to the latter place for examination by members of the National Army encampment there.

The usual activity in bombing has been continued. The Ordnance work in the development of drop-bombs has been handled by Capt. S. G. Wilder, Infantry, vice Capt. S.R. Stribling, Ordnance, who leaves shortly for Dayton. Many tons of bombs, of various weights up to 1100 pounds, have been dropped each month. The two new Martin Bombers (Curtiss) recently received from Mitchel Field, have been kept busy on this work. New landing lights for use in night flying have been installed upon the field and have been tried out in several night flights for the test of parachute illuminating flares. These flares are used as auxiliary lights in landing with considerable satisfaction. The work of grading to remove a small hill which formerly stood in front of the hangars at this field is nearly accomplished, and ships will shortly be able to take off or land easily with the wind from any quarter. The power line along the west side of the field is also being removed.

During the month the following officers, among others, visited the field:

Col.	Fravel	from	Office of Chief of Air Service.
Capt.	Jacobs	from	Langley Field, Va.
"	Knight	from	Langley Field, Va.
Lieut.	Ramey	from	Bolling Field, D.C.
"	McDonald	from	Langley Field, Va.

Kindley Field, Fort Mills, P.I., June 19.

A lull in the rainy season afforded an opportunity to give some instruction in transition flying to a number of officers of the 2nd Squadron who have not yet

"soloed" on "H" boats. Very little difficulty is experienced by land plane pilots in acquiring the knack of taking off and landing the boats, and after two or three "hops" they are usually declared proficient. Major Hanley, Captain Edwards, Lieutenants Palmer and Dinger have been acting as instructors, while Lieutenants McKimmon, Drumm, Wilson, Gravely, Hicks, Gabriel, Lynch and Owens have been taking instruction.

The policy of conforming strictly with the Tables of Organization is being followed by the Squadron Commander. Enlisted men have been assigned to the various departments according to the grades and numbers outlined in the Tables. Two flights have been organized, to each of which six officers have been assigned. Flight "A", in command of Lieutenant Gravely, is being equipped with DH-4-B's, and flight "B", under Lieutenant L. R. P. Reese, with flying boats HS-2-L. Although the landing field on the "tail" of the island is in shape for flying the DH-4-B's will be kept at Paranaque Beach during the rainy season due to the lack of any shelter for planes which can be relied upon to stand up under typhoon gales. Paranaque Beach is located about one mile from Camp Nichols, where Air Park No. 11 and the Philippine Air Depot are stationed.

Regulation of artillery fire was conducted by the combined balloon companies at this station on June 13, for a battery of 75's located on the island of Caballo, the balloon being flown from the hangar of the 17th Balloon Company at Kindley Field. Direct communication was effected between the balloon basket and the battery, which required data from the balloon basket to be transmitted across approximately 2 miles of water. Sixty five shots were fired. Captain Wainright of the 59th Artillery and 1st Lieutenant York of the 27th Balloon Company acted as observers.

1st Lieutenants L. E. McGraw and J. Y. York, who arrived in this Department on the transport "Thomas" on June 9th, have been assigned to the 17th and 27th Balloon Companies, respectively.

The arrival of 47 enlisted men on the "Thomas" as replacements for the 2nd Squadron has considerably relieved the situation caused by the lack of enlisted personnel in that organization.

The 2nd Squadron and the 17th and 27th Balloon Companies are being trained in the manual of pistol and rifle marksmanship preparatory to going on the range for annual small arms firing season. The balloon companies have devised a miniature range for rifle practice, consisting of a set of four targets worked by a lever for rapid fire practice. The men use dummy cartridges, loading, firing and timing their shots as if they were actually on the rifle range. A large target as used at 200 yards is being erected, and the men will be required to make triangles at this distance, using a field telescope for directing the moving of the disc on the target.

Captain and Mrs. Edwal H. Edwards have returned from a month's leave in Japan and China. They report a most interesting trip, having visited Tientsin, Peking, Shanghai, Hongkong and Canton. The combatants in the present Chinese Civil War had temporarily suspended hostilities during their stay in China, and no difficulty was encountered in traveling around.

1st Lieutenant Edwin Johnson returned during the past week from a month's detached service at Baguio. A month at this delightful mountain resort can be appreciated after the hot season in and around Manila.

Major Byron Q. Jones, Department Air Officer, flew over and made an inspection of the Supply situation at the field on Friday. Major Jones was accompanied by 1st Lieutenant E. H. Guilford.

Mrs. Gilbert Collar and Mrs. Lewis R. P. Reese, valiantly assisted by their husbands, entertained the officers and ladies of the garrison at an auction party and buffet supper on Saturday evening.

Kindley Field, Fort Mills, P.I., June 27.

The weather was very favorable for flying during the past week, the water being unusually calm and atmospheric conditions all that could be desired. This is the season for thunder showers which come up frequently in the late afternoons and continue for a few minutes at a time. However, they do not interfere with flying.

"Operations" took every advantage of this favorable flying weather, and the "H" boats in commission were kept in the air all day. Aerial gunnery was carried on, using a floating target in the bay. Two artillery reglage missions were carried out successfully, with Lieutenant Palmer pilot and Lieutenant Gravely observer. Those six officers who had recently been assigned to the 2nd Squadron were given instructions on flying the "H" boats. Practically all of these officers have now been soloed. Several cross-country flights were made to Manila on official business.

Flight "A", under Lieutenant Gravely as flight commander, has been ordered into the field at Paranaque Beach with a personnel of 4 officers and 20 enlisted men. This flight will be equipped with 6 D14B's as soon as they can be supplied by the 11th Air Park. Two of these planes have already been delivered. An intensive course of training will be carried out by this flight, including work in aerial gunnery, observation, photography, radio and bombing. As soon as each group of officers finishes the course, another group will be sent to take it. When the full complement of planes have been received and the necessary training equipment installed, the officer personnel will be increased to six. The officers who will leave with the flight are, in addition to Lieutenant Gravely, Lieutenants Drumm, Gabriel and Johnson.

A daily schedule for trap shooting was carried out under Lieutenant Gabriel, armament officer, during the week. According to the test for "Professional Qualifications of Air Service Officers" outlined by Headquarters, Philippine Department, all Air Service Officers, to qualify, must break at least 15 clay birds out of 25. The results in practice have been very satisfactory, and all officers who have been on the range to date have qualified.

The operations of the Balloon Companies are very limited at present, due to the extreme shortage of enlisted personnel. However, during the week the balloon was raised on three days by the combined personnel of the Balloon Companies, assisted by a detail from the 2nd Squadron. On these days instruction in observation was given the student enlisted observers who are on flying status.

A new compressor, to be used for compressing into cylinders the hydrogen manufactured by the field generating plant, has been received, and will be installed in the near future in the building housing the generating plant.

All officers of the garrison are receiving a course of instruction in pistol firing preparatory to going on the range for the annual qualification course. Captain I. B. Snell, of the 17th Balloon Company, has been detailed as chief instructor and has prescribed a series of exercises and drills which should result in developing some excellent shots among the officers. Captain Snell is eminently fitted for his duties as instructor, as he is an expert pistol shot himself and won a medal for pistol shooting during the Department competition meet which was held during the month of May.

The rains in the early part of the month have caused a most luxuriant growth in the vegetation around the garrison which has resulted in hundreds of breeding places for mosquitoes. A determined effort is being made to eradicate this evil, and on Friday afternoon the whole garrison, commissioned and enlisted, turned out with picks, shovels, scythes, grass hooks, bolos and every conceivable type of implement which could be used in eliminating mosquito breeding places. Ditches were opened and dug, holes filled in, stagnant pools drained and the tall grass cut. The whole area was divided into sections and officers and a detail of enlisted men assigned to each station. It was an afternoon well spent and should result in the extermination of mosquitoes and the elimination of the consequent danger of a "dengue" epidemic in this garrison.

Lieutenant Harry A. Dinger was the victim of a serious accident on Wednesday, when a "solo" motorcycle on which he was riding fell on him, breaking his leg in two places. Lieutenant Dinger was taken to the Post Hospital, where his injuries were treated. He is getting along satisfactorily, but will be confined to the hospital for many weeks. During his absence Lieutenant Wilson has been detailed as Engineer Officer.

Camp Nichols, Rizal, P.I., June 24.

Work on the new radio station goes on apace. The actual building labor has been completed. Lieutenant Lawton, Post radio Officer, contemplates painting the interior a baby blue, so as to keep his operators within the bounds of discipline. In spite of the fact that the 18th Amendment is not in force in the Philippines, Lieutenant Lawton "goes up the pole", every morning, while engaged in erecting the antenna towers. He states he finds great satisfaction in reaching the higher altitudes.

Captain John I. Moore and First Lieutenant Baex returned to their station at Clark Field, after temporary duty at this field.

In recognition of the excellent work done by the personnel of this Post in the arduous task of constructing hangars and warehouses, the Commanding Officer has announced that Saturday of this week will be a holiday for all departments.

Preparations for the Qualification Tests for all pilots in this Department, to be held at this station, are occupying the minds of the commissioned personnel at this field. The brunt of most of the work falls on Lieutenant Nutt, the Operations Officer, who is quite ready to agree that Qualification Tests are unnecessary and superfluous.

Headquarters Clark Field and 3rd Sqdn. (Pursuit) Camp Stotsenburg, P.I., June 18.

With the conclusion of the annual inspection, work was resumed this week with much relief but little relaxation, and fatigue has been expanded to include the entire day instead of the customary half day. Our 22 officers have been spread about, thus relieving the overburdened few of the old guard who have had their shoulders to the wheel in an attempt to compensate for enlisted losses. Nearly everybody is an "assistant" something or other, and doing a little of everything but fly. Ho-hum--- may be some day some place there will be enough of everything to go around all t'bnct?

There is much conjecturing as to whether the return to the States in August of the 9th Cavalry, now stationed at this post, will precipitate a landslide of further returns to include any Air Service. On the basis of consistent rumors, many applications for the China tour have been submitted in the hope that fortune may favor and that this much prized opportunity may not be lost. It would surely be the height of irony to have come seven thousand miles and to be within several hundred miles of China and then miss out and be shot to Texas once more. Among those who have China leave applications pending are Major A. H. Gilkeson, Captain C. L. Midcap (now on detached service with his family at Camp John Hay, Baguio) and Lieuts. H. I. Riley and G. W. Pardy.

For the information of our friends in the old country, it may be of interest to note the following as being among those present at Clark Field, and what makes them famous (or infamous):

Major A. H. Gilkeson, C. O. Clark Field.
Captain L. N. Keesling, Comd. 3rd Squadron.
Captain J. I. Moore, Armament Officer.
1st Lieut. G. W. Pardy, Adjutant.
1st Lieut. Carl Barrett, Maintenance Officer.
1st Lieut. John Beveridge, C.O. Philippine Air Depot, Clark Field Branch.
1st Lieut. H. I. Riley, Transportation Officer.
1st Lieut. F. M. Bartlett, Operations Officer.
1st Lieut. B. S. Thompson, Communications Officer.
Captain D. W. Bedinger, Medical Corps, Flight Surgeon.
Captain C. L. Midcap.
1st Lieut. E. L. Searl, Survey, Information; C.O. of Flight "B".
1st Lieut. F. D. Hackett.
1st Lieut. R. Baez, Jr.
1st Lieut. Harry Weddington, Summary Court, Engineering.
1st Lieut. T. J. Lindorff, Mess Officer.
1st Lieut. F. A. Johnson, Asst. Operations, Accident, Inv.
1st Lieut. F. L. Cook, Salvage, Asst. Supply Officer.
1st Lieut. E. C. Batten, Asst. Armament Officer.
1st Lieut. F. E. White, D.S. Camp Nichols.
1st Lieut. E. R. Evans, Dist. Fire Marshall.
1st Lieut. H. C. Woodward, Asst. Engineering Officer.
1st Lieut. W. J. McKiernan, Jr. Personnel Adjutant.

Clark Field, Pampanga, P. I., June 26.

Preparations are being made for the annual test of all pilots and observers to be run off about July 15th at Clark Field. The tests prescribed are what might be termed as "some comprehensive" and provide for everything from the old cadet days barracks flying to the advance slip skid three pointer on the park.

Major A. H. Gilkeson, C.O. of Clark Field, was sent to Sternberg General Hospital for observation and treatment on Tuesday, June 20, 1922. We are glad to advise that it is nothing more serious than a tonsilectomy.

Captain C. L. Midcap and Lieut. H. I. Riley received the welcome news of the approval of their applications for China leave, and will depart on the July 3rd transport, to go via Miike, Japan.

Kelly Field, San Antonio, Texas, July 31.

Kelly Field on the afternoon of July 30th was the scene of a hotly contested game of polo between the team representing that field and the one representing the Headquarters of the 8th Corps Area. The Headquarters team could not overcome the handicap of nine goals given their opponents, and Kelly Field finished on the long end of a 15 to 10 score, and, as a result, the Air Service Trophy Room at Washington will be enhanced with a beautiful loving cup emblematic of just another triumph of our arm of the service.

Among the large crowd of some 2,000 spectators, army men and civilians, were Major General Hines and Brigadier General Smith, with their staffs, also Lieut. Col. Howard, Commanding Officer of Kelly Field. The Kelly Field team, wearing black and gold sweaters, lined up as follows: Capt. E. D. Willis, No. 1; Major Wm. H. Garrison, Jr. (Captain) No. 2; Major Charles J. Browne, No. 3; and 1st Lt. N. D. Brophy, No. 4, while the line up of their opponents, who wore maroon and white sweaters, was: Captain Charles S. Kilburn, Cav. No. 1; Major Henry J.S. Smith, Cav. No. 2; Major Herbert E. Taylor, Cav. No. 3; and Lt. Col. W. V. Morris, Cav. (Captain) No. 4.

The Referee put the ball in play at 4 p.m. Kilburn got the ball on the throw in and scored after a beautiful run. After three minutes of hard scrimmage, Garrison came out of the melee with the ball close to the side boards at the center of the field, took three lob strokes and scored with a long melee stroke that looked almost impossible. Ten seconds before the period was up, Brophy shot the ball between the goal posts out of scrimmage from the fifty yard line. Score: Kelly Field 2, Hdqrs. 1.

The second period was marked by hard riding and flashy runs by both sides, but neither team was able to put over a marker.

In the third period Willis scored with a difficult off hand forward stroke. Kilburn retaliated after a run three-quarters the length of the field. Before the close of the period Garrison duplicated his feat in the first period. Kelly Field's team work and aggressiveness had Headquarters absolutely on the defensive. Score: Kelly Field 4, Headquarters 2.

Browne started a fracas in the fourth period by taking the ball from in front of Kelly Field's goal, carrying it the length of the field and shooting it thru the goal. Headquarters showed a brand of polo and team work during the last five minutes of play that is hard to describe. When the period was up, Kilburn, Taylor and Morris had each scored a goal. Except for the last few minutes Kelly had kept Headquarters on the defensive. Score at end of period tied at 5 each.

Browne broke through and chalked up his second marker of the game in the fifth period, but Kelly Field's lead was short-lived, as Morris shortly followed suit, and again the score was tied - 6 each.

Smith, the only player on either team who had not scored so far, electrified the spectators in the sixth period by putting over two goals in succession, giving Headquarters the lead, 8 to 6.

There was no scoring in the seventh period, but in the eighth and final period Smith and Taylor both put over a marker, making the score (counting Kelly's nine handicap goals) Kelly Field 15, Headquarters 10.

In last week's News Letter we mentioned the facts about Lieut. Norwood making several cross countries to Ellington Field, and we were wondering what the big attraction is up there. All of us who came from Ellington were glad to get away from it, and it is now like a deserted and lonesome island. Yet, history has some very interesting facts about our deserted islands. Sure enough, Lieut. Norwood made another cross-country to Ellington Field last Saturday, and we are still wondering "WHAT IS THE BIG ATTRACTION ON THAT DESERTED LAND". If he takes another trip to Ellington this week, some one will have to follow him disguised as a hawk or something and find out what it is all about. Perhaps there is a sweet young or maybe it's an automobile he's interested in. We wish that whatever is there could be brought here so we all could see it.

3rd GROUP (ATTACK).

The required eleven days of training was completed by the Reserve Officers assigned to the Attack Group, Monday.

A motor convoy consisting of Liberties, Whites, G.M.C's, Reconnaissance and touring cars, and several motorcycles, which were left at Ellington Field by the First Parazit Group and assigned to the 3rd Group, arrived at this field Friday noon after successfully completing a trip of approximately 247 miles. But one truck

was out of commission. Lieut. W. Zellner, assisted by Technical Sergeant Granger and 54 other enlisted men of this field, comprised the personnel of the convoy. A number of detours were necessary on account of the poor condition in which the roads were found, the longest of these being at Richmond, caused by the absence of a bridge over the Brazos River, which had been washed away a few days prior.

NINETYETH SQUADRON - The organization should be highly congratulated over the good fortune of having a new First Sergeant, - Staff Sergeant Robert H. Kerr, - a man of considerable service, both as commissioned officer and enlisted man. He has in more than one way won the confidence of the personnel of the organization.

The Reserve Officers and the ROTC Cadets assigned to this organization completed their course of training a few days ago. We are sure that they feel greatly benefitted by the course of training undergone. Lieut. Jackson, who, for some time was a Cadet, awaiting his commission in France, was a very enthusiastic member of the class. The Lieut. is contemplating taking the examination for a commission in the Regular Army.

TWENTY SIXTH SQUADRON - Captain George P. Johnson, formerly 1st Wing Operations Officer, has been assigned to this organization and has assumed the duties of Commanding Officer. Lieut. R. M. Greenslade has been appointed Engineering and Operations Officer, succeeding Lieut. J. T. Cumberpatch, who has been transferred to Brooks Field, Texas.

Captain Voss and Lieut. Laborde, using a ship from this organization, made a flight to Laredo, Texas, July 22nd, returning the next day. Lieuts. Greenslade and McCormick also made a cross country to Laredo and return on the same dates. Pigeons were carried and both flights were made without mishap.

Work in the hangars has been progressing steadily. In addition to the regular detail work, a number of men recently enlisted are receiving special attention.

A machine shop truck has been received and is being installed. Staff Sergeant Foicke, who formerly had charge of the 90th Squadron machine shop, has been placed in charge.

THIRTEENTH SQUADRON - In completing the training of the Reserve Officers, a total of ten hours fifty five minutes was flown. One cross country flight was made to Dallas, Texas, with Lieut. Buchanan as Observer and Lieut. Wheeler as pilot, in which forced landings were demonstrated because of the quality of oil obtained at Dallas. Lieut. Buchanan certainly received training in the real thing, unexpectedly.

A successful bombing raid was carried out during the past week, under assimilated wartime conditions. An observation plane scouted the "front", reporting the location and condition of the target, after which a formation of five DH4B's took off carrying four bombs each. Flying over the "front" until the objective was reached, they broke into bombing formation, diving on the targets four times, releasing one bomb each time. While the Reserve Officers had very little practice in bombing, they made a very creditable showing and set the grass around the target on fire. The course was completed with a two hour cross-country flight for each Reserve Officer. Various towns in the prescribed time limit were picked up as the objectives and compass courses were flown to each of them. Captain Blumenthal with Lieut. McBride were allowed to "solo". Lieut. McBride, who received such a thrill out of the parachute jump last week, also received another thrill when his landing gear gave way on landing.

Major Thomas Duncan, 90th Division, Organized Reserves, has adopted this flight for his future aerial proclivities. We are glad to have the Major with us, as he seems to be a "regular fellow".

Lieut. Selzer has made another cross country to Del Rio, and expects to have the airline mapped out in the near future. We hope he gets married before long.

10TH GROUP, (SCHOOL).

Continued good weather for the past week has enabled the flying instructors to place practically all of the transition students on solo. The eastern portion of Kelly Field is a very busy place in the week day mornings from seven until eleven.

Lieutenant TeShieh Shen of the Chinese Navy, who has just completed a course of instruction at the Air Service Observation School, has been authorized by the Chief of Air Service to take a course of instruction in Bombardment at the Air Service Advanced Flying School. He recently purchased a Ford Coupe and is receiving dual instruction and very much free advice on jitney piloting.

39TH SQUADRON - The 39th Squadron is now in full swing and everything this week has been going along fine. A considerable amount of flying has been done and, for a new class and new students, credit should be given to both, as all the flying and operations have been successful.

In the past two or three News Letters of this organization, Lieut. George O. Roberson, our Supply Officer, was forgotten. We were going to dedicate this week's News Letter to him, but really no one cares to read a full page of any kind of news that pertains to a supply officer. Just the same, Lieut. Roberson is deserving of some publicity. Ever since the organization of this squadron he has worked hard, day and night, getting everything for both the squadron and hangars. His efforts have been successful and, due to all the hurried work he has gone thru in the past two weeks, time had to be spared for the swearing act. We all know that a Supply Officer must have his time for swearing, as is the case even in the best regulated families.

We are glad that Lieut. John K. Cannon has been assigned to this Squadron, but he still is on special duty as Group Operations Officer. We see him every morning on the line, and he is kept busy watching every thing that goes on.

Airplane Forest Patrol, Eugene, Oregon, August 8th.

On Sunday afternoon, July 30th, Lieuts. R. L. Maughan and John R. Morgan returned from Mather Field, Sacramento, California, and Sergeant Templeton from Crissy Field, San Francisco, California, all making the trip in a 4½ hour non-stop flight. A good illustration of the efficient manner in which the Air Service is being conducted in the 9th Corps Area was shown on this trip. Lieut. Maughan carried as passenger on the return trip Sergeant Falls, who is on duty at Corvallis, Oregon, and who has been on detached service at the ROTC at the Presidio of San Francisco. Major C. K. Muhlenberg, whose permanent home is at Seattle, Washington, and who has been on detached service with the ROTC at Sacramento, California, returned with Lieut. Morgan. Major Muhlenberg remained overnight in Eugene and was flown to Salem, Oregon, by Capt. L. H. Smith the following morning, when Capt. Smith was flying forest patrol. In addition to the above passengers, Lieuts. Maughan and Morgan each brought 150 lbs. of supplies, and Sergeant Templeton brought 300 lbs. of supplies.

Capt. E. G. Reinartz, Medical Corps, arrived in Eugene Thursday evening, Aug. 4th, and will remain on duty with the detachment as Flight Surgeon until the end of the season. The Doctor was accompanied by Mrs. Reinartz, who has been visiting in Portland during his tour of duty at Camp Lewis.

Capt. L. H. Smith attended a conference of Forestry officials in Portland on Monday, July 31st, and was very much pleased with the satisfaction manifested by them of the methods of airplane patrol being conducted this year. For the past two weeks the atmosphere has been so clouded with smoke blown in from the many forest fires now burning that the Forestry Department Lookouts have been more or less ineffective, visibility being only about five miles. Planes and pilots have been kept available for immediate use by the Forestry officials, for scouting and reconnaissance purposes over their individual districts. Patrols during the week covered practically the entire forest area of the State, West of the Cascade Range.

In expressing his appreciation of the system used and the service rendered during the present Forest Patrol Season, Mr. F. H. Elliott, State Forester of Oregon, wrote as follows: "I feel that the system which we are using this year, namely, that of having our District Wardens act as Observers, will prove of much greater benefit than the system formerly used. In fact, the results already obtained have proven this and are most satisfactory to my field force and to myself."

Lieut. Emil C. Kiel, 91st Squadron (Observation), is expected to pay the Eugene Detachment a visit very shortly, as he and his wife will pass thru on their way back to Crissy Field from Iron Wood, Michigan.

Lieut. R. E. Self dropped in on Monday evening on his return to Crissy Field from Camp Lewis, and, owing to a number of minor repairs needed on his ship, he was detained in Eugene until Wednesday morning. "Robert Elmer" has quite a reputation as a culinary artist, and his short visit in Eugene was very much enjoyed by the officers detailed here. He was immediately put in charge of the kitchen, and succeeded in making his presence greatly appreciated.

The detachment received a shipment of tent hangars last week, and immediately went to work on their erection. The flying field has taken on an appearance resembling that of last year. It will now be possible to keep the ships in first class condition.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE September 30, 1922.

THE GORDON-BENNETT BALLOON RACE.

After a good deal of controversy, owing to the fact that he alighted from his balloon, which then ascended again, the Belgian aeronaut Demuyter has been declared the winner of the Gordon-Bennett Balloon Race, which started from Geneva, Switzerland, on August 6th. It was at first thought that Demuyter had been disqualified through his balloon escaping, but the instruments and log-book of the balloon have now been examined, and the distance covered, reckoned to the point of alighting, has been accepted. This is approximately 870 miles from Geneva. Mr. H.E. Honeywell, of St. Louis, Mo., one of the American entrants, finished second, covering 660 miles, and Bienaime, the French aeronaut, who covered a distance of 575 miles, finished third.

The Gordon-Bennett race was not devoid of excitement, some of the competitors being fired at by local militia, evidently taking the balloon for hostile aircraft. Others had their guide rope out and lost their balloon, while they themselves were hauled to the nearest police station, where it took several hours to convince the authorities of their innocence. This last named incident was the experience of Major Oscar Westover, of the Army Air Service, whose official report to the Chief of Air Service covering his participation in the race is as follows:

The Army Balloon Team arrived in Geneva on July 26th and spent the time prior to the race in full preparation therefor. The organization of the Team was as efficient and perfect as it had been for the National Race at Milwaukee. Moreover, the organization of the Swiss Aero Club, which conducted the Gordon-Bennett Race, was so complete and perfect that the Army Balloon was able to make the ascent in the International Race with every prospect of winning first place. The only difficulties experienced prior to the Race were those involved in getting meteorological and aerological information essential to a correct understanding of the conditions which might prevail on the day of the Race.

If it had not been for the arrangements made with the Meteorological Bureau in Paris, the Team would have been without any accurate knowledge of general conditions until four hours before the starting time, when the officials of the Race handed each contestant a wind-aloft report and a weather forecast for the day. Fortunately, the undersigned had followed every trail for information along these lines, and he was therefore able to satisfactorily diagnose the conditions at the start of the Race and so plan his flight as to escape the rain and snow storms which so many of the contestants encountered.

The Army Balloon having drawn fifth place had a very desirable starting position and was able to utilize to advantage the purpose of preliminary tactics of other contestants. The balloon left the ground at 4:42 p.m. directly along the line of one of the courses for flight which the undersigned had previously mapped out. A low altitude was taken at first in order to take advantage of the most northerly winds. It was soon observed, however, that weather conditions in the far west were inclined to be threatening and that the best policy would be to quickly seek altitude and to gain distance to the northeast in order to clear the high peaks of the Alps before being caught in any storm. This proved to be a wise course, as it not only enabled us to pass all preceding contestants except the Belgian pilot, Demuyter, but to clear the north of Switzerland before the storm began to be felt. In fact, when we began to turn eastward after midnight in order to head for the Pass in the Carpathian Mountains east of Belgrade, we were able to keep ahead of the storm and to get its full effect in speed.

Although the moon was shining part of the time, we traveled through clouds most of the night, and experienced the penetrating cold of temperature considerably below freezing. Neither the pilot nor his aid had time for any sleep during the flight, and after dawn in the morning we were pleased to note that we had adhered almost exactly to the course mapped out the night before. At daybreak

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we observed Demuyter's balloon still slightly ahead of us but far to our left. Our courses paralleled each other until about 7:00 a.m., when his balloon became lost in the clouds.

A careful check of our position and direction was made about every fifteen minutes, and at about 8:30 a.m. I noted that our balloon was being slowed down very materially and that the clouds overhead were having a decided drift towards our right, namely, towards the south. At this time we were flying between fourteen and sixteen thousand feet altitude. I therefore attempted to find out the force and direction of the wind beneath. An attempt was first made to strike an equilibrium at about 8,000 feet, where the wind seemed to be more advantageous than above. Expansion in the sunlight, however, soon again took us to a high altitude. Careful observation of the ground showed that the ground winds and fog in the valleys were moving very briskly toward the east and that their speed was so far in excess of our speed as to warrant adoption of a plan to fly near the ground. A descent was therefore made and so executed that when the drag rope hit the ground the rate of fall was only about 400 feet per minute. The basket bumped once and then the balloon began to seek its equilibrium. The force of the ground wind was immediately felt and we proceeded rapidly toward the east. We had gone but a few hundred yards, however, when peasants appeared from several directions and, despite all protests, seized and held our drag rope.

All our appeals seemed to have no effect. Increasing numbers of peasants appeared and hauled the balloon to the ground with considerable loss of gas. I ascertained that there was a man in the crowd who spoke German, and after repeatedly addressing him in German I convinced him that our mission was a peaceful one and that we should be allowed to depart at once. He harangued the crowd and, after about five minutes, succeeded in convincing them that we should be released. A new start was then made, but with a false lift owing to the loss of gas and the difficulty of making our wishes properly understood. The balloon had proceeded but a very short distance, however, probably not to exceed two hundred yards, when our drag rope was again seized by newly arriving peasants, who likewise paid no attention to our requests for release.

I discussed with my aid the advisability of cutting the drag rope and decided not to do so. The reasons for this were that to have cut the rope would have released so much weight as to have caused us to again go to higher altitudes where we would not have had the advantage of a wind in the direction in which we desired to go, and would therefore be giving up ballast without gaining distance. Moreover, such an act would undoubtedly have been considered with suspicion by the peasants.

Although we had approximately from six hundred to seven hundred pounds of ballast left at that time, another altitude flight would mean the loss of probably two to three hundred pounds of same. By keeping the drag rope we would save ballast and gain both distance and direction. Having explained our mission once, I felt it could be done again, and so it proved. After another delay of about five minutes, in which the services of the individual who spoke German were again utilized, we succeeded in effecting a release. By this time our balloon had lost so much gas, while being whipped around in the wind, that considerable ballast had to be sacrificed in order to make a good getaway. This time we safely cleared the ground with the drag rope, and were proceeding eastward in a very good breeze when we began to feel the effect of expansion and were shortly lifted to an elevation of almost a thousand feet. As the wind was strongest near the earth I gave my aid directions to valve just a little gas in order to keep us at low level.

Owing to the elongated shape of the balloon, due to loss of gas, it was very difficult to make the valve function properly. When it was noticed that there was no immediate response, both of us took hold of the valve cord and released what we considered sufficient gas to drop us perhaps two or three hundred feet. The desired effect was obtained, but, unfortunately, the balloon was also passing over a small wooded area and suffered contraction at the same time. We descended until our drag rope was again trailing on the ground. Upon clearing the wood, after having gone about a half mile the drag rope was again seized by many peasants and we were again forcibly held.

We discharged ballast quickly in an endeavor to keep the balloon off the ground while we again attempted to explain our presence and to request release. However, as there were between two and three hundred peasants, our balloon was soon hauled to earth and we were held against our protests until the arrival of gendarmes and the Rittmeister. The ground wind being quite strong, our

balloon was being whipped around in a bad way and made it necessary for a quick decision. There were one or two German-speaking peasants in this crowd, and from them I was able to gather that we would be investigated by the gendarmes and that we would not be allowed to proceed, as there is a regulation or decree prohibiting the flight of foreign aircraft over Hungarian territory. Inasmuch as the rules of the Gordon-Bennett Balloon Race require any landing over fifteen minutes to be classed as a final landing, I gave orders to rip the balloon. I directed my aid to do what he could with the assistance of such peasants as the German-speaking individual might prevail upon to help. I was taken to a nearby house where, with due formality, I was investigated and interrogated by first one gendarme and then another, each being equipped with some sort of manifesto which he would first read while standing. Then would follow many questions, the examination of my passport, restatements as to the reasons for our descent from high altitude and for throwing overboard oxygen tanks. It appears that the explosion of an empty oxygen tank which we had discarded as ballast in our descent from high altitude had caused many of the peasants to believe that our balloon was on some sort of a bombing mission. Other peasants believed it a signal for help. The gendarmes in turn made long written reports of the results of their investigations and I was not released until about three hours later. I was then informed that I would have to go to St. Gotthard and report to the military commandant and also to the Prefect or Commissioner of Police.

On my return to the field I found that the peasants had at last found out the effect of their action in stopping our balloon, and that they were now anxious to assist in any way possible. The balloon was carefully packed and arrangements made for hauling it to St. Gotthard. I was then informed that I must report to the Rittmeister again for visa of my passport. This consumed another hour.

En route to St. Gotthard we met two Royal Hungarian Army officers who, upon learning of our predicament and the circumstances attending same, volunteered to assist us at St. Gotthard. Captain ~~Serry~~ spoke very good English and, owing to his previous association with officers of the American Army while imprisoned in Siberia, was very anxious to help. Through his kind offices we soon cleared the office of the Prefect of Police and completed the investigations before the Military Commandant. He also obtained lodgings for us at the Abbey of St. Gotthard. He, together with two other officers of the Royal Hungarian Army, presented us upon our departure with a letter which expressed their regret concerning the circumstances which terminated our race.

An analysis of the generalship of the race leads me to confirm my course as pilot and to report that I feel that the Army Balloon Team made every possible legitimate effort to win the race, and that our failure to win it was due to circumstances beyond our control. It is easy to look back now and to feel that, if a decision had not been made to take advantage of the ground winds, we might have gone farther and perhaps won second place. Such reconsiderations are of no avail, however, because they do not take into consideration the fact that we were racing for first place, and that our generalship required us to take advantage of the fastest winds with the minimum expenditure of ballast. By drag roping without molestation we should have been able without doubt to have reached Belgrade by about 7 p.m., and if we had any ballast left we could have attempted to cross the Carpathians by a flight in equilibrium after dark.

The results of the race will not be known for several weeks probably. Even with the circumstances as they were the Army Balloon is now listed as a possible fourth, there being one Italian and one Belgian balloon which have covered distances about the same length. Incidentally, reports received by the Swiss Aero Club show that at least three other balloons were halted and forced to discontinue the race under circumstances similar to our own.

In closing this report I wish to pay tribute to the efficiency and hospitality of the Aero Club of Switzerland and the City of Geneva. Everything pertaining to the preparation for and conduct of the race was carried out with the greatest detail of organization and precision. The American Balloon Team has gained many valuable ideas concerning such matters and will be able to assist the Aero Club of America in preparing for such races, should we be fortunate enough to have the races held in our country. I have expressed by letters, and the American Team has expressed by formal entertainment, our appreciation of the many courtesies extended during our stay in Geneva.

I wish also to state herein that the work of my assistants (1st Lieuts. Carlton F. Bond and Wm. E. Connelly) in preparing for the race left nothing to

be desired. Great praise is due to them for the efficiency with which they performed their duties and for the particularly noteworthy way in which they laid out all balloon equipment for use in the race. The American equipment was practically an exhibition in itself, and it attracted the attention and commendation of almost every one who saw it.

It gives me great regret to report that I was unable to finish the race and thus to deprive the Army Balloon of at least a winning place in the list."

The letter which the three Hungarian Army officers handed to Major Westover reads as follows:

"Szeutgotthard, 1922 Aug. 7th.

We the undersigned, officers of the Royal Hungarian Army, state herewith that, Major Oscar Westover and Lieut. Carleton L. Bond, U. S. Air Service, piloting the Army Balloon No. 4 for the Gordon Bennett Cup of 1922, were forced to land without their fault, near Csoretneck, a Hungarian village between Normeud and Szeutgotthard (valley of the Raba river).

Driven southward, they looked for a favorable current of air and came so near to earth that the landing rope touched it. Despite of all their exertions they were not able to ascend within some minutes and the cropping peasants could not help thinking they are about to land. Thus people rushed on and held seize of the rope, not understanding the shouts of Major Westover to let it go. More and more of the peasantry came on and caught the rope. Meanwhile the balloon lost so much of gas that it was quite impossible to continue the flight and the U. S. officers were compelled to come down and give up the race.

Well understanding that they will have to explain the reasons of their landing, we give this statement of our own accord and are sorry for the Stars and Stripes.

Capt. Eugene Saary
 Capt. John Reul
 Capt. Valer Braila."

CONSOLIDATION OF SCHOOLS AT CHANUTE FIELD

The consolidation of the Air Service Mechanics School, the Air Service Photographic School and the Air Service Communication School into one organization known as the Air Service Technical School, Major Frederick L. Martin, Commandant, has occupied an important part in the recent activities on Chanute field, Rantoul, Ill. The training carried on by the new organization will be under the direction of Major Follet Bradley, Air Service, Assistant Commandant.

The following officers will have charge of the separate departments of the School. Captain L. P. Hickey, Air Service Communication; Captain W. D. Wheeler, Air Service Photographic; 1st. Lieut. Frank M. Paul, Air Service Mechanics, Heavier-than-Air; and 1st Lieut. John W. Shoptaw, Air Service Mechanics, Lighter-than-Air.

PREPARATIONS FOR THE PULITZER RACE

The Chief of Air Service has approved the list of Army Air Service pilots and alternates who are to participate in the National Airplane Races at Mt. Clemens, Mich., from October 7th to 14th next. A monster grandstand is under course of construction at Mt. Clemens to accommodate the thousands who usually attend national sporting events.

The National Airplane Races this year will be as important as the National Motor Car Races in the early days, because they will bring out the qualities and defects in the various flying machines. The main event will be the Pulitzer Trophy Race, a contest for the fastest land machines, which will be held over a triangular course totalling 160 miles (4 laps of 40 miles each), the entire course being over the waters of Lake St. Clair, with the exception of the landing and finishing point at Selfridge Field at Mt. Clemens.

The Army pilots and alternates, and the machines they are to fly, are as follows:

Events	Type	Pilot	Alternate
Event No. 2	L.W.F. "Owl"	Lt. Ernest E. Harmon	Lt. Leslie P. Arnold
Large capacity	Martin Bomber	Capt. W.R. Lawson	Lt. Raymond E. Davis
multi-motored	" "	Lt. Charles M. Cummings	Lt. Levi L. Beery
airplanes			

	Martin Bomber	Lt. Gerald E. Ballard	Lt. Chas. B. Austin
	" "	Lt. Phillips Melville	Major John H. Pirie
	Martin Transport	Lt. Erik H. Nelson	Lt. W.H. Erpokley
<u>Event No. 3.</u>			
Light Commercial airplanes	Fokker Transport DH4B "Honeymoon Express"	Lt. O. G. Kelly Lt. Harold R. Harris	Lt. R. S. Worthington Major Fred H. Coleman
<u>Event No. 4.</u>			
Observation type, 2-passenger airplanes	DH4B " " " " " " LePere " " XBIA " "	Lt. Benj. R. Morton Lt. James D. Givens Lt. Warren R. Carter Major Follet Bradley Lt. T. K. Koenig Lt. Wn. L. Boyd Lt. Dale V. Gaffney Capt. Lloyd L. Harvey	Lt. Frank M. Paul Capt. Ernest Clark Lt. Edwin B. Robzien Major F. L. Martin Lt. John W. Monahan Lt. Geo. W. Goddard Lt. Delmar H. Dunton Lt. Howard K. Ramey
<u>Event No. 4.</u>			
High Speed Pulitzer Race	VCP-1-600 h.p. Curtiss CD-12 " " Loening, 600 h.p. " " " Thomas Morse 600 h.p. Verville-Sperry R-3, 380 h.p. " " * " " " Thomas-Morse, M. B.-3 " " " " " " " " " "	Lt. C. C. Moseley Lt. R. L. Maughan Lt. L. J. Maitland Lt. E. C. Whitehead Lt. L. D. Schulze Capt. F. D. D. Hunter Lt. C. L. Bissell Lt. E. H. Barksdale Capt. St. C. Street Lt. Fonda B. Johnson Capt. Burt E. Skeel Lt. Benj. K. McBride Capt. H. M. Elmendorf Lt. Donald F. Stace Capt. O. W. Broberg Lt. James D. Summers	Lt. Leigh Wade Lt. Bushrod Hoppin Lt. Caleb V. Haynes Lt. G. P. Tourtellot Lt. J. T. Hutchison Lt. C. E. Crumrine Lt. T. K. Matthews Lt. G. E. McDonald Lt. V. S. Miner Lt. K. N. Walker Capt. A. M. Guidera Lt. Walter H. Reid Capt. Vincent B. Dixon Lt. Roy B. Mosher Lt. Hobert R. Yeager Lt. Roy W. Camblin

* Seaplane

Several officers recently arrived at Mitchel Field, L. I., New York, from other Air Service stations to secure the new service airplanes being built for the use of the Air Service for pursuit work and to make the necessary final preparations incident to entry in the Pulitzer Race. Among these officers are Lieut. Russell L. Maughan from Mather Field, Mills, Calif.; Lieut. Lester J. Maitland, from Bolling Field, Anacostia, D. C., and Lieut. Fonda B. Johnson from Kelly Field, San Antonio, Texas. The Air Service officers from Mitchel Field who are to participate in the Race are all now on duty with the various aircraft corporations on Long Island witnessing the final set up and sand test of their planes. Preparation for the Pulitzer Race furnishes an excellent example of the aerial activities centered around Long Island.

The Sperry Aircraft Corporation, the Curtiss Aircraft Corporation, the L.W.F. Engineering Co. and the Loening Aircraft Engineering Co. are all putting forth their greatest effort to have several planes among those which they have on order for the Army Air Service in tip top shape and in readiness for the Race.

In addition to the planes being built by these companies for the Army and for themselves for entry in this Race, they are also engaged in building Navy racers. Two of the latter have already been completed, have been moved to Mitchel Field, and are now being flown almost daily in their speed tests there.

MAJOR WEAVER FLIES TO WASHINGTON

Major W. R. Weaver, Air Service, Commanding Officer of Mitchel Field, made a flight to Washington, D. C., in a plane which has been newly set up and constructed for his use at this station. He was joined at Bolling Field, D. C., by four other airplanes from Mitchel Field, and a formation was flown on his return. Major Weaver visited Washington in an effort to secure additional funds for activities at Mitchel Field and to secure authority for several Air Service extensions and projects which he has in mind to accomplish shortly at that field.

BROOKS FIELD GETS NEW HOSPITAL PLANE

The Primary Flying School at Brooks Field, San Antonio, Texas, recently received a new white hospital plane, designed and built by McCook Field, and delivered via the Repair Depot at Kelly Field No. 1. This plane is a remodeled Curtiss JN6, equipped with a Wright motor, 180 h.p. The fuselage is enlarged to accommodate the patient in a prone position. A seat facing the patient, between patient and pilot, has been installed for an attendant. The plane with full load has been given several test flights by pilots from the field and it is reported that, although it is an ideal ambulance plane so far as the patient's comfort is concerned, it is loggy, nose heavy and slightly under-powered. It is also slower in getting off than a Standard Curtiss JN6 with 150 h.p. Wright motor.

SOMETHING IN THE WAY OF A FISH STORY

Fishing is a popular outdoor sport amongst Air Service personnel. Here is "some" fish story just received from the 3rd Group (Attack) stationed at Kelly Field. To appreciate this story, it is necessary to know all the characters concerned.

In the last Communications Class at Post Field, Fort Sill, Okla., there was a Captain Davis, Lighter-than-Air officer, a fisherman with a long string of records which he piled up beginning back in his boyhood days in Virginia and leading up through his long stay in the potato country of Maine.

In the vicinity of Medicine Park in Oklahoma, during certain seasons of the year, very good fishing is had, and Captain Davis, the fisherman with the well-known fishing and potato-eating record, set out to show up the other members of the Communications Class, including Lieuts. Charles Howard, Harvey Prosser and many other good fishermen of the amateur class.

At lunch hour all the fishermen had assembled in the club for the purpose of having mess and discussing the morning fishing trip. Most of the inferior fishermen had caught from six to thirty of various sizes, such as croppies and small cat run. But Captain Davis, being the most experienced fisherman as well as potato-eater, was expected to make a wonderful showing. When the Captain arrived and took his seat it was noticed by all that he was very low in spirits, and after a few moments, some brave lieutenant asked the Captain about his luck during the fishing trip. "Well", said the Captain, "I fished most all morning and had a string of about forty fish, mostly bass, and about ten minutes before I came home I placed the fish in the water on the string to keep them fresh, but when I returned to get the fish a turtle had eaten all of them."

Now the class had been fishing in this vicinity numerous times and had the bait eaten off their hooks, but never had the turtles been so vicious. So it was figured out by one of the officers that, according to the Reciprocal of the sum of Reciprocals, it would have to be some turtle to eat that string of fish in ten minutes, but somebody passed the Captain the potatoes and all was well with Captain Gauss.

FROM SAN ANTONIO TO NEW ORLEANS IN 4½ HOURS.

Captain W. P. Hayes and Master-Sergeant C. W. Kolinsky of the 90th Squadron, stationed at Kelly Field, San Antonio, Texas, recently made a test flight to New Orleans, La., with a remodeled DH4 airplane. They left Kelly Field at 6:15 a.m. and made the 560 miles to New Orleans in four hours and thirty minutes flying time, or at the rate of slightly over 124 miles an hour. One had only to do this trip by train at a temperature of 94 in the shade to become an enthusiastic exponent of aviation.

Captain Hayes reports that, although the field at New Orleans was supposed to be in good condition, well sodded, he found the grass about eight feet high. However, after negotiating a landing, it required four mules and eight men to get the ship out. The mules were furnished by the Park Department in preference to cutting the grass. Captain Hayes reports that every courtesy was shown by the city authorities and various civic organizations. They stated, in explaining the condition of the field, that Captain Hayes' ship was the first one to stop at New Orleans for some months. It would therefore seem advisable to encourage these municipal landing fields by more frequent flights.

Our Kelly Field Correspondent hopes the War Department will concur in this matter, as the Kelly Field pilots are certainly willing to do their part. He states that when the Captain left New Orleans the field had been put in good shape and hopes that the "Kellyites" will see to it that it is maintained in that condition.

COMPLETION OF THE R.O.T.C. AT MATHER FIELD

The completion recently at Mather Field, Mills, Calif., of the Reserve Officers Training Camp, with 18 students from the Universities of California and Washington, was marked by appropriate graduation exercises held at the Officers' Club. Certificates of qualification were presented to students, and Major H.C.K. Muhlenberg, commander of the camp, and Major B. M. Atkinson, post commander, addressed the graduates. An exceptionally good dinner was served later, followed by a stag party in the Officers' Club.

SAFEGUARDING CROSS-COUNTRY FLYING IN THE PHILIPPINES

New instructions contained in a Philippine Department Bulletin have been issued to all Air Service organizations in the Islands, listing the equipment that will be required to be carried on all planes going on cross-country flights, and outlining the procedure incident to sending messages reporting arrivals and departures of planes. To the uninitiated in the flying conditions and hazards in the Philippines, it may seem that precautions taken are exaggerated, but after one has done some cross-country flying over country studded with rice paddies or over a vast expanse of territory presenting a perfect carpet of coconut palms to a pilot's eye, and after a few trips inland and seaplanes across water fairly prolific with such playful "denizens of the deep" as man-eating sharks, none of these precautions seem at all superfluous. To the personal knowledge of several of the boys who have experienced forced landings in the middle of Manila Bay, a body of water which assumes oceanic proportions when one is anchored somewhere near its center with a disabled motor, it is a comforting feeling to know that at a certain time your non-arrival will be noted and that at approximately a certain minute you can expect to see a rescue plane hovering over you. The instructions issued are very explicit and are welcomed as removing many of the hazards from cross-country flying.

CROSS COUNTRY FLYING

Cross-country flights to California have become quite a popular pastime these days amongst Army Air Service pilots. These flights not only afford excellent cross-country flying practice for them, but they are of material value to the Air Service in the work it is conducting along the line of establishing aerial routes over this country, since pilots on all cross-country trips make it a point to investigate possible landing places along their route.

Recently Lieut. Westside T. Larson, Commanding Officer of Air Park No. 5, Kelly Field, Texas, left that field, accompanied by Staff Sergeant Wallace, at 5:10 a.m., en route to Crissy Field, Presidio of San Francisco, California, via El Paso, Texas; Nogales, Arizona, and San Diego, Calif. It was Lieut. Larson's intention to make Rockwell Field the first day and on the following day to fly northward to Crissy Field.

The plane used was a DH-4B-1 belonging to the 26th Squadron. This engine consumes very little gas. On a test flight with only 30 gallons of gasoline in the main tank, the plane remained in the air 69 minutes, at a cruising speed of 1450 r.p.m., before the engine began to miss fire. This is something out of the ordinary, as the general average is from 20 to 25 gallons per hour.

The first stop was made at El Paso, Texas, after five hours' flying time. Thirty minutes were consumed in servicing the plane, after which flight was resumed to Nogales, Arizona, which was reached after 2 hours and 42 minutes. Only twenty minutes were required to service the plane, and the last leg of the flight, between Nogales and San Diego, Calif., was accomplished in 4 hours and 10 minutes, the distance between San Antonio and San Diego of approximately 100 miles airline being accomplished in 11 hours and 52 minutes flying time.

After spending the night at San Diego, the airman took off the next morning for Los Angeles - flying time one hour and ten minutes. They remained two days in Los Angeles and then flew to San Francisco in 4 hours and 30 minutes. Visits were then made to Mather Field and Modesto.

On the return flight stops were made at Los Angeles and San Diego, the night being spent at the latter place. Resuming the flight the next day, and stopping at El Paso and Marfa, Kelly Field was reached by sundown the same day.

Lieut. Larson reports that very good service was obtained at all stations.

PROGRESS OF THE AIR SERVICE MECHANICS SCHOOL

A total of one hundred and seventy three (173) students have successfully graduated from the various courses of the Air Service Mechanics School, now known as the Mechanics Department, Heavier-than-Air since July 1, 1922. The number from the various courses follows:

Fabric workers -----	5
Airplane mechanics -----	37
Machinists -----	6
Auto mechanics -----	12
Armorers -----	16
Engine mechanics -----	55
Cabinet makers -----	5
Ignition Experts -----	15
Welders, gas -----	4
Clerks -----	13
Vulcanizers -----	5
Total	<u>173</u>

In addition to the above, a class of twelve (12) Chief Petty Officers, U. S. Navy, will complete the course for Riggers, parachute, on August 25, 1922. It may be added that a feature of this course has been the fact that each student has been flown to McCook Field, Dayton, Ohio, and has spent several hours there studying the latest types of parachutes as well as data gained from current experiments along this line.

AIRPLANE ESCORT FOR THE VICE PRESIDENT

During the recent visit of the Vice President to Eugene, Oregon, a formation of three airplanes from the Army Air Service Detachment on duty at that place in connection with the fire patrol of the Oregon forests, escorted Mr. Coolidge from Cottage Grove to Eugene, a distance of about 25 miles.

SUCCESSFUL RADIO BROADCASTING AT EUGENE, OREGON.

The Army Air Service broadcasting station at the flying field at Eugene, Oregon, has been meeting with remarkable success. It is the only broadcasting station of any size in Eugene. So far phonograph music and short talks on forest fire patrol and prevention have been the main topics. It is hoped shortly to fix up a real broadcasting room and broadcast music by local orchestras. Great enthusiasm is being shown, and the "loud speaker receiving station" at the city park is attended by large crowds on concert nights.

INVESTIGATING LANDING FIELDS IN NEW ENGLAND STATES ✓

Lieutenant C. H. Howard, Air Service, recently returned from a fifteen hundred mile cross-country trip into Maine and Vermont, where he marked emergency landing fields and selected five large tracts of land which will be suitable for use in concentrating large divisions of the Air Force in case of emergency.

Lieutenant Samuel M. Connell, Air Service, performed a similar mission through Northern New York, Connecticut and New Hampshire, traveling 1200 miles. He marked all emergency fields and located six large tracts of land near certain of the larger towns of New York State where encampments could most easily be located in time of emergency.

NATIONAL GUARD AIRMEN RECEIVE TRAINING AT MITCHEL FIELD

The training of the 101st Squadron, Massachusetts National Guard, recently conducted at Mitchel Field, L. I., New York, has progressed very satisfactorily, and all of the pilots have been found to be very enthusiastic fliers. The squadron has been operating six planes and kept them in almost continuous flying service, the flying time averaging about 25 hours daily. The planes of the squadron have been kept in condition by the enlisted mechanics of the National Guard, as the services of only six crew chiefs of the Regular Service have been furnished.

During the training period of the squadron, the Adjutant General of the State of Massachusetts paid two visits to Mitchel Field to observe the progress made.

The Squadron terminated its training on September 9th and departed for Boston, Mass., the following day. The following officers have been on duty at Mitchel Field as members of the squadron:

Major C. H. Woolley, Captains L.E. Boutwell, H.N. Carlson, H.E. Willis, C.R. Boynton, Frederick Simonds; 1st Lieuts. Melvin W. Cole, Gardiner H. Fiske, Clarence E. Hodge, W. E. Muther, Robert R. Sewell, Alfred K. Warren, Jr.; 2nd Lieutenants Joseph K. Barber, Edward S. Beck, Manson M. Dillaway, C.A. Morse, Jr., Conrad P. Richardson, Kitchell Snow and George E. Sprague.

FLIGHT SURGEONS SCHOOL OPENS FALL TERM.

The Medical Research Laboratory and School for Flight Surgeons at Mitchel Field, L.I., New York, opened its fall term recently with a class of twenty students in attendance, twelve of whom are Naval officers and eight Medical officers of the Army. They will remain at Mitchel Field for a three months' course, upon completion of which they will be returned to their original stations for duty as Flight Surgeons, either in the Army, Navy or Marine Corps.

B AIR SERVICE RESERVE OFFICERS GET THE FEEL OF THE AIR AGAIN

Bringing with them the air and spirit of the days of 1918, a total of sixty Air Service Reserve officers reported at Mather Field, Mill, Calif., and spent a couple of strenuous weeks brushing up their knowledge of Air Service work gained during the war and "oiling up" their touch on the old "joy-stick". Even the starting of classes at 7:30 a.m. did not dampen their enthusiasm. Each officer who reported was given a 609 examination (physical examination for Army pilots) and was tested by one of the flying instructors before being "turned loose" with a ship.

Instruction was given in practical motor work, the theory of operation of engines, airplanes, machine guns and radio equipment. Pistol firing and trap shooting seemed to be very popular. Opportunity for swimming and other athletics was taken advantage of each day.

Taking into consideration the fact that the majority of the students had had no flying training during the last two or three years, the course was a pronounced success. Congratulations and credit are due the officers who acted as flying instructors for their continual vigilance over the fliers, and credit is also due the Reserve Officers for their carefulness.

Although the camp was handicapped throughout by a shortage of personnel, planes and equipment, the hearty cooperation of everyone concerned contributed largely to the success of the camp, a matter of much gratification not only to the Regular Army Air Service personnel but to the high type of men who left their regular vocations for a brief spell to get another taste of military life.

Mather Field officers feel that a great deal has been accomplished, both for the Reserves and the Regular Establishment, in this reunion of the Regulars and Reserves, even though it was only for a short time. The information gained by the Reserves on latest developments in the Army Air Service and the keen interest they displayed in their work cannot but redound to the benefit of aviation.

Social activities were planned and much enjoyed by the Reserves and their families while they were at Mather Field. A general feeling of good will and congeniality prevailed during the whole period of their stay at the camp.

SQUADRON NEWS

Kelly Field, San Antonio, Texas, August 5.

First Lieutenant Samuel M. Lunt was killed on the morning of August 1st, 1922, when the SE5 with which he was practicing accuracy landings went into a spin and crashed near the east end of the main road. Lieutenant Lunt recently completed the course in advanced bombardment and began the course in pursuit July 15th, 1922. The loss of Lieutenant Lunt is keenly felt at Kelly Field.

Arrangements are being made for the Tenth Group (School) to participate in several interesting missions during the coming week. A mission will be flown at Fort Sam Houston, and artillery adjustments will be carried on at Camp Stanley with the Field Artillery and at Fort Crockett with the Coast Artillery.

Captain Giffin made a flight to Ellington Field for the purpose of securing data on the Houston Ship Channel. Photo Section No. 22 is planning to make a mosaic of the entire channel from Galveston to Houston.

Our (intrepid) Lieutenant L. S. Andrews, with Technical Sergeant (Ex Count) James W. Kelly as passenger, made a cross country flight to Del Rio, Texas, just to keep his hand in.

Pay day has come and gone for some of our number, and to those latter unfortunates the squadron insignia "Sevening Dice" is a sad reminder of broken hopes.

Sergeant Barend, the statistician has finished his regular monthly reports and is contemplating buying a chicken ranch. He maintains that raising chickens has no mysteries for a man that can solve such puzzles as A. S. Form #136, T. & O. Reports, O.D.A.S. 12, O.D.A.S. 13 etc.

TWENTY SIXTH SQUADRON:- Lieutenant Harlan T. McCormick of the 41st Squadron (School), with Private Greenwade as passenger, started on a cross country flight to Laredo, Texas, Saturday. They were caught in a storm at Cotulla and were forced to abandon the trip and return to Kelly Field. At 1:00 p.m. the same day Lieut. McCormick and Lieut. Greenslade again took off for Laredo and made a successful flight.

The Training and Operations report for this organization for the semi-monthly report ending July 31, was the largest this squadron has submitted since its organization. The total flying time for officers assigned and those not assigned was 108 hours. Reserve Officers Training and ROTC Cadet instructions took up most of the total. The period of training for these officers and cadets ended July 27th.

THIRTEENTH SQUADRON:- Sergeant Major Benson, of this squadron, has other ideas than those required of him in the performance of his duties. He is promoting another Kelly Field Fite Nite. It was to have taken place on August 1st, but due to the unfortunate accident which caused the death of Lieutenant Samuel Lunt the bouts were postponed until August 8th. He matched Joe Garrett of the 13th with Jack Fowler, former Lightweight Champion of the Army, for the main event, which is scheduled to go ten rounds. The two boys have met before, when a "draw" resulted. Fowler is a clever fighter, and Garrett besides being fairly clever, has the best punching power. It should be one of those bouts that the boys talk about for a long time after.

The officers and enlisted men of this organization are sorry to hear that Major Hefferman is to go to the School Group, and through the medium of this letter desire to wish the Major every success. His services on the Border, and here at Kelly Field, as the Commanding Officer of this Group will always be remembered by the loyalty and co-operations that all of us received. We also want to assure Colonel Cook, our new Commanding Officer that, as the men say, "this outfit is putting out" and we hope that he will express his confidence in us by calling on us at any time for the performance of any duty.

The recruit training that each of the new embryo aviators (?) receives each morning has its advantages, not only to the organization as a whole, but to one certain individual, at least. He had missed reveille ironically, and, therefore, instead of worshipping at the Post Chapel on the Sabbath, he had to meditate the ways and wherefores of a relentless First Sergeant while doing such duties as Kitchen Police, wood details, etc. After due investigation and a series of watchful waiting, one of the non-commissioned officers trailed the recruit in question, and the trail led to the 90th Squadron, where he would fall in with that organization for reveille. Incidentally he says that this "recruit fatigue" is not conducive to a peaceful state of mind, although the 4:45 a.m. reveille has its hazards.

Kelly Field, San Antonio, Texas, Aug. 12.

The 3rd Group (Attack) is once again being commanded by a Lieutenant Colonel. On the first day of the month orders were published relieving Major Leo G. Hefferman, who has commanded the Group since November, 1920, and Lieut. Col. Seth W. Cook now has command of what we think is the most efficient organization of the Air Service. Sincere regret was felt by every member of the organization over Major Hefferman's departure, as he had pulled the old Group out of many a deep hole, and all hope that the Group will continue its good record under the new Commanding Officer. Major Hefferman is now Director of Training in the new Group (School).

1st Lieut. Edgar T. Selzer left on a cross country trip for Houston, Dallas, and Little Rock for the purpose of mapping airways.

The ghost walked for the first time under the new pay bill, and the officers of the 90th Squadron (Attack) have been busy studying the official register and expressing opinions regarding it. This volume has created more furor lately than the season's best seller. Heretofore many officers, who were scarcely aware of the existence of such a thing, are now enthusiastic readers. Several officers are on a fair way to qualify for duty with the Finance Department, if it is ever necessary for them to give up flying. Some of the officers are preparing a query for the Comptroller which goes something like this:

"If A. enlisted as Private 1st Class, A.S.S.E.R.C., U.S.A. and was commissioned a 2nd Lieutenant, A.S.N.A. (non-flying), and B. enlisted 15 days after A. as a Buck, U.S.A. and was commissioned a 1st Lieutenant, A.S.N.A. (non-flying), why does B. draw \$8.00 more than A. and rank him on the Promotion List?"

Some of our local guessers have tried their hand at making a solution but most of them end up with - "I'll bite, why does he?"

The 90th Squadron (Attack), upon the eve of Lieut. Doolittle's departure for his new duties at McCook Field, wishes to express sincere regret at the loss of a friend and comrade in little "Jimmy". He feels confident, however, that his new assignment will bring fresh laurels to him as well as to the Service at large.

The Commanding Officer of the 90th Squadron, in accordance with orders from the Post Surgeon, expects to spend several days in getting acquainted with his family, and for the present, at least, all communications must be held at long range. Therefore, if his manner appears "stand offish", don't hold it against him, he's following orders. It is understood that as soon as the weather topic is exhausted Captain and Mrs. Hayes will devote themselves to preparing a thesis on Permanent Quarters at Flying Fields.

Lieut. L. S. Andrews held officers call at 5:30 a.m. twice this week in the G.A.X. triplane, much to the discomfort of the officers. Several petitions have already been received recommending that this officer be grounded until he will listen to reason. As a surprise to all, this plane is still in serviceable condition.

Lieut. Williams, of the 10th Group (School), who claims he will try everything once, made a flight with Lieut. Andrews in the G. A. X. for instructional purposes. Evidently that was enough, for to date no requests have been received to solo the ship.

Staff Sergeant Kenyon, who has completed twenty years service, is looking ahead. He has applied for a detail on the D.E.M.L., evidently figuring that after a decade of "fatigue" one must approach gradually the shock of giving up active duty. Pretty soft for him....if he makes it.

Master Sergeant Kolinaki is still booming the Creole City. He believes it is our duty to make them keep that landing field up, and maintains that frequent trips is the only efficient manner of promoting this project.

Captain Voss of the 10th Group, School, with Private Greenwade of the 26th Squadron (Attack), made a successful cross-country flight to Laredo, Texas, on August 5th returning the following day.

Lieut. D. V. Gaffney, Adjutant of the Attack Group, with Captain Pace, as passenger, flew to Laredo, Texas on August 5th, using a ship from the 26th Squadron. The return trip was made the next day.

1st Sergeant William Bird, of the 26th Squadron, who was recently discharged and re-enlisted, is at present on a 30-day forlough. Staff Sergeant Charles Feyk is acting 1st Sergeant during his absence.

A road scraper has been received and is now in operation on the field, grading and levelling the ground south of the hangars. A depression in the terrain has gradually become larger and the levelling of same will be of benefit to both pilots and ships. Work on the machine shop has progressed steadily, and separate rooms have been screened for the work shop and stock room.

Two artillery missions were completed this week by the 13th Squadron (Attack) and were pronounced successful. The work was regulating fire and spotting the targets for the guns to fire on. The shots were recorded, and corrected ranges were given in a manner that was very satisfactory to them.

The postponed Fite Nite was held last Wednesday, August 9th, and was very well attended. It was given in order that the athletic fund might become a "fund" in reality, and from that standpoint alone it was a success. Joe Garrett and Jack Fowler fought ten slashing rounds which resulted in a decision for Garrett. It was not the kind of a fight that the fans like to see because it bordered too much on the nature of an exhibition. There was quite a lot of infighting which is not interesting to watch, from a spectacular standpoint and was very trying on the ability of the participants. On the whole it was a good evening, with plenty of excitement. Sergeant Benson expressed his satisfaction with the results, both financially and otherwise, and is anticipating putting on some more "fite nites" for Kelly Field that will bring together some of the best boys that can be obtained.

With the 8th Squadron (Attack), the past week was devoted to recuperation from the strenuous grind of the past month. A few practice flights, one or two cross country trips to Del Rio, etc. have constituted the major portion of their operations.

Kelly Field is expecting to soon entertain about 150 members of the C.M.T.C., and it is anticipated that they will like the Air Service branch better than any other arm of the service. Lieut. Pinkley, Captain O'Connor and Lieut. Lignon, formerly attached to this organization for reserve training, are detailed as instructors for the Air Service Units of the C.M.T.C., at Camp Travis.

Lieut. Woodruff, accompanied by Sergeant Wallace and a detail of mechanics from Air Park #5, made a trip to Camp Travis by auto to inspect a plane of the 8th Aero Squadron which had a forced landing at that Camp, caused by the fact that the tipping of the propeller came off. Lieut. Woodruff, as Airplane Inspector of the 3rd Group (Attack), was detailed to examine the plane and determine whether or not it would be possible to fly the plane back. If not, to disassemble it and return it by truck. Upon arrival it was found necessary to remove a part of the tipping from the opposite side of the propeller, in order to balance it, and Lieut. Woodruff then taxied the plane to an open field and took off, arriving at Kelly Field about an hour later.

The officers of the 5th Air Park participated in a lot of flying during the past week, considering the strength of the organization, having made 23 flights with a total of 230 minutes spent in the air.

During the first week Lieut. Max F. Schneider, of the 1st Wing Headquarters, was experimenting with radio and radio-phone and states that he has been able to hear clearly within a distance of 30 miles from the field. He says that with a few alterations he will be able to hold conversation with Kelly Field, within a radius of 60 miles.

During the past week several problems were conducted by observers from the 10th Group with the Second Division and 15th Field Artillery. Experiments with orange and white panels demonstrated that the white panels are very much clearer and more easily distinguished than the orange panels.

The Artillery problems with the 15th Field Artillery were fired at Camp Stanley. The ground forms at Camp Stanley are readily recognized from the air and targets can be easily identified. Due to the dry condition of the ground, the shells caused considerable dust upon explosion, and the location of the bursts was possible even though visibility at the time was poor because of cloudiness and approaching rainstorms.

The 10th Group Baseball Team played their first game last Wednesday. The game was lost to the S.A.A.I.D, Team of Kelly Field #1 by a score of 13 to 9. With a good battery such as the 10th Group has (Major Reynolds pitching and Lieut. Beverley catching) the 10th Group needs only a little practice in fielding to take on the 3rd Group, Kelly #1 and Brooks Field.

Camp Nichols, Rizal, P. I., July 1.

A detachment of eighteen enlisted men and four officers arrived from Fort Mills, Corregidor Island, and are quartered at the old Headquarters Detachment camp at Paranaque Beach. The Officers are First Lieutenants Gravely, Gabriel, Drum, and Johnson. With the exception of Lieutenant Johnson, none of them have ever been stationed at this field. In Lieutenant Johnson's case, however, it is the third offense, and, as a consequence, speculation as to the great attraction occupies the minds of the rest of Commissioned personnel. Perhaps, however, it is merely a case of the proverbial bad penny.

Work on the Inter-Post communications system is very nearly completed, much to the relief of First Lieutenant Lawton who is in charge of the work. With the masts and antenna erected, the sets installed and the juice turned on, Lieutenant Lawton feels that he can now sit back and rest on his laurels. We feel, however, that, inasmuch as Lieutenant Lawton has shown his ability as an organizer and a hustler, he would make an excellent Post Exchange or Supply Officer.

The erection and repair of hangars and warehouses has been somewhat slighted during the past week in favor of preparations for the coming qualification tests to be held at this field between July 1st and 15th. Owing to the uncertainty of the exact date of arrival of the annual rainy season, it is imperative that these tests be held as soon as possible.

Great trouble is being experienced in persuading the Air Service Officers at this field to have their pictures taken to be forwarded to the Chief of Air Service. Whether this is caused by an exaggerated sense of modesty, or fear of the coming reduction in the Army, has not been determined.

Camp Nichols, Rizal, P. I., July 8.

Continuous rain since July 1st makes it doubtful if the Qualification Test to be held at this station will be completed before July 15th. The arrival of the annual rainy season has made out door preparation for the Tests impossible and, should the rain continue, flying will be out of the question.

Fourth of July was as usual celebrated by a big feed. The athletic program planned was vetoed by a down pour of rain, in consequence of which a long distance "sleep contest" was enjoyed by the entire personnel.

Appropriations for the fiscal year 1923 allotted approximately \$100,000.00 for the construction of hangars and barracks at this station. This was cheering news to First Lieutenant Malcolm S. Lawton, who had labored unceasingly for the past month erecting a radio shack only to find that it will have to be demolished to make room for a Barracks.

Camp Nichols, Rizal, P. I., July 15.

The Qualification Tests for all pilots assigned this station, were held during the few minutes of clear weather each day last week. Considering the wet and soggy condition of the flying field the tests were even more difficult than was originally planned. Every-day flying in the Philippines in the rainy season is in itself sufficient to qualify pilots of the Air Service.

First Lieutenants Aldrin, Nutt, and Lawton were admitted to the Hospital on Thursday of this week. All three of these officers took sick on the same day with a slight attack of the Philippine Islands favorite indoor sport - dengue fever. Cheer up! The first three years are the hardest.

Kindley Field, Fort Mills, P. I., July 3.

Both the 17th and 27th Balloon Companies have been on the range the whole week for the annual target practice. As a result of the preliminary training which they received in sighting and other exercise, the personnel firing are making excellent scores. The actual number of men who qualified has not yet been determined.

The weather during the past week has been unfavorable for flying. On several days, there were such heavy swells that "H" boats could not be launched or beached. Major Hanley flew to Manila on Thursday to bring Major Wilson of Department Headquarters to Fort Mills. Lieutenant Palmer, who made the return trip, was forced to spend the night at Paranaque Beach near Manila as the water was too rough to take off. When he returned on the following day, the ship was wrecked while being beached. A moderately heavy sea was running at the time and an unusually heavy breaker caught the ship in a disadvantageous position, picking it up and throwing it upon the rocky beach with such force as to damage the ship beyond repair. All available personnel from the Squadron, both officers and enlisted men, were on the job and were all thoroughly drenched while trying to hold the ship in position. The lack of a runway or ramp which runs a sufficient distance into the water makes it most difficult to launch or beach a ship even when a moderate sea is running.

Flight "A", under Lieutenant Gravely, embarked on the Air Service rescue launch "Jewell" for Paranaque Beach, with a personnel of 4 officers and 20 enlisted men. The seven kilometers from Manila to Paranaque Beach was made by truck. The

personnel are quartered in one of the hangars at Paranaque and are rationed with the 11th Air Park at Camp Nichols. During the balance of the week the flight was busily engaged in preparing machine gun butts and targets for aerial gunnery practice.

Twenty-nine enlisted men who arrived in this Department on the transport "Logan" were assigned to this field.

Lieutenant and Mrs. "Dynamite" Wilson wish to announce to their friends in the Air Service the advent of a daughter on June 28th.

Kindley Field, Fort Mills, P. I., July 10.

The tail end of a typhoon passing some distance to the north of Corregidor resulted in heavy rains and winds during the entire week. The rains began Monday night and continued until Saturday with only an occasional brief cessation. No flights were made during the week. The entire personnel of the Squadron were turned out on Monday afternoon to fill in numerous small gullies and ditches in the flying field. The rains have nullified this work to a large extent and it is planned to give the field another "barbering" as soon as any fair weather is portended. Grass has been planted on the whole field, but in various spots it has come in very sparsely and it will require much attention if it is to be used during the present rainy season.

The 17th Balloon Company has finished firing on the rifle range, and when scores were checked it was found that all officers and more than 80% of the personnel qualified. The three officers assigned to this organization and 9 enlisted men qualified as sharpshooters. The highest total score made on the range was by Captain Ivan B. Snell, Air Service, who made 235 points out of a possible 250.

The University of California Glee Club, now touring the Orient, visited Fort Mills on Thursday and Friday giving a concert at the Topside Cine on Friday night. Many of the members of the Air Service Garrison attended, in spite of the inclement weather, and were well repaid for their fortitude in braving the dangers of travel over precipitous roads during a heavy rain.

Major Thomas J. Hanley, Jr., made a visit of inspection to Flight "A" at Paranaque Beach on Monday.

Captain David B. Doty, Jr., Philippine Scouts, who has been Garrison Quartermaster for the past eight months, has been ordered to return on the transport "Logan" to San Francisco for observation and treatment at the Letterman General Hospital. 1st Lieutenant Ronald Hicks, 2nd Squadron (Observation), has been detailed as Quartermaster succeeding Captain Doty.

Kindley Field, Fort Mills, P. I., July 15.

Typhoon Signal No. 1, closely followed by #3, was hoisted on Monday. There were heavy rains and winds on Monday and Tuesday, but the duration of the disturbance was unusually short, as the typhoon passed some distance to the south of Corregidor. During the balance of the week the weather was fair and propitious for flying.

An attempt was made on Wednesday by Lt. J. H. Wilson to ferry a DH4B to Paranaque Beach. Engine trouble, due to overheating, caused three forced landings, all of which were successfully negotiated, which is "some" feat on the Kindley Field Aerodrome. A fourth attempt on Thursday resulted in another forced landing not quite so successful, a broken tail skid causing some queer turns and twists which turned the ship on its nose. The next attempt to get this ship to Paranaque will be successful without a doubt as the services of a scow have been requisitioned.

The Operations Officer, Lieutenant George M. Palmer, is working on a miniature range and puff target range. When these ranges are completed an intensive course of training in observation will be carried out.

The Kindley Field Radio ground station is now in operation. Interfield communication between all Air Service fields in the department is now possible.

During this week the balloon was flown for a total of ten hours and three minutes. Balloon operations were carried out by the combined personnel of the 17th and 27th Balloon Companies.

An examination into the Professional Air Service qualifications of commissioned personnel of Kindley Field was held on Thursday. Major Thomas J. Hanley, Jr., Captain I. H. Edwards, Captain I. B. Snell and 1st Lieutenant George M. Palmer were members of the Board. Only ground tests were conducted, due to lack of flying facilities. Many disqualifications were entered against individual officers because of inadequate preparation. All officers in the Department are required to take these tests at stated periods.

1st Lieutenant E. H. Guilford, Assistant Air Officer, and Mrs. Guilford, spent the week end at Kindley Field as the guests of Mrs. Harry A. Dinger. While at Kindley Field, Lieutenant Guilford consulted with the Commanding Officers of the various organizations on supply matters.

Clark Field, Pampanga, P. I., July 8.

The rains seem to have commenced, ushered in upon the outskirts of a typhoon which kept the weather prophets guessing during the first three days of the week. The cool weather which accompanies them is very welcome, and sleeping with a full complement of bedding seems like pounding the old ear in the States once again.

Preparation for the annual test of officers has continued undiminished and a formidable array of planes and war equipment will greet the condemned as they approach the line in their tumbrils. A mad twelfth hour scramble for radio and gunnery knowledge has kept the instructors busy, and from the eagerness with which their wares have been accepted, success should attend everyone as an outcome.

Clark Field, Pampanga, P. I., July 1.

The "Tacky Party" at the Officers' Club, the evening of June 30th, was a great success. The old year (fiscal) was danced out to the tune of a good jazz band - and the ancient and damaged costumes of the participants were symbolical of the hard times the new year brings us. The invitation which was distributed for the function is as follows:

"The Income Tax has come and gone. So has our money. The New Pay Bill has passed, originated no doubt with a view of making our Income Tax easier next year. So on the eve of this bill going into effect it is fitting and proper that we should meet and make merry, undaunted by the loss of money, strangers in a far country, let us put on our oldest clothes and dance away the last few hours of our opulence. Not to wear old clothes were to justify further financial setbacks. To appear in a new mess jacket, resplendent with golden shoulders would be to flaunt our false prosperity at a time when patches and rags were more fitting. So on Friday evening after the evening meal of stew and taters, let us put on our rags of yesterday and sally forth to the Club and propitiate Old Man Hard Times, garbed as true disciples of Poverty, or if you prefer, The Shabby Genteel. Are we DOWNHEARTED ???

.....NO....."

Lieutenants Bartlett and Weddington, with their families, motored to Los Banos last week end. As a souvenir of the trip, Lieutenant Weddington returned with a case of sunburn that confined him to bed for several days.

Lieutenant G. M. StJohn joined the Third Squadron (Pursuit) upon arrival in the Philippine Department by the U.S.A.T. "Logan" on July 1st. Mrs. StJohn accompanied him.

The rainy season and garrison school have been threatening for some time. Orders for the school to start July 3 have been issued, but the rainy season is still on leave.

Clark Field, Pampanga, P. I., July 15.

The past week has been mainly devoted to the completion of the Air Service Qualification Tests for the Officers, which have been the occasion of much interest and concern on the part of all individuals who have been subjected to them. It is believed that there is little cause for apprehension as to the outcome for most, although some of the tests were both intricate and complex.

Mather Field, Mills, Calif., Aug. 30.

With the arrival of orders placing the 9th Squadron (Obs.) and the 28th Squadron (Bomb.), on inactive status, and the transfer to Crissy Field for the later transport to foreign duty of all officers of these squadrons and of enlisted men having more than one year to serve, terrific speed was evinced by everyone in clearing, getting orders, straightening out accounts and bidding farewell. The news came so suddenly and events happened so fast, that there was scarcely an opportunity for a feeling of regret on the part of those leaving, but the few who remained as an Air Service Detachment (Unassigned) were the ones who felt the change in the Field tremendously.

Lieutenants E. S. Norby, A. E. Waller, W. S. Sullivan, M. R. Woodward, with their respective families, sailed for the Philippines on August 10th.

Captain F. I. Eglin, Lieutenant N. R. Laughinghouse, A.S., and their families will sail September 5th; also Lieutenant S. Carter, A.S.

Air Service Primary Flying School, Brooks Field, San Antonio, Tex., Aug. 22.

The Primary Flying School Club at Brooks is taking on the appearance of a real club these days. Several hundred dollars was voted at a recent meeting, to be used for improvements. Carpenters and painters have been working night and day for the past few weeks. The walls and ceiling are being painted and tinted and the floors refinished. Two hundred dollars is being expended for new lights for ceiling and walls. It is the aim of the officers to make the club one of the finest in the Corps Area. Captain R. C. Candee, secretary and treasurer, has personal supervision of the work, and great credit is due him for his able management.

Brooks Field is to have a concrete tennis court and outdoor dancing pavilion. Work on both will be started immediately, under the supervision of Major Paul T. Bock, Captain Hale and Lieutenant McMullen. The tennis court will be located at the end of the bachelor quarters. The dancing pavilion will be built directly in front of the Officer's Club.

The Brooks Field Officers' Base Ball Team still claims the championship. The Advanced School Group Team went down to defeat last week at the hands of the Brooks team, by a score of 20-6. A challenge has been broadcasted to any Officers' team in the Corps Area. Following is a line up of the Brooks team - Cadet Tompkins, catcher; Major Ralph Royce, pitcher; Lieut. Hugh A. Bivins, 1st base; Lieut. J. G. Taylor, 2nd base; Lieut. Victor H. Strehm, shortstop; Lieut. J. G. Williams, 3rd base; Lieut. Cumberpatch, left field; Lieut. J. D. Corkille, center; Lieut. E. D. Perrin, right field; Lieuts. Patrick, Haddon and Major Bock, substitutes.

In addition to the Officers' team, the enlisted men of Brooks have a crack team, which has won two of the three games played. On Tuesday they defeated Kelly Field by a score of 7-2, both of Kelly's runs being the result of errors by Brooks. This team is capably managed by Lieut. Hugh A. Bivins.

The Officer in Charge of Flying showed a human streak Saturday morning when he spread our last DH4B over the home airrome. A tire and landing gear gave way, after a pancake landing, causing the plane to cartwheel to the right, washing out the landing gear and two longerons. DH's have a hard life at Brooks, and we are now left with one DH Bluebird.

At the regular semi-annual election of officers, Lieut. Clements McMullen was elected President; Lieut. F. I. Patrick, Vice President; Captain R. C. Candee, Secretary and Treasurer. Major Paul T. Bock, Captain Frederic H. Thorne and Lieut. J. D. Corkille were elected Board of Governors. At this meeting a new set of by-laws was accepted and the name of the Club changed from "Officers' Club, Carlstrom Field, Florida," to "Primary Flying School Club, Brooks Field, Texas."

A very enjoyable picnic was held at New Braunsfels, on Thursday afternoon and evening, by the officers and ladies of Brooks. The trip to New Braunsfels was made by motor. Swimming furnished the main amusement. A delicious supper, which had been prepared at the Club, was served on the picnic grounds.

Chanute Field, Rantoul, Ill., August 22.

Lieut. S. W. Torney, A. S. Pilot, and Master Sergeant Earl H. Hammer, photographer, flew to Camp Custer, Michigan and made a mosaic of an area approximately six miles square, including the site of the Camp, which is to be used for Artillery problems. Fire will be directed by Air Service troops, a detachment consisting of two Officers and eight men, from the 15th Squadron (Observation) at this Post is assigned to duty at Camp Custer for this work.

Lieut. Robt. T. Croneau, A. S., and Master Sgt. E. H. Hammer, photographer, took motion pictures of Camp Custer, also several oblique aerial views. The pictures were developed and printed at Camp Custer and were successful.

Regular instruction work has not been resumed since the transfer of the Photographic Department from Langley Field to its present station. Some training has been given to the officers of the A. S. O. R. C. who are at present attending the summer training camp on this field. Two Officers from the first camp made a

very creditable mosaic of Chanute Field, and took several excellent oblique views of the vicinity. The academic work in this course covers the following subjects: Post War methods of aerial photography, new developments, and new equipment. The length of the course is nine (9) days. There are nine Officers from the second camp, which ends August 25, taking the course.

Ground plans for the remodeling of two wooden hangars, to render them suitable for purposes of photographic instruction, have been completed and funds have been requested for this work. It is contemplated using one of the steel hangars, now under construction, for the purpose of housing the airplanes used by the school. The total planes especially equipped for photographic purposes will reach about ten when the Department is in active operation.

The instructional force of the Department is also engaged in slightly revising the curriculum and writing new lectures with a view to making the course more practical and interesting. Special consideration is being given to the adaptation of aerial photography to map making, interpretation of air views and intelligence work, as well as the use of the most up to date equipment.

COMMUNICATION ACTIVITIES

Work on equipping Hangar 10, for Communications purposes is progressing satisfactorily and will be completed so that students can be placed under instruction about September 15th. A brief summary of the course follows:

Mathematics, Direct and Alternating Current, Practical woodworking and welding -----	8 weeks
Spark sets -----	4 "
(Electric wave production and propagation) -----	4 "
(Antenna types and Instruction)	
Vacuum tubes -----	4 "
Explanation, Repair, and operation of sets -----	4 "
	24 Weeks.

1st Lieut. Howard C. Brandt, A. S., recently transferred to the Department, will have charge of the instruction of Explanation, repair, and operation of sets, and direct and alternating current. 1st Lt. T. Morris is expected to report shortly. Lieut. Morris is at present on a sixty day leave of absence.

MISCELLANEOUS

Captain August C. Jensen, Q.M.C. reported recently and assumed the duties of Post Quartermaster vice 1st Lieut. Frank C. Peters, Q.M.C. Lieut. Peters has been detailed as Constructing Quartermaster.

1st Lieut. Jasper K. McDuffy who recently reported at Chanute Field, was assigned to the A.S.T.S. for duty. At the present time he is an instructor in the Photographic Department and Commanding Officer of Section "C".

Construction work is at its height at the present time. Steel hangars, alterations, and the installation of the new steam heating system making much activity. The Constructing Quartermaster presents a magnificent example of industry as he trips and scrambles lightly from one end of the Post to the other, keeping an eagle eye cocked for defects in the heating system. Ah! that heating system! At one time, we of Chanute Field truly believed that the millennium was at hand; that the time for rejoicing was drawing nigh - when, after the combined complaints, wails, threats, cajolery, and honest cursing of the multitude, we were informed that we were all going to have steam heat. Then we were treated to the spectacle of fat steam pipes receiving a decent burial almost everywhere. We were childishly happy in the thought of bidding a last farewell to the coal stove. Coal stoves - instruments of concentrated aggravation. They give an almost perfect amount of chills and fever. One gets as black as a direct descendant of an Ethiopian King, to say nothing of a healthy dripping sweat, piling fuel into the hungry maw of the heating apparatus. These Chanute Field stoves are peculiar. they refuse, point blank, to function on half ration; but cry "We'll have coal, and lots of it - or no heat," constantly. Stoves get red hot. One nearly suffocates; then sighs heart-rendingly and turns off the draft - nearly freezes. Then, in desperation, works up sweat remaking fire and carrying coal - nearly suffocates again - turns off draft - freezes - curses - and ad infinitum. But enough of that Lieut. Peters says that the heat will be in by Oct. 1st., for which we are exceedingly thankful. However, every rose has its attendant thorn. This peculiar specimen of flora and fauna has harpoons and pitchforks. To wit: Practically every building with the exception of the Quarters of some twenty-five Officers and all the married N.C.O's, is heated. They form the stove platoon. That is

the core of the banana. Some people say its a conspiracy to keep us in our offices and make us work. It's hard to dope out. The Publicity Officer is seriously thinking of placing the necessary tooth brush and mattress beside the nice warm radiator in his office and confining his habitation to those limits - a move which will doubtless meet with a great deal of popularity among the junior officers and be emulated to a man. Nix on these Arctic winters. We have troubles enough without freezing to death.

Rockwell Air Intermediate Depot, Coronado, Calif., Aug. 18.

The weekly party was held Thursday night at the Officers' Club. Mrs. E. R. Ervin acted as hostess. A delicious supper was followed by bridge. Lieut. and Mrs. V. Hine won the gentlemen's and ladies' prizes, respectively. Lieut. Hine stated that this was the first time in three years the family signals worked. Mrs. Hine gave her husband all the credit. The Post has decided that he must be good.

Capt. R. G. Ervin left by airplane Thursday morning for temporary duty at the University of California. He wired his safe arrival at Crissy Field at 3:25 p.m. August 17th.

Last Saturday afternoon four officers from Crissy Field took off in four DH4-B's for forest patrol duty in Oregon. Their safe arrival was reported.

Lieut. Larsen of Kelly Field arrived here in the afternoon of the 16th after eleven hours flying from Kelly Field. This beats all records from Kelly Field to Rockwell Field. He left Kelly Field at 3:30 a.m. Pacific time.

Captain Pettigrew, Field Artillery, stationed at Fort Sill was a visitor this week. He is spending his leave in Southern Calif.

Lt. Colonel Gillmore the new Air Officer, Ninth Corps Area, visited this field on the 16th. Arrived in the a.m. and flew back in the afternoon. He inspected the shops and other activities while here.

Mitchel Field, Long Island, N. Y., Sept. 9.

Among the other cross-country flights made over the week-end and Labor Day, was a flight by 1st Lieutenant John C. Kennedy, A.S., to Port Fairfield, Junction, Maine, where he participated in a celebration at that point in connection with the opening of the International Bridge between the United States and Canada;

Flight of 1st Lieutenant Francis B. Valentine, A.S., to Bangor, Maine, where his landing in a small field resulted in an accident. No injury was suffered by pilot or passenger, but the plane was a total wreck;

Flight of Captain Ira C. Eaker, A.S., to Langley Field, Hampton, Va., touching at Bolling Field, Anacostia, D. C., on the return trip;

Flight of Major Junius W. Jones, A.S., to Kingston, N. Y.

Crissy Field, Presidio of San Francisco, Cal., Aug. 23.

From the following bits we know that the 91st Squadron (Observation) detachment, stationed on temporary duty at Eugene, Oregon, in connection with the Forest Patrol, keep the ball rolling in much the same fashion that they do while at Crissy.

"Friday, August 8, 1922, was red letter day on patrol this year," to date. Eight patrols were flown, sixteen hours and twenty minutes flying time, estimated distance covered 1600 miles, area covered 80,000 square miles. Eleven new fires were discovered, many old ones looked over and much valuable information obtained.

Lieut. Harold A. Smith with Sgt. Teller as passenger, and Sgt. Fred Kelly, pilot, with Sgt. C. G. Gravlin as passenger, arrived from Crissy Field, San Francisco, California this date. Captain A. F. Herold with Sgt. Guile as observer, arrived from Camp Lewis last night, and the former will continue to San Francisco with Lieut. Maughan this morning. Lieut. Emil C. Kiel of the 91st Squadron, and Mrs. Kiel arrived in Eugene Thursday afternoon and were guests of the local officers. Saturday and Sunday were spent at McCredies Hot Springs in the high Cascades. They proceeded to San Francisco Sunday evening.

The officers of the flight will be the guests of the Kiwanis Club of Eugene at a luncheon Monday noon, and Capt. L. H. Smith has been asked to give a short talk on aerial forest patrol.

A number of us here soon hope to be able to make a flight to Eugene and pay our respects to the boys on Forest Patrol.

On Thursday morning, August 11th, Major George H. Brett, Commanding Officer, Crissy Field, Lieuts. John W. Benton, Robert E. Selff and Private Earl C. Spohr left for a cross-country flight to Gold Lake, the Air Service Rest Camp, which is

nestled in the hills overlooking the town of Blairsden, Calif. The course to Blairsden passed over Mather Field and, as could be expected, a landing was made at that field and courtesies exchanged. Additional gas and oil were taken on and the flight continued to Blairsden.

After passing over the Sierra Buttes, Blairsden, the surrounding valley and Gold Lake, many of the smaller lakes were sighted followed closely by a "T" placed in the Blairsden Field by Captain A. D. Smith, Commanding Officer at the Rest Camp. Major George H. Brett was the first to land, followed by Lieut. Selff, when the party was met by Captain Smith and a number of the enlisted men at the Camp.

Captain Smith conducted a regular Cook's Tour and upon arrival at the camp we found a spread worthy of the most hungry. Needless to say, the trip was enjoyed by all and it was to be regretted that we had to depart the same day.

Lieut. W. C. Goldsborough as pilot and Staff Sergeant Fowler as passenger, while making a cross-country flight from Eugene, Oregon to Crissy Field, were forced to land in the vicinity of Redding, Calif., due to a burnt out motor. We are glad to note that Lt. Goldsborough made a successful landing in a rugged country where there are not too many fields. Crissy Field received a wire from Lieut. Goldsborough relative to his predicament at four thirty p.m. and shortly before five Lieut. Walter Miller was on his way in another DH to make the necessary report and ferry the others back to Crissy Field.

Captain Armin F. Herold, recently on temporary duty at Camp Lewis, Washington, returned to Crissy this week and has again departed for a temporary duty tour at Mather Field, Sacramento, Calif. in connection with the training camp for Reserve Officers at that field.

Major H. H. Arnold, our former Air Officer, has been confined to his bed in the Letterman General Hospital for the past two weeks, much to the regret of all at Crissy. From recent reports, however, we hope to see his beaming countenance with us in the very near future.

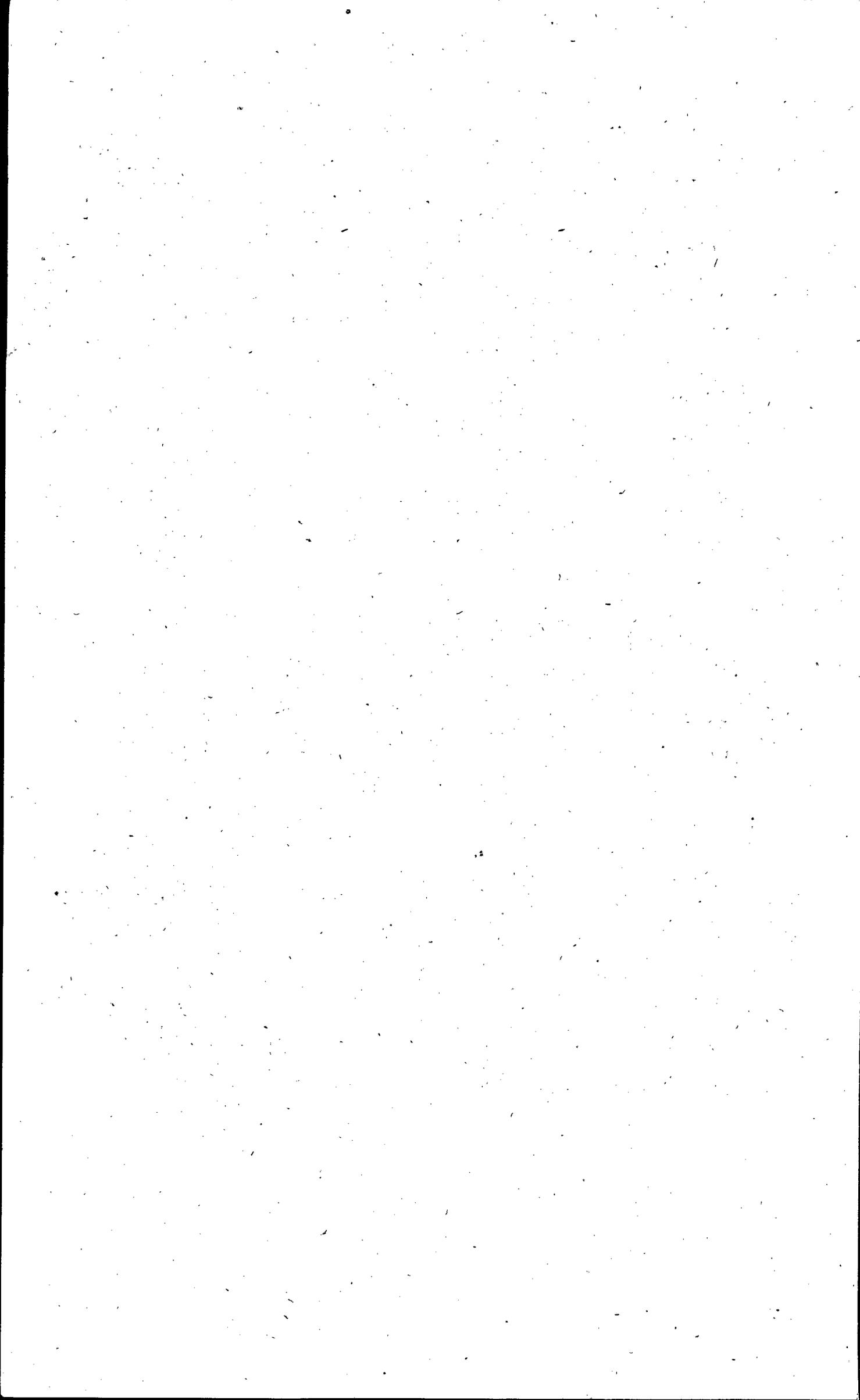
The new Air Officer for this Corps Area, Lieut. Colonel W. E. Gillmore, lost little time in taking over the reins formerly held by Major H. H. Arnold. In company with his assistant, Lt. Harry A. Halverson, a flight for inspection purposes was made to the fields in the southern part of the state, namely, Rockwell, Ross and March.

Lieut. B. R. Dallas and Arthur G. Liggett, who have been on a fifteen day sick leave, have returned to duty and have been assigned temporarily at Mather Field as instructors for the Reserve Officers' Training Camp. Lieut. Leo F. Post has also been assigned to that duty.

Mrs. John W. Benton, who is about to become a mother, was guest of honor at a pretty affair in the home of Mrs. Robert E. Selff, wife of Lt. Selff, the occasion being a baby shower. Bridge was enjoyed at three tables during the earlier part of the afternoon. Refreshments were served from a table exquisitely decorated in which the baby schemes were carried out. In the center stood a large stork holding in his bill a new born babe wrapped in some of its intimate canton flannel apparel (Yes, it might have been "Bird's Eye".) and banked in sweet peas. Place cards were of stork and baby design with ribbons leading to the sweet peas and on the ends of which were found a very useful favor for milady, which were small bottles of imported French perfume.

The affair was a complete surprise to Mrs. Benton and one to be long remembered by her and those attending. Much credit is due Mrs. Selff and those assisting her for the success of the affair.

Among those attending whose names are familiar to the Air Service, are Mrs. Geo. H. Brett, Mrs. H. H. Arnold, Mrs. W. C. Goldsborough, Mrs. Harry A. Halverson, Mrs. A. G. Liggett, Mrs. W. R. Sweeley, Mrs. A. W. Smith, Mrs. A. F. Herold, Mrs. C. A. Carrol, (Mrs. Benton's mother), Mrs. A. Karstensen, Mrs. Kaarboc and the Misses Hunter and Allen.



The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE October 12, 1922.

LIEUTENANT DOOLITTLE'S WONDERFUL FEAT.

Tuesday, September 5th, was a red letter day in the history of aviation in this country, for it marked the successful culmination of a remarkable airplane flight across the United States from the Atlantic to the Pacific Coast within the elapsed time of 24 hours, the first time such a feat has ever been accomplished.

A young Army aviator, tired and exhausted from the strain of his long flight, his eyes heavy for lack of sleep, but happy in the thought that he had accomplished his cherished ambition, hopped out of his plane at Rockwell Field to greet his admiring comrades in the service who had gathered to meet him. This pilot, with a string of aviation achievements to his credit that belie his name, Lieutenant James H. Doolittle, broke all previous existing records for a flight across the continent, his actual flying time being 21 hours and 20 minutes, and his elapsed time 22 hours and 35 minutes, a stop of an hour and fifteen minutes being made at Kelly Field to replenish his fuel supply.

One may gain an idea of the rapid strides that have been made in the development of the airplane during its comparatively brief career from the fact that just a little over ten years ago the first airplane flight across the United States was successfully accomplished by Calbraith P. Rodgers who, flying a Model B Wright airplane, started from New York September 17, 1911, and finished at Pasadena, California, November 5, 1911, his longest single flight being 133 miles. A month or so later Robert G. Fowler started on a flight across the continent with the view to bettering Rodgers' record. He was 122 days on the way and landed at Jacksonville, Fla., on February 17, 1922.

In February, 1921, the late Lieut. W. D. Coney negotiated a flight similar to that of Lieut. Doolittle, his total flying time being 22 hours and 27 minutes, but it took him several days to accomplish the feat.

Our Kelly Field Correspondent has submitted to us an interesting story of Lieutenant Doolittle's flight, and we are therefore taking the liberty of quoting it in full, as follows:

"Easily the biggest event in Aviation in this section of the country and perhaps the United States was the successful completion of Lieutenant James H. Doolittle's coast to coast flight.

After the unfortunate accident that prevented his getting away on the first attempt, he immediately beset himself to obtain the authority to have his damaged plane shipped to San Antonio and repaired for another try. This authority was granted, and the ship was received at the San Antonio Air Intermediate Depot on August 11th. From that date until the morning of September 2nd, when shortly after day light he took the air once more for the East Coast, this officer with his faithful squad of mechanics, practically lived with the plane. Every wire and strut was carefully gone over and tested, and once again he was able to take the air with the best the S.A.A.I.D. could produce.

The trip from Kelly Field, Texas, to Jacksonville, Florida, was an uneventful non-stop run, and was accomplished in ten hours and forty minutes. Saturday and Sunday were spent in Jacksonville, Fla., resting and preparing for the long ordeal before him.

Monday evening, September 4th, at 6:00 p.m., Lieutenant Doolittle said goodbye to his friends in Jacksonville and made a forty-minute hop to Pablo Beach, the starting point on the East Coast. Final preparations were made, and when he climbed into his ship for the long night flight it was with the assurance that everything humanly possible had been done to make the flight a success. The moon was full, the air clear and conditions appeared to be favorable. At 9:05 p.m. Central Time, the ship sped across the beach and slowly mounted towards the moon, accompanied by cheers from the crowd assembled to view the departure. Crossing Florida and following the Central Coast Line he was able to pick up various familiar

landmarks and lights from time to time, and the anxious ones awaiting news at San Antonio finally learned that he had passed Live Oaks, Florida. The flying conditions between Pablo Beach and New Orleans, La., had been all that could be desired, but between New Orleans and Galveston, Texas, a local thunder shower was encountered, which not only caused delay, due to the head wind, but considerable worry, as the lightning flashed dangerously near.

The excitement had served to keep Lieutenant Doolittle awake, but after hours of listening to the hum of his motor nature began to claim its repose, and between 2 and 3 o'clock, when men's vitality is supposed to be the lowest, it was almost impossible for him to keep awake. This passed, however, and with the breaking of day he was able to pick up familiar landmarks of Eagle Lake and he knew that he was not far from Kelly Field. During the night conditions had changed somewhat, and instead of the usual clear Texas skies low cloud banks were everywhere, forcing him to fly at a low altitude.

Long before daylight, people began to assemble at Kelly Field to watch for the arrival of the 'Lone Pilot', who was to make a new record for American aviation. They came from all parts of the surrounding country and in all sorts of cars. To one who had not lived in the City of San Antonio and heard the comments in cafes, barbershops, etc., regarding this flight, it would be impossible to imagine the universal interest it had awakened, and to his brother aviators who overheard these remarks it seemed pitiful that this great "Spirit" could not be capitalized to show that 'America' as a whole wants a big and efficient air force that will compare favorably with other great nations.

As dawn broke and no sign appeared of Lieutenant Doolittle, his comrades began to be a bit anxious, and from time to time recalled the bad points along the route from New Orleans, La. Finally, this spirit could no longer be contained, and several ships took the air to look for him in the low clouds. Among the hundreds present, all the aviation activities in the district were represented - from the Air Office, 8th Corps Area to his brother officers from neighboring fields.

Finally, after two or three false alarms as ships that took the air to look for him returned, a 'Lone Ship' glided into the field at 7:05 a.m., September 5th, and a cheer went up that proclaimed to the world that the first leg of the greatest transcontinental 'one-man trip' had been accomplished. As soon as the motor was cut, a picked outfit of enlisted men hopped to work, and while Lieut. Doolittle was getting a much needed breakfast and a chance to stretch his legs, they gassed, oiled and watered the plane. The ship was completely gone over, wires tightened, radiator leak repaired, motor examined, and when the Lieutenant took the stick one hour and fifteen minutes later everything was in order.

The time from Pablo Beach to Kelly Field, Texas, had not been as good as expected, due to adverse winds and low clouds, but was well within the average. He made the trip in ten hours and five minutes, only about one hour behind his best previous time.

At 8:20 a.m. September 5th, the great ship once again took the air and slowly climbed toward the low ceiling. Everyone was now confident that the trip would be made, for, in spite of the bad weather, Doolittle would be flying over country with which he was well acquainted, due to his Border Service, and would have daylight to help him in his map reading. He was accompanied on his trip by planes from the field as far as Medina Lake, where part of them came back, although one continued on as far as El Paso.

The trip from Kelly Field to San Diego, Calif., was comparatively uneventful, once the low pressure area about Kelly Field was passed, although from time to time it was necessary to pass through scattering cloud banks. But that was merely a part of every border patrol.

Eleven hours and fifteen minutes after leaving Kelly Field, Doolittle 'set her down' at Rockwell Field, San Diego, Calif., thereby completing the first one-stop trip from coast to coast and establishing a record of twenty-one hours and twenty minutes actual flying time, and twenty-two hours and thirty-five minutes elapsed time for the entire flights for his brother officers to shoot at.

At San Diego Lieut. Doolittle was royally entertained and spent the night with Lieut. McCullough, Adjutant of Rockwell Field. The next day, Wednesday, September 6th, he flew to Los Angeles in an SES in one hour and twenty-five minutes, returning the same day and making the same time.

Although extensive plans had been made for his reception at San Diego, it was impossible to carry out same, due to orders he received from the War Department to report for duty at McCook Field. He only remained in the Cali-

ifornia city long enough to rest up, and on Friday at 8:00 a.m. (September 8th) he once more took the air for Kelly Field, arriving at 7:40 p.m.

While he tried to surprise them at Kelly Field, by gliding in in the dusk word of his departure had been received, and he found the Commanding Officer of Kelly Field awaiting him at the head of the reception committee. As soon as he cut his motor, he was bundled into a car with his proud wife and mother, and was conducted at the head of all the private automobiles at Kelly Field to the City Hall, where the Mayor and members of the City Government and various Civic Organizations were awaiting to present to him the freedom of the city and show what San Antonio thought of his feat and aviation in general. After a short address by the Mayor and Colonel Howard, and a reply by Lieut. Doolittle, the tired aviator was escorted into an awaiting automobile, and, with the Kelly Field Band at the head, followed by the Mayor and a fleet of automobiles, paraded through the principal streets of San Antonio.

It was expected that Lieut. Doolittle would remain in San Antonio for several days to close up his business affairs, but he quietly slipped away the morning of September 9th for his new station at McCook Field - not so quietly, however, but that his old squadron, the 90th, was able to learn of it and give him an escort far beyond the limits of San Antonio.

It is to be regretted that we in America do not have a historical museum, such as the one in Berlin or Dresden, Germany, where such a vehicle could be put on exhibition and serve as a concrete example of what has been accomplished and as an inspiration for future improvements, instead of eventually going to the scrap heap 'thru fair wear and tear'.

Now that the continent has been crossed in two hops, it is hoped that a liberal policy will be adopted toward authorizing flights of this character, in order that other pilots may become familiar with such missions, and ships developed that will make a non-stop flight. This great flight merely served to emphasize the possibilities of the airplane and what hopes the future holds out for commercial lines. The Liberty motor as now improved is justifying its reputation as a great motor, showing up well under practically 47 hours and 10 minutes of continuous flying time. With a motor of this dependability the trans-Atlantic flight can be made with one hop, as our Cousins, the English, have already done, and it is certain there are now in the Army countless aviators of Lieut. Doolittle's type who are only too anxious to try their hand at these long flights.

Shortly after his arrival in San Diego, Lieut. Doolittle received the following telegram from San Antonio, Texas:

'San Antonio Chamber of Commerce sends enthusiastic congratulations upon accomplishment of your magnificent feat. Your achievement intensifies San Antonio's admiration for the work which its military citizenship daily accomplishes. Result realized by you when efforts are being made to detract effectiveness of military forces of the United States serve to illustrate what personnel of our Army can accomplish despite inadequate appropriations and decrease of personnel.'

Lieut. Leland S. Andrews accompanied Lieut. Doolittle on his western trip as far as El Paso, Texas, arriving there at 1:05 p.m. and making the trip in 4 hours and 45 minutes. He returned safely to the field at 8:15 p.m. the same day.

The San Francisco CHRONICLE prints an interview its representative had with Lieut. Doolittle shortly after his arrival at Rockwell Field, from which it appears that the Army pilot, having some qualms about falling asleep on the last lap of his flight, wrote a letter a few days before his start to Lieut. John McCullough, Adjutant of Rockwell Field, asking him to send two pace-making airplanes to meet him either at El Centro or Yuma, in order to give him something to think about and help him to keep awake. In accordance with this request, Major S. W. Fitzgerald, commanding officer of Rockwell Field, dispatched Captain William Randolph and Lieut. C. L. Webber to meet Doolittle. The two airmen flew directly to Yuma and circled over the Arizona city for twenty minutes before they sighted Doolittle's plane sweeping toward them from the eastward at an altitude of 7,000 feet. They immediately headed for Doolittle's machine, and when within 300 feet gave him the Army signal of the air by tipping their airplane wings. Doolittle replied and sent a challenge to his two brother fliers by sending his ship ahead at top speed. The three airmen then raced at a speed of 110 miles an hour from Yuma to San Diego. When they landed the three ships were almost wing and wing, a fitting climax to a sensational flight.

CHANGES MADE IN THE DH4B AIRPLANE USED BY LIEUT. DOOLITTLE ON HIS
TRANSCONTINENTAL FLIGHT.

According to a report submitted by the Engineering Division, McCook Field, Dayton, Ohio, the following changes were made in the airplane in which Lieut. James H. Doolittle successfully negotiated his transcontinental flight:

a. Station ten was moved back to a point directly over the spreader bar between the rear spars of the two lower wings and the fuselage brace wires in back of the motor were moved forward two and three-quarter inches at the top in order to accommodate the 240-gallon main gas tank. The controls and front cockpit were moved back 16 inches for a similar reason, and the aileron control was turned around so that the arc was in back of the pilot's seat. This was in order to allow the main gas tank to be as deep as possible and necessitated an extra set of pulleys in the aileron controls.

b. The cross brace wires under the tank were removed and 1-1/8-inch laminated wood braces put in, in front of and in back of main tank to take the strain. That left a 1-1/8 by 3-inch laminated wood brace between the landing gear fittings instead of the standard 1-inch by 3-inch spruce compression members.

c. The old observer's cockpit was boxed in with 3/18-inch 3-ply veneer, adding great strength to this inherently weak part of the ship.

d. A 3/4 x 1-1/4-inch ash brace was placed under the top longerons for a distance of eight feet to prevent rolling and add strength.

e. Six vertical compression members were added between station ten and the motor to transmit the weight of the gasoline tank from top longeron to bottom.

f. The tail skid post, axle and shock absorber were reinforced by having an extra seamless steel tube driven into them for their entire length.

g. Old style DH-4A ash landing gear was used for strength and also because it is four inches higher and so would raise the lower wings into a more efficient position and give more clearance for the propeller. A Martin propeller was used.

h. A wing 17" x 48" was built on the landing gear fairing and set at an angle of incidence one-half of a degree less than that of the wings.

i. The tank cowl was raised 1 1/4 inches to allow a higher gas tank and also to give a slight camber to the top of the fuselage. An effort was made to concentrate the weight of gasoline as near the center of lift of the ship as possible, in order that the pilot could sit forward where he had better control of the ship and also so that the balance of the ship might be maintained at all times. This was realized and the oil tank forward so well balanced the large gas tank that it was not necessary to touch the stabilizer at any time between full load and empty.

j. The main gravity tank held thirty gallons and was placed between the spars in the center section. There was a 1 1/2-gallon expansion tank for water in the leading edge of the center section. The oil tank held 24 gallons and was placed under the motor and held in place by three straps running to the upper longerons.

k. The siphon system of gasoline feed was used and found to be most satisfactory.

l. The main gas tank was notched out for a distance of nine inches to allow it to set down over the spreader bar between the front spars of the lower wings. A 1 3/4-inch hole in the tank allowed room for a rod to tie the longerons together.

m. The bottom of the fuselage was dropped and lowered so that it made a perfect streamline from radiator cowling to tail.

n. The wings were of selected spruce, care being exercised to pick out the lightest possible frames. The extra ribs in the inner bay were spliced and ran out to the trailing edge. An extra rib was placed in between each rib in the outer bay and the ailerons each had an extra rib between each regular rib. The fabric was sewed on with a 1 1/2-inch stitch instead of a 3-inch stitch. The wings were given four coats of dope, two of pigmented dope and one of varnish. All of this added about ten pounds to each wing but greatly strengthened them, and the extra ribs allowed the wing panels to retain their original shape and this increased their efficiency.

o. The ship had an excellent performance. Took off in about 350 yards full. Climbed seven thousand feet in fifteen minutes at 1550 R.F.M., and flew about 100 m.p.h. full and 105 m.p.h. nearly empty at 1480 r.p.m.

p. The motor burned 19.1 gallons of gas and 1.3 gallons of oil at 1480 r.p.m., so was safe for 13 1/2 hours.

q. Airplane gasoline was used except at Jacksonville, where commercial gas was used, high test gas not being available.

r. Penzoil, triple extra heavy oil was used throughout the trip.

L.W.F. "OWL" HAS TRIAL FLIGHT AT MITCHEL FIELD

The "Owl", built by the L.W.F. Aircraft Engineering Corporation, has been set up at Mitchel Field and was recently given its first trial flight. This plane carries three Liberty motors, and is the largest heavier-than-air craft now being flown by the Army Air Service.

The "Owl" will probably remain the largest airplane in the Army Air Service until the Barling Bomber, now being built by the Witteman Aircraft Corporation, makes its initial flight. This large machine is equipped with six Liberty motors and will be the largest aircraft operating in this country.

THOMAS-MORSE PLANE PICKED TO BE STRONG CONTENDER FOR PULITZER PRIZE.

Two officers from Mitchel Field, Captain Harry M. Smith and 1st Lieutenant C.E. Crumrine, Air Service, recently went to Ithaca, New York, for the purpose of witnessing the set-up and test of the Thomas-Morse entry in the Pulitzer Race. They report this plane to be one of the best designed and built planes they have yet witnessed amongst those which are being prepared for entry in this Race, and they are backing it strongly to win the Pulitzer Trophy.

MARYLAND AIR SERVICE HAS SUCCESSFUL ENCAMPMENT.

Members of the 104th Squadron, Maryland National Guard, are looking back with fond recollections at their first annual encampment which was recently held at Langley Field, Va., for a period of two weeks. Fifteen officers and 83 enlisted men attended, and the camp was voted a huge success by everyone, including the Regular Army officers who supervised it.

Probably the most remarkable feature of the camp was the fact that every available enlisted man turned out for the fifteen day period, and they all seemed to enjoy every day of it. This will no doubt surprise those men who claim that National Guard Air Service is not feasible on account of the difficulty experienced in keeping the enlisted personnel interested. There is not the least doubt that these 83 men were kept interested, and even Regular Army men marvelled at the spirit with which they tackled their jobs. These men were given excellent instruction under the efficient tutelage of members of the 50th Squadron, the Regular Army outfit to which the entire 104th was attached for training. Each branch of the 104th, such as the Radio, Engineering, Supply, etc., functioned in its regular capacity side by side with the corresponding branch of the 50th.

Instead of taking their "Jennies" to Langley Field, which would have been like taking a ham sandwich to a banquet, the Maryland outfit decided that they could get a great deal more out of the encampment if they were allowed to fly service type of ships, and authority was obtained to fly the DH's and SE5's at Langley. This served to greatly boost the morale of the squadron, as the pilots had been flying "Jennies" for over a year and they, as well as the mechanics, were "fed up" on them and were anxious to work on service types. It was an experiment that the Army was a little doubtful about at first but one which turned out to be wonderfully successful, for within the very first week of camp every pilot was flying solo on DH's, and the remarkable part of it was that only two or three of them had flown them before. Before the end of the second week half of the pilots were flying SE5's.

Thus it is shown that, in a short period of time, National Guard pilots can be trained to fly service ships. And not only were the pilots able to fly service ships, but the mechanics demonstrated their efficiency by maintaining the service planes almost entirely without the assistance of the Regulars.

A remarkable feature of the encampment was that during all this flying of service types of ships - and some of these pilots put in over 25 hours in about ten flying days - there was not the slightest semblance of an accident. Not even a tail skid was broken.

An unusually fine spirit was observed between the officers and men, and this no doubt accounts for the fine record made by both. What made a hit with the enlisted men was the way the officers volunteered to fly on Wednesday afternoons and Saturdays, which are normally holidays, so that all the men might get plenty of

instruction rides. That the men appreciated this is shown by the fact that on the last night in camp they gave the officers a wonderful "blowout". A great spread was laid out in the Mess Hall, and after dinner the different officers were called for the "unprepared as I am-" stuff. After this the men got together and gave three rousing cheers for the officers and, as no bricks were thrown, it was taken to mean that there was all harmony in the Maryland Air Service.

THE PASSING OF A REMARKABLE AIRPLANE.

The "Sea Gull", the most famous D.H. in the Army, is no more. It has suffered the inevitable fate of all good and bad little planes and big planes - the scrap pile. It has been flown by General Wm. Mitchell for over two years, has had twelve motors installed; over a thousand flying hours, has traveled over a hundred thousand miles, and is being salvaged only because it is old and generally worn out. It is the ship with which Lieut. Bissell recently made four night flights to Langley Field, one to Mitchel Field and one to Dayton, O., and return. It has never had a forced landing of any kind, never even gave out of gas while in flight. It still has its original tires, neither of which has ever been flat. It has the first forward built landing gear ever installed still intact. It has the first aileron paddles ever installed on a D.H. still intact, and altogether its history has been remarkable. Its passage to salvage is attended by sincere regret from all sides.

KELLY FIELD ENGINEERING DEPARTMENT DEMONSTRATES ITS EFFICIENCY.

The general efficiency of the Engineering Department of Air Park No. 5 (Attack) at Kelly Field, Texas, was shown recently in refuelling Lieutenant Doolittle's transcontinental plane. As the wheels of this plane touched the ground the motor of the gasoline truck was started and was in position and awaiting for the motor of the plane to stop. In record time 97 gallons of gasoline and 21 gallons of water were pumped into the plane by this organization in order to aid the 90th Squadron in quick service.

Lieut. Larson made a short trip out from the field in a plane to meet Lieut. Doolittle and escort him to the field, but due to low clouds he was not able to locate him.

VISITING SHIP HANGAR AT KELLY FIELD.

The roof of Hangar No. 13 at Kelly Field, designated as "Visiting Ship Hangar", has been properly marked. The words "Visiting Ships" have been painted on the roof in large conspicuous letters and can be easily read by airmen approaching from almost any point of the compass.

KELLY FIELD PILOTS PREPARING FOR PULITZER RACE.

Lieuts. Dale V. Gaffney and Fonda B. Johnson are making preparations for the coming Pulitzer Races. Lieut. Johnson is in the pink of condition, but in order that he may not grow stale he has taken up training quarters with Lieut. Gaffney at Corpus Christi. Lieut. Gaffney is overweight and expects to train down to flying weight. This will undoubtedly require strenuous training and will be equal to the training undergone by James J. Jeffries on his comeback fight with Jack Johnson. After much discussion, it was decided by Lieut. Gaffney's trainer to take him to Corpus Christi, where he can reduce weight by pulling in the big fish.

Captain Lloyd L. Harvey, Commanding Officer of the 13th Squadron (Attack) also a Pulitzer Race driver, has taken up training quarters at Medina Lake. The 13th Squadron, including all the fighters, accompanied the Captain to act as his tenders during the training period.

PASSENGER CARRYING RECORD BY 2ND GROUP, (BOMBARDMENT).

The 2nd Group (Bombardment) stationed at Langley Field, Va., recently established what is believed to be a new record for carrying passengers. On one day 320 members of the Citizens Military Training Camp, encamped at that station, were given each a "hop" of 20 minutes in the MB2's of the Group. Ten "Martins" were used in the performance, and it required 26 aircraft hours. Five members of the Camp were taken up each flight, and 64 flights were necessary to give everyone a "ride". A total of 150 man hours were recorded for the day's work.

The beauty of the whole performance was the fact that not the slightest mishap occurred, and the enthusiasm and appreciation of the "civies" was worth the hard work incurred.

During the encampment at Langley Field a little later on of the Maryland National Guard, sixty-five officers and men were given "hops" one morning in four of the Martins belonging to the Group.

SUMMER TRAINING CONDUCTED AT CHANUTE FIELD.

Two training camps for Air Service Reserve officers, each of 15 days' duration, were recently held at Chanute Field, Rantoul, Ill., a total of 81 officers being in attendance. The flying time of these officers reached a total of 468 hours. A regrettable accident during the period of these camps was the death of 1st Lieut. Robert H.V. Stackhouse, Instructor, and 2nd Lieut. Kenneth Monroe, A.S., O.R.C.

In addition to the flying training, arrangements were made to give all Reserve Officers a refresher course in one of the following subjects: Rigging, Airplane Motors, Communications, Armament and Aerial Photography. These courses were laid out with a view of not stressing the academic part of the instruction but to give the officer an understanding of post war development in army aviation and of the ultimate ends that are hoped to be achieved with new equipment.

Over 75% of the officers attending these two camps soloed on service planes, either Speds, DeHavilands, SE5A's or Fokkers. The majority of the officers were checked off in three days and spent the rest of the time soloing. They were frequently checked during this latter period, so that an accurate report could be made at the close of the Camp of their progress and probable usefulness to the service.

Captain Richard H. Ballard, A.S., was in charge of the training. He was assisted by 1st Lieut. T.H. Chapman, Air Service, and much credit is due these two officers for the complete success of this undertaking.

At the close of the first camp, the officers of Chanute Field gave a dance in honor of the Reserve Officers, which was well attended. Several of the Reserve Officers took advantage of this occasion to comment favorably on the treatment that had been accorded them.

Experience gained during the first camp was profited by in the second camp when, on the second evening after the arrival of the Reserves, the officers of the post held a "Get Acquainted" Smoker. Major F.L. Martin, President of the Chanute Field Officers' Club, presided. Mr. William C. Jackson, Chief Instructor of the Course for Engine Mechanics, and Robert Stinson, Chief Instructor of the Course for Airplane Mechanics, gave interesting short talks on the latest developments in aviation. The final event of the evening was the showing of the Motion Pictures of the bombing tests at Langley Field. First Lieut. L.H. Dunlap, A.S., Commanding Officer of the Fifth Photo Section, lectured during the showing of these pictures. The result of this Smoker was most satisfying, for it had the effect of making everyone acquainted early in the camp.

In the opinion of the officer personnel of Chanute Field, the summer camps were a complete success. They served their prime purpose of putting the reserve officers in touch with flying again. They also taught the reserve officers many things about the post war air service, its hopes, aims and performances that they did not know. Many of these officers had a mistaken idea about the Air Service and remembered only certain unpleasant things from their experiences during the war. It is believed that the viewpoint of every reserve officer who attended this camp has changed entirely - that he is departing a missionary and a booster for his Corps and the Air Service in general instead of being non-committal, as many have been

heretofore. Last, but not least, the camp brought about a most cordial feeling between both the officers of the Regular Army and the Reserves. Each one realizes the good points of the other to a greater extent than at any previous time. The two camps meant a great deal of extra work for the officers of the post, but they feel that the general results achieved amply repaid their efforts.

An outstanding point in the summer training is the fact that 15 reserve officers, in the absence of orders, voluntarily left their vocations in civil life and came at their own expense to attend the Officers' Reunion.

The concluding event of the second camp was a dance at the Officers' Club given by the Reserve Officers in honor of the Regular officers at the post. It was a tremendous success. An outstanding feature of this affair was the specimen examining board, which sat during the intermission so that all attending the dance might have an opportunity to see the inner workings of such a body and be duly edified and educated thereby. The proceedings, we were informed, were typical of the examining boards throughout the country wherever the trembling reserve officer appeared, hoping against hope to be quizzed and his merits considered for appointment to a higher grade. For the benefit of those interested, there are given below a few of the heavier questions and the exceedingly brilliant answers:

Q. Do you wish to challenge any member of the board?

A. No, I don't want to fight, I want to be promoted.

Q. On your first introduction to the noble ranks of the reserve officers organization you received from Washington an engrossing pamphlet entitled "A Manual for Army Cooks". What was your disposition of same and why?

A. I immediately remailed this manual to my commanding officer through military channels secure in the thought that it would either never reach him or that it would come to that great unknown storehouse where the records of all reserve officers are regularly lost every thirty days. A careful perusal of the aforementioned manual disclosed a most serious omission. There were no recipes which included the use of yeast, raisins or malt. I consequently, with the due regard which I have always preserved for my commander's welfare, forwarded him through the regular mail my 46 recipes containing the above ingredients, and am now reaping the benefits of my foresight.

Q. In the present outline and plan of national defense, what is the function of the Regular Army?

A. To give the reserves a two weeks' vacation.

MORE ABOUT THE "SKEETER" PLANE.

In a recent issue of the NEWS LETTER there appeared an article on the "Aerial Ant", a diminutive airplane that has made its bow to the Aeronautical World. Since the above article was written new developments have transpired in connection with this "flivver" of the air from which it would appear that the pet contrivance of Captain Aubrey I. Eagle, and Lieut. Melvin B. Asp bids fair to become an aerial craft to be reckoned with.

The Southern Aerial Derby, which was recently held at Galveston, Texas, the prize being a handsome 28-inch gold loving cup put up by the Galveston Beach Association, furnished Lieut. Asp an opportunity to substantiate the claims advanced in behalf of the "Ant". The Derby was over a 50-mile course, and was fought out between the Lieutenant and a civilian pilot named Ison, who piloted a French Spad. The latter led for the first four laps, and then the "Ant" or "Skeeter" took the lead and held it until the end. In the earlier stages of the journey the Asp machine seemed to be the faster in straightaway flying, but lost on the turns. Towards the end of the race, however, the "Skeeter" seemed equally as speedy as the Spad when banking.

One of the features of this little plane that would commend it as a commercial proposition is its very small gasoline consumption. The plane only carries a 10-gallon gasoline tank. Lieut. Asp stated that in actual flying tests it has traveled 125 miles on 5 gallons of gasoline. This certainly speaks volumes for the plane from the standpoint of economical operation, especially when we consider its simplicity of design and construction. It might be mentioned in this connection that its bigger brothers in the air, such as the DH4 and the JN6H, consume approximately five times that amount of gasoline on a journey of that length. It even ex-

ceeds the performance of its brother "ground flivver" which, even under most favorable conditions, cannot travel such a distance on less than 7 gallons of gas.

Just recently Lieut. Asp made a non-stop flight with the little fellow to Kelly Field, 216 miles distant, in less than 2 hours each way, and surprised the natives there with its performance.

Captain Eagle, who always waxes enthusiastic when the subject of his "Skeeter" is brought up, contends that economical gasoline consumption is not the only thing in its favor, for it can be constructed at a relatively small outlay of money, the only large item connected therewith being the cost of the motor.

We learn from a Houston newspaper that Messrs. Eagle and Asp have received an offer from a large commercial concern for the development of their machine on a commercial scale, but that they have not yet acted on the offer. They have, however, applied for patents on same.

Well, here's hoping that the "Skeeter" will multiply and become as numerous as that pesky insect which is the bane of the camper's existence.

BRITISH PILOT WINS SCHNEIDER CUP RACE.

Some ten years ago M. Jacques Schneider, a French aviation enthusiast, in order to stimulate progress in seaplane development, instituted an International Maritime Aviation Competition, the prize being a trophy valued at £1,000, to be given into the permanent possession of whatever National Aero Club won the competition three times within the period of five years. In addition to the trophy, M. Schneider offered an additional prize of £1,000 each year for the first three years to the winning organization.

Since the inauguration of this Competition, France, Great Britain and Italy have at various times won the cup, but none were able to gain permanent possession of it. The Schneider Cup Race is considered a great international aviation event, and there was a possibility that this year would mark its termination, since Italy had been the victor on two previous occasions and only needed another victory. Happily, for the sake of keen rivalry and competition, which after all are the things that spur us all on to renewed efforts and make for progress in all lines of endeavor, the cup this year was won by Great Britain.

The race was held on August 12th last at Naples, Italy, and was to have been competed for by France, Great Britain and Italy. Unfortunately for France, the planes that were to have been flown by its two representatives could not be finished in time for the event, so that the competition was reduced to a battle royal between Captain Henry-Charles Biard of the Supermarine Aviation Works of Great Britain and the two Italian representatives - Zanetti, piloting a Savoia 19 with 450 h.p. Ansaldo San Giorgio engine, and Passaleva, flying a Macchi Flying Boat with a 300 h.p. engine.

The course was a triangular one, totalling 200 nautical miles, and was covered by Captain Biard, piloting a Supermarine Sea Lion Mark II (450 h.p. Napier "Lion" engine) in one hour, 34 minutes and 51-3/5 seconds. Altogether 13 laps of the course had to be made, so that a great number of turns were involved, which had a tendency to reduce the speed of the competing machines very materially. Passaleva was second in one hour, 36 minutes and 22 seconds, and Zanetti third in one hour, 38 minutes and 45 seconds.

As a result of Captain Biard's victory, the Schneider Cup Race will next year be held in Great Britain.

AIRPLANE FORESTRY PATROL RECEIVES COMMENDATION.

The excellent work performed by the detachment of the 91st Squadron (Observation), stationed at Eugene, Oregon, in connection with the aerial patrol of the Oregon forests, has occasioned much favorable comment from all sides. The following letters addressed to Captain Lowell H. Smith, in command of the detachment, tend to show the attitude of others than those immediately connected with the Air Service towards the patrol of the forests by airplanes.

A letter from the Douglas County Fire Patrol Association is as follows:

"This association has found the new system of patrolling as maintained this season to be extremely satisfactory. We believe that from our standpoint the maximum amount of good can be accomplished by the Air Service patrol as maintained this season. It affords us a much better chance of combating fires after they are located, in determining what steps to take. Taking it as a whole the service has been very satisfactory.

The patrol as maintained has also been very beneficial in making the ground force more efficient, as the men on the fires know that we have a personal supervision of their work and can tell whether or not they are using the greatest amount of effort. It also has a good moral effect on campers, tourists and stock men. We find the ranchers more reluctant in setting slashing fires without permits and the hunters and fishermen have their attention called to the fire hazard by seeing the airplanes flying over the territory in which they are located".

The following communication is from the Booth Kelly Lumber Co.:

"There has been some discussion regarding the value of the air patrol in forest fire protective work. During the present dry season, because of smoke blowing in from the north, which is the general rule and not the exception, look-out stations have been practically of no value and the vision of the patrolmen has been very limited. Observers in your ships have been able to detect fires which would not have been discovered in any other way until they had gained considerable headway. In scouting over large fires they are able to give information to fire-fighting crews which cannot be gained as quickly or as accurately in any other manner.

It would seem that the results accomplished this year would convince the most skeptical and that should the Department at Washington know the true value of this work there would be no uncertainty regarding the future yearly patrol.

We wish to extend to you and through you to the others in your organization our high appreciation of the courteous and efficient service given our association the present season".

LONG DISTANCE AIRPLANE FLIGHTS.

At no time in the history of aviation in this country has the capability of the airplane to successfully negotiate long-distance cross-country flights been more forcibly demonstrated than during the last several months. First and foremost comes Lieut. Doolittle's transcontinental flight within an elapsed time of 24 hours; then comes Lieut. Wilkins' aerial jaunt from Bolling Field, D.C. to Rockwell Field, Coronado, Calif., and return. In addition to these two flights, Lieut. Doolittle has made several other long journeys by air from Kelly Field to the Pacific and Atlantic coasts. Lieut. W. T. Larsen recently completed a successful flight from Kelly Field to the Pacific Coast and Lieuts. Kelly and Dichman from McCook Field, Dayton, Ohio, in the new Army Transport Monoplane T-2 experienced no difficulty in covering the long stretch of country from the hustling Ohio city to the Golden Gate City. Many other long-distance flights that have been made by Army pilots could be enumerated here, but it is not our intention just at this time to dig up a lot of statistics but merely to call attention to an account submitted to us by our Crissy Field Correspondent of another long-distance cross-country flight from Dayton to San Francisco, which was made by Lieut. C.C. Moseley, with Major F. H. Coleman, as passenger, in a Fokker 2-seater Corps Observation plane, equipped with a Liberty engine, viz:

"On Friday, September 1, at 6:50 p.m., Lieut. C.C. Moseley and Major F.H. Coleman, arrived in their Fokker. Crissy Field turned out to receive the gentlemen and expressed a desire that they leave the Fokker at Crissy Field. However, we had to be satisfied with the presence of these two officers for a few days. While here they received considerable publicity in the Frisco papers, the following being a clipping from the CHRONICLE:

'After a remarkable test flight, covering the distance of 2350 miles from McCook Field, Dayton, O., to Crissy Field, here, in 26 hours and 15 minutes actual flying time, Lieutenant C.C. Moseley, pilot, with Major F.H. Coleman, his passenger, landed in their new type Fokker CO-4 plane at Crissy Field at 6:50 o'clock last night.

The flyers left Dayton at 8 o'clock Wednesday morning, and declare that, except for unusual weather conditions encountered at two points of the route, they would have reached San Francisco many hours earlier. Heavy fog induced them to land near Fort Benjamin Harrison, Ind., and await more favorable conditions.

Then, in a lonely spot in the mountains, about ten miles east of Rock Springs, Wyo., a raging storm, with a wind which blew the tops off the automobiles in towns of the vicinity raging against them at a rate of seventy miles, compelled them to land again. Lieut. Moseley hiked into Rock Springs for trucks and mechanics of the Air Mail Service, whose help at this and other points of the journey both officers praise highly.

"On my return", Lt. Moseley said last night after supper in the Officers' Club at Crissy Field, "I found Major Coleman comfortably ensconced in the heavy, metal fuselage of the ship wrapped in the blankets with 'Flapper', our little German police dog". Major Coleman laughingly admitted that this was so and highly praised the fuselage as a sleeping apartment.

Spending the night in Rock Springs, they returned to the ship in the morning to find it surrounded by half a dozen coyotes who loped off out of gun range and loitered about until the plane started off.

Lieut. Moseley, who is a native Californian, enthusiastically declared that California looks very inviting again after flying over most of the country.

The plane is a new type, built by the Hollander, Anthony G. Fokker, who constructed the German Fokkers during the war. This one was built under the supervision of the Engineering Department of the Air Service, U.S.A., and is so strongly constructed that Major George H. Brett, commanding Crissy Field, offered to give Lt. Moseley and Major Coleman a service-type to return home in and keep the Fokker here for the delight of visitors to Crissy Field. However, both officers will return to Dayton in a few days with their Fokker.'

Commenting on the performance of the new ship, Lieut. Moseley stated that the only trouble he encountered on the trip was the loss of two tail skids, which were frayed and broken due to the hard ground upon which he had been forced to land, but that the machine functioned perfectly.

AIR SERVICE COOPERATION WITH TROOPS ON "SYRACUSE DAY"

The New York State Fair, held at Syracuse, N.Y., from Sept. 11th to 18th, was opened by what is commonly called and has been in vogue for many years as "Syracuse Day". A feature of the program was a sham battle, in which all arms were represented, and a battle formation and maneuver. Six airplanes from Mitchel Field, headed by Major Junius W. Jones, were present at Syracuse and represented the Air Service in this demonstration by combined arms. The other pilots were Capt. Clyde V. Finter, Lieuts. John C. Kennedy, S.M. Connell, Newton Longfellow and C.E. Crumrine. The function of the Air Service at this maneuver consisted of a bombing demonstration, ground harrassment, and attack, with machine guns, infantry liaison and aerial photography.

Upon return of the pilots to Mitchel Field they reported that the people of Syracuse did everything possible to make their stay pleasant, and that the maneuvers in which they participated were very successful.

ARMY AIR SERVICE PARTICIPATION IN POLICE FIELD DAYS.

The Army Air Service personnel from Mitchel Field, L.I., New York, played a conspicuous part in the successful outcome of the Field Days recently held at the Jamaica Race Track by the "Finest" of the Metropolitan City. The Field Days are annual affairs, and the proceeds therefrom are devoted entirely to the relief of widows and orphans, or other dependents, of members of the New York Police Department of less than 10 years' service who are killed in the performance of duty, and to men who become permanently disabled in the performance of duty. The Air Service personnel gave an excellent demonstration, the program consisting of a close formation of five airplanes; Bubble Chasing (destroying small hydrogen balloons); Bombing; 20-mile race; landing for accuracy; message dropping; acrobatic flying, and aerial radio demonstration.

The pilots who participated were Major Junius W. Jones, Captains Ira C. Eaker and Clyde V. Finter, Lieutenants John C. Kennedy, Samuel M. Connell, Newton Longfellow and C.E. Crumrine.

Mr. F. W. Dwyer, aid to the Special Deputy Commissioner, commanding the Police Reserve, sent letters to Major General Mason M. Patrick, Chief of Air Service, and Major W. R. Weaver, Commanding Officer of Mitchel Field, expressing the hearty gratitude of the Police Department for the aid and cooperation which the Army Air Service extended, and stated that it served to convey to the minds of not only the vast multitude of people who were present but to the reading public of the United States that the Army of the United States possesses in the highest sense a high civic spirit in thus aiding in such a substantial way a worthy charity like the Police Relief Fund.

In the official program covering the various scheduled events, the participation of the Air Service is touched upon in the following manner:

"The attention of the public is respectfully invited to the splendid spirit shown by the Army Air Service in providing such a magnificent program for the entertainment of the people of the City of New York in attendance at the Police Field Days, September 9th and 16th, 1922; and to point out the need of the Army Air Service and the Army in general for more generous aid and encouragement at the hands of Congress.

It is earnestly requested that every citizen impress ^{upon} their Congressman, Senators, and public men the necessity of preparing an efficient national defense. The greatest insurance against war for any nation is to have an efficient fighting machine. Every citizen owes it to his country to perform his duty and do all he can to make his voice and opinion heard in the national legislature to compel the maintenance of an efficient military defense force that will insure peace for all time so far as it affects the United States. Aviation is now an important part of any military system of defense, therefore, let all good citizens make it their duty in every way possible to give aid and encouragement to this important branch of the military establishment."

A feature of the Air Service demonstration was a test in message dropping for mark. One of these messages fell in the center of the circle. When picked up by the Police Department and opened it was found to contain the following message:

From the Officers of Mitchel Field
IN MEMORIAM
Major John Purroy Mitchel
A Sterling Air Service Pilot "Gone West".

The other messages dropped were all addressed to officials of the Police force. These messages were received and recognized by the individuals to whom sent and were a matter of great interest in demonstrating the practicability of message-dropping and written communication from the air. The messages were salutations from Major W. R. Weaver, C.O. of Mitchel Field, to the Hon. John F. Hylan, Mayor of New York City; Police Commissioner Richard E. Enright; Miss Julia Loft, Hon. Deputy Commissioner; and Police Inspector John F. Dwyer.

SCOTT FIELD STAGES SUCCESSFUL AERIAL CIRCUS.

Approximately 15,000 people witnessed the Aerial Meet recently held at Scott Field, Belleville, Ill., in conjunction with Chanute Field, and the proceeds thereof, amounting to about \$5,000, will be equally divided between the two fields for the erection of club houses or recreation facilities for the enlisted personnel. A program of 20 events was staged, these being equally divided between the Lighter-than-air and Heavier-than-air branches of the Air Service.

The Aerial Circus received considerable publicity from the press, especially the St. Louis papers, In one of the "write-ups" of the Circus it was stated that it "not only entertained but thrilled the assembled thousands of spectators and clearly demonstrated that aviation as an art has arrived and has passed far beyond the empirical stage in its development."

The day was not marred by a single unpleasant feature, weather conditions being perfect. The handling of the crowd was perfectly accomplished without accident. Officers from Jefferson Barracks, Mo., were the guests of the officers of the field at the Meet and, in addition, many of the reserve officers, who were at the Barracks for their period of summer training, attended.

The Fokker Limousine and the Martin Bomber were of the most interest to the spectators, both machines being flown from McCook Field for exhibition at the Meet. A Belleville newspaper waxed rather enthusiastic about the Fokker, and its eloquent remarks concerning it, as well as its opinion of Scott Field, are worth quoting, viz:

"The big Fokker at Scott Field, Sunday, impressed us like a strange visitor from some other planet, from Mars, or Jupiter, or Neptune, or like some new arrival from an undiscovered solar system floating somewhere in the immensity of infinitude.

When it rose from the arena with the ease and grace of a wild goose, carrying eight passengers and the pilot, in quarters as comfortable as a Pierce Arrow Limousine, we simply jumped up from the ground, where we were squatted on the grass like a Turk, looking on and chewing tobacco, threw our hat as high into the air as we could throw it, and yelled as loud as we could yell in astonishment and wonder and sheer admiration and pure delight, and the only thing we had to drink all day was one bottle of red soda and two glasses of lemonade.

With her one great big solitary plane and her high-power internal combustion engine puffing like a locomotive, she was a daisy and seemed perfection, and yet carried up with it only a feeble hint of what our children and our grandchildren will see developed and brought into actual use to minister to the wants and comforts and to the pleasure of mankind, and to strengthen the nations in war time along this line during the next fifty years to come.

Scott Field is an institution, and it is a great institution, a proud one, one of the greatest in America and in the world, and we congratulate the officers and the men on the splendid unprecedented entertainment which they gave during Sunday, and on the grand and glorious triumph they achieved."

In his official report to the Chief of Air Service covering this Meet, Colonel C. G. Hall, Commanding Officer of Scott Field, stated that it was opened at 10:00 a.m. and continued until 6:00 p.m., with an intermission of one hour at noon for the purpose of allowing visitors to lunch. Owing to the fact that a great many people did not take advantage of arriving at the Field early in the day, when it was realized that a large part of the crowd would not see any great portion of the events, the program was delayed and extended so as to bring into the afternoon as large number of events as possible. The nineteen events were amplified by many more in order to keep the program continuous and sustain the interest of the audience.

Other portions of Colonel Hall's report are as follows:

"It is desired to take this time to advise the Chief of Air Service of the benefits of holding Circuses of this kind, properly regulated and placed before the public. It is believed that such entertainments are worth many times their cost to the Air Service in placing before the public the activities of the Air Service and keeping alive a spirit of interest in aeronautical advancement without which the Government must be more or less handicapped.

Not a single criticism has been heard from any source, and on the other hand the public are keenly alive to the value of such entertainments and seem to be anxious for them to be continued each year.

Authority was requested from your office to fly civilians in connection with a wedding to be performed in the air. This authority was not obtained up to the time of holding the event, but under the general authority for the holding of the Circus and because it was believed that if the flight of civilians under the circumstances were objectionable your office would have advised to the contrary, the event was carried out as planned. Originally it was intended to use two captive balloons, one captive balloon being insufficient to carry up the requisite number of people, but on account of numerous inquiries from the people as to the Fokker limousine, it was decided to use this airplane for the event, thereby especially drawing the attention of the public to this very interesting and novel piece of equipment.

In holding events of this kind, the main factor to be looked out for is that of preventing confusion in traffic and of satisfying the public. It is believed this factor was adequately handled during the entertainment, with the result that nothing but the most hearty accord is emanating from the public at large."

SQUADRON NEWS

Kelly Field, San Antonio, Texas, Aug. 19.

Upon the issuance of recent operation orders to the effect that all Squadrons would be moved into the field, a run on the home town bank looked like a false alarm in comparison with the requests that flooded our orderly room. For some time our enthusiastic mechanics have been working at Camp Normoyle on the motor transportation, getting it into shape in the hope that some day we might have a chance to use it. Well, as rumor had it, we were actually going to see if it would run and it would be operated under Squadron supervision, just like a regular unit. Immediately requests came in for the honor to be the first man to solo a Dodge, a White or a G.M.C. Just imagine the excitement it would create to drive proudly out of the Camp in a Government car instead of your own and actually perform an official duty. However, much to our regret, our enthusiastic motorists were informed that the rumor was without basis, and if they desired to learn the motor transport game they could report at Hangar 45-B, where our assigned motor vehicles proudly rest upon the blocks. Then some mean individual started a rumor that this was to be converted into a museum of antiques after January 1st, showing vehicles which were used in the late war.

Lieut. Lawrence I. Peak, having endangered his friendship with his fellow officers at Kelly Field, is devoting himself to Brooks Field.

Corporal Harmon is our latest addition to the list of participants in the melon entitled "Regular and frequent flights".

Sgts. Gates and Kelly have returned from a leave spent in the vicinity of Del Rio. It is rumored they were prospecting for oil, but we have our doubts unless it was the fusel variety.

Captain Hayes and family are again at large, the threatened measles proving to be merely a heat rash.

Several flights were made this week to get the radio ships in shape to hold a shoot, in conjunction with the C.A.C. at Galveston, Texas. After everything was lined up it was learned that, due to orders having been received by the C.A.C. to abandon this post, the shoot was called off.

Captain Voss and Lieut. Laborde, of the 10th Group (School) made a cross-country flight to Laredo, Texas on Saturday, August 13th. They remained at Laredo until Sunday afternoon, taking off at that place at 5:00 p.m.

Lieut. C.C. Shangraw, formerly of the 10th Group (School), has been assigned to the 26th Squadron, where he is Supply Officer. On Friday, August 12th, Lieut. Shangraw as pilot and Sgt. C. Cleveland as passenger, made a cross-country flight to Fort Sill, Okla. A stop was made at Dallas, Texas, where the ship was serviced; they arrived at Dallas at 10:25 a.m., took off at 11:15 a.m. and arrived at Fort Sill, Okla. at 1:35 p.m. The following day they left Fort Sill at 9:15 a.m. and arrived at Waco, Texas at 12:00 o'clock, noon; they took off at 4:20 p.m. and arrived at Kelly Field at 6:45 p.m. On Wednesday, August 16th, Lieut. Shangraw, with Corporal Hoffman as passenger, made a cross-country flight to Del Rio, Texas, to inspect the Border Airdrome at that place.

Only one cross-country flight was made by the 13th Squadron this week. Lieut. Wheeler flew to Laredo, with Capt. Murphy as passenger. Lieut. Wheeler returned with Private Anketell as passenger.

Payday in an outfit is always celebrated more or less with joy, both bottled and otherwise, but the last pay-day in the 13th Squadron continued with such celebration and as a result one Sergeant became a Private and, subsequently, with a brother Private left for parts unknown. It is not known whether or not the Squadron Commander justified the action, as the Squadron has always passed inspection in a creditable manner, but this Sergeant thought that the condition of the barracks was unclean and proceeded to remedy the fact by turning the garden hose upon the barracks in the wee small hours of the morning.

A new Status Board has been installed in the Operations Office of the 8th Squadron which will take care of all information pertaining to planes or engines, their equipment and running time, and other items necessary to expedite the completion of reports.

Kelly Field, San Antonio, Texas, Aug. 19 (Cont'd).

On Sunday morning, August 13th, Lieut. Selzer with Sgt. Simmons left on a cross-country trip for the purpose of investigating the landing field possibilities at several places not often frequented by planes. He used Dallas, Texas, as headquarters, and from there flew to Little Rock, Ark., stopping at Hope, Texas enroute. An excellent field was found at the edge of the city of Hope, while at Little Rock only a fair one could be located, which could be improved greatly with very little work. Returning to Dallas, the next landing was made at Bryan, Texas, and only a fair field was found there, with large possibilities for improvement. They returned to Kelly Field Wednesday evening, flying direct from Bryan. Sgt. Simmons had received instruction in the operation of aerial cameras and a good many oblique pictures were taken of the landing fields.

TENTH GROUP (School). Major Heffernan, who was formerly with the Third Group (Attack), is now assigned to the 10th Group and is in charge of Bombardment Training.

Major Brereton and Captain C.H.Reynolds reported to Kelly Field during the week and were assigned to the Tenth Group for duty in the Air Service Advanced Flying School.

Cross-country work for the 10th Group has been more or less limited to week-ends, due to the necessity of using all available airplanes for training purposes. Several trips have been made to Post Field recently and many trips to Laredo. Lieut. F. B. Johnson made an inspection of the country between Kelly Field and New Orleans to obtain data for an airway between the two places.

Major Lanphier and Lieut. Davis from the 44th Squadron, Post Field, visited the 10th Group this week.

THIRD GROUP (Attack). On August 11th, Lieut. D. V. Gaffney, with Lieut. Johnson as observer, left Kelly Field for New Orleans, La. by way of Houston, Texas, for the purpose of charting the Airways between Houston, Texas and New Orleans, La. They had completed the trip to New Orleans, but in attempting to land on the City Race Track at that place the ship crashed. Both pilot and observer escaped uninjured.

Lieut. L. S. Andrews, of the 90th Squadron, is still suffering from insomnia, and is taking early morning flights in the G.A.X. to quiet (?) his nerves. The Lieutenant claims, however, that the early morning is the only time it is safe to fly the ship. For confirmation, ask Sgt. Glendy, his last passenger, who, upon completion of one thrilling afternoon flight when they barely got off the ground, had decided to give up flying until the G.A.X. is safely in the salvage.

Staff Sergeant Fellow, after long practice figuring clothing allowances and how to keep even on property, has gone one better and figured himself eligible for the Kelly Field Undependable Auto Association by purchasing a late Model Dodge Sedan. Recruiting Officers will kindly take special notice of this unusual opportunity afforded to "Join the Army and learn a trade".

Kelly Field, San Antonio, Texas, Aug. 26.

Captain Hayes, Commanding Officer 90th Squadron, with Master Sergeant Kolinski, made a cross-country flight to Sanderson and thence to El Paso, Texas on the 21st of August, returning the 23rd, for the purpose of mapping airways.

Sixteen cadets of the CMTC have been assigned to the 90th Squadron for instructional purposes, the first day was devoted to flying and acclimating the youngsters to the air. A lecture on the History of Aviation was given them for one and half hours. Two hours were spent on machine gunnery and, from the facial expressions of the boys, it is easily noted that the work, studies, etc., are more than enjoyed.

1st Lieutenant B.E.Gates, of the 26th Squadron, has returned from leave-of-absence and has been appointed squadron engineering officer. He has been assisting in the training of the Citizens Military Training Camp.

1st Lieutenant R.M.Greenslade, Operations Officer of the 26th Squadron, has received transfer orders to Brooks Field, Texas.

Kelly Field, San Antonio, Texas, Aug. 26, (Cont'd)

Training of the CMTC students assigned to the 26th Squadron has been in progress for the last week. The class is receiving training in flying and each member is given a flight each day, and acts in the capacity of observer. In addition to the actual flying, lectures are given each day on airplanes and the functioning of same, ground work in motors and machine guns and their use in time of war. On Wednesday, August 22nd, the class witnessed a demonstration of bombing. A seven-ship formation made a bombing raid, dropping bombs on a target, which was on the ground approximately 500 yards from the steel hangar south of the flying field. Four bombs were carried and dropped by each of the formation. The raid was successful and the class was well pleased with the demonstration.

THIRD GROUP (Attack). A class of approximately 150 CMTC students reported on August 18, for training. The training activities started on August 20th and was completed August 24th, the shortness of the period being due to the limited time allotted for the work.

The first day's work consisted of flying the students; lectures on History of Aviation and functions of aircraft, with practical work in organization, also lectures on machine guns and practical work, viz- stripping, firing and assembling.

The second day's work consisted of flying the students, lectures on gas engines, nomenclature and some practical work in machine shops. A tour of the S.A.A.I.D. was given the entire class, which proved very beneficial to the students, in that all stages of repair work and aircraft construction is done at this station.

Flying demonstration of tactical work done by Bombardment, Attack, and Observation aviation was given on the third day. An objective was picked out and planes were dispatched in battle formation and attack at low altitude, with bombs. After the objective was destroyed there was a demonstration of firing an artillery problem, and use of communications, viz- radio, wireless telephony, and panel station in liaison work.

The fourth day's work consisted of flying the students and a lecture on aviation cadets; qualifications, training, and purpose of. The remainder of the day was taken for preparations for change of station.

The students were all pleased with their training at Kelly Field, and showed great interest and enthusiasm. Naturally, flying appealed to them more than anything, but they had considerable sport and were benefitted by the entire course.

Lieutenant Donald D. Duke, assistant to the Air Officer, 8th Corps Area, assigned to the 5th Air Park for flying, has been on leave of absence for the last few days, visiting friends at Corpus Christi, Texas.

Crissy Field, Presidio of San Francisco, Calif. Aug. 28.

The month of September will mark the sailing on the U.S. Transport LOGAN of about 600 men for duty in the Hawaiian Islands and the Philippines. Those who were former members of the 9th Squadron (Obs). go to the Hawaiian Islands as replacement troops while those going to the Philippine Islands are to join the 28th Squadron which recently left these parts.

A number of Crissy Field officers made a cross-country flight to Mather Field on August 25th to attend a farewell banquet given by the Air Service Reserve Officers upon the completion of their summer training at that field. Colonel Wm. E. Gillmore, Air Officer, 9th Corps Area, and Major Geo. H. Brett, C.O. of Crissy Field, were among those making the flight.

It has been rumored that we are going to lose our Flight Surgeon, Captain A.W. Smith, who was the first flight surgeon to see duty at Crissy and for a long time was our only doctor. We are hoping against hope that the rumor will not materialize and that Capt. Smith will remain.

Lieut. Lloyd Barnett, a recent arrival at Crissy from the Montgomery, Ala Air Intermediate Depot, is now in command of the 91st Squadron (Observation).

On the afternoon of August 22nd Lieut. Paul Wilkins, of Bolling Field, made a happy landing at Crissy, thus completing his East to West flight. We congratulate Lieut. Wilkins on his successful flight.

Crissy Field, Presidio of San Francisco, Calif., Aug. 28. (Cont'd)

Of the strangers to arrive at our field on Tuesday was one Lieut. Westsid T. Larsen, of Kelly Field, who made a record flight between here and Kelly. While in these parts he made a cross-country flight to Mather Field, Sacramento and return. He left for his home station on August 24th.

The 91st Squadron (Obs.) seems as of old once again with the return of a number of its old noncommissioned officers who have been on temporary duty as instructors at Mather Field in connection with the R.O.T.C. at that post.

Lieut. Robert E. Self, C.O. of Photo Section No. 15, flew to Mather Field with Staff Sgt. Samuel T. Bush, photographer, to photograph the various activities of the R.O.T.C. at that field.

Lieut. Walter Miller, Post Engineering Officer, made a cross-country flight to Blairsden, Calif., and then to the Air Service Rest Camp. On the return trip he had as passenger Capt. A.D. Smith, in command of the rest camp. Capt. Smith will be remembered by those who trained at Rockwell Field as Major Smith, Officer in charge of training and flying. It is surely a treat to those of us who have previously served with him to see him again, if only for a few days.

On Monday afternoon two DH4B's from Rockwell Field dropped in for a stay of a couple days. The first plane to land was that piloted by Major Shepler W. FitzGerald, C.O. of Rockwell Field, with Commander Schuman of the Navy as passenger. While here Major FitzGerald flew to Mather Field with Lieut. Vanaman to inspect some planes there. The party left Crissy for its return flight to Rockwell on Wednesday morning.

A desire on the part of a number of officers here at Crissy for service with the detachment on forestry patrol duty at Eugene, Oregon, is keen, as it appears from their news items that they're huntin', fishin', 'n everything. Their news items follow:

Lieut. John R. Morgan, A.S. with Private Alfred J. Dowd left by air for Montague, Calif., for about ten days' forest patrol work at that station. They will cover the northern part of California, especially the heavily timbered areas in the Siskiyou range. Lieut. Wm. C. Goldsborough, with Sgt. Thos. J. Fowler as passenger, flew to Crissy Field early in the week but reported a forced landing near Redding, Calif. on account of a burnt-out motor bearing. At latest reports they should be on their return to Eugene in a day or so in a new ship from Crissy Field. Lieut. Russell L. Maughan returned from San Francisco and set up a new record for speed from Mather Field to Eugene, Ore., covering that trip in 3 hours and 55 minutes.

Rainy weather the past week has put out many fires throughout Oregon and Washington and cleared up the atmosphere in good shape. It has necessarily stopped patrols for a few days but much flying is predicted, as well as another dry spell before the winter rains actually set in.

Capt. L.H. Smith and Lieut. Wm. C. Goldsborough spent the last week end in the mountains, as a result of which all the officers enjoyed a fine trout dinner.

The parents and sister of Lieut. W.A. Maxwell stopped in Eugene for a few days en route to California via auto. from their home in Detroit, Michigan.

Brooks Field, San Antonio, Texas, Sept. 11.

In spite of drowsily arising, on the morning of excessive use of washing powder and laundry soap, and finding ourselves in the wake of the proverbial "norther", which is the first of the season, considerable interest is manifested by the officers of Brooks in connection with the selecting and marking of landing fields along the San Antonio-Dallas, and the San Antonio-Houston airways. We feel that an undertaking of major significance has fallen upon our shoulders, and that in carrying out this work, a very important link will be hooked in the much needed chain of endless length. While we hear the continual wail about the ancient and out-of-date type and designs of aircraft used in this country, still it is believed that the progress of airplanes is far in advance to the ground facilities thus far developed to accommodate them. It is further thought that the establishment of these airway systems will achieve certain purposes along missionary lines by keeping before the different communities, the fact that this mode of modern transportation is not only practicable, but actually in use.

Brooks Field, San Antonio, Texas, Sept. 11. (Cont'd)

The Officers and Ladies of Brooks Field entertained with a very enjoyable dancing party, honoring General and Mrs. Hines, on Friday, September 19. The dance was held in the Officers' club, which was tastefully decorated. At midnight, the mess officer had provided a very tasty luncheon, which was served on the lawn. Preceding the dance, Major and Mrs. Royce entertained at dinner, honoring General and Mrs. Hines. Other guests were Lt. Col. Howard; Lt. Col. and Mrs. Fisher; Major and Mrs. Brereton; Major Lackland and his mother; Major Bock and Captain Candee.

A daily occurrence is the variable program of music which is broadcasted from the Brooks Field Radio Broadcasting Station. Much interest has been shown thruout the surrounding territory, and letters have flooded Lieut. McGregor's office (the Communication department) helping to adjust the wave length, etc., so that clear and efficient service may be carried on. The Brooks Field Jazz Band, augmented by piano, saxophone and cornet solos, furnish most of the music for this newest indoor sport, and the word around San Antonio is "OWN YOUR OWN PHONE".

As the Oshkosh "Friday Caller" would probably word the following item of news: - 'Our most amiable and efficient, the short and stubby, Officer in Charge of Flying, 1st Lieut. Julian B. Haddon, of the Army Air Service, is taking advantage of a thirty day leave, which he is spending in sunny California. We wish to inform the subscribers, however, that this, to our knowledge, is not in any way connected with the pink slip process. The editing staff of this paper, together with a host of friends, all join in wishing Lieut. Haddon an enjoyable visit with the home folks.' Lieut. Mez McClellan is temporarily functioning in the capacity of Officer in Charge of Flying.

It is with some little humiliation that we touch on the baseball subject, in that the Kelly Field School Officers team took our measure to a count of 12-2, last Wednesday afternoon. However, this is the first time our brave nine has not withstood the onslaught of similar engagements.

Clark Field, Pampanga, P.I., July 22.

There was little of particular interest to the Air Service at large for the past week, with exception of the inspection of the Air Officer, who flew in from Manila on the 17th and departed the succeeding day. Major Jones, in addition to inspecting the entire garrison, examined most of the Staff Officers in person in matters pertaining to each Officer's duties and general knowledge.

Much time is being devoted to school work, with training taking precedence over all other matters.

Clark Field, Pampanga, P.I., July 30.

There has been a relatively small amount of flying and outside activity during the past week, due to the persistent rains. The rains are at their height at this period and the snipe-hunting enthusiasts are getting out the old shotguns in anticipation of a plenteous season, and will soon be spreading tales of fabulous bags to incredulous disbelievers.

On Sunday morning, notwithstanding the weather, an attempt was made to effect contact with the "Henderson", reported as approaching Subic Bay enroute to Manila with the Secretary of the Navy as a passenger. Many trials were made to pierce the dense wall of clouds and the sheets of rain that blocked progress to the west coast and China Sea, but without success. Five planes made up the formation, piloted by Major, A.H. Gilkeson, Flight Commander; Lt. G.W. Pardy, Lt. R. Baez, Jr.; Lt. B.S. Thompson and Lt. H.A. Johnson. Weather permitting, the attempt will be resumed upon the "Henderson" entering Manila Bay.

Hqrs. Camp Nichols, Rizal, P.I. July 22.

At this time when appropriations are being cut right and left, it comes as a rather pleasant surprise to be notified that the appropriation for flying status has been more than doubled. The new allowance permits placing on flying status some thirty additional men in this department.

Hqrs. Camp Nichols, Rizal, P.I., July 22, (Cont'd)

Latest advices from the Air Office state that the civilian personnel employed by Philippine Air Depot and by Post Headquarters will be cut by fifty percent. Considerable anxiety is felt by the entire office force at Post Headquarters as no one can understand how the civilian personnel, which consists of one stenographer, can be cut fifty percent and still remain within the rulings of the Ten Commandments.

The weekly program enjoyed by the entire personnel at Camp Nichols, was as follows:

Monday - Rain
Tuesday - More rain
Wednesday - Threatening typhoon
Thursday - Rain
Friday - More rain
Saturday - Still raining.

Hqrs. Camp Nichols, Rizal, P.I., July 29.

Rumors of what the new pay-bill would bring forth has caused many of the Officers and enlisted men to be rather uneasy during the past month. Latest advice from Washington states that additional Foreign Service pay will not be abolished during a soldier's present enlistment, which is rather good news to the entire personnel. The personnel clerk regrets that the fun of remaking pay-rolls and pay-vouchers is all over. The weekly program remains unchanged, which consists of Rain principally.

The Qualification Tests still remain uncompleted. Flying of any kind is at a standstill, while present weather conditions exist. Construction of Hangars and other work is handicapped considerably while the unceasing rain continues to descend from the skies.

Kindley Field, Fort Mills, P.I., July 22.

On Wednesday and Thursday of the past week Major B.Q. Jones, Department Air Officer conducted his annual inspection of the Air Service organizations comprising this garrison. Administrative, Supply, Radio, Armament, Operations and Engineering activities were inspected in detail. The condition of all activities showed a vast improvement over that of a year ago at the time of the last annual inspection of the Air Officer. During the past year the goal striven for by all organizations has been to be prepared at all times in organization and equipment, for immediate field service, and the training of personnel in all professional qualifications that are required of Air Service Officers. All organizations are operating strictly in conformity with existing Tables of Organization and have stripped down to such equipment and supplies as are authorized by Tables of Equipment. Training activities were curtailed due to shortage of personnel for the greater part of the year and because of inadequate flying facilities. However, the construction of a landing field on Corregidor has enabled the 2nd Squadron to equip itself with land planes, which will result in a greatly increased tactical efficiency and enable the carrying out of a constructive training program during the next year. Flight "A" will be equipped with 6 DH4b's and Flight "B" with 4 HS2L flying boats, until the present supply of these flying boats is exhausted.

Weather conditions were favorable for launching H boats during the fore part of the week, and a number of flights were made by officers of the Squadron. Lieutenant George M. Palmer flew to Manila on Wednesday, landing in the Port Area Basin and bringing Major Jones, the Air Officer to Kindley Field.

Flight "A" at Paranaque Beach has been placed on inactive status during the rainy season. Lieutenants Gravely, Johnson and Gabriel, with the majority of the enlisted personnel, have returned to Kindley Field, leaving Lieutenant Drumm and 5 enlisted men to take care of the equipment.

Kindley Field, Fort Mills, P.I., July 29.

Inclement weather prevented all flying activities from Kindley Field during the past week. Typhoon signals have been following one another in rapid succession for two weeks. High winds, causing a heavy sea, and frequent down pouring of rain prevented any "ships" from taking the Air.

Kindley Field, Fort Mills, P. I., July 29. (Cont'd)

Major Thomas J. Hanley, Jr., and Captain Idwal H. Edwards visited Flight "A" at Paranaque Beach on Wednesday and made a number of "hops" between showers in DH's.

Orders have been received from the States placing the 17th and 27th Balloon Companies on the inactive list. Both companies are busily engaged in turning in to the various supply branches all supplies and equipment. As yet, no instructions have been received as to disposition of personnel assigned to these organizations.

1st Lieutenant Neal Creighton has been appointed Garrison Quartermaster vice, 1st Lieutenant R.A. Hicks, who has assumed command of Flight "B".

Chanute Field, Rantoul, Ill., Sept. 5.

The unfortunate crash in which Lieuts. Stackhouse and Monroe met their death occurred on Friday, July 28th at about 11:00 a.m. The plane struck in a cornfield approximately six miles west of Chanute Field. The exact cause of the accident is unknown. There were no Air Service Officers in the locality, the sole witnesses being some farmers who were working in a nearby field. Their stories vary. A summary of evidence gathered, however, points to the fact that the plane had been stunting for some time, then came low over the cornfield, turned abruptly, and plunged to the ground. It struck almost vertically. An examination of the remains of the plane showed that the controls were still connected. Funeral services for these two officers were held the day following. The body of Lieut. Monroe was taken to his home in Detroit by 1st Lieut. G.H. Brown. 1st Lieut. Stanley Smith accompanied the body of Lieut. Stackhouse to Wilkinsburg, Pennsylvania. This is the first serious accident that has occurred on Chanute Field during the time that the Air Service Mechanics School has been occupying the Post. The incident was sad in the extreme, and the sympathies of every member of the Post are sincerely extended to Mrs. Stackhouse and Mrs. Monroe.

Twenty-four officers and three Enlisted pilots flew to Scott Field, Belleville, Illinois, for the purpose of taking part in a combined Heavier-than-air and Lighter-than-air circus on August 27, 1922. They returned the next day, reporting the circus a success.

A recent medical inspection of the enlisted personnel of the Post disclosed the fact that there were many men who could be divorced from their tonsils to their great personal advantage. Captain J. H. Hickman, M.C., the flight surgeon, having finished up the pile of 609's on the Reserve Officers at the summer training camp, decided to have a tonsil party. One of Captain Hickman's stellar surgical points is the pursuit of the elusive tonsil to its lair and the capture thereof with little or no fuss at all. It is needless to say that the announcement of a worlds series of operations was hailed with delight by many seekers after better health. Results: on Friday thirty-one members of the Post bid a fond farewell to tonsils that had taken them years to raise. A few more on the day following, brought the total up to over forty. There is a ward in the Hospital now that is a place of peace and quiet. Its occupants talk infrequently and then only in low whispers. Every man, however, is doing splendidly and will be about in a few days as spry as ever. Among those who took a prominent part in the above proceedings, was Lieut. Owen E. Spruance, who, in addition to his tonsils, contributed several bones from his Roman proboscis to the Captain's collection.

91st Division, Air Service, Presidio of San Francisco, Calif. Sept. 15.

Activities of the Reserves of the Ninety First Division Air Service were resumed last Sunday, Sept. 11.

During the absence of Capt. Harold, the Regular Army instructor, and owing to the fact that all the planes were being used on training camp work, there was practically no flying during July and August.

Seven Members of the Squadron attended the Training Camp at Mather Field. It was like old times. In addition to the enormous amount of Barracks flying that was done, every man there put in quite a bit of time on learning again which was the "STOP" paul and which was not, how many Dots and Dashes it takes to make a sentence that can be read, and why it is a motor doesn't always "note." Of course every pilot qualified again to solo, and every Observer to Observe.

91st Division, Air Service, Presidio of San Francisco, Calif. Sept. 15 (Cont'd)

In fact, we are so proud of the effects of the training received that our "lucky" seven are due to do a lot of instructing in the very near future.

Every pilot and observer will be compelled to qualify in Radio and Panel reading if he desires to continue flying, and as soon as possible thereafter he will be called upon to carry out a "Reglage". Work is now commencing on the installation of a puff Target.

At the termination of the Camp, six JN5H planes were ferried from Mather Field to Crissy Field by Reserve Officers, four planes being flown by members of the 316th Observation and two by pilots from the 477th Pursuit Squadron.

Approximately 22 hours flying was done during the period Sept. 1 - 15.

Of the 33 Officers assigned to the 316th, 19 are actively flying, two of whom are still in the dual stage.

Rockwell Air Intermediate Depot, Coronado, Calif., Sept. 9.

The big event of the week was the arrival of Lieut. James Doolittle, A.S. from Jacksonville, Florida. He completed his ocean to ocean one-stop flight at 5:35 p.m. September 5th, making the remarkable time of 21 hours and 19 minutes. The remarkable thing was his condition when he arrived. He seemed none the worse for wear, and after a good nights sleep borrowed a plane and flew to Los Angeles to see his mother. He returned on the evening of the 7th, and at 6:00 a.m. on the 8th hopped off on a direct trip to Kelly Field. Captain Randolph and Lieut. Webber flew to El Centro to escort Lieut. Doolittle in from that point, on his trans-continental flight. They landed here in formation and reported that the only difficulty they had was in keeping up with him.

The post is all up-set by the ordering of Major S. W. FitzGerald, Commanding Officer, to Kelly Field. He leaves here next week. We will all feel our loss when he goes, as service under him has been extremely enjoyable. He is well liked by everyone with whom he comes in contact. He numbers both his service and civilian friends by the score, and because of his remarkable personality exceptionally cordial relations and good feeling has been maintained between the services and the civilian population of San Diego and Coronado. Mrs. FitzGerald has been a charming hostess and we all feel that it will be very difficult to replace two such fine people.

Seven officers of the post returned Monday night from a week-end camping trip at Warners Hot Springs, Calif. Tired and dusty, they reported having a marvelous time.

Langley Field, Va., Sept. 18.

During the latter part of August, 1st Lieut. L.L. Beery, 96th Squadron (Bomb) made a Cross-Country flight to Fairfield, Iowa. Stops were made at Moundsville, W.Va., Chanute Field, Ill., and Iowa City, Iowa, and the total time enroute was nine hours and fifty-five minutes. On the return trip stops were made at Salem, Iowa City, Ia., Chanute Field, Ill., Selfridge Field, Mich., McCook Field, Ohio, and Bolling Field, D.C., the total time for the return trip was fifteen hours and forty-five minutes, and the total time for the round trip twenty-five hours and forty minutes. Lt. Beery flew a DeH 4 B, and covered a distance of two thousand four hundred and fifteen miles without a mishap.

The Group Personnel is undergoing a period of training in preparation for the tests between the Coast Artillery and Air Service. The results of the last few days (bombing of a fifteen-foot square target, being towed out in the bay) were very encouraging.

Information Division,
Air Service

October 19, 1922.

Munitions Building
Washington, D.C.

The purpose of this letter is to keep the personnel of the Air Service both in Washington and in the field informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE October 21, 1922.

THE ARMY AIR SERVICE AND THE LIBERTY ENGINE

By Lester D. Seymour

Ed. Note: This article is especially of timely interest at this time in view of the wonderful performances of the Liberty engine of late, first and foremost of which being the record-breaking endurance flight of 35 hours, 18½ minutes, made on October 5th and 6th by Lieutenants Oakley G. Kelly and John A. Macready over Rockwell Field, after a fog over the mountains had forced them to temporarily abandon their proposed non-stop transcontinental flight, also the one-stop transcontinental flight of Lieut. James H. Doolittle, the round trip transcontinental flight of Lieut. Paul C. Wilkins, and numerous other long-distance cross country flights, not forgetting the record-breaking altitude flight of Lieut. Macready in September, 1920. What more convincing evidence could be produced to demonstrate its wonderful reliability, and can anyone combat our assertion that it is the best aeronautical engine the world has yet produced?

The great aircraft engine designed by America's foremost engineers, developed and given to the military and naval forces of the United States in 1918 by the Army Air Service, has neither been forgotten nor abandoned by the Army since the signing of the Armistice. With a large number of the engines available for future use at the close of the war, the Army has spared no effort to continue the unexcelled record of the Liberty.

As a result of the extended use of this engine in the service and exhaustive tests, many refinements have been added and changes made. As new features of design or modification have proven of value they have been incorporated in the engines in the possession of the service and given not only to other branches, including the Navy Department, but to prominent manufacturers and designers for the general advancement of the art of aerial navigation.

While the characteristics of this engine are fairly well known to those connected with the Air Service, it may be found of value to recite some of the outstanding features for the benefit of those not so intimate with aircraft. As originally designed with a weight of only 800 pounds, a horsepower of 400 was secured with the propeller shaft turning at approximately 1700 revolutions per minute. Two complete ignition systems were installed to guard against the possibility of trouble in the air from that source, also two duplex carburetors, each divided into two units and each unit serving three of the twelve cylinders. Practically four separate carburetors were thus employed, but so set, adjusted and controlled that each cylinder would receive the same quality and quantity of fuel.

A most interesting point in connection with the water system is the circulating pump. This pump, though of the small centrifugal type, is capable of delivering 100 gallons of water per minute with a free outlet. With the foregoing in view it is all the more wonderful when compared with the ponderous proportions of even the lightest of steam power plants installed in electric generating stations where even only a fraction of 400 h.p. is delivered. Not content with these characteristics, however, a constant effort has been made toward greater development, with very gratifying results.

It is interesting to note some of the changes that have added immeasurably to the usefulness of an already marvelous power plant. In the following paragraphs note has been made of only a few of the changes which have occurred and the reasons therefor. From these one will be able to form an opinion of the work that has been done and what a part of the peace time duties of Uncle Sam's Army Air Service include.

The Problem of Lubrication.

In an aircraft engine all working parts are usually lubricated by a direct oil lead carrying oil under pressure. Even though all means possible are employed to hold this pressure at the right value, sometimes too much oil reaches the piston wall. In the ordinary engine this results in oil passing the piston, fouling the spark plugs, forming carbon in the combustion chamber, hindering the proper operation of the valves, causing overheating, pre-ignition, etc. In order that these contingencies may be reduced to a minimum, four small holes were drilled in the oil pressure relief valve, giving an almost perfect balance to the oiling system at all speeds. As an extra precaution, the pistons have been grooved and drilled so that excess oil is collected and drained back into the crank case or "sump" before it has had a chance of getting to the combustion chamber.

One of the greatest triumphs of McCook Field has been the development of a centrifugal oil cleaner. It has long been the practice of the Air Service to reclaim oil which has been used until impurities such as sediment, etc., have collected rendering it useless. This process, while resulting in purification to the extent that the oil is of a better quality than the original, requires large tanks, heaters, etc., the weight of which runs into hundreds of pounds. It remained for Air Service engineers to develop the new centrifugal cleaner, which is hardly bigger than one's two fists. This cleaner is made an integral part of the engine, removing impurities of all kinds from the oil as fast as they are collected. This not only makes it simply necessary to add the oil that is actually consumed but makes draining and washing of the oil system a thing of the past.

The engineer, as well as any layman, can easily appreciate the importance of advantages accruing from these various devices, such as: certain, constant, uniform oiling with never a "feast or a famine"; unheard of economy; prevention of carbon formation; cleaning seldom required, and overheating from this source unknown.

Fuel System and Fire Hazard.

In the air fire is naturally a greater danger than in almost any other place. For this reason no effort has been spared to reduce the chances of a fire starting from the power plant. The difficulties incident to this are very apparent when it is remembered that a 400 horsepower engine must be supported in the light frame of an airplane. To this end flexible fuel line connections, impervious to vibration, have been developed. Carburetor air intake pipes have been led outside and above the engine housing where once gasoline vapor condensed and dripped back onto the engine, this resulting in the elimination of the possibility of the collection of gasoline where it could be ignited and cause damage.

By ingenious means and devices the engine's carburetors have been so changed that the gasoline consumption has been reduced approaching one-half the former amount. At the same time, much better proportions of gas and air have been secured, thus giving increased smoothness of operation, flexibility, and complete combustion. One of the greatest advantages secured by these changes is the greater range of altitudes at which uniform operation is possible.

Probably the greatest cause of fires in the past has been the fact that gasoline was led to the carburetors under air pressure and, when a leak in the system occurred, it caused the entire power plant, etc., to be subjected to a fine spray of fuel. Mixed with air, this, of course, forms one of the most inflammable mixtures known. All this has been changed now with the successful development of a mechanically operated fuel pump supplying gasoline to the carburetor without the use of pressure in the tanks.

It is a well known fact that, due to the rarification of the air at great heights, an internal combustion engine is able to deliver only a small fraction of its sea-level power. The supercharger, another newly developed accessory for the Liberty, removes this difficulty by delivering to the engine, at any explored altitude, air substantially the same as at sea level.

The Electric System.

Even though other parts and devices of any aircraft engine may be perfect, the fact remains that the electric spark which fires the charge must be delivered at all times if there is to be any operation at all. In order to insure this,

many changes and modifications have appeared to guarantee non-failure from this source. Among other important items in re-design and re-construction are the following: A 12-volt system has been substituted for the 8-volt, in addition allowing the employment of a self-starter; storage battery improvements; addition of buzzer distributor starters, safety relays, etc.; more completely armored cables and positive connections.

In other small features a recitation, including redesigned flexible shafts, larger bearings, stronger gears, water system improvements, etc.; could go on for many pages. Those enumerated, however, serve to show the untiring efforts that are constantly being exerted to make it the greatest war time engine as well as the greatest in peace. No attempt has been made to hold secret these discoveries which have added so much to our knowledge of engine construction in general but, rather, they have been carefully explained and given to all interested in the progress of aeronautics, including the Navy, Marine Corps, commercial concerns, etc. This attitude and action of the Army Air Service shows the value of this special research, and will go a long way toward the development of the art in general.

By such unselfish and patriotic endeavor will aerial navigation the sooner take its proper place in this country as the best means of transportation and communication. More than this, the same American spirit is shown to be alive that first gave to the world a practical solution of the problem of flight.

THE FLIGHT OF THE AIRSHIP C-2

The following report of the transcontinental flight of the Army Airship C-2, covering the journey from Langley Field to Brooks Field, Texas, has been furnished by the News Letter Correspondent of the latter field:

The Army non-rigid Airship C-2 arrived at Brooks Field at 1:25 p.m. Sunday afternoon, September 17th, after completing the longest non-stop flight ever attempted by an Army airship. While this vicinity has long been the scene of much flying activities, yet the arrival of this airship brought out enormous crowds of sightseers. Although most of the Air Service personnel is familiar with the facts pertaining to the C-2, an endeavor will be made to briefly relate a few details of this flight.

The C-2 was originally one of the airships used for training purposes at the Airship School at Langley Field, Va., but was afterwards sent to Aberdeen Proving Grounds to make hangar room for the ill fated Roma, and also to carry on bombing work with the Ordnance Department. While at Aberdeen, in addition to bombing, many notable flights were made, including a non-stop night flight to New York City and return. This ship was selected to make the transcontinental trip on account of the new type of light weight car used.

In preparation for this flight, the airship was flown from Aberdeen to Langley Field, where it was given a thorough overhauling. Additional tanks were also installed in the car for carrying extra fuel.

The following officers and enlisted men, who are among the most experienced airship personnel in the Army, comprised the crew who made the flight: Major H.A. Strauss, in command; Capt. George A. McEntire, Lieut. Don L. Hutchins, Lieut. O.A. Anderson, Master Sergeant Wm. E. Fitch and Staff Sergeant A.D. Albrecht.

The C-2 left Langley Field at 12:25 a.m. Thursday morning, September 14th, and headed for Pittsburgh. About 3:30 a.m. the ship was flown on a gradual ascent until an altitude of 4,000 feet was reached. At this altitude the Appalachian range was crossed. For 15 minutes while crossing the summit of the range, particularly disturbing conditions were encountered. After crossing the range at 7:00 a.m., the ship was flown at an altitude of 2,000 feet until Pittsburgh was reached at 8:10 a.m. One-half an hour was spent in circling Pittsburgh and taking photographs. While over the city one motor cut out, due to the loss of the wind propeller on the gasoline pump. With the use of an emergency hand pump the motor was again started and kept going until Akron, Ohio, was reached at 11:20 a.m., where a good landing was made, thus completing the first leg of the long flight. At Akron the ship and crew were taken care of by the Goodyear Tire and Rubber Company. The ship was housed in the big Goodyear hangar, and was thoroughly inspected by the ship's crew and a skilled crew from the Goodyear factory. The ship was refilled with hydrogen and gasoline. After spending

the night in Akron, the airship left the following morning at 9:25 a.m. for Scott Field. Enroute the ship circled over Columbus, Ohio, taking photographs of Columbus Circle and barracks. The ship was then headed for Dayton, where a safe landing was effected. Here 65 gallons of gas were taken on, but no hydrogen. Taking off at 4:00 p.m., the ship headed for Cincinnati, which was reached two hours later. After circling the city and taking photographs, the C-2 headed for Scott Field, Belleville, Ill., at 6:25 p.m., and arrived there at 10:35 p.m., eastern time.

The night flying was done entirely by compass, and it speaks well for the navigators that when the lights of the hangar came into view the ship was directly on its course.

After a night's stay at Scott Field, the ship left at 9:25 p.m. the following night for Dallas, Texas. Rain storms, which lasted for about an hour, were encountered immediately after the take-off. The Ozark Mountains were crossed at midnight at an altitude of 3,000 feet. Dallas was reached about 7:45 a.m., Sunday morning, September 16th. The ship flew over the city and proceeded to Fort Worth, arriving there at 8:30 a.m. Photographs of the city and the Helium Plant were taken, and fifteen minutes later the journey to Brooks Field was resumed, San Antonio being reached at 1:15 p.m., and the landing at Brooks being made ten minutes later, thus successfully negotiating the longest leg of the transcontinental flight.

Brooks Field was in readiness to receive the first airship ever flown here. The big hangar doors were open and the landing party, made up from the various squadrons, were anxiously awaiting the ship. As it came in sight the landing crew took their position on the field. The ship flew in low over the party, dropped the drag rope, and in a short time it was hauled to the ground and maneuvered into the big hangar.

Thousands of visitors turned out to see the airship, until the field looked like a Ford factory. All hands at the field were busy the rest of the afternoon answering foolish questions and trying to explain "Why is an airship".

The C-2 left Brooks Field for El Paso at 12:30 Thursday morning.

FLYING POPULAR WITH AMERICANS IN EUROPE

One may well arrive at the conclusion that, with well regulated commercial air lines operating in the United States, traveling by air would become very popular. A news item appearing in a recent issue of a British Aeronautical journal states that on a certain Monday in August there were as many as 170 passengers in and out of the London air station, which constituted a record. This number included 64 American girl students from Paris, who were brought over in eight machines of the Instone Air Line. Two of these airplanes were delayed by bad weather conditions in France and landed at the Croydon Airdrome after dark by the aid of night lighting. Of the 170 passengers, 151 travelled in British machines, also on that record day there were as many as 41 air expresses passing to and fro along the airways between London and the continent.

A MONUMENT TO A PIONEER AVIATOR.

There was recently unveiled at Cap Blanc Nez, France, a monument erected to the memory of Hubert Latham, the famous pioneer aviator, who will be remembered for his flying in England in the early days of aviation, and who made two attempts before M. Bleriot to fly across the English Channel. In this he failed, and when rescued from the water on the second occasion, July 27, 1909, was calmly seated on his machine smoking a cigarette. Mr. Latham was killed in French Congo in 1912 while hunting wild buffalo.

Americans will recall this nervy little airman and his famous Antoinette monoplane in which he made several exhibition flights in this country. Natives of Baltimore, Md., no doubt still remember that eventful day, November 7, 1910, when they were thrilled by his 42-minute flight over the city for the prize of \$5,000 offered by the Baltimore SUN.

AERIAL TRANSPORTATION BOOMING IN EUROPE

According to the AEROPLANE (London) for the first time in history more than a thousand people have crossed the English Channel by air in one week. The total number of passengers and crew on the continental airplanes from August 14th to 20th was 1,076, of whom 734 were paying passengers, the remainder being crew. These people were carried in 209 machines, and it is the first time also that more than 200 cross-Channel trips have been made in one week. Of these numbers, 173 British machines carried 620 passengers, against 72 foreign machines which carried 114 passengers.

AROUND THE WORLD IN A SEAPLANE.

The Round the World Flight, started by the British aviators (Major Blake and Captain Macmillan) had to be abandoned due to the fact that the former officer contracted a physical disability during the course of the flight and was forced to undergo an operation, and Captain Macmillan with Mr. Malins, who continued the trip, were forced to land, due to a missing motor, in the open sea while making for Chittagong, India, from Calcutta. The airplane gradually broke up while in the water and finally turned turtle, leaving the two airmen hanging onto the floats as well as they could for a day and a night before they were rescued. They were taken to a hospital in a well nigh worn out condition, due to the exposure they suffered, but in a few days completely recovered. The AEROPLANE (London) attributes the failure of the project to the fact that the airplanes used were not of the type suitable to assure their success, though excellent in their way, because they were not intended for long-distance ocean flying, also that the expedition started at the wrong time of the year.

Aviation folks in Great Britain are not discouraged over the failure of Captain Blake's expedition and are now planning a flight around the world by seaplane, which will take place sometime next year. The scheme, which is drawn up under the Air League of the British Empire, provides for a flight from England via Bordeaux, Athens, Basrah, Bombay, Rangoon, Hong-Kong, Tokio, the Aleutian Isles, Vancouver, across Canada and the United States to New Foundland, and back to England by the Azores.

The machine is to be a specially built Fairey, presumably amphibian, fitted with a Rolls-Royce "Condor" engine of 650 h.p., and it will be piloted by Captain E.S.K. McLoughry, D.S.O., D.F.C., and Captain R.H. McIntosh, with Captain F. Tymms, R.C., as navigator. A mechanic is also to be carried. Captain McIntosh is a well-known Handley-Page pilot, noted for his ability to handle large and heavily loaded machines, while Captain McLoughry is accounted to be a first class pilot who served with distinction in the Australian Flying Corps during the war. Captain Tymms, transferred to the Royal Flying Corps from the Infantry, has specialized in aerial navigation and is one of the very few holders of the Air Ministry Air Navigation certificate of the highest grade.

MODIFICATION OF GOVERNMENT SUBSIDY TO BRITISH AIR LINES.

The British Air Ministry, with the concurrence of the Lords Commissioners of His Majesty's Treasury, has decided to modify the system under which subsidies are at present granted to approved firms for the operation of the Cross-Channel routes.

Three approved British companies - Handley Page Transport, Ltd.; Instone Air Line; and Daimler Hire, Ltd. - have operated services under the existing system which provided for the grant of a subsidy of 25% on an "approved" firm's gross earnings and additional payments per passenger carried and per pound of goods and mails transported, as well as certain contributions towards the provision and insurance of aircraft, subject to the fact that the total contribution either in cash or in kind should not exceed £200,000 per annum. Each of these firms was authorized to run London-Paris services and the Instone Air Line also received approval to inaugurate a London-Brussels service. In addition, a company in formation by the Supermarine Aviation Works, Ltd., was approved for the operation of the Southampton, Cherbourg and Channel Islands route, but this service has not yet been opened.

It has now been found that the total payments under the subsidy scheme are insufficient to provide the companies with the necessary measure of financial assistance, and for some time past alternative proposals have been under consideration. An analysis of the situation showed that the volume of traffic, both on the London-Paris route and the London-Brussels route, has not been forthcoming to the extent which had been anticipated on the evidence of previous years' operations, despite the fact that British companies have secured on the London-Paris route the greater proportion of all classes of traffic.

The new scheme provides for the elimination of the present competition between British firms by the allocation of a separate route to each company. The basis on which the subsidy (which is still limited to the sum of £200,000 per annum) will be given is a limited cash payment for the completion of a stipulated number of flights and a contribution in cash or in kind towards the maintenance of a fleet of approved size and value. The routes to be operated under the new scheme will be:

London-Paris by Handley Page Transport Ltd.

London-Brussels-Cologne by the Instone Air Line.

London-Amsterdam-Bremen-Berlin by the Daimler Hire Ltd. (subject to further negotiation).

Southampton-Cherbourg and Channel Islands by a new company. (not to be opened till next spring).

The approximate lengths of the different routes are London-Paris 225 miles; London-Brussels-Cologne, 310 miles; London-Berlin, 570 miles; and Southampton-Cherbourg-Channel Islands, 120 miles. The number of routes operated and the mileage flown by British firms will therefore be greatly increased.

THE AIR RACE AROUND GREAT BRITAIN.

The circuit around Great Britain, the first flown since 1913, for the cup presented by the King of England, started on September 8th with 23 machines entered. Of the 21 machines which started, 11 finished the course. No event in the history of British aviation aroused such a general and widespread interest as this race, and it now appears that in future the race will be an annual one, His Majesty having generously intimated his willingness to present another cup next year, to be retained by the winner until the following year.

The weather conditions were far from being ideal, but were not so bad as to cause very serious trouble, yet they were such as to render careful piloting and navigation necessary. As the AEROPLANE (London) puts it, "the cup was won by an antiquated deHavilland biplane of 1916 design, built during the war, transmogrified, overhauled, tinkered and repainted over and over again, and driven by a 1916 type engine." This machine (DeH4A, with a 360 h.p. Rolls-Royce "Eagle" engine) was piloted by Mr. F. L. Barnard. The runner-up was Mr. F.P. Raynham, who piloted a Martinsyde (200 h.p. Viper engine).

The race started from the Croydon Airdrome (London) over a course of 810 miles, with intermediate stops at Birmingham, Newcastle, Renfrew (Glasgow), Manchester, Bristol and back to Croydon. The result proved to be a decided triumph for the DeHavilland machine, as out of the 21 airplanes which started, seven were of that type, and all but one finished the course, five being among the first six finishing. While there were a number of minor mishaps, no single serious accident accrued during the whole of the race around the course, and this in spite of the fact that the machines which took part were of a great variety of types and ages, ranging in size from small single-seaters of 35 h.p. to twin-engined bombers and large passenger-carrying commercial airplanes, and in ages from five years to a few months.

AIR SERVICE COOPERATES IN RESCUE WORK OF ENTOMBED MINERS.

Crissy Field is ever equal to an emergency, as is evidenced by an occasion that recently happened at Jackson, Calif. Lieut. Colonel Wm. E. Gillmore, the Air Officer, received an emergency call from Mr. H. M. Wolfen, Superintendent of Safety Industrial Accident Commission and Consulting Engineer of the U.S. Bureau of Mines that the Argonaut Mine, located at Jackson, Calif., had suffered a dis-

aster, in that some 40 men were entombed in the mine, it being on fire somewhere in the vicinity of the 5,000 ft. level; further, that if there were any means by which he could get there that night he might aid by his professional experience in effecting the rescue of the entombed miners.

Little time was lost by Col. Gillmore in communicating an order to Major George H. Brett, Commanding Officer of Crissy Field, and Lieut. Leo F. Post was designated as pilot for the flight and was warming up his reliable DH for the arrival of Mr. Wolfin, who broke all traffic regulations in getting to Crissy Field.

The mining town of Jackson is nestled in the mountains southeast of Sacramento, Calif., about 125 miles from San Francisco, a country noted for its ruggedness and rich gold deposit. Lieut. Post drew a straight line on his map and just hung the old DH on it, making Jackson and landing Mr. Wolfin in a little less than two hours after Col. Gillmore received the telephone call. The actual flight consumed but 58 minutes. For a landing field the side of a hill, almost on the Argonaut Mine property, was used and proved very satisfactory.

Crissy Field practically conducted a ferry service to the mine, carrying civilians specially qualified to aid in the rescue work, as well as some Air Service and Signal Corps personnel, the latter installing telephones in the mine as the rescuers progressed.

The newspapers in the locality have been as one in commending the Air Service in their ready response, and best of all is a letter addressed to Major Brett from the Corps Area Commander, commending the Crissy Field personnel, viz:

"The Corps Area Commander directs me to inform you he has noted in the press dispatches that the airplanes sent from Crissy Field to the scene of the mine disaster at Jackson, California, accomplished the trips successfully and in a manner that reflects credit upon the service. He desires to take this occasion to commend the personnel responsible for the action taken.

(Signed) Harrison Hall,
Adjutant."

Major Brett also received a telegram from the Director of the Bureau of Mines, Washington, D.C., in which that official expressed his appreciation of the assistance rendered by furnishing airplane transportation in connection with the rescue work at the mine.

Mr. Wolfin, in a letter addressed to Major Brett, gratefully acknowledged his prompt courtesy and cooperation in providing him with air transportation to and from the mine, and stated that the facilities afforded enabled him to make a hurried trip to San Francisco to correct certain erroneous reports that had been published regarding the conduct of rescue operations, and also permitted the Industrial Accident Commission of the State of California to send their Chemical Engineer, Dr. L.H. Dischak, to San Francisco for chemical re-agents and apparatus that could not be secured by telephone; further, that this cooperation of the Air Service has resulted in an increased interest in aviation in that locality. He commended the Air Service pilots, Lieuts. Post and Miller, for their courtesy, skill and care. Mr. Wolfin also addressed a letter to Major-General C.G. Morton, Commander of the 9th Corps Area, expressing his gratitude for the services rendered by the Corps Area Headquarters in furnishing air transportation and a Signal Corps detail in connection with the rescue operations.

Mr. V.S. Garbaniss, General Manager of the Argonaut Mining Co. also wrote a letter to General Morton, expressing his indebtedness for the services rendered by the 9th Corps Area Headquarters in furnishing airplane transportation and in detailing Signal Corps men to assist them with telephone communications. He stated that the prompt assistance of the Signal Corps detail which arrived by airplane without delay effected a great saving in time.

MEMORIALIZING DECEASED AVIATORS.

A movement has been started to make San Francisco's Aerial Day a national event, when the country at large would pay a tribute to the Gold Star Mothers, their hero sons and to the remarkable progress of aeronautics. Miss Lillian Gatlin, founder of Aerial Day and the principal figure in the annual observance of same, is actively engaged in fostering the movement to make it national in

scope. Aerial Day was started by Miss Gatlin as a tribute to Lincoln Beachy, of San Francisco, the dare-devil aviator in the early days of aviation in this country, who met his death on the second Sunday of March, 1915. On that day of each succeeding year Miss Gatlin has made an airplane flight and scattered pink roses on the waters of the Pacific Ocean in tribute to him and to his mother, Amy Beachy.

Miss Gatlin participated as a speaker in the opening of the American Legion State Convention recently held at San Jose, Calif., making the trip from San Francisco to that city in an airplane piloted by Lieut. Walter Miller of the Army Air Service. Starting October 5th she made a transcontinental flight from San Francisco to New York in postal planes in order to arouse interest in the National Association of Gold Star Mothers, the flying time for the trip being 27 hours, 11 minutes. She is the first woman to make a transcontinental flight. She will attend the National Aero Congress at Detroit this month.

General Mason M. Patrick, Chief of Air Service, wrote the following letter to Miss Gatlin commending the movement she has started:

"I have been greatly interested in reading your account of the tribute paid on San Francisco's Aerial Day to the mothers of aviators who have given their lives in our country's service - this whether they fell in battle or in time of peace while aiding in developing aeronautics in the art of flying.

To the mothers of these men who have suffered the pain of their birth and the anguish of their untimely death, our country owes much. The least we can do is to let these mothers know how we honor them, that their sons did not die in vain and that they have not been forgotten. I can think of nothing that should bring greater solace to the mothers of these heroes than offering yearly a national tribute, honoring them and at the same time honoring their loved ones.

I greatly commend the thought which prompted you to suggest that the tribute you originally planned for the mother of Lincoln Beachy be broadened and made a national tribute to the mothers of all our flying men who have given their lives in their country's service.

I am very glad to indorse your plans most heartily and I offer you my sincere wishes for their success."

EXIT THE COTTON BOLL WEEVIL.

The above heading may sound a bit too previous just at this time, but there appears to be no reason why, in the course of a few years or so, the meaning conveyed by our ambitious headline should not come to actual realization and the arch enemy of King Cotton banished - forever we hope.

The Army Air Service has recently been cooperating with the Department of Agriculture in an endeavor to exterminate the boll weevil - that destructive insect which has wrought so much havoc with cotton crops in the South and which has cost the ^{Government} thousands of dollars in the efforts made to stamp out this pest.

Two airplanes have been sent from the Montgomery, Ala. Air Intermediate Depot to Tallulah, Louisiana, for use in this work - one for distributing calcium arsenate poison over certain fields at Tallulah, and the other (a photographic plane) for the purpose of making photographs of the experiments and aerial maps of various cotton fields in the vicinity.

Mr. Alex Y Scott, in charge of the Charles Scott's Delta Plantation at Rosedale, Miss., in a letter touching on this work, states that the airplane distributed poison powder at the rate of two pounds to the acre and that a much better distribution over the plant was gotten than it would have been possible to obtain by the use of any machine other than the airplane and using as much as five pounds per acre. He states further that the adoption of the airplane for this work opens possibilities that are startling, for one of these planes can distribute poison at the rate of a thousand acres an hour, which means that something may develop, if the experiments are continued, to open a way to various communities adopting the airplane as a means of eliminating the insect pest from their plantations.

Mr. B. R. Coad of the Department of Agriculture, in charge of the cotton dusting experiments in Tallula, in a letter to Dr. L. O. Howard, Chief of the Bureau of Entomology, states, among other things, that heretofore he had always opposed the airplane idea in connection with work of that character purely on a theoretical basis, but that he had now seen enough to completely change his views on the subject; that, despite the fact that the feeding device installed on the airplane is crude and temporary, and has not given a uniform delivery, wonderful results were obtained in thoroughly covering cotton. He adds that the airplane

can certainly be used successfully to apply poison to any growing attacked by a growth-feeding insect, and is convinced that with the further development of dust feeding equipment dusting applications can be made for boll weevil control.

AIR SERVICE ENGINEERING SCHOOL STARTS FOURTH YEAR.

The Air Service Engineering Division at McCook Field, Dayton, Ohio, commended its fourth year on September 5th, with a class of 13 officers, as follows: Majors W.G. Kilner and M.F. Scanlon, Captains A.W. Brock, Jr., G.E. Brower, R. Derby, E.P. Sorenson, S.R. Stribling, Lieuts. D.L. Bruner, J.H. Doolittle, B. Johnson, C.B. Lober, J.A. Macready and H.A. Sutton.

The courses now in progress are Review Mathematics, Mechanics and Machine Shop Practice. It is expected that two new courses will be added to the school, one a five months' course in Maintenance Engineering, to begin about November 1st, and a three months' course for Reserve and National Guard Officers, to commence about January 1st. Plans are being made to care for 25 additional officers.

Lieut. Oscar Monthan, who graduated from the Engineering School last August, will be the chief instructor this year in the new course of Maintenance Engineering.

THE PAST AND PRESENT CONCEPTION OF THE U.S. ARMY.

In years gone by the expression "So-and-so is in the Army" had only one meaning. To put the matter tersely, it meant that "So-and-so" was a rotter, a barroom loafer, and generally and completely worthless, also other things too numerous to mention. The good people of the village were wont to look at "So-and-so's" parents, as they passed them on the street in a pitying manner, but, thank heaven, that was in the days gone by.

Nowadays, when the good villagers look at "So-and-so's" Dad and Mater as they pass, they are apt to say: "There goes Mr. and Mrs. B_____. Their son is in the army and he's making good." Some difference! They realize that there are opportunities in the army and that when a man enters with the right spirit he is going to return to his home better physically, mentally and morally. Morally? That may sound strange, but it is true nevertheless. He will have a broader viewpoint; he will understand his fellowmen; and his character will have been developed. Believe it or not, there is no greater institution for the fostering of a true spirit of democracy than the United States Army of today, because in an organization a man is stripped of all pretense and he stands or falls by his own actions. He sees other men under conditions which he did not know existed. He will make friends because he is what he really is and not because of what he owns in the way of worldly goods or of what he pretends to be. The little unnecessary things, the paltry conceits of life, are left behind. He learns the meaning of the word "service"; of putting everything he has into every job every minute of the time; and he will find, to his surprise, that he will get the greatest satisfaction in the world out of a job well done. When he enters civil life, he may not be a college graduate or a master of English, but he will have initiative, force, and not be afraid to tackle anything. Those three qualifications will keep him a long way from starving.

The relations between the Air Service Technical School at Chanute Field, Rantoul, Ill., and the people of Central Illinois are, and have been, extremely pleasant. But in order to foster this spirit still more, it was decided to hold an open house day at Chanute Field. Every shop and barracks was open for inspection throughout the day, and in the afternoon a representative exhibition of Air Service work, covering flying under service conditions, was given. This event was widely advertised, in order to attract as large a crowd as possible. The officers and men of the field are determined to sell the Air Service to the people and to do it right. The event was not a money making proposition - the farthest thing from it - the sole end in view being to show what training can be obtained at the school and to prove that the best possible recruit is none too good for the service. It is desired to do away, once and for all, with the idea that the Army is a soulless machine and to prove beyond a doubt that it is an organization to which should be given the best men of the country, secure in the

belief that the State and the individual will mutually profit thereby. By this method Chanute Field expects to exceed the quota of 130 recruits which has been allotted to that field for the month of September.

VETERAN AIRMAN TO PILOT XB1A PLANES IN NATIONAL RACES

Captain Lloyd L. Harvey, Commanding the 13th Squadron (Attack), and Lieut. Dale V. Gaffney, Attack Group Adjutant, both stationed at Kelly Field, Texas, received orders to report to Selfridge Field, Mich., in order that they may participate in the coming National Airplane Races, scheduled to take place at Detroit the second week in October. They will each pilot an XB1A plane. Both officers are well experienced XB1A pilots, having many hours of flying testing this plane, a number of which were assigned to the 13th Squadron a year ago for service tests. They are "Veteran Border Pilots", having served with the Attack (then Surveillance) Group while it was stationed along the Mexican Border, and are among the Group's oldest officers.

LANDING ON THE WATER. ✓

"There is really no danger connected with a landing in deep water provided the airplane is stalled down the last few feet, and only a remote possibility of getting wet, provided the safety belt is left fastened." This statement was made by 1st Lieut. Ernest W. Dickman, Air Service, in his report covering a cross-country flight lately made by himself and Lieut. Oakley G. Kelly from McCook Field, Dayton, Ohio, to Langley Field, Va. Just as they had sighted Baltimore a water connection became loose and most of the water was gone. In this condition they circled the city looking for a landing place. It was dark then, about 9:00 p.m. Baltimore time, and while the Maryland National Guard lit five bonfires at Logan Field they were lost in the blaze of lights from the city.

By a series of nods and gestures they agreed to land in the water near the Riverview Amusement Park, the lights of which park illuminated the river very well, and they had no difficulty in locating the exact height of the water. Lieut. Kelly guided the airplane to a landing on the water. In preparing for the landing, both officers removed their parachutes, and, in addition, Lieut. Dickman unfastened his safety belt. The airplane made a perfect stalled landing on the water at about 40 m.p.h., threw up a shower of spray, hesitated a moment, and nosed down, throwing the tail in the air. The force of this motion catapulted Lieut. Dickman out of his seat and landed him in the water a few yards in front of the airplane. Lieut. Kelly stayed in his seat and did not even get wet. Lieut. Dickman climbed back on the airplane and both sat there for a few minutes until taken off by a fisherman in a row boat.

Lieut. Dickman states further that the experience gained from this incident may throw some light on the question of effecting the best landing on the water when such is necessary. If time permits, the parachute harness should be unbuckled and removed, leaving all parts of the body, legs, arms and shoulders free. The advisability of unfastening the safety belt is open to considerable question. He believes that it is better to leave it fastened, after his own experience, as had he done so he would not have been thrown out of the airplane. A stalled landing will, of course, be made at a speed of about 40 m.p.h., in which case, if the water is deep, the nose of the airplane will invariably point downward, leaving the tail straight up in the air. A landing in shallow water, say about 3 feet depth, is more dangerous than in deeper water, as there is a possibility of the airplane nosing completely over, thus injuring the occupants. In landing in the water care should be taken to brace one's self so that the face or teeth are not injured on the instrument board or cowling.

THE UNFORTUNATE ACCIDENT AT MITCHEL FIELD.

We wish it were possible to record only the bright episodes in touching upon the various events transpiring in the Army Air Service but, unfortunately, the

Reaper will not have it so, and it is with extreme reluctance that we relate the sad incident which occurred at Mitchel Field, L.I., New York, at 11:05 P.M., Saturday, September 23rd. Lieut. Raymond E. Davis of the Army Air Service, stationed at Langley Field, Va., was piloting a Martin Bomber in connection with night flying maneuvers at Mitchel Field, ordered by the Commanding Officer of the 2nd Corps Area. He had with him as passengers five enlisted men. For some reason or other, the exact cause may never be determined, the plane crashed to the ground from an altitude of about 300 feet, killing all the occupants. The pilot and two enlisted men were buried beneath the wreckage and the three other enlisted men were thrown clear of the fire but died shortly thereafter. The enlisted men were: 1st Sergeant Thomas Benfield, Corporal David H. Stiven and Privates Eddie Kane, Henry J. Nichols and Irving M. Whitney, all of Air Park No. 6, Mitchel Field.

The anguished soul may cry out: "Why do we need aviation? How many souls would have been saved had this science of aviation never come to light?" That is all very true in a sense, but if we applied such reasoning along other channels and were to eliminate all things that are a source of danger to the existence of mankind, we would go back to virtually a "stone age" existence. The march of civilization and the countless inventions, innovations, improvements, etc., brought about by man's ingenuity ever exacted its toll of human life. How many thousands of lives have been sacrificed at the altar of such inventions as the railroads, the steamships, the surface, elevated and subway cars, the automobiles, the mechanical contrivances in our mills and factories, and so on ad infinitum?

We can not hope to eliminate accidents any more than we can say with any degree of assurance that we will live tomorrow, next week or next year. Life is too uncertain, but what we can and are striving to do is to minimize the possibilities of accidents with their consequent loss of life.

The Air Service keenly feels the loss of these gallant martyrs to the science of aeronautics, and extends its sincerest sympathy and condolence to their bereaved families and friends.

Lieut. Davis was considered one of the best airplane pilots in the service. During the war he attended the Officers training camp from July 17, 1917, to August 15, 1917, when he entered the ground school, University of Illinois, as a cadet. He graduated with honor, and was commissioned a 1st Lieut., Aviation Section, O.R.C. He received his primary flying training at Scott Field, Belleville, Ill., and his advance training at Post Field, Fort Sill, Okla. Later he was sent to Taliaferro Field, Texas, as flying instructor, and in July, 1918, was sent overseas. He was first stationed at Field No. 7, Issoudun, France, and on August 15th made his first flight over the lines. He was later assigned to the 104th Squadron and participated in the St. Mihiel and Meuse-Argonne offensives before being shot down and made a prisoner in Germany until the Armistice. Major Elmer Haslett was the observer on the last flight over the lines before being shot down, and said of Lieut. Davis: "The most skillful and daring pilot with whom I've flown". Upon returning after the war, Lieut. Davis was stationed at Langley Field, and the great loss and sorrow felt by his many friends is a small token of the esteem he held in their hearts.

AN APPRECIATION.

During the latter part of September, Air Service Reserve Officers who were stationed at Eberts Field, Lonoke, Ark., during the war, attended a reunion in New York City. They paid a visit to Mitchel Field in order to obtain flights in airplanes, and the treatment they were accorded is eloquently described by Lieut. J. E. Bullock, President of the Eberts Flying Field Association, in the following letter to General Patrick, Chief of Air Service.

"We just want to express to you, the Commanding Officer of the Army Air Service, our appreciation for the treatment accorded us at Mitchel Field, September 22, 1922.

We were in New York attending our Eberts Field reunion, and several of us, all reserve officers, went out to Mitchel to ask for a ride, expecting, we must admit, that we would not be any too welcome, and that most of the flyers there would look down upon us as hasbeens, and that we would be handled in accordance. (Almost every Reserve Officer with whom the writer is acquainted feels the same way, and I think a good many of them stay away from the fields and more active participation on this account.)

You can imagine our pleasant surprise when we found that every last man with whom we came in contact not only seemed willing to have us there, but actually appeared glad to see us and to have us around. The Adjutant, who evidently is a tremendously busy man, even found time to arrange for lunch for us at the Officers Club, and put us in touch with the Operations Officer, who, in cooperation with another officer, got a nice flight for us all.

Although the Operations Officer was apparently more than snowed under with his duties, multiplied just then by the presence and demands of a number of Artillery and Engineer Officers, there for those maneuvers, he gave up a good share of his afternoon to us, and never for a minute let us believe that he was too busy to make us one hundred percent welcome. He, with permission from Headquarters, attended our banquet that evening, and spoke to nearly forty reservists, all in our bunch at Eberts during the war.

To his kindness and consideration is due the change in our conception of and attitude toward the Air Service, and on his account especially we will have a warm spot in our hearts for Mitchel Field. If more of the Reserve Officers could only get in touch with officers of his type the Reserve would soon be a whole lot closer to the active end of the Air Service."

SUCCESSFUL ENCAMPMENT OF TENNESSEE NATIONAL GUARD AIR SERVICE.

The following report was received from the Instructor of the Air Service, Tennessee National Guard, covering the recent summer encampment at the Montgomery, Ala., Air Intermediate Depot:

"Our first summer in the field has come and gone, and, thanks to the hearty cooperation of Major Clagett, Major Brown, and the officers and enlisted men of the 22nd Squadron, it was a most successful camp.

We flew three planes to Montgomery, and the remainder of the squadron, 12 officers and 90 enlisted men, went down via rail, arriving Monday night. The next day our work began in earnest at 5:00 a.m., and a stiff schedule was carried on for two weeks. It was the first day of our work that Lieut. Boyd T. Riley was seriously injured, but fortunately not fatally. He is now at the Walter Reed General Hospital and we hope he is on the way to a rapid recovery.

The most successful part of the whole schedule was the work accomplished by the enlisted men. The classes in rigging, motor overhaul, carburetion, ignition, photography, radio and machine guns were very thorough, and the men are much better fitted for their work after two weeks of concentrated study and application. They left camp feeling they had learned something, and are now eager to put their knowledge to a practical test.

The pilots of the squadron were unable to fly as much as they expected, mostly because their classes interfered. However, the fact that they brought back six ships to Nashville speaks for itself, for it is a 300-mile hop over some very rough country. Right here let us say a word of appreciation for the reception accorded us by the 135th Birmingham Squadron during our short visit with them on the return trip.

Our observers were given a very thorough practical course and, although not experienced, their work was very commendable. In two weeks they absorbed much and proved most efficient in the elementary part of their work. The course comprised radio, drop messages, reconnaissance, liaison, artillery reglage and infantry contact. Upon the arrival of radio and photographic equipment they are now ready to carry on.

Shortly before the close of camp the officers of the 22nd Squadron were our guests at a dinner given on the roof of the Beauvoir Club. The party was a howling success, and favors given several of the regular army men and also some of us were the cause of much good natured joshing. This was particularly true for those who received a box of fish food, a rattle, a flapper, a pair of specs and the baby buggies. A unique leather bound volume was presented to Major Clagett by our Commanding Officer, Major Bennett. It was a tricky little affair entitled "Spring Poems" - The Tale of Four Swallows, by B.J. Corn, Volume No. 4.

Here's to the 22nd, may their landings throughout the year be happy ones.

AERONAUTICAL NEWS FROM OTHER COUNTRIES.

South Africa.

The South African Airways Co. (Ltd.), whose capital of £200,000 is being subscribed in England, has been organized to inaugurate commercial aviation in South Africa. Government assistance in the form of free training of pilots, free landing grounds, hangars and aerodromes when available, repairs and supplies at cost, as well as cooperation with the post office in the transmittal of letters and parcel post, is anticipated if the company attains a financial status satisfactory to the Government.

It is intended at first to concentrate on the main route from Cape Town to Johannesburg, and the company hopes to commence operation by the end of 1922. This route will be worked in three relays with 12 machines having Rolls-Royce engines. After establishing the main route, it is planned to extend the service from Johannesburg to Durban, a flight of three hours. It is proposed to run a Cape Town-Johannesburg-Pretoria service once daily in each direction, and the Johannesburg-Durban service twice daily each way, except Sundays and Holidays.

Obstacles to the success of this project lie in the great distances and sparseness of population and in the high operating costs. -Commerce Reports.

The Netherlands.

One million kilometers (621,370 miles) of flying with passengers, freight and mail were completed by the Royal Netherlands Aeroplane Co. on July 22, 1922. They report that not a single accident had occurred. This company has a daily service between Amsterdam and Paris and a twice-a-day service between Amsterdam and London. The distance over each of these routes is approximately 300 miles.

China.

Aviation in China does not appear to be in exactly a flourishing condition. The Vickers "Vimys" and Handley Pages which were to be used for commercial air mail services in various directions from Peking have not yet been allocated to regular work of that nature. A good deal of joy riding has been done with some of the Vimys, which have been used particularly for conveying Chinese and other excursionists from Peking to the Great Wall of China.

The political situation in China is so thoroughly chaotic that it is quite impossible to discover whether the various airplanes belong to the Government Army or to the Army of one or other of the various generals who have self-determined themselves as separate Powers. The Government Airdrome at Peking seems to be capable of keeping the various machines there in order, but has not apparently turned out any original work. -The Aeroplane.

Italy.

Signor Brack Papa, the famous Italian racing pilot, flying a Fiat biplane (700 h.p. Fiat engine) recently covered a measured kilometre in four flights, twice in each direction, at an average speed of 208.946 miles per hour. This record has not yet been homologated by the Federation Aeronautic Internationale, but in the meantime it may be unofficially taken as a world's record.

Germany.

Joachim Styllbrock, a German airman, recently accomplished a notable feat in aviation when he made a non-stop flight from Moscow to Berlin, a distance of 1,115 miles, in 18 hours. He piloted a Fokker R-4, fitted with a Rolls-Royce engine, and had as his passengers the Russian representative in Berlin, M. Krestinski, and two government officials. The machine travelled over the towns of Vyasma, Smolensk, Vitebsk, Polotsk, Dunaberg, Kovno, Konigsberg, and thence to Berlin.

SQUADRON NEWS.

Crissy Field, Presidio of San Francisco, Cal., Sept. 8.

All the world loves a lover. What say? Stand aside and we will let you all in on a clipping from the San Francisco Chronicle under date of August 28, 1922:-

"ARMY ROMANCE TOLD IN BETROTHAL

Lieutenant to Marry Oakland Girl.

A romance in army circles was revealed today when cards bearing the names of Miss Mildred Lydia Olsen and Lieutenant Benjamin Shields Catlin, Jr., A.S., U.S.A. were received in the morning mails. The bride-elect is the daughter of Mr. and Mrs. O. F. Olsen of Orange Street and one of the beautiful younger girls in east bay society.

Lieutenant Catlin is a veteran of the World War and has been wounded and gassed several times. He was noted for his bravery in air raids. Lieutenant Catlin was graduated from Yale and is the son of Benjamin Shields Catlin, Sr., retired capitalist of El Paso, Tex. The wedding is to take place in the late fall."

The above came as a complete surprise to Lieut. Catlin's many friends at the Presidio and especially ^{to us} at Crissy. But now that we have received the formal announcement that the event is soon to take place, we are congratulating instead of speculating.

Hail our new Post Adjutant, Lieut. Lloyd Barnett, who succeeds Lieut. William R. Sweeley.

Lieut. Barnett is one of our recent arrivals, having reported from the Air Intermediate Depot at Montgomery, Ala. It has been whispered about that Lieut. Barnett appeared to be right at home as the "Adj.". In addition to his other duties Lt. Barnett is married and the proud father of Lloyd, Jr. who has seen the light of day for about six months. Mrs. Barnett will be remembered as the sister of Mrs. C. T. C. Buckner, wife of Captain Buckner, M. C., now flight surgeon at Kelly Field.

Lieuts. A. G. Liggett, Leo F. Post, of Crissy Field, and H. A. Halverson, office Corps Area Air Officer, have been ordered to Gold Lake, Blairsden, Cal., the Air Service Rest Camp. It is expected that the aforementioned Lieutenants will soon report that they have shot a buck or two and that we remaining at Crissy Field will be eating mountain trout and venison in the near future.

A number of Air Service Officers and their wives stationed at Crissy Field, attended a reception at the home of General C. A. Devol, retired, Menlo Park, in honor of the Corps Area Commander, Major General Morton, Mrs. Morton and their daughter Miss Hough. General Devol is the father-in-law of Major Geo. H. Brett, Commanding Officer, Crissy Field.

Crissy Field is to lose 38 more casuals this coming week - 25 going to the Philippine Islands and 13 to the Hawaiian Islands. They will sail on the U. S. Transport LOGAN.

Captain Edwards, Quartermaster at Fort Scott, has caused to be donated to Crissy Field a number of large cannon balls to be used for ornamental purposes about the post. They have been placed in position and add much to the appearance of Crissy Field.

Major Geo. H. Brett and his staff attended a reception given by Major General Charles G. Morton at his home at Ft. Mason. The reception was attended by members from the various military posts in the vicinity of San Francisco.

Dr. H. A. Arnold of Philadelphia, Pa. is visiting with his son, Major H. H. Arnold, former Corps Area Air Officer. Dr. Arnold's visit is a timely one in view of the fact that Major H. H. Arnold has been confined to his bed at the Letterman General Hospital for the past six weeks. In view of the Doctor's jovial disposition, we are most certain that his visit will restore Major Arnold to his former good health and vigor.

Crissy Field, Presidio of San Francisco, Cal., Sept. 11.

Crissy Field takes pleasure in announcing the arrival of a Junior Pilot, Thomas Hart Benton, weight seven pounds and twelve ounces. A number of us have been recommending our favorite smokes to Lieut. Benton and expect he will kick through in the immediate future. Our wishes for the best go forth to Thomas Hart.

Staff Sergeant Cecil B. Guile made a cross country flight to Blairsden, California, where the Air Service Rest Camp is situated, for the purpose of returning Staff Sergeant James L. Martin who sailed on the U. S. Navy Transport HENDERSON for Langley Field.

The Corps Area Air Officer, Col. W. E. Gillmore, and Lieut. E. C. Kiel, proceeded to Montague, Cal. and Eugene, Oregon, for the purpose of inspecting the forest patrol detachments at those points.

Lieut. W. E. Maxwell, on duty at Eugene, Oregon, in connection with the forest patrol, made a hurried trip to Crissy Field the past week for the purpose of obtaining supplies, returning to Eugene on the following day.

Lieut. J. B. Patrick of the 91st Squadron (Observation) has been assigned to temporary duty as Assistant to the Air Officer during the absence of Lieut. H. A. Halverson, who is spending a thirty day leave at the Air Service Rest Camp, Blairsden, California.

Major H. H. Arnold, our former Air Officer, is apparently on the road to recovery. Recent inquiries have shown he is now sitting up and talking about hunting and fishing. This news is most welcome to his many friends.

The headquarters of the 91st Squadron have moved from their rooms in the Headquarters building of Crissy Field to more spacious quarters in the barracks building.

Lt. S. G. V. Wood, U. S. Navy, and family are visiting the Commanding Officer, Major George H. Brett. Major and Mrs. Brett gave a dinner party in their behalf on Friday evening, September 8. After dinner an automobile party to Tait's on the beach was participated in and dancing was enjoyed until a late hour.

Camp Nichols, Rizal, P. I., Aug. 5.

Since the appropriation of \$100,000.00 for the construction of new hangars and barracks, the Contractor has made some progress toward the erection of one hangar on the South end of the Flying Field, during the time it has not been raining.

First Lieutenant J. R. Glascock is rather glad to be returned to his Post, after some two months of Detached Service at Clark Field setting up of twenty-five airplanes.

It is found necessary to keep a mowing machine in action on the flying field most of the time, as nature is not at all selfish in seeing that an abundance of grass is kept on her fields.

Camp Nichols, Rizal, P. I., Aug. 12.

Nineteen recruits were received from the States on Transport "Meigs" which arrived August 7. They are assigned to the 2nd and 3rd Squadrons, but are held at Camp Nichols on Detached Service to finish the construction of hangars and barracks.

Some 249 fine horses also arrived on the "Meigs" this week, and are under quarantine for 21 days at this Post.

Major Hanley and Lieutenant Thompson were visitors at Camp Nichols this week for the purpose of taking Flying-Tests.

Kindley Field, Fort Mills, P. I., Aug. 7.

No flying activities were conducted during the past week because of inclement weather. The series of typhoons which followed each other in rapid succession brought a deluge of rain, and the water in the bay has been too rough to launch a "ship".

Both Balloon companies have been busily engaged in turning in to the various supply departments all supplies and equipment preparatory to being placed on an inactive status. Altho information has been received that both the 17th and 27th Balloon Companies are to be made inactive, as yet no orders as to disposition of personnel have been received.

The Operations Officer, 1st. Lieut. G. M. Palmer, assisted by 1st Lieut. G.H. Burgess, just completed a miniature range to be used in training the officer personnel in military observation. The range, now installed in the class room of the operations department, consists of a section of terrain viewed from an altitude of 3000 feet with the usual typographic features painted on it. While the range in itself is similar to other devices of this kind, a departure and improvement has been made in the construction of the operating board. This board was made from salvaged material and is very simple, compact and complete. The schedule of training for the current month includes daily practice on the miniature range.

The personnel of the 2nd Sqdn., (Obs.) is now engaged in firing the pistol qualification course. Each department head in the organization is responsible for the training of the personnel of his department and has charge of the firing on the range of his department. Flight "B", under 1st Lieut. McKimmon, completed preliminary practice and is now engaged in firing the record course.

Kindley Field, Fort Mills, P. I., Aug. 15.

The weather conditions and heavy surf still continue to prevent flying operations. During this period of cessation of flying, every effort is being made to complete the annual pistol firing course. Flight "B" finished the course and Flight "A" is ready to begin firing for record.

The Balloon Companies made frequent flights during the week for practice and instruction of commissioned personnel. Both organizations are busily engaged in turning in all property preparatory to being placed on the inactive list.

Orders have been received detailing certain officers of the garrison to take a complete inventory of all Air Service property on the field. Priority is being given this work, so that it may be completed as soon as possible.

1st. Lieut. H. A. Dinger, A.S., who has been in the Ft. Mills hospital for nearly two months recovering from a broken leg resulting from a motorcycle accident, has been transferred to Sternberg General Hospital, Manila, for more extended treatment.

Sgt. Major Jack Sheldon and Cpl. Sam K. Robins returned on the Merritt from a month's furlough from China. They visited Tientsen and Peking and reported a very interesting trip.

Clark Field, Pampanga, P. I., Aug. 6.

The rains have lifted sufficiently during the week to permit of some excellent operations work in the air, and several gratifying formations and interplane communications missions have been run off. The Operations Department again changed hands with the departure of Lt. F. M. Bartlett, on a two months leave for China and Japan. 1st Lt. H. A. Johnson, will act in Lt. Bartlett's stead.

Major A. H. Gilkeson, who commands the Field and 3rd Squadron, flew to Manila for the week end and will return Monday.

Some lively interest has been shown recently in design and choice of a Squadron Insignia, a matter which has been much discussed during the past months, in fact for the past two years, without results. It is believed a possibility has been placed in the field by Lt. Pardy, who has submitted a winged combination between a sea lion, sea serpent, parrot-beaked woolly haired amphibian, that might be a cross between a polywog and a mule, and/ its paw 3 arrows representing the various shafts of the outfit. The colors are black, orange and white and, painted upon a plane, presents an altogether remarkable appearance. Request for approval will be made upon the Chief of Air Service and the day is looked forward to when each plane will be decorated with this insignia.

Several typhoons have ranged dangerously near and, with one in the offing at present writing, we may never live to write further news items.

Clark Field, Pampanga, P. I., Aug. 14.

Major T. J. Hanley, Commanding Kindley Field, visited this station on Monday, Tuesday and Wednesday, staying with Major Gilkeson.

On Friday morning the Air Service personnel were afforded a rare treat at Camp Stotsenberg, witnessing a review and parade of the select troop which acted as an escort upon the recent arrival and departure of Secretary of Navy Denby in Manila. The polish and beauty of the equipment which was open for a general inspection by ladies, officers and soldiers, was a marvel to behold.

Major Gilkeson, Major Hanley, Lt. Searl and Lt. Pardy, flew to Manila and reported to Office of the Department Air Officer, Major B. Q. Jones, for conference on the contemplated Air Service personnel organization in this Department. Notwithstanding the display of typhoon signal No. 2, which gives warning of a typhoon in the offing, no difficulty was had in reaching home the same day.

Lieut. and Mrs. Riley have returned to the post after a one months leave in China and Japan.

Bolling Field, Anacostia, D. C., Sept. 20.

Major Scanlon, after nearly three years in command of this station, has been relieved and is attending the Engineering Course at McCook Field. Major Reinburg has assumed command, Major Lovell is in command of the 99th Squadron and Major Walsh is in command of the Air Park. Captain Streett and Lieutenant Maitland are at the Curtiss Factory preparing for the Pulitzer Races. Captain Ocker, Lieutenants Burgess, Kirksey and Whitney are on extended leave of absence. Lieutenant Stinson and Beau are under orders to this station for duty. Lieutenant Wilkins and Staff Sergeant Hukill came back from the trans-continental flight for the Airways Section on the 16th, having been gone nearly a month. They reported good weather throughout and a useful and instructive flight.

The first soldier's dance was held Thursday, September 21st in the Recreation Room. Personnel of our neighbor, the Naval Air Station were invited. These dances were a great success last year and with the help of Miss Naylor, (well known to all Air Service Personnel who were ever at Issoudon, and who was until recently hostess at Langley Field) who is now hostess of the District of Washington, and with the new floor laid during the summer, they should be better than ever this season.

The Baseball team wound up its regular season on Sept. 21 with a final game with Fort Washington. The outcome had no bearing on the championship of the District of Washington which has already been sewed up by our team. To Staff Sergeant Swanson go the top individual honors, he having pitched 25 victories in the season. So far the team has won 29 games and lost but 5.

Rockwell Field, Coronado, Calif., Sept. 16.

Major S. W. FitzGerald left the station this week on leave, prior to his reporting to Kelly Field for duty. Captain R. Gilpin Ervin is now Commanding Officer of the Depot.

The weekly party was in the form of a supper-bridge. Mrs. McCullough was hostess. Mrs. Buke and Captain Ervin won the ladies' and gentlemen's prize, respectively.

Major Coleman and Lieut. Moseley left this week in their Liberty Fokker, for the return flight to McCook Field.

Captain Randolph and Master Sergeant Steinle flew to Santa Barbara this week to assist in locating a forest fire, which has been raging for some time in that vicinity.

Lieut. Wm. Van Dusen, A.S. R.C. pilot, has been made acting Commanding Officer of the 429th Pursuit Squadron (Reserve). He is a good man for the job as he is exceedingly active and intensely interested, rarely missing at least one flight a week. He has kept the officers in the Reserve Corps interested in flying and has, by his own efforts, brought them from everywhere in the vicinity of San Diego, to Rockwell Field for refresher courses.

The first leg in the Seifert Trophy, donated by Lieut. Seifert to the San Diego Gun Club, was won by Lieut. Seifert Sunday.

The Meteorological Station has been ordered closed and all equipment and personnel is to go to Fort Riley, Kansas.

Scott Field, Belleville, Ill., Sept. 13.

The hangar is completely under roof. The only place not covered is the south door. It is expected that work on this will be completed this next week. Then there remains only the electrical work to be done to complete the entire structure.

A football field has been laid out and is being used. Quite a number of candidates for the post team are working out each day. It is expected that games will be booked with teams from the surrounding territory for each week end.

Mrs. C. G. Hall entertained the ladies of the post at bridge in her quarters on Wednesday last.

At the Officers Club dance held on Saturday evening, September 9th, a large number of Belleville and St. Louis people were guests. Bimonthly dances are held by the Officers Club. Each Thursday evening there is a plunge party at the pool, with an informal dance and luncheon at the club later.

Lt. J.H.C.Hill is on leave visiting his home in Warsaw, N. C.

Captains Warren and Hill left the post on the 9th for Langley Field to take Field Officers Course in the school.

Miss Henrietta Hall, daughter of Col. C. G. Hall, arrived at the post on the 5th, after visiting relatives and friends in the East.

Kelly Field, San Antonio, Texas, Sept. 2.

Three cross country flights were made during the week by officers of the 13th Squadron, one in an SE5A to Laredo and return. Captain Harvey, piloting the SE5A, left before daylight, accomplished the special mission which he was on, and returned before 10 o'clock the same day, completing a round trip of approximately 280 miles.

The 13th Squadron officers have been practicing formation flying early in the mornings, so as to become familiar with the flying of each other, and consequently be able to give proper exhibitions of this type of flying. The Squadron is all "pepped up", over the proposed week trip to Medina Lake, beginning about the 5th of September. They will live in pup tents, and it will be good training, besides providing plenty of entertainment when off duty. Several of the men have motor-boats, and fish ought to be served regularly at mess. "Chiggars" are also plentiful, from the latest reports, so an active time should be had by all concerned.

The 8th Squadron's activities have been confined mostly to cross-country flights and formation training. The flying schedule has been arranged to give each officer assigned at least three hours' formation flying per week, and after each flight the pilots concerned meet and discuss the various manoeuvres. Lieutenant Skanse, Commanding Officer, made a cross country flight to El Paso and return. Staff Sergeant Zielinski accompanied the Lieutenant in the capacity of mechanic. The trip was uneventful, stops being made at Sanderson and Marfa. The round trip consumed 680 minutes actual flying time.

The Forty-first Squadron is progressing nicely. More than three hundred hours flying time was reported last month with no accidents. The recruits are getting their first hops since the officers and cadets completed their solo training and are now better pleased with the Air Service.

THIRTEENTH AIR PARK (SCHOOL):- Plans for the employment and functions of an air park are now complete and are being put into effect as rapidly as supplies and personnel become available. Eventually, it is contemplated that the air park will maintain a motor overhaul department, aero repair and associated department, to provide the group with an efficient, mobile organization which will be able so as to keep it supplied with airplanes and equipment, and relieve the other organizations of the group of the work of handling wrecked planes and other unserviceable aerial equipment.

FORTY-SECOND SQUADRON (SCHOOL):- Routine flying was performed during the last week by officers assigned to this organization and by student officers assigned for instructions. Two cross-country flights to Post Field, Fort Sill, Oklahoma, were made. Enlisted personnel have been keeping ships of this organization in good condition, and the maximum flying hours have been turned in without a ship being out of service.

FORTH-THIRD SQUADRON (SCHOOL) : The 43d Squadron increased its personnel by 84 men and 5 officers on August 31st. On August 30th it has only one officer and 4 enlisted men for duty. Due to the 39th Squadron (School) being demobilized by War Department orders, the entire personnel and officers were transferred to this organization. Captain McDaniel, formerly of the 26th Squadron (Attack), is now in command.

On Labor Day the Squadron gave a big feast at its mess-hall and all officers of the Squadron and their families were invited. Everyone was well pleased that day. It was noticed that everyone remained in the mess-hall longer than usual, due to the mess having punch.

CADET DETACHMENT:- The cadets of the Advanced Flying School spent a very enjoyable evening recently on the Saint Anthony Roof, at the invitation of their brother cadets of Brooks Field, the occasion being the monthly hop of the Primary Flying School's Cadet Detachment. The evening proved to be a delightful diversion from the daily grind of classwork and all too little flying. These monthly dances are well worth while, and we are eagerly anticipating the next.

Classwork and flying has at last settled down to a definite routine. No more the wild rushes at the last moment to find whether rigging class or motors is to occupy our afternoon; very few and far between the cries of those cadets who failed to get their daily hop. Motors and Rigging, together with Radio, Hygiene and System of Supply, have gone the way of the wicked, never, we earnestly hope, to return. In a few short weeks the whole ground school will be a thing of the past, and then will be ushered in that joyful period we have long anticipated: all flying, no studies.

The Cadet Detachment may well consider itself lucky that it is located so close to the Kelly Field swimming pool. The few months that we have been here have seen more than one cadet become proficient in the art. Furthermore, the outfit boasts of two or three experts. Himrod represented Kelly Field creditably in the Labor Day swimming meet at Arbor Beach, doing his share towards gaining for Kelly the second that came so nearly being a first, while Huguet, as a diver, is among the top notchers. Who can blame us for exhibiting a little pride in our organization?

The recent discharge of several of our members leaves a little lonesome feeling in the air, although we cannot but envy those who have successfully completed their Bombardment course and are now on their respective trails for home, bearing with them their A.P. ratings and lieutenantcies in the Reserve. Cadets Potter, Haplin, Baker and Komdat, --no longer Cadets, but Lieutenants, carry with them the very best wishes of the whole Detachment.

Lieutenant Selzer of the 8th, has made what we believe to be the last cross-country trip to Del Rio. The Lieutenant is now on a thirty day leave and 'tis rumored that Kelly Field is going to lose one of its most eligible young bachelors. The Lieutenant plans to be married in the near future and is intending to spend his honeymoon motoring through Arkansas.

Major Hefferman, formerly Commanding Officer of the 3rd Group (Attack), borrowed a plane for a cross-country flight to Laredo. Staff Sergeant White, accompanied the Major as mechanic. They returned on the 30th.

Lieutenant Douglas, of Group Headquarters, made a cross-country flight to Post Field via Mexia and Dallas, Texas, returning via Grohan and Mexia. A good landing field was found at Mexia, one mile south of the town, near a railroad, and is on railroad property.

10th GROUP (SCHOOL):- Last week the students of the Air Service Advanced Flying School were given a surprise examination in practical theory of flight and aerodynamics, by Major Reynolds. The object of this examination was to determine how much of these particular ground school subjects the students had retained. During the examination, pages of diagrams were drawn and in some cases model airplanes were constructed on paper. Everyone who took the examination agreed that indoor flying was a pastime which became hard work when the rules require you to put your opinions in writing for careful inspection.

Captain Hayes, Commanding Officer of the 90th Squadron (Attack), had the pleasure of flying Captain Hayded of the Cavalry, on a cross country flight to Laredo, where the latter is stationed.

Kelly Field, San Antonio, Texas, Sept. 9.

THIRTEENTH SQUADRON (ATTACK):- The Squadron was all "het up" over leaving for Lake Medina, Monday morning September 11th, on a weeks camping trip. Permission for the trip was finally obtained, and everybody is making preparations for the trip. It ought to be a good one too, as there is good fishing, bathing, and boating there.

Our hats are off to Lieutenant James H. Doolittle, of the 90th Squadron, for the flight that he has just completed, spanning the continent in 21 hours and 20 minutes. This flight has long been attempted, but "Jimmy" is the first pilot to make it in one solar day.

EIGHTH SQUADRON (ATTACK):- Squadron activities have been rather quiet for the last week, our operations being mostly confined to practice flights and one or two formations. Major Luncan, 90th Division, Organized Reserves, Air Service, is back on the job and has been out the last two mornings getting in hops. Lieutenant Park Holland, our Trial Judge Advocate, G.C.M., having either convicted or turned all the prisoners loose, has found time to come over and fly formations flights.

The organization is preparing for the field inspection to be held in October. Of course, we are always prepared, but as practice makes perfect, and we are not perfect, we intend stepping out to show a snappy outfit when the day arrives.

We expect to have Lieutenant O'Connell with us soon. He has been on duty as Air Service Property Officer for the past several months, and is now being relieved. Welcome back, Lieutenant O'Connell.

AIR PARK #5 (ATTACK):- Flying time for the organization during the last week was a little below the average. A total of three hours and 40 minutes was flown, covering test and practice flights, and practice in short distance reconnaissance.

Lieutenant Colonel Clarence C. Culver, who relieved Major Frank D. Lackland as Air Officer, 8th Corps Area, has reported quite frequently for the purpose of flying.

Chanute Field, Rantoul, Ill., Sept. 13.

Captain Ira J. Gibson, M.C., who has been stationed at Chanute Field for some time in the capacity of Post Surgeon, was ordered to attend the Flight Surgeons' School at Mitchell Field. Just prior to his departure, Captain Gibson took a short leave for the purpose of visiting Springfield, Illinois (presumably) on business. But to the surprise of everyone on the field, he returned therefrom with a wife. He was married to Miss Tess Flynn of Springfield on September 1st. The surprise was great, for many many moons have past over the Captains hoary head and he has remained immune from the wiles of the fair. He was cited everywhere as a shining example of bachelorhood - One to be looked up to and revered. Whenever the hardworked husbands of the field had words with their spouses - which happened regularly and frequently - the said hard-worked husbands were informed by said wives that they would be in the gutter or some equally suitable place if it had not been for their uplifting influence, the husbands would allow their nether lips to curl cynically and would say, in a low sweet tone; "Look at Captain Gibson-" It was the retort unanswerable - the checkmate absolute. But, like prohibition and the Anthony bill, it has happened! Captain Gibson has traveled the path of all mankind. In token of his long immunity and the fact that he married a girl who did not hail from the Lone Star State, thereby breaking one of the oldest precedents in the Air Service. Captain Gibson and his bride were escorted to the station in royal fashion. The coach was a freshly painted Liberty Truck, girded with a wreath of G. I. cans and festooned liberally with coal shovels and other nick-nacks. The couple left on September 2, for Mitchell Field. But, even though he took a lot of time to do it, Captain Gibson's taste in the selection of his life partner was justified by the delay. Everyone on Chanute Field is looking forward to the return of Captain and Mrs. Gibson.

Major Cadmus J. Baker, M.C., recently reported and was taken over the duties of Post Surgeon and Flight Surgeon. He was accompanied by Mrs. Baker and their small daughter.

Captain John H. Hickman, M. C., former Flight Surgeon is now on a thirty day Leave of Absence. A large part of this time will be spent in New York at the home of Mrs. Hickman's parents.

1st Lieut. H. A. McGinnis and family are new arrivals at the field. Lieut. McGinnis has been assigned to the 15th Squadron.

Lieuts. E. E. Glenn, and C. H. Schabacker have also reported recently. Lieutenant Glenn has been assigned as Engineering Officer and Transportation Officer of the 15th Squadron. Lieutenant Schabacker as Asst. Supply Officer of the 15th Squadron, and Recreational, Information and Publicity Officer of the Field.

1st Lieut. Robert T. Cronau, A.S., reported in recently from his leave of absence. He was accompanied by Mrs. Cronau, formerly Miss Kathryn Darden of Hampton, Va.

Aberdeen Proving Grounds, Md., Sept. 21.

The past two weeks witnessed one of the most extensive Bombing programs presented at Aberdeen Proving Ground. Martin Bombers and D.H's have been "going it" from early morning till late in the afternoon, and each day has seen thousands of pounds of bombs, varying from 17 lb. fragmentation to 600 lb. demolition bombs, dropped on our bombing field. The coming week the program includes 1600 and 2000 pound bombs, and, for this purpose, the good old Handley Page, which carried the only 4,000 lb. ever dropped from an airplane, will be used.

The arrival of the CWI, a three-engine triplane is expected here from New York, with Lieut. Melville piloting it.

Captain Hough recently joined the outfit and has been assigned to command the 15th Squadron. He has manifested an active interest in athletics, and present indications point to the Squadron having a crackerjack football team.

Lieut. Shankle and Lieut. George are leaving Monday to lay out an airway from Aberdeen to Pittsburg via, Harrisburg.

Mitchel Field, L. I., New York, Sept. 15.

Orders have been received which indicate that Battery "B" of the Sixth Field Artillery is marching from Camp Dix, N.J., to Mitchel Field for temporary duty. It is understood that this Battery of the Field Artillery is coming here in order to co-operate with the Air Service in putting on a demonstration for the Reserve and National Guard Officers of this Corps Area in artillery reglage. The Artillery will fire a practice problem in which the target will not be visible and wherein the Air Service flying above the target will indicate to the Battery commander back at the firing line, the relative position of his hits in relation to his target. The exact date for this maneuver is not yet determined. It is anticipated, however, that practically every Reserve Officer in the Corps Area and a large number of National Guard Officers will be present at Mitchel Field to witness the demonstration.

Among the cross-country flights made at this station during the past week were -

The return of 1st Lieutenant John C. Kennedy, A.S., from Portland, Maine, where he had gone to participate in a demonstration at that station, under authority from the Chief of Air Service.

Flight to Camp Dix for the purpose of speeding up official business by transporting men and securing supplies.

Flight to McCook Field, Dayton, Ohio, on Model Airway, flown by Lieut. John McD. Early, A.S.

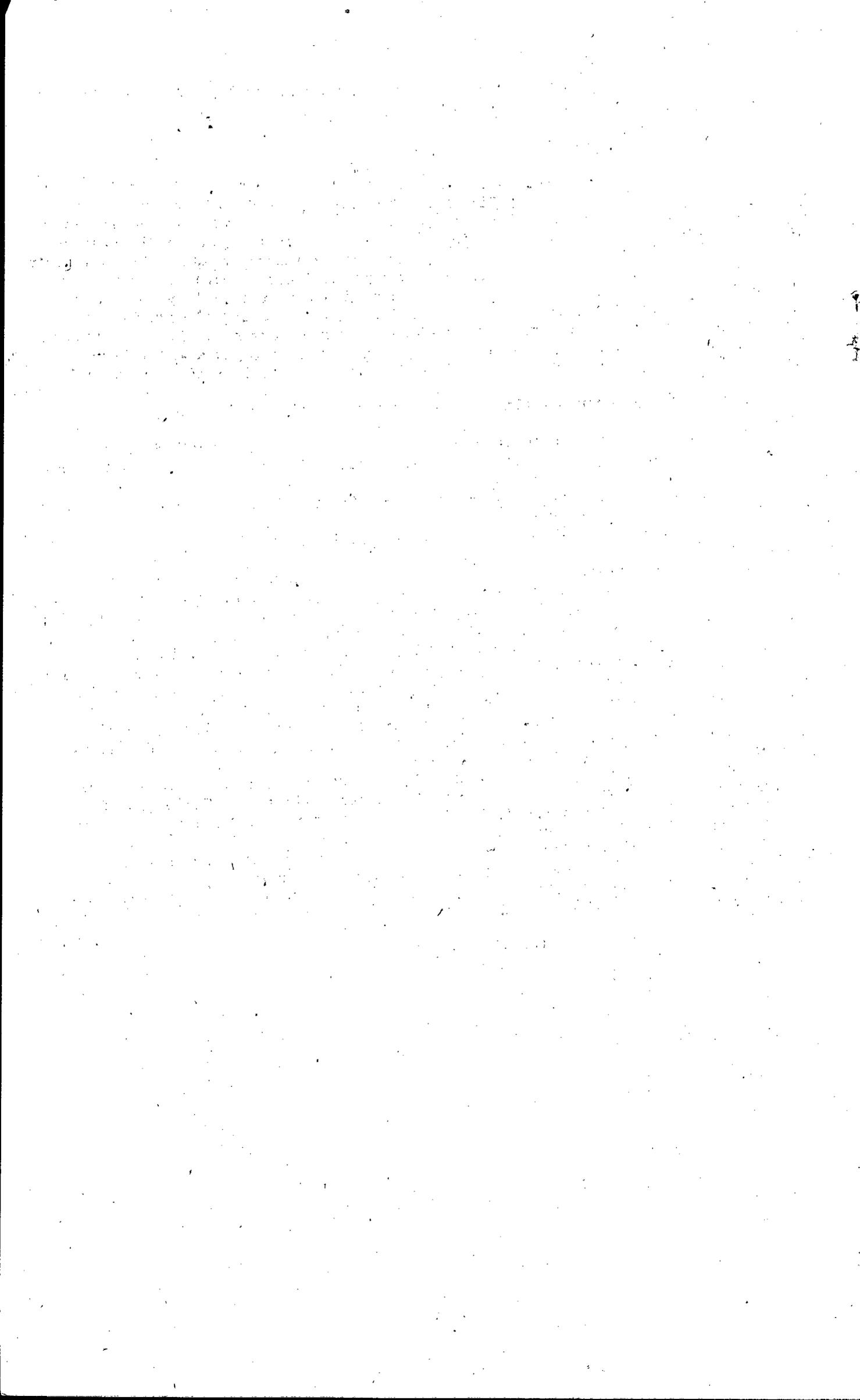
Several cross-country flights were made to Washington during this period. Among the pilots making this trip were: Major W. R. Weaver, A.S.; Major Thomas DeW. Milling, A.S.; Captain Robert A. Kinloch, A.S.; Captain Harry C. Drayton, A.S.; Lieut. Newton Longfellow, A.S.; Lieut. C. E. Crumrine, A.S.

On September 10th the 101st Squadron National Guard departed this station for Boston, Mass., their home station. During their time at this station the 101st Squadron secured a total of over 250 flying hours, all the pilots and observers successfully completing the course. All the men and officers of this organization evidenced a very excellent spirit during their time at this station. They all seemed anxious to learn, put forth their best efforts, and Mitchel Field will be glad to see them return next year.

Mitchel Field received the following letter from the United States Army Polo Association which is printed as a matter of interest both to the followers of polo and particularly to Mitchel Field, in view of the fact that it will be seen Mitchel Field had its share in the success of this Team:

"I wish to thank you for the great assistance rendered the Army Polo Team while in training at Mitchel Field this year. Your action in behalf of the members of the team is thoroughly appreciated as a primary reason for winning every match entered including the Junior Championship.

(SGD.) J. R. LINDSEY"



The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE November 3, 1922.

SMASHING THE ENDURANCE RECORD.

What was originally intended to be a non-stop transcontinental flight was, due to the intervention of unfavorable weather conditions, converted into an endurance flight which eclipsed all previous records by a good margin. On Thursday, October 5th, Lieutenants Oakley G. Kelly and John A. Macready, test pilots at McCook Field, Dayton, Ohio, flying the Army Air Service Transport Monoplane T-2, took off at 5:53 a.m. from Rockwell Field for their non-stop flight to New York. There was a low hanging fog covering the surrounding country, giving a maximum ceiling of approximately 1500 feet. The plane circled the field twice and then headed for Temecula Pass, about 35 miles north of Rockwell. Upon arriving at Temecula they found they were able to get through and cut across the San Jacinto Mountains into Banning, Calif. Here the fog was too low to permit them getting there, and they returned to Rockwell.

A message dropped from the plane informed the Commanding Officer of Rockwell Field that an attempt would be made by the two pilots to break the sustained flight record and requesting that all arrangements be made in case of forced landing at night. Landing lights were fixed and a detail arranged to stand by at all times during the day and night in case of a forced landing, and to watch the plane to be sure they did not land in case they were able to break the sustained flight record. During the entire flight the T-2 remained within sight of the field, so that there can be no possibility of the pilots having made a landing and take-off. The landing was made at 5:11:30 p.m. October 6, completing 35 hours, 18 minutes and 30 seconds of sustained flight.

The time of ascent and descent was standard Western Union time taken from the electrically controlled clock in Headquarters of Rockwell Field and verified by the Commanding Officer. The following officers were present during the entire flight: Captains R. G. Ervin, W.M. Randolph, L. M. Field, 1st Lieuts. Virgil Hine, P. J. Richter, A. W. Vanaman, A. W. Marriner, John M. McCulloch and C. L. Webber. The following other officers witnessed the take-off and landing: Lieutenants L. D. Webb, V. F. Grant and R. A. Ofstie, of the U. S. Navy, and Capt. O. T. Pfeiffer of the U. S. Marine Corps. Representatives of the press also witnessed the take-off and landing.

When they took off on Thursday morning they succeeded in lifting the greatest weight ever lifted with one motor, approximately 10,700 pounds. This performance furnished indisputable evidence of the wonderful reliability of the Liberty engine. Not once did this great engine fail to respond, but ran smoothly from the time she was started until the switches were cut at the dead line - this after running at full speed for the first seven or eight hours of the flight. Later, of course, as the load of the machine lightened, the engine was throttled just enough to keep the ship in the air. Thus the previous record for sustained flight (26 hours, 19 minutes and 35 seconds) made on December 29, 1921, by Aviators Stinson and Bertaud over Mineola, L.I., New York, was beaten by 9 hours or, to be exact, 8 hours, 58 minutes and 55 seconds.

Since these two adventurous pilots have not given up their ambition to make an uninterrupted flight to New York and intend to make another start just as soon as weather conditions permit, it may be of interest at this time to set forth the plans that were made for the flight and the various investigations conducted as to the routes and weather conditions, the changes that were made in the airplane so as to render it especially suitable for the trip, etc. At this writing advice was received from Rockwell Field that the T-2 Monoplane is all ready to take off and that, weather permitting, an attempt will probably be made within a week.

At the time the project for the non-stop transcontinental flight received the sanction of the Chief of Air Service, it was intended to start from Mitchel Field, L. I., New York. It was figured that the ship being so heavily laden with fuel would, by taking off from that field, be just able to gain sufficient altitude by the time the Allegheny Mountains were reached to permit the pilots to

get the ship across it safely, and the same time the Rocky Mountains were reached enough gasoline would have been consumed to make the plane light enough to get over them without difficulty.

At first Lieut. Ernest W. Dichman, the engineer officer in charge of the project, was slated to accompany Lieut. Kelly as relief pilot, but it was subsequently decided to designate Lieut. John A. Macready as the relief pilot, due to Lieut. Dichman's comparative inexperience in extensive cross-country flying. Preliminary to the start of the flight, Lieuts. Kelly and Dichman made a path-finding flight from Dayton, Ohio, to Rockwell Field, San Diego, Calif., to make a study of anticipated flight conditions to be encountered. The details of this trip are given later on in this article.

Due to meteorological conditions at this time of the year, it was decided that the non-stop flight should be made from west to east instead of vice versa, especially in view of the fact that dependable west winds prevail at an altitude of 5,000 feet during the months of September and October, thereby considerably increasing the chances of success.

The airplane used is a thick winged monoplane, powered with one 400 h.p. Liberty engine. It was originally designed to carry eight passengers in a cabin and one pilot in the forward part of the fuselage near the engine. The normal gas capacity of the Transport is 130 gallons, which gives it an endurance of about six hours. Its endurance and, of course, its gas-carrying capacity had to be increased six-fold in order to undertake the task of flying from California to New York without a stop. Consequently, the gas capacity was increased from 130 to 725 gallons, divided into three tanks. The original 130-gallon tank was retained, a new 410-gallon tank was installed in the wing between the front and rear spars, and another tank of 185 gallons was installed in the cabin. Larger capacity oil tanks and reserve water tanks were also necessary, as well as an auxiliary radiator and oil radiator to insure the "comfort" of the engine during its trying performance. The comfort of the pilots was also provided for, dual controls being installed so that they could relieve each other at intervals from the tediousness of the flight. Other modifications were made in the plane, such as equipping it with a set of Army 44" x 10" wheels and tires, installing a folding seat in the pilot's cockpit and a door to the cabin so that an exchange of pilots could be effected. These parts were not only installed, but were designed and built, in less than six weeks. The wing and fuselage were reinforced to carry the additional load.

It was the intention to have most of the piloting done from the front cockpit, since it placed the pilot in the open with an unobstructed view. When the flyer wishes to be relieved he announces the fact through a speaking tube and the pilot in the cabin takes command of the plane with the auxiliary control which is located within easy reach. The front pilot then moves back to the cabin and without difficulty exchanges places with the relief; then the relief pilot moves to the front cockpit and takes control. A comfortable bench seat behind the auxiliary control will permit the relief pilot to stretch out at full length and snatch a few hours' sleep.

In making the plans for the flight, one of the most serious problems confronting the flyers in order to take advantage of the west wind was to carry their tremendous load through the mountains of California. The gas and oil load at the start was calculated to exceed 4,600 pounds, thus reducing the ceiling or climbing ability of the plane to such an extent that it would not have been possible for them to fly over the Western range but, instead, over a circuitous route, seeking mountain passes where the elevation was not over 3,000 feet.

In August, Lieut. Kelly, accompanied by Lieut. Dichman, made a flying survey of the terrain to be crossed in the rough country west of Tucumcari, New Mexico. After four days of aerial pathfinding in Southern California, they planned a tortuous route through the valleys and canyons of the western range which enabled them to pass through without exceeding 3,000 feet. A thousand miles of such mountain dodging would bring the flyers into flat country. At Tuscan, Arizona, about six hours after the start, it is necessary to fly over 4,000 feet, and at Carthage, New Mexico, ten hours after the start, an altitude of 6,500 feet is encountered, but by that time the amount of fuel used would reduce the load about 1300 pounds and enable the plane to climb to a sufficient height. When they pass Tucumcari their greatest danger has been surmounted. Then comes night flying. Tucumcari is reached about dusk, but if the sky is clear with a harvest moon this part of the trip should be pleasant of passage, for although it means

ten hours over mountainous prairie land it is a relief after thirteen hours of maneuvering through mountain peaks.

At St. Louis a new day is started, with 24 hours, 1900 miles, and the roughest country behind them. Both pilots are familiar with the air routes east of the Mississippi; the plane will be flying with a constantly diminishing load, and could easily climb to twice the height of the mountains in Pennsylvania.

The proposed transcontinental flight, if successful, will be the culmination of over a year's work of various officers of the United States Army Air Service. In the fall of 1921 two Army Air Service officers on duty with the Engineering Division, Lieuts. Kelly and Fairchild, conceived the idea of attempting a non-stop transcontinental flight. At first thought the plan seemed preposterous, and these two officers found themselves the target for much good-natured ridicule. The proposal to spend 35 or 40 hours in the air was believed to be impossible, both from an engineering point of view in designing an airplane to carry sufficient fuel and from a physical point of view in being able to stand the continuous strain incident to staying in the air for so long a period. These two officers, however, persisted in their efforts and gradually came to be taken seriously, with the result that a series of studies were undertaken by the Engineering Division with a view of determining the possibilities for the successful accomplishment of a non-stop transcontinental flight.

Several types of airplanes and engines were considered for the purpose and a careful analysis made of their cruising speed, load-carrying ability, fuel consumption, reliability, and other characteristics which made for the success of the flight. A careful survey of different routes was also made with a view of determining the lowest altitude and best terrain.

The result of these investigations was the selection of the Army Air Service Monoplane Transport, Type T-2, as the airplane best adapted to the purpose. After submitting all data to the Chief of Air Service and securing his formal approval on the project, work was started on the modification of the airplane, and within two weeks Lt. Kelly and Lt. Dichman started on a trip over the route to determine accurately the course to be followed. (Unfortunately, Lt. Fairchild had broken his arm in a crash resulting from a test flight of some special apparatus and was unable to participate in the flight). They went from McCook Field, Dayton, Ohio, to Rockwell Field, San Diego, Calif., in three days, stopping at Scott Field, Belleville, Ill., Post Field, Fort Sill, Okla., and Fort Bliss, Texas. A stop of four days was made in San Diego to investigate the passes in the mountains, and the return trip to McCook Field was made.

As a result of the preliminary flight of these officers, they gathered sufficient data to definitely select a route for the transcontinental flight. It is proposed to leave Rockwell Field at 5:00 a.m. Pacific time, and head north 50 miles to Fall brook, then northeast 10 miles through Temecula Canyon to Temecula, then northwest 15 miles to Elsinore Lake, north 10 miles to Lakeview Junction, northeast 15 miles picking up the Southern Pacific Railroad at Beaumont, the highest point in the pass, about 2,200 feet. From Beaumont the course follows along the Southern Pacific and the Salton Sea to Yuma. From Yuma it follows the Gila River and railroad to Maricopa, then southeast to Tucson, then east to Lordsburg and Deming, New Mexico. From Deming strike northeast to the Rio Grande Valley at Rincon, then north to Carthage, and northeast to Santa Rosa and Tucumcari. They should arrive at Tucumcari about dusk, assuming a speed of 80 miles per hour, but if they have a favorable wind, which may reasonably be expected, this time will be considerably bettered. From Tucumcari, the railroad is followed in a northeasterly direction to Dalhart, Texas; Guymon, Okla.; Liberal, Kansas; Greensburg, Kans.; then east to Wichita, Kansas. A good dirt road parallels the railroad from Tucumcari to Wichita, and the entire country from Tucumcari northeast through Kansas and Missouri is level and ideally suited for landing, if necessary. From Wichita, head about 20° north of east to St. Louis, Mo., and continue on that course to Terre Haute, and Indianapolis, Ind. From Indianapolis head east to Dayton, Columbus, Moundsville, and either New York or Washington, depending upon the gasoline supply and weather conditions. Arrival in New York or Washington should occur on the afternoon of the day following the start.

Lieut. Dichman rendered the following report covering the preliminary flight from Dayton To Rockwell Field:

"Lieut. Kelly and myself too off from McCook Field, Aug. 18, at 1:30 Central Time, in a 9-hour DH-4, with the intention of making Springfield, Mo., the first

day. We landed at Scott Field and met the executive officer, who arranged to supply us with gas and oil. In taxiing for a take-off, we blew a tire and by the time this damage was repaired it was too late to proceed, so we remained at Scott Field overnight.

The next morning we took off at daylight, with the intention of stopping at Post Field, Fort Sill, Okla., for gas and continuing to El Paso the same day. However, in landing, a stone was thrown against the booster radiator, causing a leak, which necessitated a lay over for repairs. We were met at Post Field by Lieut. Schulze and other officers of the post, who arranged to have the necessary repairs made and our airplane filled with gas and oil.

At dawn the next morning, Aug. 20, we took off for El Paso, Tex., with the intention of taking the northern route, namely, from Post Field west to Amarilla, Tex. to Tucumcari, N.M., then southwest to Santa Rosa to Torrance, then south along the western side of the Sierra, Blanca and Sacramento mountains to El Paso, Tex. The terrain from Carrizozo south to El Paso is very poor flying country, there being few places where a safe landing could be effected. On this trip about 60 miles west of Post Field near Altus, Lt. Kelly discovered a small leak in the cooling system. On a short flight this leak would not have been serious, but it was thought prudent, because of the long flight over unfamiliar and poor flying country, to turn back, which we did, repaired the leak which was due to stripped threads on bolt on one of the hose connections, and took off again. We arrived at Fort Bliss at 3:00 p.m. and were met by Lt. Sullivan, who arranged to have our airplane inspected and serviced.

Left Fort Bliss at dawn the next morning, Aug. 21, following the railroad to Deming, Lordsburg, Tucson, Yuma and then west over Imperial Valley and the mountains to San Diego. We were met at Rockwell Field by Lt. Webber and other officers of the station who arranged to overhaul our engine and airplane.

After a day's rest we took off Wednesday morning, Aug. 23, to investigate the passes east of Riverside, Calif., and found that an elevation of 2800 feet would clear everything. Returning we landed at Los Angeles and met Eric Springer, who will attempt a transcontinental flight in November. Thence back to Rockwell Field.

After two days' rest the return trip was started. This consisted in retracing our previous course from San Diego to El Paso. On the return trip more landing fields were located, making the country near the track not as hazardous to fly over as at first supposed. On this part of the flight we bucked a head wind, making our time 7 hours and 40 minutes for the 630 miles.

At El Paso we stayed over a day discussing routes and studying weather conditions. It was finally decided not to take the southern route through Sweetwater to Post Field, but to head north through the Rio Grande Valley, then east following the railroad to Santa Rosa and Tucumcari. At Tucumcari, instead of continuing east to Post Field, we decided to head northeast through Dalhart, Texas, Liberal, Kansas to Wichita, Kansas.

Took off from El Paso at 5:15 a.m., Aug. 28, stopping at Liberal, Kansas, and arriving at Wichita at 5:00 p.m. The terrain in the Rio Grande Valley was good for landing, while from Tucumcari northeast through Kansas the country is as smooth as a billiard table. From Wichita, Kansas, east, the terrain is still good for landing. We remained in Wichita over night and took off the next morning for Scott Field, where we stopped for gas, then took off for McCook Field, where we landed at 2:00 p.m. August 29th.

Our entire trip was without any untoward incident. The engine had 54 hours in the air before the start for the trip, so that it had over 100 hours when we returned to McCook Field and was throwing considerable oil. Our only troubles were a tire blowout at Scott Field, a leaky booster radiator at Post Field, and two bad spark plugs at Los Angeles which we changed.

Both Lieut. Kelly and myself wish to take this opportunity of expressing our appreciation for the courtesies and assistance extended to us at the various Air Service stations on the route. Without their enthusiastic cooperation, our trip would have been considerably delayed."

THE RACE FOR THE DEUTSCH DE LA MEURTHE CUP.

Once more France carries off the Coupe Deutsch, which was competed for on September 30th, the starting point being at Ville-Sauvage airdrome, France. There were five entries for this event, three by France, one by England and one by Italy. As FLIGHT (London) puts it, the race was a most unsatisfactory affair,

and to all intents and purposes there was no race at all, as only one competitor (M. Fernand Lasne) finished the course. Lasne, who piloted a Nieuport-Delage biplane (320 h.p. Hispano-Suiza motor) completed the course of 186 miles (3 laps of 62 miles each) in 62 minutes, 11-4/5 seconds, or at the rate of 179.6 miles per hour.

The race was a keen disappointment to the followers of aviation in Great Britain, as their only entry, the Mars I "Bamel", piloted by "Jimmy" James, holder of several speed records with this machine, was counted on heavily to carry off the honors. James did not finish the course and returned to the starting point shortly after his take-off. It appears that while trying to keep his course and have a look at the maps, mounted on plywood which were strung around his neck by a stout piece of string, the wind caught them and blew them outside where in a slipstream or somewhere around 220 miles per hour they naturally flapped about furiously. The pull on the strings around James' neck became so hard that he had to break them, losing his maps. During his struggles with the maps he went considerably off his course and, failing to locate his turning point, he decided to return to the airdrome.

Sadi Lecointe, who with Jean Casale, were the other two French entrants, appeared to be a certain winner, since James, his most feared competitor was out of the race. His little Nieuport Delage "Sesquiplan" crossed the starting line at a great pace, and in 18 minutes, 20 seconds he completed the first lap, rounding the pylon in a sort of "Immelmann turn" which was nothing short of marvelous considering the speed at which he was traveling, and indicating his absolute mastery in rounding pylons. While coming up to the turn at the end of his second lap, a spark plug blew out of his Hispano and punched a hole in the cowling. Instead of carrying on straight past the pylon and attempting to land up the hill of the course, he made a great sweeping turn all around the airdrome and landed down hill and with what little wind there happened to be. It appears that by the time the machine touched the earth it was out of control, and after several bumpy hops it fell over on a wing tip and then turned over onto its back. Lecointe escaped with a mere shaking up, having tucked his head in as he turned over.

Casale, flying the Spad-Herbemont, was first out. He only flew one lap, which was under the 250 k.m. per hour standard and then landed, his engine steaming and smoking. It developed that a loosened screw in a radiator fitting let most of the water out of the radiator.

Second to get away was the Italian entry, the Fiat, with a 700 h.p. Fiat engine, piloted by the Italian speed pilot Brack Papa. His first start was considered illegal, as instead of crossing the starting line between the enclosures and the mark pylon on the west side of it, he passed it on its east side, and hence it was considered no start. A controversy then ensued, and it was finally decided by the race officials to permit him to make a second start late in the afternoon. After making the first lap in 20 minutes, 58 seconds, he was forced to land on his second lap due to the failure of his radiators.

"SOME SPEED".

There were some lifting of the eyebrows when the announcement came forth that Signor Brack Papa, the Italian speed pilot, flew his airplane on August 26th at Turin, Italy, at a speed of 209 miles an hour. Nearly four weeks later people began to sit up and take notice when they heard that Sadi Lecointe, the French flyer, set up a new record at Etampes on September 21st, when flying his Nieuport-Delage "Sesquiplan", equipped with a 340 Hispano-Suiza motor, he made four flights over a measured kilometer at an average speed of 213.575 miles an hour. It remained, however, for our Army airmen to cause people to rise out of their seats with ejaculations of wonderment. Lieut. R. L. Maughan, who won the Pulitzer Race at Detroit on Saturday, October 14th, when he drove the Curtiss Army Racer over the five laps of the triangular course of 156 miles at an average speed of 206 miles an hour, took part in the speed tests the following Monday and drove his Curtiss Racer at a speed of 248.5 miles per hour. The absence of representatives of the Federation Aeronautique Internationale prevented this mark from standing as an official world's speed record. On Tuesday, General William Mitchell, flying Lieut. Maughan's plane, and timed by representatives of the Federation Aeronautique Internationale, set a new official world's speed record when he flew over one kilometer course in four heats at an average speed of 224.05 miles per hour. He flew twice with the wind at a speed of 243.94 and 241.83 miles an hour, respectively, and twice against the wind at speeds of 204.29 and 206.5 miles an hour.

General Mitchell's comments on this speed record were to the effect that it might now be considered "an ordinary feat" for an aviator in one of the modern high power planes to attain a rate far in excess of 200 miles an hour, and that only mechanical developments with increased protection for pilots were necessary, in his opinion, to register even faster flights than have been made.

A LEVIATHAN OF THE AIR.

The latest development in large planes of the bombing type is shortly to make its appearance at the Fairfield Air Intermediate Depot, Fairfield, Ohio. This Goliath of the air, the Barling Bomber, is a triplane of 120 feet spread, an overall length of 65 feet and a height of 28 feet. The fuselage is 10 feet in diameter and the chord of the upper and lower wings is 14 feet and that of the intermediate wing 10 feet. The plane is capable of carrying 10,800 lbs. of bombs alone, excluding the weight of the gas and the crew of four men, two pilots and two passengers, who will be required to operate all equipment under service conditions.

This airplane is built with a view to obtaining information for the design and estimating performance of such types, and is so constructed that different sizes of bombs may be carried at the same time. A total of 5,000 pounds in bombs may be carried for 12 hours, 2,000 gallons of gasoline being necessary for a journey of that length. The plane can carry 10,000 pounds of bombs in about seven hours. To carry this tremendous load, six 400 h.p. Liberty engines are necessary, which means a gasoline consumption of about 130 gallons of gasoline per hour. It is also necessary to carry on the plane the necessary instruments to show the pilot how all of these engines are functioning. A telephone will be installed to enable conversation to be carried on from the tail to the nose of the airplane, also a radio apparatus so that communication may be had with the ground when the plane is in the air.

On account of the unusually large proportions of this airplane, especially the 14-ft. wing chord, its shipment from the factory of the Witteman Aircraft Corporation at Hasbrouck Heights, N.J., to Dayton, Ohio, presented quite a problem until it was learned that the Pennsylvania Railroad could furnish well cars for the purpose. The first shipment of spare parts came through in these well cars in good shape, but only with a special routing by the Pennsylvania Railroad to avoid certain tunnels.

The fuselage of the Barling Bomber is made to break up into 8-foot sections, and it is the only large plane ever constructed that can be so broken up into its component parts. The Railroad officials state that never before have they been confronted with a unique shipment of this character. They contemplate shipping the entire plane on a train of about ten cars along a specially prepared route.

Officials of the Engineering Division at McCook Field, Dayton, O., state that with good luck and not too much delay the Barling Bomber should be flying at Wilbur Wright Field on or about November 30th next.

MOTORLESS FLYING IN GERMANY. ✓

The Army Air Service has received from Major Benjamin D. Foulis, A. S., Assistant Military Attache at Berlin, Germany, an interesting report on the Rhon Soaring Flight Competition, which took place near Gersfield, Germany, from August 9th to 24th, 1922.

As those interested in the subject of aeronautics are now well aware, the Competition was won by F.H. Hentzen, who broke all existing records for motorless flying by remaining in the air for 3 hours and 10 minutes. Mr. Hentzen piloted the "Vampyr", owned by the Aeronautical Society of Hannover, Germany, and built by the Hannover Technical High School. It is of a monoplane type, with a span of 12.60 meters, a length of 5 meters, a height of 1.20 meters, and a surface area of 16 square meters. The distance covered was 4.5 kilometers, and the maximum height attained above the starting point was 360 meters.

Mr. Hentzen also won first prize for the least average sinking velocity - 1.05 meters per second, and first prize in the competition for greatest flight distance - 10 kilometers, traveling twice the distance of his nearest competitor.

In the competition for gliding airplanes which are controlled by rudder, Pilot Seiferth of Dresden, in his "whale-shaped" gliding biplane, won first prize, his total time in the air being 1851.3 seconds, and Pilot Schrenk won the

prize for maximum flight distance, covering 2.8 kilometers.

In the competition for gliding airplanes which are controlled by shifting the weight of the body, Pilot W. Pelzner won first prize with a duration of 231.5 seconds.

Altogether there were 53 entries for the various events, 50 German, 2 Dutch and one English.

The whole affair appears to have been very ably managed, various committees having been appointed to take care of the many details involved, such as the Chief Control body, in charge of organization and with power to settle disputes; the Prize Court, in charge of the awarding of the various prizes; the Sport Management, responsible for the sportsmanlike conduct of the Competition; the Technical Committee and Measuring Squad, in charge of the testing of airplanes for air fitness, measuring flight routes, altitudes and flying time; and the Workshop and Economic Committees, both attending to the shelter of the airplanes and their crews, as well as for their maintenance within the available means supplied.

In the regulations governing the competition it was provided that for each airplane entered a nominal amount of 200 Marks must be deposited as entrance fee, half of which amount to be returned after the admittance of the airplane. All persons taking part in the Competition were required to bind themselves to recognize the rules and regulations and any stipulations given out by the organizers. All airplanes entered were subjected to a dependency test by the Technical Committee, the competitors submitting to the Committee detailed descriptions of their planes, photographs, and certificates of proof of construction reliability and of minimum performance. Planes were to be flown only by admitted pilots who were registered, each pilot being required to possess a pilot's license of the German Model and Soaring Flight Society, which conducted the Meet.

As between Gliding Airplanes and Soaring Airplanes, it was set forth in these regulations that airplanes with a proven minimum performance of 0.3 kilometers or 30 seconds' duration with a smooth landing are considered "Gliding Airplanes", and for airplanes controlled by rudder lying down flat, with a proven maximum performance of two flights each of at least 0.6 kilometer distance, or at least 60 seconds' duration, with an average maximum sinking speed of 1.5 meters per second, are considered "Soaring Airplanes". The proof of the minimum performance is to be shown by a certificate filled out by one of the examiners empowered by the Organizing Society.

Major Foulois, in his comments on the Competition, states that the chief factors contributing to the successful results attained can be summarized as follows:

- (a) The use of a "flat gliding" airplane, of "minimum weight", "low head resistance", and the general use of the Wright Brothers' "warping wing" method of maintaining lateral control.
- (b) Mountainous terrain, where every advantage could be taken of ascending currents of air.
- (c) Careful preliminary exploration, and location of ascending and descending currents of air, in the vicinity of the starting point.
- (d) Expert piloting.

Pilot F. H. Hentzen, the most successful German soaring flier, contributed a very interesting account of his record flight in the Berliner Tageblatt of September 10, 1922, as follows:

"After the success of this year's Rhon Soaring Flight Competition, the widest circles have begun to interest themselves in the problem of Soaring Flight.

That it is possible to hold one's self in the air, without using power, is shown by the birds, who move themselves in the air for a long time without flapping their wings. This flying without wing flapping, the so-called soaring flight, is only possible in moving air. The bird, in some manner or other, must utilize the energy of the moving air. It can use the ascending air currents which occur through the irregular warming of the earth, the whirlwinds, or the upward winds which occur on the slopes of mountains, for flight without power. These upward winds on the mountains were used by us in the Rhon, for flying without motors. The wind, which over level ground, blows parallel to the horizon, as soon as it comes up against a mountain cliff, is deflected upward. (If one blows smoke against an obliquely held book, one will see how the smoke is deflected by the book and ascends far above the edge of the book). This cliff wind gives one's self the opportunity to lift one's self above the starting point. I, myself, with my flight reached an altitude of 350 meters above the starting point.

In order to carry out such flight with a motorless airplane, one must first fulfill several preliminary requirements. The Hannover airplane shows a highly valuable construction, which is the result of the closest working together of science and industry. The Aeronautical Technical Investigation Institute, of the Technical High School of Hannover, and the Hannover Wagon Factory, have accomplished this result in combined work. In the following I wish to describe one of my flights, in order to make clear how one flies with an airplane without motor power.

The airplane is brought to the starting position, and placed against the wind. Then the starting cable is fastened on to the machine (a rubber cable, which automatically releases itself after the airplane is in the air). The starting cable is hauled tight by six people, but when doing this the airplane is held fast in position by both ends of the wing, and therefore cannot yet leave the position. At the command "Start", all of the personnel, including those on the wing as well as those on the cable, run with the airplane against the wind. At the command of "Let Go", everyone releases his hold on the cable and wing, and remains standing; the starting cable loosens itself from the machine, and the big bird floats noiselessly into the air. The airplane immediately encounters the cliff wind and ascends. In my flights I have always flown in large flat "Figure eights" in order not to get too far away from the cliff, and the effective ascending wind currents. As I gain altitude at the start the spectators lie far below me. I fly over the starting point. I hear the calls of the crowd. Otherwise all is quiet around me, only a light passing of the air on the wings is to be heard. In my two-hour flight, I flew in a very uniform wind, consequently I did not have to pay much attention to the airplane, it remained quiet in the air. I could look around undisturbed and enjoy the wonderful scenery at sunset. I thereby always flew here and there on the cliff edge of the Wasserkuppe. After an hour and a half the velocity of the wind decreased and I decided to fly out over the valley. On the way, I flew over a small Rhon village, part of an old ruin, and then landed about 10 kilometers distance from the Wasserkuppe.

It was very different in my flight of 3 hours and 10 minutes. * In this flight a strong, very squally wind, of 12 to 16 meters per second, prevailed. Immediately after the start the airplane was thrown about, here and there, and I had to give my entire attention to flying the machine. Here also I flew on flat 'Figure eights', always close to the cliff edge of the Wasserkuppe. The 'Darmstadt' machine started after I did, and reached almost the same altitude as myself. At one time, both airplanes stood entirely still with relation to the ground. We stood side by side in the air, and could wave to each other. For about a quarter of an hour we held this same position. In this moment, and in this altitude, the wind was entirely steady although very strong. The airplane lay entirely quiet in the wind and required no control movement to hold it in equilibrium.

Far below us stood the spectators who had started a fire because of the cold wind. After a three-hour flight, and because of darkness, I flew towards Gersfield. Over the village I made several circles, and then landed in complete darkness above Gersfield."

*Prior to his record breaking flight, Herr Hentzen accomplished a duration flight of 2 hours and 10 seconds.

THE AERIAL CAMERA AS AN AID IN RECONSTRUCTION WORK. ✓

"The aerial camera is taking an economical and highly important part in the reconstruction of the devastated areas of France and in the restoration of the arid regions of Egypt and Mesopotamia, which in ancient times were the centers of civilization," said Sherman M. Fairchild, a Governor of the Aeronautical Chamber of Commerce, the President of the Fairchild Aerial Camera Corp., on his recent return from Europe.

"It is stimulating to learn that America leads the major European nations in the scientific development of aerial photography, but in the practical application of the art on a national scale we must look to France as the leader. The French, since the ending of the war with Germany, have systematically set about the development of aeronautics through utilization of every service offered.

Shortly after the Versailles treaty was signed, a French law was passed requiring every city in the republic, above a certain size, to be ^{re}surveyed

within three years. It would have been physically impossible and financially impracticable to accomplish this by ground methods. The result was that mapping by air was adopted throughout and one company alone surveyed 200 cities from airplanes.

Aerial mapping is being extensively used by the Ministry of Liberated Provinces. The areas of France devastated during the war are being resurveyed from the air, as in many cases not only were property lines obliterated, but the records of entire communities destroyed.

The City of Paris was mapped from the air to a scale of 200 feet to the inch, thus making it possible to identify even small buildings. Corrections such as new structures, streets, etc., were printed in red over the existing maps. For this air mapping work the French company received the equivalent of \$400,000.

In Great Britain, commercial photography from the air has been highly successful. The Government has under way an interesting experiment in mapping the Valley of the Nile. This is a part of the colonial development scheme. By means of aerial photographs the annual erosion caused by the river's overflow can be accurately recorded. Aerial photographs of the Mesopotamian desert, which anciently was irrigated by the Tigris and Euphrates rivers, is also being carried on by the British.

Mr. Fairchild believes that a rich field for development in aerial photography awaits American companies entering Central and South America, and such European countries as Spain, Greece, etc.

COMMENDATION FOR AERIAL FORESTRY PATROL. ✓

As a compliment to the efficient manner in which the aerial patrol of the Oregon forests have been carried on by the Air Service personnel from Crissy Field, Presidio of San Francisco, Calif., the Air Officer, Col. W.E. Gillmore, received the following letter from Mr. F. A. Elliott, the State Forester:

"I am pleased to inform you that a general rain occurred in this State last week which has eliminated further danger from forest fires and that the forest protective agencies now feel that the air patrol may be discontinued for this season. Lieut. Goldsborough, in command of the Oregon detachment, has been advised that further patrol is deemed unnecessary, and I believe he is making ^{necessary} arrangements for the closing of the air patrol. He informs me that it will probably be necessary to engage a few men to take down and store the canvas hangars after they have been dried out, and the Federal and State Forestry departments will take care of this cost item.

This fire season has been a very trying one for all of the forest protective agencies and, though no great amount of standing timber has been lost, the fires have been extremely numerous and the cost of protection over the entire State will be very much greater than that of the previous year.

The service you and your detachment have given us during this dry season has been of the very greatest value to us, and I wish to take this opportunity of expressing my appreciation for your hearty cooperation and valuable service. We sincerely hope that the air patrol may be continued next season and that Congress may be induced to make suitable appropriations for the continuation of this work."

The exact data on the work done and the results accomplished by this year's Forest Patrol are not available at this time, as they will necessitate weeks of work tabulating and arranging the various facts. Roughly speaking, 400 new fires have been located from the air, with about 650 hours' flying time in ten weeks' time. It is safe to say that 65,000 miles have been flown on patrols, and that an area of at least five million square miles was covered. The above figures are based on rough off-hand figures and are not guaranteed, but they give some idea of what has been accomplished.

The results as a whole have been very successful. To use the measure of satisfaction to the Forestry Service as a standard by which to gauge the success of a Forest Patrol Season, the results have been more than gratifying. Various forestry officials have time and again reiterated that they consider the system of taking foresters over their own districts far superior to the old system of hiring permanent observers, and that they realize as never before the value of airplane patrol, from their own personal experience as observers, and from the information they have been able to gain concerning their districts which would otherwise have been impossible.

A NEW AIRPLANE FOR THE CHIEF OF AIR SERVICE

General Mason M. Patrick, Chief of Air Service, now has a brand new airplane of special construction for use when making inspection trips to various Air Service stations. This plane was constructed at his request at the Fairfield Air Intermediate Depot, Fairfield, Ohio, and is especially adapted for long-distance cross-country flights. It is a DH4B-3, having a gasoline capacity of 138 gallons and an oil capacity of 18 gallons. Under normal operating conditions it is capable of remaining in the air for 6½ hours.

The fuselage is a mahogany finish, while the wings and tail surfaces are a natural finish. The engine cowling, radiator shell and under panel are of buffed aluminum with a lacquer finish, making in all a very desirable combination with a most lustrous effect. This airplane is beyond doubt the best of this type that has been manufactured by any Air Service activity. General Patrick made the statement that he had never seen or flown in any better airplane in his life. It is absolutely a product of the Fairfield Depot, having been designed and built by the employees of the Engineering Department of that station.

FIELD OFFICERS' SCHOOL TO COMMENCE OPERATING.

The Field Officers' School at Langley Field, Va., is scheduled to begin its course of instruction on October 20th, and is rapidly being filled, both by officers arriving from distant fields and by those who are being relieved from their present duties at Langley Field to be assigned to the school for this course of training. Among those who will be present at the opening session are: Majors Henry B. Clagett and Robert Coker; Captains Lynwood B. Jacobs, Ralph H. Wooten, Howard J. Houghland, Rosenham Beam, Francis M. Brady, Edmund W. Hill, Hubert V. Hopkins, George S. Warren, Chilion E. Wheeler and George P. Johnson. Other officers are expected to arrive daily in time to attend the opening of the course.

CONSTRUCTION OF NEW AIRSHIP AT LANGLEY FIELD ✓

The erection of the Airship C-14 is rapidly nearing completion, even though several unexpected difficulties were encountered in its assembly. On "weighing off" the ship, it was found to be tail heavy, which necessitated the moving forward of the car suspensions. This did not materially alter the existing defect. The surfaces were moved forward as an alternate method of remedying the uneven distribution of weight and several patches were replaced, together with a complete reassembly of the entire fin construction. This change in plans will retard the work several days from the date originally intended for completion.

The lift of the C-14 is estimated as being several hundred pounds in excess of the C-2, due to the fact that the envelope is approximately 10,000 cubic feet over-size. The envelope is considered by the officers in charge as having a rather poor general outline, as irregularities developed in the surface when inflated.

Test flights are being carried on, and as soon as it is deemed practicable, the ship will be flown to Aberdeen Proving Grounds on its first cross-country flight.

FROM LOS ANGELES TO SAN FRANCISCO IN RECORD TIME

All speed records for travel between San Francisco and Los Angeles, Calif., were broken by Lieut. Walter Miller, of the Army Air Service, on October 2nd, when he covered the 475 miles distance between these two cities in two hours and 58 minutes, thereby cutting the previous record by 7 minutes. It appears that Lieut. Miller is out to hang up a record or a series of records that will eclipse those accredited to him while stationed at Luke Field, H. T.

MARKING THE AIRWAYS. ✓

Airmen flying between Moundsville, West Va. and Dayton, Ohio, will now have no difficulty in ascertaining the name of any particular town they may be flying over. Recently a marking party in charge of Mr. H.O. Sine, of the Engineering Division at

McCook Field, Dayton, O., completed the work of painting markers on designated towns along the route of the Model Airway between the points above designated. This work was started on May 9th last.

Securing permission to paint desirable locations for markers proved to be an easy matter in each instance. In securing permission from the donor, it was never necessary to deliver a lengthy talk on the wonders of aviation, etc. A simple statement of just what was desired, why, and by whom it was desired, always proved sufficient to secure the desired results.

The personnel utilized were an advance man, a journeyman sign painter and a helper who could also drive a car. Transportation consisted of one Dodge touring car and one 3/4-ton truck. Since it was impossible to buy paint, etc., at different points as needed, it was carried along in the truck, but due to its limited capacity it was necessary to make frequent trips to McCook Field to replenish supplies. This tended to delay the work somewhat.

The designated towns were scattered over a strip of country 45 miles wide, or 22½ miles on both sides of an air line between Dayton and Moundsville. In the beginning it was planned in a general way to move east along the National Highway and work all towns north of the air line, the towns south of it to be worked on the return trip. As originally planned, it was hoped that in moving east, for instance, each town could be worked in its logical order, i.e., the travel would be in a general eastward direction. This did not work out, however, as it was necessary to double back more or less, due to the fact that the advance man in visiting the different towns to secure desired space often found that it would be several days before permission could be secured. It was therefore necessary to revisit such towns and paint them later.

The distance from Dayton to Moundsville would have covered about 800 miles. The actual mileage of the touring car used by the advance man was, however, approximately 5500 miles, and for the truck about 1500 miles. This mileage consumed about 460 gallons of gasoline and 40 gallons of oil. The total elapsed time was 95 days since the beginning of the work. About five weeks were lost, due to inclement weather and other causes, the total working time being 60 days, including Sundays.

There are 36 towns on the route and 48 markers. On the total elapsed time of 95 days this makes an average of about two days per marker, and 1½ days per marker on the actual working time. About 216 gallons of white paint were used, or an average of 4½ gallons per marker, also a total of 68 gallons of black paint were used, an average of about 1½ gallons per marker. The average number of letters per marker was 8, and the average size of the letters was 15 ft. high by 12 ft. wide and 2½ ft. stroke.

The towns visited and the particular building marked in such towns are given below, as follows:

Troy, Ohio.	Gummed Products Co.
Xenia, Ohio.	Xenia Shoe Mfg. Co.
Yellow Springs, O.	E. C. Littleton & Sons.
S. Charleston, O.	Tanner-Robinson Lumber Co.
Sedalia, O.	Grain Elevator, Mr. Bettchard, Prop.
London, O.	Storage Building, H.P. Ford, Prop.
Mechanicsburg, O.	Tanner-Robinson Lumber Co.
Urbana, O.	Oil Refining & Development Co.
Cedarville, O.	Tarbox Lumber Co.
Westerville, O.	Cellar Lumber Co.
Baltimore, O.	Fairfield Paper Co.
Newark, O.	P.S. Smith & Sons Lumber Co.
Dresden, O.	The John Herman Miller Co., Ohio Knitting Mills.
Zanesville, O.	Pennsylvania R. R. Freight Depot.
Cambridge, O.	Cambridge Foundry & Machine Co.
Barnesville, O.	McClelland-Kennard Co., Wholesale Grocers.
Batesville, O.	General Store & Post Office, A. F. Dowden, Prop.
St. Clairsville, O.	Clarendon Hotel.
Moundsville, W. Va.	Hangar roof at Langin Field.
Wheeling, W. Va.	Pennsylvania R. R. Freight Depot.
Woodsfield, O.	John Burgbacher Lumber Co.
Caldwell, O.	Chas. Nichols & Sons, Garage.
Malta, O.	Brown-Manly Plow Co.
New Lexington, O.	The Smith-Flautt Lumber Co.

Shawnee, O.	Garage, M. Francis, Prop.
Logan, O.	Owen Mfg. Co.
Springfield, O.	Pennsylvania R. R. Freight Depot.
Miamiburg, O.	Ohio Paper Co.
Middletown, O.	Middletown Machine & Tool Co.
Lebanon, O.	Wm. Evans Lumber Co.
Wilmington, O.	Champion Bridge Co.
Washington C.H., O.	Sunlight Creamery Co.
Circleville, O.	Circleville Lumber Co.
Lancaster, O.	Shaw Turner Elevator Co.
Columbus, O.	Kinnear Mfg. Co.
	Federal Glass Co.
	H.H. Giesy & Bros. Lumber Co.
	General Reserve Depot.
Mt. Sterling, O.	The Sterling Grain Co.

EDUCATING THE PUBLIC IN THE VALUE OF AERIAL FORESTRY PATROL. ✓

Motion pictures of the Cascade Forest, its timbered area, lakes, rivers, drainage areas, etc., as well as pictures of the flying field at Eugene, Ore. the Air Service personnel stationed thereat on forestry patrol duty, airplanes, etc., were taken recently by the U.S. Department of Agriculture photographers, to be used in a film being prepared to interest and educate the public at large in the value and necessity of forest protection and conservation, especially through aerial forest patrol.

COMPULSORY EXAMINATION IN AERIAL NAVIGATION

All persons in Great Britain applying for license as pilots of flying machines or for a renewal of same are required to undergo a physical and mental examination, conducted by a special board appointed by the British Air Ministry. Applicants for Class A license (for private pilots) are required to pass an examination in the following subjects: Knowledge of rules as to lights and signals, rules of the air and rules of air traffic on and in the vicinity of airdromes, and a practical knowledge of international^{air} legislation. Applicants for Class B license (for pilots of passenger or goods flying machines) must pass the same examination as for Class A license, with the following additions: Map reading, use of compass, location of position and elementary meteorology, and practical knowledge of the special conditions of air traffic.

FLYING REGULATIONS IN THE NETHERLANDS.

Flying regulations of The Netherlands Government provide that the minimum altitude over closely inhabited areas is 400 meters (1312 ft.). All aircraft must always fly at such a height over towns or public gatherings as will permit of their landing outside of such areas in case of engine failure. No trick flying may be indulged in above closely inhabited areas or public gatherings.

THE URGENCY OF AERIAL FORESTRY PATROL. ✓

The crisis of the fire season of 1922 in the State of Oregon was reached the first week in September. In five days of that week 127 new fires were located, and the actual flying time amounted to 49½ hours. This has been the heaviest activity of the summer, no prospect of the fires abating until the winter rains set in. The need of patrols has been so pressing that both the State and National Forest Service officials were successful in delaying the return of the Air Service troops to their regular station at Crissy Field, Presidio of San Francisco, Calif. The forest wardens in the southern part of Oregon, around Medford and Roseburg, reported conditions to be worse than any time this year, and that the smoke from forest fires rendered terrestrial observation impossible and airplane patrols indispensable.

AIRSHIP LINE FROM SEVILLA TO BUENOS AIRES ✓

According to articles appearing in the current press, the proposed airship line from Sevilla, Spain, to Buenos Aires, Argentina, will start operations in the not distant future. In Sevilla and Buenos Aires the installation of air-

dromes is about to be started. Three hangars will be built in Sevilla - two to house three Zeppelins, and the third one to shelter a dirigible of smaller size, which will cover the route from Sevilla to the Canary Islands, carry 29 passengers, and will cost 500,000 pesetas.

Of the hangars to be constructed at Sevilla, the largest will measure 300 by 90 by 50 meters, and will be the station shed. The other two will measure 300 by 50 by 50 and 150 by 50 by 50 meters, respectively. The first of these last two is to be used for repairs to ships, and the second to shelter the training ship. The regularity of the winds in the region is unusual, and for that reason it is expected that no serious difficulty will be encountered in landing and entering these sheds, which will be fixed in direction. On the other hand, in Buenos Aires the winds are more variable in direction and greater in velocity. A revolving shed is projected, measuring 280 by 50 by 50 meters, and another, fixed in direction. The first one can be turned in any direction, and this will facilitate the operation of landing. An alternative idea is to have a circular shed, measuring 350 meters in diameter, equipped with 16 doors.

Three of the four ships to be built will be of 135,000 cubic meters capacity, 250 meters long and 33.8 meters greatest diameter. The fourth will be of 30,000 meters capacity, 144 meters long and 21.1 meters in diameter. The big ships will carry nine motors of 400 h.p. each, mounted in independent cars. The ship will carry 40 passengers, besides the crew, and eleven tons of mail or freight. The economical speed will be 110 kilometers an hour, and the maximum speed 132. Two of the motors will be kept in reserve, and it is not contemplated that the other 7 will be in use all at the same time, except in case of heavy opposing winds. The quarters for the pilots and officers of the ship, the saloon, the kitchen and the smoking room will be in the forward part. It is expected to make a trip in each direction each week. The western trip, it is calculated, will require 3 days and 16 hours, but the eastern trip 4 days and 6 hours, due to the fact that atmospheric conditions are less favorable. The cost of the trip will be 10,000 francs, and the round trip may be made in seven days. A mail service is to be included, and the postage on a letter from Sevilla to Buenos Aires will be 3 francs and 75 centimes.

The whole project is the idea of Major Herrera, and was worked out by him during the war. His studies indicate that the 10,000 kilometers can be easily traversed in a single flight.

After the preliminary studies and calculations were completed and reviewed, General Echague presented the project to the League of Nations, which gave it effusive praise. No action was taken, however, for various reasons, among them the fact that the Argentine Republic was not represented in the League. The King of Spain is deeply interested and enthusiastically in favor of the realization of this scheme.

The company has been formed, including among others the Senores Berreatua and Rementerias, and as President, Senor Goicoechea, the former Minister. After further study in consideration of the project and the figures, Senor Goicoechea, with three of these experts, made the trip to Buenos Aires. There the Spanish project was received by the Argentine Republic and by Colonel Mosconi, Chief of the Aviation Service, with the greatest enthusiasm.

The total expenditures for material, pay of personnel, construction of the ships and of the sheds, etc., amount to approximately 100,000,000 pesetas. According to Senor Herrera, the ships will be of a new type. As shown by the experiments of the Zeppelin factory during the war, no danger or difficulty is apprehended from storms. For the past five years there has not been a single accident in the daily air service in Germany.

The development of this service will be a favorable impulse to the national industry. In the beginning German pilots will be employed on these ships, and the materials of construction, including that for the frame, which is an aluminum alloy, will be imported from Germany. It is expected, however, that this material will be later produced in Spain.

SQUADRON NEWS

Kelly Field, San Antonio, Texas, Sept. 16.

The Commanding Officer of Kelly Field called a meeting of all Non-commissioned officers of the Field, and talked on the betterment of conditions on the Field. Col. Howard advocated the organization of a club for non-commissioned officers and appointed as committee for that purpose Post Sergeant Major Keenan, Group Sergeant Major Meloney of the Attack Group and the Group Sergeant Major of the School Group. Arrangements were made whereby the Hostess House at Kelly Field No. 1 would be moved over to the East end of this Field.

During the meeting Lieutenant Brophy, Post Athletic Officer, dwelt on the formation of an Athletic Association for Kelly Field, membership to be voluntary. The dues would be nominal and entitle members of the club to visit any athletic event at Kelly Field, and army camps in the vicinity.

The Colonel approved the formation of the association and spoke of the benefits derived from this association and the non-commissioned officers club. NINETEENTH SQUADRON (ATTACK):- 1st Lieutenant James H. Doolittle, of this organization, left Kelly Field for his new station, McCook Field, where he will take the engineering course. While enroute he was met by three airplanes from this squadron and escorted beyond the limits of San Antonio, Texas. It is with deep regret that the Squadron loses such an efficient officer; one who was well thought of throughout the entire field, and hopes that, upon completion of the Engineering Course, he will be returned to the 90th. Too much credit cannot be given to one who, having failed in his first attempt and requesting a second try, made good a flight that had been attempted by a number of skillful aviators without success. The members of the 90th squadron wish Lieutenant Doolittle every success.

Lieutenant Andrews, Engineering and Operations Officer, with Lieut. Gaffney as passenger, made a cross-country flight to Laredo and return, on September 14th.

On September 13th the officers of the squadron participated in gunnery practice. Captain Hayes, the Squadron Commander, with Lieutenant-Colonel Cook, the Group Commander, made a 20-minute flight. The Colonel was carried as observer and used the machine gun to good effect.

TWENTY-SIXTH SQUADRON (ATTACK):- Captain George P. Johnson who commanded the organization since last June, received orders to proceed to Langley Field, Virginia, to attend the Field Officers' School. He contemplates making the trip overland by auto. The organization to a man is sorry to see him leave, as the Captain was well liked and respected by every man of the squadron.

Lieutenant Gates, Engineering Officer of this squadron, made a trip to New Braunfels, Texas, for the purpose of arranging accommodations for a three-day trip for the squadron to that place. The organization is very enthusiastic about this trip, as it will be a vacation that will be appreciated by all concerned.

THIRTEENTH SQUADRON (ATTACK):- This organization is without a doubt enjoying their 10-day camping visit to Medina Lake.

EIGHTH SQUADRON (ATTACK): - Lieut. J.J. O'Connell, with Staff Sergeant Colby, an Enlisted Reserve Officer with a pilot's rating, will make a cross-country flight to Mitchel Field, Long Island, New York, and return about the first of October. Lieut. O'Connell has performed the duties of Air Service Supply Officer at this and other stations for approximately three years. He is a pilot who is capable of mixing his office work with flying.

Lieut. H. G. Crocker, accompanied by Staff Sergeant Bossong as mechanic, left September 14th, at 6:00 AM on a cross-country trip to Fargo, North Dakota, to map Air Routes and plot landing field along the route. The route covers Dallas, Tulsa, Oklahoma; Kansas City, Missouri; Sioux City, Iowa; Lisbon and Fargo, North Dakota.

Lieut. Skanse is going to have his hands full. From present indications, we believe he will have to be everything from Squadron Commander down to, but not including, 1st Sergeant. With Lieutenants Crocker and O'Connell on cross-country flights, only Lieut. Skanse is left for duty, as Lieut. Holland is on Special Duty, and Lieut. Selzer on leave.

Our candidates for the Post Foot-ball team have turned out for practice and it is expected that Kelly Field is going to be the trophy winner this season. We have the material and spirit, and therefore we see no apparent reason why we shouldn't put over a good team.

FIFTH AIR PARK (ATTACK): - Lieutenant-Colonel Culver, Air Officer, and Lieut. D. G. Duke, his assistant, have been flying regularly all the last week. On September 8th, Col. Culver, flying the "Blue Bird" assigned to him, made an informal inspection of Brooks Field, after which he inspected the landing fields of the surrounding country, including those at Camps Stanley and Bullis. On Saturday, using an SE5A he made a reconnaissance mission to Camps Stanley and Bullis, landing at each. He reported the condition of the fields as fairly good. On September 13th, he made a cross-country flight to Ellington Field, Houston, Texas, for the purpose of making an informal inspection of same. Aside from a landing made at Yoakum on the way over, the trip was made in average time without any incidents worthy of note.

Lieut. Westside T. Larson and Lieut. Edward D. Jones, flying a DH4B, made a week end cross-country trip to Corpus Christi, Texas, for practice in long distance reconnaissance. The most exciting moments of the trip came when Lieut. Larson, while fishing in the Gulf, landed a tarpon, measuring over five (5) feet. He fully realized he had accomplished a man-sized job, and it is reported that when asked if he needed any help to land the immense fish he replied "I do not want help to hold him, I want help to turn him loose." Nevertheless, after the undertaking was completed, he felt like he had had some "Fisherman's Luck". The return trip from Corpus Christi was made without mishap. Lieut. Larson states that the landing fields are in good condition.

Lieut. Alfred Clement, Jr. was recently assigned to this organization.

TENTH GROUP (SCHOOL)

CADET DETACHMENT: - Last Saturday saw more cadets working longer and harder than any other day in the varied history of the advance training class. Many wondering onlookers stood agape throughout the whole afternoon, amazed at the sudden display of energy. To the uninitiated, the peregrinations of the proud possessors of white hat bands must, indeed, have appeared unseemly. A most unusual sight, we are willing to admit it, but in this case, one fully justified, for it was moving day. The old barracks at Kelly No. 1 now stand deserted, their very emptiness conjuring up memories of the half hundred bunks that but a short while since filled them most to overflowing, -- their very silence reminding one of the half hundred voices that, until Saturday, filled them with habitually joyous and boisterous noises. Indeed, the old order changeth and giveth way to the new, for now the Cadet Class of '22 occupies barracks at Kelly No. 2, only a step from the school building and within a reasonable distance from the hangars. Although many will miss the swimming pool on Kelly No. 1, yet we cannot but feel that the move was, on the whole, an improvement. The new barracks are more neatly finished inside, are cooler, and generally more comfortable, and their convenience to school activities cannot be overlooked.

The recent-innovation of having twenty minutes calisthenics before breakfast each morning is having a decidedly beneficial effect on the class. All will agree that the day passes much more smoothly since the inauguration of setting up exercises.

Ground school work is progressing rapidly, two or three subjects being completed each week. Last Saturday morning finished Army organization and Army Regulations, whereas Field Service Regulations, Rules of Land Warfare and Aerial Photography are scheduled to die a violent death at the end of the present week. Flying activities are also progressing. Observation and Bombardment classes have completed a goodly amount of formation flying and have already started on their various photographic missions, the object being to "shoot" all the surrounding country within sight or hearing, while the Pursuit Class is mixing tactical formation work with individual combat and an occasional cross-country.

FORTIETH SQUADRON (SCHOOL): - Three new planes were received by this organization during the past week, making a total of 12 planes now in commission.

Preparations are being made to equip 10 DH's with L-A Bomb Sights, Bomb Racks, Scarff mounts and radio for the class in bombardment.

FORTY-FIRST SQUADRON (SCHOOL): A total of 59 hours and 15 minutes aircraft hours have been flown by officers, student officers, and attached cadets of the squadron since the last News Letter was submitted.

Kelly Field, San Antonio, Texas, Sept. 23.

GROUP HEADQUARTERS (ATTACK): - The 13th Squadron spent ten days at Medina Lake. Most all officers and families of the Attack Group and many of the 10th Group enjoyed frequent visits to the Camp. Fishing, boat riding on the lake, and dove shooting were the prevailing sports.

The Post and Group Commanders visited the Camp and were very favorably impressed with it.

The Radio Section of the 13th Squadron maintained constant communication with Kelly Field, and several important matters which required immediate attention were handled in this manner.

Telegraphic advice from Lieut. O'Connell indicates that his cross-country flight from Kelly Field to New York was a success. Stops were made at Post, Scott, and McCook Fields.

NINETIETH SQUADRON (ATTACK):- Captain Wolcott P. Hayes, Commanding Officer, made a cross-country flight to El Paso, Texas, taking as passenger Sergeant Kolinski, and making the trip in 4 hours and 30 minutes. On his return a stop was made at the Del Rio Airdrome for refueling.

This squadron during the first 15 days of September gained a point over the other squadrons of the Group. The total man-hours flown was 172 hours and 5 minutes. Of this time the officers assigned flew 99 hours and 5 minutes; Reserve Officers, 2 hours and 5 minutes, and miscellaneous 70 hours and 55 minutes. The assigned officers made more than half the hours in the air and the squadron made more than any other three squadrons in the Group put together. The average man-hours per organization for the period stated was approximately 40.

The squadron mess is improving daily since Acting Mess Sergeant Rowell took charge. He is devoting most of his time to the proper cooking of the food and the personal cleanliness of both the kitchen and mess hall. The appearance of the mess hall would do justice to any organization, it having recently been repainted. Several hand-painted pictures are on the wall and the insignia of the squadron, a pair of red dice, is painted on the center of the ceiling, adding to its attractiveness. With the new curtains the mess hall has the real appearance of home. It is the intention of the Squadron Commander in the near future to re-arrange the reception room.

TWENTY-SIXTH SQUADRON:- 1st Lieut. B. E. Gates who assumed command of the organization on September 18th, served as Engineering and Operations Officer since his return from leave, relieving 1st Lieut. R. M. Greenslade, who was transferred to Brooks Field, Texas. 1st Lieut. R. H. Clarks, formerly of the 10th Group (School), was assigned to the organization as Supply Officer.

The Squadron held an anniversary dinner Friday, September 15th, and a half holiday was granted by the Commanding Officer, in honor of the occasion. One year ago the Squadron was organized and for some time 1st Sergeant William Bird was the only member of the organization. The first commanding Officer was Lieut. L. A. Smith, who served but a short time and was succeeded by Lieut. B. E. Gates. In April, 1922, Captain A. B. McDaniel assumed command and served until July 1922, when he was transferred to the newly organized 10th Group (School). Lieut. R. M. Greenslade succeeded Captain McDaniel and commanded the Squadron until the 1st of August, when he was relieved by Captain George P. Johnson. On September 15th, Captain Johnson was ordered to Langley Field, and Lieut. B. E. Gates was then appointed commanding officer.

Among those present at the dinner were the officers of the squadron and their families, also the married enlisted men and their families. The dinner was highly enjoyed by all present and proved a source of wonder and delight as each course was served. A tribute to the capable and efficient mess sergeant, George O. Marsh, was paid by the Commanding Officer and other officers present, in the after dinner speeches. Lieut. Gates spoke of the organization of the squadron and its success during the past year. Short speeches were made by the other officers present, complimenting the organization on the success achieved in the short time it has been in existence.

First Sergeant Bird, speaking of the organization of the squadron, recalled the time when he was the only enlisted man present, and when the squadron received other members by transfer only, until January 1922, at which time recruits began to come in and the squadron began to function as a unit. Sergeant Bird also told of the time when the squadron received its first ships and the organization of the Engineering and Operations Department in April 1922.

A ten piece orchestra volunteered their services for the dinner and entertained the diners with a concert. Sergeant Bird rendered a solo which was received with applause and requests for an encore. Everyone was well pleased with the dinner and the music and many wishes for more anniversaries were heard.

EIGHTH SQUADRON (ATTACK):- News was received from Lieut. Crocker that he had reached Sioux Falls, S.D. The communication was dated the 15th, so it is presumed that he completed the first leg of his cross-country flight to Lisbon and Fargo, N.D.

The principal work of the week was the checking of all squadron property. **FIFTH AIR PARK (ATTACK):-** Lieut. D. G. Duke, of the 8th Corps Area Air Office, made a cross-country trip to Bryan, Texas, September 16th, and returned the 17th. The purpose of the flight was to carry Captain S. E. Brown, M.D., the Flight Surgeon to Bryan on official business. Lieut. Duke reported that the fields in the vicinity of Bryan were in good condition.

On Sept. 16th, Lieut. LeBrou, accompanied by Lieut. Holland, of the 8th Squadron, made a cross-country trip to Eagle Pass, Texas, for the purpose of securing practice in long distance reconnaissance. The trip down was made without incident worthy of note and the mission accomplished. On the return trip on Sunday only a portion of it was completed successfully, for motor failure necessitated a forced landing near Crystal City. There was no landing field available, so the airplane was gracefully "Parked" in the Texas mesquite trees. Lieutenants LeBrou and Holland returned to Kelly Field by train, with a few minor bruises and scratches, and pretty well shaken up from the experience. A motor truck and a crew were sent out Wednesday after the wreck.

TENTH GROUP (SCHOOL)

CADET DETACHMENT:- The Cadet Detachment has again been invited to attend the S.A.A.I.D. civilian employees semi-monthly dance at Kelly No. 1, and, as in the past, will be well represented. These affairs have been very enjoyable and every cadet thoroughly appreciated the kind invitation of their friends, the employees of the S.A.A.I.D., to come and help them spend a happy evening.

Since moving to Kelly No. 2, the Cadet Detachment lays claim to having the snappiest outfit in the Air Service. Let those who doubt it take but one good look at the white hat bands lined up for Reville and Calisthenics, and we will wager one of Jim's appetite-teasing dinners that they will go away convinced of the truth of the above statement. Thanks to the active interest in our affairs taken by our C.O.; there has been an esprit de corps springing up of late which means everything to an organization, and as a result, our stay at Kelly is becoming more enjoyable every day. Even ground school work does go down without leaving a bitter taste. Every cadet will be a booster for the Air Service Flying School when discharged.

FORTY-SECOND SQUADRON (SCHOOL):- Routine flying was performed by all student officers assigned to this organization for instructions. Lieut. Lloyd C. Blackburn, now on a thirty day leave of absence, was transferred to the 43rd Squadron. Lieut. Lyman P. Whiteen, made a cross-country flight to Laredo, Texas, and Ellington Field, and Captain V. L. Burge made a trip to Post Field.

FORTY-FIRST SQUADRON (SCHOOL):- During the past week a total of 72 hours and 25 minutes (Aircraft hours) was flown by officers, student officers and flying cadets attached to this Squadron.

1st Lieut. Harlin T. McCormick with Corporal Marion R. Lupton as passenger, returned from Kansas City, Missouri, September 17th. They had 18 hours and 40 minutes flying time, with stops at Austin, Dallas and Tulsa going, and stops at Fort Riley, Post Field, and Dallas returning. It was stated that on one hop returning, they made 240 miles in 100 minutes, which is taking distance fast.

FORTY-THIRD SQUADRON (SCHOOL):- The 43rd Squadron has done a large amount of flying the past week, consisting of formation flying, maneuvering, cross overturns, bombing and short cross-country flights by students. The student class of the 43rd Squadron consists of four officers and five cadets, and is averaging about 16 hours each week. The Squadron at this date has four spads, and it is expected that before the new week the Squadron will have ten of them with which to start flying next week. Lieut. Fonda B. Johnson is now on detached service at

Fairfield, Ohio, preparing himself to enter the Pulitzer races at Detroit in October, and we are all wishing him the best of luck, and hope he takes first place in the race.

Crissy Field, Presidio of San Francisco, Calif., Sept. 15.

First Lieut. Robert E. Self, A.S., who, in addition to his other various duties, is the correspondent of the Weekly News Letter, departed on September 12th for the Air Service Rest Camp, Blairsden, California, where he will remain for 15 days. Lieut. Self was so overworked getting out the Weekly News that it was considered necessary to order him to the Camp for a much needed rest.

September 11, Captain Eugene Reinartz, M.C., Flight Surgeon at Mather Field, landed here in plane piloted by 1st Lt. Walter Miller, for the purpose of appearing as a witness on the Retiring Board which convened at the Presidio of San Francisco.

First Lieutenant A. G. Liggett, A.S., returned from the Air Service Rest Camp, Blairsden, Calif., where he has been spending his leave.

Captain Andrew W. Smith, M.C., and Colonel G. McKasky, Rtd., flew to Sebastopol, California, on September 9th. Captain Smith, who is a rated pilot, was at the stick.

Captain Armin F. Herold, Executive Officer of the 316th Reserve Squadron, and 1st Lt. FitzGerald, Q.M.C., flew to Mather Field on official business on September 14th, returning the same day.

Staff Sergeants Thomas Fowler and Donald A. Templeton left this station by air on September 15th, for Eugene, Oregon, where they will resume their duties in connection with Forest Patrol which will probably be conducted until October 1, 1922.

One steel hangar has been received at Crissy Field, and estimates for its construction from contractors' standpoint, as well as from the standpoint of erecting this hangar by post labor, are now being made. It is absolutely essential that some provision be made to handle the excess material being received at this Field, due to the closing of other activities in the Ninth Corps Area and the fact that, on account of lack of transportation funds, Crissy Field has had to store considerable quantities of shipments coming from insular possessions.

The following are extracts from Weekly News Letters dated September 9th and 16th respectively, received from the Forest Patrol Detachment, Eugene, Oregon:

"Lieutenant-Colonel W.E. Gillmore, Air Officer of the 9th Corps Area, accompanied by Lieut. Emil C. Kiel, A.S., of Crissy Field, arrived at the local Forest Patrol Station on an inspection trip last Friday, and will remain for several days. If possible the local members of the Chamber of Commerce will essay to show the Air Officer some of the famous Oregon fishing and deer-hunting before he leaves.

Lieut. W. A. Maxwell made a cross-country flight to Crissy Field and return during the past week. Captain Lowell H. Smith flew down to Crissy on Friday, but has not returned as yet. Lieut. Ralph W. French, Q.M.C., last year's Forest Patrol Quartermaster Officer at this station, went thru Eugene last week en route to Helena, Montana, on sixty days' leave. He visited the local officers overnight while going thru and stated that activities at Mather Field, California, had about ceased, he having recently wound up his duties as Property Officer at that station.

Several days of extremely hot weather has raised fire hazard considerably, and may delay the return of the Forest Patrol to Crissy Field.

The regular patrol work has fitted in nicely for several county fairs in Oregon. Patrol ships daily fly over the Western Lane County Fair at Florence, and land almost daily at the Fair Grounds at Medford, which happens to be the flying field itself. It all helps to educate the general public up to the work of the airplanes in forest fire prevention.

Among cross-country flights this week were: Lt. Colonel Gillmore's return to Crissy Field on Tuesday, accompanied by Lieut. E.C. Kiel, after several days sojourn in Eugene. As a third passenger on their flight they took a fine two-point buck, to give their Crissy Field friends a taste of good old Oregon venison. Staff Sergeants Templeton and Fowler, the latter

as passenger, left for Crissy Field to ferry two new airplanes to Eugene on their return trip. Lieutenant W. A. Maxwell flew to Crissy Field on the same trip as the Air Officer, but has not returned to date."

Aberdeen Proving Grounds, Md., Sept. 28.

Owing to the shortage of gas on the field flying has been practically nil during the past week. Saturday, September 23rd, found us at Logan Field participating in the Aerial Circus staged by the Third Corps Area. A letter which reached our Headquarters from the Baltimore Flying Club commended all who participated in making the event a huge success. The astounding feature of the program was the Diamond Formation of five (5) DH-4B's piloted by Lts. Bleakley, Phillips and George and Sgts. Hudson and Davis. Lt. Shankle flew the Handley Page and Lt. George the Martin Bomber. Both of these planes were very conspicuous in their own colossal appearance when placed alongside the small scout planes. Lts. Phillips and Shankle were awarded the prize for sniping, Lt. Shankle doing the flying and Lt. Phillips the shooting.

Major Pirie just returned to the field for a few days, He will leave with Lt. Melville and fly to Detroit in an M.E.-1 which is entered from this field in the Pulitzer Races.

Lts. George and Shankle left for Pittsburg to lay out an airway and are expected back in a few days.

Clark Field, Pampanga, P.I., Aug. 21.

With a predominance of local personnel engaged upon the duty of compiling an inventory of property at the Field, it was found necessary to suspend nearly all other activities. A minimum of flying has taken place and afternoon school has been inaugurated for all Officers.

The arrival of the September 5th transport is looked forward to with interest. The list of passengers as yet remains pretty much a mystery, and no one knows exactly who will be with the 28th, the bombardment outfit, due to arrive on this boat. All indications point to a rousing welcome party at the Army and Navy Club. Clark Field hopes that the new Squadron will join the local organization, but, with the present dearth of quarters, etc., wonders what will become of them if they do come here.

Kindley Field, Fort Mills, P.I., Aug. 21.

The weather continues to be unfavorable for flying. Typhoon Signal #1 was flying during the whole week. The water in the bay was so rough as to prevent the launching of any seaplanes. The flight at Paranaque Beach made several flights during the week. 1st Lieuts. John H. Wilson and Drumm flew over from Paranaque Beach and dropped the payrolls on Friday. The Balloon Companies made ascensions in the type-R-Balloon on the 15th and 16th.

Daily classes are being conducted by 1st Lieut. G.H. Burgess, Communications Officer, on the miniature range. This range is working most satisfactorily, and all officers are rapidly becoming proficient in observation procedure and radio sending. At the request of the Coast Artillery Garrison Commander, a demonstration is to be given on this range to illustrate the use of panels and methods of observation, as outlined in a recent Philippine Department training Memorandum.

In preparation for the examination in the Manual of Courts-martial scheduled for Sept. 1st, daily classes, attended by all officers, are being conducted with 1st Lieut. John Y. York as instructor.

Lt. Drumm has been relieved from command of the flight at Paranaque Beach and has returned to Kindley Field, being assigned as Squadron Engineer Officer. Lt. J. H. Wilson has gone to Paranaque Beach to take command of that flight.

Camp Nichols, Rizol, P.I., Aug. 19.

Construction work on hangars and warehouses which was being done by soldier labor, has been temporarily stopped, pending a complete inventory of all Air Service property at this station.

Word has been received at Camp Nichols of an additional appropriation of \$10,000.00 for the improvement and extension of the Airdrome at Camp Nichols. The first appropriation of \$3,000.00 was used in such a manner that a fairly creditable flying field was the result and it is thought that the additional \$10,000.00 will make a flying field that cannot be surpassed.

Rockwell Air Intermediate Depot, Coronado, Calif., Setp. 22.

To assist forest rangers patrolling the forest between San Luis Obispo and Santa Barbara, Lieut. J. P. Richter, with Sergeant Montayne as observer, flew to Santa Barbara on Thursday in a DH-4 equipped with radio. There have been so many forest fires lately in that section that Lieut. Richter will remain there for some time and, if necessary, other pilots will be sent to relieve him.

Lieutenants Kiel and Dallas of Crissy Field flew in on Monday of this week and exchanged their DeHavillands for two radio planes. They flew back to Crissy Field Tuesday. Wednesday morning Captain Herold and Sergeant Arndt of Crissy Field came in, made the same exchange, and returned to Crissy Field the same day. The planes secured by these pilots are to be used for forest patrol in the North.

Lieut. A.W. Vanaman flew up to Bakersfield Thursday to assist Lieut. Dallas, who was having some trouble with the generator in the DH he was flying to Crissy Field.

Mrs. Moore was hostess at the regular weekly party. After supper was served, the guests played several rubbers of bridge; Mrs. Hine and Lieut. Marriner winning the ladies' and gentlemen's prize, respectively.

Tuesday afternoon we were entertained by one of the fastest handball games seen to date. Lieutenants McCulloch and Seifert played Messrs. Merrick and Darby of San Diego. Three games were played in less than forty-five minutes, the civilians taking the first and last games, and the officers the second.

Rockwell Air Intermediate Depot, Corpnado, Calif., Sept. 28.

On Sunday, September 24, the large Monoplane T-2 arrived from McCook Field, piloted by Lieutenants Kelly and Macready. The new Liberty motor arrived some time previously and was installed during the week. The plane has caused considerable excitement in this community, resulting in innumerable visitors. A runway has been cleared down the length of the field in preparation for the take-off on the Coast to Coast non-stop flight. On Friday noon Lieuts. Kelly and Macready gave the big monoplane a test hop with crowds of intensely interested spectators looking on.

Lieut. Richter and Sergeant Montayne returned Monday from Forest Patrol duty in the Santa Barbara district.

Friday afternoon Captain Lowell H. Smith and Lieut. John B. Patrick of Crissy Field, dropped into the field to get two DH's which they are to ferry back to San Francisco for the use of the 91st Squadron.

Another one of our golfers, Lieut. Virgil Hine, has entered the championship class. In a county tournament after eliminating his field he ended the meet as runner-up, losing by a very small margin. He was defeated by the best man in Southern California, so we don't feel so bad about it.

The weekly supper and bridge came off with the usual success. Mrs. Randolph was hostess. Mrs. Hine and Lieut. Marriner won the ladies' and gentlemen's prizes, respectively.

Air Service Unit, University of Illinois, Sept. 25.

Back to work again and with 265 cadets - 130 of them freshmen. This is a record enrollment for us, but after the men came back from summer camp with their stories (one of which appears elsewhere in this issue) it is little wonder we had to close our books before the registration was half over.

The Unit received an Orence and DH-4B this summer so that the advanced course men will have something to vary the test block work. We plan to rig both ships and set up and run the following motors this semester: Liberty 12, Hispano-Suiza 180, Curtiss OX5, and Gnome rotary.

While at summer camp at Chanute Field, we took our cadets to McCook Field by air, but as one of the cadets tells it better than I could, I will leave same to him. His story will appear in the next issue of the News Letter. Our men averaged 16 hours in the air this summer; we consider this a good record for ROTC camps. We are still in hopes of getting a ship here that will fly, so that our wings won't shrivel and drop off between summer camps.

We plan to turn our freshmen over to the Infantry Unit for instruction the first semester, thus starting them in right. The second semester we will take them over and start sprouting wings on them.

Air Service, Tenn. Nat'l. Guard, Nashville, Tenn., Sept. 26.

Captain O. G. Trunk and 1st Lieutenant J. E. Upston of the 22nd Squadron, Montgomery, Ala. Air Intermediate Depot, and Captain Robertson and 1st Lieutenant Kirkham of the 135th Observation Squadron, Alabama National Guard, visited the 136th Squadron, Tennessee National Guard, during the Tennessee State Fair.

On Sunday, September 23rd, a large crowd was at Blackwood Field to watch the fliers. A formation was flown consisting of planes from both the Tennessee National Guard planes and the Alabama National Guard. Captain Trunk and Lieut. Upston entertained the crowd for a while before departing to Montgomery, in their D.H. This is the first time that two National Guard Squadrons have ever had representatives to fly together. This seems to be a unique idea, and it drew a larger crowd to Blackwood Field than usual. It is planned for fliers of these two National Guard organizations to make regular trips to each other's field.

Mitchel Field, L.I., New York, Oct. 7.

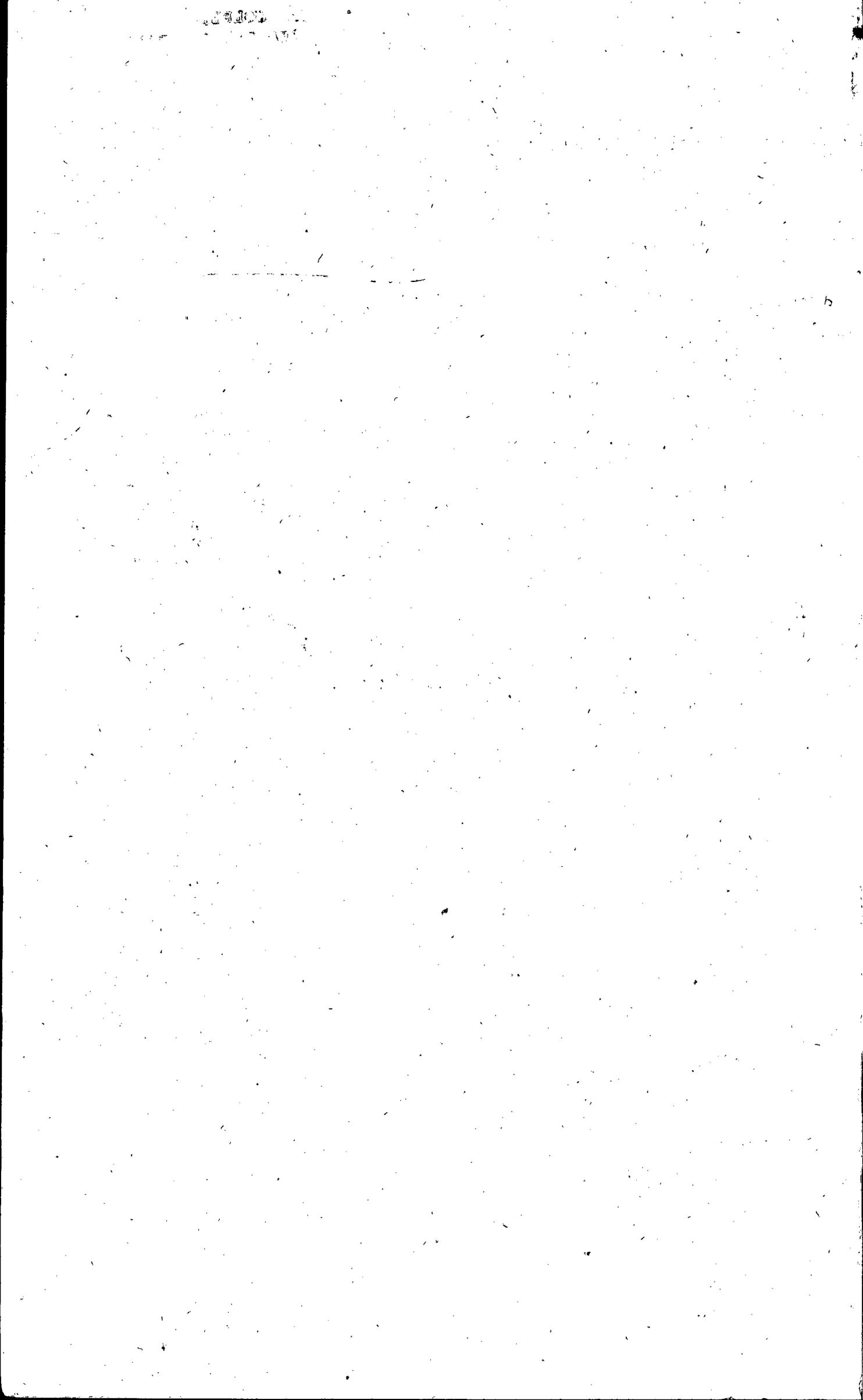
The tennis tournament between the officers of Mitchel Field and Fort Totten took place at Fort Totten on last Saturday afternoon, before a large audience. Mitchel Field won the inter-post cup with four out of five matches to its credit.

In the opening match Captains Kice and Buehler, of Mitchel Field, won the doubles from Captains Craven and Kelly of Fort Totten. In the second match Major Weaver and Captain Eaker of this station secured a victory over Major Francis and Captain Harmon of Fort Totten. In the singles Captain Kice defeated Captain Craven; Captain Eaker lost to Captain Kelly and Captain Buehler triumphed over Captain Harmon. All things considered the Air Service had a very successful afternoon at the expense of the Coast Artillery Corps.

A squadron of twelve D-H planes, under command of Major Davenport Johnson of the 1st Squadron and Major Junius W. Jones, 9th Group Headquarters Operations Officer will leave Mitchel Field at 7:00 A.M. on next Wednesday, weather permitting, for Selfridge Field, Mount Clemens, Michigan, in order to be present at the principal events of the Pulitzer Races to be held at that place.

The trip from Selfridge Field will be in the nature of a competition between the various organizations at this station, and while at Selfridge Field it is intended that the Officers and enlisted mechanics making the trip render assistance to the entries from here. 1st Lieutenants John W. Monahan, James T. Hutchison, Eugene H. Barksdale and Clarence E. Crumrine are all strong contenders for first place in their respective events and nothing is being left undone to put them across.

The pilots designated to make the trip, in addition to Majors Johnson and Jones, are Captain Ira C. Baker and 1st Lieutenants John E. Blaney, Samuel M. Connell and Newton Longfellow, representing the Fifth Squadron; Captain Harry M. Smith and 1st Lieutenant Harold R. Rivers, representing the 1st Squadron; Captain Clyde V. Finter and 1st Lieutenant Dudley E. Rowland, representing Air Park No. 6 and 1st Lieutenant Francis B. Valentine, representing 9th Group Headquarters. The planes will leave in three flights and Captains Eakers, Smith and Finter have been chosen as flight leaders. Stops for fuel will be made at Bellefonte, Pennsylvania and Cleveland, Ohio.



Information Division

Munitions Building

Air Service

November 9, 1922

Washington, D. C.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE November 13, 1922.

THE PULITZER RACE

America's aviation classic, the Pulitzer Race, passed into history carrying with it achievements surpassing anything that had heretofore been accomplished either in this country or abroad. Aviation enthusiasts in the United States can now boast that in airplane performance this country leads the world, for with the passing of the Pulitzer Race the speed record was added to the two we already hold - the altitude and endurance records. And these honors rightfully belong to us, since America is the birthplace of aviation.

Lieut. R. L. Maughan, Army Air Service, winner of the race, set up a new record for speed over a closed circuit, when he covered in five laps of the race course, totalling 250 kilometers or 155.34 miles, at an average speed of 205.8 miles an hour. He piloted one of the two Army-Curtiss Racers, equipped with a super-compressed Curtiss Model D12 engine, developing about 460 h.p. Second place was drawn by Lieut. L. J. Maitland, Air Service, piloting the same type of plane, who averaged 198.8 miles per hour. Lieut. Maitland made the fastest lap of the race at a speed of 216.1 miles per hour. Navy entrants won third and fourth places in the race, Lieut. H. J. Brow making an average of 193.8 miles and Ensign A. J. Williams 188 miles per hour. Both of these Naval officers piloted Navy-Curtiss Racers. Other entrants finished in the following order:

Pilot	Plane	M. P. H.
Lieut. E.H. Barksdale, A.S.	Verville-Sperry	181
Lieut. C.C. Moseley, A.S.	Verville VCP 1	179
Lieut. F.B. Johnson, A.S.	Verville-Sperry	178
Lieut. E.C. Whitehead, A.S.	Loening	170.2
Lieut. L.D. Schulze, A.S.	Loening	160.9
Lieut. C.L. Bissell, A.S.	Thomas-Morse 22	155.5
Capt. F.O.D. Hunter, A.S.	Thomas-Morse 22	149.3

It will thus be seen that the race was a triumph for the Curtiss racing machines. It also proved a triumph, however, for the Air Service Engineering Division at McCook Field, Dayton, Ohio, since the Verville planes which finished 5th, 6th and 7th were designed by Mr. Alfred Verville, Aeronautical Engineer and Designer at that station. Furthermore, the Verville piloted by Lieut. Barksdale eclipsed the speed of the Nieuport Delage airplane, piloted by the French airman Lasne, who won the race for the Deutsch Cup recently held in France, when he made an average speed of 179.6 miles per hour.

The Detroit Aviation Society, which conducted the Pulitzer Race under the regulations of the Aero Club of America as representing the Federation Aeronautique Internationale, received 25 entries for this event. Among these entries were eight Thomas-Morse MB3's and one Dare variable cambré airplane. The last named plane was ruled out by the race officials because the specifications of the plane were not furnished the Contest Committee. Two MB3 planes (Nos. 61 and 62) did not start, and six, piloted by officers of the 1st Group (Pursuit) stationed at Selfridge Field (Nos. 51 and 56) had a race all by themselves over a four-lap course, approximating 124 miles, for a trophy donated by Brig. General Wm. Mitchell, Assistant Chief of Air Service, and named the "John L. Mitchell Trophy" in honor of his brother who was killed in the late war. The contestants finished in the following order:

No. 1	Lieut. D. F. Stace	Average speed	148 m.p.h.
2	Capt. A. Guidera	" "	136.1 m.p.h.
3	Captain O. W. Broberg	" "	135.3 "
4	Lieut. B. K. McBride	" "	134.6 "
5	Capt. H. M. Elmendorf	" "	124.7 "
6	Capt. J. D. Summers -- forced to land at the end of the second lap.		

Sixteen contestants started in the Pulitzer Race proper, and eleven of them finished the course. Four Navy pilots and one Army pilot (Captain St. Clair Streett) experienced trouble with their planes and were forced to land before completing the entire course. Captain Streett, piloting a Verville-Sperry, covered four of the five laps at an average speed of 164 miles an hour, when his plane developed engine trouble.

The race was conducted in two heats of five planes each and one heat of six planes, so as to afford the racers as great a degree of safety as possible. That the pilots exhibited rare skill in the handling of their ultra fast planes was indicated by the fact that there were only two crashes during the race, one by Captain Streett and the other by Lieut. Sanderson of the Navy, and both so maneuvered their planes that they escaped injury. In this connection, it must be taken into consideration that the majority of the planes in the race were completed only a few weeks prior to the day of the event and embodied a number of radical departures in construction. Then, again, the Verville-Sperry, the Thomas-Morse and the Loening machines had only been flown but a few hours before they were subjected to the crucial test.

Officers of the meet declared that the daring manner in which Lieut. Maughan turned the pylons was the most spectacular they had ever witnessed. One of the judges of the race declared that the wonderful piloting of Lieuts. Maughan and Maitland contributed in no mean way towards their success, and that words are inadequate for describing the masterly manner in which they handled their ships, which were rushing through the air at the rate of ^{almost} $3\frac{1}{2}$ miles a minute. Without the least intention of detracting from Lieut. Maughan's wonderful performance, mention must be made of the handicap under which Lieut. Maitland labored shortly before the first lap was finished, when trouble developed with the gasoline pump of his plane. Thereafter, and until the conclusion of the race, he was only able to use one hand to pilot the plane, using the other to work the hand pump, and shifting his hands from time to time to relieve the strain. As a result, Lieut. Maitland's right hand was badly blistered and had to do all of his hand-shaking with his left hand.

Detroit was the mecca of all aviation enthusiasts during the period October 7th to 14th, for aside from the principal event (the Pulitzer Race) on the last day, there were a number of other aviation contests which served to key up the interest of the visitors. The Curtiss Marine Trophy Race, held on October 8th, was a competition between eight Navy pilots. The course was a closed circuit of 20 miles, which was required to be covered eight times. Each contestant had to cover the first four laps in flight, then on completion of the 5th, 6th and 7th laps, to taxi on the water for a distance of 1200 feet on a course laid out, with a hairpin turn around the starting barge, take off again and finish the eighth lap in flight. Only two contestants finished the race, Lieut. A.W. Gorton, the winner, piloting a TR1 Navy-Curtiss seaplane, equipped with a Lawrence J1 engine, making an average speed of 112.65 m.p.h., and Lieut. H.A. Elliott, the runner-up, piloting a Vought VE7H, equipped with a Wright E3, 220 h.p. engine, making an average speed of 108.7 m.p.h.

The "Detroit News" Aerial Mail Trophy Race on October 12th, was held under very adverse weather conditions. The race was limited to multi-engined large capacity airplanes capable of carrying a pay load of 800 lbs. or over, having a speed of over 75 miles an hour. It was originally intended to fly the L.W.F. "Owl" in this event, but this entry was withdrawn, so that the race narrowed down to four Martin Bombers and one Martin Transport, all piloted by officers of the Army Air Service. Lieuts. C. B. Austin, C. M. Cummings, G. E. Ballard and Phillips Melville piloted the Bombers, while Lieut. Erik H. Nelson, the winner of this event, piloted the Martin Transport. The course comprised a total mileage of 257.7 miles; ten laps of 25.77 miles. Lieut. Nelson's average speed was 105.1 m.p.h. Lieut. Phillips Melville finished second at an average speed of 103.2 m.p.h. Lieut. Cummings finished third with an average speed of 101.5 m.p.h.

Following this event came the race for the Aviation Country Club of Detroit Trophy, a competition for light commercial planes over the same course as the preceding event, for which six contestants were originally entered and only four started - a LePere, entered by John L. Burns, and a Bristol "Tourer", entered by the Southwest Airplane Company, being withdrawn. The four entries were:

Lieut. R.G. Worthington, Air Service, Army Transport Monoplane T-2, 400 h.p. Liberty engine.

J. M. Johnson, Vought VE7 Special, 200 h.p. Hispano Suiza engine.

C. S. Jones, Curtiss Oriole, 160 h.p. Curtiss C6 engine.

Lt. Harold R. Harris, Army Air Service, DH4B "Honeymoon Express", 400 h.p. Liberty engine.

Lieut. Harris, whose plane, it was apparent, was the fastest of the lot, won an easy victory, his average speed over the course being 134.9 miles per hour. Jones finished second, average speed 109.4 m.p.h., and Lt. Worthington, third, average speed 90.7 m.p.h.

Friday, the 13th, furnished an interesting race in the competition for the Liberty Engine Builders Trophy. This event was open to 2-seater observation type airplanes, having a speed greater than 90 m.p.h., and was competed for over a course of 10 laps, totalling 257.7 miles - 25.77 miles to the lap. Eleven contestants, nine from the Army Air Service and two from the Navy, were entered. Subsequently, the two Navy entries were withdrawn, leaving the contest one of keen rivalry between the Army pilots alone. Of these nine entries, Major Follett Bradley, Lieuts. B. R. Morton, J. D. Givens, W. R. Carter, W. L. Boyd and Geo. W. Goddard piloted D.H.4 B planes; Captain L. L. Harvey and Lieut. Dale V. Gaffney piloted XB1A planes, and Lieut. T. J. Koenig, the winner of the race, a LePere. The XB1A, piloted by Captain Harvey, appeared to have things its own way until it was forced down after the sixth lap, due to engine trouble. Lieut. Gaffney was delayed in starting, and dropped out of the race after the first lap. Lieut. Koenig's average speed was 128.8 miles per hour; that of Major Bradley, who finished second, 126.5 m.p.h., and that of Lieut. Carter, who finished third, 118.1 m.p.h.

The following Monday furnished a new sensation in the matter of speed records. Press dispatches stated that Lieut. Maughan, piloting the same plane with which he won the Pulitzer Race on Saturday, covered a one-kilometer course at the astounding rate of speed of 248.5 miles an hour - more than 4 miles a minute. This record was made during a test of speed planes at Selfridge Field, and was electrically timed by officers from McCook Field. The fact that no representatives of the Federation Aeronautique Internationale were present to time Lieut. Maughan's flights prevented his record from standing as an official world's speed record.

Two days later, on Wednesday, October 18th, General William Mitchell established a new official world's speed record, when he flew over a kilometer course at Selfridge Field at an average speed of 224.05 miles an hour. Altogether General Mitchell made four speed trials, two with Curtiss airplane No. 43 (the plane piloted by Lieut. Maughan) and two with airplane No. 44, the Curtiss Racer piloted by Lieut. Maitland.

The following official report on these speed trials was submitted by Colonel J. G. Vincent, of the Packard Motor Car Co., Detroit, Michigan, who acted as observer and supervised the entire affair.

SPEED TRIALS CONDUCTED AT SELFRIDGE FIELD OCTOBER 18th.

These speed trials were conducted for the purpose of determining the average straightaway speed of the Curtiss high speed pursuit airplane which won the Pulitzer Trophy Race on October 14th and which was known in the race as Number 43.

The preparation for these trials was carefully carried out in exact accordance with F.A.I. regulations. A course exactly one kilometer in length was laid out in the center of Selfridge Field extending substantially in a northwest and southeast direction. The northwest end of the course was designated as station number one, and the southeast end as station number two. The course was accurately surveyed and rechecked during the forenoon of October 18th.

Timers' sights were erected at each end of the course in exact accordance with the diagram shown on page 142 of the Aero Club of America rule book. The Indianapolis Motor Speedway electric timer which was used to time the Pulitzer Trophy Race was set up and properly wired to enable its operation from both sets of timers' sights. The Chronometer forming part of this electric timing device was calibrated by the Bureau of Standards just before the Pulitzer Trophy Race. Timers and observers were stationed as follows:

Fred H. Hoover, acted as observer at the 500 meter point before station number one.

Raymond Ware acted as observer at the 500 meter point before station number two.

Harry H. Knepper acted as Chief Timer with O. A. Porter assisting at station number one.

Lionel M. Woolson acted as Assistant Timer and operated the switch at station number two.

B. Russell Shaw acted as observer at station number two.

J. G. Vincent acted as observer at station number one in addition to supervising the entire job.

The tests were conducted between 3:30 and 4:30 p.m., at which time the atmosphere was approximately 45 degrees Fahr., with a northwest by north wind having a velocity of approximately 18 miles per hour. Two complete trials were made, the detail results of which are recorded on the attached report and certified to by Harry H. Knepper, Chief Timer. As shown on the timer's sheet the average speed obtained on the first trial was 353.715 kilometers or 219.78 miles per hour, and the second trial was 361.28 kilometers or 224.38 miles per hour. The two tests were completed in continuous flights in the order shown on the detail sheet. The plane was piloted by Brig. Gen. William Mitchell, and all flights were made and timed in exact accordance with F.A.I. regulations as certified to by all observers. In each flight the plane came down to an altitude of less than 50 meters before passing the 500 meter station in front of the course, and the flight was horizontal from this point until the course had been passed over.

J. G. Vincent,
Aero Club of America Local Representative
Contest Committee.

October 18, 1922.

DETROIT AVIATION SOCIETY
A.C.A. Timer's Sheet
(Electric Timing)

Maximum Speed over 1 Kilometer.

October 18, 1922.

Selfridge Field

Airplane #43 - Motor, Curtiss CD-12, h.p. 375.

Pilot: Brig. General Mitchell.

First attempt - 4:00 p.m.

	Time	M.P.H.	K.P.H.
South bound 1st flight	9.42	237.47	382.17
North bound 2nd flight	11.16	200.441	322.58
South bound 3rd flight	9.36	238.99	384.615
North bound 4th flight	11.06	202.25	325.497
Average		219.78	353.715

Second attempt - 4:10 p.m.

South bound 1st flight	9.17	243.94	392.59
North bound 2nd flight	10.95	204.29	328.77
South bound 3rd flight	9.25	241.83	389.19
North bound 4th flight	10.76	207.89	334.57
Average •		224.38	361.28

(Signed) H. H. Knepper
Timer.

Selfridge Field

Airplane #44 - Motor, Curtiss CD-12, h.p. 375.

Pilot: Brig. Gen. Mitchell.

First attempt - Time 3:00 p.m.

	Time	M.P.H.	K.P.H.
South bound 1st flight	9.51	235.22	378.555
North bound 2nd flight	11.72	190.864	307.167
South bound 3rd flight	9.72	230.14	370.37
North bound 4th flight	11.77	190.05	305.262
Average		211.56	340.487

Second attempt - Time 3:08 p.m.

South bound 1st flight	9.47	236.21	380.15
North bound 2nd flight	11.45	195.37	314.41
South bound 3rd flight	9.45	236.71	380.95

North bound 4th flight	11.35	197.09	317.18
Average		216.34	348.172

(Signed) H. H. Knepper
Timer.

From the above it will be noted that General Mitchell's fastest lap was 243.94 miles per hour, which, in the parlance of the day, is "going some".

FORT RILEY PILOTS PARTICIPATE IN AERO MEET.

All pilots of the 16th Squadron (Observation), stationed at Fort Riley, Kansas, flew to Salina, Kansas, to take part in the airplane meet staged by the American Legion Post, October 14th to 16th. The exhibit from Fort Riley was, naturally enough, by far the most pretentious, Captain Boland's "War God" showing full service equipment of machine guns, radio apparatus, etc., and Lieut. Nowland's photophaphic Ship "Cyclops" and one JN6H were all properly shined up for the occasion. There were no scheduled events in which the Army planes could participate in connection with the civilian ships, so formation flights, acrobats, etc., were resorted to to keep the crowd reminded that the Army Air Service was there. The main event of the meet was a hundred-mile race over a ten-mile triangular course, the entry being limited to planes of 100 miles rated speed or less. Since only four machines were entered, three of the Army pilots entered with DH's (Captain Boland and Lieuts. Griffin and Barriger) simply to fill in and give the crowd something to look at. The prize went to the diminutive Longren, powered with an Anzani 80 h.p. motor, which averaged nearly 95 miles per hour.

Upon completion of the Meet, the American Legion donated \$250 to the Squadron Fund.

TRACING THE MOVEMENT OF TROOPS ✓

The 22nd Photo Section, stationed at Kelly Field, Texas, recently cooperated in the maneuvers held by the Second Division. A mosaic map of the area occupied by the troops of the Division was made one day when the area was occupied, and another was made the following day, after the troops had been withdrawn. Very satisfactory results were obtained, it being possible to trace the movements of the various regiments almost as well as though they had built roads to move out on, and proved to the officers of the Second Division the value of aerial photography in tracing the movements of troops. Of particular value was the proof of the ability of the K-1 camera, fitted with a K-3 filter, and using Panchromatic film, to pierce the haze so often encountered in aerial photography. The photographs were made at an altitude of 9,300 feet, through a dense haze which extended up to about 10,000 feet, and which rendered it impossible to pick out a point four miles distant with the naked eye. This point was some large, bright red building. Regardless of this disadvantage, however, the negative obtained were clear and snappy. Captain Giffin piloted the photographic ship and Cadet Thomas made the exposure.

AERIAL EXHIBITION AT BOLLING FIELD

Every once in a while residents of the Capitol City are afforded an opportunity to witness flying exhibitions at Bolling Field, but it appears that not many take advantage of these opportunities, judging from the size of the crowds that usually attend. The exhibition which was staged on the afternoon of October 25th brought out a large gathering of spectators than one usually sees at such events, indicating, perhaps, that aviation in this city is arousing more interest. One cannot, however, gauge the attitude of the public towards aviation from the above standpoint. Residents of Washington see airplanes in the air practically every day and, naturally, they become commonplace. Then, again, the flying field is somewhat inaccessible to those who are not fortunate enough to own a "flivver". One traveling by street car has quite a long walk before him in order to reach the field, and the greater part of that walk is made in the fashion of the individuals so often pictured in the comic papers - the stranded actor and the "knight of the road". Walking on railroad ties is good exercise but not altogether comfortable.

But to get back to the Aerial Show. The first event was a photographic

plane circling the field and taking photographs of the spectators. Lieut. Guy Kirksey piloted the ship and Sergeant Mattox worked the camera.

In the next event three DH4B planes took the air, circled the field a number of times and then bombarded a miniature coast artillery fort erected at the end of the field. These planes were piloted by Lieuts. Alfred B. Baker, H. W. Beaton and H. K. Ramey. This event was followed by three planes circling the field in close formation, piloted by Captain St. Clair Streett, Lieut. LeRoy Wolfe and Lieut. H. K. Ramey.

In event No. 4 Lieut. T. P. Smith, with Sergeant Hukill as passenger, circled the field and, when in front of the spectators, Sgt. Hukill dropped what the program termed a "surprise package". Said package looked like a sack of potatoes, but we were told that it contained coffee and cake. However, we didn't get any of same.

Following this event, Lieut. Paul C. Wilkins, with Sgt. Hukill as passenger, took the air in a DH4B, closely followed by Lieuts. LeRoy Wolfe and H. K. Ramey in SE5's, the program stating that the SE's were to attack the DH, which would simulate bursting into flames with smoke candles, the escape of the observer to be represented by the casting out of a dummy with parachute from a height of not less than 1500 feet. The manner in which the little SE5's maneuvered around the DH occasioned considerable comment from the spectators. Finally, the dummy with the parachute was seen to leave the ship. The "chute" did not function, as well as was expected. Following this, a trail of blue smoke was seen issuing from the DH and the plane was making a dive for the river. Many anxious spectators thought for a moment that engine trouble developed and that the pilot was heading for a landing on the river but breathed easier when a few moments later the plane was seen to rise in the air and come back to the field. Evidently the smoke candles handled by Sgt. Hukill worked very well.

Lieuts. Wolfe and Ramey remained in the air and treated the spectators with a fine exhibition of the maneuvering abilities of their planes. They circled the field innumerable times and looped, barrel rolled, did the falling leaf, etc. Then they showed remarkable accuracy in chasing toy gas balloons which were released at intervals. Due to the stiff breeze which was blowing these balloons sailed over the field in a lively fashion. Then the airmen took turns in smashing them, either against the propeller or the wings. It was interesting to watch the planes maneuver around the balloons and then make a dive for them. On several occasions a plane would miss the balloon by a narrow margin, and it was curious to watch the balloon zigzag in the air as a result of the propeller wash. Lieut. Wolfe, who piloted a buff-colored SE5, appeared to have gotten the balloon chasing business down to a very fine system. He would maneuver around until he got on a direct line with the balloon and then put on full throttle and go for it full tilt. Not one of the nine balloons escaped destruction.

Two C-type airships were supposed to have made exhibition flights as the last event, but they did not start from their home stations due to unfavorable weather conditions.

Evidently the spectators enjoyed the various events, for they appeared to be reluctant to leave the field at the conclusion of the last event. We, too, had the feeling of the little boy who got a small plate of ice cream.

AEROMARINE AIRWAYS MAKING REMARKABLE PROGRESS

A communication received from the Aeromarine Airways states that its New York Division during the period commencing May 14 and ending October 22, 1922, carried 2,380 passengers, and that the Great Lakes Division, operating between Cleveland and Detroit, in the period commencing July 17 and ending September 17, 1922, carried 1,873 passengers. These figures are exclusive of crews. It is further stated that in 2½ years, the Aeromarine Airways carried over 17,000 passengers and covered more than 1,000,000 passenger miles, without a single serious mishap or injury to the passengers; also that during the past summer they had investigators in Europe who reported that, as far as comfort goes, Aeromarine flying boats are superior to any type of aircraft now operated on the European air lines.

In conclusion, it is stated that, so far as flying boat travel is concerned, the United States leads all foreign countries.

THE COMFORT OF AIRPLANE TRAVEL

A representative of one of the British Aeronautical Journals, who covered the Coupe Deutsch airplane race in Paris recently, tells of the perfect comfort in which the trip from London to Paris is made when traveling by airplane. He was one of ten passengers making the trip in a Handley-Page Transport, powered with two Rolls-Royce engines, and states that the machine arrived at the Le Bourget airdrome without incident in less than two hours after leaving the Croydon Airdrome in London. He was supposed to have made the return trip by plane, but unfavorable weather conditions delayed the start, and so he decided to take the afternoon train and boat service to London. He stated that had he realized then the messing about, fatigue, discomfort and length of time incident to the land and water routes he would have waited weeks for the weather to clear rather than face that awful journey, and he thoroughly sympathizes with those unfortunate individuals who, either through religious or other scruples, will not travel by air.

It is related in this same journal that the Daimler Airway (London to Paris) recently had an invalid lady passenger. She was driven in a car right up to the side of the airplane, was comfortably ensconced on a couch-like arrangement in the airplane, and on arriving at Le Bourget was met at the side of the machine once again by another car. She went by air because she was unable to stand the rigors and hardships of the train and boat journey.

TOUCHING THE HIGH PLACES AT KELLY FIELD

Recently the advanced students in pursuit flying attached to the 43rd Squadron stationed at Kelly Field, San Antonio, Texas, held an altitude contest in SE's, each trying to take his ship to its ceiling. The altitudes gained were from 16,000 to 19,000 feet, Cadet Wasser taking the honors with the latter figure. Although it was a warm summer day, they reported on landing that it was winter and a cold one above 10,000 feet.

MAPPING THE AIRWAYS IN SOUTHERN TEXAS.

Pilots stationed at Brooks Field, San Antonio, Texas, have completed the marking of the San Antonio-Dallas and San Antonio-Houston airways. The \$200 allotted for this work was used in making the following fields:

San Antonio-Dallas - Camp Travis, San Marcos, Austin, Georgetown, Temple and Waco.

San Antonio-Houston - Eagle Lake, Columbus, Gonzales and Seguin.

A NEW SPECIES OF WILD DUCK

Just lately the 13th Squadron at Kelly Field spent a restful week at Medina Lake hunting, fishing and enjoying other sports incident to camp life. Here is a bright story sent in by our Kelly Field Correspondent, viz:

"Many amusing incidents occur on a trip of this kind as, for instance, Captain Harvey accompanied by several N.C.O.'s losing himself on the lake, and rowing around for about three hours until he found the camp. Private Scohy, nationally unknown, is, however, responsible for the best one. The aforesaid private went a-hunting, and after an absence of several hours returned to camp, rushed up to the 1st. Sergeant, and triumphantly waving the bird he had brought down, said: 'Oi, Sahgent! Lookit de duck vat I shot!' Said 1st Sergeant looked at the bird, put his hand to his nose and yelled: 'Take it away and bury it, quick, that's no duck, that's an Irish Eagle!' -- it was a Buzzard.

OUR TRIP TO DAYTON

The Air Service Training Unit of the University of Illinois spent several weeks this summer at Chanute Field, Rantoul, Ill., and were very much benefitted by the intensive, though brief, training course given them. During the progress of this camp the cadets paid a visit via air to Dayton, Ohio, and the following story, submitted by one of these cadets, relates in an interesting manner his impressions of the trip and of the Air Service Engineering Division at McCook Field.

Of course, almost any kind of an airplane ride has more or less interest, even for an old aviator like myself with all of eighteen hours in the air to my credit. I don't mind making maps, or dropping bombs on a canvas target, or aerial photography, or reconnaissance work. It isn't so bad when you're eight thousand feet above

the ground and you see the shadow of your ship crawling along on top of the clouds a half-mile below you, even if your ears do hurt a bit as you come down; or when you are flying through clouds and rain, and the ship rocks like a rowboat in a heavy sea, even if the raindrops do sting your face when you peep out from behind the windshield. I still get a wee bit of a kick when I feel the old safety belt pull in the middle of a loop, or when the ground goes crazy in a tail-spin. And I rather enjoy wiggling the stick myself, and twisting the tail of a Curtiss JN6H, when the pilot feels disposed to take a chance on St. Peter's good nature. But for pure, unadulterated pleasure, give me a cross-country trip over strange ground.

Take our trip to Dayton, for instance. There were seven ships in all -- DH4B's. Captains Clark and Whitesides occupied one, and the other six each carried an R. O. T. C. student and pilot. In case you've never been introduced as yet -- Captain Clark is C. O. of the 15th Aero Squadron; and Captain Whitesides is chief coach of our Air Service unit at the University of Illinois, temporarily assigned to Chanute Field in order to keep us six fightin' Illini half-way civilized during the summer camp there.

"We shall leave at ten-minute intervals," said Captain Clark. "Each R.O.T.C. student will direct his pilot to Dayton, and the pilot will fly wherever he is directed. The students will be graded on the time required to make the trip, and the last to arrive will be the dub of the outfit."

The captains took off first, and ten minutes later, Lieutenant Smith and I followed in No. 64370. "We'll fly to Danville, and follow the railroads", said the Lieutenant. "I've been to Dayton but once, and I don't want to take any chances. Don't worry about grade. It'll be all right." At two hundred feet, we were leaving the field, I glanced at my watch and chain, which registered 8:25 A.M., daylight saving, and tapped the Lieutenant on the left shoulder to point No. 70's node toward Danville.

We leveled off at three thousand, and assisted by a ten-mile breeze free from bumps, the old Liberty began to eat up the landscape, which gradually emerged below the sunny horizon. Far away, on all sides, a checkerboard of green and brown fields, dotted with trees and crossed by irregular green lines which indicate streams, stretches outward and upward and finally disappears in the haze of the dust cloud which always lies above the surface of the earth. Here is a village of trees, with a few houses half revealed in their shade. There is a cloud of rising smoke, which slowly takes shape as a busy city. "Danville", "Covington", "Veedersburg", "Crawfordsville" -- I write the names on my memorandum pad and hand them to my pilot as he points inquiringly to this or that collection of trees and houses.

"Well, well, so this is Indianapolis", I anticipate my pilot's pointed finger. An automobile race track; a broad path cut by railroads through the crowded buildings; long white ribbons of paved roads radiating in all directions -- a whale of a city, impressive in spite of the three thousand feet of smoke between it and us.

How still it is! Not one sound rises above the monotonous hum of our Liberty. Not one human being is visible of all the thousands living there upon the ground. A train creeps along a black thread of track, the smoke from a factory slowly shifts in the breeze. No other evidence of life appears. I wonder if ears below detect the noise of our engine, if eyes are lifted upward in curious wonder. If so, they give no sign. We may as well be lonely beings gazing down from another planet.

We bank to the right, cross over the south part of the city, then head eastward. Greenfield comes and goes. I look far off to the right, and catch a glimpse of Connersville, the town where Bill Enyart lives. Bill is the best looking one of the six of us, you know. He's a regular heart-breaker. Bill intends to direct his pilot over his home town. Of course, it is somewhat out of the way, and he may get a lower grade; but what matters that in comparison with a glimpse of the roof that keeps off the rain when you're back in your native country?

"Breathes there a man with soul so dead", etc.

Richmond -- Eaton -- West Alexandria -- I sit up on my hind legs and look. Dayton!

There's a river winding through the city, the Miami, I guess. And in the north-west part of town is a large field, with the river on three sides and a row of hangars on the east. McCook Field!

We circle the field and start down. Lieutenant Smith turns around and yells something which I don't understand, and at the same time points to his face. I notice his goggles are missing, so I take mine off and fasten them to his eyes. Then he goes down in a side-slip in true Smithian style, while the wind from the right makes my unprotected eyelids flutter until I can hardly see.

The two captains are waiting for us. My watch says 10:25, so we've covered the two hundred and twenty miles in just two hours.

"How long have you been here?" I ask.

"About eight minutes," says Captain Whitesides, verifying the time.

"Any one else arrived?"

"Not yet."

Wilson, Hewett, and Funk land on schedule time. Enyart, with Lieutenant Talbot, are about a half-hour late, having stopped at Indianapolis -- for oil as they said. However, as they stopped again in the afternoon on the way back to Chanute, the rest of us will always believe that they stopped to make dates for the evening. Incidentally, they flew over Connersville.

As for Krenz, he doesn't show up all day, but no one is much surprised, for Eddie is always getting lost from the rest of the outfit. We receive word sometime later that he and Captain Hickey have had a forced landing near Dayton, and have damaged their landing gear. We all feel deeply for Eddie, because he has a delicate date for that night -- delicate because the lady happens to be engaged to one of Eddie's fraternity brothers. And furthermore, Eddie has been trying to get the date for some time, and has finally persuaded her to break another date in order to give him that particular evening. Ain't it peculiar how they fall for a bold avia-
yater? Especially, if he happens to wear a moustache.

McCook Field is sure an aviation museum. It is the only experimental field of the Army Air Service. I sprained my neck and eyes looking at the flying curiosities around the place. There's a ship of corrugated metal called the flying Ashcan; and the Junker, which is a monoplane that looks as though some one had forgotten to tie on the upper wings. And Mr. Fokker has quite a few ships on hand, including his limousine. It sure is roomy and comfortable -- leather cushions, windows, curtains, and everything. It's a monoplane with a Liberty engine, placed off center to counteract the torque of the propeller. The pilot sits beside the engine out in front of the wing, separated from the passenger compartment by a double wall.

And then there is a Vought training ship, which can be made slower than a Curtiss, or faster than a DH; and the three-cylinder Sperry Messenger, which can land at fifteen miles per hour; and Martin Bomber with two Liberty engines and folding wings; and Honeymoon Special -- a D.H. with an enclosed compartment containing two seats vis-a-vis; the Huff-Deland which looks something like a Fokker; and many other freaks with names I can't pronounce, let alone spell.

As for engines, there is a six-cylinder Liberty; and a W-type engine built on similar lines with three banks of cylinders, developing seven hundred and fifty horsepower. And there is a W in process of construction which will develop a thousand horsepower. And there is a Barrel motor, of which great things are predicted. They say the inventor got a fifty-thousand dollar bonus for its running thirty minutes at a thousand R.P.M., and that his wife stood by during the test and counted off every second. I wish I was an inventor or something.

And they have the largest wind tunnel in the world, and a place for testing propellers by turning them at about 2000 R.P.M. It certainly makes enough noise.

But if you really want to know about McCook Field, ask Bill Enyart. He can tell you all about it, and say it with flowers.

We started back at 3:30, arriving at Chanute two hours and twenty-five minutes later. So you see, the round trip added about four and one-half hours to our flying time. Some trip!

Yes, Eddie returned about three o'clock the next day. He had his date the next night. You would have thought she would have been peeved and not let him see her at all, wouldn't you? But there are ways of overcoming such difficulties. For example, you can try something like this:

"You see, dear, the motor stalled on us while we were five miles up in the air, so we couldn't get down. We just sat there and waited, and after about three days and nights, another airplane passed just over us. I made a leap and caught the landing gear, and rode all the way back to Chanute Field hanging by my knees. Of course, it was a bit dangerous, but I just had to see you dear."

P.S. Eddie has shaved off his moustache.

AVIATION TRAINING IN FRANCE.

The training program of aviation personnel in the French military service follows in a good many particulars that pursued by the United States Army Air Service. It is interesting to note the measures taken by the French military authorities to effect economy in the operation of the Air Service, especially with regard to out-

lining in advance proposed aerial activities for a year.

The following is a translation of an official bulletin issued by the French Ministry of War relative to aerial training of navigating personnel of military aviation.

"Boldness and initiative ought to be the characteristics of the navigating personnel of the air service. These are developed by active aerial life. Aerial training ought to be in consequence one of the principal preoccupations of those in command.

The sending of observation squadrons to camps of instruction and aviation regiments to aerial gunnery fields by way of air, as well as participation by the air service in manoeuvres, and in the usual exercises in garrison, contribute each year to the aerial training of navigating personnel.

It is expedient, however, to complete the training of navigating personnel by executing supplementary aerial trips. To this end:

(1) Each year, units of aviation regiments will complete trips from garrison to garrison.

(2) The pilots or crews of aviation units having the necessary aptitude may, in addition, execute individual aerial journeys.

In the course of these movements, the commanders of aviation regiments will interest themselves particularly in putting in practice the principles of aerial navigation, meteorology, orientation, formation flying and the conduct of cross-country flying.

The program of flights from garrison to garrison to be executed by each aviation regiment will be established:

By commanders of aerial divisions or aviation brigades for the regiment in divisions or in brigades;

By the general commanding the army corps for the other regiments.

The program for the whole of these trips each year will be submitted to the Minister for approval through military channels, before the 1st of March, with a statement of the estimate of expenses calculated by the corps interested, and verified by intermediate authorities.

The purpose of these trips is to train navigating personnel in long cross-country flights effected away from the neighborhood of the garrison, and under different climatic conditions. Each year, before the 1st of March, the authorities mentioned in the preceding paragraph, the Director General of Aviation Supply, and the commanders of centers of instruction for aviation, will send forward, through military channels, to the Minister of War, a program of individual aerial flights with a statement of the anticipated expense involved by these moves.

On receipt of these programs, the Minister will put at the disposal of the interested authorities within the limit of his appropriation the necessary credits with an indication of the heading in the budget under which the expense will be charged. The personnel making these moves will be considered on detached service, and therefore entitled to the compensation corresponding to this status.

The movements mentioned above will be executed, taking into account the necessities of the service, and bearing in mind the necessity for remaining within the limit of the credits allowed. In the interests of economy, the authorities should take care that the crews making the flights are instructed to reduce the duration of the flights to a strict minimum.

A succinct account will be addressed, through military channels, to the Minister, Direction de l'Aéronautique, following each move or flight, by the commander of the aviation unit concerned. This account will bring out: the itinerary of the voyage, the number of airplanes taking part, incidents of the route, and so forth.

The commanders of aviation units concerned will put themselves in correspondence with the Director of the Military Meteorological Service, to obtain the meteorological data for the aerial movements of units outlined above.

AERONAUTICAL NEWS FROM OTHER COUNTRIES

France.

Vice Consul John F. Simmons, Paris, in a recent issue of Commerce Reports (U.S. Dept. of Commerce) states that the French Government renders very practical assistance to airplane manufacturers in their efforts to develop new types of aircraft. The "Service Technique" outlines the type of craft desired, and any manufacturer may submit a design, according to the conditions specified. If the

manufacturer's type is selected, the firm receives a trial order; and if the craft is successful the firm receives an additional order with the assurance that no other manufacturer will produce its type of craft without paying the firm a royalty. Thus each manufacturer is induced to produce original designs, as he knows that quantity orders will be given to his firm and not to a rival, who, not having had to bear the cost of experimenting, might be able to underbid him.

The "Service Technique" passes on all models, the tests being made at one of the best equipped laboratories in the world, located at Issy-les-Moulineaux. These laboratories are all new and the largest wind tunnel which has yet been constructed will soon be put into operation at Issy. Aviation is also encouraged by a large number of cash prizes offered by the Government, the aero clubs, and various individuals for flying feats.

Announcement has been made by the French Aeronautical Chamber of Commerce to the effect that the Aero Show will be held at the Grand Palais, Paris, from December 15, 1922 to January 2, 1923.

Scandinavia.

A new altitude record for Scandinavia (23,293 feet) was recently established by Lieut. Gottenburg of the Norwegian Army Air Service, accompanied by a passenger. Both were provided with oxygen apparatus. The former record was 16,732 feet.

India.

According to the American Consul at Karachi, India (Avra M. Warren), apathy on the part of the traveling public, as well as government inertia, and the long time and distance required to import machines and parts ^{have} combined to restrain the development of civil aviation in India. With the exception of a few sport planes maintained by Indian princes, there is no commercial, passenger, or mail service; continuous flying is limited to the activities of the six squadrons of the Royal Air Force, situated at strategic points along the Northwest frontier. These squadrons are dependent for supplies, maintenance, and repair on the Karachi depot, from 800 to 2,000 miles distant.

General flying practice is in favor of the light bombing plane with an American motor, as combining to a maximum degree the safest, fastest, and steadiest flying qualities for general utility. Advantage of superior power, double ignition, direct drive, clean design, and easy disassembling has brought the American engine into general use and favor in India, where heavy sand and dust storms are encountered up to an altitude of 1,400 feet.

England

The first machine on the regular Daimler service London to Holland, left shortly after nine o'clock, October 9th, with three passengers and a load of newspapers for Rotterdam. For the present the Daimler Airway will run one machine to Holland in the morning, and is scheduled to return to London in the afternoon. The K. L. M. machine (operated by a Dutch Company) has been altered from 10 a.m. to 11:30 a.m., while their machine from Holland to London will start in the morning instead of at 2:00 p.m. in the afternoon.

Negotiations and arrangements with the German Government have now reached a point where the extension of the service to Hamburg, by the end of October, becomes almost a certainty, and it is expected that the service to Berlin should be in running order before the end of the year. - Flight.

Squadron News

Brooks Field, San Antonio, Texas, Oct. 14.

One thousand dollars has been allotted the Flying Department for use in the construction of two stages on the flying field. Work will commence within a few days and will be completed before flying instruction of the present class commences on January 2, 1923. Both stages will be located on the east side of the flying field, across the ravine from the line of hangars. The stages will be twenty by twenty, and two stories high. A portion of the second story of each stage will be made into an observation tower.

Major Paul Bock, Assistant Commandant, with Captain R. C. Candee, made a cross-country practice flight to Dallas over the week-end, and while there attended the Dallas Fair.

Staff Sergeant Frank Koran was found dead Wednesday night by members of the guard. The body was found a few hundred yards north of the field, along a trail that leads thru some mesquite. Sergeant Koran had been in the Air Service for several years and was a motor instructor in the Engineering Department. The body was sent to his home in Bohemia, Long Island.

The Flying Cadets entertained with a very pretty Dance Friday evening, October 7, on the St. Anthony roof. A number of officers and ladies from Brooks and Kelly Fields were present as honor guests. Dainty refreshments were served at twelve.

At a recent meeting of the faculty board, eight of the present class of cadets were recommended to be relieved from training. A majority of the failures were on account of lack of interest, and failure of the students to apply themselves properly. These are the first casualties, via the academic board, of the September 20th. class.

Brooks Field is to be well represented at the coming American Legion-festivities at New Orleans. Permission has been granted the following officers to attend: Major Paul Bock, Captain Clinton F. Woolsey, Captain Charles E. Rust, Lieut. McMullen, Lieut. Hez. McClellan and Lieut. Stanley M. Umstead. The trip will be made in DH4B's, Major Bock in command. At Houston, Texas, several ships from Kelly Field will join the Brooks fliers and the ships from both fields will then fly into New Orleans in formation.

A very enjoyable dance was held at the Officers' Club on Friday evening, Oct. 13th. Dancing began at nine and lasted until shortly after one. Dainty refreshments of sandwiches, chicken salad and coffee were served at twelve. Many guests from Kelly and Camp Travis were in attendance.

Langley Field, Hampton, Va., Oct. 12.

A rigid schedule of flying maneuvers and training is being maintained at this Field, both by the observation and bombardment sections, and by the airship crews, Lighter-than-Air. The towing of a target for anti-aircraft guns at Fort Monroe, Virginia, by Lieut. John M. Davies, A. S., incidental to observations in conjunction with the Coast Artillery at that station, were performed.

Major General Eli A. Helmick, Inspector General, arrived by airplane from Aberdeen Proving Grounds, Maryland, piloted by 1st Lieut. LeRoy M. Wolfe, and made a general post inspection; visiting the hangars, activities and departments of the Field. After a two day visit, General Helmick returned to Washington by way of Bolling Field, making the trip by air.

Major General Charles J. Bailey, arrived from Baltimore, on October 4th, 1922, and was present at an exhibition of formation flying by the 50th Squadron (Observation) and the 2nd Group (Bombardment). The return trip to the Third Corps Area Headquarters was made the same date.

The Pulitzer Race at Selfridge Field, Michigan, was the main topic of interest at this Field, no doubt due to the fact that a large number of participants, listed below, were ordered, by the Chief of Air Service, to proceed to that Field for the purpose of entering the events, thereby assuring a good representation from Langley Field. Those attending were: Captain Walter R. Lawson, Lieutenants Austin, Beery, Boyd, Cummings, McDonald and Miner, Air Service.

Kelly Field, San Antonio, Texas, Sept. 30.

GROUP HEADQUARTERS (ATTACK):- Captain Lloyd L. Harvey, with Lieut. Dale V. Gaffney left for Selfridge Field, Michigan, to compete in the Pulitzer Classing to be held

at Detroit, Mich. Captain Harvey and Lieutenant Gaffney were in the pink of condition and we hope that they will bring home the honors to Kelly Field.

Two officers and two planes of the Group were used in an Artillery Reglage at Camp Travis, Texas, Friday morning, September 22nd, radio and drop messages were used.

NINETEENTH SQUADRON (ATTACK):- Lieut. Edward V. Harlock returned to the organization from leave of absence, and has been appointed squadron supply officer, relieving the Commanding Officer of all responsibilities pertaining to the supplies of the organization. Immediately upon his return he reported to the hangar and asked that a ship be placed on the line for his use. The Lieutenant made 23 flights in 210 minutes.

Technical Sergeant Ketchum returned from a furlough and presented all the appearances of having enjoyed himself. The members of the organization were pleased to have him return.

The past week appeared to be Christmas week for the 90th Squadron, as a dozen or more recruits were assigned for duty. They seem to be more than pleased with the organization, and from personal observation, they should be very capable young soldiers.

TWENTY-SIXTH SQUADRON (ATTACK):- Lieut. Douglas with Corporal Garner of Group Headquarters as passenger, made a cross country flight to El Paso, Texas on September 25th, and arrived the same day. While at El Paso, Lieut. Douglas participated in a division problem, cooperating with the division stationed there. On the return trip to Kelly Field a crash occurred at Hondo, Texas, forcing them to abandon the ship and return by rail.

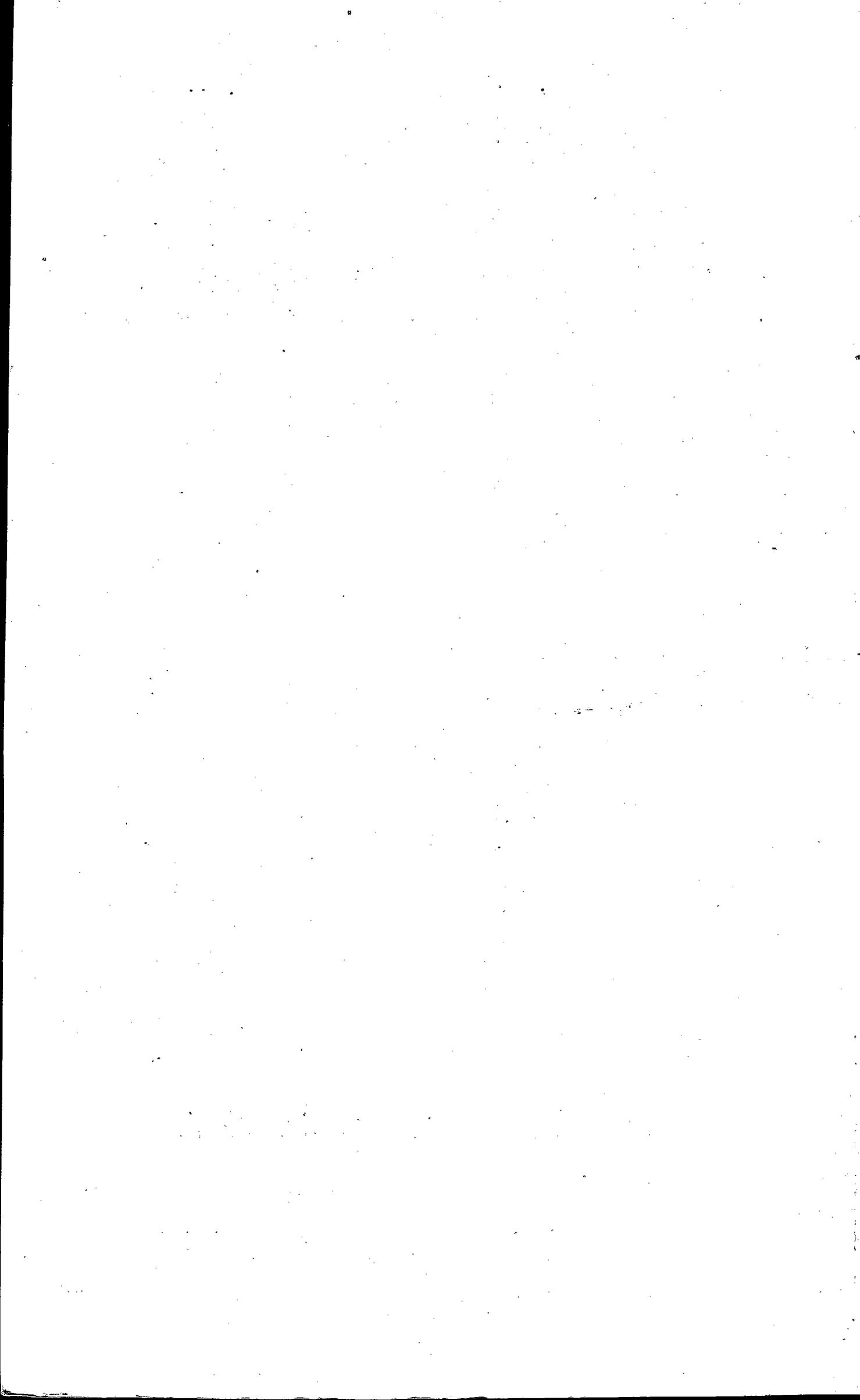
Lieut. James E. Duke, Jr. made a cross-country trip to Kerrville, Texas, with Pvt. Greenwade as mechanic, departing on September 22, and returning the following day. On this trip many deer were seen and could have been picked off very easily. A little wet weather was encountered on the return, and upon arriving at the field a sudden shower came up and gave them a severe drenching.

Lt. Clark has been flying with the squadron and testing ships. He has been giving Mr. J. Cox of San Antonio, Texas, instructions in flying. Mr. Cox is a Reserve Officer in the Air Service, and is attached to this field for instructions and practice.

The hunting season opened some time ago and all the men of this squadron have been taking advantage of it. Many doves have been bagged and, from all reports, a lot more is expected in the near future. The Mess Sergeant of this squadron is building a mud scow and is going to ship it to Cotulla, Texas to be used there for fishing purposes.

THIRTEENTH SQUADRON (ATTACK):- Some time has elapsed since the return of the Squadron from its trip to Medina Lake, and, contrary to the general rule, the event is still fresh in the minds of all. Even were one to choose to forget, a glimpse in the mirror will prove an ample reminder. No son of Ham ever looked quite as tann^{ed} as we. That the outdoor life has been beneficial is indicated by the amount of energy and "Pep" now displayed by the organization in its work. After which preamble "Ye Scribe" will endeavor to portray some of the phases of the trip, both joyful and sorrowful.

On September 11th, the Squadron, acting under authority from Headquarters, Eighth Corps Area, and consisting of Captain Lloyd L. Harvey, Commanding Officer, and Lieutenants Smith and Wheeler, Squadron officers, and 66 enlisted men, departed for Haby's Cove, Medina Lake, at 9:00 A.M., and arrived there at 1:15 P.M. Camp was immediately pitched, and the squadron settled down for a protracted stay. Despite the fact that the majority of the personnel never had camping experience, it was but a short time before all were enjoying themselves, and displayed wonderful adaptability to camp life. The discipline observed throughout the camp is worthy of comment, also the strict adherence of the personnel to the rules of sanitation. Lieut. Wheeler and several of the non-commissioned officers were accompanied by their families, and tents were pitched for them in a hollow, about 300 yards from the camp. Thanks to Technical Sergeant Granger, the whole camp was lit up -- with electricity -- and the communication maintained by radio with Headquarters, Kelly Field. On the 16th, the Kelly Field Band joined the squadron, was attached for rations, and from then on furnished music for the campers, rendering excellent concerts every evening. The schedule for the personnel each day was approximately: First call, Breakfast, Hunting and fishing in the morning, and swimming in the afternoon (many fishing enthusiasts did a



lot of fishing at night) then following supper a band concert. Many visitors were entertained, including the Post Commander, Lieut. Col. Howard, and the Group Commander, Lieut. Col. Cook, both of whom expressed considerable satisfaction at the manner in which the camp was conducted, Colonel Cook remarking that we had a "Model Camp". Mess Sergeant Feiertag, living up to his reputation, dispensed plenty of good chow during the entire stay. Suffice it to say, in all the strenuous of swimming, fishing, and hunting, not a single man failed to show up when the bugler "Bugled" "Come and get it". In connection with this, "Ye Scribe", overheard the following conversation while in the chow line: Mess Sergeant to one of the bandsmen: "Say, what D'ye mean by standing in line all the time. You've been standing here for the past half hour." Bandsman: "Oh, no, I haven't, Sergeant, this is my fifth time up". In addition to the usual refreshments beer (0.00%) was on tap at all times.

Lieutenants Smith and Wheeler, armed with fishing tackle, made several attempts to intimidate the inhabitants of the lake waters, but their murderous intentions went for naught, for 'tis on record that they didn't even get a bite. Fishing honors went to Private 1st Class Schackow, who managed to bring in a large string every day.

After ten days of this wholesome recreation, the squadron, at 7:15 A.M., September 21st departed for Kelly Field, arriving there at 10:45 A.M. the same day. It was halted in front of Group Headquarters and inspected by the Group Commander, who then dismissed the organization, after expressing his satisfaction.

The trip was planned for the educational and recreational advantages that could be derived, and from these and other viewpoints proved to be a great success.

Since the return of the squadron, considerable time has been devoted to the police of barracks and the painting and repair of motor vehicles, in preparation for the coming inspection by the Corps Area Commander.

Captain Harvey departed for Selfridge Field, Mount Clemens, Michigan, on the 26th, to participate in the Pulitzer Classic. The entire organization is united in wishing him the very best of luck, and confidently expects him to "Bring home the bacon".

EIGHTH SQUADRON (ATTACK):- Operations have been confined mostly to training enlisted personnel, overhaul and repair of equipment and touching up the barracks for the coming review and inspections. There have been but few flights owing to the fact that two of our officers are on long distance cross-country missions and one on leave, throwing the burden of "carrying on" to Lieutenant Skanse.

Lieutenant Skanse and Captain Ercene made a cross-country trip to McAllen and inspected the Airdrome at that place.

Lieutenant Woodruff, Air Park #5, borrowed one of our ships for a cross-country trip to Brownsville and return. The 8th always manages to produce when the other organizations are short and we are glad to help out in the pinches.

We have our machine shop truck functioning again and are in a position to make our own repairs. We have designed and machined an impeller puller for a Liberty motor water pump. The tool saves about 30 minutes labor when packing repairs on the pump, is compact and does not take up much room in the tool kit. Our present intentions are to equip every Liberty tool kit with this tool.

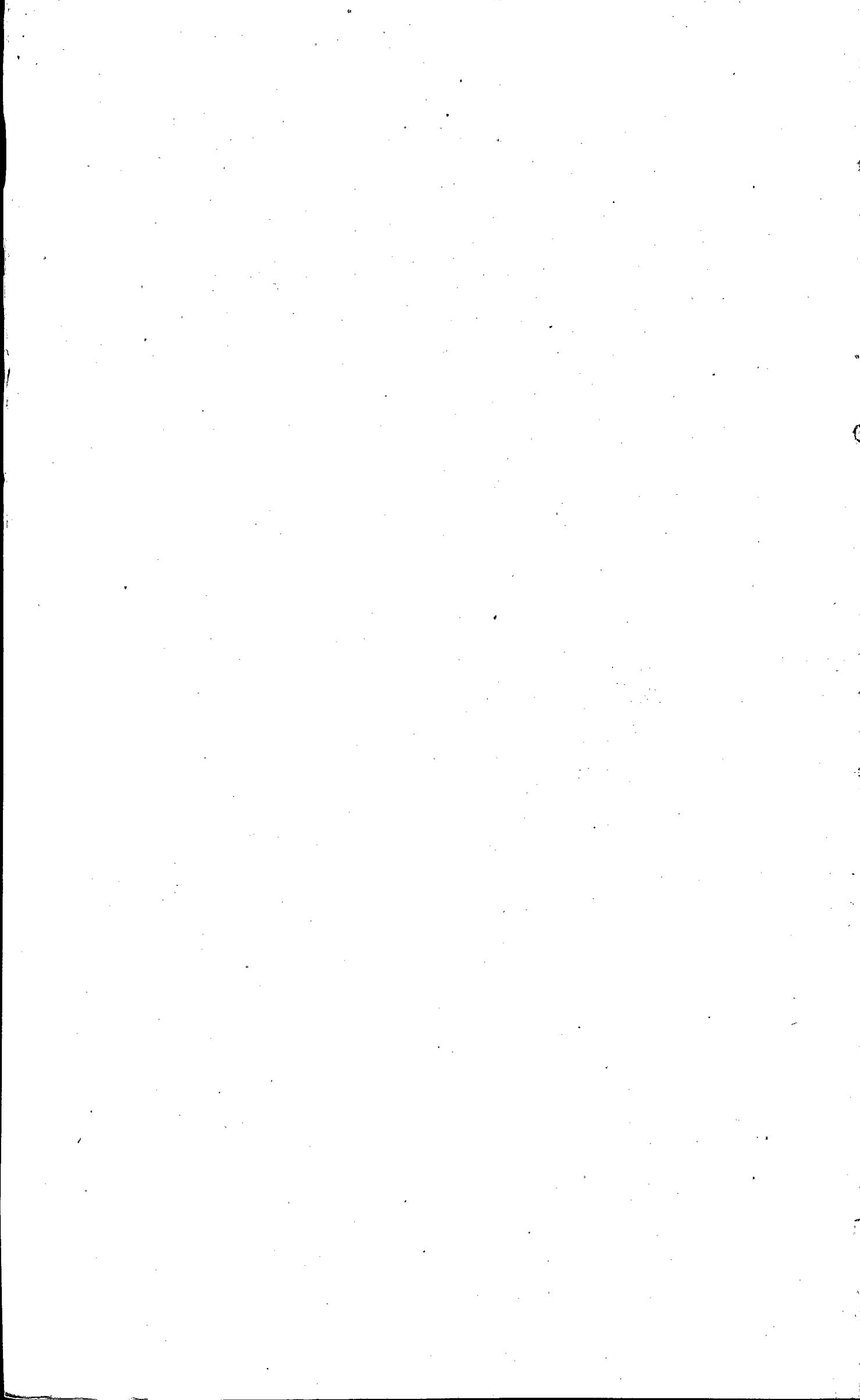
AIR PARK #5, (ATTACK):- The flying time for the last week in this organization was very limited. One of the planes was wrecked and the other one is awaiting a new motor, the old one having had it's allotted time in the air.

On Sept. 22nd, Lieut. Colonel Culver and Lieut. Duke, of the Air Service, using the Blue Bird and a DH4B made a cross-country flight to Brownsville, Texas and encountered some trouble with bad muddy fields, due to the 12 days of rain in that locality. Colonel Culver arrived at Kelly Field on September 24th and Lieut. Duke the next day, with plenty of mud in evidence, and each of them bringing home one of our Texas Pets, a centipede, as a memento of the trip.

On September 23rd, Lieut. Schneider flew to Austin in a Spad, returning the following day. On the 26th, Lieut. Woodruff, using a ship from the 90th Squadron, made a cross-country trip to Sanderson, Texas, where he was previously stationed during the Border Patrol.

10TH GROUP (SCHOOL)

CADET DETACHMENT:- Football is hitting it's stride at Kelly Field, with the Cadets more than well represented. Next Wednesday will usher in a season which, we feel sure, will prove victorious for the Advanced Flying School, when we are lined up against Brooks Field. Most of the cadets now trying out for the Kelly



Team have played with the Brooks Field outfit, when it was located at Carlstrom, and know the mettle of the men. In spite of the strong opposition, however, confidence reigns. Every cadet, whether playing or not, stands behind the football team and will do his best to make the schedule for the season a victorious one.

Major Brereton, Assistant Commandant, delivered an unusually^{and interesting} and instructive lecture this past week on Aerial Reconnaissance. He stressed the absolute dependence of ground forces on "The Eye of the Army". Everyone was impressed with the actual and immediate value and importance of aviation from a military standpoint. It does everyone's heart good to hear such a straightforward, clear-thinking exposition of the value of Military Aeronautics as we were privileged to hear in Major Brereton's lecture.

With all the accounts of dances and social functions the Cadet Detachment has been contributing to "Weekly News Letter", it would appear that a cadet's life is one round of pleasure. Indeed, it is almost so. Last week the S.A. A.I.D. civilian employees' dance furnished a remarkable amount of entertainment, -- much more, than usual, -- while in a few short days the monthly Brooks Field Cadet dance on the St. Anthony roof is scheduled to take place. The whole roof has been engaged for the evening, and the dance, - a dinner affair - promises much in the way of entertainment.

The Pursuit students explored the stratosphere to a height of 19,000 feet last Monday, pushing their S.E.'s to the ceiling. Frosted fingers were quite the rage that day, but the experience was well worth while, according to the report. Among the Observation and Bombardment Cadets, Visual Reconnaissance and Photographic missions were the order of the day. Some weird photographs resulted, but much is being learned, -- which is the purpose of the course.

But one more week of Basic Course Ground School remains. Staff duties and tactics of other Arms are yet to be conquered, -- and then the happy period of all flying and no work. Oh, happy day!

Cadet Greens' recent return from furlough, the proud possessor of a brand new baby boy, occasioned many congratulations from his fellow cadets, "Father" Green, the only one of the organization, may well be envied. Such expressions as "Baby needs a new pair of shoes" will have a foundation in truth now.

41ST SQUADRON. A total of 89 hours and 15 minutes (Aircraft Hours) were flown by Officers assigned, Student Officers and Flying Cadets attached to this squadron during the past week, with an average of eight ships flying daily.

Cadets Fatt and Hruza had a forced landing at Three Rivers, Monday the 25th, with a DH4B. The motor quit, causing them to land in rough ground. The ship was totally washed out.

42ND SQUADRON. The usual course of instruction was pursued by all student officers assigned to this Squadron for instruction. Captain Pritchard and First Lieuts. Carroll and Walker made trips to Post Field and return without any trouble. First Lieut. Whitten made a cross-country flight to Dallas and return.

The Squadron regrets very much the loss of First Lieut. R. B. Walker, who was transferred to the 13th Air Park.

Lieut. A. R. McConnell, who has been in command of the 22nd Photo Section since its organization, has been relieved from command and ordered to Brooks Field for duty with the Primary Flying School.

Captain C. E. Giffin has been assigned to command the Photo Section. He is well known to the majority of the men of the Section, having been in command of the Photographic Department of the A.S.O.S. at Post Field, Fort Sill, Okla.

The S.E.'s are quite popular for cross-country, and we are swamped with requests for them every week end. Last Saturday there were five out.

13TH AIR PARK. on September 26th Lieut. R. L. Williamson, Group Supply Officer, accompanied by Staff Sergeant George J. Cleverley, Supply Sergeant of this organization, made a flight to Post Field, Oklahoma, leaving this station at 8:40 A.M. A landing was made at Slidell, Texas on account of minor engine trouble, which was remedied and the flight continued. The return trip was made the following day. The plane used contained a 110 gallon gas tank.

Lieut. Delmar H. Dunton, Engineering and Operations Officer, who is also Group Engineering Officer, left this station by rail September 27th for Selfridge Field, Michigan, to participate in the Pulitzer Race. Upon completion of that duty, Lieut. Dunton will proceed to Langley Field, Virginia, and fly a Martin Bomber from that station to Kelly Field. This Bomber is one of three to be flown to this station for use of the 10th Group in Bombardment instruction.

The Aero Repair and Engine Overhaul departments will begin operating within the next few days. Necessary personnel has been assigned to these departments, and installations of equipment is practically completed.

Crissy Field, Presidio of San Francisco, Calif., Oct. 7.

The Air Service Rest Camp at Gold Lake, Blairsden, Cal., is about to close a successful season on account of the recent snow storms. It has been suggested by those who work all summer that a winter rest camp be established somewhere in the vicinity of Coronado, Cal., We might say at this time that this suggestion also has the hearty approval of those who never work. Lieut. H. A. Halverson is making the necessary arrangements in connection with the closing of the camp.

The numerous non-commissioned officers from the other fields within the Corps Area are gradually being absorbed as vacancies occur in the 91st Squadron. The Squadron is to be congratulated upon the exceptional quality of the men thus transferred.

It is anticipated that the garrison school will soon commence and a number of the officers are now aspiring for billets as instructors, in preference to students. In this connection, it is rumored that Capt. J. W. Signer, a recent arrival at Crissy Field, will be known as the officer in charge of garrison school.

Lieut. B. S. Catlin, Jr. who, for the past six months has been confined to Letterman General Hospital, has returned to Crissy for duty. It is needless to say that his return is heralded by all.

Capt. A. W. Smith, our Flight Surgeon, is now enjoying a short leave of absence with his family in the vicinity of Los Angeles, Cal. Capt. Smith is soon to leave Crissy Field for duty at France Field, Canal Zone. The best wishes of those remaining at Crissy Field will follow the Captain to France Field.

On October 1, a five ship formation flew to Oakland, Cal. for the purpose of escorting the Portuguese Consul across the Bay.

Staff Sergeant E. D. Arndt, formerly a non-commissioned officer for the Aero Supply, has been made First Sergeant for the 91st Squadron. He relieved Staff Sergeant Clarence Westover, who is now enjoying a three months' leave in Los Angeles where it is anticipated he will be well photographed by the moving picture industry, inasmuch as he formerly served in the 2nd Cavalry with Tom Mix.

Lieut. Leo F. Post, accompanied by Staff Sergeant G. L. McMurrin as observer, made a night flight over San Francisco in cooperation with the Coast Artillery Corps for the training of their anti-aircraft batteries.

Lieut. J. B. Patrick, erstwhile assistant to the Corps Area Air Officer, Colonel Gillmore, has been put on the Detached Officers' list and transferred to the University of California where he will act in the capacity of Military Professor, relieving Capt. J. W. Signer who is there on temporary duty. Capt. Signer comes to Crissy Field for duty, and his presence is a welcome addition.

On October 4, Lieutenants Fay Sherman Gullet and Ned Schramm returned to Crissy Field en route to Mather, having been on a cross-country trip to determine the most satisfactory airway between Sacramento and Coronado, Cal.

Lieuts. Hugh Minter and Eugene Bayley were recent visitors at Crissy Field, making the flight from Mather. We expect to see Lieut. Minter here at Crissy Field soon for a short tour of duty pending his departure to France Field, Panama.

Mrs. E. C. Kiel, wife of Lieut. E. C. Kiel, who was hurriedly conveyed to Letterman General Hospital the past week for acute appendicitis, has recovered from her operation and is now convalescing rapidly.

Superintendent A. C. Nelson, Western Division, Air Mail, left Crissy Field bound for Detroit for the purpose of attending the Air Convention at that city. The other pilots in this division are E. K. Vance, representing Crissy Field, J. L. Eaton, representing the Air Mail Station at Reno and P. Scott, representing the Air Mail Station at Elko, Nev. Not a few of these names will be familiar to those of us in the Air Service.

The Air Service has oftentimes been charged with the misdoings of others but it is the belief that the following excerpt from the San Francisco Examiner under date of October 1, 1922, far outdistances any previous charge:

"COLONEL FIGHTS PRESIDIO FIRE.

"A fire of mysterious origin that threatened the headquarters buildings of the Presidio Quartermaster Corps, where records of \$3,000,000 of army supplies are stored, was extinguished yesterday shortly before noon after Colonel William H. Tobin, quartermaster officer, assumed personal charge of the army fire fighters.

"For the first time in many years a general fire alarm was sounded over the Presidio and a military guard was ordered to the

blaze. Under the direction of Colonel Tobin the military firemen scaled the walls of the building with chemical extinguishers, reinforced by a stream from the Presidio fire engine.

"As there was no fire in the stoves of the quartermaster building, army officers are at a loss to account for the blaze which started on the roof. It is thought that a cigarette butt tossed from one of the many airplanes that cavort over the reservation may have fallen on the shingle roof. A special military board will be appointed to investigate.

"The quartermaster building adjoins the \$1,000,000 group of wooden Letterman General Hospital buildings to the west and special precautions were taken to prevent the blaze spreading."

Lieuts. Walter Miller, R. E. Selff, Lloyd Barnett and J. W. Benton made a cross-country flight to San Diego for the purpose of ferrying back to Crissy Field four new DH-4-B-1 planes.

A communication was received from Honorable William D. Stephens, Governor of California, by the Corps Area Commander, Major General C. G. Morton, commending him for the manner in which the Army cooperated with the civil authorities in the recent disaster at the Argonaut Mine, Jackson, Cal.:

It has been learned with regret that Sam Purcell, a local civilian aviator, suffered a broken arm recently and narrowly escaped more serious injury when an airplane propeller which he was turning over, kicked back and struck him. The mishap occurred at the Purcell hangar at the Marina while Purcell was making preparations for a flight. He was rushed to the Central Emergency Hospital, San Francisco.

Following are the news items from the Forest Patrol Detachment, Eugene, Oregon; week of September 23rd:

The ships of the 91st Squadron, stationed at Eugene, were very busy the past week. Five patrols from Eugene, five from Roseburg, and four from Medford, Oregon were flown, and ninety-four new fires spotted.

On the 21st, Lieut. H. D. Smith flew to Portland, Oregon, and brought back to Eugene as passenger Capt. R. H. Fleet, A.S., who is on his way back to McCook Field after spending a few months leave on the Western coast.

The personnel of the detachment contributed to the amusement of thousands of people who gathered in Eugene to see the Lane County Fair from Sept. 12 to 16. On the opening day of the fair a formation of three planes, piloted by Lieuts. Goldsborough, H. D. Smith and J. R. Morgan took the air, and gave a demonstration of various kinds of formation flying.

Sgt. Fowler as pilot and Sgt. Templeman as passenger flew to Crissy Field and returned with new airplanes for replacements on forest patrol work.

The hot weather of the past week surpassed anything we have had this summer, and the fire situation was even worse than last week. On one single day, 42 new fires were located on two patrols, and we think this will stand as a record for a long time.

The following items were received from the Forest Patrol Detachment for the week of Sept. 30:

The heavy rains of the past week stopped flying entirely until yesterday, when the ships were out for the first time since last Sunday. In the opinion of the Federal, State and private forest protective agencies that these rains have eliminated further danger from forest fires this season. The old law of supply and demand immediately takes effect, and there being no more danger from fires, patrols are no longer needed, and every step is being taken to expedite our departure from Eugene, in order to avoid unnecessary expenses.

The entire detachment is busy packing supplies and equipment in anticipation of the return to our permanent station at Crissy Field in the immediate future. Orders are expected almost any day terminating Air Service activities at this post for the year of 1922.

Camp Nichols, Rizal, P. I., Aug. 28.

Leave of absence with permission to visit China and Japan has been granted Captain George B. Patterson, Air Service. Captain and Mrs. Patterson plan to leave Manila, September 3rd.

Staff Sergeant John McCarthy, Air Park No. 11, who left for Estados Unidos last May, is on his way back to Manila. Sergeant McCarthy lost no time in re-enlisting and returning to Camp Nichols, - the "lure of the Orient" as it were.

Rumor has it that the old 23th Bombing Squadron, which will be reorganized into the 45th Squadron, will be stationed here.

There are 195 enlisted men of the Air Service on the incoming transport. Cheer up, short timers, replacements are in sight!

Clark Field, Pampanga, P. I., Aug. 27.

A spirited trap shoot on August 20th culminated in a victory by 45 birds for the 3rd Squadron over the 9th Cavalry. The teams were composed of five officers from each organization.

On August 24th, Camp Stotsenburg held an interesting Transportation Show. The program included many thrilling mounted hurdles, novelty jumps and horsemanship events. Local talent blossomed forth with a trick formation and message dropping contest before the grandstand. As a grand finale Lts. Raphael Baez, Jr. and Henry (Hank) I. Riley, ex-ace of Paris, held the spectators spellbound with a nifty little dog fight in which Hank demonstrated the unfailing superiority of experience; that is, we assume it was a nifty dog fight and that Hank was victorious, as clouds prevented the satisfaction of direct observation.

Major Gilkeson, who commands the 3rd Squadron, brought a tale of harrowing experience with bad roads and tires encountered while enroute with a party to Manila to take in the Charity Cabaret at the Hotel. Five more tires are now strewn along the roadside. A regular relay finally got the party there in which the Major's car ran two laps, Captain J. I. Moores' car two laps and a stray Dodge one lap. Needless to say, the whites weren't the only things that were wilted on arrival in Manila.

The first games of the Volley Ball series were played off between the officers of the 3rd Squadron and Pampanga Sugar Mills on Saturday evening August the 26th with the former victorious 3 games to 2. As a novel diversion from garrison entertainment no more enjoyable time could have been had. Mr. Ranton Hind, Manager of the Sugar Central, is to be thanked for a lavish entertainment. A splendid swimming tank came in for its share of use after the games, and dancing followed. Most of the ladies of the Field also attended. A cup, donated by Mr. Hind, is offered the team winning the series.

Kindley Field, Fort Mills, P. I., Aug. 28.

The Governor General of the Philippine Islands, Major General Leonard Wood (retired) made an inspection of Fort Mills on Tuesday, August 22nd. Kindley Field was the first garrison visited. The Second Squadron was in formation on the drill ground near headquarters and presented a very smart appearance. Every Officer and enlisted man was dressed in khaki of precisely the same shade and pattern and all leather accoutrements had been "dyanshined" to obtain a uniform color. The personnel of the Balloon Companies were drawn up near the balloon hangar. A balloon was in the air at the time of the inspection, in order that a demonstration of balloon maneuvering could be given.

After inspecting the troops and the Balloon, a visit was made to the hangars where an inspection was made of the squadron equipment.

All the officers were introduced to the General and were complimented on the appearance of troops and condition of the field.

General Wood was accompanied on his inspection by Brig. General Todd, Commanding Officer of the Coast Defenses, and his Aide, Col. Johnston.

After a month of flying inactivity, when bad flying weather prevented the launching of a "boat", the surf subsided sufficiently to permit flying on Tuesday, Wednesday, and Thursday. On Wednesday an attempt was made to conduct an artillery regulation problem with the 59th Regt. C.A.C. The target was half way to the summit of Mariveles. A battery of 155's was to be fired. With Lt. Burgess acting as pilot, Lt. Gravely as Asst. pilot and Capt. Edwards as observer, communication was established with the battery, but when an attempt was made to get over the target, low hanging clouds, resting on the mountain side forced the "H" boat to such a low altitude as to make the completion of the problem impossible.

A motor transportation show was held on the Topside parade ground on August 14th, "Occupation Day", and the ambulance of the 2nd Squadron drove off with the blue ribbon for being the best looking vehicle in it's class. Another show is to be held in the near future, and the Transportation Department under Lieut. McKinnon is working to put several more vehicles in prize winning condition.

Major Thomas J. Hanley has been placed on Detached Service in Manila, and

During his absence Capt. Wittman, 27th Bal. Co. is in Command of the field, with Captain Edwards in command of the Squadron.

Capt. I. B. Snell, 17th Bal. Co. has been relieved from duty at Kindley Field and ordered to Clark Field, Camp Stotsen, Erg.

First Lieut. R. P. Reese has been ordered to Letterman General Hospital for observation and treatment leaving on the "Thomas" about Sept. 10th. It will be recalled that Lieut. Reese was injured in the bomb explosion at Aberdeen during the bombing maneuvers. He has never fully recovered from his injuries.

Scott Field, Belleville, Ill., Oct. 14.

Seven Reserve Officers from the Infantry Division, Headquarters in St. Louis, came out to the Post, Monday afternoon and were taken up on one hour flights in the observation balloons.

The Thursday swimming party was preceded by a glorious pageant entitled "The Coming of the Veiled Dumb-bell". This pageant was a take-off on the Veiled Prophet Pageant held in St. Louis. The swim was followed by an informal dance at the Officers' Club.

Major Horowitz, Auditor, Finance Department, is on the Post this week and is being royally entertained by his prospective victims.

Our Adjutant, Lieut. Turnbull received orders to report for Heavier-than-Air training at Brooks Field, and left for his new station.

Miss Henrietta Hall was a guest of her parents, Colonel and Mrs. Hall last week end.

Colonel and Mrs. Hall are on leave of absence attending the Races at Detroit.

Lieut. Chas. R. Forest, who has just been transferred from Field Artillery to the Air Service, reported for duty at this station last week.

Lieut. Jos. A. Bailey reported from leave of absence for duty this week.

The Service Company is firing instruction and record practice on the pistol range this week. All preliminary instruction in pistol and rifle has been completed and organizations are awaiting their turn on the range.

The class of cadets in the Balloon and Airship School continues to grow, more having arrived since our last letter.

In the absence of Colonel Hall, Major Paegelow is Commanding Officer and has been attending the daily luncheons of the St. Louis Chamber of Commerce for the purpose of assisting them in their membership drive. On Tuesday, he was accompanied by Capt. Stone; on Wednesday and Thursday by Lieut. Carthy. Friday night, being the end of the drive, was celebrated by a smoker. Guests at the smoker were Major Paegelow; Capt. Stone, Lieuts. Carthy, Thomas and Farnum.

Hqrs. 91st Div., Air Service, Crissy Field, Cal., Oct. 1.

Now that the Forest Patrol season is over, we hope to be able to get a few good men from the 91st Squadron to put our Hiso's in shape again. After the hard use they had in Training Camp work this summer, they are in pretty poor shape. With only the week ends to work on them, it is pretty hard for us to catch up, but once in good condition we expect our Reserve enlisted personnel to keep them there.

Flying for the month of September did not show up quite as high as previous months, a total of 59 hours being attained. This included two three-ship formations from Mather Field to Crissy Field, and a round trip to Mather in a Fokker by Lieut. Boggs, the Flight Commander, with Capt. Howard, the Commanding Officer, as passenger.

A tentative program of training has been drawn up. It includes everything from Military Courtesy to Artillery Observation and covers a series of twenty-five lectures. It has been decided that Reserve Officers will conduct all the courses and lectures, except Observation. Subjects have been assigned. To facilitate matters, a room at the Armory has been obtained. This is centrally located and will save many of the Reserves any where from half to an hour's travel.

Panel practice has begun. Hereafter, each flight will have a definite purpose, as practically all of the pilots have had sufficient refresher time to be able to put their mind on something other than straight flying.

A buzzer set as well as a Radio set is being installed in a JN. Soon the old story will be heard. "How many words can you send?" An added incentive to qualify was given by the California Guard. The Artillery is anxiously awaiting a chance to fire a few problems with the 316th. Once we have accomplished this we feel we have made some real progress.

The 477th is now a partner in the use of our hangar and ships. We wish them every success and hope they will give us a good race towards finally qualifying all

their pilots. The 316th now boasts of Twenty pilots out of thirty assigned as having qualified. The 477th starts off well, having seven out of the squadron show up the first few weeks.

Mitchel Field, L. I., New York, Oct. 14.

Plans are now under way for the formation of a non-commissioned officer's club, and a building has been tentatively assigned for use as a club house. A committee of six non-commissioned officers has been appointed to prepare a charter and to submit it along with recommendations to the Commanding Officer.

The commissioned personnel are supporting the non-commissioned officers in their efforts to start a club and it is hoped that a model organization will result. A club of this nature is a distinct asset in the preservation of discipline and tends to make the non-commissioned officers more keenly alive of their position and responsibilities.

With eleven of the pilots at Detroit, flying at Mitchel Field was curtailed for the past few days. The flight of these ships to Selfridge Field was accomplished without mishap of any kind. It was in the nature of a competition between the organizations at the station, and, as soon as all ships have returned and the data computed, the result will be announced.

From present indications, Mitchel Field will be represented by a strong team on the gridiron this season. The work of the team in practice has been very satisfactory in practice and it will have its first real try-out on Wednesday when it meets the New York State Agricultural School at Farmingdale, Long Island. From then on a regular schedule will be played.

Considerable interest in the team has been aroused among the civilian population of the neighboring towns and frequent inquiries are received at the Post as to when the team will play on the local field. The local papers expressed themselves as desirous of carrying announcements and accounts of the games and this will tend to stimulate a good attendance, which always results in better sport and more interest.

The weekly dances at the Post were resumed for the season last Thursday night. Given under the direction of the Post Chaplain at the Enlisted Men's Club, these dances are attended by an average of 75 couples. Each Air Service organization has charge of the arrangements in rotation and this results in friendly competition as no outfit desires to be outdone in the matter of decorations and refreshments. It also stimulates interest and guarantees that the dances will be continued on a high plane.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE November 20, 1922.

BREAKING THE LONG DISTANCE RECORD FOR AIRPLANE FLIGHT.

Lieutenants John A. Macready and Oakley G. Kelly, Army Air Service pilots, broke the world's record for distance flight when, on November 3rd and 4th, 1922, they covered 2060 miles in their attempt to negotiate a non-stop flight across the continent from San Diego, Calif., to New York City. A cracked water jacket forced them to land at Fort Benjamin Harrison, Indiana, some 800 miles short of their goal.

While the aviators, and the Army Air Service and the public at large no less, were disappointed that the mishap prevented the successful conclusion of the flight, it is a source of great gratification that the flight progressed to the point it did for, aside from the feeling of elation over the fact that the Army Air Service chalked up another world's record, an air of confidence prevailed that but for the break in equipment the remaining distance would have been covered without difficulty, basing this on the fact that the flyers were thoroughly familiar with the country between Indianapolis and New York; that the weather conditions were very favorable for this last stage of the journey; and that their plane, lightened considerably of its original heavy load of gas, oil and water, could have easily covered the remaining distance even under reduced throttle. Then, again, this same airplane, the Army Air Service Transport Monoplane T-2, broke the world's endurance record less than a month before, remaining in the air 35 hours, 18 minutes and 30 seconds, some eleven hours longer than it did on this last flight.

Readers of the AIR SERVICE NEWS LETTER are familiar with the stories which have appeared in the newspapers covering this latest Army Air Service achievement, and no attempt will here be made to summarize these stories. It is hoped, however, that the official report on this flight will be received in time for publication in the next issue of the NEWS LETTER.

The Army Air Service can now boast over holding all the world's record in aviation that are worth while - Speed, Endurance, Altitude and Distance. Lieut. John A. Macready is vitally connected with three of these records. He, alone, holds the world's altitude record, and shares with Lieut. Oakley G. Kelly the endurance and distance records. Lieut. Russell L. Maughan, winner of the Pulitzer Race, holds the world's speed record over a closed circuit.

The painstaking manner in which the plans were formulated for the trans-continental non-stop flight is evidenced by the closeness with which the pre-arranged schedule of the time the plane was calculated to pass over various points of the route across the continent was adhered to. According to this schedule, the aviators were supposed to start from San Diego at 6:00 a.m., pass over Tucson, Ariz. at 1:00 p.m.; Willcox, Ariz. at 2:00 p.m.; Liberal, Kansas, at 10:00 p.m.; and Indianapolis, Ind., at 9:00 a.m. the next morning. Press dispatches stated that starting at 5:58 a.m. the big monoplane passed over Tucson at 12:17 p.m.; Willcox at 1:15 p.m., Liberal at 9:45 p.m., and landed at Fort Benjamin Harrison, Ind., 10 miles east of Indianapolis, shortly after 9:00 a.m.

Pending the receipt of the official report on this flight, there is given here the official report of Lieuts. Kelly and Macready covering their endurance flight of October 5th and 6th over Rockwell Field, San Diego, Calif. We note that this endurance flight cannot be homologated by the Contest Committee of the Aero Club of America, which precludes this performance from being officially recognized by the International Aeronautic Federation. This is to be greatly regretted, but rules are rules and they must be abided by. Nevertheless, this performance will remain in the minds of all of us as the world's endurance record unless it is eclipsed by other airmen. The authenticity of this record cannot be questioned. Those who have read the report on this flight from

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Rockwell Field in the last issue of the NEWS LETTER will note the pains taken to correctly time the flight and the many witnesses who were present during the entire flight. As the SAN DIEGO UNION puts it editorially: "Every citizen of San Diego is an eye and ear witness to the authenticity of this record."

The official report, while quite lengthy, will, it is believed, prove to be interesting to our readers, and we are therefore taking the liberty of quoting it in full, as follows:

OFFICIAL REPORT OF ENDURANCE FLIGHT OF LIEUTS. KELLY AND MACREADY. ✓

Complying with orders from the Chief of Air Service, the Army Air Service Transport T-2 left McCook Field, Dayton, Ohio, for Rockwell Field, San Diego, Calif., on Sept. 19, 1922, for the purpose of making a transcontinental non-stop flight from San Diego to New York, carrying as pilots 1st Lieuts. Oakley G. Kelly and John A. Macready, and as mechanics, Charles Dworack and Clyde Reitz.

Stops were made en route at Scott Field, Belleville, Ill.; Fort Sill, Lawton, Okla.; and Fort Bliss, El Paso, Texas.

The first leg of the flight to San Diego from McCook Field to Scott Field, 320 miles, was made without especial incident, although rain and clouds were encountered between Terre Haute, Ind., and St. Louis. Lieut. Macready piloted the ship on this trip. The 320 miles were flown in 4 hours at an average speed of 80 miles per hour. Owing to the fact that both tachometers failed, it was impossible to note the R. P. M. It is believed that this was close to 1500.

The airplane was serviced at Belleville with 125 gallons of gasoline and 9 gallons of oil. Sept. 20th was spent at Scott Field, rain, low clouds and fog making the visibility too poor to attempt flight with the Transport, although the engine was warmed up ready for a take-off at 4:30 a.m. The next day was still very cloudy with low fog. A reconnaissance flight in a DH was made toward Springfield, Mo., by the two pilots, as a result of which it was deemed advisable to take off for Lawton, Okla., at 11:30 a.m., although weather conditions were not good. The visibility over the Ozark Mountains to Springfield, Mo., was poor. Clouds were below the mountain tops in many places and the ceiling was less than 500 feet. Clear conditions existed west of Springfield. Lieut. Kelly piloted the plane.

A landing was made at Fort Sill at 5:45 p.m., after covering the 550 miles in 5 hours and 46 minutes, an average speed of approximately 100 miles per hour at 1440 r.p.m. This excellent average was primarily due to a favorable wind. Powerful searchlights were thrown on the plane and the work of preparing for the next morning's flight was accomplished at night. The officers and personnel at Fort Sill cooperated to the fullest extent.

The take-off for El Paso was made the next morning at 8:05 a.m., Lieut. Macready pilot. A due west compass course was flown for 270 miles to a point north of Farwell, Texas, and then southwest 100 miles to Roswell, N. M.

It was intended to fly a straight compass course through a pass in the Sacramento Mountains between Roswell, N. M., and El Paso, Texas, but due to extremely rough and bumpy air over barren, jagged peaks for over 100 miles, and the fact that this pass, 7500 feet elevation, was higher than the ceiling of the airplane with the heavy load, it was found impossible to cross the mountains at the intended point. This was the most difficult point of the entire journey. The most efficient climb and the best altitude could not be gained, as the extreme roughness and bumpiness of the air would jar and raise the carburetor float causing the engine to cut-out or entirely cease operation for short periods with a resultant loss of altitude just at the time an unusually rough peak threatened to swipe off the landing gear or wing tips.

For the first 100 miles of this leg of the journey there was a favorable east wind which changed to a strong south wind for the ensuing 170 miles and then due to the change in direction of flight from west to southwest at Farwell, Texas, it was necessary to "buck" a head wind for 230 miles.

Considerable anxiety was caused both pilots and crew by the rapidly decreasing gasoline supply and the fact that the siphon gasoline pump was now leaking due to an internal crack in the first lower left siphon, which was continually pumping a spray of gasoline from the drain.

A landing was made at Fort Bliss at 3:35 p.m., covering the 550 miles in 7 hours, 30 minutes, at an average of 73.3 miles per hour.

Saturday, Sept. 24th, the sylphon pump was removed and found to be cracked. Although a wire had been sent for a new sylphon pump upon landing the day before, it was decided to repair this pump by soldering and continue the flight to San (Diego.) The repair work was completed, the pump installed and the airplane serviced with 190 gallons of gasoline and 7 gallons of oil.

Due to the high altitude of the flying field at Fort Bliss (3800 feet) it was decided to allow Mr. Dworack and Mr. Reitz to proceed by rail to San Diego. They proceeded via Southern Pacific Railroad that evening at 10:05. The load was thus reduced by approximately 500 pounds, practically all of the baggage being transferred by rail from this point.

The airplane left Fort Bliss on Sunday at 6:48 a.m., with a total weight of approximately 7500 pounds. No trouble was encountered in the take-off, while a climb to 2,000 above ground level was made in 16 minutes. The vicinity of the airdrome was left at 6:55 a.m. Deming, N. M., 80 miles, was passed at 7:45; Lordsburg, N.M., 140 miles, at 8:18; Bowie, Arizona, 190 miles, at 8:45; Tucson, Arizona, 290 miles, at 9:45. The Southern Pacific Railroad was followed to Tucson, but from Tucson to Yuma an airline course passing just south of Ajo, Ariz., was chosen. This 220 miles was made in $2\frac{1}{2}$ hours, during which time no available landing field was sighted and not a sign of life was observed. This country is almost entirely composed of rough, rugged volcanic peaks, with apparently no life or vegetation existing.

San Diego was reached at 2:10 p.m. The 650 miles were covered in 7 hours, 15 minutes, at an average speed of approximately 90 miles per hour. Sixty-six gallons of gasoline and nine gallons of oil were drained.

Mr. Dworack and Mr. Reitz arrived Monday, Sept. 25th, at 7:20 a.m. Arrangements were made with the Commanding Officer, Rockwell Air Intermediate Depot, regarding the necessary assistance, including labor and material to install a new engine and prepare the airplane in general for the coming non-stop transcontinental flight. After arranging these details the flying field was inspected by driving across at various angles and carefully measuring each course by the speedometer. It was found that a runway of one and seven-thths miles was available in the direction of the prevailing wind. As the flying field had been inactive for several years, a certain amount of work was necessary to prepare this as an ideal take-off, due to the clumps of bunch grass and sandy soil.

The Commanding Officer, McCook Field, was wired requesting the sub-allotment of \$300 to cover the payment of civilian labor necessary for this work, and upon receipt of authority work on the runway was commenced the following morning.

Summarizing the flight from McCook Field to Rockwell Field, a distance of 2,070 miles was covered in 24 hours, 31 minutes. The average ground speed was 83.7 miles per hour, the gasoline consumption 586 gallons, and the average fuel consumption per hour, approximately 24 gallons.

A Standard Liberty-12, 400 h.p., McCook Field, overhauled engine was used, with the following accessories:

Modified Zenith Carburetor, Venturi Tube,
36 M.M. Metering Jets flow Main 39) pts.
Comp. 95.5)

Standard oil pump with oil radiator.

Mosler M-1 Spark Plugs.

Delco 8 volt ignition with special 8 volt generator cut out and
standard 8 volt regulator.

Two 8 volt ignition batteries.

Sylphon gasoline pump.

The usual nose radiator with 3# expansion relief valve assisted by a
booster radiator furnished adequate cooling.

Four gallons extra water was carried in a nurse tank with means of
injecting same to the intake side of the water pump.

Final Preparation for Transcontinental Flight.

One week's time was required to install the new motor, carefully check the entire airplane and make a number of minor changes which were found necessary, viz:

- (a) Make back of forward pilot's seat detachable.

- (b) Install better means of communication between pilots.
- (c) Remove speaking tube.
- (d) Install shutters in air duct.
- (e) Place shut off valve in booster radiator line to control motor temperature.
- (f) Install a means of spraying 50-50 coal oil and lubricating oil on exhaust valves.

Monday, October 2nd, a short test flight of 35 minutes was made just before sunset, and Tuesday the plane was flown 4 hours and 30 minutes. One flight was made to the North through Temecula Canyon to inspect this part of the route. All of Wednesday, October 4th, was used in servicing the Transport with gasoline and oil. The airplane was placed at the start of the newly prepared runway ready to take off when weather conditions would permit.

The load was as follows:

Airplane with water (total 21 gals. including only 4 gals. extra) and pilots	6095.5
35.5 gals. Pennzoil Triple Extra Heavy	266.5
One Mark I Parachute, airplane flare	36.
Two parachutes	36.
Food, Maps, Thermos bottles, mail and clothing	30.
* 697 gallons @ 6.07# per gal.	4231.
	10,695 lbs.

* Note - The gasoline tanks were filled and 40 gallons removed prior to the flight.

Wednesday, October 4, 1922, at 8:30 p.m., the following telegram was received from the Weather Bureau, Washington, D.C.:

"Generally clear sky Thursday night San Diego to Mississippi River and possibly cloudy sky farther east considerable cloudiness possible east of Appalachian Mountains Friday stop Moderate possibly fresh west or southwest winds San Diego to New Mexico and southerly New Mexico to Appalachian Mountains surface and moderate to fresh southwest aloft stop. East of Appalachian Mountains winds will be moderate variable at surface and moderate west or northwest aloft on Friday.

Mitchell.

These conditions were almost ideal when considered over such a long route, the airplane was in position to fly and all preparations had been made that evening for an early start at daybreak next morning.

The pilots arrived at Rockwell Field Thursday, October 5th, at 5:15 a.m., just before dawn. A coin was flipped to decide who should take the plane off the ground and fly during the first period. Lieut. O. G. Kelly won the toss, after which the engine was started, warmed up and block tested. Everything functioning satisfactorily, the blocks were removed, and the throttle applied. The airplane hesitated, then began to move very slowly forward, plainly showing the enormous weight that it was ^{attempting} to lift. In approximately 250 feet it was possible to ^{slowly} raise the tail surfaces from the ground, thus permitting the airplane to gain momentum. After a run of six-tenths of a mile, the airplane slowly lifted from the ground at an indicated airspeed of approximately 65 to 70 miles per hour (calibrated speed to 80 m.p.h.) and continued to gain altitude until a left turn was necessary to avoid Point Loma. After this turn down wind the airplane started to settle and continued to do so despite all efforts of the pilot until dangerously close to the ocean. Two complete circles of the Island were made before an altitude of 200 feet was reached and the nose pointed in the direction of the proposed transcontinental non-stop flight. The T-2 left the ground at 5:53 a.m.

Twelve miles from Rockwell Field the T-2 was 500 feet high. Thirty miles out it was 1200 feet above sea level. In thirty-five minutes and when at Temecula Pass, fifty miles from the start, an altitude of 1700 feet had been attained. Here fog was encountered. From Temecula Pass the route was almost northeast of San Jacinto, then over a narrow stretch of foothills to Banning at an elevation of 2700 feet and a distance of 35 miles.

From Banning the valley descends to below sea level in Imperial Valley. Trouble would be over if this high point could be negotiated. Between Temecula and San Jacinto the terrain slopes gradually up to the north and is dotted with mounds or foothills. The route was continued until a point near San Jacinto was reached. Here the ground extended into the fog. After dodging the foothills

for one hour hoping that the fog would dissipate or break, and with little apparent chance of getting through the more rugged and higher country ahead it was decided to return to Rockwell Field and break the world's endurance record for airplanes.

This decision, though hard to make, seemed at the time to be the only sensible thing to do. The hour's delay at Temecula meant that the T-2 would not be out of the mountain passes of New Mexico before dark. The gasoline supply had also been wasted, thus impairing the chance of reaching New York. The endurance flight would provide a means of securing reliable information regarding gasoline, water and oil consumption, and provide data regarding the performance of the airplane loaded, this last being especially desirous as it will be necessary to reach an altitude of 6800 feet at Santa Rosa, New Mexico, after nine hours of flying. There was also the uncertainty of landing the Transport with this load.

On returning to Rockwell Field, the following message was dropped to Capt. R. G. Ervin, Commanding Officer of Rockwell Field.

"Impossible to get through mountain passes with heavy load on account of dense fog at ground and aloft. An hour and a half wasted in attempting to get through with no sign of clearing. Cannot now reach the high altitudes south of Tucumcari, New Mexico, by nightfall. We are attempting to break the world's endurance record for airplanes and will make the transcontinental non-stop flight later. Please get in touch with the Representatives of the Aero Club of America and take the steps necessary to authenticate a world's airplane endurance record should the attempt prove successful, and also wire this information to the Commanding Officer, McCook Field.

Macready."

A second message was dropped shortly after requesting that a white cloth be displayed at headquarters if the first message had been received. In answer to this, and also to establish reliable communication with the ground, a plane was sent up from Rockwell Field and flown within easy reading distance of the T-2 with the following notice painted on its side - "Message received. Drop messages on marker at start of runway." Thereafter no trouble was encountered in communicating, as a guard was continuously stationed at this marker and no messages were lost through promiscuous dropping.

With the exception of the first two hours the T-2 was continually within sight or hearing of Rockwell Field during the entire time of 35 hours, 18 minutes in the air, and was accomplished by an Air Service airplane, containing Lieutenants Webber and Richter of Rockwell Field, until passing into the fog and clouds in the mountains when starting on the contemplated transcontinental flight.

Communication within the plane was maintained through the use of written messages which could be sent by means of an endless cord from one pilot to the other while seated at the controls both front and rear, or the message could be transmitted direct by crawling through the communicating tunnel to the aperture behind the front cockpit and passing them up by hand.

Changing of the control of the plane from one pilot to the other was accomplished in the rear. The pilots took turns of six hours each, Lieut. Kelly piloting for the first six hours until 12 noon, Lieut. Macready until 6 p.m., and Lieut. Kelly again until midnight, Lieut. Macready until 6 a.m., Lieut. Kelly until 12 noon the second day, and Lieut. Macready until 5:11 p.m., when he landed the airplane.

On the completion of six hours at the controls in the front cockpit, the pilot would signal energetically by shaking the wheel for the pilot in the rear to take control and when satisfied that everything was functioning satisfactorily would open the small door to his rear, pull out the back of the pilot's seat and drop it down on the floor through this hole together with the parachute and cushion. Lifting up one side of his hinged seat, he would crawl through this door and back through the tunnel to the rear pilot. By speaking in a very loud voice the pilots could converse in the rear, one being at the controls and the other seated alongside.

After placing the plane in a safe flying altitude the change at the wheel was made by the active pilot stepping out and forward and the new pilot sliding in from the rear. Crawling up through the tunnel and into the front seat the pilot on duty took the controls and flew the plane, the other pilot placing the parachute cushion and seat back in position. Five changes were made, one being accomplished at midnight without light.

Although it had been expected that the pilot off duty would be able to sleep

and relax for short periods, neither pilot obtained any sleep. Some relaxation was obtained, but there were so many small details, such as minor maintenance and repair of engine and plane, relief of the pilot in front for brief periods, inspection and check of gas, oil and water consumption, dropping of messages, nourishment, and general cooperation that the time of the relief pilot was of considerable use and the time that could be used for sleep was limited.

The food supply for two long days and a night consisted of a box of sandwiches, a half gallon thermos bottle of strong hot beef broth and a half gallon thermos bottle of very strong hot coffee. The broth and sandwiches were used to provide strength and sustenance and the strong coffee as a stimulant to keep the pilots awake. The night was cold. Before going on shift the pilot would drink some hot broth, eat a sandwich and swallow several draughts of the strong coffee, after which he felt in good shape for the ensuing six hours at the helm.

Although naturally very tired toward the finish of the test, neither pilot was in bad shape physically, all faculties, physical and mental, functioning normally throughout the flight. In fact, before leaving the plane after taxiing to the line and after the first excitement of welcome, steps were taken and orders given by the pilots to get the plane ready for the transcontinental non-stop flight from San Diego to New York, as it was very much desired to start this cross country flight during the period of moonlight then existing and it was the intention on landing to have the T-2 immediately put in shape so that a start could be made on the long flight within two or three days after the accomplishment of the endurance record. However, more maintenance was necessary than was anticipated, and ensuing unfavorable weather has made the early start impossible.

Realizing the importance of unquestioned establishment of the record for sustained flight, the plane was flown at all times within sight or hearing of Rockwell Field, and during the night was always within gliding distance of the landing field and continually within sight of the entire city of San Diego. An editorial in the San Diego UNION states - 'Every citizen of San Diego is an eye and ear witness to the authenticity of that record.'

One of the primary reasons for the endurance flight was to test the performance of the T-2 with load. At five-thirty p.m. a climb to 4500 feet was made and time taken in order to stimulate the hour and load used in climbing to altitude at Santa Rosa, N.M., where the elevation is 6800 feet, and the result was satisfactory. A gradual descent was made to 2500 feet and the night spent at approximately this altitude.

The night was clear and the moon full. In the morning a low fog bank came in from the ocean, obscuring the ground for an hour or more. As the load was lessened through consumption of gasoline, less air speed, engine R.P.M. and gasoline were necessary to maintain flight. As the end of the day approached the indicated air speed was 40 m.p.h. (true air speed approximately 50 m.p.h.) the R.P.M. 1160, and the gas consumption approximately 14-4/5 gallons per hour. When it appeared that the gasoline was about used up the plane was kept in position for a forced landing on the field. Nightfall and final gas exhaustion would apparently be about simultaneous.

It was known that the gasoline was almost exhausted and that a forced landing was probable at almost any time. Rather than have a forced landing in darkness in the pilots' fatigued condition for the sake of a possible few minutes additional time, a landing was made at dusk in order to insure no possible damage to the plane, it being realized that the primary object of the T-2 was the accomplishment of a transcontinental non-stop flight and that the endurance record was incidental to this and made necessary through force of circumstances.

A smooth landing was made at 5:11 p.m., and the plane taxied to the line where a crowd of approximately 1,000 spectators was assembled. The pilots were both in excellent physical condition.

Tremendous public interest in Army Aviation was aroused in San Diego and vicinity by the endurance flight and the prospective transcontinental attempt. Crowds lined the streets during the night watching the T-2 as it flashed in the moonlight, and the final landing was the signal for a chorus of whistles and bells throughout the city.

Although the birthplace of Army Aviation in the United States, interest in the activities of the Army had been dormant for considerable time, and the successful duration flight has succeeded in stimulating interest which reflects to the advantage of the Army Air Service. The cooperation and interest of the officers and men of Rockwell Field is also worthy of special note. Everything possible

was done by them to aid and assist in making the activities of the T-2 successful.

✓ The log of the endurance flight is as follows:

Took off at 5:53 a.m. Thursday, October 5, 1922.

Landed 5:11:30 p.m. Friday, October 6, 1922.

Elapsed time - 35 hours, 18 minutes, 30 seconds.

Total weight at take-off - 10,695 lbs. Total gasoline 697 gallons, 4,231 lbs. Total oil Penzoil Triple Extra Heavy - 35½ gallons.

One Liberty engine - 400 horsepower.

Two pilots.

Gasoline drained after flight - 10 gallons.

Oil drained after flight - 18½ gallons.

Gas consumed - 687 gallons. Average gasoline consumption per flying hour - 19.5 gallons; Oil consumed, 17 gallons. Average oil consumed per flying hour - .48 gallons.

The R.P.M. averaged from 1520 full out to 1160. At the end of the first period (6 hours) average R.P.M. 1440. Second period average R.P.M. - 1420.

Third period average R.P.M. - 1350; Fourth, 1340; Fifth, 1260; Sixth, 1180.

Due to a rough place in the carburetors it was impossible to slow down the R.P.M. in the Fourth period. After 18 hours approximately 60 revolutions were lost by cutting either switch. After 21½ hours the generator was cut out for an instant and 50 revolutions were lost while running on the battery at 1350 R.P.M.

Previous to the flight considerable time was spent picking a smooth set of distributor heads. The distributor cam was vasolined and the felt used in this cam soaked in oil. Hard distributor carbons were used with the spring tension reduced to a minimum. A light coating of vasoline was placed on the distributor track. The breaker points were set at .015 with a .013 spark gap and the safety breaker removed.

The oil pressure remained constant at 45 pounds during the entire flight.

The engine temperature could be well controlled and was held at approximately 75° to improve carburetion.

No constant altitude was maintained, the altitude varying from 500 to 4500 feet.

Only three quarts of water were required to fill the radiator on landing. The loss was due entirely to expansion.

Repairs Necessary after Flight.

(a) Slight leak in core of booster radiator; also a slight leak due to the cowling rubbing on the booster radiator.

(b) The left exhaust manifold was cracked on the elbow and three lugs were cracked on the left long exhaust stack.

(c) The right upper side cowling was cracked.

(d) Both outside tire streamlines ripped from the retaining ring around the hub.

(e) The distributor heads were in excellent condition. The right head showed no wear while the left head had .013 clearance against the original .015 setting.

(f) All spark plugs were in excellent condition.

(g) The left forward celluloid window cracked and became loose and the screws loosened in the other windows.

John A. Macready,

1st Lieut. A.S.

Oakley G. Kelly,

1st Lieut. A.S."

AIRMEN PLAY HIDE AND SEEK WITH ANTI-AIRCRAFT BATTERIES.

Lieuts. L. F. Post (pilot) and B. R. Dallas (observer) recently made a night flight in conjunction with a training problem of the anti-aircraft batteries at Fort Scott, San Francisco Bay, played tag between the many beams of the search lights, and appeared to be able to dodge the gunners on the ground at will. The night flights in the vicinity of San Francisco are much enjoyed by the populace in general as well as those at Crissy Field.

FIELD OFFICERS' SCHOOL STARTS ANOTHER TERM

The Air Service Field Officers' School at Langley Field, Va., held its opening exercises on Friday, October 20th, with an attendance of 17 students. An address of welcome was extended to all members by Major Thomas DeWitt Milling, Air Service, in which he touched upon the purpose, scope and methods of the institution during its present session.

The school staff, after being reorganized, presents an appearance of efficiency, and many noted specialists in the Air Service activities are included. The staff is composed of the following members: Lieut. Col. Chas. H. Danforth; Majors T. D. Milling, W.C. Sherman, John H. Jouett and J.T. McNarney; Captains H.N. Heisen, Arthur R. Brooks, F.N. Shumaker, Louis R. Knight; and 1st Lieuts. H.F. Rouse and Rex K. Stoner.

The students of the school for the year 1922-1923, are: Majors Henry B. Clagett, William C. McChord, Robert Coker, John J. Jouett; Captains Howard J. Houghland, Rosenham Beam, Lynwood B. Jacobs, Hubert V. Hopkins, Albert M. Guidera, Edmund W. Hill, Francis M. Brady, Warner B. Gates, George S. Warren, Chilion F. Wheeler, Christopher W. Ford, George P. Johnson and Frank O'D. Hunter, all of the Army Air Service.

A noteworthy fact of this year's class is that both heavier-than-air and lighter-than-air officers are included in the student body.

ESTABLISHMENT OF LANDING FIELD AT MEDIA, PA. ✓

Media, Pa., was recently the scene of the formal opening of its new municipal landing field. Aberdeen Proving Grounds, Md., was represented at this event, but due to the shortage of personnel but little equipment and personnel were sent there. As directed by the Chief of Air Service, the D-3 was flown to and landed at the field. One DH4B was sent from Aberdeen, and Lieuts. George and Bleakley, returning from Buffalo, N.Y., in an NBS-1, stopped at the field. There were numerous National Guard representatives at the field, both from Maryland and Pennsylvania, as was the Assistant Corps Area Air Officer.

The program incident to the opening of the landing field was successfully carried out, and aviation enthusiasts of the vicinity were highly elated over the prospect of frequent visits of Army airplanes to the field. Air Service personnel report that they were royally entertained by the residents of the vicinity during their stay.

TRANSPORTING AIRPLANE ENGINES BY PLANE.

While returning from the Detroit races in General Patrick's new plane, Majors Dargue and Pirie experienced a forced landing in the vicinity of Buffalo, N. Y. A message was directed to the Aberdeen Proving Grounds, Md., requesting that a new motor be dispatched to Buffalo. Same arrived in less than 24 hours. The transporting of a Liberty motor over such a distance as this is not a common occurrence. The center section of a Mark 20 Bomb Rack was removed from an NBS-1, and the motor loaded in the fuselage. Taking off from Aberdeen at 9:30 in the morning, Lieuts. George and Bleakley flew to Buffalo and made the trip in about five hours, a stop for service being made at Middletown, Pa.

TRAINING ACTIVITIES AT CRISSY FIELD.

Crissy Field is the only Air Service station in the 9th Corps Area at which training activities will be conducted to an appreciable extent during the winter period. A training schedule, submitted to the Commanding Officer by Capt. J.W. Signer, has been approved and is now being carried into effect. A course consisting of theoretical and practical military instruction has been established for officers and noncommissioned officers, and appropriate courses for the balance of the enlisted personnel. These courses will be followed by special theoretical and practical instruction which pertain to the Observation Squadron. Photo Section No. 15 is also conducting classes in its special line of work.

MAJOR CHRISTIE RETURNS FROM JAPAN.

Major Arthur R. Christie, who until recently was on duty as Assistant Military Attache at Tokyo, Japan, was a recent visitor at Crissy Field, Presidio of

San Francisco, Calif. Major Christie, in company with Lieut. W.R. Sweeley, made a number of flights around the field, the Major evidently losing little time in getting his hand in at the stick after such a long voyage across the Pacific.

AIRSHIP BOMBS MOUND CITY

The above heading may sound alarming, but as a matter of fact the fair city of St. Louis was only bombed with literature, the Airship A-4 from Scott Field, Belleville, Ill., with Colonel C. G. Hall, Major Pagelow and Lieut. Anderson on board, flying over the city recently and scattering printed matter for the Automobile Safety League. This was the first trip of the A-4 to St. Louis, and its appearance over the city at an altitude of about 1,000 feet caused considerable excitement and commotion in the streets. The A-4 is being used to schedule student flights for the student officers and cadets in the Balloon and Airship School.

AIR SERVICE COOPERATES IN COUNTY FAIR.

Cumberland County, that body of land lying around Fayetteville, N.C. and Fort Bragg, staged between the dates of October 23rd and 26th one of the greatest fairs in her history. Fort Bragg and Pope Field did everything possible to cooperate with Fayetteville to make the event a success. Pope Field displayed about everything used on a flying field, and an experienced mechanic was stationed with the exhibit to answer all questions. Other features such as aerial maneuvers, stunting and formation flying, aerial gunnery, etc., contributed to the success of the Fair.

LANDING ON A GOLF COURSE.

Those who have ever flown over North Carolina will sympathize with Lieut. E.P. Gaines, who at about dark one evening recently threw a connecting rod while he was returning from Charlotte. Landing lights were out on the home field at Fort Bragg, but when he had not returned by seven o'clock, considerable uneasiness began to be felt. This was relieved when at about eight o'clock Lieut. Gaines phoned in that he had effected a landing on the Golf Course at Pinehurst. The motor had to be replaced before the ship could be flown back to Pope Field.

AIR SERVICE PILOTS PAY LAST RESPECTS TO LIEUT. MAYNARD.

During the funeral of the late Lieut. Belvin W. Maynard, termed the "Flying Parson", which took place at his home, about 50 miles from Pope Field, two officers of the Army Air Service, Major Goolrick and Lieut. Watson, piloted planes over the grave and dropped flowers thereon. The ceremony was very impressive, and about 3,000 persons were in attendance. Lieut. Maynard was killed in an airplane accident while making an exhibition flight at Rutland, Vermont.

AIR SERVICE AFFECTS ECONOMY IN TRANSPORTATION

A report received from the Aberdeen Proving Grounds is to the effect that the enlisted strength of the 18th Airship Company at that station has been raised by the transfer of 45 men from Langley Field, all of whom have not yet arrived. These men are being transported by airplane from Langley Field.

BORDER TO BORDER NON-STOP FLIGHT POSTPONED

Lieut. Leland S. Andrews, who had contemplated making a non-stop flight from the Mexican to the Canadian border in the plane piloted by Lieut. Doolittle on his recent transcontinental flight, was recently discharged from the Base Hospital at Fort Sam Houston, Texas. He is very much disappointed in having to postpone his border to border trip, but must bow to the will of the Flight Surgeon, who is of the opinion that Lt. Andrews' physical condition is not such as to warrant his making the attempt just at this time.

NAVAL OFFICERS HAVE THRILLING EXPERIENCE.

Clinging to the tail surfaces of their rapidly sinking plane until they were rescued by a tug was the thrilling experience recently of two Naval officers on the day the Navy flyers made their final preparations to shove off for their landing field at San Pablo, Calif., there to join the rest of the Fleet Air Force. The planes were all warmed up, and Lieut. Commander N. R. McComb, the senior officer of the flight, with Lieut. James E. Lowry as passenger, hopped off, followed by three other planes of the flight. Commander McComb had just passed the outer edge of Crissy Field, Presidio of San Francisco, Calif., and was over the Bay when his motor suddenly choked, rendering the Commander and his passenger in a more or less helpless position. Needless to say, every possible effort was made to bring the plane back to Crissy, but without avail, and the Commander found himself well placed in San Francisco Bay and traveling at no slow pace north to the Golden Gate. Upon landing in the Bay, which was successful, much to the surprise of all who witnessed it the DH rapidly began to sink. The two officers soon found themselves clambering for the tail surfaces and remained there until picked up by a tug owned by the Shell Oil Company. In the meantime, the Crissy Field boat, maintained for such occasions, put out, as well as members of the U.S. Coast Guard, also located at Crissy Field, and a number of other boats in the harbor that witnessed the accident. A rope was soon made fast to the plane, and after the Navy men boarded the rescue boat the plane was towed to the beach adjacent to Crissy Field and there salvaged by its personnel.

Considerable comment from the Navy men was evidenced shortly following the accident, and many condemned Lieut. Hasselman, a member of the party, who, it was said, had packed around a black cat a few days previous. Once ashore, Commander McComb and his passenger were congratulated upon their escape and were quickly whisked to the Officers' Club at Crissy Field, and there cared for in the proper manner, the Medical Corps supplying the first rites in the way of a stimulant.

GENERAL PERSHING INSPECTS KELLY FIELD

The 43rd Squadron (School) did some exceptionally good flying for General Pershing and his Staff, who were at Kelly Field recently for the purpose of making an inspection of the troops and flying. Two 5-ship formations of SE5's circled around the field for about 10 minutes, passed in review, and then broke, performing all sorts of acrobatics around the reviewing stand. Pilots of the 90th Squadron (Attack), the 13th Squadron (Attack) and the 8th Squadron (Attack) also participated in the aerial review. The 13th Squadron sent up four XB1A's for the event.

DESTRUCTION OF THE AIRSHIP C-2

The following report was received from Brooks Field, San Antonio, Texas, on the untimely end of the Airship C-2, which had made a successful flight across the continent, and which had made a stop at Brooks Field en route to its home station:

"The Army dirigible C-2 was destroyed by wind and fire while being maneuvered from its hangar at Brooks Field, San Antonio, Texas, on the morning of October 17, 1922, about 9:15 a.m. The C-2 broke away from the maneuvering party, such breaking away being caused primarily by a strong gust of wind blowing across hangar, resulting in the tearing out of the forward patch, carrying with it a portion of the envelope. This, followed by the failure of the second handling guy on the windward side, due to the parting of the line itself, permitted the ship to be blown into the steel frame work of the west hangar door. As the ship struck the door, the car parted just forward of the motor outrigger, causing the rupture of the gasoline tanks. The envelope was also torn and broken when it struck against the hangar door, and immediately began to deflate. About 15 seconds after the crash and about the time the envelope was half deflated, fire broke out, completely destroying the ship. The crew of the ill-fated ship consisted of Major H.A. Strauss, A.S.; 1st Lieut. O. A. Anderson, A.S., and Technical Sergeant A.D. Albrecht, A.S. Major Strauss sustained a wrenched ankle, and Sergeant Albrecht's right ankle was sprained. Lieut. Anderson was uninjured. The passengers of the C-2 at the time of the accident were Major J. M. Thompson, Cavalry; Captain J.G. Montague, Infantry; Capt. N.M. Walker, Infantry, and the following bona fide members of the press: Ben Baines, O.T. Holden, N. Alexander,

N.G. Naranjo and C.D. Wasson. Major Thompson sustained a broken arm; Mr. Baines a broken arm, Mr. Naranjo a fractured knee. A board, consisting of Lieut. Col. Arthur G. Fisher, A.S., Capt. George W. McEntire, A.S., and 1st Lieut. Don L. Hutchins, A.S., was immediately appointed to investigate the circumstances surrounding the accident. The board found that all due precautions had been taken, that the accident was unavoidable, due to the fault and neglect of no one, and recommended that no one be held for this accident.

ARMY PILOTS PARTICIPATE IN AMERICAN LEGION CONVENTION

Three DH4B airplanes, with Major Bock, Captain Woolsey and Captain Rust as pilots, and Lieuts. McMullen, Umstead and McClellan as passengers, left Brooks Field to attend the American Legion Convention at New Orleans. A stop for lunch was made at Ellington Field, after which all hands proceeded merrily on their way, two of the ships arriving at New Orleans at 4:30 p.m. The third ship, a Bluebird Special, with Captain Rust and Lieut. McMullen, had ignition trouble and was forced down in a small field, some 30 miles from New Orleans, from whence, by application of various modes of travel, such as pedal extremities, steaming Lizzie's and bicycles, these two lost no time in rejoining their comrades on Canal Street. The Brooks Field delegation, together with the Kelly Field flyers, flew formation over the big parade. They also made many miscellaneous flights, taking up prominent Legionnaires and authorized newspaper correspondents and photographers. The Brooks Field flyers have unanimously and voluminously reported upon the meet, and are lauding New Orleans and the Legion for the wonderful hospitality shown. Further, the mutual good will that already existed between the Legion and the Air Service has been strengthened by this kindly official visit.

SQUADRON NEWS.

Kelly Field, San Antonio, Texas, Oct. 7, 1922

Sometime ago a certain member of Air Park No. 13, having made a close study of the "well dressed man" column appearing in one of the local papers and having added several original ideas of his own, presented himself at the place of business of a local photographer. Photography has its limitations. While the result was somewhat startling, the camera could not do justice to the diamond rattlesnake skin necktie nor the incendiary silk shirt. This Beau was not in the throes of delirium tremens, nor was he planning to attend a fancy dress ball as a sunset or a railway accident. He was serious and there was method in what he did. After the shuddering picture machine had done its feeble best, he took one of the prints and, together with an open letter, sent it to a Dallas paper. In the letter he told of his loneliness and the stern, harsh life of a soldier -- as if anyone with imagination to achieve a costume like that could be lonely. Also, he spoke highly of his own qualifications, stating that while at present he was masquerading as a soldier in Uncle Sam's Air Service, in reality he was a Peruvian Prince in disguise and that when he found a suitable maiden of considerable beauty and sufficient virtue, it was his intention to make proposals of a serious nature. Aspiring ones were invited to write. Not the least surprising part of the entire affair is that the wrens fell for it. This heartbreaker in the Fourth-of-July clothes is receiving letters of application at the rate of about two sacks full per day. If business continues to improve, it will shortly be necessary to appoint at least one additional mail orderly.

CADET DETACHMENT:- A subtle, yet marked, change has suddenly come over the Cadet Detachment. Somehow an impression of incompleteness fills the air. To one not closely acquainted with Cadet doings, this may seem hard to account for, - but to anyone who chanced around the barracks at 12:30 P.M., Friday, October 6th, the mystery ceases to be mysterious. The occasion was the great shave. One and all, the loyal members of the Mutual Mentors of America, Un-Ltd., a cadet organization founded two months ago for the cultivation of a high grade of spinach, repaired themselves to their Gillettes, Ever-Readys and straight edges and mercilessly whacked off the numerous labial decorations that have been adding so much to the distinguished appearance of our organization. The contract, signed by practically all cadets two months ago, expired at high noon on the above mentioned Friday. After an orgy of picture taking, the various effulvia were cruelly severed from their roots - and now the cadets again look civilized.

This week finally sees the end of basic course ground school. Tactics and Technique of the Separate Arms, under Major Knerr; and Staff Duties, under Captain Skemp, Lieutenant Carrol and Lieutenant Beverley, will be completed Saturday, after which we all take up our specialized training in our various branches. Naturally, all are elated over the prospect. Certain parts of ground school were interesting, however; notably the lecture by Major Brereton on the military value of Air Service and Captain Skemp's talk on the duties of the Adjutant, - but, on the whole, no tears will be shed over the timely demise of basic instruction.

Trapshooting has been the order of the day since the middle of the week. Many sore shoulders bear eloquent evidence of the fact. Although, on the whole, the cadets are inexperienced in this form of sport, nevertheless some good scores were turned in. Cadet Sugg knocked 23 pigeons from the air, out of a possible 25, while Newstron, who had never shot traps before, downed 19. All are eagerly awaiting further opportunity to display their skill in this sport.

AIR PARK No. 13:- Captain V. L. Burge, formerly commanding officer of this organization, accompanied by Staff Sergeant G. J. Cleverley, made a flight to Post Field. They took off at 12:15 October 3rd, were forced to land both at Waco and Mineral Wells on account of engine trouble, and arrived at Post Field on the morning of the 4th. The return was begun the following day, but being again forced down at Waco, they did not reach Kelly Field until the afternoon of the 5th.

Lieut. G. H. Beverley, Supply Officer, accompanied by First Sergeant Walter S. Johnson, made a flight to Laredo and return on October 1st.

Staff Sergeant Chester F. Colby, of this organization returned to duty on October 4th, having completed an extended flight as passenger with Lieut. J. J. O'Connell. They left Kelly Field on September 15th and during the trip landed at the following places: Post Field, Okla.; Springfield, Mo.; Belleville, Ill.; Rushville, Ind.; Dayton, Ohio; Moundsville, W.Va.; Washington, D.C.; New York, N.Y.;

Bellfonte, Pa.; Cleveland, Ohio; Mt. Clemens, Mich.; Rantoul, Ill.; Belleville, Ill. Tulsa, Okla.; Post Field, Okla.; Dallas, Tex.; and back to Kelly Field. No trouble of any consequence was experienced on the trip.

43rd SQUADRON (SCHOOL):- First Lieut. Lloyd C. Blackburn returned to the group from a 30-day leave of absence, and is now assigned to the 43rd Squadron. 1st Lieut Paul T. Wagner returned to duty after a 3 months' leave.

The organization has received 10 Spad XIII from the S.A.A.I.D. during the month, and the student class will be turned loose on them the coming week. In anticipation of this a good supply of tail skids have been ordered.

Captain Baucom is taking a week-end cross-country to Brenham, Texas, while the students will go to Austin for their first week-end cross-country. These trips will combine training and pleasure as the V of T football team has a game in Austin Saturday, and if the students take their cross-countries on week ends it leaves the week days open for bombing, formation, combat, etc.

41st SQUADRON (SCHOOL):- Captain Reynolds, with Sergeant Hobson as mechanic, took off Saturday for El Paso, returning Sunday without mishap.

First Lieut. H. T. McCormick, with Lieut. Zellner as passenger, took off Saturday, September 30th, for Ellington Field and returned Sunday.

THIRD GROUP (ATTACK)

GROUP HEADQUARTERS (ATTACK):- Lieut. Colonel Seth W. Cook, Commanding the 3rd Group (Attack), made a cross-country flight to El Paso, Texas and return, leaving Kelly Field September 30th, and returning October 3rd.

Lieut. J. J. O'Connell, of the 8th Squadron, returned from a cross-country to New York. There were no forced landings during the entire trip. Stops were made at Bolling Field, McCook Field, Scott Field, Springfield Mo.; Tulsa, Okla.; and Post Field.

NINETIETH SQUADRON (ATTACK):- Captain Berman, the Post Adjutant, made several flights in airplanes from this organization, one being a cross-country to Ellington Field, from whence he returned the following day. From personal conversation he appeared to be more than satisfied with the ship he had flown, and has decided to do all his flying from the 90th Squadron.

Lieut. Moor and Sergeant Glendy made a flight to Oklahoma City on Oct. 5th.

From all appearances the Squadron insignia lived up to its reputation as the "Flying Crapshooters", as several boys left for a short furlough at the sad expense of Sergeant Barensky. Nevertheless, everybody won something, and all the boys of the organization thanked the Sergeant. It is now a puzzle as to who lost, but we have formed the opinion that the big party is on the 13th Squadron, who gave us an unexpected visit and soon left, less the amount they came with.

TWENTY-SIXTH SQUADRON (ATTACK):- First Lieut. J. E. Duke, Jr. made a cross-country trip to Kerrville, Texas, October 3rd, with Staff Sergeant Bills as passenger. The return trip was made on October 4th. The 2-hour trip was made without difficulty.

Lieut. Douglas made a cross country trip to El Paso, Texas, on September 25th, with Corporal Garner as passenger. On the return trip the ship crashed at Hondo, Texas. The cause of the crash was due to the burning off of the exhaust pipe, which flew back in Lieut. Douglas' face and blinded him in such a way that he was unable to see the ground on which he tried to land. No serious injury resulted to either occupant, but both suffered from slight burns and bruises. On September 28th, the wrecking crew of the Air Park left for Hondo, Texas and brought back the motor of this ship.

The 8th Squadron (Attack) returned the 110 gallon ship which they had borrowed to make a cross-country flight to North Dakota. The ship performed in an excellent manner on the trip, and Lieut Crocker, the pilot, praised the ship very much. No trouble was encountered and the flight was successful.

The hangars of this organization have been undergoing repairs for some time and are almost completed. The ends of the large sliding doors had become broken and were almost impossible to open. It is now a pleasure to open and close them, in comparison to the way they had been.

In view of the coming inspection by the Corps Area Commander, the transportation of this Squadron has been gone over thoroughly and is being cleaned, repaired and painted. Trucks belonging to the Squadron were brought to the hangars daily for a thorough inspection and cleaning.

THIRTEENTH SQUADRON (ATTACK):- Very little flying was done last week, the Engineering Department being busily engaged getting the squadron transportation in shape for the general inspection to be held shortly.

Lieut. Wheeler, with Master Sergeant Wiseman, made a cross-country flight to Kerrville, Texas, Wednesday, to carry spare parts and oil to a plane which had a forced landing there.

The foot-ball season is under way at Kelly Field and, from the results of the first game which was played Wednesday afternoon, we are of the opinion that the team will be hard to beat. In the game with the strong Brooks Field team neither team was able to score a point.

EIGHTH SQUADRON (ATTACK):- Lieut. Crocker returned from a cross-country trip to Fargo, N.D. He left on September 15th, returning the 29th. Approximately 2,300 miles were covered in 2185 minutes flying time. The flight was for the purpose of studying air currents, terrain and chart landing fields on this airway, and the only mishap was the breaking of a shock absorber on the return trip.

Lieut. Edgar T. Selzer returned from a thirty day leave of absence. He visited St. Louis, Little Rock and Del Rio.

Lieut. Skanse made a cross-country trip to La Grange, Texas, and return one day last week. He also made a flight to McAllen and return to check up on the air-drome and see that everything was going smoothly.

We have completed the job of placing cement curb stones around the hangars assigned to the organization. This makes everything line up and pleasing to the eye.

AIR PARK No. 5 (ATTACK):- The flying time for this organization was again curtailed this week, there being no ships in commission. However, a new motor has been installed in our remaining ship, and it will be flying again soon.

The Air Park was out pitching tents every morning, during last week. They have become quite proficient at it, showing a marked improvement each day in speed and correctness.

Kelly Field, San Antonio, Texas Oct. 14th.

NINETIETH SQUADRON (ATTACK):- Aerial activities for the week consisted of formation flying in preparation of the visit of General Mitchell within the month or so. Several of the officers from Post and Group Headquarters have been flying in the formations. These officers will pilot the same ships in review formation during the General's visit.

Captain Berman, the Post Adjutant with Corporal Logan as Mechanic, made a cross-country flight to Ellington Field and return.

TWENTY-SIXTH SQUADRON (ATTACK):- Lieut. Clark of this organization made a cross-country flight to Kerrville, Texas on Sunday, October 8th, with Lieut. Rich of the 10th Group as passenger. The Kelly Field Football Team played a game with the High School team of that place, which resulted in a tie. The Kelly Team made the trip in planes and trucks.

Lieut. Holland with Sergeant Schenck of the 8th Squadron, while on a cross-country flight crashed at the landing field at Kerrville. Upon approaching the landing field, control of the plane was lost and a crash resulted. The gas tank burst and caught on fire, enveloping the plane in flames. Lieut. Holland was seriously injured and would have been burned to death, had it not been for the heroic action of Sergeant Schneck, who dashed into the flames and extricated the Lieutenant, who was taken to the Sector Hospital at Kerrville, and later removed to the Base Hospital at Fort Sam Houston, Texas. He received a broken jaw and severe burns about the arms and legs and face. Latest reports have him improving as well as possible. Sergeant Schneck was seriously burned about the face and hands and received minor injuries to his feet, although in this condition he insisted on playing game. Sergeant Schneck proved himself a hero and is deserving of the highest praise for his noble deed on that occasion. He is a man who has always been liked and respected by all who came in contact with him. Although not a member of this organization, the squadron to a man would be proud to have him as a member.

Sergeant Schenck, after spending three or four days in the hospital returned to duty with a burned face and hands and a sprained ankle. Lieut. Holland owes his presence here to-day to the cool headed action and quick thinking of Sergeant Schenck.

On Monday, October 9, in accordance with the President's proclamation, Fire Prevention Day was observed at Kelly Field. A demonstration, given by the Military Fire Department of the Field, was observed by the entire Command. The Fire Marshal Lieut. James E. Duke, Jr., gave a lecture on fire prevention and the methods to be used.

THIRTEENTH SQUADRON (ATTACK):- Lieut. Wheeler, with Corporal McKinney, made a cross-country to Dallas, Texas, leaving October 6th, and returning October 8th.

Formation flying for the purpose of practice is being carried on daily by all officers of the squadron.

The Squadron is busy these days getting ready for the general inspection. All bunks have been painted and the barracks generally put in shape. Infantry Drill each morning is also being carried on.

A meeting of the enlisted men of the organization was called Tuesday for the purpose of appointing a committee to purchase magazines and fixtures for the squadron recreation room. Master Sergeant Bryant, Technical Sergeant Granger, and Private Meyers of Group Headquarters, were elected members of the committee.

EIGHT SQUADRON (ATTACK):- A very successful cross-country trip to New York was completed by Lieut. J. J. O'Connell recently. Upon Lieut. O'Connell's return, it was found that the 8th had too many officers, so he was transferred to the 26th Squadron (Attack).

Orders have been received by Lieut. Skanse, our old Commanding Officer, to report to McCook Field by October 20th, on temporary duty for a short course of Engine and Airplane Maintenance. The organization will look forward to his return.

Considerable three-ship formation practise was held last week, also the combining of the three planes into larger formations.

AIR PARK No. 5 (ATTACK):- Lieut. Larson made a cross-country trip to Laredo, Texas on October 7th, returning on October 8th. On the 9th, Lieut. Woodruff flew to Kerrville and brought back Lieut. Holland who was seriously injured when his ship crashed the day previous at that place.

On the 11th, Lieut. Clement, Jr., made a cross-country trip to Del Rio, Texas, carrying Lieut. Douglas there in order to ferry back a ship left at the Del Rio Airdrome some weeks previous by Lieut. Douglas, due to motor trouble.

FORTY-SECOND SQUADRON:- Through an unfortunate accident, one of the ships assigned to this organization was crashed at Post Field, Oklahoma while on a return trip to Kelly Field. Fortunately, neither pilot nor mechanic received any injuries. The 44th Squadron at Post Field was kind enough to furnish a ship for the return trip.

FORTY-FIRST SQUADRON:- A total of 89 hours and 20 minutes were flown by officers assigned to this Squadron, student officers and flying cadets during the week ending October 12th.

PHOTO SECTION No. 22:- Captain Giffin, with Staff Sergeant Ward, made a cross-country to Houston, Wednesday, returning Thursday evening. Sergeant Ward made some obliques of Camp Logan.

The Photo Section has a new addition to its personnel in the transfer of Private Petru Nanu from the 43rd Squadron (School). Private Nanu is a very good photographic man, having been a lieutenant in the Photographic Section of the French Army Air Service during the World War.

FORTY-THIRD SQUADRON:- The students have finished the basic course and have been turned over to the various branches for specialized training. The week was devoted to reconnaissance missions and sketching, with short bombing trips and a little combat with camera guns for variety.

Beginning Monday, the class will be transferred to Spads and all future work will be in these. Two of the SE's will be used for the permanent personnel of the group, and the others will be overhauled in preparation for the bombardment and observation students.

FORTIETH SQUADRON:- Training and operations were carried on the past week with twelve ships in commission, and without accidents.

The students' training course consisted mainly of Formation Flying and Instructions.

Cross-country flights were successfully made by Lieut. W.A. Frederick and Staff Sgt. Colby in one ship and Lieut. Dwight J. Canfield with Master. Sgt. J. Grant as mechanic in another ship to Waco, Texas and return.

Crissy Field, Presidio of San Francisco, Cal., Oct. 18th

A "so-long" party was tendered Major and Mrs. Arnold at the Crissy Field Officers' Club prior to their departure for Rockwell Field, where Major Arnold will take command in the immediate future. Dinner was served from prettily decorated tables. A clever color motif was also carried out in the dining room and hall decorations. Through the air floated a number of model planes suspended from balloons which, later in the evening, were brought to ground by innocently tossed cigarets, which spoke for themselves when coming in contact with the hydrogen gas. During the course of the dinner a number of impromptu speeches were made, in which Crissy Field manifested its regret over the departure of our former Corps Area Air Officer. It is needless to say that Major Arnold ably responded. However, a brief chronological history as given by his father, Dr. H. A. Arnold, served to further impress those who have had previous contact with Major Arnold and were present at this party.

In further appreciation of the esteem in which Major and Mrs. Arnold are held throughout the Corps Area among the Air Service officers and ladies, a gift was presented to Mrs. Arnold. During the evening a number of telegrams were received from officers at other fields expressing regret because of their inability to be present. After dinner the party repaired to the Presidio Officers' Club where dancing was enjoyed to a late hour.

Lieut. H. A. Halvenson, who has been on temporary duty as officer in charge of the Air Service Rest Camp at Blairsden, California, returned to Crissy Field the past week. He states that his last days at the Rest Camp were ones of considerable excitement and work. During the time they were breaking camp a snow storm came up and made the task difficult.

On October 12th, a Navy DH-4-B landed at Crissy Field, piloted by Lieut. Commander McComb, carrying as passenger Mr. J. M. Jackson en route to New Orleans, where they are to act in the capacity as representatives to the American Legion Convention. During their stay at Crissy they were entertained at the Crissy Field Officers' Club and on the following morning prepared to make their get-away for the south. As an escort, Major George H. Brett, Commanding Officer of Crissy Field and Lieutenant Emil C. Kiel, accompanied Lieut. Commander McComb and Mr. Jackson some hundred miles distant from the field. Later a telegram was received from Capt. H. V. Butler, Commander, Aircraft Squadron Battle Fleet, Pacific Fleet, reads as follows:

"Lieut. Commander McComb and J. M. Jackson arrived San Diego seven thirty stop The assistance and services rendered by your command are greatly appreciated."

On October 11 a formation accompanied the S.S. "Harvard" which sailed for San Diego, carrying among its passengers our former Corps Area Air Officer, Major H. H. Arnold. It was later stated that Major Arnold was visible from the airplanes on the bow of the promenade deck and continuously waved to the formation hovering above.

Lieutenants Walter Miller, Leo F. Post and J. W. Benton made a cross-country flight to Mather Field for the purpose of selecting and segregating supplies which would be of service at Crissy Field, - this on account of the abandonment of Mather Field.

Capt. J. P. Beeson, our new flight surgeon, received a re-breather unit which he intends to set up in the immediate future and states that all Air Service Officers and pilots at this field whose 609 records are not complete, will be required to take the familiar re-breather examination.

Garrison school starts on Monday, October 16 with Capt. J. W. Signer as officer in charge. The first class will be on the Manual of Interior Guard Duty and the other allied subjects will follow.

Due to the recent out in the appropriation of gasoline allowed to Crissy Field for transportation purposes, a number of the personnel are contemplating the purchase of bicycles, and those who are blessed with the salt of the land will no doubt use their own automobiles for official business, while not a few will be compelled to deliver their shoes to the cobbler's more often.

Capt. Beeson as passenger and Lieut. Dallas as pilot, made a cross country flight to Mather Field.

On Saturday afternoon, October 7, the Corps Area Commander, General C.G. Morton, reviewed all the military troops stationed in this vicinity. The Air Service stationed at Crissy Field staged a formation over the parade ground while the ground troops of other arms were being reviewed. A number of the dough boys were later

heard to say that, had they known the Air Service were going to participate, they would not have taken the trouble to shine their shoes, as most of the eyes were trained toward the sky.

Aberdeen Proving Grounds, Md., Oct. 24.

Extensive bombing programs are being carried out for the Ordnance Department. These programs call for the use of all available equipment at the station, and afford continuous training for pilots and bombers.

Lt. Shankle left on the 20th for Fairfield to ferry a Fokker to this station. Upon his return, Lt. Phillips will proceed to Fairfield to ferry over another Fokker now at Fairfield.

We have been directed to send a pilot to Fort Sill to ferry to this station, a D H hospital plane. There is much unrest now until orders are issued naming the pilot, as several pilots are anxious for the trip.

Lt. Melville recently took delivery of the "Owl" at Mitchel Field and flew it here, then to Washington for inspection by the Chief of Air Service, then back to this station. He then took an old M B 1, Mail type, our entrant to the Detroit Races, finishing second. He returned here on the 18th, only to find orders directing him to Langley Field for temporary duty. He left for that station on the 21st. Lieut. Melville is our Adjutant, but we have seen little of him in the past two months, he having been on temporary at Mitchel Field, in connection with tests of the "Owl", then at Selfridge Field in connection with the races, and now at Langley Field in connection with a bombing program. We hope to have him "home" for a time upon completion at Langley.

Lt. George left on the 23rd for temporary duty at Langley Field in connection with a bombing project. Lt. George has been doing practically all the work on Model Airways from this station, assisted by Lt. Shankle. This, together with flying the Handley-Page on routine bombing work, and his duties as Engineering Officer, has kept him pretty busy.

Captains Hough and Mileau left here in our U.S.D.9 A for the Detroit Races, but, unfortunately, damaged a wing on landing at Moundville. They proceeded by rail to Detroit and returned in an M B 1 with Lt. Melville.

Lt. Bleakley is kept extremely busy, being Post Exchange Officer, Operations Officer, and, during the absence of Lt. George, Engineering Officer. He also does much flying on Martins and D H's on routine bombing work.

Lt. Graybeal is still on leave, being due to return on December 8th. He is much missed as he is one of our Handley and Martin Pilots of no poor merit.

Captain Kepner of the 18th Airship Company has been commanding the Air Service Troops during the absence of Major Pirie, and with his duties as company commander and pilot of the D-3 has been kept very busy, as the D-3 was used on bombing work whenever the weather permitted.

Lt. Parris is now on leave for three months, going to the Pacific coast via the canal.

Lt. Moyer, on temporary duty in the office of the Chief of Air Service, has been ordered to Akron, Ohio, for duty as inspector at the plant of the Goodyear Tire and Rubber Company.

The enlisted strength of the 49th Squadron increases very slowly, as enlistments do little more than balance discharges. Two specialists have been transferred from Chanute Field, and the transfer of more men from that Field is expected in the near future. A radio operator from the 88th Squadron at Godman Field, has also been transferred to this station.

Pope Field, Fort Bragg, N.C., Oct. 18.

Pope Field recently had a visitor who refused to be "company", and actually worked during his stay. This was Lieut. Frederick M. Hopkins, Jr., just returned with his family from the Rhineland after a prolonged vacation. Mrs. Hopkins was formerly Miss Henrietta Marsh, of Fayetteville. It was not that Fayetteville did not afford enough interest, but that Pope Field offered more, that the Lieutenant did duty here for over thirty days during August and September. Lieut. and Mrs. Hopkins' attractive personalities have made hosts of friends for them throughout the Air Service.

One of Lieutenant Hopkin's feats while here was to conduct a ten-day camping trip for about half the Detachment at Carolina Beach, near Wilmington, N. C. The 125 mile journey was made by truck. Rations and all necessary equipment were carried. A quantity of fishing tackle was obtained in Wilmington, and from the accounts of the catches made, Isaac Walton would be glad to claim the capture of a sardine.

Lieut. L. A. Wallthall has just returned from Kansas where he spent ten days in aerial mapping. He visited Fort Riley, Kansas City, and returned by Chicago. Lt. Wallthall's home is in Kansas, so he must have had a great time flying for the admiring natives who knew him. Lieut. Norman Roddey, Air Service Reserve Corps, of Washington, D. C., an old friend of Cadet days, accompanied Lt. Wallthall. Their total flying time was thirty six hours.

Lieut. and Mrs. Walter T. Meyer are now members of the permanent establishment. Pope Field is fortunate in getting this officer on account of his varied experience in the Air Service. He was trained in Italy and has flown several different makes of Italian and French planes. He was decorated by the Italian Government for meritorious service while serving with their air forces. Lt. Meyer is a graduate of the A. S. Communications School and is in charge of radio here.

The Officers gave a dance to about twenty five couples from Fort Bragg and Fayetteville on Friday evening, October 13th. The music was furnished by a civilian orchestra, the "Original Aces", from Pennsylvania. This was quite a treat in comparison to the usual martial strains by which we dance. At twelve o'clock a buffet lunch was served and at two the musicians jazzed out "Home Sweet Home".

Rockwell Air Intermediate Depot, Coronado, Calif., Oct. 13.

Major Henry H. Arnold, our new Commanding Officer, arrived this week and assumed command.

Warrant Officer Albert Tebo has been ordered to Crissy Field and left for his new station.

The post received a bad blow this week when Captain L. M. Field, M.C., our Flight Surgeon, received orders for Crissy Field. He is the only Flight Surgeon stationed here and his loss will be keenly felt, both in an official and a social way. Captain and Mrs. Field are an extremely charming couple and the officers of the post will certainly miss them. The Fields were host and hostess Thursday evening for the weekly bridge party, and announced that evening that they had received their orders.

Lieut. Virgil Hine, A.S., left for Los Angeles, Calif., and Salt Lake City, Utah, Wednesday, on a thirty day sick leave. Lieut. Webber flew him to Los Angeles.

Mitchel Field, L. I., New York, Oct. 21.

What it is possible to do in the way of the Air Service having a military band is being demonstrated at Mitchel Field. With an authorized garrison of 432 Air Service enlisted men, this station has a Band of twenty pieces which ranks in efficiency with an Infantry or Coast Artillery^{Corps} band. As no provisions are made in the Tables of Organization for a Band, it was necessary to secure the instruments from various different sources. Sheet music and other incidental expenses are paid for from The Post Athletic Fund and care is taken that no expense to the Government is incurred.

Within the Band is an orchestra of ten pieces which supplies the music for the dances at the Officer's Club and the Enlisted Men's Club. For these services the members of the orchestra are paid from club funds. Without competing with civilian bands the Post Band is occasionally engaged to play at civilian celebrations and this also applies to the orchestra in the case of social functions. This duty is performed principally in the evening or on holidays, and does not conflict with any military duty. It provides a source of revenue for the personnel of the Band and stimulates interest in the organization. This is very necessary, as the members of the Band have other duties to perform and the fact that the Band carries a few extra privileges and is a source of some income makes it a desirable detail.

The advantages of a Post Band are many. It is a factor in maintaining a high morale and is a distinct addition to military ceremonies.

Information has been received at Mitchel Field to the effect that the Corps Area Foot Ball Team, now in training at Fort Slocum, New York, will complete its season on November 12th, when the team will be disbanded. Immediately after this date, a foot ball league will be inaugurated in the 2nd Corps Area consisting of twelve teams. The larger stations will be represented by individual teams and the smaller posts will be consolidated in order that each team may be drawn from about the same sized personnel.

Transportation will be furnished by Corps Headquarters and all but the final games will be played at the various post fields. The final games will take place on a neutral field, possibly one of the big base ball stadiums in New York will be used. The entire schedule is to be completed not later than December 16th.

As Mitchel Field is the only Air Service station in the 2nd Corps Area, it rests with that Post to make it an Air Service victory.

Scott Field, Belleville, Ill., Oct. 10.

The Pony Blimp met with an accident last week. It is being repaired and is expected to be flying in about a week. The car was badly damaged, but the bag was practically unhurt. The A-4 bag is being air tested in the new Hangar and will be inflated next week, and it is hoped that it will be flying within two weeks.

The weekly swimming party was discontinued this week, all of the officers attending the Annual Pageant at the Lincoln Theatre, Belleville.

The following officers and ladies of the Post were guests at the Veiled Prophet Ball, St. Louis, Mo., on Tuesday: Colonel and Mrs. Hall, Miss Henrietta Hall, Major and Mrs. Paegelow, Lieuts. Carthy and Farnum.

The weekly ladies bridge party was held at the Club on Thursday afternoon.

Lieut. Kuntz, with a detail of men, attended the Detroit Air Meet, where he operated an observation balloon as pylon.

Lieuts. Macready and Kelly, pilots of the transcontinental airplane T-2, were guests at the Field for two days last week on their way to San Diego.

Officers of Chanute Field who assisted officers of Scott Field in the Aerial Circus, were guests of the officers of the Post at a dance last Friday night.

Clark Field, Pampanga, P. I., Sept. 6.

The 3rd Squadron drew two first places and one second place out of four events entered at Camp Stotsenburg Field Meet held on the 30th of August. The victories were made in tent pitching and stretcher bearing, while the centipede race drew second.

Captain Ivan B. Snell of the 17th Balloon Company reported for duty with 3rd Squadron.

Major Thomas J. Hanley, Jr., Commanding Officer, Kindley Field, Corregidor, was a visitor to the Field and stayed with Major Gilkerson until his return to Manila.

Kindley Field, Fort Mills, P. I., Sept. 5.

The balloon Companies have finally finished the work of demobilization, their property being turned in to the various supply branches and final disposition of records practically completed. Orders have been received disposing of entire personnel. Capt. I. B. Snell has been sent to Clark Field, Capt. Wittman, Lt. York and Lt. Clayton to Camp Nichols and Lieuts. Creighton and McGraw have been assigned to the Second Squadron and will remain at Kindley Field.

The enlisted men have been assigned to various heavier than air organizations within the Department and have all been placed on detached service with the 11th Air Park at Camp Nichols.

Recent transfers of official personnel necessitated a readjustment in duties of several officers. Capt. Edwards has assumed command of the 2nd Squadron and Kindley Field during the absence of Major Hanley on detached service in Manila. Lieut. F.D. Lynch has been assigned as Squadron and Field adjutant during the absence of Lt. R. L. Owens who is in Sternberg General Hospital for treatment. Lt. R. A. Hicks has been detached as Armament Officer vice Lieut. Gabriel, who is also at the Sternburg Hospital in Manila.

Camp Nichols, Rizal, P. I., Sept. 7.

Inventory of Air Service property has been completed. For the past three weeks, the energies of the entire personnel at Camp Nichols have been directed toward the completion of this work. This necessarily divided the time that would ordinarily have been placed on the erection of hangars and warehouses at Camp Nichols.

On Friday all the Officers of this station were examined in Manual for Courts Martials. The writer's sympathies however, are more with the Commanding Officer, upon whom falls the delectable job of correcting and marking the examinations. This no doubt explains the reason for the special requisition for Reference Books that was rushed thru Post Headquarters a short time ago.

A despedida was given by the Officers and Enlisted men who are doomed to remain here for sometime, to the Enlisted men who are returning to the United States on the U.S.A.T. "Thomas". "Refreshments" were plentiful and a "happy" occasion was had by all.

First Lieutenants Lawton, Glascock, and Nutt motored to Baguio for the week-end.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE December 9, 1922.

THE NON-STOP FLIGHT OF THE TRANSPORT T-2

The attempted non-stop flight of Lieuts. Kelly and Macready, of the Army Air Service, from San Diego, Calif., to New York which, to the keen regret of everyone interested, abruptly terminated at Fort Benjamin Harrison, Ind., some 800 miles short of their objective, may truly be termed "The Great Adventure" for these two airmen, and the experiences which they passed through are such as are calculated to live forever in their memory.

The newspapers following the day of their flight set forth in big headlines the fact that soup and coffee were poured into the radiator of the engine to replenish the water supply, which was fast leaking out due to a cracked cylinder jacket, and to prevent the overheated engine from catching fire. This sounded rather humorous, and one might imagine that this was the outstanding incident of the flight. It was only after reading the official report of these two Army pilots that we realized what their actual experiences were during their 27 hours' flight. The story of their adventures on the first day of their flight, especially when darkness overtook them, is of gripping interest, and arouses in the mind of the reader all sorts of wild fancies as to what might have occurred had not Dame Fortune blessed these two intrepid airmen.

We must bear in mind that the T-2 was very heavily loaded with gasoline and oil sufficient for the entire flight. This, of course, tended to diminish her ceiling. With this heavy load she was flying over a long stretch of high country which was at an elevation of some 5,000 feet above sea level. Picture to yourself flying at an altitude of some 40 or 50 feet from the ground, unable to get your plane to rise any higher and faced with the prospect of encountering higher ground as you went along and with the possibility of dashing your plane into the upward sloping ground. The navigating ability of these two officers is certainly to be commended. At this particular stage of the journey they had to maneuver around for some forty minutes to lose a sufficient amount of gasoline so as to lighten the plane in order to negotiate a high summit. They missed cactus and shrubbery by a small margin and barely managed to get over a large mound. On several occasions when nearing certain high elevations and when it appeared certain that they would be unable to gain enough altitude to go over them, upward currents of air came to their rescue and tended to lift their plane sufficiently to clear the top of same.

It was at nightfall that the strain and anxiety of the two airmen were taxed to the limit. Clouds obscured the moon, total darkness prevailed, and the flight was so low that there was always a possibility of striking some trees or farm houses. Rain and heavy mist caused them no little annoyance. They tried to follow the railroad tracks and lost them several times, forcing them to rely entirely on their compass and to estimate the amount of drift in their flight as best they could. It will be noted from their report that they missed a tornado which swept over Oklahoma and Kansas early in the morning of November 4th, but that they encountered the surrounding bad weather.

All in all, the pilots had an exciting time of it and it was, indeed, unfortunate that a mechanical breakage prevented them from realizing their ambition of a coast to coast non-stop flight. There should be consolation for them, however, in the thought that they broke the existing record for distance flight in an airplane. Far from being discouraged over the failure of their second attempt, Lieuts. Kelly and Macready have requested the authority of the Chief of Air Service to again attempt the transcontinental non-stop flight with the Air Service Transport T-2. It is their belief that this flight is possible, and that the failure of their last attempt, due to a cracked water jacket, was something which could not previously be guarded against. They state that with the knowledge in existence before the flight, no precautions could be taken to guard against this trouble, and while they did not succeed in making the transcontinental non-stop flight, they

have gained an experience which, barring mechanical breakage, should insure success in the next attempt. With the information now at hand, they are of the opinion that the most logical direction for the next flight would be from east to west.

The official report of Lieuts. Kelly and Macready covering the above flight is given below; as follows:

On landing from the endurance flight on October 6th, it was hoped by the pilots that a second transcontinental attempt could be made within the ensuing few days, in order to take advantage of the moonlight then existing, but maintenance troubles and bad weather made this impossible.

After October 10th there was practically no moon. Had all weather conditions and winds been ideal, the pilots would have attempted flight during this period of total darkness, as the extreme cold of winter was approaching. Flying would then be more uncertain and hazardous. All was in readiness to start on short notice; in fact, two starts were anticipated during this time, and the airplane was brought out at night to the end of the runway with the expectation of a take-off in the morning, but later weather reports were unfavorable and it did not appear good judgment to leave under the bad conditions.

Close cooperation with the Weather Bureau at San Diego was obtained throughout this period. Two reports were obtained from this source daily, both local and general, and when the weather appeared to be shaping itself toward the possibility of a start, a telegram was sent to the Chief of the Weather Bureau requesting daily forecasts from Washington. These Washington forecasts arrived in the morning at 7 a.m. and in the evening about 8:30 p.m. A combination of the two forecast sources formed the basis for decision.

Previous to October 28th there was no period when all weather conditions were ideal, although sufficiently favorable at times to have warranted a start had moonlight prevailed.

The moon became noticeable about October 28th, and from this date the forecasts were watched very closely. However, the weather at this period was extremely unfavorable throughout the entire route, making a start impracticable.

When the transcontinental flight was first contemplated the prospective pilots had conferred with the Chief of the Weather Bureau at Washington to ascertain what simultaneous weather conditions might be expected over such a large area, receive information and data regarding the speed and direction of prevailing winds and get expert advice respecting the most logical point of start, whether on the East coast or on the West coast. Weather maps over a period of years showed an average wind velocity from west to east during the month of October at 22.5 m.p.h. Taking this fact into consideration, the Chief of the Weather Bureau unhesitatingly recommended that the start be made from the west coast and that the direction of the flight be toward the east.

A practical study of weather conditions during the period of waiting in San Diego disclosed the fact that a very important feature had been overlooked. It was very true that an average wind velocity from west to east of 22.5 m.p.h. prevailed during the month of October, but other unfavorable elements were combined with this factor entirely obliterating its value as a beneficial agent.

Winds blow in to fill up an area of low pressure and blow out from an area of high pressure, although the winds blowing out from a high pressure area are usually of comparatively low velocity.

An area of low pressure is usually a storm center while an area of high pressure indicates good; clear weather. These areas usually drift with various deflections in a general direction from west to east. Strong winds of great velocity blow into the low pressure area or storm center. A favorable wind for the transcontinental flight would be one blowing into a storm and a head wind would occur with good, clear atmosphere as a result of the high pressure.

Winds blow in a counter clockwise direction about a low pressure area and in a clockwise direction about a high pressure area.

After considerable investigation and study, it was determined that the ideal condition was one where an extreme low pressure area with a tremendous draught behind it had drifted across the continent to a position in the vicinity of New England, with this drift still continuing to the east, another low pressure area to the northeast of the start of the flight and a high pressure area about midway between the two low pressure areas and to the south or below the route of the coast to coast course. This arrangement would give a condition of wind direction similar to the cogs of a wheel, each area tending to wind the winds.

Favoring winds were necessary to insure arrival at the destination. With a slightly favoring wind, in flying to the west a speed of 83 m.p.h. had been

obtained with a gasoline consumption of 24 gallons per hour. The destination along the projected line of flight from San Diego to New York was 2,850 miles. The T-2 had capacity for 725 gallons of gasoline; 30 hours flight at 24 gallons per hour. At the speed attained in flying to the Pacific Coast, a distance of 2,490 miles was possible, 360 miles short of the necessary distance.

The pilots expected to overcome this handicap by a greater gasoline saving and by the help of favorable winds. Had the 22.5 m.p.h. average wind velocity originally relied upon been in actual existence under the right conditions, no difficulty or question would have existed. The logic of waiting for favorable conditions is apparent.

From October 28th to November 2nd weather conditions were unsatisfactory, with indications that there would be no clearing along the route for a period of four or five days.

A report from the Chief Forecaster at Washington on the morning of October 2nd stated that weather conditions would not be propitious for a start within the next 36 hours. In the face of these reports it was not expected that a start would be made the morning of October 3rd.

On the night of October 2nd the San Diego Weather Forecaster, Mr. Dean Blake, brought his maps to the quarters of the pilots in the U. S. Grant Hotel. Indications were for reasonably favorable weather with favoring winds for practically the entire route. At approximately 9 p.m. a report was received from the Chief Forecaster at Washington, as follows:

"Weather conditions propitious for start Friday morning. Saturday conditions will be less favorable."

With the two forecasters agreeing on an almost ideal condition, there was no reason for delay. Lieut. Macready, who was giving an address to the University Club of San Diego, was immediately notified by Lieut. Kelly, who had received the reports, and final preparations for an early start the next morning were begun by the two pilots. It was necessary to gather men and get the huge plane out of the hangar at Rockwell Field in the intervening time between 10 p.m. and daybreak, and check over the airplane and warm up the engine during the night. It was also necessary for the pilots to complete final arrangements, payment of bills, packing, etc., before leaving, making their time of retirement well after midnight. A call was left for 3:30 a.m., permitting approximately three hours' sleep previous to the long trip.

On arrival at Rockwell Field in darkness at 5 a.m., with food and equipment for the trip, it was found that the plane was on the line ready for the start. It was necessary to await sufficient light for the take-off. At 5:57 a.m. the take-off was made with Lieut. Kelly pilot. The total weight of the airplane was 10,850 pounds, approximately 155 pounds more than had been carried on the previous flight.

THE START.

The experience of the original start came in good stead at this time, as the airplane was flown for several miles out to sea in almost a straight course, turning only enough to avoid Point Loma, and when it became necessary to swing back toward the coast the turn was very gradual, and without loss of flying speed. Two complete turns around North Island were made, and the transcontinental non-stop flight from San Diego to New York commended.

The atmosphere was clear in contrast to the previous attempt. The T-2 climbed better than had been anticipated. Temecula pass was negotiated without effort, as were also the higher mountains in the vicinity of San Jacinto and south of Banning, California.

From an altitude of 3,000 feet at Banning, the country slopes down to below sea level at Salton Sea. The T-2 passed the Salton Sea at an elevation of approximately 2,000 feet and instead of going on south through the Imperial Valley to Yuma, a cut-off was made at Niland in an easterly direction to the Colorado River, which was crossed and the course continued to the Gila River. The Gila was partially followed, crossed diagonally, and in a short time the Southern California Railroad was picked up and followed. The pilots changed at the Colorado River.

The proposed route would take the T-2 from Rockwell Field to Banning, Calif., south to the lower end of the Salton Sea, thence southeast to the Southern Pacific R.R., thence through Tucson, Arizona, to Deming, N.M.; northeast to Rincon, N.M.; north to Estancia, N.M.; thence to Santa Rose, N.M.; Tucumcari, N.M.; Dalhart, Texas; Gaymon, Oklahoma; Wichita, Kansas; St. Louis, Mo.; Terre Haute, Ind.; Indianapolis, Ind.; Dayton, Ohio; Columbus, Ohio; Pittsburgh, Pa.; New York, N.Y., and Mitchel Field, Long Island. Certain deflections, which are hereafter noted, were made from this route to meet emergencies.

As the country around Tucson was approached, it became a continuous struggle with the climb at practically the absolute ceiling of the airplane in order to cross over the high passes, mountains, and elevations, the passing of each obstacle being doubtful. The atmosphere was very rough and bumpy, with numerous air currents, which would raise the airplane a hundred feet or more at a time, sometimes possibly two or three hundred, and then let it down quickly even though the same position or angle of climb of the airplane was maintained. It many times appeared that the T-2 would not be able to get over these high areas, but apparently just as the summit was reached, one of the air currents coming over the high elevation would raise the airplane just enough to clear the top.

ARIZONA AND NEW MEXICO.

For long periods the T-2 was flown within 40 or 50 feet of the surface of the ground, more altitude being impossible of attainment. This was especially noticeable in the large plain areas west of Deming, New Mexico, where a terrific wind from the south was blowing, causing the air to be extremely rough and bumpy. Flying under these conditions with such a large and heavy airplane was very fatiguing, as much physical exertion was required.

At Deming an elevation of approximately 5,200 feet was attained. This was the highest that the airplane would go at this point, as the pilot flying the airplane (Lieut. Macready) had been desirous of passing on to the relieving pilot as much altitude as possible, knowing that an elevation of 6,800 feet would be encountered within the ensuing few hours.

CHANGE IN ORIGINAL ROUTE.

Lieut. Kelly took the controls after leaving Deming, and attempted to follow the original course over the high elevations to the left of the Rio Grande River; but after a half hour's flight it was plainly seen that the airplane would run into the ground if a straight course was continued, so the pilot changed the route which had been previously planned, and attempted to fly up another valley considerably to the right. The valley carried the airplane over the deserted alkali dry lakes and the vast snow white salt marshes of New Mexico, and then over the Mal Pals, or ancient volcanic lava beds stretching beneath like a huge sheet covered with grotesque black tufts and masses for eighty or one hundred miles. This was a very strange and picturesque part of the flight. The airplane was flown close to the mysterious black looking volcanic craters.

It appeared that the airplane could not gain altitude sufficient to get over the country ahead, yet as each gallon of gasoline was consumed a few more feet of elevation was possible, due to the lightening of the load, and although it remained in flight hardly above the tops of the low hills and buttes, yet the airplane kept on until the higher elevations near Tecelote, N.M. were reached, and was being flown at an altitude of approximately 150 feet above the ground. Here the current of air in blowing over the divide probably effected the atmospheric conditions causing a down current into which the T-2 went diving toward the ground at the stalling point, but with terrific ground speed due to the exceedingly high wind. The airplane missed the cactus and shrubbery by a small margin and was stalled over the surface not over twenty feet above the ground for considerable distance, the occupants momentarily expecting a crash. A large mound was barely missed, beside uneven places of the terrain before the T-2 was unsteadily maneuvered to better conditions. The Transport was flown back down the slope for approximately ten miles in an attempt to gain altitude while gasoline was being consumed with a resultant lessening of weight.

A second attempt was made in about 20 minutes without success. It was necessary that at least forty minutes of gasoline be consumed before this high summit could be negotiated. When the required altitude was gained at a location approximately ten miles south of the divide, the T-2 was flown across this high point, grazing the summit with about thirty feet to spare.

NIGHTFALL.

While gaining altitude through consumption of gasoline and resultant lessening of load, the sun had gone down. The summit was crossed at dusk. The night closed in very rapidly and location at this time was extremely difficult, as the moon had not come up and the sky was partially obscured by the clouds. An attempt was made to follow the railroad by flying over it and very close to the ground, but the track was soon lost in the darkness and for a period of at least one-half hour the exact position was not known.

TUCUMCARI.

If the pilots could reach Tucumcari, New Mexico, the long night's flight should be commenced from a known starting point and over comparatively good

country. In a short time the lights of this small town appeared many miles to the right. Clouds began forming, but no great trouble was yet anticipated from these, although they partially obscured the moon, causing the darkness at times to be very intense and necessitating close flying to the ground in order to observe the dim outline of the railroad.

CONDITIONS AT NIGHT. ing

Pilots were again changed, Lieut. Macready relieved Lieut. Kelly. A terrific south wind, causing considerable drift, was blowing directly across the course. Weather conditions became extremely bad. The clouds became lower and lower, and finally were so near the surface of the ground that it was necessary to occasionally pass through them or fly very low to keep below them. Sometimes the flight was so low that care and watchfulness were required in order to avoid the possibility of hitting farm houses, trees and buildings in the inky blackness of the night through inaccurate judgment of altitude, or an uncertain downward deflection of the line of flight.

Although it was intended to fly directly above the railroad tracks and keep the course in this way, the railroad would become lost in the darkness, and for considerable periods the pilot would be flying entirely by compass, estimating the amount of drift as best he could. Then the strong headlights of a train would appear in the distance and aid in the approximate re-location of the track. Thunder storms and lightning were on all sides and rain began falling, although this rain was not so heavy as to be a great barrier. The rain or heavy mist was annoying, as it made constant wiping of the goggles necessary.

It was not the conditions that the pilots were actually in which caused anxiety, as it was the expected conditions. Because of the many storms on all sides, it was anticipated that at almost any moment the T-2 would plunge into a drenching rain or deluge of water. This did not occur. Considering the extremely bad weather surrounding the path of flight, the T-2 was very fortunate in not encountering less favorable situations.

TORNADO.

Reference to any newspaper of November 5th will convey the information that on November 4th, the night or early morning of the flight across Oklahoma and Kansas, a severe storm raged and a tornado swept over the same area traversed by the T-2, causing a total of twelve lives lost and eighty people injured on this date and November 5th. From the standpoint of the weatherman this tornado was due to a low pressure area, which apparently was of little importance but suddenly sprung into great prominence. The T-2 missed the tornado, but received the surrounding bad weather.

At Pratt, Kansas, the railroad was intentionally left and it was necessary to fly a compass course for several hundred miles. The lights of Wichita, Kansas, were seen approximately ten or twelve miles to the right, about forty minutes after leaving the railroad at Pratt.

FLYING BY COMPASS.

Reliance was placed on the compass from this point onward through the night. The route was entirely flown by compass, even the groups of lights which had occasionally appeared on the ground to mark the position of small villages, and which afforded a slight means of checking the course, having disappeared. The people of Kansas and Oklahoma apparently retire early, and no lights appear after ten or eleven o'clock. There were no large towns along the path of flight. For long stretches of thirty or forty minutes' flight, no lights of any description would appear. Occasionally the clouds would open up enough for a little light to ^{come} through. Then the section lines of the fields and roads would be dimly discerned on the ground.

These section lines were invaluable aids to the pilots, as they afforded a means of checking the compass along the lines running east and west. There was a cross wind approaching the proportions of a gale, causing considerable drift, the amount of which could only be ascertained at night by the occasional dim view of the known lines of direction. The exact amount of drift was attained through use of the section lines and the course flown accordingly at night after leaving the railroad. The T-2 would be flown or "crabbed" along an east and west line and the approximate amount of drift estimated by reading the compass when the plane was actually traveling in a due east direction.

The maps were laid off according to scale in ten-mile distances along the intended course. The time was constantly being checked between known points on the ground. Although long stretches were flown without lights appearing, the compass course with the drift considered, was estimated so that it came approximately along the intended points and these points could be checked on the map by

the lights. The time of approach and probable position of a town of sufficient size to have some street lights would be estimated and this object looked for when according to the map its location was approached. Its position would not always be found where expected, but would be close enough so that by using average judgment the group of lights could be designated as the town indicated on the map.

The general line of flight was toward a point on the Missouri River above its junction with the Mississippi. It was expected that the Missouri River could be picked up during the night at a point north of St. Louis. If doubt existed regarding location, it could be followed in a general direction to check the course at St. Louis. It happened, however, that the Missouri River was reached at the intended point. When the lights of St. Louis later appeared, they could be definitely recognized.

The pilots changed at the Missouri River, Lieut. Kelly taking the controls.

SIGNS OF DAYBREAK.

Darkness still existed when the lights of St. Louis were passed, the first signs of daybreak showing in the east shortly after. It was a very welcome sight to the occupants of the airplane to see the outline of the horizon begin to appear, and when daybreak approached it was the thought of both that practically all troubles ^{from} the long trip were over, as the tremendous original weight of the airplane was gone, flying was comparatively easy, the storms had been passed through, the black night was over, and the pilots were in a country well known to both, and over which they had flown many times. Eleven and one-half hours had been spent in darkness.

The T-2 passed through parts of six states during darkness - New Mexico, Texas, Oklahoma, Kansas, Missouri and Illinois.

CRACKED CYLINDER JACKET

A short distance beyond Terre Haute, Lt. Kelly sent back a note to the effect that a forced landing seemed probable because of the rapidly decreasing water supply due to a cracked cylinder jacket on the engine.

Pilots were changed at this point. The relief pilot immediately observed when taking the front control seat that conditions were extremely bad, that the water was shooting from both sides of the engine in small streams and that this loss must be very great. The first cracked cylinder had been observed about four hundred miles from San Diego. It was not deemed of great importance at that time although it was watched very closely. The loss of water from this one cracked cylinder was not sufficient to have brought the ship to the ground before reaching New York, but the other cylinders which had gone in combination with this original one caused a loss of water so great that it was almost immediately seen that a forced landing would be necessary, as this loss was constantly increasing in volume.

OVERHEATING OF ENGINE.

About 50 miles from Indianapolis the temperature began to rise very rapidly and the pilot turned back on the course to a field which had previously been observed with the intention of landing. It did not seem possible to continue onward. Lieut. Kelly, however, who was in the rear, poured the coffee, consomme, or broth and all other liquids into the radiator, and with this additional volume of liquid the airplane could be flown to Indianapolis Speedway, where it was intended to land.

On arriving at the Speedway it was estimated that the flight could be continued to Fort Benjamin Harrison, a military post where far greater facilities could be obtained. When over the speedway the altitude of the plane was approximately 3,000 feet. While flying over Indianapolis to Fort Benjamin Harrison the engine again began to heat very rapidly, a temperature of 110 degrees being reached. It was necessary to throttle down in order not to heat the engine excessively. The airplane was partially flown and glided to the Fort. A turn was made around the field to get the proper position to glide in for a landing. The engine power was practically gone, and the R.P.M. was very low. The airplane was flown almost to the edge of the field. When the throttle was pulled back the propeller stopped, frozen tight by the heat of the engine.

A good landing was made in the center of the field. The pilots immediately jumped from the plane in order to avoid the danger of fire which seemed slightly probable, as a dense cloud of white smoke was pouring from the engine. A Dodge touring car rushed out from Fort Benjamin Harrison with fire extinguishers, as the airplane appeared to be on fire.

The Commanding Officer of McCook Field was immediately notified by telephone, and the respects of the two pilots paid to the Commanding General of the Fifth

Corps Area. A DH4B airplane was obtained from the Air Unit of the Fifth Corps Area and flown by Lieuts. Kelly and Macready to McCook Field.

PROSPECTIVE PLANS.

One hundred and thirty-five gallons of gasoline remained in the tank when the plane was landed. It is very doubtful whether the T-2 would have reached Mitchel Field with this supply of gasoline. It was the intention of the pilots to carefully estimate the greatest possible distance that could be flown and land either at Richmond Field, Staten Island, or at Washington, D.C., if the gasoline supply proved insufficient to reach Mitchel Field, Long Island.

FOOD.

The food carried on the trip consisted of a box of beef sandwiches, a half gallon Thermos bottle of strong hot beef broth or consommé, and a half gallon thermos bottle of very strong hot coffee. The broth and sandwiches were used to provide strength and sustain, and the strong coffee as a stimulant to keep the pilots awake. Before taking the controls, the pilot would drink some hot broth, eat a sandwich and swallow several draughts of the strong coffee, after which he felt in very good shape for the ensuing six hours or more at the wheel.

PHYSICAL CONDITION.

Although naturally very tired ^{toward} the finish of the flight, neither pilot was in bad shape physically, all faculties, physical and mental, functioning normally through the entire period. The physical and mental strain of the transcontinental non-stop flight was far greater than that of the endurance flight, although the endurance flight was of much longer duration. The question of physical fatigue was the only factor to be considered in the endurance flight - the fact of flying 35 hours without rest or sleep. There was no danger to be considered, and the mind was relaxed and at ease.

The non-stop flight was filled with continual danger and uncertainty. The brain must constantly be wide awake and alert. There was considerable nervous strain and anxiety which in itself was very tiring, and which, when combined with the actual muscular exertion of handling the big plane under the adverse weather conditions encountered, made the amount of fatigue considerable. *to here*

THE MECHANICS.

Of slightly less importance to the work of the pilots was the work of the two mechanics, Mr. Charles Dworack and Mr. Clyde Reitz. These men put the T-2 in the best possible condition for the flight and made many valuable original suggestions which were put to practical use. Their hearts were in the work, and the success of the attempt and the safety of the pilots was of as much concern to them as to any one interested.

ROCKWELL FIELD ASSISTANCE.

The Commanding Officer and Officers of Rockwell Field did everything possible to insure the success of the enterprise. Their interest was entirely unselfish and sincere, and is deeply appreciated by the two pilots.

MAPPING TENNESSEE FROM THE AIR.

The ever increasing value of aerial mapping work is forcefully brought to our attention each time a report is received covering such operations. The Engineering Division, McCook Field, Dayton, Ohio, has just submitted a report covering the operations of a photographic mapping expedition to the State of Tennessee, which was directed by Captain A. W. Stevens of the Aerial Photographic Branch of the Engineering Division, with Lieut. George W. Polk as pilot.

During the course of two months Captain Stevens exposed, developed, numbered, plotted, and printed negatives covering 5,000 square miles of the State. A flying field was selected near Tiptonville, Tennessee, and a laboratory set up in the village. From this point as a base, photographic work was carried out in the northwestern, southwestern, and central parts of the State.

The region known as the Reelfoot Lake area, which comprises 630 square miles and extends from the foothills on the east to and including the Mississippi River on the west, was photographed first. Two photographs were made of it, one from an altitude of 15,000 feet with a K-1 camera fitted with a 12-inch lens. The other was made from an altitude of 16,000 feet with a Tri-Lens camera, using 6½ and 7½-inch lenses. Ammonized panchromatic film was used entirely, with ray filters which excluded blue rays altogether and thereby eliminated the effects of aerial haze.

An area of 1300 miles, embracing the Mississippi River from New Madrid, Missouri, south to the Tennessee-Mississippi State Line, was next flown over and photographed, the F-1 camera being used.

The third area was that of the Memphis Quadrangle, which was photographed twice from an altitude of 16,000 feet. The T-1 camera was used in making the first photograph, and the K-3 camera in making the second.

The expedition then photographed the Nashville 30-minute Quadrangle, which embraces four times the area of the 15-minute Quadrangle, or nearly 950 square miles. It also covered 480 square miles of the valley of the Cumberland River, and 180 square miles of the valley of the Harpeth River. It is interesting to note that in two successive days, September 30, and October 1, the 1610 square miles were covered.

On October 1, 1010 square miles were covered in four hours, 50 minutes flying time, with the T-1 camera, from an elevation of 16,000 feet. At this elevation the width of the country covered in one strip by the camera is ten miles. Although the weather was extremely hazy, (the visibility being only 8 miles) there was no difficulty in cutting the haze for a distance of 5 miles each side of the airplane with the film and filters described above.

The Reelfoot Lake area is particularly interesting from the standpoint of a geologist, as the lake was formed in 1812 by one of the greatest earthquakes of modern times. If such an earthquake were to occur today, it is estimated that ten times the damage of the San Francisco quake might be inflicted. In the early days of the country the region was sparsely populated, but now there are many towns that might suffer total destruction were such a disaster to happen again. The whole lake region is low and marshy, and a survey of it on the ground would be both difficult and expensive; for these reasons it was decided to cover it by photographs made from the air. The U.S. Geological Survey now has these photographs in its possession, and from them is completing the map of the Reelfoot Quadrangle. No map whatever was available for use as a flying map, consequently the strips had to be flown without a map. After the area was covered by one camera, a sketch map was prepared on a reduced scale, and this sketch map was used as a flight map when covering the area again with the Tri-Lens camera. This sketch map proved the length of the lake to be approximately 10 miles; Rand-McNally maps and others show the lake anywhere from 30 to 100 miles long, and of quite different shapes.

The results of this expedition, together with those of the New Hampshire expedition of last year, which was also directed by Captain Stevens, demonstrate that aerial photographic work is best done at about 16,000 feet with the DeHavilland airplane, as this altitude can be gained in about 50 minutes, and the air is still dense enough to allow good control of the airplane.

From this elevation a much larger area can be covered in a single exposure than from 10,000 feet, and errors due to changing contour of the country are minimized; also, the air is relatively quiet at this elevation, permitting the camera to be kept quite horizontal, which is a very important feature. In the new T-1 camera, Major J. W. Bagley has added transparent spirit-levels, so placed that they automatically register the position of the bubbles on the film. With the ammonized film it was found possible to produce fully-exposed negatives as late as five o'clock in the afternoon, thereby lengthening the possible working day to ten hours.

THE FLIGHT OF THE AIRSHIP D-3. ✓

The Army Airship D-3, stationed at the Aberdeen Proving Grounds, Md., was recently flown to Hartford, Conn., and return, and the crew, consisting of Major Oscar Westover, commanding; Capt. Wm. E. Kepner, Operations Officer; Lieuts. Michael F. McHugo and Carlton F. Bond, Assistant Pilots; Sergeant James H. Burns, Radio Operator, and Private Otto W. Jensen, Engineer, had a very interesting and enjoyable trip.

The airship left Aberdeen shortly after midnight of Friday, November 10th, and returned shortly after three o'clock Sunday morning, no difficulty being experienced on the trip save a slight mishap just before landing on the return voyage, when the motors cut out on account of trouble with the fuel lines. This trouble was, however, speedily corrected while the dirigible was free ballooning.

Flights of this nature are taken periodically for the purpose of training and instruction of airship crews in night flying. The flight was made at this time in response to the invitation of the Aero Club of Connecticut for the D-3 to participate in the aerial meet they were holding at Hartford, and incidentally the United States Military Academy at West Point, N.Y., was visited for the purpose of instructing the cadets in airship communications.

Major Westover's report of this flight is given below, as follows:

The weather immediately preceding the 10th of November had been very windy and gusty. But as the Weather Bureau at Washington, D. C. promised fair weather, it was decided to make the trip on the first of the three days allowed to consider the best interest of the ship and the trip in general.

Major Westover, who commanded the trip, arrived from Washington, D. C., at 9:05 p.m. Thursday night. The sky was clear and the wind, which at sunset had been 15 m.p.h. cross hangar, had subsided to about 6 m.p.h. The Weather Bureau was called by phone, and the result of a special forecast showed that the weather should be favorable for the trip. The maximum winds were forecasted to be 23 m.p.h.

At 1:00 a.m. November 10th, the ship was taken from the hangar, engines warmed up, weighed off, and took off at 1:20 a.m. The moon was up and it was a clear frosty night; the temperature aloft was very low, but everyone being well equipped for it, it was thoroughly enjoyable. The ship taking off, gradually rose to 1300 feet altitude. High winds were encountered near Trenton, N.J., the ship descended to a lower altitude, where excellent progress was made. Being ahead of schedule, the motors were throttled down to 1,000 r.p.m., and the ship cruised along easily on a Bearing of 55° Mag. "C" toward New York, via Perth Amboy. At daylight the ship weighed off before crossing Raritan Bay and then proceeded on a Bearing of 69° to Mitchel Field, L.I.

Directly opposite the mouth of Upper New York Bay, terrific bumps were encountered, which gave changes in altitude of about 400 feet. The gusts of wind were hot and seemed foul with gas. Crossing Long Island at a considerable altitude, a magnificent view of the glory of the sunrise was visible across the Atlantic Ocean. It was wonderful, and surely the glory and power which governs the universe was never exhibited more wonderfully to man in these days. The strong winds at New York Harbor gradually died down, until at Mitchel Field, where it was calm, the ship arrived there at 7:00 a.m.

A landing party appeared, and the ship came to an equilibrium landing, 150 feet above the ground. Some directions as to details of bringing the ship on down were given from the ship by Captain Kepner, and circling low around the field the ship came down with handling guys on the ground and was landed by the maneuvering party at 7:45 a.m.

The crew had breakfast and were entertained with excellent hospitality by various members of Mitchel Field. The Commanding Officer, as well as all officers of Mitchel Field, rendered every courtesy and assistance possible while at the field. Gasoline, oil and water ballast was replenished and the ship again took off at 9:15 a.m., this time for Hartford via Bridgeport and New Haven, Conn. Views of the Palisades during this part of the trip were very fine. Bucking the wind, the ship arrived at Hartford at 11:45 a.m. After circling the town, a landing was made at 12:35 noon. The entire Trinity College composed the landing party. Their work was marked with enthusiasm, and their attention to Lieut. Moon's directions, as Maneuvering Officer, was all that could be desired. During its short stay here the Airship D-3 commanded the undivided attention of everyone, as an indication of the interest felt by the public toward the Dixigible Airship.

The stay at Hartford was much too short, and before the ship's crew would have wished it the ship took off at 1:30 p.m. on a bearing of 270° C. with a strong wind from the Northwest. The flight from Hartford to West Point was accomplished without difficulty, although at times the airship barely skipped over the ridges encountered en route. The country traversed over was quite rugged, the hills averaging about 1200 feet in height. A pronounced haze detracted from the pleasure of this leg of the journey, but did not prevent the arrival at West Point on time.

The D-3 arrived over Constitution Island at 3:50 p.m., and flew directly over the parade ground toward the south end of the post, where the landing was scheduled to be made at 4:00 o'clock. When it was found that there was no landing party on the south drill ground, the D-3 ^{was} again flown over the northern end of the Post, the parade ground and the football field, and note taken of a white cloth panel rolled up in the center of the parade ground as evidence of intention to have the airship land there, although no landing party was in sight.

It was very interesting to see the football squad running through signal practice, and if the impressions of an airman count for anything, the Army team is out for a real victory over the Navy. That is their objective, and

as an indication that they mean business let it be said that the D-3 meant nothing in their young lives that day, they never noticed it, or if they did it was but a passing glimpse which did not delay practice one bit. And that the way we like to see them go about it! No time for the side issues. The Navy's goat - let's get it this year. (They did).

One could not help but glory in the wonderful air landscape view of West Point as a whole. It is doubtful whether there is any ^{other} spot in the world which can present in so small a space the remarkable combination of natural and artificial beauty which exists at West Point, particularly in the spring and the fall of the year. Flying northward, we viewed the panorama of the "north gateway of the Hudson" with its Crow's Nest and Storm King ever prominent, though already shorn of their mantle of soft, colorful foliage. Underneath, Constitution Island lay as sleepy as ever, yet exerting an influence in memories of happy cadet days at the home of Miss Anna Warner. Then the Cemetery, with its old chapel, the pole flats, Professor's Row, the Flag gloriously beaconing recognition of our salute, Battle Monument, the Hotel, the Camp-grounds, barracks, Library, Cullum Hall - one after another we passed - then once again we flew that course, noting particularly the background of Chapel Hill and Fort Putnam. None less than an aerial photograph can portray accurately the beauty of West Point as we saw it - it cannot be adequately described.

To those members of the crew of the D-3 who were graduates of the Academy there came the thought that this flight, the first visit of an Airship to the Military Academy, was indeed epochal, unfolding to them new glories of the scenery about their Alma Mater, and affording to the officers, cadets and residents at West Point a close view of an airship - a baby airship, it is true, but the largest in service in this country at the present time. Would they be inspired with a true perspective of the future, when airships ten times as large, yes, even twenty or thirty times as large, will be in service for the Army? To how many cadets would come the inspiration that their future would lie in the Air Service?

At about ten minutes past four a detachment of cadets marches out to the center of the parade ground and were soon formed into a landing party by Major Percy Van Nostrand, Air Service, who had proceeded to West Point by rail to make the necessary landing arrangements. The D-3 was maneuvered so as to effect a prompt landing upon display of the panel, and when the signal was given come low north to the trees between the Hotel and the Battle Monument, and after beautifully hurdling these trees was able to make a good landing, using landing guys only.

The parade ground was soon filled with spectators. The Commanding Officer of the flight and the Captain of the ship then reported to the Superintendent of the Military Academy, General Sladen, and the Commandant of Cadets, Colonel Danforth, and after a short delay arranged to take these officers for a flight of half an hour, during which time Major Westover gave an informal talk to a number of ^{the} cadets. The officers of the crew met many of the officers on duty at West Point, and those who were graduates renewed their associations, etc. The cadets were particularly interested in the ability of the airship to maintain itself in the air without motive power, and in the radio equipment used. Captain Kepner explained in detail the radio installation. It then being dusk, preparations were made for the return journey. At the command 'Push up on the Car', the two score cadets holding it gave a mighty heave upward, and the D-3 was on its way, following a winding course along the Hudson toward New York City.

The metropolis soon loomed up, a mass of brilliant lights, and as they journeyed along the river, 2000 feet above the skyscrapers that mark the heart of New York, all unobserved and unnoticed by those below, the airmen could not help but feel the helplessness of the city below them, had the ship's mission been one of war rather than of peace. The course was then altered and the D-3 headed toward its hangar, strong head winds being encountered. To add to the pilot's difficulties, a thick ground fog made it difficult to distinguish land from water; from then on, navigation was by compass. The lights of Philadelphia finally shown through the fog, and at midnight the Quaker City was left astern.

About this time, due to a mishap to the fuel lines both motors quit. For fifteen minutes the ship free ballooned. The trouble was soon corrected and the journey continued. At two o'clock the lights of the hangar were picked up and the field illuminating plant outlined the field with its search and flood lights to aid the pilot in locating the landing party. The drag rope was soon

in the hands of the party, and in short ^{order} the ropes were made fast to the docking rail trolleys and the ship put in the hangar.

Arrivals and departures from each place visited were made on scheduled time. Adverse winds encountered had been taken into consideration when plotting the course prior to the flight. This again demonstrated the reliability of lighter-than-air craft in cross country flights of distances. At all times the radio was in communication with the ground, as evidenced by numerous letters from various ground stations picked up by the ship. A half hour before landing the ship's commander was able to notify the hangar at what time the ship would land.

The increased confidence of the crew in their ability to meet all emergencies and overcome obstacles due to the abnormal conditions was marked. At such times as the ground was obscured by fog the course was followed by compass only. It is possible for an airship to determine its position by taking sight on celestial objects as done by ships at sea. Weather conditions were much more favorable on this trip than the previous one to New York, when the return was made during a severe rain storm. As a precautionary measure the fuel supply was replenished at Mitchel Field, about 45 gallons of gasoline being taken aboard. The tanks contained a sufficient supply to make the entire trip, as there were 81 gallons left on landing. The average amount of gas used was seventeen and five-tenths gallons per hour, the total capacity being 410 gallons, making possible more than 23 hours at cruising speed.

The gas test was taken prior to departure showing the hydrogen purity to be 95.2 and after the flight tested 95. No gas was valved from time of departure to return.

The value of such training night flights are recognized by the crew as being invaluable as an aid to training in practical navigation, and should be taken frequently."

TENNESSEE AIR SERVICE STARTS WINTER PROGRAM

The winter training program of the Air Service, Tennessee National Guard, has begun in earnest, and through the generosity of the Commercial Club of the city of Nashville, four large rooms in the Chamber of Commerce Building have been placed at their disposal for use every Wednesday night. With this as an impetus, one advanced class in motors, two primary classes, one radio class and one class in administration have been started. In addition, the officer personnel have a course of study to follow out. These classes will be augmented by practical work on Saturday and Sunday when weather will permit flying.

COMPLETION OF SYSTEM OF SIDEWALKS AT MITCHEL FIELD

Within two months of the day of starting, a complete system of cement sidewalks, totalling over two and one-quarter miles, has been laid at Mitchel Field, L.I., N.Y. During the two months that this work was in progress, many of the men who had volunteered for this work gained a practical knowledge of cement work, as was proven by the increasing speed and efficiency with which the work progressed.

Drainage has always been a serious problem at Mitchel Field, due to the fact that the post is located on Hempstead Plains, an exceptionally level stretch of country. An extensive drainage system was installed last winter by soldier labor, but this has only been partially effective, due to the inability to give sufficient pitch to the drain pipes and also to dispose of the water after it had been accumulated. Cement sidewalks were an absolute necessity if the trim appearance so essential in peace time was to be maintained. In the past every effort to secure an appropriation for sidewalks had failed, and with the reduced appropriation for the present fiscal year it was useless to expect any relief from outside sources. When this became obvious, the only thing left to do was to requisition all surplus cement in the Corps Area. By this means a considerable store was accumulated throughout the summer, and immediately after the completion of the summer season of training, which was early in September, a detail of soldiers, who had volunteered for the duty, started laying the first walk in front of post headquarters. Care was taken that none of the routine activities of the station would be interfered with. While this work was at its height, extensive war maneuvers were held at the field, but the work continued with unabated energy. At the start

it appeared a stupendous task, in addition to the intensive training in progress.

The undertaking was started with enthusiasm and completed with dispatch, demonstrating what the Air Service can accomplish when the need arises.

Every member of the garrison has benefitted by the sidewalks, and the men who did the actual work have learned the rudiments of a trade which may stand them in good stead later in life. In addition, no expense to the Government was incurred other than for the cement.

GENERAL PERSHING INSPECTS BROOKS FIELD.

The troops at Brooks Field were recently inspected by General John J. Pershing and General Hines. The review of the enlisted men and cadets was carried through in a splendid manner, General Pershing expressing himself as being well pleased with the military bearing, appearance and intelligence of this command. He also commended Major Ralph Royce, Commandant, for the splendid spirit and aptitude shown in Infantry Drill, stating he was glad to see that soldiers as well as flyers were being made of the cadets.

A PRIZE FOR PAPERS ON AIRSHIPS.

The Council of the Royal Aeronautical Society, London, England, have decided to institute forthwith from the funds of the R. 38 Memorial Research Fund, an annual prize for a technical paper on airships. The regulations covering the award of this prize are given below, from which it will be seen that the date for the receipt of the names of intending competitors for the first award is December 31, 1922, while the papers themselves must reach the Secretary on or before March 31, 1923.

R. 38 Memorial Prize Regulations.

From the income of the above Fund, a sum of twenty-five guineas will be offered annually as a prize for the best paper received by the Royal Aeronautical Society on some subject of a technical nature in the science of Aeronautics. Other things being equal, preference will be given to papers which relate to airships.

The prize is open to international competition. The Royal Aeronautical Society retain the right to withhold the prize in any year if it is considered that no paper is of sufficient merit to justify an award.

Intending competitors should send their names to the Secretary of the Royal Aeronautical Society, 7 Albermarle Street, London, W. 1, on or before December 31st of each year, with such information in regard to the projected scope of their papers as will enable the arrangements to be made for their examination. The closing date for the receipt of papers will be March 31st in each year.

Papers should in all cases be typed, and a copy should be retained by the author, as the Society can take no responsibility for the loss of copies submitted to it.

Successful papers will become the absolute property of the Society, and will in most instances be published in the Society's Journal. In regard to unsuccessful papers, the Society retains the right of publication in its Journal, but in each case will notify the author, shortly after the award, whether it intends to exercise this right; if not, the author will be free to publish elsewhere. A signed undertaking must accompany each paper to the effect that publication has not already taken place and that the author will not communicate it elsewhere until the Society's award is published. Due acknowledgement must be made by the author of the source of any special information.

AEROMARINE AIRWAYS START OPERATIONS IN THE SOUTH.

The 14-passenger enclosed cabin flying boat "Santa Maria" of the Aeromarine Airways, Inc., recently left New York bound for Nassau in the Bahama Islands. This is the first of the Aeromarine fleet to go South for the winter. Other flying boats will leave New York at regular intervals for Miami, Nassau, Key West and Havana, according to C. F. Redden, President of the Aeromarine Co.

A statement issued by the Aeromarine Company is to the effect the "Santa Maria" holds the world's record for commercial flying boats. This is the third year of service, and during its operations in this period it was flown more than 45,000 miles.

In 1921 the "Santa Maria" made the first aerial circumnavigation of the Eastern half of the United States, and during the past summer it was one of the fleet of five boats operating on a double daily service between Detroit and Cleveland. The ship is piloted by Captain George W. Cobb; mechanic Ernest Nygard. It has a wing spread of 104 feet, is powered with two 400 h.p. Liberty engines, which give it a speed of over 100 miles an hour. The weight of the plane is $7\frac{1}{2}$ tons.

It is stated that the Aeromarine Company will operate a regular service this winter between Key West and Havana, and between Miami and Nassau, using a fleet of ten enclosed cabin Liberty engined aeromarine flying boats, similar in design and construction to the "Santa Maria".

Crissy Field, Presidio of San Francisco, Calif., October 21.

A PRODUCT OF THE WEST

As the sun shone on the city of Logan, Utah, March 28, 1893, a son was born to Mr. and Mrs. Peter Weston Maughan, whom they named Russell Lowell and who was later to shine in the service of his country. Lieut. Maughan was one of eleven children, the family being composed of six girls and five boys. His early childhood was spent on a farm in the outskirts of Logan, and he attended the public schoolsof Logan, graduating with honor both from the grammar and high schools. Upon completion of same he entered the Utah Agricultural College, also located in Logan.

The advent of America's participation in the world war found Lieut. Maughan a senior at the Utah Agricultural College. Without loss of time he repaired to the nearest recruiting office and enlisted as a private. Displaying his fitness for a broader field he was chosen by his superior officers to enter the first officer's training camp at the Presidio of San Francisco, California. Lieut. Maughan successfully passed the camp and was appointed Second Lieutenant in the Infantry in the early days of 1917. However, he resigned his commission in the Infantry to enter the opening class of the ground school at the University of California, Berkeley, Calif. Lieut. Maughan speedily completed his ground school training and then proceeded to Rockwell Field, Calif. for primary flying training. Upon completion of same he received orders to proceed overseas and he stationed at Issoudon, France, for five months there he completed his advanced training and was rated as a pursuit pilot. From Issoudon he moved to the front and remained there in active status for four months, bagging to his credit four Boche planes. These planes were of the single seat combat type which record is considered extraordinary. The greater part of his service on the front was with the 139th Squadron of the 2nd Pursuit Group.

After the Armistice was concluded, Lieut. Maughan was awarded the D.S.C. Upon his return to the United States in February, 1919, he was stationed at Camp Dix, N.J. and from there was detailed as one of the pilots for the Victory Loan flight over the New England States. An incident of great importance which we failed to previously narrate is that prior to Lieut. Maughan's departure from New York, he became engaged to a sweetheart of his school days and while on a leave of absence spent at his home, he married and returned to Mitchel Field with his bride. He was selected as one of the pilots for the transcontinental flight and succeeded in landing a single seater SPAD on the ground which is now known as Crissy Field. For this feat the American Flying Club awarded a prize. Lieut. Maughan was subsequently transferred to the 9th Squadron (Observation) which was then serving on the west coast. He readily found himself among the officers and men of the 9th Squadron and participated in forest patrol and border patrol with that organization. In the Spring of this year Lieut. Maughan made a cross country flight covering the states of California, Nevada, Utah and Wyoming. Upon completion of this flight he was attached to the 91st Squadron (Observation) on forest patrol duty out of the Municipal Field, Eugene, Ore.

Little need be said of the record made by Lieut. Maughan as no doubt by this time most of the readers of the News Letter are familiar with it, but those of us at Crissy when apprised of the selection of Lieut. Maughan to participate in the Pulitzer Trophy race knew that, all things being equal, Lieut. Maughan would more than give good account of himself. As this brief is completed the personnel at Crissy Field is anxiously awaiting the return of Lt. Maughan and through him receive the first hand information of the events in which he recently participated at Detroit.

Mrs. R. L. Maughan received a telegram from the Secretary of the Navy, congratulating her upon the victory of her husband at Detroit. The telegram was followed shortly by a large bouquet of flowers, also forwarded by Secretary Denby, as evidence of the good sportsmanship of the Navy.

Lieut. W. C. Goldsborough made a cross country flight to Eugene, Oregon, to complete final arrangements in connection with the closing of the forest patrol activities of Municipal Field at Eugene. On his return to Crissy Field he carried with him as a passenger Mr. Earl C. Simmons, who was active in the organization of an Air Service Reserve Squadron to be allocated to Eugene, Oregon. Mr. Simmons will be remembered as the jovial Ford representative at Eugene, Oregon.

Staff Sergeant D. A. Templeton and Sergeant Fred Kelly made a cross country flight to Mather Field. Both being pilots, they were able to relieve each other

during the flight.

Lieut. B. S. Catlin, Jr. has completed his refresher dual course at Crissy Field since his return from Letterman General Hospital, where he was confined for a period of about six months. He has now been placed on the flight roster.

During the last week the flying field has taken on the appearance of a parade ground, as each afternoon all members of the command have been enjoying Infantry drill.

The 91st Squadron (Observation) has established a reading room in their portion of the enlisted men's barracks and the daily papers from all large cities, in addition to current magazines, will be found therein. The latest music on the victrola as well as other diversified amusements, are to be found in the reading room.

Authority has been recently secured from the Chief of Air Service for the removal of Test Room No. 2 from the interior of Motor Test House to the rear of the engineering building. This work is progressing rapidly and as soon as it is completed a complete woodworking shop will be installed in the motor test plant.

The steel work for an AEF hangar has arrived on the field and, as soon as plans are completed, same will be erected and used for storage purposes.

Construction work along the officers' row is fast nearing completion and the results from this work are many fold, in that it gives additional room in the quarters and a large sunny porch.

Capt. J. W. Signer, officer in charge of construction, showed considerable forethought when he provided large, spacious steamer chairs for use in the class room. It is hoped that he will continue in this mood and requisition sufficient robes, as well as copies of "Parisienne", "Snappy Stories" and scented cigarets for the class room.

Lieut. Lloyd Barnett, Post Adjutant, made a cross country flight to Del Monte for the purpose of mapping the most suitable airway from San Francisco to that point. Lieut. Barnett's flight was considered most successful.

Lieut. J. B. Patrick, Assistant Professor of Military Science and Tactics at the University of California, and Lt. H. A. Halverson, Assistant to the Corps Area Air Officer, made a cross country flight from Crissy Field to Los Angeles and return.

Capt. L. H. Smith, former Commanding Officer of the 91st Squadron, has been granted leave of absence for thirty days.

Mrs. E. C. Kiel, wife of Lieut. Kiel, returned from the Letterman General Hospital, where she recently underwent an operation for appendicitis. Needless to say, those along the officers' row welcome Mrs. Kiel back and hope that her recovery will be speedy and complete.

Warrant Officer Albert H. Tebo, who for some time past has been Post Exchange Steward at Rockwell Field, and who has completed some ten years' service at that station, is among the recent arrivals at Crissy. It is expected that he will be assigned for duty in the Aero Supply Office.

Among the Master Sergeants reporting at Crissy Field recently are Felix Steinle and Albert Fletcher. "Chief" Steinle will be remembered as one of the old timers, as will also Sergeant Fletcher.

Crissy Field, Presidio of San Francisco, Calif., Oct. 30.

Lieut. A. G. Liggett as pilot and Private Willett R. Lufkin as observer and radio operator made an altitude flight for training purposes in conjunction with an anti-aircraft battery of the Coast Artillery Corps stationed at Fort Winfield Scott. Reports from the battery commander indicate that the training problem was most successful.

Major G. H. Brett, carrying Staff Sergeant Donald Templeman as passenger, and Staff Sergeant Cecil B. Guile carrying Major General Devol as passenger, made a cross country flight to Tres Pinos Ranch at Hollister, Calif., and called upon Major Sykes, commanding officer of the 446th Reserve Squadron (Observation), located at San Jose, California. While at Major Syke's home, the party enjoyed a duck shoot, and other agreeable amusements. A successful return flight to Crissy Field was made.

Lieut. W. R. Sweeley and R. L. Maughan made a cross country flight to Mather Field, this being Lieut. Maughan's first hop since his return to Crissy Field from the Pulitzer races at Detroit.

Second Assistant Postmaster General Paul Henderson, Superintendent of the Air Mail; Mr. Riddell, General Superintendent of Railway Mail, and Judge Anderson of the Federal Court, are expected at Crissy Field in the immediate future for the

purpose of inspecting the Air Mail Station here. Assistant Superintendent of the Western Division W. E. LaFollette is ever ready for visitors, and we know that the gentlemen from the east will be well impressed. During their stay here it is expected that they will be taken for a few local flights to gain a better idea of the difficulties to be encountered in this section of the country. It is expected that their flights will be made in a reconstructed DeHaviland plane of the cabin type which carries two passengers and a pilot. The plane mentioned was flown here by pilot "Slim" Lewis of the Air Mail from the Chicago Division.

Assistant Superintendent of the Air Mail, Western Division W. E. LaFollette has been acting in the capacity of superintendent during the absence of Superintendent A. C. Nelson, and as such has been officiating from the headquarters at Salt Lake City, Utah, for the past three weeks, Supt. Nelson having gone east to witness the Pulitzer races and attend the convention at Detroit.

Lieut. J. B. Patrick, Assistant Professor of Military Tactics and Science, University of California piloted Mr. Buron R. Fitts, Past Department Commander of the American Legion, on a cross-country flight to Los Angeles where Mr. Fitts was to deliver a lecture. Due to disagreeable weather conditions, a landing was made at Carpinteria with a slight mishap to the plane.

Lieut. Col. W. E. Gillmore, Air Officer, 9th Corps Area, and Lieut. H. A. Halverson made a cross-country flight from Crissy Field to Ross Field, Arcadia, Cal. and Rockwell Field, Coronado, Cal., for conferences with the Commanding Officers of these fields.

Lieut. A. G. Liggett piloted Capt. J. P. Beeson, Medical Corps to Mather Field, Sacramento, Cal., where he completed arrangements for his transfer to Crissy Field.

On Wednesday afternoon, October 25, the personnel at Crissy Field were agreeably surprised to note a strange formation over the airdrome, which heralded the arrival of a number of Navy pilots from the Air Fleet Force who were here to participate in the Navy Day celebration.

Among the pilots, in command of Lieut. Commander N. R. McComb, were Lieutenants Smith, Wehle, Shoefell, Ericsson, Montgomery, Woodman, Fohe, Weber, and Ensigns Hasselman, Allen and Taylor. The enlisted personnel included Chief Petty Officers Stinson, Alexander and McDonough. During their stay at Crissy Field the Navy men made a number of local flights, and on Navy Day sent out three formations of three planes each, one going north as far as Eureka, Calif., one to the east as far as Sacramento and vicinity and the other in a south-easterly direction through the valley, returning to Crissy Field upon completion of these flights.

Major M. F. Davis, Air Officer, 91st Division, Organized Reserves, Non-divisional Group, has been taking a refresher course in heavier-than-air work at Crissy Field. Major Davis, prior to joining the 91st Division, completed a lighter-than-air course at Ross Field.

Capt. F. M. Field, Flight Surgeon, M. C., arrived at Crissy Field. His presence, in addition to Capt. J. P. Beeson, present Flight Surgeon and Capt. A. W. Smith, who is still at Crissy pending his departure for Panama, gives Crissy Field quite some staff of Flight Surgeons.

It is anticipated that the casualty list will be quite large the coming week, as the Commanding Officer has organized a class in sabre drill.

Kelly Field, San Antonio, Texas, Oct. 21.

FORTY-THIRD SQUADRON (SCHOOL): First Lieut. Walter A. Ball, Air Service, a student officer in the Pursuit Course at the Air Service Advanced Flying School, was killed in an airplane accident on the morning of Oct. 17th, 1922. Lieut. Ball was commissioned on the 14th of May 1918, and served in the Infantry and Air Service. At the time of his death this officer was rated among the foremost students in the Air Service Advanced Flying School. The death of Lieut. Ball is deeply regretted by the personnel of Kelly Field.

CADET DETACHMENT:— Although the football season has decided little so far, having resulted in three scoreless ties with Brooks Field, Keerville, and the fast Knights of Columbus eleven, one cannot help noticing the sterling game the Kelly fliers have put up, and not the least factor in the team's work has been the consistent playing of the cadets who have been turning out regularly, both for practice and actual battle. McGinley, in particular, has proven a tower of strength to the local eleven, while the support of Thomas, Blizzard, O'Connor, Huffman, Matucha, Jonas and McNeal has proven of great value. The Cadet Detachment stands behind the team to a man, and expects great things to be accomplished by them.

If an uninitiated outsider were to step into the cadet barracks some evening when all the Observation students were busy studying "panels", he would undoubtedly think he had accidentally found his way into an asylum for mentally infirm aviators. The ease with which "O9" and "FL" are flung around would indicate a long acquaintance with some peculiar and hitherto unheard language, presumably the favorite talk of Nutland. As a matter of fact, however, rather than indicating that all Observation cadets are crazy, the panels are a very orderly and sensible method of communicating information for Artillery adjustment. If they continue much longer, however, the Cadet Detachment may become a lunatic asylum yet.

FORTY-FIRST SQUADRON (SCHOOL):- A total of 79 hours and 55 minutes were flown by officers, student officers, and flying cadets, assigned to this organization, during the week of October 12th to 19th.

FORTY-SECOND SQUADRON (SCHOOL): Student officers and cadets have been receiving the usual course of instruction during the past week. Two cross-country flights were made during the week, one to Post Field, Oklahoma and one to New Orleans, La.

The enlisted men have been preparing for the tactical inspection; instructions in pitching pup tents being the principal drill. The barracks are being painted and everything is very swiftly nearing completion.

THIRD GROUP (ATTACK)

NINETIETH SQUADRON (ATTACK): Formation flights are being made daily by pilots of this organization in preparation to the coming visit of General Pershing.

Captain Hayes, Commanding Officer, with Lieut. Whitten, of the 10th Group (School), made a cross-country flight to New Orleans, La. October 16th. No official report was received as to the time made, other than that they arrived safely.

The Squadron Commander has procured another pool table for the recreation room, the one now in use being insufficient to accommodate the men.

TWENTY-SIXTH SQUADRON (ATTACK): Lieut. J. E. Duke, Jr., with Sergeant Bills as passenger, flew to Rich Field, Waco, Texas, on October 14th, returning the following day. Lieut. Clark flew to Temple, Texas, Saturday, the 14th, with Private Markley of the School Group as passenger. The return trip was made the same day.

Lieut. J. J. O'Connell, formerly Property Officer of this field, was assigned to the squadron and appointed Engineering and Operations Officer.

Lieut. Chapman of the 10th Group with Staff Sergeant Bowers of this Squadron as mechanic, left for New Orleans at 8:00 a.m. Tuesday, the 17th, to attend the convention and conference of the American Legion to be held at New Orleans, and to take part in an aerial tournament there.

THIRTEENTH SQUADRON (ATTACK): Lieut. Smith with Master Sergeant Wiseman made a cross-country flight to Kerrville, Texas, leaving October 17th and returning the next day.

Formation flights for the purpose of practice are being made daily by all officers of the Squadron.

Considerable activity is being displayed on the part of all members of this organization, in preparation for the inspection by the Corps Area Commander on October 30th. All equipment is being stenciled and put into good shape. A regular schedule of drill in the school of the soldier is being carried on.

A meeting of the organization was held on Friday, the 13th, with a view of organizing a Squadron Library. Thanks to the size of the Squadron Fund, a good working sum of money was appropriated, and as a result the recreation room will be one of the best equipped in the Army for comfort and scope of literature.

Captain Lloyd L. Harvey, our Squadron Commander, who represented Kelly Field at the Pulitzer Classic, made a very creditable showing. But for the fact that a piston head blew out on the fifth lap, it is probable that the 13th Squadron would have had something more to boast about. After making the fastest lap of the race, at a speed of 139 miles an hour, and at the end of the 5th lap, maintaining a lead of 25 miles, the XB-1A failed to deliver the goods.

EIGHTH SQUADRON (ATTACK): Training during last week consisted mainly of formation flying made up of three plane units for the attack work. Dummy bombs were used and targets attacked in single file and in unit formations.

Lieut. Skanse left for McCook Field, Ohio, October 15th, to take a four months course in Plane and Engine Maintenance. Lieut. Edgar T. Selzer has taken over the

duties and responsibilities of Squadron Supply Officer, Lieut. Skanse being relieved.

The 8th Squadron (Attack) was represented at the American Legion convention at New Orleans by Captain Bubb who, with Staff Sergeant Zelinski, flew there for the occasion.

AIR PARK NO. 5 (ATTACK): Lieut. James A. Woodruff, accompanied by Staff Sergeant Wallace as mechanic, left on a cross-country flight to Bolling Field, Anacostia, D. C., piloting a DH4B-3 airplane to be assigned to the Commanding Officer of Bolling Field. The fliers will return in a Martin Bomber. No date has been set for the large plane to arrive here.

Kelly Field, San Antonio, Texas, Oct. 28.

TWENTY-SIXTH SQUADRON ATTACK:- Very little flying was done last week, the rainy and inclement weather making a very muddy flying field. The organization has been receiving instructions in motor repair and in rigging of ships. Certain hours have been set aside for these classes, same proving greatly beneficial to the men who have not been in the service very long. Training was also had in infantry drill, and a class of non-commissioned officers has commenced.

The hangars and barracks have been thoroughly gone over, repaired and made ready for the coming cold weather. Stoves have been installed and roofs repapered.

The Kelly Field Football Team has been re-organized under the leadership of Major Reynolds and has improved considerably. This field has a good team and under Major Reynolds will acquit themselves in a creditable manner. The Major is an experienced instructor and will beyond doubt pilot the team thru the season, and bring the championship to this field.

THIRTEENTH SQUADRON (ATTACK):- Owing to inclement weather very little flying has been done from this squadron during the past week.

All of our planes have been given a new coat of paint and they are in excellent condition in every respect.

The Squadron turned out for a field review for General Pershing. After the review and inspection, a formation of four XB1A planes participated in the aerial review.

EIGHTH SQUADRON (ATTACK):- The organization has been busy for the past several days brightening up for the Fall inspections. The entire organization is always ready for a general inspection, but in ours, as in any other, there is always room for improvement.

Three planes were furnished for the formations in the aerial review for General Pershing.

All radio equipped ships have been tested preparatory to the problems connected with the Second Division field maneuvers.

GROUP HEADQUARTERS:- Activities in the Post have been lively since General Pershing's inspection, the squadrons of the group putting in some over-time, painting buildings, re-roofing hangars and other necessary fatigue. Wednesday afternoon will also be work day and will not be observed as a holiday.

NINETEENTH SQUADRON (ATTACK):- The pilots of this organization participated in the aerial review, during the inspection by General Pershing.

Thursday, October 26th, the 3rd Group Commanding Officer held a distance and speed test, using DH4B planes from this organization.

An SE5A airplane has been assigned to this squadron for the exclusive use of the Attack Group Commanding Officer.

All ships are being repainted and varnished in preparation of the inspection to be made by General Hines within the coming month.

AIR PARK NO. FIVE (ATTACK):- Lieutenant-Colonel Culver returned to Kelly Field October 20th from a cross-country flight to El Paso, Texas. Visits were made to different border stations for purpose of formal inspections. The total trip was made in 13 hours and 50 minutes with nine flights.

A telephone has been installed on the Southwest end of Hangar #13, the visiting ship hangar, and the words "VISITING PILOTS ONLY" have been painted on the outside of the hangar in close proximity to the telephone, in order that same may be easily located by visiting pilots.

10TH GROUP (SCHOOL)

CADET DETACHMENT:- Work on the miniature range is now occupying the time and trying the respective tempers of the cadets whose duty it is to learn as much about aerial observation as the capacity of a cadet's superhuman brain will allow. So thoroughly are panels and codes being enmeshed in the observation cadet's consciousness that one of our distinguished members was heard mumbling queer words directly on the stroke of midnight recently, the subject being strangely familiar. Our one hope is that none of our number will come to a bad end in the psychopathic ward as a result of excessive study,-- or from listening to the excessive study of his fellows.

While the observers have been occupying themselves with their artillery hieroglyphics, the embryo bombardiers have been journeying over the countryside in search of suitable places to "lay their first eggs". A little camera obscura work satisfied the bombing instructors of the cadet's ability to hit a given mark, (with an unimportant provision regarding the mark herein inserted, namely, that it be large enough), so they were provided with flash bombs and sent out to bomb the hemisphere. An unsubstantiated rumor has it that one cadet succeeded in locating said target.

The aerial review held on Monday of this week in honor of General Pershing, who spent a few days in San Antonio visiting the numerous Army establishments in the vicinity, gave the cadets an opportunity to "spread their stuff". We are proud to say that all reports have it that the cadets held a perfect line in passing the reviewing stand, which, combined with their snappy individual appearances, decked out as they were, must have made a decidedly favorable impression. The aerial work, following the ground inspection, afforded further opportunity for creating a favorable impression, and we feel sure that the perfect formation work and the stunting exhibition proved very effective in accomplishing this end.

At a recent class election, J. P. Riddle was chosen class president with G. L. Davasher aiding him in the capacity of Secretary-Treasurer. It is the hope of the Detachment that we may build up an organization that will endure even after we have been commissioned in the Reserves and discharged to go our respective ways in the world, which will serve to keep us in touch with one another and thus preserve the good-fellowship that has grown up among us. With two such men as we have chosen in the above mentioned official capacities at our head, we know that a strong and vital association will result. Less than two months separate us from the date of our discharge, and we are planning already, -- and none too soon -- to preserve our integrity as a class even after we are scattered to the four corners of the earth.

FORTY-FIRST SQUADRON (SCHOOL): A total of 55 hours and 45 minutes were flown by officers, student officers and flying cadets assigned to this organization, during the past week.

PHOTO SECTION NO. 22 (SCHOOL):- The Section has been quite busy this week making mosaics, one of them the Government Experimental Farm near this place, made with a view of showing the ravages of root rust and boll-weevil in cotton. It is only recently that the value of aerial photography has been recognized for purposes of this kind, and as time goes on we hope that the commercial value of aerial photography will be recognized more and more.

FORTY-SECOND SQUADRON (SCHOOL): Much time is being spent in painting and repairing the barracks in preparation for the tactical inspection on November 8th. These preparations have not, however, interfered with the flying to any extent. A total of 91 hours and 35 minutes actual flying time has been turned in by student officers and flying cadets assigned to this organization for instruction.

EORTIETH SQUADRON (SCHOOL):- Training and operations were successfully carried on during the past week with eleven ships in commission.

The students training course consisted of three subjects: Camera Obscura, Formation and Bombing, the latter being carried on at Camp Stanley. Eighty-one trips were made and 324 bombs dropped.

FORTY-THIRD SQUADRON (SCHOOL):- The student class carried on work in Spads and SE's, consisting of formations flying, camera work, camera obscura, test flights, formation into Spads, radio liaison and combat formation.

Three cross-country training flights were made on Thursday the 26th, to Ellington Field, Texas, in DH's.

Mitchel Field, L. I., New York, Nov. 4.

Considerable disappointment was felt at this Field when word was received that the monoplane enroute here from San Diego had been forced to land at Fort Benjamin Harrison, Indiana. As early as seven o'clock on the morning of November 4th members of the press started to arrive at this station, and at ten thirty there were over twenty newspaper men present in addition to several motion picture camera men.

Plans had been made by the representatives of the news services to broadcast the landing of the plane and then to immediately follow it up with a detailed story of the trip. The pictures to have been taken by the camera men would have appeared in practically every news reel released in this country.

In the event that the plane had completed the journey it would have been given the widest publicity at this station and by virtue of the greatness of the achievement it would have taken first place in the news of the world.

In any case it is very gratifying to know that the Air Service has established a new record for distance and demonstrated beyond question of doubt the practicability of flying from coast to coast. This presages the fast approaching time when trans-continental trips over model airways will be routine with the Air Service.

Brooks Field, San Antonio, Texas, Oct. 28.

Playing a wonderful game of straight foot-ball, the Brooks Field team slipped a trimming to the fast Kelly Field team by a 6-0 margin. Brooks made seven first downs, only to lose the ball on downs due to a stubborn defense by the Kelly Field line which was perfect. McGinley, Kelly's left tackle was largely responsible for the small score, breaking up everything that came his way. The Brooks line also showed a defense that was impregnable, and Kelly was forced to kick out of danger whenever the necessary ten yards were needed. Several passes were attempted by both sides but without success. The feature of the game was a 45 yard return of a punt by Terrel, the speedy Brooks' halfback, who ran a pretty broken field only to be downed by Reynolds, Kelly's safety man, who tackled him on Kelly's thirty yard line. Several line plunges for substantial gains put the ball on Kelly Field's ten yard line, from where the hard plunging Brooks backs finally carried it over.

1st. Lieuts. McClellan and Merrick and M. Sgt. Winston will leave Brooks Field November 1st, for Ellington Field, for the purpose of piloting two JN6H's from Ellington to the S.A. A.I.D.

Authority has been given Major Royce, Commandant, to take four ships to San Diego, California, during the early part of December. The following officers and enlisted men will comprise the party - Major Royce, Captain Rust, Lieuts. Corkille, McMullen, Webster and Hewitt and Sgts. Long and Hojer.

Kindley Field, Fort Mills, P. I., Sept. 11.

No flying operations were conducted during the past week because of the heavy swells that were rolling in at the launching ramp, due probably to some distant typhoon.

Orders have been received transferring a number of Kindley Field officers to other Air Service organizations in the Dept. Lieuts. Palmer and Burgess go to Camp Nichols and Capt. Collar, Lieuts. J. H. Wilson, Gravely, Gabriel, Drumm and Hicks have been assigned to the reconstituted 28th Sqdn. at Clark Field. These transfers are in accordance with a new allocation of personnel in the Dept., resulting from the recent formation of a provisional A. S. regiment. Lieuts. Norby and Sullivan, who arrived in the Dept. on the "Thomas", were assigned to the 2nd Sqdn., but have been placed on detached service at Camp Nichols.

The already large company of young Air Service recruits at Kindley Field was increased by the arrival of two new baby girls on Sept. 1st. The fathers, Capt. Edwards and Lieut. Owens have already assumed that air "of carrying the world on their shoulders", and their daily conversation is replete with technical discussions of the weight per P.H., tank capacity and air pressure of the new arrivals, all of which seems to be "Greek" to the uninitiated.

Camp Nichols, Rizal, P.I., Sept. 9.

Since the arrival of some 225 enlisted men from the United States, Camp Nichols has sufficient personnel to carry ^{out} all the resy schemes originated in the past. With these men, it will be possible to complete erection of hangars and warehouses in short order.

First Lieutenants York, Woodward, Sullivan and Norby have arrived in the Islands and will be stationed temporarily at Camp Nichols. Technical Sergeant N. Reoser and Staff Sergeant L. L. Horn will leave for the United States for duty. Sergeant Reoser will be stationed at Post Field and Sergeant Horn at Selfridge Field.

Clark Field, Pampanga, P. I., Sept. 6.

A further increase in the officer strength of the garrison occurred with the arrival on Saturday and Sunday of First Lieuts. M. R. Woodward, G.A. McHenry and H. E. Waller, who came from the 9th Corps Area by last transport. With them are Mrs. Woodward, Mrs. McHenry and daughter and Mrs. Waller and daughter. Until quarters are available all are guests of Lieuts. Parry, Searl and Beveridge. Clark Field now has 25 officers, with these latter arrivals, constituting a nucleus for the 28th Squadron (Bombardment) to be stationed here.

The second volley ball set between Del Carmen and the officers of the Third Squadron was played off at Del Carmen Saturday evening of September 9th, ending with the defeat of the local eight. A wet court and a slippery ball contributed to our downfall, but it is hoped to cinch the cup at the next set, when the Del Carmen team will come to Clark Field and play on the new court just completed here. Lieut. Batten, who is in charge of preparation of the court for night use, is busy with grading and installation of lights and backstops, and it is believed as excellent results will be achieved in the final condition of the court as the sugar mills have secured with theirs.

Captain Ivan B. Snell, who recently joined the "Third" from Corregidor, received orders for return to the States and departed via the September 11th transport. First Lieuts. T. J. Lindorff and Harry Weddington who have been at Sternberg General Hospital for observation and treatment, have returned for duty.

Scott Field, Belleville, Ill., Oct. 27.

The Pony Blimp made its first trial flight Monday, after having been equipped with a new car and completely overhauled.

Lieuts. Anderson and Hutchins reported from San Antonio on Tuesday. They were members of the crew of the C-2, and after the accident and investigation, returned to their proper station.

Major Strauss was a visitor at the Post for two days on his way from San Antonio to his station at Dayton, Ohio. He has nearly recovered from bruises received in the C-2 accident.

Capt. McEntire was a visitor at the Post for several days on his way to Langley Field where he is in charge of Helium tests on the military ship.

On Thursday afternoon, October 19th, ladies of the Post were entertained by Mrs. McKenzie, at bridge.

Thursday evening the weekly swimming party, followed by an informal hop at the Officers' Club, was attended by a number of ladies and gentlemen from Belleville and St. Louis.

The A-4 made its first trial flight on Friday, October 20th, since being repaired. The bag has been completely repaired and covered with a new coat of aluminum dope.

The weekly swimming party and hop were held on Thursday, October 26th.

A masquerade ball was held on Friday night in place of the regular Post hop, preceded by a number of dinner parties at the Club and on the Post.

The weekly bridge club was entertained by Mrs. Pratt at her quarters on the Post.

Air Service, Tennessee National Guard, Nashville, Tenn., Nov. 6.

On Saturday night, November 4, the enlisted men of the Squadron gave a dance and marshmallow roast at the Field. The new supply room, and Machine Shop built in one of the hangars was used for the occasion. The floor was coated with wax, and Japanese lanterns served to add color to the light of a full moon. A number of guests drove the twelve miles out to the Field and were well repaid for their jaunt. The music furnished by Happy Jack's Sextette was well received by the dancers, and during intermission guests and all stuck close to an ember fire roasting "hot dogs" and marshmallows. No little amount of credit for the success of the party is due to Master Sergeants Sewart and Wilson for their efforts in putting it across.

The officers and men of the Squadron regret exceedingly the crash of a civilian plane on November 2nd in which 1st Lieutenant Claudius W. Womble, A.S. O.R.C. was killed and his student, Ted Clark, seriously hurt. Womble was a Vanderbilt student, and had applied for a commission in the Tennessee National Guard.

We are to receive two new JN6H's from the S. A. I. D., San Antonio, Texas and it looks as though we will have to ferry them to Nashville. So far, however, the Militia Bureau has supplied us with no information in regard to the expenses for the trip. Several pilots have already put in their bids to make the trip.

Information Division
Air Service

December 13, 1922

Munitions Building,
Washington, D.C.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, and for release to the public press.

FOR RELEASE December 16, 1922.

ANOTHER HOME-MADE FLIVVER OF THE AIR.

Readers of the NEWS LETTER will recall the several stories we have printed on the home-made airplane built by Captain Eagle and Lieut. Asp, of the Army Air Service, which made quite a number of successful flights. Judging from a story we have just received from Fort Riley, Kansas, telling of several flights made in a home-made flivver of the air built by a garage mechanic, it would seem that our two airplane builders mentioned above have a rival in the field and had better look to their laurels. But more of this later on.

All of the pilots of the 16th Squadron (Observation), stationed at Fort Riley, Kansas, flew up to Kansas City, Mo., to participate in the ceremonies and the flying meet incident to the opening of the Air Port at Kansas City, built and owned by the Air Terminal Association. Lieut. Kenneth Walker, of the 44th Squadron, who was visiting the Squadron, came along.

The field is named Richards Field, in honor of 1st Lieut. John F. Richards, Air Service, who was killed while flying over the Argonne. During the dedication of the monument, erected at the main gate, Lieuts. Barriger, Wisheart and Walker flew formation, dropping flowers.

In the afternoon of Armistice Day, just when a goodly crowd had assembled to see the flying program scheduled for the day, it started raining. A number of the pilots, however, and there were 27 Army and civilian ships "in port", managed to give a fair entertainment.

On Sunday, when a double program had been advertised, the weather was hopeless. Fog and clouds kept the ceiling below a hundred feet all day, with occasional drizzling rain, but the civilian, Mair, and Army pilots flew none the less to amuse the few people who had come out, eliminating only such events as necessitated considerable altitude. The pilots of the squadron were given an opportunity to fly the Huff-Daland "Petrel", the Longren, and Melton's "Houpizine". The last named is a small - oh, very small - biplane, following the conventional lines of design, and powered with the Ford motor. When it was brought through the streets in tow of a Ford Coupe on its way to the airdrome, it looked just what it is: an airplane reduced to it's lowest terms.

A garage mechanic in Kansas City named Melton, who never has flown, doesn't know how and, possibly knowing his own product, doesn't want to, bought a couple of books on the subject of airplane design, and forthwith went to work on something to revolutionize the airplane industry. The result is the "Houpizine". For test it was flown twelve hops, totalling seven minutes, by "Tex" LaGrone, of Kansas City.

The feature event of Saturday was to be a flight by "Tex" once around the field in the "Houpizine". Much to everybody's surprise he made a safe flight, naturally taking things very easy on the turns. Now, since the smallest ship of the Army on the field was the DH4B, and everybody was lauding the courage of the civilians for flying smaller ones, Major Tinker and Lieuts. Griffen, Wisheart and Barriger also had to fly it, and were delighted that they had. The diminutive plane - it is somewhat smaller than the Sperry Messenger - takes off with a rather long run, but once in the air has excellent maneuverability, fair speed (Major Tinker averaged 72 m.p.h. over a half-mile measured course for four laps) good climb, and lands rather well. Due to the extremely low ceiling while this flying was in progress, it was impossible to get far enough off the ground to see what the little ship could really do.

The motor, which is the standard Ford powerplant in every respect, with the one exception that it uses the Frontenac valve-in-head cylinder head designed for Ford replacement, behaved beautifully. No instruments of any kind were mounted, and the only controls were the switch (single ignition) and the throttle-handle, which consisted of the conventional Ford choke-wire which runs through the radiator. This made it awkward, since you were afraid to take a solid hold of it to give her the gun. Instead you took hold of it gingerly betwixt the thumb and forefinger of the left hand and fed in the throttle a thumbnail-full at a time.

All who flew the "Houpingine", however, pronounced it a success. Melton, who had not expected to get his plane so thoroughly tested and advertised in a whole year, literally fell on the neck of each of the officers who flew it.

On Monday the Squadron returned to Fort Riley and, in spite of disgustingly disagreeable flying conditions - low ceiling and squalls - the formation returned in good time.

The Kansas City Air Terminal Association, whose active head is Major Wehrle, once of the Air Service, has and richly deserves the cooperation of the Air Service. The organization is decidedly on the right track in providing adequate ground organization and maintaining a field amply large enough to accommodate a Reserve or National Guard Squadron, an Air Mail unit, and hangars for commercial and privately owned ships. A pressure pump for gas, with an exceptionally large hose, also a lunch room in operation on the field, serve ^{to} make it a good port of call on cross-country trips.

LIEUT. MAUGHAN HAS A NEW JOB AND A NEW ADDITION TO THE FAMILY.

Lieutenant Russell L. Maughan, who has been made assistant to the Air Officer, 9th Corps Area, since his return from his victorious participation in the Pulitzer Race at Detroit, has become the proud father of a seven pound baby boy. We wonder how fast they will fly when he becomes of age.

ANOTHER NON-STOP TRANSCONTINENTAL FLIGHT.

The "Cloud Duster", a special biplane equipped with a Liberty twelve, and built by Messrs. Davis and Springer in Los Angeles, Calif., is now at March Field, Riverside, Calif., preparing to hop off on a non-stop flight to the Atlantic Coast. The exact date of the attempt is not known, but the local papers report that it will be made during the next full moon in the early part of December. Messrs. Davis and Springer are well-known airplane designers and builders, and we all wish them the greatest success.

AIR SERVICE RESERVE OFFICERS PURCHASE AIRPLANES

Many Reserve aviators, commercial pilots and others are taking advantage of the sale of "Jennys" (JN4D's) at the Rockwell Air Intermediate Depot, Coronado, Calif., and the lower end of the line resembles the test field of a war-time aircraft factory. Flyers from points as far away as Wyoming and Louisiana have bought planes, set them up and started on their homeward journeys. All day long, including Sundays, there are "Jennys" buzzing around on their initial flights and trials, making ready for the "cross-countries" to their future homes.

THE ITALIAN AIR ROUTES.

Italy is a mountainous country; besides, it is very small in size compared with the United States. Rome, the capital, is right in the center of the territory, which is constituted by a peninsula and two isles.

Night trains leaving Rome at 8 p.m. reach the northern or southern border the next morning. It is very hard, therefore, to establish an air transportation service which would compete with the railroad. However, a definite program of the Italian Air Routes has been laid, using the same routes which were employed during the war to send the aircraft from the factories to the front line. The air routes follow the valleys and the coasts in order to avoid the mountains. They cross the Apennines Mountains only in two points. The net of air routes will be about 2400 miles long, as follows:

1. Nice-Rome-Foggia-Brindisi - - - 700 miles
2. Udine - Bologna - Foggia - - - 500 miles

3.	Turin - Milan - Trieste	- - - - -	320 miles
4.	Milan - Sarzana	- - - - -	120 miles
5.	Piacenza - Bologna	- - - - -	100 miles
6.	Innsbruck - Verona	- - - - -	150 miles
7.	Campiglia - Cagliari	- - - - -	300 miles
8.	Naples - Catania	- - - - -	250 miles
	Total		2440 miles

ANTI-AIRCRAFT PRACTICE ON PACIFIC COAST

Lieut. W. A. Maxwell, Air Service, stationed at Crissy Field, Presidio of San Francisco, Calif., with Lieut. Kelly, Coast Artillery Corps, as observer, made a flight recently in connection with the anti-aircraft battery, Coast Artillery Corps, stationed at Fort Baker. This was the first flight at Crissy Field in which a Coast Artillery Officer participated as observer. The flight was most successful, and Lieut. Kelly stated that the Coast Artillery could learn much in regard to anti-aircraft tactics from actual participation in airplane flights, as there are many angles that present themselves from the air with which the average Coast Artillery officer is not familiar.

Sergeant Fred Kelly, of the 91st Squadron, Crissy Field, with Private Willard Lufkin as observer, made a flight in cooperation with the anti-aircraft batteries of the Coast Artillery Corps stationed at Fort Barry, Calif. The flight was over a triangular course at an altitude of 8,000 feet, and over a duration of about one hour. The battery commander, as in the past, reported the cooperation with their problem was most successful.

THE VALUE OF AERIAL PHOTOGRAPHY

It is reported from Scott Field, Belleville, Ill., that a mosaic of the territory surrounding the Air Service Balloon and Airship School at that field is to be made shortly, using photographic planes from Chanute Field, Rantoul, Ill. This aerial photographic map will cover an area of approximately 144 square miles, and will include Belleville, Mascoutah, O'Fallon, Lebanon, Shiloh, and Summerfield. The mosaic when completed will measure 40 inches square, with a scale of one over twenty thousand.

In the training of balloon observers for the Army Air Service, a mosaic of the terrain used is invaluable. In order for the observer to function properly, he must have before him a map, showing the details, such as trees, houses and roads, of the terrain upon which he is observing. The mosaic serves this purpose very satisfactorily.

The mosaic is coming into a wide use commercially. The cities of Cleveland, Boston and Los Angeles have each had mosaics made to show the condition of traffic on the streets at certain hours, also to show recent improvements. Large real estate firms show prospective buyers suburban property by means of the mosaic. Also lumber companies are coming to use this method for estimating standing timber.

A METEOROLOGICAL STATION FOR SCOTT FIELD.

A new meteorological station is being installed by the Government at Scott Field, Belleville, Ill., at a cost of approximately \$300, exclusive of the cost of the instruments. This will be one of the most complete of the Air Service meteorological field stations, and will furnish data daily by radio to Selfridge Field, Chanute Field, and to the Weather Bureau at Chicago.

Among the new instruments to be used in this station are the telethermoscope and the Carpenter hythergraph.

Captain Lawrence F. Stone, Post Meteorological Officer, will direct the operation of the new station, with Sgt. W. G. Wills in charge.

Inspector Geo. J. Brands, of the Meteorological Signal Service, is expected to arrive from Washington to inspect the new station as soon as it is completed, which will be about November 25th.

AIR SERVICE OFFICERS AT FORT RILEY STAGE AERIAL MEET.

An air meet on a small scale, but one remarkable in a number of respects, was held at Fort Riley, Kansas, recently by the 16th Squadron, assisted by Lieuts. Schultz and Walker of the 44th. During the forenoon Brigadier General Duncan,

commanding the 7th Corps Area, inspected the Air Service troops. Immediately thereafter the field was thrown open to spectators until 12:45, and men were stationed at each ship to answer the questions of the curious.

At one o'clock ten pilots promptly took off, passed in review before General Duncan, and then landed. Numbers drawn by lot for places in the next event, a 75-mile race of five laps on a triangular course, were given out, and the ships took off in the order of their numbers at once. Led by Major Tinker, the contestants flew once around the course to save all possibility of mistaking turning points. Major Tinker then landed, and each pilot was timed out as he passed the home pylon. Lieutenant Wischert came in first, Captain Boland second, and Lieut. Schulze third.

Immediately upon the completion of the race, Major Tinker and Lieuts. Wischert and Barriger took off for the formation flight, followed by ^{the} second formation composed of Lieuts. Nowland, Walker and Schulze. First place was given to Major Tinker's and second place to Lieut. Nowland's formation.

The next and last event for prizes, landing to a mark with dead stick, was won by Lieut. Nowland, Lieut. Wischert being second. Meantime, acrobatic flights were made by Sergeant Gilbert and Lieut. Barriger, each soloing a "Jenny".

Not a single hitch occurred in the entire program. The weather was nearly ideal. Adequate guards kept the crowd (and it was a sizeable one) well behind the line of ships, except during the time before and after the flying, when they were allowed to inspect the ships to their heart's content. Each motor invariably started promptly, and not a ship suffered so much as a scratch. By the Post Commander's orders, jazzing the crowd was not allowed. All flying was of a strictly safe and sane order, and the prizes, which were given by local merchants, were for events calculated to advance the idea of popularizing aviation - which was the object of the meet. Decidedly it was not a Roman Holiday for the spectators.

In advertising the meet on the day before, the Squadron developed a scheme which may help someone in future where something of this sort has to be staged in a rural community. Planes were sent out with handbills, to fly low over the rural schools during the dull hours of the afternoon, and in less than three seconds there were a crowd of youngsters at each one. A flock of handbills were easily dropped into each schoolyard, and the kids did the rest.

AEROMARINE OPENS SOUTHERN AIR ROUTES.

The first flight of the 1922-1923 season between Key West and Havana was made November 8th by the Aeromarine 11-passenger flying boat SANTA MARIA. On the initial flight the SANTA MARIA carried eleven passengers, including C.F. Redden, President of the Aeromarine Airways, Inc., and Major B. L. Smith, General Manager.

On their arrival in Havana, the party received an enthusiastic reception. Prior to the reception, the President of Cuba had designated the Cuban Secretary of War, Secretary of the Navy and the Secretary of State as his representatives, and after the arrival of the SANTA MARIA these officials, accompanied by Mr. C.S. Hurst, American Consul-General in Havana, made a flight in the SANTA MARIA above Havana and circled Morro Castle several times.

Mr. Redden made public in Havana the fact that the Aeromarine Company had already made plans to inaugurate a regular schedule from New York direct to Miami in the winter of 1923, stating:

"We have ^{had} this service under consideration for the past two years and we have proved that we can take passengers aboard in New York after breakfast and get them into Miami in time for supper. This will be possible by relay work. For instance, one of our big 11-passenger air cruisers will go down the coast half way, and there at some convenient airport the passengers will be transferred after lunch to a second aeromarine flying boat which will continue on down the coast."

The SANTA MARIA is the queen ship of the Aeromarine Airways' Black Tail Fleet. During the past summer it was one of a fleet of four 11-passenger enclosed cabin flying boats operating between Cleveland and Detroit on a daily double schedule.

At the close of the season on the Great Lakes, the SANTA MARIA was flown to New York via Lake Erie, Lake Ontario, the St. Lawrence River, Lakes Champlain and George and the Hudson River. After refueling in New York, the SANTA MARIA proceeded south via Atlantic City, Manteo and Miami to Key West.

The Aeromarine Company will operate a fleet of ten 11-passenger flying boats in the South this winter. In addition to the daily service between Key West and Havana, flights will be made regularly between Miami and Nassau in the Bahamas. The distance of 187 miles to Nassau is made in $2\frac{1}{2}$ hours against 20 hours by steamer.

This is the third season that the Aeromarine flying boats have operated in the South, and their record for safety and performance exceeds any development made in Europe in over water air transportation. They have flown more than one million passenger miles and carried twenty thousand passengers without a single mishap.

Bi-plane wings with a spread of 104 feet support the luxurious enclosed cabins of these giant flying boats. The interiors of the cabins are fitted up as luxuriously as any high-class automobile. Passengers sit in comfortable, reclining, upholstered, wicker chairs, and each chair has an individual window allowing unlimited vision. The cabins are electrically lighted, and every convenience for the safety of passengers has been installed, including a toilet in the rear cabin. Each of these giant flying boats weighs $7\frac{1}{2}$ tons, powered with two 400 h.p. Liberty engines, and has a speed of more than 100 miles an hour.

AN INSPECTION TRIP IN RECORD TIME.

We have had several occasions in the past to comment on the fact that if one wanted to go on a hurried business trip to a far distant place there is no better method of conveyance than the airplane. The practice of making inspection trips to military posts via airplane bids fair to become a popular one, and the time may not be far distant when high ranking officers of the different branches of the service will avail themselves of the aerial route. Even now it seems that the utilization of the airplane for inspection trips is not alone confined to the Chief of Air Service and Assistant Chief of Air Service. Not long ago we had a story in the NEWS LETTER of the Chief of Infantry taking a flight to inspect a distant military post, and now we have a story, from the Commanding Officer of the Air Service troops at Fort Riley, Kansas, describing a long trip made by the Assistant Chief of Cavalry from that station to Fort D. A. Russell, Wyoming, and return, as follows:

"This is not the first time that the Cavalry officers here have made use of the airplane as a means of fast long-distance transportation, but it has remained to Colonel F.C. Marshall, Assistant to the Chief of Cavalry, to discover on his first flight in aircraft that the Air Service is something more than a fair weather organization. On a tour of inspection of Cavalry posts, Colonel Marshall wished to proceed from here to Fort D. A. Russell, Wyoming, with the least possible delay, and was finally persuaded to fly over. Captain Thomas Boland took off with him at 6:30 a.m., Central Time, on Saturday, under the most unfavorable weather conditions possible, in Major Tinker's 'Bird-o-Prey', and took him over, under, around and through fog, clouds and rain-squalls until, near the Nebraska line, they came out into fine clear weather, which lasted for about fifty miles. Then the snow started. Some snow had fallen several days before, so that most of the country, naturally devoid of landmarks as it is, was covered under four feet of it. For over two hundred miles they flew a straight course, thanks to a Navy compass, at practically ground level, because in the swirling snow they lost the ground at fifty feet altitude, wondering what they would find to land on if the motor failed to last them through. The motor had considerably more than a hundred hours when the trip started, but came through without a sputter for 5 hours and 27 minutes non-stop.

By the grace of God and the good sense of the Air Mail officials, the field at Cheyenne, Wyoming, is kept nearly clear of snow by the wind, so the landing presented no great difficulty. When Captain Boland was circling the field, the Air Mail pilots were laying odds that it was no Army pilot who was up in that snow storm that had tied up a number of trains. When they landed the thermometer was at four degrees Fahrenheit, and the passenger was so stiff from cold that he had to be lifted out of the cockpit.

The return trip on Monday was simply a reversal of the events of Saturday, the West wind helping out. The flight of a little over 500 miles was made in 3 hours and 35 minutes."

Here was a round trip, totalling over a thousand miles, which was made in 9 hours and two minutes. There is no telling how long it would have taken Colonel Marshall to complete this inspection trip had he relied on the railroad for his transportation.

TYPHOON SEASON STARTS IN THE PHILIPPINES.

The most severe typhoon of the season passed near Kindley Field, Fort Mills, P.I., during the latter part of September. The rain fell in a deluge for three days and was accompanied by extraordinary high winds. The waves rolling in along the beach near the hangars were awe-inspiring. The patio around which the

hangars are located was piled high with debris, boulders and heavy timbers washed in by the waves. The concrete pier was smashed by the pounding of the surf. There have been typhoons during which the wind has attained a higher velocity, but it is doubted whether there has been as heavy a sea in the vicinity of Corregidor for many years. For three days boats were prevented from making the Manila-Corregidor run.

"Lady Luck" seems to have deserted the 2nd Aero Squadron in their efforts to sandwich a little flying in between periodic visitations of typhoons. Following the departure of the typhoon for other regions, Monday dawned a day most propitious for flying, and three flying boats were launched. Everything went well until about 3:00 p.m., and just when everything was set for a little formation work, Old Man Hard Luck decided to pay a visit. A flying boat piloted by Captain Edwards, with Lieut. Owens as assistant pilot and Lieut. Creighton as observer, made a forced landing in the channel off Monkey Point. The channel at this point is rather narrow and the south wind, coupled with a rapid current passing through the channel, carried the boat and its occupants on the corral reefs surrounding Razor Island. The occupants of the ship jumped overboard as soon as the shallow water was reached in an attempt to prevent the ship from grounding, but their combined strength was not equal to the force of the tide and the current flowing around the reefs. A small hole was punched in the hull and the ship slowly sank in shallow water.

In the meantime, a second boat, piloted by Lieut. Gravely, with Captain Collier as assistant pilot, made a forced landing a short distance farther out in the channel. The occupants of this boat had a few anxious moments, for it appeared as if the current would carry them on the same reefs. They managed, however, to miss going aground by a matter of a few inches. By this time the rescue boat had appeared on the scene, and an attempt was made to pull the seaplane off the rock into deep water. It was finally decided to leave the plane in shallow water until the flat bottomed scow could be parked up close to it. It was feared that the boat would sink before it could be brought around to the Air Service dock. The rescue boat then towed Lt. Gravely's ship around to the Fort Mills dock, where it was anchored for the night and flown around to the hangars the next day after the engine had been repaired.

The ship on the reef was anchored securely for the night, and the next day was salvaged and towed back to Kindley Field. Captain Edwards and Lieut. Owens had their feet cut up by the coral while attempting to hold the ship off the reefs. They were treading high and easy for a few days, but otherwise are none the worse for their experience.

AIR MAIL PILOTS ENCOUNTER HARD WEATHER

The Air Mail pilots of the Western Division with headquarters at and flying from Crissy Field, Presidio of San Francisco, Calif., to Reno, Nevada, have recently experienced very hazardous weather. For three days they were unable to get over the Sierra Nevadas. Ground observers in this region report that the first real snow storm of the season precipitated a fall of 48 inches. This was an average throughout the range.

PERSHING STATUE UNVEILED AT SAN FRANCISCO.

During the review and ceremony at the unveiling of the Pershing Statue, Armistice Day, planes from Crissy Field flew over Golden Gate Park. The first unit was in charge of Capt. A.F. Herold of the R.O.T.C. The planes were piloted by Lieuts. Summerfield, Pugh, Stewart and McDonald. After the unveiling, these officers flew to San Jose and took part in the parade there. Following the reserve officers came planes piloted by Lieuts. E.C. Kiel, W.A. Maxwell, W.C. Goldsborough, J.W. Benton, L.F. Post and Sergeants F. Steinle, T. Powers, C. B. Guile, D. Templeton and Fred Kelly of the regular Air Service.

AIR SERVICE RESERVE ACTIVITIES ON THE PACIFIC COAST

Reserve activities at Crissy Field, Presidio of San Francisco, Calif., are on the increase. Under the guidance of the Executive Officer of the 91st Division, Air Service, there are now two squadrons of the Non-divisional group. The 447th Pursuit Squadron has been operating for about two months, but the 440th Observation has just begun.

Of the 24 officers assigned to the 447th, eight have soloed again, which is doing very well for the short time they have been in training. Captain I.

G. Irving, one of the "Aces" of the late war, is in command of this organization. Lieut. H.M. Pugh is Operations Officer; H. S. Thompson, Adjutant; V. D. Summerfield, Supply; W.F. Kyle, Engineer, and Lieut. W.V. Morgan in command of the active flight.

The 440th Squadron, of San Jose, Calif., the latest of the squadrons to commence training, probably deserves the greatest praise. San Jose is a fine city at the end of the Bay, about 45 minutes' flight from San Francisco. Major George Sykes, the Commanding Officer, must have some very commanding ways about him, for, not only has the squadron a field, but the various oil companies are fighting over the privilege of donating the necessary fuel and lubricant. There are only 12 officers in the squadron at present, and nine of these are out regularly. Captain A.F. Herold, Air Service, recently flew to San Jose from Crissy Field to inaugurate the new training. The enthusiasm with which the Reserves worked was such a pleasant experience that several weeks later Captain Herold again flew down, taking with him Sergeants Fowler and Kelly, of the 91st Squadron at Crissy Field to act as assistant instructors. The three Hiso's were up and at it every minute. To insure an early start on Sunday morning, the instructors were prevailed upon to stay over at the expense of the squadron. How is that for enthusiasm? Every third Saturday and Sunday of each month are set aside for the training of the San Jose Squadron.

The 316th Reserve Squadron, which has 32 officers (18 fliers and one non-flier being active) is at present engaged in perfecting their formation work. It participated in the celebration of Armistice Day and the unveiling of the Statute of General Pershing, which was erected in Golden Gate Park.

With one week^{and} devoted to San Jose and two week ends to the Bay region, Crissy Field is probably one of the most active of Reserve training centers. Captain Herold being the only Regular Army officer assigned to this duty, the field is called upon quite often to furnish additional instructors. The willingness of these officers and enlisted pilots to assist during what is rightfully their time off speaks well for the future good will and comradeship between the Regulars and the Reserves.

THE AIR SERVICE AND COAST ARTILLERY MANEUVERS AT LANGLEY FIELD

During the early part of November the 2nd Group (Bombardment) at Langley Field, Va., was engaged in a series of tests with the Coast Artillery. The first problem was to erect a smoke screen in a number of small vessels representing an enemy fleet approaching Fort Monroe. Five planes of the Group, representing enemy aircraft, easily located the fleet and at once put down a very effective screen between the fleet and the fort. Although only 24 bombs were dropped, the splendid location of the screen carried the fleet hidden until past the forts.

On Monday a flight of 5 Martins bombed from 3,000 feet a 10 x 10 foot pyramidal target towed on a 20 x 20 foot raft. The result of ^{this} test is best described in General Mitchell's interview with the press, as follows:

"The demonstration Monday totally eclipsed anything ever before attempted by aviators from a standpoint of accuracy in bombing and potential defense strength of aircraft. Five Martin Bombers, loaded with full equipment, including four 300-pound demolition bombs 'safe' to a ship, bombed two targets under towage from a height of between 3,200 and 3,700 feet, and every bomb dropped was effective, possibly with one exception. The accuracy of fire is without parallel, especially since the targets were only at the most 20 x 20 feet in size".

General Mitchell personally witnessed the exhibition from a DH above the target.

On Wednesday the tests from 6,000 feet were about to begin when the target turned over and sank before a bomb had been dropped. Perhaps the target, as our dual instructors used to say, was "using the old bean". Anyway, after milling around for two hours in the zero temperature, the formation gave up the possibility of getting another target out in time and returned home. During the period of waiting, radio telephone communication was maintained with the fort the entire time, and it was due to their supplications "wait ten minutes more" that the formation remained in the air as long as it did.

On Thursday the famous flight appeared over the target again at 6,000 feet and outdid themselves. Each of the five ships carried four 300-pound "duds", and the first two bombs lacked but a few feet of ruining the target. Not one bomb fell outside the effective zone. This demonstration is all the more remarkable when it is considered that at 6,000 feet there was a layer

of heavy clouds, which not only obscured the tiny target at times but bounced the ships around like the proverbial cork.

Friday morning saw the last of this series of tests from 8,000 feet. Although the weather was bitterly cold and there was a layer of clouds skimming along at 4,000 feet, 80 percent of the shots were classified as effective hits.

In all, the tests were highly successful and ^{very} gratifying, and Langley Field looks forward with pleasure to a more extensive program in the Spring.

THE AVIATION MEET AT HARTFORD, CONN.

Hartford's second Aviation Meet, held on November 10th, 11th and 12th, was successful to an extent that far surpassed the expectations of its promoters. The only incident to mar the event was the death of Lieut. John Blaney, Air Service, from Mitchel Field, whose plane, caught in a stiff breeze, collided with a tree at the edge of the field and crashed to the ground, killing him instantly. Army Air Service pilots from Mitchel Field, which by the way was awarded the Gilbert F. Heublein Trophy for the largest number of military entries, carried off a number of the trophies, as follows:

Lieut. E.H. Barksdale the free-for-all speed race over a 54-mile triangular course.

Lieut. F.B. Valentine the Class A race for planes rated under 125 miles an hour.

Major J.A. Jones and Lieut. E.H. Barksdale, with Lieuts. J. S. Stanley and Kendrick Noble of Miller Field, the Relay Race, each pilot winning a trophy.

Corporal S.H. Turner the bomb dropping contest.

Aberdeen Proving Grounds, Md., sent but two planes to participate in the Meet, one an NBS1 and one DH-4B, but despite this fact three of its pilots were successful in annexing seven out of a possible twenty prizes, viz:

1st Lieut. C. E. Shankle won first place in the contest for accuracy in landing.

1st Lieut. W.H. Bleakly won second place in the contest for accuracy in landing and in the bombing contest and first place for the plane flying the longest distance.

Staff Sergeant Linwood P. Hudson won second place in the first and second speed races and second place in the altitude test.

This certainly constitutes a record, and the personnel at the Aberdeen Proving Grounds were very much elated over the success of their entries, especially in view of the fact that they triumphed over planes which had been especially tuned up for participation in the Meet, whereas no special work was done on their two planes, due to the extreme shortage of personnel and equipment and the intense bombing being carried on in conjunction with Ordnance Proof work.

Lieut. Samuel T. Mills, of McCook Field, who acted as Officer in Charge of Flying; won the "Long Distance on the Hartford Cup", donated by Gov. Everett J. Lake, and Pilot Charles H. Ames, of the U. S. Air Mail Service, who arrived at Hartford on Friday with the air mail, bringing some 20,000 letters mailed in Chicago the previous afternoon, received the Hartford Chamber of Commerce Trophy for the most efficient pilot.

The meet opened on Friday morning, and in addition to the participants from the Army Air Service stations at McCook Field, Ohio; Mitchel Field, N.Y.; Aberdeen Proving Grounds, Md., and Framingham, Mass., there were quite a number of entries of civilian planes from the New England States.

A feature of the Meet was the visit of the Army Airship D-3, which was flown up from the Aberdeen Proving Grounds for display and inspection by the aerial enthusiasts of the vicinity. The D-3 only remained at Hartford for about an hour and then returned to Aberdeen via West Point, New York. Major Westover and the crew of the airship were awarded a silver loving cup for their appearance.

AIRSHIP TOWS ANOTHER ONE

An interesting experiment was performed recently at Scott Field, Belleville, Ill., with the Airships A-4 and Pony Blimp. The Pony Blimp, with its motor dead, was attached to the A-4 with a 500-ft. $\frac{1}{4}$ -inch rope and was towed by the latter ship for about ten miles. A safe landing was effected with the ships thus attached.

PROGRESS OF LIGHTER-THAN-AIR TRAINING AT SCOTT FIELD

The course of instruction in airship piloting for student officers and cadets at Scott Field, Belleville, Ill., has been progressing rapidly. The A-4 a one-man control ship, is being used for this purpose. The ship has been kept busy giving one-man flights to those students of the Balloon and Airship School who finished their primary airship ground training at Ross Field last summer. The Pony Blimp has been used for practice flights by qualified airship pilots at the Post.

AIRSHIP HANGAR AT SCOTT FIELD COMPLETED.

The new airship hangar at Scott Field, Ill., is about ready to be turned over to the Government. The work is entirely completed with the exception of a small block of concrete in front of the south door. The hangar has been used for the past two months for housing the Pony Blimp, the A-4 and Captive Balloons.

The hangar is about the second largest in the United States, costing more than one million two hundred thousand dollars.

FAST DIRIGIBLE PUT IN COMMISSION AT SCOTT FIELD ✓

The SST-3, or "Mullion", a non-rigid-two-man control airship, which has been set up at Scott Field, Belleville, Ill., under the supervision of Lieut. Frank M. McKee, with Technical Sergeant Olin Brown in charge, has been air tested and found in good condition. This ship is one of the original English bags, and is inflated with hydrogen. It is one of the submarine scout type which was used extensively by the British in 1918 for "spotting" submarines.

The SST is one of the fastest of the Army dirigibles, with a maximum speed of 57.5 miles per hour. It uses two four-blade propellers, driven by two Rolls-Royce "Hawk" type motors, developing 150 horsepower. It is 165 feet long, 49 feet high, 32½ feet wide, and has a gas capacity of 100,000 cubic feet. The useful lift of the ship is 2240 lbs., and its weight is 4,750 lbs. The car is designed for 5 passengers, including the pilots and engineer.

The peculiarities of its construction are the lightness of the bag, which is made of very thin two-ply fabric, and the fact that it has no upper stabilizer.

This type of airship carries 240 gallons of fuel in the four 60-gallon tanks attached to its sides. This amount of fuel is sufficient to keep the ship in the air 12 hours. It has a cruising radius of 690 miles.

The SST-3 will be used for training purposes by the Air Service Balloon and Airship School at Scott Field.

AIR SERVICE TROOPS PARTICIPATE IN ARMISTICE DAY PARADE

Montgomery, Ala., celebrated Armistice Day in splendid style, the principal event of the day being a monster parade participated in by the many organizations of the city, including the veterans of the World War and the Air Service troops stationed at the Montgomery Air Intermediate Depot. Among the various floats in the parade was an airplane from the depot mounted on a truck. The Air Service troops were well above the average regulars both in military appearance and precise drill formations. Five planes from the depot flew over the line of the parade and added greatly to the martial aspect of the day. Leaders of the American Legion spoke warmly in their appreciation of the cooperation of the Air Intermediate Depot in making the parade a success.

The afternoon was featured by the annual football game between Auburn and Tulane. Two officers of the 22nd Squadron (Observation) Lieuts. J.E. Upton and J.M. McDonnell, flew over the football field, took several pictures of the game, and then traversed the distance of 175 miles from Montgomery, Ala., to Candler Field, Atlanta, Ga., in one hour and twenty minutes, in order to present same to an Atlanta newspaper. This paper printed the pictures the next day and stated that it was the first time pictures of a football game in the South were ever taken from an airplane.

A CROSS COUNTRY FLIGHT FROM SAN ANTONIO TO NEW YORK. ✓

Lieut. J.J. O'Connell, Air Service, stationed at Kelly Field, San Antonio, Texas, who recently made a cross-country flight from that field to Mitchel Field, L.I., New York, and return, submits an interesting report to the Chief of Air

Service covering this flight. The plane used was a DH4B-1, which had been overhauled and re-rigged for the occasion. In this report Lieut. O'Connell gives much valuable information concerning landing fields en route.

It will be noted that the only trouble experienced on the entire trip was a cracked landing gear strut, which simply adds another testimonial to the many already existing of the reliability of the DH and, especially, the Liberty motor.

The following is an extract from this report:

"Left Kelly Field for Post Field at 7.30 a.m., September 15, with Staff Sergeant Chester Colby of the 10th Group (School) as passenger. The wind was from the northeast, varying to East, sky clear, with the exception of a few clouds at 2,000 feet. I flew east of compass course, following line of mesquite to Waco, Texas. At Waco headed on to compass course, because wind had changed to due North. Checked time West of Fort Worth and figured I had a half hour margin on gas at rate I was traveling. I was surprised when main tank ran out ten miles South of Lawton, Oklahoma. Went in on the emergency tank. If the line of mesquite is followed from San Antonio to Waco, Texas, instead of compass course, emergency landing fields can be found, the entire distance from an altitude of 2,000 feet. The total time from San Antonio to Post Field, Oklahoma, was four hours and 35 minutes.

I left Post Field at 7:30 a.m., September 18th. The weather was good, the sky practically clear and a strong wind blowing from the North. Checked time at Tulsa, Oklahoma, and decided to go on to Springfield, Mo. After the first fifty miles there were plenty of landing fields available, as crops had been harvested. The country became rough on the edge of Oklahoma and Missouri, near Neosha, but opened up again near Springfield, Mo. after three hours of flying. I found the field at Springfield, Southeast of town about three miles and landed. This is a very poor field and should not be used. A clump of bushes and trees being in the center and the approach a bad one. The North and South sides have big trees, the east side a cornfield, and the West side a telephone line. The field is small and rough due to having been plowed, leaving it bumpy. I made two attempts before I got off, because the bumps made the engine cut out. There are several good fields about six miles east of Springfield which would seem much better as official landing fields. There was not much wind when I reached Springfield. I flew on an absolute compass course from Post Field, and did not get off the course at all.

Left Springfield for Belleville, Illinois, after gassing at Springfield. There were many landing fields from Springfield to where the mountains started. For about two hours before getting into St. Louis, the landing fields were scarce. In fact, I only saw a few fields, I knew I could land in without crashing. If one flies North of the course near the railroad there are quite a number of emergency fields. The weather was clear and visibility very good. Landed at Scott Field at 2:30 after two hours and fifteen minutes' flying. Gassed, had lunch and left Belleville for Dayton, Ohio at 3:30 p.m.

The country was level and landing fields were everywhere. Flew at about 1,000 feet altitude. Motor worked perfectly since leaving home airdrome. This section of the country is very easy to fly over, as the section lines are all laid out. West Central Indiana is rough in places, but otherwise it is an ideal section of the country to fly over. Decided I could not make Dayton, Ohio, before dark so I landed in the race track at Rushville, Indiana, at 6:10 p.m., after two hours and forty minutes' flying from Belleville. The race track would be a good enough landing field if it were kept mowed. The grass weeds are rather high and heavy. The field is about half a mile west of the courthouse.

Left Rushville at 6:30 September 19, for Dayton, the weather being good except that it became quite hazy as we approached Dayton. The country is open between Rushville and Dayton, and landings may be made anywhere in emergency. We landed at McCook Field after 45 minutes of flying, and remained there the rest of the day inspecting the experimental department and the Depot at Fairfield. The plane was thoroughly inspected and the propeller changed for a Martin Type. Left Dayton a little before noon, September 20, for Moundsville, West Virginia. The weather was cloudy and threatening rain, ceiling dropped at 3000 feet near Columbus. About 20 miles beyond we struck rain, which lasted about 20 minutes. Got off the course and checked ourselves 10 miles south of our compass course. When we reached the hills in Eastern Ohio, the clouds had broken away and the weather cleared, but visibility at 1500 feet was not more than seven miles. Landed at Moundsville after two hours and ten minutes' flying. Landed from the North and over the corn field. The Northeast corner of the field drops off sharply and we landed on this

slope, splitting the right front landing gear strut. Luckily there was an extra under-carriage available, and we had it changed within an hour and a half. Decided to stay at Moundsville that night, as it was doubtful whether we could get to Washington before dark.

Left Moundsville at 11:45 a.m., September 21st, as it was so foggy earlier that the tops of the mountains could not be seen. After we got out of the vicinity of Moundsville we had clear weather, although the whole trip from Moundsville to Washington was very hazy. The first time I knew my exact location was when I checked up Winchester and the Shenandoah River and Blue Ridge Mountains. From there to Washington the country was about as pretty as any seen on the entire trip. Landed at Bolling Field after two hours and forty minutes' flying. Gassed at Bolling and took off for Mitchel Field. Decided I would make it before dark and nearly missed out, as there was a strong wind blowing from the North. I flew at more than 1550 R.P.M's. from Washington, Del. to destination, the only time on the trip that I did so. Weather and visibility were good. The sun went down when we reached Sandy Hook, and by the time we got over Jamaica Bay it was getting dark. I did not know exactly where Mitchel Field was. Began to get uneasy and decided that the next place I saw that looked good would be my next landing place.

Saw a brown looking field, about ten minutes later, which proved to be Hazelhurst Field, also saw Mitchel Field then and landed at dark after two hours and fifty-five minutes' flying. Left Mitchel Field at 6:30 a.m. September 29th, for Bellefonte, Pennsylvania, the fog being very heavy and ceiling about 500 feet. Went over to Hazelhurst and saw the mail pilot just starting out, so stuck on his tail. We went above the fog and found practically unbroken stretch of fog below us and the bright blue sky above. Saw Hoboken through rifts in the fog. This was the last I saw of the ground until we got through the clouds, for the fog seemed to turn to white fleecy thick clouds just after we reached Hoboken. The clouds cut off in a straight line about ten minutes before we reached Bellefonte, Pennsylvania. Landed on the Air Mail field after two hours and fifty minutes' flying. This field was very poor, and unless a pilot knows it or has information concerning same, he has a good chance to crash. Left Bellefonte, Pa., facing west wind and started for Cleveland. The first twenty miles west of Bellefonte offers practically no landing fields, but the mountains gradually dwindled to hills and by the time we reached Ohio the country was level and offered many landing fields. Landed at Cleveland at 2:50 p.m. after two hours and fifteen minutes' flying. To a stranger the air mail pilot station is very difficult to find.

We had our first bite to eat that day at Cleveland and left for Detroit at 3.20 p.m., followed the lake shore around, cutting off Toledo. The weather was good but visibility poor. Landed at Selfridge Field after one hour and forty minutes' flying.

We left Selfridge Field, October 2nd, at 8:00 a.m., bucked a west wind, weather was good, visibility fair, landed at Rantoul, Illinois, after two hours' flying. Gassed and left Rantoul for Belleville, landing at Scott Field one hour and forty minutes later.

October 3rd, left Scott Field with a tail wind, weather and visibility good. The wind shifted several times during the trip to Tulsa, Oklahoma. Landed at Tulsa, after flying three hours and fifty-five minutes. Left Tulsa for Fort Sill, Oklahoma, weather and visibility good, and landed at Post Field after one hour and fifty minutes' flying.

Left Post Field, October 4th, 1922, with a tail wind. The wind shifted to south at Red River, decided to go to Dallas, Texas, for gas. Landed at Love Field, after one hour and fifty minutes' flying.

Left Love Field, bucking a south wind, weather and visibility good. The wind changed to north at Waxahachie, and we arrived at Kelly Field after two hours and thirty minutes flying time.

No motor or any other trouble was experienced on the trip with the exception of a cracked landing gear strut at Moundsville, W. Va. The weather was ideal practically during the whole trip. We did not get more than ten miles off our compass course at any time, and the total time of the trip was forty three hours and forty minutes.

We were treated exceptionally fine at all service fields, especially at Selfridge Field. Mention is also made of the courtesy and good will shown by members and pilots of the Air Mail Service.

AN AERONAUTICAL MUSEUM AT McCOOK FIELD ✓

Within the course of the next few months there will be opened at McCook Field, Dayton, Ohio, a Museum containing a most unique collection of various types of airplanes and aircraft engines. It will occupy four new buildings at the extreme north end of the field, having a total floor space of 24,600 square feet. The collection of the exhibits was started during the war, and includes airplanes and engines of American, British, French, Italian, and German design. The more successful and widely-known productions of later design have been added as they were developed, consequently a fairly comprehensive idea of the course of the development of the present-day airplanes and aircraft engines may be gotten by a careful study of the various displays.

The great value of the Museum, however, will be that it will afford a means of obtaining accurate and detailed information concerning the design features of a large number of different types of airplanes and aircraft engines, which is required by those interested in working out new designs. On account of the inaccuracies and omissions of important details, which frequently occur in written descriptions, mistakes in design are often made, or it is found necessary to duplicate costly and tedious experiments. Even if the airplane or engine is available for inspection, it is not possible to determine the details of construction of certain parts such as wing ribs, contours of cams, etc., unless they are completely disassembled, which is impossible in the majority of cases. The method of display used in the Museum will entirely eliminate this difficulty, and therein will lie its great value.

In the engine department, which occupies one entire building, there are displayed 63 different types of engines. Among these are included engines having ^{from} 2 to 18 cylinders of both air and water-cooled types. Engines with radial, all-in-a-line V-type, and opposed arrangements of cylinders are represented. The engines of each type are shown. One is completely assembled and mounted on a stand. The other is entirely disassembled, the small parts being placed in cabinets with glass doors, and the larger parts on an open shelf just under the cabinets. Duplicate parts are stored in closets under the shelf. These parts may be borrowed for use on engines in service at McCook Field by filling out loan cards, which on many occasions will result in a great saving of time and expense. Every part is thus available for inspection and measurement, while the assembled engine furnishes an opportunity for the designer to obtain first hand information as to their relationship and method of functioning. The cabinets are arranged in six rows across the engine building. Library tables and chairs are placed conveniently near them, and bound documents containing very comprehensive data on all engines exhibited may be obtained from the office in the building.

An aeronautical engineer of wide practical experience will be in charge of the exhibits, and will gladly render every possible assistance to prospective designers and others interested in aviation in securing any available information.

The airplane exhibit includes types of bombardment, training and pursuit airplanes of both foreign and domestic design. These are so arranged that a comparison of the airplanes used by the different countries for the same purpose can be easily made. Certain of the more widely used types of U.S. Army airplanes are completely assembled and fully equipped with navigation instruments, armament, landing lights for night flying, etc. Various special features of the airplanes and their equipment are described on placards. Bound documents are also available containing detailed information relative to their design and performance.

The wings of the disassembled airplanes are mounted in wing racks alongside the fuselage. The fabric is removed from one of them in order to allow an inspection of the spars, ribs, etc. The other wing is left intact to give an idea of the completed part. Various types of landing gears are also shown disassembled, thus making it possible to easily observe the details of their construction.

The Museum can undoubtedly be a great aid to the engineers of the U. S. Army Air Service, and it is hoped that they will avail themselves of its every facility. Manufacturers of airplanes, aeronautical engineers engaged in civil practice, and others interested in the science of aviation will also be welcome, and the resources of the Museum placed at their disposal.

SQUADRON NEWS

Kelly Field, San Antonio, Texas, Nov. 4, 1922.

The Second Division, at Camp Travis, Texas, performed a field problem on October 30-31 as a part of their annual inspection by General Hines, Corps Area Commander. General Smith, commanding the Red Army, occupied the Stanley Reservation on Saturday. Monday morning, the Second Division under General Lewis moved out from Camp Travis in two columns, one on the Blanco Road and one on the Fredericksburg Road, enroute to attack the Red Army.

Captain Frank H. Pritchard and Lieut. R. B. Walker as observers, and Lieuts. Crocker and Selzer as pilots, formed the Air Service of the Red Army. They operated from the polo field at Camp Stanley. On Monday and Tuesday they kept the 2nd Division under observation, reporting the progress of both columns all day.

Captain William H. Crom, with Captains William E. Lynd and Joseph H. Davidson and Lieut. Walter Peck as observers and Lieuts. Larson, Clement, Wheeler, Day, O'Connell and Clark as pilots, with seven DH4-Bs operated out of Kelly Field all day Monday, reporting the whereabouts of the two columns every hour, and locating enemy troops and battery positions on the Stanley Reservation. Messages were dropped at Division Headquarters, shown by a white panel on top of the car of the Chief of Staff, which was along the Fredericksburg Road.

Clouds hung low over Camp Stanley so that the ships had to "contour chase" over the mesquite to find the enemy. The clouds lifted towards noon and the entire enemy force was located and reported before the Second Division reached its camp at Camp Bullis. Captain Griffin and Cadet Thomas photographed the column on the march, to be used as the basis for the critique of their march discipline.

When the Second Division made camp on Monday night, it was remarked by one of the umpires that the Air Service had spoiled the problem as a reconnaissance problem for ground troops, for all enemy positions were located and marked on the map. General Smith, therefore, called in the Red forces for the night.

During the night a heavy rain fell, making Kelly Field very muddy. The Second Division shelter tents were washed away and the troops were wet and discouraged. It was impossible to fly from Kelly Field but Captain Lynd, with Lieut. Wheeler, as pilot, took off in an XB1A from the paved road along the hangars and reported all enemy activities in the morning. About noon came the information that General Hines had called off the maneuvers. The troops marched back to Camp Travis that afternoon and night. The Air Service flying over mesquite and hilly country in bad weather surprised the ground troops by its ability to gain information.

The Red Cavalry on seeing a ship would gallop for the nearest tree and try to get out of sight, but this sudden movement only made them more conspicuous.

FORTY-FIRST SQUADRON (SCHOOL): A total of 74 hours and 30 minutes were flown by the flying personnel assigned to this organization during the past week.

FORTY-THIRD SQUADRON (SCHOOL): Flying for the week consisted of formation flying, routine training, dual instruction, test flights and reconnaissance missions. This has been the first week since the class started that very little flying has been accomplished, due to rainy weather. The class is working hard, as there is just about six weeks of flying left in which to finish the present class. It is expected that night flying will start shortly.

NINETIETH SQUADRON (ATTACK): Two ships from this squadron participated in the 2nd Division Maneuvers October 30-31. The Division was separated into two distinct forces, the Red and Blue Army. The Blue Army being encamped at Camp Bullis, Texas, the Red Army was reported marching toward Camp Bullis along the Foch Highway. Our pilots, representing the Blue Forces, was allotted the mission to locate the Red Artillery as reported to be in position. Four flights were made, the first day (October 30th) and one flight on the 31st, during the night a heavy downpour of rain unexpectedly came, the Commanding General, 2nd Division called off the maneuvers.

Technical Sergeant Ketchum, who was recently taken to the Base Hospital in an unconscious condition, visited the boys a few days ago, stating that he will be back on duty within the course of the next few weeks.

THIRTEENTH SQUADRON (ATTACK): During the past week all planes belonging to this squadron have been tested for radio equipment. Four flights were made and the radio sets were thoroughly tested.

Very little flying done this week due to the heavy rain, nevertheless, two problems were carried out with the Second Division.

The coming general inspection has every one on the hop, getting busy to present a model barracks and field to the Commanding General.

EIGHTH SQUADRON (ATTACK): This organization furnished three planes and two pilots to work in conjunction with the Second Division Field Maneuvers. Part of their work was carried out under adverse conditions, as it rained during this period. Lieutenants Crocker and Selzer were the pilots and Staff Sergeant White was taken as a mechanic.

Bad weather interfered with the maintenance of our flight schedule, consequently the week was devoted principally to overhauls, repairs and getting ready for the coming inspection by the Corps Area Commander.

Kelly Field, San Antonio, Texas, Nov. 13.

NINETIETH SQUADRON (ATTACK): On November 4th Captain Morris Berman, Post Adjutant, with Private C. E. Conrad, 90th Squadron, left Kelly Field at 10:20 a.m., on a cross-country flight to Ellington Field, Texas. They arrived at 12:40 p.m. same date. On the 5th (Sunday) the return trip was begun, but when Richmond, Texas, was reached a fierce thunder and lightning storm was encountered. After several vain attempts to locate a landing field the captain decided to return to Ellington Field, which was safely reached after ninety minutes of flying. The rain had no ill effects on the ship, but the pilot and passenger were drenched to the skin. On the 6th the return flight was again attempted. Arriving over the town of Altair, Texas, adverse conditions were again met with, preventing the continuation of the flight. A safe landing was accomplished within the limits of the town. Inasmuch as the storm was heavy, practically the entire populace ran out to ascertain the trouble, and whether or not they could be of some assistance to the fliers. A farmer loaned the Captain a couple of large tarpaulins, one for the motor, and the other for the cockpits, and escorted the fliers to his home, where they were cordially treated and given shelter and all the pleasant comforts of home. The following day several test flights were made, but as the fields were very heavy and mucky, and the weather still threatening the Captain decided to remain over until the next day, the 9th, when the return trip was resumed with the entire population of the town to see them off. Kelly Field was safely reached at 10:10 a.m. the same day.

GROUP HEADQUARTERS: Lieutenant A.S. Heffley, reporting for duty after having been on leave of absence for one month, was appointed Personnel Adjutant of the group, relieving Lieutenant Douglas.

Major L. G. Hefferman, former Commander of the Group, reported for duty November 1st, spending a pleasant month on leave of absence. He has taken over the responsibilities of the Group Transportation.

Lieutenant D. V. Gaffney, returned recently from the Pulitzer Classics, in which he was a contestant, and resumed his former duties of Group Adjutant.

Lieutenant-Colonel Cook, Group Commander, with several other officers left on a hunting trip somewhere within the vicinity of San Antonio.

Major J. N. Reynolds has started things going in the way of schools in the Group. Among the subjects to be taught are; Gunnery, Communications, Operations, Mechanism, Supplies and Administration. Students are selected from the Squadrons of the group only.

Very little flying has been done by the pilots of this organization due to the inclement weather. Three days of the week were devoted to radio and test flights.

TWENTY-SIXTH SQUADRON (ATTACK): Lieut. James E. Duke, Jr., has taken advantage of a ten day leave of absence.

Very little flying has been done during the past week, due to the inclement weather. The flying field has been very bad, and if the rain should continue it will be several days before it will be possible to resume flying. Two more ships have been received, which brings the squadron's quota to five, all in commission.

The hangars have been undergoing a siege of renovation, the interiors being painted and repainted. A new status board has been added to the equipment of the hangar and will be used to good advantage. Two skilled mechanics were recently transferred to the squadron and are now on duty with the Engineering Department.

THIRTEENTH SQUADRON (ATTACK): Lieut. Wheeler with Private Jackson as passenger, took off on a cross-country flight to Laredo, Texas, but had engine trouble and was forced to land at Pilotes' Ranch. On taking off again the motor cut out and the ship hit a fence, causing the plane to crash. The ship immediately caught on fire and was completely destroyed. Both pilot and passenger escaped uninjured.

EIGHTH SQUADRON (ATTACK): Owing to the unsettled weather, activities have been quiet. Wednesday afternoon presented the first available opportunity to resume aerial activities, consequently the time was spent in overhauling equipment, repairing and painting planes.

The 8th is the proud possessor of a DH4B-3 ship, which was delivered from the SAAID, Captain Bubb immediately had same assigned to himself, and it is to be known as number "8" -- we might add, that it has been placed in the restricted class when cross-country flights are contemplated, i.e., it will not be used except where gas and oil are not obtainable, etc.

AIR PARK NO. 5 (ATTACK): Lt. Col. Culver, Corps Area Air Officer, accompanied by Staff Sergeant Richards as mechanic, left November 8th, on a cross-country flight enroute to Post Field, Oklahoma, by way of Dallas. Colonel Culver flew a DH4B-1. The purpose of the trip is to make an informal inspection of that post.

Lieut. D. G. Duke, Assistant Air Officer, reported to the field on official business and while here flew the SE5A assigned to the Air Office.

AIR PARK NO. 13 (SCHOOL) Captain Earl H. DeFord, Commanding Officer accompanied by Mechanic Arthur Frisk, took off for Austin Thursday afternoon, November 2nd. They arrived safely and planned to start back the following morning. Friday dawned gray and foggy. Nothing daunted, the Captain and Frisk started for home. After a few minutes flying the clouds became so low that it was necessary to climb above them. Having done this and flown along for an hour or so, an effort was made to come down and ascertain their location. The clouds, however, failed to cooperate, and a forced landing did the rest. The ship came to rest in a cotton field; there were no casualties. Pilot and mechanic returned by bus; the "Blue Bird" returned by truck escorted by Sergeant Hutchinson and his crew of wreckers. However, as it is said, "All's well that ends well".

Lieuts. George H. Beverley and L. J. Carr made a short hop to Waco last Saturday and returned the following day.

Lieut. Delmar H. Dunton arrived Sunday evening in the Martin Bomber from Langley Field. Lieuts. Dunton and Gaffney flew this ship -- the only one of its kind in this vicinity -- from Langley Field here to be used in the training of Bombing Pilots. Three planes started, but two came to grief in Missouri. At this time it is not known when the other ships will arrive, due to the extensive repairs made necessary by the hard soil of Missouri.

Staff Sergeants Colby and Wells visited Oklahoma City over the last week end. The trip was made "without incident", but how about Saturday night?

The mail orderly no longer groans beneath the Saccharine "billet deux" intended for the Peruvian Prince. It is rumored that a real photograph of his Highness accidentally got into circulation, with the above-mentioned result. The rattlesnake tie and other paraphernalia must now be relegated to the wall locker, or possibly disposed of at auction, in order to obtain another more fiercely aggressive outfit. In the meantime, we suggest a haircut and await further developments.

FORTY-SECOND SQUADRON (SCHOOL): The 42nd Squadron again succeeded in having more ships in flying condition than any other organization in the 10th Group, a total of eleven ships being on the line, which was approximately two-thirds of the serviceable ships that were used during the past week. One cross-country flight was made to Post Field, Oklahoma, by Captain Frank H. Pritchard. The trip to Post Field was made in two hours and fifty minutes, and was a non-stop flight. This is believed to be about the best time that has been made on a flight from Kelly Field to Post Field.

Additional instructions are being given to the enlisted men in the use of equipment so that every one will be at their best for the tactical inspection. Two recruits have been assigned, bringing the total strength of the Squadron to 104 enlisted men.

FORTIETH SQUADRON (SCHOOL): Due to the inclement weather the past week, very little training and operations were carried on. What was done consisted chiefly of dropping of Bombs at Camp Stanley by students.

CADET DETACHMENT: The Cadet Detachment all joined in the "Welcome Home" chorus a few days ago when "Doc" McLean, former cadet and everybody's friend, surprised our little world by re-enlisting in the service. Although assigned to the 43rd Squadron, he was immediately grabbed off for First Sergeant of the Cadets - and a more suitable man would be hard indeed to find. "Doc" was with our class until last summer, when his enlistment expired, - and we were sorry, indeed, to lose him, -

but now that he is again one of us, we realize anew the truth of the old wheeze about absence and the heart.

Bombardment and observation cadets have been getting transformation to SE5's during the past week, and all are enthused over their flying qualities. They all insist, however, that pursuit is a lazy man's game,-- referring to the slight muscular effort required to boot the rudder bar and the ease with which the stick manipulates. Be that as it may, everyone is pleased with the experience, and glad to have one more type on their pilot book.

The Pursuit class went on a cross-country to Waco during the past week end, and with the exception of a couple of forced landings with empty gas tanks on the return trip, the sojourn to the city where Dyanshine is concocted was uneventful but thoroughly enjoyed. A big football game between Balor University and Texas A. & M., also the Waco "Cotton Palace" furnished amusement and entertainment during the stay. It is rumored - though this is open to doubt - that three cadets attended church while there.

The brand new Martin Bomber brought in by Lieuts. Dunton and Gaffney promises to be a cute plaything for the Bombardment Cadets. This is the first ship of its type on Kelly Field - and is also a new type to many of the cadets. To prove that they aren't wholly lazy, the Pursuit students are itching for a chance to exercise their brawny muscles on the Martin's controls, but since only one of the three ships which were to have been brought here finally "got through", they fear that their chances are rather slim.

Cadets are beginning to realize that the end is near. December 17th, which marks the end of our course, is but a short way off, and in anticipation of the date, many are at last beginning to save a little money for the trip home. It will be a happy day, - and yet a sad one, - that sees the Cadet Detachment break up.

Crissy Field, Presidio of San Francisco, Cal., Nov. 13.

Captain John W. Signer, A.S., pilot, Lt. Commander M. C. McCombs, U.S.N., passenger, and Lt. E. C. Kiel, A.S., pilot and Lt. J. E. Lowry, U.S.N., passenger, made a cross-country flight in DH-4B's from Crissy Field to the Fleet Air Base at San Pedro, California. It will be remembered from the last issue of the News Letter that Lt. Commander McCombs and his passenger had the misfortune of landing in San Francisco Bay. Lt. Commander McCombs has made a number of visits to Crissy Field via Navy DH's and the personnel is ever ready to extend him a warm welcome. This fact does not pass unappreciated by Lt. Commander McCombs, and when absent from Crissy Field we are not forgotten, as is evidenced by a letter addressed to Major Geo. H. Brett, Commanding Officer, Crissy Field, in which he expressed his thanks for courtesies extended to him.

Lieut. Leo F. Post, piloted Mr. A. G. Gifford, Lt. Commissioner of the Salvation Army, on a cross-country flight to Sacramento, California where the latter was a delegate to a meeting of the Salvation Army. The following is quoted from a letter sent by Mr. Gifford to the Commanding Officer of Crissy Field.

"**I personally enjoyed the trip far more than I anticipated. Lieutenant Post showed himself more proficient in his service, which I also appreciated."

In connection with the foregoing, we observe the following from The Examiner:

"Forty-three minutes to Sacramento. This is the new aerial time record established yesterday by Lieut. Leo F. Post, Army Aeroplane Service, Crissy Field. With Lt. Commissioner A. Gifford of the Salvation Army as passenger, the flight was made from San Francisco to Sacramento, ninety miles, in forty-three minutes or at a rate of 2.3 miles a minute. This is said to be a record flight, beating the best previous time between the cities by two minutes. Lt. Post said upon his return from the capital city that a 30-mile wind at their backs made the record time possible. Returning to Sacramento by night was another unusual feature. This Lt. Post said was possible by reason of bright moonlight. After leaving Sacramento he said he passed a flock of geese and

was obliged to alter his course slightly to avoid them. This is said to be the first time a Salvation Army officer has used an airplane in regular course of work. Commissioner Gifford is in charge of the activities of the Salvation Army in eleven states of the western territory, and will lead a six-day campaign at Sacramento."

Among the readers of the Air Service News Letter at Crissy Field it is the consensus of opinion that our News Letter ranks with the Army and Navy Journal and Register as a forerunner of official dope and that our actions are governed accordingly. Quoting from the News Letter of October 19, 1922 - "Crissy Field takes pleasure in announcing the arrival of a junior pilot, Thomas Hart Benton. * * A number of us have been recommending our favorite smokes to Lt. Benton and expect he will kick through in the immediate future. * *", due and sufficient time has elapsed between the receipt of our worthy publication and Lt. Benton's failure to respond. In view of this it was necessary for The Adjutant to communicate with Lt. Benton in the following manner:

"Headquarters Crissy Field - October 31, 1922.
Subject: Failure to comply with orders.

You will explain by indorsement hereon your reason for failing to comply with suggestion outlined in paragraph 1, page 15, Air Service News Letter, dated October 19, 1922."

Devotees of the News Letter await Lieut. Benton's reply.

Lieut. Joe Dawson, A.S.R.C. and Sgt. G. Russell, A.S.R.C., made a flight to Burlingame, Cali on a training photographic mission.

Lieut. W. C. Goldsborough, as pilot, and Pvt. Willard Lufkin, as observer, made a flight in cooperation with the antiaircraft batteries stationed at Ft. Scott.

Lt. B. S. Catlin, A.S. made a cross-country flight to Mather Field, with Sgt. Morehead of the Finance Department as passenger, to enable the latter to transact business of the Finance Department at Mather Field preparatory to its closing.

Lt. W. C. Goldsborough recently purchased a JN-4 which was put up for sale at Mather Field. It is expected that "Goldie" will do all his traveling by air in the future.

The field is undergoing a vigorous policing by the troops and should be a shining example of Air Service posts.

The Commanding Officer, Crissy Field, is in receipt of a recent letter from Charles J. Glidden, editor and president of the Aeronautical Digest, stating that he has read with interest the Crissy Field items found in the News Letter. Mr. Glidden will be remembered by those of the Air Service as Major Glidden.

Kindley Field, Fort Mills, P. I., Sept. 18.

On Saturday, Sept. 16th, Major B. Q. Jones, Department Air Officer, made a thorough inspection of all property on the garrison. The Major then lectured for an hour and a half to the officers of the Field on the advantages of the new Provisional Air Service Regiment.

Lt. Owens has finally escaped from the captivity of Sternberg, where they were trying to persuade him that he was tubercular. The hardy Westerner, however, succeeded in feeling the "decs"; and has resumed his familiar post as Adjutant in headquarters, where his lanky form may be seen draped around his desk any time from 7 to 6 p.m.

Lt. Gabriel, a fellow victim of Sternberg, has not yet succeeded in out-witting the wily "medics". He only drew a pass to visit the Rock over the week end, but his healthy and jovial appearance lead one to believe that the chow is fairly good in Manila.

Number two typhoon signal is set up and we are experiencing the hardest blow and the heaviest downpour of the season. There has been no water transportation between Corregidor and Manila for two days, due to heavy seas.

Kindley Field, Fort Mills, P.I., Sept. 23.

Major T. J. Hanley, who has been in command of the Second Squadron and Kindley Field since his arrival in the Department last March, has been ordered to Camp Nichols for station and to assume command. Both officers and enlisted men regret his departure; During the period he has been in command here, constructive policies laid down by him have resulted in a marked improvement in the efficiency of all departments. Major Benjamin Weir who will arrive in the Department on the "Logan", about October 3rd, has been assigned to the Second Squadron, to assume command thereof and of Kindley Field.

Clark Field, Pampanga, P. I., Sept. 19.

With the arrival of 92 casuals at Clark Field on September 15th, the reorganized 28th Squadron (Bombardment) has been reincarnated. The Field seems to have taken a new lease on life. First Lieutenants R. A. Hicks and J. R. Drum, from Corregidor, have joined the 28th, and are located in the Artillery Bachelor's Quarters on the main Post.

After over a year's trials and tribulations, we witness the completion of our cement tennis court under the supervision of Lieutenant Batten, who is now directing the installation of a night lighting system and rolling of back and side courts. A volley ball game with Del Carmen is scheduled for the coming week by the officers as an opening celebration, the game to mark the third step in a series of five being played with them.

Very little flying is taking place during the provisional reorganization of the local Air Service, most of the time being spent in a readjustment of personnel and property accounts.

Clark Field, Pampanga, P. I., Sept. 23.

The main event of the week consisted of the playing off of the 3rd series of volley ball game with the Del Carmen eight on Saturday evening, September 23rd, which ended in a decisive victory for the local officers. A dinner for both teams and visitors preceded the game, which by the way we played in a down-pour of rain, while a dance followed as a windup. The new court was played upon for the first time and satisfied all expectations.

The work of transition to a provisional organization authorized for Air Service in this Department has been rapidly pushed at Clark Field and is well under way. With over 25 officers and 176 enlisted men present for duty, assigned to the 28th and 3rd Squadrons, there is great activity, with the Air Service rapidly rising in importance at Camp Stotsenburg, particularly in consideration of the near future departure of the 9th Cavalry for the United States.

Camp Nichols, Rizal, P. I., Sept. 23.

Orders have been issued assigning Major T. J. Hanley, to command Camp Nichols, relieving Capt. J. H. Houghton, who will be in command of the 28th Bombardment Squadron at Clark Field. Capt. Houghton has been in command of Camp Nichols since last May and it is with sincerest regret that the men and officers of Camp Nichols learn of his transfer. Major T. J. Hanley who was in command at Kindley Field will also command the Philippine Air Depot at this station.

Continuous rain throughout the past week prevented any flying at Camp Nichols. On Saturday, however, two airplanes arrived from Stotsenburg, Lieut. Hicks in command, and landed at Camp Nichols amid a shower of mud. It is thought advisable in some circles to equip DH4's with pontoons for the rainy season flying in the Philippines.

Camp Nichols, Rizal, P. I., Sept. 30.

The re-organization of the 28th Bombardment Squadron and other Air Service activities in this Department has resulted in a great increase in cross-country work. Camp Nichols has become a busy terminal, with numerous arrivals and departures daily.

The work of building new barracks and hangars has been progressing rapidly, and two buildings have been made available for temporary barracks, thus bringing approximately one hundred men in from the tents. This is a welcome improvement in conditions, as tentage gets more than slightly damp in the rainy season.

Scott Field, Belleville, Ill., Nov. 16.

Air Mail Pilot "Tex" Marshall, with Mr. Nettleton, Private Secretary to Congressman Madden, recently dropped into the Field on their way to DuQuoin, Ill., and were entertained at the post that evening, resuming their flight early the next morning. Pilot Marshall has been flying the mail from Chicago to Omaha for two years.

Swimming parties have been changed from Thursday to Tuesday, and as an added attraction the Scott Field Orchestra has been playing at the Club after the Swim. The pool is in fine condition, well heated, and parties have been well attended.

Students in the Balloon and Airship School have been completing their free balloon flights on the flying days each week, and it is expected that most of them will be finished in about three weeks, when they will take up their observation balloon flights.

The ground between the docking rails has finally been leveled and cleared of the contractor's obstructions, and the north end of the flying field is now clear and in good condition.

Work has been started on the oil cracking hydrogen plant. A good portion of the tanks and machinery is installed and a building is being erected around them.

Lieuts. McKee and Kehoe have returned from the Fort Sheridan Hospital and are now back on duty status, Lieut. McKee as Operations Officer and Lieut. Kehoe as Gas Officer.

Capt. Greeley has reported for duty as Quartermaster and Lieut. H. R. Rivers as Photographs Officer in command of Photo Section No. 21.

Captain Gibson has returned from leave of absence and has enrolled as a student in the School.

The officers of Scott Field were recently the guests of the St. Louis Flying Club at a smoker and supper in the ballroom of the Statler Hotel. At this meeting efforts were launched to secure the Pulitzer Races for St. Louis next year. Talks were made by Colonel Hall and Major Paegelow. After the Smoker, all the officers returned to the field and awaited the passing over of Lieuts. Kelly and Macready in the T-2. The flood lights were turned on, and a representative of the press was sent up with Lieut. Wells as pilot to search for the T-2. It passed over the field about 5:45 a.m.

A hard football game was witnessed at the field on Saturday, November 11th, between the teams of the 9th Airship Company and Service Company No. 24, the former winning. The Post basketball league is being formed between the three airship companies and the service company. It is expected, from the material that has been developed in the company teams, that a strong post team can be selected.

Major Horowitz of the Finance Department has returned to the Sixth Corps Area Headquarters in Chicago.

The Electrical Board of Trade of St. Louis was recently entertained at the Field. About sixty members and their guests were present and were shown through the School Buildings and other activities of the field, especially the big hangar. Airship and balloon flights were arranged for their entertainment. The St. Louis Chamber of Commerce were guests of the Field on November 14th and were entertained in the same manner.

Lieut. J. K. McDuffie and Sgt. W. A. Stockwell, of Chanute Field, Rantoul, Ill., returned to that station from Scott Field in a DH airplane on Nov. 17th. Lieut. McDuffie flew down to Scott Field several days ago for the purpose of making a mosaic of that place, but weather conditions were such that the mission was postponed.

Captain Fabin I. Pratt, Lieut. Robert E. Robillard and Lieut. Emil T. Kennedy recently soloed from Scott Field with two 19,000 cubic ft. free balloons. All three officers qualified for free balloon pilot's rating.

Lieuts. Harvey H. Holland and Harold R. Wells took off on Friday afternoon, Nov. 17th, in a DH for Dayton, O., and Middletown, Pa., on official business in connection with the machinery for the new hangar.

An informal dance was given by the Flying Cadets of Scott Field on the evening of November 17th. After the dance the party motored to Belleville, Ill., for refreshments at the Lincoln Inn.

Aberdeen Proving Grounds, Md., Nov. 21.

There is now a new contest on among the bombers - they are now wagering cigars on misses rather than hits, as heretofore. This is expected to result in a free but even exchange of cigars. Lieut. Bleakley, the Post Exchange Officer, seems much better pleased with this arrangement than with the prior one on "hits" as his establishment profited but little thereby.

A formation of Martin bombers was sent to Bolling Field to afford an exhibition by bombing a miniature target on the field.

Major Pirie returned from leave and is now in command of the Air Service troops.

Lieuts. Melville and George returned to duty from detached service at Langley Field, where they had been for about two weeks.

Lieut. Melville flew the MBI to Middletown for miscellaneous supplies and returned the same day.

Lieut. Shankle, pilot, with Lieut. Moon, left in a DH for Mitchel Field, where they made arrangements for the landing of the D-3 enroute to Hartford. They then proceeded to Hartford where like arrangements were made for the landing of the airship at that place. Returning to Mitchel Field early Friday morning, Lieut. Moon directed the ground party in the landing of the D-3 at 7:30 a.m., and then again proceeded to Hartford the same morning to direct the landing there at 1:30 p.m.

Lieut. Bleakley, piloted an NBS1, with a crew of five men, left for Mitchel Field at 11:30 a.m. Thursday, and arrived exactly two hours later, fighting a strong head-wind over the entire route. Remaining at Mitchel Field over night, he left for Hartford the following morning, making the trip in one hour and forty minutes.

12th Squadron (Obs.) Fort Bliss, Texas.

The Aerial Photo Section No. 1, under the command of 1st Lieut. R.C. Wriston, who recently reported here from Post Field, is rapidly being equipped as to personnel and material to do some real work. Some extensive aerial mapping is contemplated at this station in cooperation with other troops stationed here. An accurate mapping of the artillery range is the first project which will be undertaken.

The Squadron has just fallen heir to one serviceable O. D. Spad, and Lieut. Liebhouser ferried the ship here from San Antonio. Another is promised, and officers at this station will now have an opportunity to do all the fancy flying two spads are capable of.

Lieut. Robert D. Knapp is organizing a basketball team. Our team beat everything in sight last year, and it is hoped and expected that like results will be achieved this year.

319th Squadron (Obs.) 94th Division, Organized Reserves, Boston, Mass., Nov. 22.

A meeting of the officers of the 319th Squadron (Obs.) 94th Division, Organized Reserves, was arranged to be held at the airdrome at Framingham on October 7th and 8th. The meeting was planned with a view to having the officers get acquainted, and also to give the pilots and observers a little time in the air. A very satisfactory response was received, some 20 officers signifying their intention of attending. Unfortunately, the first heavy rain in six weeks rendered flying conditions impossible, and made a postponement advisable. The meeting was finally held on November 18th and 19th, and several of the reserve pilots were given a brief refresher course under the instruction of Lieuts. Moffatt and Valentine, Air Service, and Major Richmond, of the 319th.

On Sunday, the 19th, Maj. Richmond and Lieut. Moffatt flew to Cape Cod in search of landing fields. Several satisfactory locations were found and noted, and the return was made the following morning, completing a successful trip of 250 miles.

During the winter the squadron will do little flying, as the new field at East Boston is not yet finished, and most of the equipment at Framingham will probably be in storage.