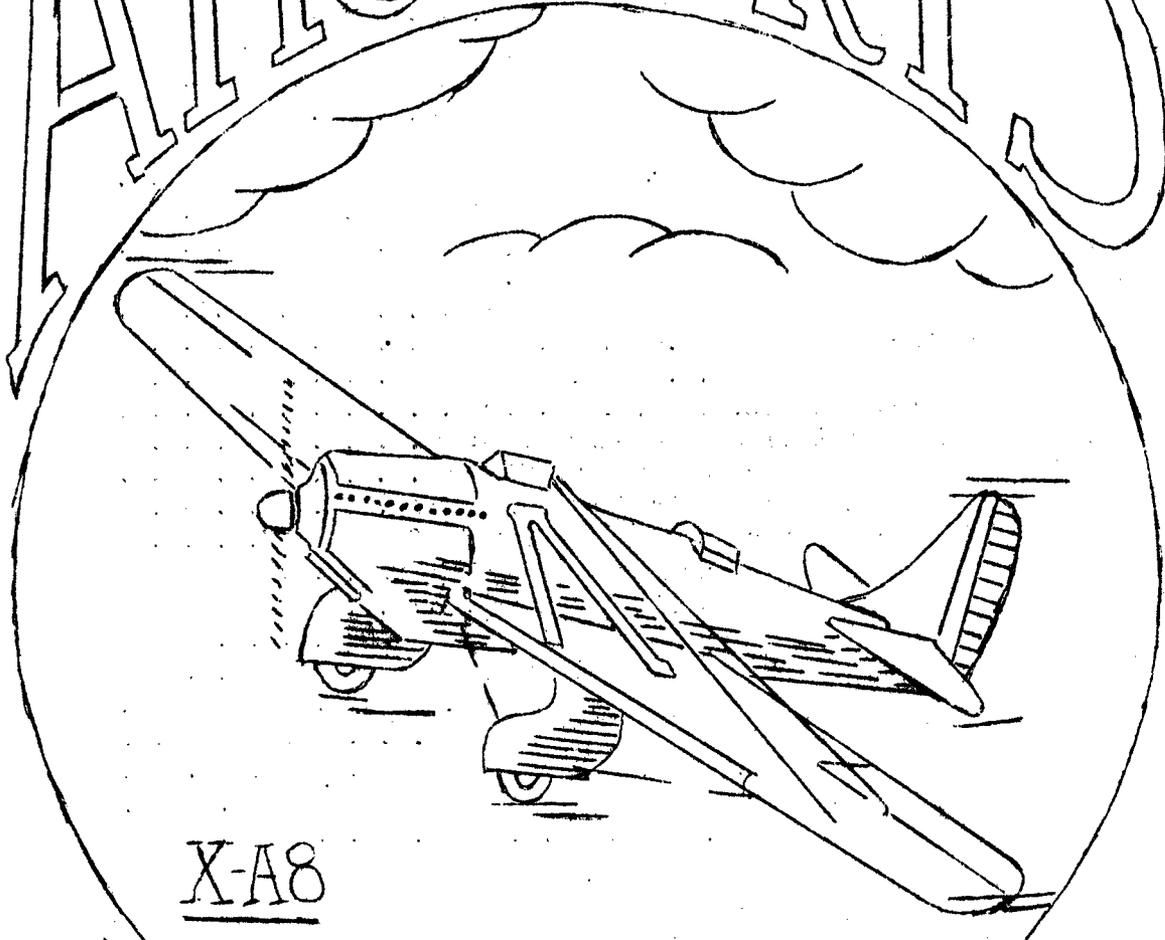




AIR CORPS



X-8

McCLASKEY

NEWS LETTER

ISSUED BY
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D. C.

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Information Division
Air Corps

July 19, 1932

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from the Fields.

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NEW ORGANIZATIONS FOR THE ARMY AIR CORPS ✓

A PART of the Five Year Program for the expansion of the U.S. Army Air Corps, by order of the War Department inactive units at Langley Field, Va., were rendered active on June 25th to compose what is now known as the Eighth Pursuit Group, and which has been placed under the command of Major Byron Q. Jones, Air Corps, until recently on duty with the War Department General Staff.

The organizations included in this Group will include Headquarters, 33rd, 35th and 36th Pursuit Squadrons, and the 58th Service Squadron. The approximate commissioned and enlisted personnel of the entire Eighth Pursuit Group is figured at 33 officers and 475 enlisted men.

Headquarters Detachment, with approximately 25 enlisted men, will be under the command of Captain C.H. Welch, who will also continue his duties as Commanding Officer of the 58th Service Squadron, which arrived at Langley Field on June 15th with three officers and 130 enlisted men.

The 33rd Pursuit Squadron will form a combat unit with Captain H.H. George in command. The organization stands at its full strength at the present time in commissioned personnel with 18 officers. Enlisted strength is approximately 120 men. Pilots of the 33rd Squadron are equipped with 18 planes of the P-12, C and D Series.

The 35th Pursuit Squadron has at present 7 officers and 100 enlisted men, and will be strengthened in the near future.

The 36th Pursuit Squadron, with 1st Lieut. J. C. Hodgson in command, has a personnel of 5 commissioned officers and 100 enlisted men.

These units are carrying out regular Pursuit tactics and training.

Two new Air Corps stations are making their appearance on the West Coast in the San Francisco Bay region. They are Hamilton Field, the new flying field in Marin County, and Benton Field, the new Supply and Repair Depot at Alameda, to serve West Coast activities. Provisions are now being made at Hamilton Field for one squadron thereat, contracts having been awarded June 20th for the construction of a 200-men barracks, warehouse, shop, radio building, one large hangar and several officers' and noncommissioned officers' quarters.

The field was named in memory of 1st Lieut. Lloyd Andrews Hamilton, killed in action near Lagnicourt, France, Aug. 26, 1918. He was born in Troy, N.Y., on June 13, 1894, and after graduation from Syracuse University he entered the School of Business Administration at Harvard University. Enlisting in August, 1917, he was commissioned on March 2nd and received his pilot's wings on August 13, 1918. From June 21st (even before his official recognition as a pilot) until his death, two months later, he gained nine official aerial victories while serving with the 17th Aero Squadron, and was awarded the American Distinguished Service Cross and the British Distinguished Flying Cross. The above awards were for leading a low Pursuit-bombing attack on an enemy airdrome 30 miles behind the lines, setting fire to three airplanes and firing through the window of a chateau where some enemy pilots were quartered, killing a number of them.

Benton Field, at Alameda, will be the home of a Supply and Repair Depot, which will serve Air Corps activities on the West Coast and in the United States possessions in the Pacific. The fill of the site is under way and the railroad spur into the field is almost completed. This field was named after a native son, the late 1st Lieut. John W. Benton, who was born at Mantion, Calif., Nov. 27, 1896. During the War he entered the Aviation Section, Signal Corps, and after graduation from the School of Military Aeronautics at Berkeley, was commissioned a second lieutenant and rated a pilot, May 14, 1918, serving at Rockwell Field, Calif.; Wilbur Wright Field, Ohio; Gerstner Field, Ia., and again at Rockwell Field until the War ended. Appointed 2nd Lieutenant, Regular Army Air Service, July 1, 1920, he later served at various fields in California and in the Canal Zone. He was a member of the Pan-American Good Will Flight, when he met his death in an aerial collision at Buenos Aires, Feb. 26, 1927, receiving the posthumous award of the Distinguished Flying Cross for his part in this flight.

WEST POINT CADETS RECEIVE TRAINING AT LANGLEY FIELD

ARRIVING by Army transport at Fortress Monroe, Va., from West Point, N.Y., on June 12th, were 352 Cadets of the Class of 1933 at the United States Military Academy. This class of students was divided into three contingents, one of which was temporarily stationed at Langley Field, Va., for instruction in Air Corps tactics. The second group proceeded to Fortress Monroe, Va., for the purpose of studying the rudiments and principles governing the employment of Coast Artillery weapons, while the third group, going to Fort Bragg, N.C., conducted their annual firing of Field Artillery weapons. Each of these contingents remained at their respective stations for a period of one week and then alternated stations.

At Langley Field, the Cadets had the time of their lives, the mornings being devoted to flying and ground classes, with the objectives of demonstrating to the students what part the Air Corps takes in the scheme of National Defense. Various missions were performed, among which were included message dropping, road sketching, fire adjustment, navigation, night flying and a tactical ride in a 30-ship bombardment formation.

Upon the arrival of the Cadets at Langley Field, Colonel Roy C. Kirtland, Commanding Officer, conducted an introductory lecture, and following this the men received their initial flight, followed by classes in machine gunnery, bombs and bombing, and radio - all the essential factors incident to the week's training at Langley Field for the Academy students.

Five Air Corps officers from West Point, Major H.R. Harmon in command of the unit, 1st Lieuts. T.A. Sims, J.M. Weikert, R.E. Randall and 2nd Lieut. D.F. Meyers, were stationed at Langley Field to supervise the training of the Cadets. Social and recreational activities played as large a part as did the training of the Cadets, and numerous athletic and social events as part of the program daily served to make the training of the students more enjoyable. Swimming parties at Fort Monroe beach, boating at the Hampton Yacht Club, and informal dances at Langley Field made up the social features for the Cadets, while tennis, polo and golf were the athletic activities in which all participated, as well as in other major and minor sports which were included in the recreation program.

The training received by the West Point Cadets at Langley Field proved unusually popular, as approximately 50% of the students expressed their desire to join the Air Corps branch of the U.S. Army upon their graduation in June, 1933. In closing the training on July 2nd, a final demonstration was scheduled to be held at Langley Field, with all the ships participating, as well as others from Edgewood Arsenal, Md., to be ferried down for this special occasion. Smoke screen demonstrations and aerial formations were to constitute a prominent part of the review, also a combined maneuver of Bombardment, Attack and Pursuit tactics as a grand finale to the three weeks' training of the West Point Cadets at Langley Field.

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PLAQUE UNVEILED IN MEMORY OF MAJOR REAM

The unveiling of a plaque, designed by Mrs. Barton K. Yount, and dedicated as a memorial to Major William R. Ream, Medical Corps, was held at the station hospital, Rockwell Field, Coronado, Calif., on June 2nd. Among those present and taking part in the unveiling were: Mrs. William R. Ream and Miss Ream, widow and daughter of the deceased officer; Lieut.-Colonel Barton K. Yount, Commanding Officer of Rockwell Field, and Mrs. Yount; Lieut.-Col. Henry H. Arnold, Commanding Officer of March Field, and Major T.C. Macaulay, Air Reserve, of San Diego. Each officer contributed to the occasion with appropriate remarks.

A description of the plaque is as follows: Construction material, red potter's clay, heat treated and polished. It bears the insignia of the Medical Corps and wings of an airplane pilot, with the inscription - "In memory of William R. Ream, Major, Medical Corps, United States Army, Rockwell Field, pioneer flight surgeon, killed in airplane accident August 24, 1918."

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The XP-936 (Boeing low wing Pursuit plane) is to be known as the P-26 in the near future. Since this plane is now undergoing service test in the Air Corps, its present designation is Y1P-26.

SECOND BOMBARDMENT GROUP CONDUCTS SUCCESSFUL "WAR"

By the News Letter Correspondent



On June 16th, the Second Bombardment Group resumed garrison duties at Langley Field, Va., and reverted to peace status after an eminently successful two weeks' aggressive campaign against Red invading forces in the Maryland-New Jersey and Delaware area. Red forces were completely routed and the defeated nation sued for peace at 11:30 a.m., 11 June 1932. An armistice was signed at noon the same day and hostilities ceased.

On May 25th, this Group received orders to prepare for operations against the enemy. Advanced airdromes at Hebron and Princess Anne, Maryland, were designated as our bases, and immediately planes and operations were started to make the occupation effective 1 June 1932.

At 3:00 a.m., May 31st, the ground section of the Advance Echelon, under command of Lieut. Thomas Ferguson, cleared Langley Field and proceeded to the advance base, arriving there at 7:30 p.m. the same day. Four gas trucks, four Class B trucks, two motorcycles, two ambulances and two reconnaissance cars (borrowed from Fort Monroe, inasmuch as not even the Group Commander rates an official car in these parts) made up the section and all was well on the trip.

At 7:30 a.m. May 31st, the air section of the Advance Echelon cleared Langley Field. The air section consisted of three Bombers from each Squadron and one C-4A transport. This arrangement left the main body in readiness at 66-2/3% effective tactical strength, sufficient to perform an emergency mission. Tentage and the supplies necessary for successful field operations were transported to the new bases by this section, as were personnel for establishing the camps.

At 9:00 a.m. June 1st, the main body moved out and occupied the camps so ably constructed by the personnel of the Advance Echelon. The 20th and 96th Squadrons went to Gelder Field at Princess Anne and Group Headquarters and the 49th Squadron to the Del Mar, Va. Airport at Hebron. Tank cars of gasoline for use during the action were spotted at rail heads in Hebron and Princess Anne, and it was assumed that bomb dumps were also established nearby. At 12:00 noon, June 1st, the 2nd Bombardment Group was ready and eager to start aggressive action against the enemy. Orders were issued putting all organizations on the alert at 8:00 a.m. the following morning, and the remainder of the first day was devoted to erecting such conveniences as go to make life in the field a pleasure rather than a burden. A schedule of daily air transport services was maintained for transporting supplies and mail, lumber, spares, etc. One C-4A transport constituted the cargo transport and one C-12 the mail and passenger plane.

The first objectives assigned to the Group were Red beach heads (not beach Red Heads, mind you) at Lewes, Deepwater Point and Delaware City, on Delaware Bay. At 9:00 a.m., June 2nd, the Group took off and carried out its maiden mission. When we landed back at our bases at 12:00 noon, our hearts were bursting with pride, for our first mission had been eminently successful. The enemy had been forced to abandon the positions at Lewes and Deepwater Point, thus losing their footholds and being forced back across the Delaware Bay.

At 3:00 p.m., June 2nd, reports were received locating a Red Attack Group at Bellanca Field. This then became our second objective, and at 9:00 a.m., June 3rd, we took off firmly resolved to exterminate this menace. A coordinated attack was made at 10:03 a.m. The airdrome was seriously damaged and the enemy Attack Group so demoralized that it was forced to withdraw to Camden Airport and take cover under the wing of supporting Pursuit aviation based there.

After landing from the attack on Bellanca Field, our Observation, represented by Lieut. Dick Freeman, with his sturdy F-1, reported a concentration of enemy artillery in the vicinity of Rocks, Md. (This was an actual target, the 6th Field Artillery being out on a practice maneuver at this time). The able Observation furnished us with excellent pictures showing the enemy on the march and the location of their proposed camp, indicated by the transportation and tents of the advanced echelon. Orders for alert at 1:00 p.m. were issued, and at 1:15 p.m., off we went to catch the Red F.A. in bivouac. The attack was a complete surprise to our brothers in the Horse Artillery and, in spite of warning issued them by Corps Area Headquarters of the impending attack, we caught them completely unprepared.

The next day being Sunday, by mutual agreement with our brother Red observers of the Sabbath, hostilities were postponed until Monday morning, June 5th. That morning we received a call from Blue GHQ to cut the enemy lines of communication across the Susquehanna River and thus prevent a Red retreat or forward movement of reinforcements. Accordingly, we took off and bombed and demolished the bridges between Havre De Grace and Conowingo. Enemy lines were cut and the problem of the harassed Reds was thus made more acute.

While we were destroying the bridges over the Susquehanna, Red bombardment attacked our airdromes and destroyed our gasoline and bomb dumps. Consequently, when on June 7th we received orders to attack the rail head at Aiken, Md., where Red reserves were massing, we were faced with the problem of having to return to our interior base for fuel and ammunition. That problem did not stump us very long, however, and at 5:30 a.m. next morning we took off to obtain the requisite supplies. We landed at Langley Field, picked up tunnel gunners (student officers of the Coast Artillery School at Fortress Monroe, flights for whom had been arranged May 1st before we began the war, and who were to observe our tactics), bombs and fuel, and took off to bomb with live bombs a rail head constructed on our own Plum Tree Range just for such some emergency as this. This represented the enemy rail center at Aiken, Md., and was completely destroyed, much to the surprise of our "tunnel gunners." After this destruction we landed, dispensed with our "tunnel gunners" and returned to our advance base for late lunch.

On the morning of June 8th, the Group took off to retaliate and destroy the Red Bombardment Squadron at Atlantic City. On the way, we spotted an occupied enemy Pursuit airdrome at Cape May, and the 49th Squadron was detached to deliver an immediate attack. The remaining two Squadrons proceeded with the original mission and, after filling the Atlantic City Airport with craters and rendering it valueless for flying operations, we joined with the 49th at the designated rally point and proceeded home with all souls resting in the inviting folds of the blanket of satisfaction of a job well done, particularly in view of the fact that the most distinguished and popular old timer of them all, piloting his own ship, had arisen around dawn to join us from Washington and accompany the mission. With a radio in his ship, the Chief did not miss a word on 400 K.C.

We received information on the evening of June 8th that a Red troop convoy was steaming down the coast and about to drop anchor off Hog Point and attempt a landing. At 9:00 a.m. June 9th, we took off and, after fighting off a pernicious attack from Red Pursuit screening the landing operations, caught the convoy completely by surprise, with 25% of the troops on shore and 75% still aboard. Needless to say, our expert bombers soon broke up that little party to the tune of six ships sunk, and all forces on land abandoned to the fickle discretion of the Fates.

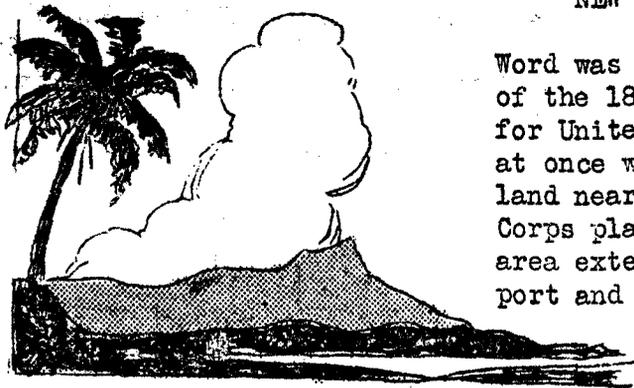
Early on the morning of June 10th, we were attacked by Red Attack aviation. Much smoke and gas were dropped on our unsuspecting heads. Fortunately, none of our planes was damaged. At 8:30 a.m., orders were issued for Squadrons to evacuate to auxiliary bases. This was accomplished, and we went ahead with our original plan of attacking the enemy airdrome at Camden. Unfortunately, we encountered a heavy fog enroute and were forced to return, our first failure during the war. What shame! What ignominy! We must avenge this cruel trick fate had played on us!

Burning with shame at our failure the previous day, we took off in the morning to attack the Red Army Headquarters and central supply depot at Fort DuPont, Md. Our bombs loaded with a double charge sped down on their way and the Red GHQ was completely annihilated. At 11:30, June 10th, the Red power, minus the guiding genius of its leaders, sued for peace, and at 12:00 noon, an armistice was signed and the War was over.

During all these operations, the weather continued excellent, but as soon as the War was completed it began to rain. The Angels were weeping that so fine a force as the Second Group should revert to peace time status. As a result of this prolonged weeping, our return to Langley Field, originally scheduled for June 14th, was delayed two days.

All in all, the two weeks' period was crowded with opportunities to accumulate logistical and tactical data. Full advantage was taken of every opportunity. The success attending the wholehearted effort of every officer and man participating was a source of real gratification. As a result, the Second Bombardment Group is a more efficient tactical unit and an organization in which it is an honor to serve.

NEW LANDING FIELD IN HAWAII ✓



Word was received from Washington by the Hqrs. of the 18th Composite Wing, Fort Shafter, T.H., for United States Attorney B.D. Wood to proceed at once with condemnation of the large tract of land near Pearl Harbor, on which the Army Air Corps plans to develop a landing field. The area extends from Watertown to John Rodgers Airport and from Dillingham Boulevard to Fort Kamehameha. It is in two blocks and includes 2,212 acres. The land belongs to the Bishop, Queen

Emma and Damon estates and is mostly planted in sugar cane. The area includes the village of Watertown on the entrance to Pearl Harbor. A plan has been approved since 1928 for the development of an airdrome there. The cost of the project was approved, but as yet no appropriation has been made.

After completion of the field, it will be the home of the 19th Bombardment Group, which will absorb the Bombardment squadrons now included in the 5th Composite Group at Luke Field. The Composite Group will be moved to Wheeler Field, minus its Bombardment Squadrons, and the 18th Pursuit Group, now at Wheeler Field, will move to Luke Field. Plans call for five sets of barracks, four hangars, six shops, a headquarters building, radio building, photographic building, 50 sets of officers' quarters, 50 sets of noncommissioned officers' quarters, and miscellaneous buildings. Because of the flat terrain, very little grading will be necessary. At the field near Fort Kamehameha, there will be more buildings and less ground work.

It is estimated the project will cost slightly more than the Wheeler Field improvements, where \$2,825,600 has just been spent or obligated. The projects at Wheeler were grouped into 10 contracts, all but one of which were awarded to local contractors.

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M.I.T. STUDENTS UNDERGO PRACTICAL TRAINING ✓

At Langley Field, Va., fourteen students from the Massachusetts Institute of Technology are undergoing training for a period of six weeks, learning the practical work in connection with aeronautics. These men are all members of the Air Corps branch of the R.O.T.C., and are stationed, quartered and rationed with the Cadets from West Point, enjoying the same social and recreational activities as the students from the United States Military Academy.

Gaining the privilege to attend the class, these men were majoring in Aeronautical Engineering while at college, and are in their Junior and Senior years. Upon graduation they will be commissioned in the Air Corps Reserve, U.S. Army, and are the only Reserve Officers now commissioned in the Air Corps who are not pilots.

At the Massachusetts Institute of Technology, these students have successfully mastered the theory, while at Langley Field they are receiving six weeks' training, putting their theoretical knowledge into practical use. In addition to this, training as observers in both heavier-than-air and lighter-than-air is part of the training program at Langley Field. An opportunity is also given the scholars to visit the laboratory of the National Advisory Committee for Aeronautics, located at Langley Field, which possesses the finest equipment for the experimental test of aeronautical equipment, one item of which is the largest wind tunnel known.

Captain Louis R. Knight, A.C., is in command of the group, having been detailed as Instructor of the Air Corps unit of the R.O.T.C. at Massachusetts Tech. after five years with the Air Corps Primary Flying School at Brooks Field, Texas, as director of ground instruction and instructor of training at that station. Upon completion of the training period at Langley Field, Captain Knight, with his class of 14 students, will depart to assume his new duties as Instructor of the Air Corps unit of the R.O.T.C. at the Massachusetts Institute of Technology, Cambridge, Mass.

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During June, the 111th Obs. Squadron, Texas National Guard, flew a total of 145 hours, of which time ten hours were devoted to night flying and eight hours to blind flying and navigation problems.

NATIONAL GUARD AIRMEN COOPERATE IN SCIENTIFIC EXPERIMENTS

THE 111th Observation Squadron, Texas National Guard, Houston, Texas, is cooperating with the Rice Institute physics staff in measuring the intensity of the cosmic ray at various altitudes. Physics Instructor L.M. Mott-Smith and L.G. Howell, both graduates of California Tech., are conducting the tests. Major Thomas W. Blackburn, commanding the 36th Division Aviation, Texas National Guard, obtained permission from the Militia Bureau to use one of the Squadron's O-38's for the tests. A number of flights have been made with Instructor Mott-Smith and his electroscope and successful results obtained. Captain Justin F. Aldrich, Lieuts. Earl T. Showalter, Alexander G. Greig and John H. Eagle have piloted the O-38 for Mott-Smith.

Measurements of the cosmic ray are taken at every 3,000 feet, beginning at 5,000 feet. The plane is first measured for its radium activity, a much more exact method than using a mountain top where the radium mass is an unknown quantity. "It is believed," says the News Letter Correspondent, "that this is the first time of record that an airplane has been used for this purpose. It follows closely the ill-fated Compton University of Chicago expedition to the top of Mount McKinley in Alaska for the same purpose, and during which several of the men with the expedition lost their lives by falling into a glacier crevasse.

Messrs. Mott-Smith and Howell built the electroscope at Rice Laboratory. It is an electroscope charged with 1130 pounds of argon gas. At first the vibration of the plane greatly hindered the test. This difficulty was surmounted by hanging the electroscope in the rear cockpit by half-inch rubber hose supports attached to the fuselage frame. Readings in the plane are made on an average of 30 minutes, whereas readings from mountain tops require about four hours, due to the radium activity of the great mountain mass.

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HOW THE NEW BOMBING PLANE BEHAVES ON ROUGH WATER

It may be of interest to all Air Corps personnel engaged in flying Bombers over water to know what can be expected when a B-5A lands in rough water. One morning, during the Army-Navy Maneuvers in Hawaii, while engaged in "bombing" the LEXINGTON and SARATOGA, about 55 miles southwest of Barbers Point, Oahu, a B-5A airplane, No. 30-341, piloted by Lieut. Lloyd H. Tull, was forced down by clogged gas jet. At the time of the engine failure, the engines were turning up perfectly at about 1700 r.p.m. when, without any warning, the left engine dropped from 1700 to 400 r.p.m. At that time the altitude of the airplane was about 4,000 feet and it was at a distance of three or four miles from the Carriers. Lieut. Tull immediately turned toward the Carriers and endeavored to hold the plane up on one engine. This could not be done and the plane lost altitude rapidly, landing about a mile from the Destroyer LONG, which was accompanying the Carriers. The landing in the ocean was made by stalling the plane about ten feet above the water and letting it drop in.

None of the crew knew exactly how the airplane struck the water, but the consensus of opinion is that it hit in the trough of the waves, the nose going under and then immediately coming up to the surface. Contrary to expectations, the tail did not go up but stayed afloat on top of the water. For the first two minutes, the cockpits were visible and the top wings were well on top of the water. Shortly thereafter, the lower wings came off - probably broken when the plane struck the water - and the weight was then held up by the top wings. The gas tanks were about one-half full. The plane stayed up about twenty minutes, but sank just as the crew of the Destroyer were securing a line to it. Quite a sea was running at the time; otherwise, according to the News Letter Correspondent, "it is believed that the plane would have remained afloat a much longer time.

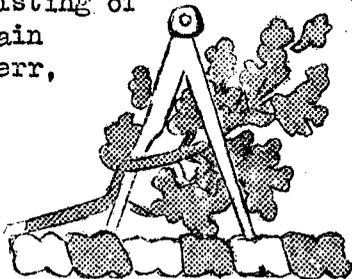
The life raft, which is carried on all airplanes in the Hawaiian Department, was gotten out of its container; but, due to the excitement of the two mechanics who were endeavoring to inflate it, it was washed off the top of the fuselage and recovered later by a boat from the Destroyer LONG. It is some satisfaction to know that the Bomber will not break up quickly in the roughest kind of sea, if it is landed carefully and if ample time is available for inflation of life raft, securing of life preservers, etc."

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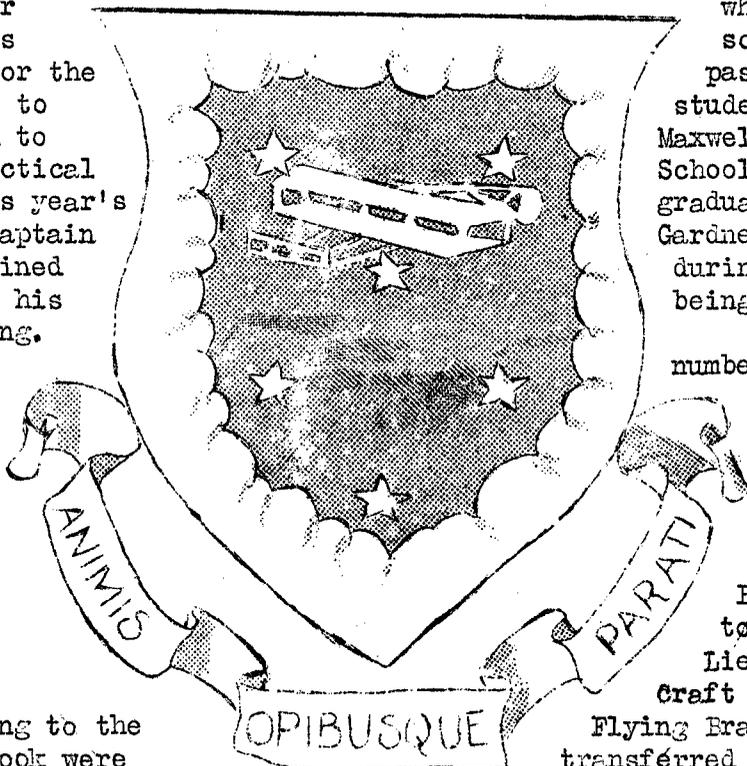
The 65th Service Squadron, Luke Field, T.H., held its annual Organization Day outing and celebration at Nanakuli Beach on June 6th.

AIR CORPS ENGINEERING SCHOOL COMMENCEMENT

The twelfth Engineering School commencement was held on June 30th at 11:00 a.m., in the Wright Field Auditorium, a class of 16 students receiving diplomas. Major General Hugh A. Drum, Commanding the Fifth Corps Area, was a special guest and gave the principal address. Besides the students; their families; the Faculty Board, consisting of of the School, Captain and, Majors Hugh Knerr, Kotcher, Senior and interested Pratt delivered the diplomas. The with a definite



The School Gardner ing its cles for the revert to ferred to the Tactical of this year's from Captain maintained insure his handling.



Woodring to the Estabrook were of the Air Corps; Lieut. Holcomb to Scott Field; Lieut. Morrison to San Antonio; Lieut. Stace to Duncan Field; Lieut. Austin to Middletown; Lieut. Asp to Maxwell Field; Lieut. Warburton to Selfridge Field and Lieut. Morris to Rockwell Field.

For several years the school has contemplated a coat of arms. This year, a design was finally worked out, approved by the War Department and recorded in the Quartermaster General's Office as official. A dark blue shield shows gold stars and white clouds. At the center an early model biplane glider is in flight. A pair of dividers open downward at the head of the shield with a branch of oak leaves bearing acorns entwined through them. A streamer below the shield bears the motto "Animis Opibusque Parati."

Another activity this year is the revival of the school year book, which Captain Brookley's enthusiasm called into being. During the last few weeks of the term, this officer delved into past year books, collected photographs, historical notes; in short, turned editor and author. The year book when published should be a credit to him as well as a valuable school document and a pleasant memento for each member of the class.

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Several weeks prior to their graduation, students of the Air Corps Engineering School left for their annual visit to various manufacturing plants, where they witnessed in production articles and equipment, the technical phases of which formed part of their school curriculum during the year. The flight this year was in charge of Captain Merrick Estabrook, Captain Gardner, Assistant Commandant in Charge of Instruction, being unable to go. Ezra Kotcher, School Instructor, was a member of the flight. Eight airplanes took the class from Wright Field to Langley Field; to Baltimore; to Paterson, N.J.; to Hartford, Conn.; to Buffalo, N.Y., and back to Wright Field.

regrets this year losing Captain who, after successfully guiding-scholastic and executive poli-past several years, is due to student again, having been transferred to Maxwell Field, where he will enter School. Lieut. F.M. Hopkins, one graduates, will take over the reins Gardner, the excellent record during the past year seeming to being eminently fitted for their

As usual, the services of a number of the students were detailed for Material Division use. Captain Hackett was assigned to the Field Service Section; Lieut. S.R. Harris and Lieut. S.E. Prudhomme to the Equipment Branch; Lieut. C.A. Bassett to the Power Plant Branch; Lieut. L.F. Harman to the Aircraft Branch; and Lieut. I.A.

Flying Branch. Captains Brookley and transferred to the Office of the Chief

SUCCESSFUL MANEUVERS IN HAWAII THROUGH USE OF RADIO

THE practicability of exercising complete and instantaneous command over a large number of planes by inter-plane radio telephone was demonstrated by the 18th Composite Wing on May 6th. Sixty-six planes rendezvoused at a given point early in the morning and, as each squadron checked in, command was taken by Lieut.-Colonel Brant. Giving his commands by radio telephone from the Wing Command Plane, Col. Brant conducted a series of maneuvers which proved, without doubt, that this method would prove highly successful in actual combat. Bombers were sent out on theoretical offensive missions, ground strafing attacks were made, photo flights flown, and the quick transmittal of orders and reports eliminated any possible chance of error. The Wing landed as a unit at Wheeler Field during the exercise, and it was a revelation to see this large number of planes acting on the orders given by the Wing Commander.

Says the News Letter Correspondent: "To give you some idea how a Wing exercise gets exercised by radio telephone in the air, the following is what might have been heard (but was not) by a listener-in on the radio orders during the Wing exercise, when the Wing Commander directed the maneuvering of 65 planes from his cockpit in the Wing Command Plane:

'Hello, buzzards; this is your genial master of ceremonies, Jerry Brant, announcing. This morning we are going to broadcast telling what the well-behaved military pilot will be doing during any given maneuver. Now, I see that we are all here on time. Great! I want you boys to all fall in behind while I dish out a little dirt. You pursuit up there, come on down and be sociable. Here's the idea.

Just suppose that there was a couple of attacking aircraft carriers just outside the harbor. I realize that we'd all be shot down by now if there were, but let's suppose anyway. You bombers, take a few moments off and run out there and lay a few eggs on them. Then come back and tell us just what happened. In the meantime, you observation planes chase up to Wheeler and take me a nice bunch of photos on the way. See if you can't find a couple of femmes taking a sun bath on some roof. Scram!

You pursuiterers can amuse yourselves by shooting down a few of these mosquitoes that are making our lives miserable. Go at them from above, and don't let me see you letting any of them getting on your tail.

Hello, attack! Now, that the boys are all busy for a while, let's have a game of tag. I'll be it, and no fair dodging behind radio masts. Let's go!"

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MIMIC WARFARE BY BROOKS FIELD AIRMEN

Engaging in a spectacular mimic warfare maneuver, June 14th and 15th, in North Texas as the culmination of the training year, the 12th Observation Group, Brooks Field, under the direction of Major Frank D. Lackland, Commanding, effectively demonstrated the mobility of an air unit within a brief period of time and with small personnel.

Dallas, Texas, and its environs was chosen as the base of operations for the 12th Observation Group, representing the "Blue" force, which contemplated "war" with the "Red" force as the result of emergency orders issued June 13th at Brooks Field. Fifty planes, sixty officers and forty enlisted men left Brooks Field early Tuesday morning for Dallas, and occupied Hensley Field as headquarters and command post. They were given orders to reconnoiter from Wichita Falls to the Mississippi and to report on train movements, locate bridges and fords and give warning of impending attacks, since the "Red" force theoretically occupied the region north of the Red River and east of the Mississippi.

At midnight Tuesday, headquarters at Hensley Field received information that the "Red" navy was approaching Galveston, and planned an attack of that port, whereupon the Group departed for Galveston early Wednesday morning. At Galveston the Group assembled by Squadrons, being called by radio.

Officers from Brooks Field who commanded the Squadrons of the unit were: Captain B.F. Griffin, 12th Observation Squadron; 1st Lieut. A.S. Heffley, 22nd Observation Squadron; Captain C.E. Giffin, 88th Observation Squadron; 1st Lieut. J.H. Hicks, 1st Photo Section; 1st Lieut. Winfield S. Hamlin, Transport Division and 2nd Lieut. I.W. Ott, 62nd Service Squadron.

The Third Attack Group, Fort Crockett, Galveston, entertained on Wednesday evening with a fish dinner, honoring the 12th Observation Group, which returned to Brooks Field Thursday morning.

TROOPS ONCE MORE FOR ROCKWELL FIELD

ROCKWELL Field is once more beginning to assume the aspect of an active tactical post. In October, 1931, the Headquarters 7th Bombardment Group, 96th Pursuit Squadron and 11th Bombardment Squadron were transferred from Rockwell Field to March Field to become a part of the First Bombardment Wing. After this transfer only the 76th Service Squadron was left at Rockwell Field, in addition to the activities of the Rockwell Air Depot.

Authority was received from the War Department for the formation of the 19th Bombardment Group Headquarters, effective June 24, 1932. The 19th Bombardment Group will include at this station the 76th Service Squadron, the 30th and 32nd Bombardment Squadrons. Considerable personnel are arriving and enroute, to include the following: 11 officers and 88 enlisted men from March Field; 15 enlisted men from Fort Sill, Okla., one enlisted man from Randolph Field, and 120 men which are being recruited in the 9th Corps Area. Captain Harold M. McClelland is busy organizing the activities of the Group. The Squadron Commanders will be Captains Horace N. Heisen, James L. Grisham and Richard K. LeBrou.

The new officer personnel reporting to Rockwell Field for assignment to the Group are as follows: Captain Harold W. Beaton, 1st Lieuts. H.B. Chandler, C.W. Pyle, W.T. Larson, H.F. Rouse, 2nd Lieuts. W.W. Gross, J.F. Walsh, R.W. Goetz, T.B. Anderson and C.W. Haas. In addition to the above officers, who are being transferred from March Field, 1st Lieuts. Delmar H. Dunton and Cecil E. Archer reported to this station for duty. Orders were also received assigning to the field 1st Lieuts. Morton H. McKinnon and Joseph T. Morris.

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NEW TACTICS IN PURSUIT ORGANIZATION

Captain H.H. George, the skipper of the 35rd Pursuit Squadron, according to the Langley Field Correspondent, is forming a new Pursuit attack in his organization. With the exception of flight leaders, the majority of the members of the Squadron are Kelly Field graduates of the Air Corps Advanced Flying School, Class of March, 1932. Captain George is conducting an experiment with a double-headed purpose. The first is to study the effectiveness of his own theory of Pursuit tactics. This formation is similar to those employed in war time, especially by the jagdstaffels of Germany. It is composed of three six-ship elements in echelon flying as a wedge, with each element at a different altitude. The echelon is wide, allowing for greater maneuverability. The scarcity of signals and, indeed, the lack of necessity for signals, is an added factor. The first element can turn in any direction and presents a battle front both in dives and recoveries. The two other elements follow down in turn to form a steady hammer blow attack almost impossible to align sights upon.

The second purpose of Captain George's experiment is to determine the exact level of efficiency a group of men can reach in a certain time. This should prove very beneficial as a standard for training in time of war.

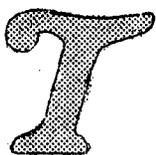
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HAWAIIAN DEPARTMENT COMMANDER WITNESSES GUNNERY EXHIBITION

Major-General Briant H. Wells, Commanding the Hawaiian Department, visited Luke Field, T.H. recently, and with his staff witnessed an exhibition of aerial gunnery and bombing. Two LB-6 Bombers, one carrying six and the other seven 100-pound demolition bombs, took off from Luke Field at 9:15 a.m. and proceeded to the bombing range at the mouth of Pearl Harbor, where they dropped their bombs - the first Bomber dropping in pairs while the second dropped all of its bombs in salvo. The General and his staff, in a plane piloted by Major Maxwell Kirby, commanding Luke Field, witnessed the excellent demonstration of marksmanship and the unusual spectacle provided by the tall columns of water thrown up by simultaneously exploding bombs.

Bombing teams who gave the demonstration were: 2nd Lieut. Fred S. Stocks, pilot, 1st Lieut. Joseph W. Benson, bomber; 2nd Lieut. Howard Moore, pilot, 2nd Lieut. Floyd E. Nelson, Bomber. The gunnery team consisted of 2nd Lieuts. Francis W. Williams, gunner, and William M. Pryce, pilot. Second Lieut. Lawrence T. Pugh piloted the tow target ship.

TACTICAL INSPECTION OF MITCHEL FIELD



HE fighting strength of Mitchel Field, composed of some fifty odd ships, was rolled out on the flying line on June 28th in readiness for the annual tactical inspection by Major-General Dennis E. Nolan, Commanding General of the Second Corps Area.

At exactly 10:30, General Nolan and his Inspecting Party arrived at the field, were met by Colonel John H. Howard, Commanding Officer, and immediately began inspecting the flying equipment on the line. Shortly after this inspection came the aerial review flown by the 99th, 1st and 5th Squadrons, in the order named, and led by Captains Frederick W. Evans, Earle J. Carpenter and E.E. Harmon, respectively.

From a cupola above the main operations building on the line, the formations were directed by General Nolan through the use of new radio equipment just designed for the Army by the Signal Corps at Fort Monmouth, N.J. All of the communication between the ground and the flight leaders, as well as that between Major W.O. Ryan in a command ship and the squadron leaders, was re-broadcast through a loudspeaker for the benefit of the Inspecting Party and others in the immediate vicinity.

After the review came a parade of events which completely covered every phase of Observation. Simulated gunnery missions employing the use of tow targets were run off overhead, an actual puff target mission was conducted at a far corner of the field, and a Red Cross relief mission was run off at a lower altitude in front of the reviewing stand. Photographs were made of points designated by the Inspecting Party, developed in record time by the 8th and 14th Photo Sections, and delivered to the General.

A novel aspect of the whole inspection was that a wartime situation was assumed, and a field order published, so that every mission was accomplished with the view of defeating an enemy force advancing on the airdrome from the eastern end of Long Island. Due to the efficient performance of all missions, the invading horde was demolished in time for all the defending forces to put away their arms and eat lunch at the Officers' Club.

In the afternoon the General and his party inspected the remainder of the post and evinced a particular interest in the new construction which is so rapidly supplanting the old wartime structures just about falling to ruin. At four-thirty, the General met all the commissioned personnel of the field in the Officers' Club and the day was climaxed by refreshments served by the Women's Club.

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RANGE FINDING INSTRUMENTS TESTED IN HAWAII

Experiments and tests of the instruments installed in the Luke Field Douglas Amphibian, now being carried out by the Long Range Firing Board in cooperation with the Coast Artillery are progressing most satisfactorily. Several different instruments and methods of procedure have been tried out, and the less reliable promptly discarded. It is expected that very accurate results will be attained, and that a basis for future work along these lines will be established.

The Long Range Firing Board is comprised of six officers and each is a specialist in his line. Lieut. Lloyd H. Tull is Operations Officer, and Lieut. George W. Peterson is his assistant. Statistics are under the supervision of Lieut. Kenneth P. McNaughton, and Lieut. Edward N. Coates is the meteorologist. Lieuts. Otto P. Weyland and Robert E.L. Choate are observation, radio and liaison officers.

The experiments deal with two problems. The first is the definite location of the spotting plane by means of radio direction finders. The other half of the work is in finding the range, depression angle and azimuth of the target in relation to the plane. As the spotting plane cannot approach the target nearer than 10,000 yards, very careful and exact methods must be used in making these measurements. The instrument that has proven the most accurate for reading the depression angle from plane to target is the aircraft octant. The figures so obtained are transmitted by radio to the commander of the firing battery, and there they are carefully plotted to show the location of the target. Every possible effort is made to eliminate errors, and to compensate for persistent ones. Nothing is being spared in the attempt to have two things occupy the same space at the same time - the shell and the target.

WHEELER FIELD BECOMES AN IDEAL SPOT



The landscaping of Wheeler Field is progressing slowly, but systematically. The lawns are all planted with Bermuda grass, which is growing satisfactorily. Much of the shrubbery and street trees being planted now are small, but enough good sized plants are included to make an immediate showing. Enough bright colored foliage plants are included in each planting to insure a constant color display. Most of the patios are being enclosed with shrubs for sake of privacy, as well as an attractive and, in many cases, utilitarian background. Several fruit trees of different varieties are included in the planting of each set of quarters. An attempt is being made to keep the shrubs planted as close to the building as is consistent with their normal development, and thus leave many clear expanses of

lawn. In the area between the rows of quarters, group planting of tall growing palms and single specimens of large growing evergreens will some day form an attractive background, as well as afford splendid shade. The planting of annual flowers are left to the individuals, and commendable progress is being made along this line, nearly everyone having shown both interest and initiative in the ornamentation of his home to date. Progress in shrubbery planting has been rather slow, due to the lack of funds for securing plants. A nursery has been established, however, which will take care of future needs, and a collection of plants has been accumulated, which will insure rapid planting progress in the immediate future.

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TOYS BOUGHT FOR USE AT THE ADVANCED FLYING SCHOOL

The Air Corps Supply Officer at Kelly Field, Texas, approved the purchase of 12 gasoline trucks, 6 trucks of conventional Army design, ten tractors, ten artillery caissons and 24 lead soldiers, all at a cost of \$4.20. The toys will be used for new equipment and "personnel" for the miniature bombing range at the field, used for indoor practice by students of the Bombardment Section of the Advanced Flying School. They will replace equipment recently declared obsolete, and the new soldiers will replace others recruited several years ago, some of them old enough to be World War veterans. They are the survivors of countless theoretical bombing raids.

Recently the purchase of four fishing poles was approved by the Supply Officer. The poles are used for communication work. Messages suspended on a string stretched between the ends of two poles are picked up by a hook suspended from a low-flying plane.

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TRAINING FLIGHT BY NEW ENGLAND RESERVES

Under the command of Capt. J.A. Wilson, Boston Airport, the Reserves made a one-day flight which covered every New England State, with some landings for fuel. Every available plane was utilized in this training mission, and the pilots alternated at the controls at various legs of the trip.

Leaving early on the morning of June 26th, the formation headed towards Maine, on to Vermont, across New Hampshire, down to Connecticut, over to Providence, R.I., and thence back to Boston, where they arrived about 8:00 p.m. All were agreed that this training flight was of great value to the group in cross-country flying and coordination. Captain W.B. Wright, Jr., and his Reserve unit in Kansas City, Mo., will have to look to their laurels if they ever meet up with the Boston boys.

Thoughts are now directed towards the coming camp, scheduled to be held at Martson's Mills Airport on Cape Cod immediately following the National Guard 101st Observation Squadron camp. This will be the first time that the local Reserves have not held their camp at Mitchel Field, and probably the first time working as a unit in their own established camp. Capt. Glenn Salisbury, Air Corps, Officer in Charge of the Reserve Training Activities, plans for an extremely intensive and interesting camp schedule.

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Captain T.T. Trapnell, in charge of the Legal Branch, Materiel Division, Wright Field, for the past year and a half, left in June for service in the Judge Advocate General's Department in Washington. He is replaced by Captain R.V. Laughlin, who reports from the station to which Captain Trapnell was transferred. Captain Laughlin comes to Wright Field with a record of interesting and important patent work in which many legal cases have been handled for the Government.

AERIAL PHOTOGRAPHIC ACTIVITIES OF THE AIR CORPS

THE LETTER from the Department of the Interior quoted below is a fitting commentary to an important task admirably accomplished. The project in question was described in the last issue of the News Letter. This letter, dated June 9, 1932, addressed to Lieut.-Colonel John A. Paegelow, Commanding Officer of Scott Field, Ill., by Mr. W.C.

Mendenhall, Director of the Geological Survey, expresses the deep appreciation of the Department to Lieut. Herman F. Woolard and his capable crew for their assistance in a mapping project in Louisiana. Mr. Mendenhall states:

"The last shipment of prints completing Project I-2, Louisiana, have been received, and I have much pleasure in complimenting you on the very efficient manner in which the photography of this extensive project was carried through.

The mission under the direction of Lieut. Woolard was accomplished in a remarkably short time, the delivery of prints came through without delay, and the results have been most satisfactory in every particular. The quality of the photographs is excellent and the scale unusually consistent throughout on those that have been used so far for map compilation.

The Geological Survey fully appreciates the fine cooperation of the Air Corps on this project.

During the last year the Photo Sections at Mitchel Field have accomplished a surprising bulk of work. Demands for the services of the 8th and 14th Photo Sections have been made by the U.S. Geological Survey, Coast and Geodetic Survey, the U.S. Corps of Engineers, and numerous other organizations. In addition to these details, the usual work of a photo section at an Air Corps post was carried out.

The 8th Photo Section photographed 1475 miles of territory for the Corps of Engineers, using a 4-lens camera at a scale of 1 to 18,450. A remarkable testimony of the improvement of supersensitive aerial film over the older types was evidenced in a single lens survey of Pine Camp, N.Y., by Lieut. Paul Cullen, acting Commanding Officer of the 8th. This project was made to supplant the old four-lens survey of the same area for use by the Corps of Engineers in re-making a map of that area. The greater portion of the area was photographed under a completely overcast sky with the work lasting late into the afternoon. Rain fell for a short time, and it was difficult to discern the ground because of the haze.

Captain Willis R. Taylor, with a detachment from the 8th Photo Section, is at present in Michigan on a survey for the State of Michigan and the U.S. Geological Survey. Since April, he has furnished the Section with 66 rolls of film to develop and print. This means that 6600 negatives have been developed and plotted by the Section. From these negatives 33,000 prints will have to be made and furnished to the State of Michigan. Captain Taylor has already covered 6,000 square miles and still has 4,000 more to go before the project is completed.

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COLLISION WITH TREES CAUSES TWO DEATHS

On Monday, June 27th, at 9:30 p.m., while returning from a tow target mission with the Anti-Aircraft at Fort Tilden, Long Island, Lieut. Timothy J. Creedon with Corporal Gilbert Burtette as passenger encountered a terrific thunder and rain storm. Because of his unfamiliarity with the Island, also the darkness and extremely poor weather, Lieut. Creedon lost his way. He tried frantically to get under the clouds and locate his bearings in the vicinity of Fort Washington on the north shore. Finally despairing of finding his way back to the field, Lieut. Creedon cut the gun of his motor and attempted a landing on an estate near the beach. The crash, caused by collision with two trees, immediately killed his passenger and caused his own death the following morning.

It is with extreme sorrow that Mitchel Field records these deaths, and the utmost sympathy is extended to all concerned.

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Captain Victor H. Strahm, who recently graduated from the Air Corps Tactical School at Maxwell Field, Ala., and who reported for duty at the Materiel Division, Wright Field, Ohio, relieved Captain St. Clair Streett, who is due to report for duty as student at the Command and General Staff School, Fort Leavenworth, Kans. For the past several years Captain Streett was the exceedingly capable Chief of the Flying Branch, and those at Wright Field will greatly miss the genial and smiling "Billy."

NEW CLASS STARTS TRAINING AT RANDOLPH FIELD

The class which began flying training at the Air Corps Training Center at Randolph Field, Texas, on July 1st, comprises 196 students. The members of this class, as selected by the Chief of the Air Corps, are made up of two Air Corps officers, one officer from the Field Artillery, four noncommissioned officers of the Air Corps training in their grade, and seven enlisted men of the Air Corps, three from other branches of the military service and 179 civilians training under the status of Flying Cadet.

Two of the four Air Corps noncommissioned officers training in grade are members of the famous Caterpillar Club, Technical Sergeant Frank J. Siebenaler being initiated on November 14, 1928, and Staff Sergeant Lloyd W. Thacker on June 3, 1929. The State of Texas leads in the student representation at the Primary Flying School with 23, California and Pennsylvania following with 17 students each, Massachusetts with 11 and North and South Carolina with 9 each. With five students, Los Angeles leads the cities represented in this class, followed by Pittsburgh, Pa., with four.

Members of the new class are enumerated below, as follows:

FLYING CADETS

Aigeltinger, Howard O. York, Pa.
 Allee, Edgar Schwartz Boston, Mass.
 Allen, Chester Georgetown, Texas
 Allen, John Paul Baltimore, Md.
 Allen, Robert H. Groton, Mass.
 Altenburg, Wm. M. Camp Cottage, Me.
 Arthur, William T. Omaha, Neb.
 Avery, Edwin Oakland, Calif.
 Barry, Samuel Roxbury, Mass.
 Barton, Joe Earle Greenville, S.C.
 Bateman, Martin Ansel Camden, S.C.
 Bear, Henry Stoner Waynesboro, Pa.
 Beeson, Wm. B., Jr. Uniontown, Pa.
 Bidwell, Lloyd H. Stevens Point, Wis.
 Biedinger, Chas. L. East Chicago, Ind.
 Bischoff, Julius W. St. Louis, Mo.
 Bishop, Horace Edward Inman, S.C.
 Black, Addison F. Jr. Norfolk, Va.
 Blalock, Birch B. Bonham, Texas
 Bonnyman, Alexander, Jr. Knoxville, Tenn.
 Booker, Richard C. Hampton, Va.
 Boushey, Homer A., Jr. New York City
 Brown, John Dean St. Paul, Minn.
 Brown, Willard Van Deman Atlanta, Ga.
 Cavanaugh, James Brighton, Mass.
 Chapin, Ivin S. Benton, Pa.
 Cheney, Howard Alton, Springfield, Mass.
 Connally, James T. College Station, Texas
 Corbett, Clyde Wilson, Shippensburg, Pa.
 Crain, George K. Birmingham, Ala.
 Crawley, Marshall L. Jr. Spartanburg, S.C.
 Crouch, Joel Lee Hannah, N.D.
 Crumley, Newton G. Elko, Nevada
 Darrow, Don Centralia, Wash.
 Darsie, James C. Burton, Ohio
 Davidson, John F. Atlanta, Ga.
 Davis, Herman S. Pittsburgh, Pa.
 Davis, Walter E. College Station, Texas
 Diehl, Donald B. York, Pa.
 Dorsey, Edward Rowe Tucson, Ariz.
 Douville, Robert Roy Mobile, Ala.
 Dress, George W., Jr. Harrisburg, Pa.
 DuBois, Jesse Bartlett Savannah, Ga.
 Duchacek, Ralph A. W. Springfield, Mass.
 Eastham, James Y. Huntsville, Texas
 Eddy, Edwyn A. Huntington, N.Y.
 Edgar, William S. Waco, Texas
 Ellis, D. Ross Stillwater, Okla.
 Ellis, Gordon W. San Diego, Calif.
 Endress, Albert Van Austin, Texas
 Eskridge, L. G., Jr. Newberry, S.C.
 Evans, Frank H. Tucson, Ariz.
 Fagg, Roby C. Blue Ridge, Texas
 Feaganes, Joseph F. Wytheville, Va.

FLYING CADETS

Fellers, Edgar R. Prosperity, S.C.
 Flaherty, Charles E. Barrowsville, Mass.
 Foley, John Joseph Amherst, Mass.
 Foster, G. Emerson Buffalo, N. Y.
 Frack, Morris W. Norman, Okla.
 Frankenfield, Winfred E. St. Charles, Mo.
 Fulwider, Lawrence S. Bloomington, Ind.
 Gaughen, Thomas J. Omaha, Neb.
 Gault, Emslie N. Ruxton, Md.
 Geiger, Harry B. Philadelphia, Pa.
 Geile, Francis A. Raleigh, N.C.
 Gentry, Jay L. Fort Worth, Texas
 Goodall, Leslie D. Amherst, Mass.
 Gottschalk, John F. Shepherd, Mich.
 Goyette, Cyril A. Mystic, Conn.
 Grenier, Jean D. Manchester, N.H.
 Gunn, Harold Austin Greeley, Colo.
 Hale, Elkins H. Washington, D.C.
 Hamilton, Charles L. Texarkana, Ark.
 Hamilton, Harry S. Wichita, Kans.
 Hankey, Carl Wilkesbarre, Pa.
 Hansen, Oscar M. S. Savannah, Ga.
 Hansen, Teddy L. Lakeside, Ariz.
 Harcos, Kermit A. Los Angeles, Calif.
 Harrington, Edwin J. Vermillion, S.D.
 Harris, Kay P. Vosta, Minn.
 Hayden, John H. Jr. New Rochelle, N.Y.
 Heacock, Lowell E. Canoga Park, Calif.
 Hendrickson, Laurence E. Cokato, Minn.
 Higgins, Louis W. Detroit, Mich.
 Hill, Albert J. Atlanta, Ga.
 Hinshaw, Conrad O. Pleasant Garden, N.C.
 Hoffman, Charles S. Stanford Univ. Calif.
 Holland, Charlie A. Jr. Florence, S.C.
 Hollstein, Charles P. Akron, Ohio
 Holtermann, Eyvind San Francisco, Calif.
 Hooks, D. Edwin Iowa Park, Texas
 Hoyt, Stanley C. Plaistow, N.H.
 Isaac, Robert Laramie, Wyoming
 Jackson, Andrew Fort Worth, Texas
 Jones, Harold Lewis Bath, Pa.
 Jones, Paul A. Kerrville, Texas
 Keienburg, Fred'k E. New Braunfels, Texas
 Kinnamon, William James Easton, Md.
 Klein, Philip B. Oklahoma City, Okla.
 Koller, Walter F. Los Angeles, Calif.
 Kruse, Roger Herman St. Louis, Mo.
 Kuhlman, Harold E. Norman, Okla.
 Lamb, Morris Emberton Asherton, Texas
 Lawson, Farnam Detroit, Mich.
 Lay, Beirne, Jr. Charlottesville, Va.
 League, James B., Jr. Greenville, S.C.
 Lorenz, George H. Madison, Wis.
 Love, Sterling T. Lubbock, Texas

Lowber, David D.	Ann Arbor, Mich.	Rogers, Charles Durward	Asheville, N.C.
Lundstrom, Reginald R.	Harvard, Mass.	Schofield, Thomas J.	Pittsburgh, Pa.
Mahan, Sherman Arthur	Yakima, Wash.	Schriever, Bernard A.	San Antonio, Texas
Manhart, Charles D.	Evansville, Ind.	Schwarz, Elmer P.	Little Rock, Ark.
Marshall, Joseph W.	Aberdeen, S.D.	Seely, Harmon A.	Lawrence, Kans.
Martin, Alexander M.	Nashville, Tenn.	Senter, Everett G.	Denver, Colo.
McDermott, George F.	Pittsburgh, Pa.	Seyfarth, Robert M.	Highland Park, Ill.
McGinness, John	Mountain Home, Ark.	Shannon, Harrison W.	Los Angeles, Calif.
Meade, J. Orin	Greensboro, N.C.	Smith, Hamilton	Richmond, Va.
Mitchell, W.D., Jr.	Los Angeles, Calif.	Sperry, John C.	Los Angeles, Calif.
Mock, Jeff C.	Hillsboro, Texas	Spreng, Richard G.	Mansfield, Ohio
Moore, Joseph C.	Scooba, Miss.	Stewart, Bannie L.	Dillon, S.C.
Morrill, Edward R.	St. Clair Shores, Mich.	Stone, Walter T.	Berkeley, Calif.
Mulberger, Henry, Jr.	Watertown, Wis.	Strickler, John F., Jr.	Evanston, Ill.
Murray, Hugh H., Jr.	Raleigh, N.C.	Stroud, James Edwin	Goldsboro, N.C.
Naylor, Myrel E.	Iowa City, Iowa.	Tourville, Kenneth H.	Deep River, Conn.
Nichols, Edwin H.	Swansea, Mass.	Towler, Wm. A. Jr.	Charlotte C.H., Va.
Orndorff, Arthur R.	Denver, Colo.	Treher, John D.	Santa Maria, Calif.
Owen, Bascom Slomp	Pulaski, Va.	Tyler, Francis E.	Madison Heights, Va.
Parker, Edward V.	Goldsboro, N.C.	Updegrove, Henry T. Jr.	New York City
Paul, Franklin K.	Baltimore, Md.	Vinje, Olaf R.	Hillsboro, N.D.
Perrine, John Ruff	Winchester, Va.	Warren, Edwin A.	West Lafayette, Ind.
Pippinger, Daniel W.	Sanborn, Iowa	Weikert, Willis L.	Gettysburg, Pa.
Pocock, Wm. S., Jr.	Detroit, Mich.	Wells, Raymond W.	Terre Haute, Ind.
Pope, Francis	Sacramento, Calif.	White, John C.	Burbank, Calif.
Portman, Herman G., Jr.	Amherst, Ohio	White, Roy M.	Durham, Ark.
Porch, Herbert M.	New Brunswick, N.J.	Wickland, Daniel W.	Glendale, Calif.
Poteete, Ray V.	Wichita, Kans.	Wilkinson, Daniel D.	Laurinburg, N.C.
Rall, Stanley Carlton	Yakima, Wash.	Wilson, Noel C.	Denton, Texas
Ray, Wyeth C.	Pawling, N.Y.	Winkler, Albert L.	Philadelphia, Pa.
Reed, Herbert B.	Nashville, Tenn.	Winn, Harry	Nashville, Tenn.
Reed, Ralph Whitney,	Cour d'Alene, Idaho	Winters, Melvin R.	Stringtown, Okla.
Reeser, Charles E.	Harrisburg, Pa.	Wittan, Edgar M.	Pittsburgh, Pa.
Rhind, Harold S.	Washington, D.C.	Wynne, Andrew M. Jr.	Merigold, Miss.
Ricks, Louis P.	Starkville, Miss.	Young, Raymond A., Jr.	University, Ala.
		Youngerman, Geo. W. 3d	E. Haven, Conn.

Enlisted Men

Private Raleigh D. Baker, Hqrs. Squadron, Randolph Field, Texas.
 Private Harold L. Dietz, Air Corps Detachment, Bolling Field, D.C.
 Staff Sgt. Bernard J. Drew, Battery 4th C.A. Hq., Ft. Amador, C.Z.
 Pvt. 1st Cl. Elwyn H. Gibbon, 55th Pursuit Sqdn., Mather Field, Calif.
 Pvt. Alvin E. Goodner, 3rd Wagon Co., Ft. Sam Houston, Texas.
 Pvt. Hal W. Gregory, Jr., 4th Field Artillery, Fort Bragg, N.C.
 Pvt. Francis O. Neer, Section A, Chamute Field, Ill.
 Pvt. Ray A. Noland, 80th Service Sqdn., Mather Field, Calif.
 Pvt. Kenneth D. Locke, A.C. Detachment, Bolling Field, D.C.

Enlisted Men Training in Grade

Sergeant Andy Byron, 22nd Obs. Sqdn., Brooks Field, Texas.
 Tech. Sgt. Frank J. Siebenaler, Selfridge Field, Mich.
 Master Sgt. Carlton P. Smith, 2nd Obs. Squadron, Nichols Field, P.I.
 Staff Sgt. Lloyd W. Thacker, 22nd Obs. Squadron, Brooks Field, Texas

Officers

Captain Karl S. Axtater, Wright Field, Dayton, Ohio. (Air Corps)
 1st Lieut. Randolph P. Williams, Air Corps, Wright Field, Ohio.
 2nd Lieut. Joseph B. Zimmerman, Field Artillery.

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LONG FLIGHT IN THE PHILIPPINES

Lieuts. Harper, Hawkins, Taylor, Springer and Sanborn, on duty at Clark Field, P.I., recently completed a 2,000-mile airways flight throughout the Southern Islands. This was the first time P-12's were flown in that part of the country, as heretofore all such flights were usually made in Sikorskys. The flight went through on schedule and no difficulties were experienced. Over some of the longer water jumps the pilots reported the ocean as looking very blue and deep. The following points were visited: San Jose, Mindoro, Iloilo, Zamboanga, Jolo, Buluan, Cotabato, Camp Keithley, Del Monte Pineapple Plantation in Northern Mindanao, Tacloban, and Logaspi. While in Zamboanga, the flight received orders from Manila to make a survey of the damage done a few days previously by a typhoon which struck Jolo, Jolo. This was accomplished the following day and a report submitted by radio to the Department Commander.

Captain Hewitt, Lieuts. Fisher, Henry, Sanborn and DuBose went over the same route again in five P-12's. It is a six-day trip, and the pilots are afforded plenty of exercise opening gasoline cans and doing all the work on their ships.

RADIO

IN THE PHILIPPINES

Excellent results were obtained with radio communication by the Fourth Composite Group, Air Corps. The existing standard radio equipment has been functioning satisfactorily under the tropical conditions encountered in the Philippine Islands. All Bombardment, Observation and Cargo type airplanes of the Group are equipped with radio and shielded ignition systems. In addition, five P-12B Pursuit planes were equipped with the SCR-133 transmitter and the BC-167 Receiver. The training program of the Fourth Composite Group has provided competent operators sufficient to take care of each airplane of the Group equipped with radio.

During the annual maneuvers of the Philippine Department in January, 1932, radio operations by the 4th Composite Group were 100% successful. No failure of communication in any mission was encountered either with the aircraft sets or the ground sets. During these maneuvers the 2nd Observation Squadron operated as three separate units, each unit representing a Squadron having its own respective SCR-136 ground set. These operations taxed the facilities of the 2nd Observation Squadron in providing radio personnel sufficient to take care of the three establishments. The three units were located, respectively, at San Miguel, Tarlac; Del Carmen, Pampanga; and Nichols Field, Rizal. During the earlier phases of the maneuvers, the 28th Bombardment Squadron acted as long distance reconnaissance during which ranges up to 200 miles were consistently obtained with CW signals between the airplane SCR-134 sets and the ground SCR-136 set.

During the Army-Navy Maneuvers in the Philippine Department, in March, 1932, excellent results were also obtained between the Navy and the Army Air Corps sets, no failures of communication being reported. Aircraft radio is also used on all Inter-Island and Airway flights, satisfactory results being obtained.

An interesting rendezvous and interception problem, using the radio telephone, was successfully completed by the 4th Composite Group on April 13th last. The Group Commander, Major John B. Brooks, flying a P-12B airplane equipped with the SCR-133 transmitter and BC-167 receiver, directed the movements of the flying elements of the Group, which was divided into five units - two Bombardment, two Observation and one Pursuit unit. Two-way telephone was used. Initial orders to all the tactical units directed a Group rendezvous at Cabanatuan at 8:30 a.m. Each unit was led by its respective commander in a radio equipped plane. Arriving at the designated rendezvous, each unit was greeted by the voice of Major Brooks, who was observing his command from a Pursuit airplane flying above the highest element of the Group. The following instructions were given by Major Brooks:

To Bombardment Unit No. 1: "Proceed attack GUIMBA rendezvous with Bombardment No. 2 at 4,000 feet over TARLAC at 9:15. Repeat back."

To Bombardment Unit No. 2: "Proceed attack GAPAN rendezvous with Bombardment No. 1 at 4,000 feet over TARLAC at 9:15. Repeat back."

To 3rd Pursuit Squadron: "Proceed to DEL CARMEN via MALOLOS await further instructions at 6,000 feet over DEL CARMEN airdrome at 9:30. Repeat back."

To Observation Unit No. 1: "Proceed over route GUIMBA-TARLAC-STOTSSENBURG-DEL CARMEN to Mt. ARAYAT. Rendezvous over MT. ARAYAT at 3,000 feet with Observation No. 2 at 9:15 and await further instructions. Repeat back."

To Observation Unit No. 2: "Proceed over the route MALOLOS-DEL CARMEN-STOTSSENBURG to MT. ARAYAT. Rendezvous over MT. ARAYAT at 3,000 feet with Observation No. 1 at 9:25 and await further instructions. Repeat back."

Upon completion of these various missions, all units were then directed by Major Brooks to reassembly and await further orders at various points of rendezvous. At each new rendezvous in turn Major Brooks issued additional oral orders by means of the radio telephone. He directed the Bombardment units to return to the home airdrome flying in squadron formation over a designated route. The Pursuit were directed to intercept and attack the Bombardment formation. The Observation meanwhile were directed to return home and land. In order to avoid the possibility of misunderstanding, orders in each case were repeated back to the Group Commander by the flight leader concerned. All orders were correctly received and executed and all rendezvous completed promptly. All radio equipment functioned well and there were no failures due to equipment or personnel. Ranges up to 50 miles were obtained between the SCR-133 set and the SCR-134 and the SCR-136 sets operating with telephone signals.

The success of this first attempt, using radio equipment which it is believed can be materially improved with respect to efficiency, has convinced the of-

fficers participating of the practicability of the radiophone for the tactical command of air units in flight. Indeed, it becomes apparent that radio affords the only practicable means of command for the control and coordination of effort of the larger units, such as the Group, Wing and Brigade.

The 18th Pursuit Group, Wheeler Field, T.H., participated in three Wing radio-controlled exercises during May. The missions flown on May 6th and 13th were for the purpose of securing coordinated training in rendezvous and radio communications. After the rendezvous, the entire Wing, consisting of Bombardment, Observation, Attack and Pursuit, maneuvered in different formations under direct control of the Wing Commander. Minor difficulties were experienced and overcome on these two missions.

On May 20th, the entire 18th Composite Wing participated in a rendezvous problem with a landing at Haleiwa Field. The facility with which a Wing can be controlled by radio from the air, when it functions properly, was strikingly demonstrated and the need for more radio equipment of a better type was felt. With sets of the later type, having longer range for sending and receiving, the strength of the Group would be increased three-fold.

After five months of study and application, all officers in the 111th Observation and 111th Photo Section, Texas National Guard, have qualified in radio artillery liaison, some achieving a 20 to 25-word a minute communication. Puff targets were employed, the planes flying at a minimum altitude of 2,500 feet. Second Lieut. Theodore Castle is in charge of communications. Captain Fred S. Willbur, an artillery officer during the World War, instructed the officers' class in the details of artillery liaison.

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AN AIR-MINDED CHINESE YOUTH

The following letter, copied word for word, was recently received by an Air Corps officer stationed at Nichols Field, Rizal, P.I.:

"Dear Sir:

Let me beg respectfully for a favour from you, My Lord. I am a young Chinese (age 21) and graduate of the higher school, both English and Chinese. I devote in aeroplane-life, every time I hear the sound of the aeroplane, my heart become light and feel 'Air-life is the most joyful work.' My heart is very thirsting in learning to fly yet the circumstance is too evil, and not promise to do so. After thinking over thinking I observe that the only way which appear to me, is begging from you, My Lord, for a kind help. Would you, my Lord, allow me to serve in your department and let me to have a chance to learn to fly.

Hoping to receive your kind favour, I have the honor to be,

My Lordship's

Your most obedient and humble servant."

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5th SQUADRON SHOWS UP WELL ON THE GUNNERY RANGE

"The boys in the 99th and 1st Squadrons thought they were pretty hot at gunnery and bombing while at Phillips Field, Aberdeen Proving Ground, Md., during April and May," says the Mitchel Field Correspondent, "but the 5th Squadron, with Capt. "Tiny" Harmon commanding, went down in June and climbed the ladder a rung or two higher. Their scores bespeak of superiority somewhere, so the rest of us blame it on the ships. The 5th Squadron pilots report the Douglas O-250's as being the 'nuts' when it comes to putting them in the black.

The shell torn 'no man's land' of the fixed gun range drug down only one ship during the three months' operations there, but no one was at all injured, and the 9th Observation Group considers the season's work a huge success."

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Practically the entire commissioned and enlisted force of the 36th Division Aviation will attend the 15-day annual training period at Camp Hulen, Palacios, Texas. Camp Hulen is about 100 miles southwest of Houston on the shores of Tres Palacios Bay in Matagorda County, covers a total of 13,000 acres and is permanently equipped for the 36th Division. The Division Aviation has modern quarters at the north end of the camp, a spacious landing field adjoining. A headquarters office and warehouse building, an officers' and enlisted men's mess, bath houses, etc., with tent floors of cement make up an attractive site. Boating, surf swimming and fishing are diversions.

DEVICE FOR SAFER FLYING THROUGH FOG AND CLOUDS

WHEN an instrument invented by Charles W. Kiesel, an inspector of the Board of Water Supply, Honolulu, T.H., comes into general use, flying through fog and clouds may be made safer. Mr. Kiesel's device takes the place of a turn and bank indicator and an artificial horizon. It has been tried on military airplanes in Hawaii during the primary stages of its development but not since its perfection. It is known as a balometer.

At first glance the balometer looks somewhat like an automobile speedometer. A needle points vertically at zero with a graduated scale to both right and left through 90 degrees. Below this scale is a rotating cylinder set in the face of the balometer like the device which adds up the mileage on a speedometer. Zero on this cylinder is the horizon line.

Mr. Kiesel began his work on the balometer shortly after the Dole flight. He had spent many years of experimental work on machinery used in the sugar cane industry and, being mechanically inclined, believed he could make flying safer. He was convinced, after talking to Arthur Goebel and Martin Jensen, that the unsuccessful fliers in the Dole race lost out because of inability to fly blind.

His first efforts were tested unofficially on Army airplanes, but the instrument was returned to him with the advice that he would have to eliminate oscillation of the turn and bank needle or swinging of the needle because of centrifugal motion. His second device failed to accomplish this. He continued his work and recently perfected his third balometer, for which a patent has been sought. In this device the artificial horizon cylinder and the turn and bank needle are attached to diamond-shaped plumb bobs which are set in a compartment packed with glycerine. The bob has to cut its way through the glycerine as the device registers. This retards its motion and prevents oscillation of the needle. The scale on which the turn and bank needle registers is colored red on the starboard side and green on the port side. The horizon cylinder is colored also, so the color will tell the aviator whether he is diving or climbing. That part above the horizon is colored red, and the part below green.

Mr. Kiesel is making efforts to have the Bureau of Standards test his device. Military fliers in Hawaii may also give it further tests. He is convinced it is an important instrument for blind flying and much superior to the bank and turn indicators and artificial horizons he has seen on military airplanes in Hawaii.

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RADIO ANNOUNCER'S JOB OPEN TO AIR CORPS OFFICER

It is the understanding of the News Letter Correspondent from Chamute Field, Ill., that certain commercial concerns engaged in the radio broadcasting game have made overtures to Lieut. Roy H. Lynn to resign from the Army and become one of their regular broadcasting staff, it having been recently discovered that his voice is perfectly beautiful on the air. It is stated that the Lieutenant has been receiving loads of fan mail and that his better half is very glad that he is soon to leave for March Field, Calif.

All of the above is apropos to the participation of Chamute Field in the George Washington Bicentennial Military Tournament, when it sent radio planes to Chicago daily, from which broadcasts were made by officers who were pursuing the Communications Course of the Air Corps Technical School. These broadcasts were picked up by Station WLS and put on the air by them in connection with their regular programs. The officers participating in these broadcasts were 2nd Lts. Robert L. Schoenlein, Forrest G. Allen, Roy H. Lynn and Lilburn D. Fator, Air Corps.

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The 58th Service Squadron, comprising 130 men and three Regular officers, Captain Clarence H. Welch, commanding, 2nd Lieuts. Louie P. Turner and Stoyte O. Ross, departed from Brooks Field, Texas, June 11th for permanent station at Langley Field, Va. The 58th, reorganized on October 1, 1930, at Brooks Field, has made a splendid record, and no doubt will carry on its good work at its new station, where it will be the Service Squadron for the new 8th Pursuit Group being organized at Langley Field. The 62nd Service Squadron, retained at Brooks Field upon the removal of the Air Corps Primary Flying School to Randolph Field, will be the Service Squadron for the 12th Observation Group.

WRIGHT FIELD OFFICERS RETURN FROM TRANSOCEANIC CONVENTION

By the Wright Field Correspondent

After attending in Rome, Italy, one of the most unique conventions ever held, a meeting of International Transoceanic Fliers, a convention possible only in this modern day of ours and limited in attendance to a group whose work to be fairly weighed must be considered as affecting the future even more than the immediate present, Captains Albert F. Hegenberger and Clements McMullen returned to the workaday world of laboratories, experimental aeronautics, flying hours, and their Army Air Corps jobs at Wright Field. The Convention dated from May 22nd to May 28th. Sailing on the ROMA on May 9th, the brilliance of the experience must serve to color many dull moments in times to come - if, indeed, such moments ever fall to the lot of two such active pilots.

It was their first visit to Europe. From the moment of their arrival in Italy, they were the guests of the Italian Government - baggage, transportation, hotel accommodations and entertainment being arranged for. The Convention plans included business meetings, flying exhibitions, banquets, dinners, and sight-seeing. The business discussions first covered the preparations for and experiences encountered on the various transoceanic flights, with the purpose in view of compiling all available data. Interpreters made possible discussion between fliers of different tongues. There was discussion of a "freedom of the air policy," with the planes of all nations being welcome at all ports and over international routes which passed above the territory of the various nations. At certain sessions, aviators from Germany, England, United States, and a group from France studied northern Atlantic plane routes, while the Italians, Spanish and a second French group discussed the southern Atlantic route between Europe and South America. The Wright Field pilots studied four North Atlantic routes under the leadership of Capt. H.C. Richardson and of Sir Hubert Wilkins, the Labrador-Greenland-Scandinavian route being considered the most practical because of better weather conditions and the shorter distance between landing points. To make such a route practical for a two-day mail line to Europe, meteorological stations each 500 miles at least should be established, it was decided.

Receptions were held for the fliers by Premier Mussolini, as well as King Victor Emmanuel; the King's son, Prince Umberto; and the Duke d'Aosta, the latter being a pilot. These two young men, in fact, were tremendously interested in aviation and spent much time with the Convention representatives. The brilliance of the uniforms and decorations at all the gatherings was especially impressive.

Impressive also was the flying exhibition with which the meeting closed. Both Wright Field pilots declared that for skill and daring they had never seen anything like certain features of the formation work performed. In one instance, nine planes in tight formation flew upside down in a circle of approximately seven miles. In another, three groups of nine planes, each in formation, looped the loop, the tails of the planes of each group being tied together. Planes throwing red, white, and green smoke screens looped and spiralled, leaving strange colored shapes hanging in the air. Captain McMullen described the routing of a dummy machine gun nest. Six planes dove on the nest, turning and zooming back into the air from 5 to 15 feet above the ground. The timing with which the six planes following each other in rapid succession dove on the nest, then zoomed upward, made a crash seem inevitable. Each pilot had his assigned split second in which to come down and a different direction in which to shoot back up, and each was perfect in this work. There was a sigh of relief, however, even from the seasoned transoceanic fliers when the group landed safely.

Following the close of the meeting, Captain Hegenberger, whose particular interest in navigation equipment, crowded in visits to airdromes and manufacturing plants in Berlin, Munich, Geneva, Paris, Venice, Milan and Turin, using in some instances the commercial air lines, in others piloting borrowed planes. Having made the first solo blind landing shortly before his trip, he was anxious to glean at first hand just what advanced equipment was in use for blind flying, especially on the commercial air lines, in Europe. Though time was short, he was able to cover a wide range of territory and gain a fairly clear picture of European development in this field, a picture that will enable him to take up with greater confidence the work he so reluctantly put by for a few weeks to attend the Rome Convention.

Other American transoceanic fliers among the delegates were W.W. White, Captain McMullen's confere on a New York - Buenos Aires flight; George Haldeman; Harold Gatty, and Commander H.C. Richardson, U.S.N.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Langley Field, Va.: Capt. James T. Hutchison from Walter Reed General Hospital; Capt. Albert M. Guidera from duty as Instructor, Indiana National Guard, Indianapolis; 1st Lieut. Richard E. Nugent from Panama.

To Bolling Field, D.C.: Capt. Omer O. Niergarth from duty as student at Industrial War College, Washington; Captain Orlo H. Quinn from Command and General Staff School, Ft. Leavenworth, Kansas.

To Randolph Field, Texas: 2nd Lieut. Harold H. Bassett from Hawaii.

To Fort Bragg, N.C.: 1st Lieut. Joseph W. Benson, from Hawaii, for duty with 2nd Balloon Company.

To Selfridge Field, Mich.: 1st Lieut. Earle E. Partridge from Panama; Capt. Harry G. Montgomery from Walter Reed General Hospital.

To Mitchel Field, N.Y.: 2nd Lieut. Arthur J. Lehman from Panama.

To Hawaii: 2nd Lieuts. Robert L. Easton and Ralph E. Holmes from Chamute.

To Panama: Capt. Ennis C. Whitehead from Selfridge Field; 1st Lieuts. Dixon M. Allison and Clifford P. Bradley from Randolph Field.

To the Philippines: 1st Lieut. Hugo P. Rush from Wright Field, Ohio.

To Maxwell Field, Ala.: Major George E. Lovell, Jr., from duty as student at Air Corps Tactical School. Previous orders in his case revoked.

DETAILED TO THE AIR CORPS, and to Randolph Field, Texas, July 1, for primary flying training: 1st Lieut. Edwin L. Johnson, Field Artillery; 2nd Lieuts. James F. Stroker, Field Artillery; Robert G. Turner, Infantry.

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POWER PLANT ENGINEER AT WRIGHT FIELD PASSES AWAY.

June 9th proved a day of loss to the Materiel Division, Wright Field, O., because of the death of Mr. G.H. Frank, whose life, after many years of devoted and capable service to the Division, was cut off after but a few days' illness.

Mr. Frank came to the Division on March 9, 1918, as a dynamometer operator. Later he became Air Corps Inspector of Power Plants. For the past eight years he was test engineer in the Power Plant Branch, having a hand in many of the most interesting power plant developments. A principal project was the adaptation of the power plant to ethylene glycol cooling, to which he gave much time and concentration and which practice has come into wide use for Army airplanes. Fair in all his working relations, genial and kindly as a companion, he held not only the respect but, in an unusual measure, the love of his associates.

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Twelve new V-1570 engines, with a new type of counterbalanced shaft and slight changes in the lubrication system, were delivered to Selfridge Field, Mich., for installation in P-16 airplanes for an exhaustive test. Officers at this field hope that the new changes in the V-1570 engines will remedy the troubles encountered with them when installed in Pursuit planes.

With the 11th Observation Squadron, Texas National Guard, instrument flying occupies three periods of each week - Sundays, Wednesdays and Saturdays. One O-38 is equipped for blind flying. Preliminary instruction in blind flying is carried on regularly, with flights under charge of a safety pilot made as soon as the pilots qualify. The navigation flights include triangular courses of about 50 to 60 miles to each leg. No maps are carried, the pilots being obliged to plot their courses, windage and time. Some exceptionally good records are being made. First Lieut. Earle T. Showalter performed some difficult blind flying the last of May and did it so effectively that he was asked by Major Blackburn, Commanding Officer, to lecture to the pilots on his experience.

Sixty-five planes of the 18th Composite Wing, Hawaii, flew an aerial review before the commissioned staff, Cadets and crew of the German Cruiser "Karlsruhe" at Luke Field. The Cadets were inspected by Lieut.-Col. Gerald C. Brant and Majors Maxwell Kirby and Ernest Clark prior to the review. The officers and cadets of the "Karlsruhe" then inspected planes and personnel. The review line was more than one-half mile long. The German personnel were very enthusiastic in their praise of the military appearance and precision flying, and commented very favorably upon the ability and efficiency of the 18th Wing personnel. Frigattenkapitan Wassner, Commanding Officer of the "Karlsruhe," and Lieut.-Col. Brant, Commanding Officer of the 18th Composite Wing, flew around the Island of Oahu in the Wing Command plane. Captain Wassner was greatly pleased with the flight. Some of the most beautiful flying country in the world was flown over. Later in the day, Captain Wassner was presented with several aerial photographs of his own ship, taken by the 11th Photo Section.

TECHNICAL SCHOOL STUDENTS GRADUATE

Graduation exercises were held at Chanute Field, Rantoul, Ill., on June 25th for the graduates of the Maintenance Engineering and Communications courses of the Air Corps Technical School. The exercises consisted of a review, followed by presentation of diplomas on the field to the graduating officers. The graduates received the review with the Commandant and Commanding Officer of Chanute Field, Lieut.-Colonel James A. Mars. A great many civilians attended the Review and were afforded the additional treat of seeing the take-off of the Army blimp, TC-6, for Scott Field. Chanute Field was used as a fueling base for the operations of this airship at Chicago in connection with the George Washington Bicentennial Military Tournament.

Maintenance Engineering graduates were 1st Lieuts. Thomas J. Cushman, Marine Corps; James W. Spry, Alva L. Harvey, 2nd Lieuts. Frederick A. Bacher, Jr.; Chas. B. Stone, III, Lawrence H. Douthit, Karl G.E. Gimmler, Robert Loyal Easton, August W. Kissner; Donald J. Keirn; Thomas S. Power; Lorry N. Tindal; Charles K. Moore; Hollingsworth F. Gregory; Samuel O. Redetzke; Herbert H. Tellman; Harold L. Mace; Anthony Q. Mistoe; Julius K. Lacey; Minthorne W. Reed; Carl R. Storrie; Arthur F. Merewether, Air Corps; 1st Lieuts. Arthur H. Morrison, George S. Stead, 2nd Lieut. Frank B. Stuart, Air Reserve; Captain William K. Ennis, Texas National Guard, and 2nd Lieut. Clinton E. Searle, Michigan National Guard.

Those graduating from the Communications Course were 1st Lieut. James K. DeArmond, 2nd Lieuts. Ralph E. Holmes, Forrest G. Allen, Draper F. Henry, Richard I. Dugan, Daniel C. Doubleday, Roy H. Lynn, Daniel B. White, Albert W. Shephard, Lawrence O. Westley, Air Corps; Capt. William B. Wimer, Missouri National Guard; 1st Lieut. Robert L. Stephens, New Jersey National Guard; and 2nd Lieut. Rudolph S. Farrar, Tennessee National Guard.

During the last week in June, the Maintenance Engineering graduates, in charge of 1st Lieut. Herbert W. Anderson, Secretary of the Air Corps Technical School, visited the Materiel Division at Wright Field, Dayton, Ohio, on an inspection tour, following which practically all the officers proceeded to their new stations, some by automobile, some by rail, and some by rail and water transport to foreign stations. Lieuts. L.H. Douthit and R.L. Easton remain temporarily at Chanute Field, thus relieving somewhat the shortage of officers which normally exists during school vacation at this post.

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INSIGNIA SOUGHT FOR THE 111th OBSERVATION SQUADRON

Major Thomas W. Blackburn, commanding the 111th Observation Squadron, 36th Division Aviation, Texas National Guard, is holding a competition for a Squadron Insignia in order to obtain the best design talent can devise. A cash prize of \$25.00 is offered for the insignia selected by the officers of the organization and approved by the War Department. The contest is open to members of the military establishment as well as civilian artists.

The national coat of arms or the coats of arms of any state or country can not be used, although parts of the latter two are permissible. No lettering, numerals, maps or geographical features are allowed. The Texas Lone Star may be used. Something historical and indicative of the functions of an Observation Squadron is sought. For the information of artists competing, it may be mentioned that Texas is noted for its long horn steers, cactus and Comanche Indians. These Indians wore three feathers tucked in the back of their hair and not the full feather headdress of the Northern Sioux. Drawings should be mailed to Major Thomas W. Blackburn, Route #1, Box 655, Houston Airport, Houston, Texas. Drawing paper, 8½ x 11 inches, should be used. The insignia should be simple and suitable to stenciling on the fuselage of the planes of the Squadron. Two or three colors may be used.

Major Blackburn, who holds the rank of Captain in the Air Corps, Regular Army, is on duty as Instructor of the Texas National Guard air unit.

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Notification that certain prominent airports just over the 500-mile radius had been included within cross-country limits was met with unqualified approval by the commissioned and enlisted personnel of Langley Field, Va. Atlanta, Macon, Chattanooga, Louisville and Selfridge Field are due to see many new faces in the near future.

The cover design for this issue of the News Letter is the work of Corporal Don L. McClaskey, Engineering Clerk of the 13th Attack Squadron, Fort Crockett, Galveston, Texas. Thank you, Corporal McClaskey, for your interest in the News Letter. We hope that others who are handy with pen, pencil or stylus, will follow your example and send in cover designs for future issues. Designs on Cello-type or Mimeotype stencil sheets are preferred, but pen and ink sketches are also welcome. Pencil sketches are difficult to trace on the stencil sheets.

All designs used will be duly acknowledged in the News Letter. Get busy, you artists!

GRADUATIONS FROM THE ADVANCED FLYING SCHOOL

A class of students, consisting of two officers of the Regular Army, one German Army officer, and 93 Flying Cadets, graduated from the Air Corps Advanced Flying School, Kelly Field, Texas, on June 29th. An aerial review was flown by all students at 8:00 a.m., and graduation exercises were held at 10:00 a.m. Major-General Benjamin D. Foulis, Chief of the Air Corps, delivered an address to the students, and Brigadier-General Charles H. Danforth, Commanding General of the Air Corps Training Center, presented the diplomas.

The following is the list of graduates:

Officers

2nd Lieut. William T. Hefley, Jr., Corps of Engineers, U.S. Army.

2nd Lieut. Russell A. Wilson, Signal Corps, U.S. Army.

Captain Eberhard Baier, German Army.

Flying Cadets

Aring, Wilbur W.	Brady, Robert W.	Hoffman, Cecil R.	Oglesby, Walter A.
Baker, Carl F.	Coursey, Harry	Horvath, Lewis, Jr.	Parrish, Noel F.
Beck, Stephen A.	Cox, Dudley S.	Hughes, Louis R.	Philip, Donald E.
Belden, Lloyd I.	Cox, Homer M.	Hunt, Jack S.	Purser, Brittain H.
Bell, Jasper N.	Culler, Harry H.	Hunt, Wilburn R.	Qualm, Joseph R.
Bonnell, William F.	Davis, Wm. Edwin	Hurst, Don L.	Payne, Samuel V.
Bogardus, Wm. I., Jr.	Demler, Marvin C.	Jarmon, Robt. E.	Randolph, Jack L.
Borchers, Adrian	Ditzen, William G.	Jackson, Edmund L.	Reynolds, Roger M.
Bordelon, Henry O.	Doherty, John C.	Jobson, Theron S.	Richardson, H.G.
Borgers, Elder W.	Duckworth, Hubert B.	Kane, John R.	Searles, Nathan F.
Breeding, Wilbur W.	Earle, Lloyd W.	Krug, Lester	Smith, Elton
Brockliss, Cedric J.	Fouche, John S., Jr.	Keenan, Gregory F.	Spake, John P.
Bruce, James L.	Freyer, Francis R.	Lancaster, D.B. Jr.	Sprunger, Noble O.
Cahill, Martin B.	Gardner, Wayne C.	Lovelace, Wm. T.	Stevens, Fred D.
Cassady, George S.	Gates, Thomas L.	Mackelcan, H.M.	Swift, Henry H.
Cazier, Frank W.	George, Clifton V.	Matthews, F.H.	Shockley, Moir L.
Celik, Henry M.	Glen, Frank P.	Moody, Howard A.	Trimble, W.L., Jr.
Christner, John W.	Govoni, George L.	Moore, Ralph J.	Unruh, Marion D.
Churchill, Randolph E.	Haarman, Donald W.	Mosman, Ormond J.	Ward, Roy Putman
Clark, Glenn C.	Haley, Olin K.	Murchison, Geo. M.	Wassell, Ralph L.
Clark, William L.	Hamilton, Edward N.	Neal, Jesse	Wooley, Paul G.
Cooper, Robt. E., Jr.	Hanspeter, Paul J.	Nelson, David R.	Workman, James T.
Corrigan, Emmett J.	Harris, Clyde C., Jr.	Nuckols, Wm. P.	Zelazo, Steve
		Weller, Richard C.	

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KANSAS CITY AIR RESERVE UNIT ATTENDS CONVENTION

It has long been the avowed purpose of the several Air Corps Reserve Officers' Associations scattered throughout the United States to get together in a big pow-wow and set the foundation for a national organization to promote the Air Reserves as a national unit. To this end, April 28, 1932, was set as the date for the gathering of the clans, among them the Kansas City Association representing the 430th Pursuit Squadron. Chicago was selected to receive this honor. To localize still more, the Edgewater Beach Hotel was selected to take the punishment coincident to conventions.

The Kansas City Unit, as the census revealed, led the convention in point of attendance with eleven Reserve officers, led by Captain Wm. B. Wright, Air Corps, Regular Army and Commander of the Squadron. They were Captains Wm. S. Green, J.W. Ranson, W.E. Long, W.P. Ford, W.G. Moore, G.T. Long, 1st Lieuts. R.C. Farrell, A.D. Hillman, W.E. Lewis, 2nd Lieuts. A.G. Hunter and Sgt. J.J. Eberling, Air Corps. The above list includes all the past Presidents and present office holders of the local chapter of the National Organization of the Air Corps Reserve Officers. Lieut. Hillman was elected National Vice President, and Lieut. Farrell, National Judge Advocate.

At the conclusion of their business meeting in Chicago, the group was invited to attend a dinner given at the St. Johns Military Academy, Delafield, Wis. St. Johns being the Alma Mater of Captain Wright, he was called on to "Speech" at the close of the dinner and received applause that made the good old halls ring.

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Nichols Field, Rizal, P.I., May 23rd.

The Second Observation Squadron recently staged a big game hunt in which 14 officers and 8 enlisted men took part. Under the command of the Squadron Commander, Captain Sorenson, they set out to seek the most highly prized of all big game, the rare and elusive tamarao.

This animal is a distinct species of water buffalo, in appearance much like a large deer, having, however, the horns of a small carabao. It is found nowhere in the world but on the Island of Mindoro. Although its appearance is rather more graceful than terrifying, it is an extremely vicious animal when wounded or cornered, and has killed more than one hunter.

Reaching the heart of the tamarao country, not a human habitation or person could be seen. In the foreground were green hills, partly wooded, pock-marked with little basins containing springs, basins in which the tamarao thrives. In the background rose up towering brick-red mountains, bare, impassable, unexplored. The party split up into two parts, one camping high on a distant hill to the south of the landing field, the other camping by the planes and hunting on a closer ridge to the north.

Luck, or lack of it, was about evenly divided. In the northern party, two of the hunters got running shots at tamarao, but missed. In the southern party, Lieut. Eppright shot a tamarao at fifty yards, wounding him. True to his reputation, the beast charged. Eppright turned him with a second shot and he swerved aside into some tall cogon grass. Having only two cartridges left, Eppright wisely did not follow him. Private Rivers shot a pig.

The expedition returned with nothing more important than a pig, but it started something. If you visit Nichols now, you will see the officers proudly exhibiting new sporting rifles they have bought. All those who went are anxious to return; the race to see who will get a tamarao is on.

Patterson Field, Fairfield, Ohio, June 20th.

The steel work on the new Disassembly Building at this station was finally completed, and work was started on the steel structure of the new Final Assembly Building. The concrete foundation was laid for the new Administration Building.

During May, 35 airplanes were overhauled (18 major, 17 minor) and 58 engines (38 major, 20 minor).

The following officers ferried Air Corps supplies to other stations during the past two weeks: Major Sneed to Selfridge Field, June 1st; Lieut. Zeigler to Scott Field, June 2nd; Lieut. Williamson to Selfridge Field, June 3rd; Lieut. Irvine to Lunken Airport, June 6th; Lieut. Goodrich to Selfridge Field, June 7th; Lieut. McPike to Bowman Field, Ky., June 8th, and to Chamute Field, June 14th; Capt. Lewis to Chamute and Scott Fields on June 9th, and Lieut. Timberlake to Selfridge Field on June 10th.

Officers ferrying planes to this station for major overhaul were Lieuts. Carpenter and Caldwell from Stout Field, Ind.; Lieut. Massie from Marshall Field, Kansas; Major Muse with Major Gilkeson, Lieut. Horton with Lieut. Davidson, Captain Peck, Lieuts. Moon and Kase, all from Maxwell Field, Ala.

The following were cross-country visitors here during the period June 1st to 15th, inclusive: From Bolling Field - Capt. Wood, Lieut. Stranathan with Lt.-Col. Lentz, and Lieut. Robertson; from Randolph Field, Texas - Lieuts. Warren, Walker, Abbey; from Chamute Field, Ill. - Capt. Hamilton and 5 enlisted men, Lts. Anderson, Laughinghouse, Burgess; from Maxwell Field, Ala. - Major Echols with Capt. Mullins; Lieut. Cummings with Col. Chandler, Lieut. Mills; from Lunken Airport, Ohio - Capt. Colgan with Lieut. Coleman, Lieut. Mitchell; from Columbus, Ohio - Lieut. Spiers with Capt. Gardner, Lieuts. Conover and McConnell; from Sky Harbor, Tenn. - Capt. Gardner with Capt. Horkins, Lieut. Catron; from Chicago, Ill. - Major Mann with Lieut. Newhall, Lieut. Keegh with Capt. Connell, Lieut. Webster; from Logan Field, Md. - Capt. Ballard; from Phillips Field, Md. - Lieut. Hart; from St. Louis, Mo. - Capt. Herold; from Bowman Field, Ky. - Lieut. Welsh with Lieut. Miller; from Cleveland, Ohio - Capt. Gill; from Stout Field, Ind. - Lieut. Carpenter with Capt. Guidera; from Selfridge Field, Lieut. Garrison.

The dinner dance by the Officers' Club at Miami Valley Hunt and Polo Club on June 3rd was a huge success and was the final Club Party for the season.

Major A.L. Sneed, Commanding Officer, inspected the 112th Observation Squadron at Cleveland, Ohio, on June 10th.

Lieut. McPike ferried an F1-A to Scott Field on June 8th and Lieut. Zeigler an O1-B to Richards Field, Mo., on June 13th.

Officers from this station making cross-country flights were Lieut. Irvine to Richards Field, Mo., June 10th and to Chamute Field and Fort Riley, Kansas, June 10th, returning June 13th; Lieut. Williamson to Logansport, Ind., June 5th.

Lieut. Melvin B. Asp departed June 5th for Panama on 3 months' leave, after which he will proceed to Maxwell Field for duty. Mrs. Asp accompanied him.

Capt. Hugh A. Bivins departed June 7th on 15 days' leave of absence.

Patterson Field, Fairfield, Ohio, July 1st.

The annual picnic of the Wilbur Wright Welfare Association, held at Kil Kare Park June 25th, was attended by approximately 1200 employes and their guests, and 12 officers, and an exceptionally good time was had by all. Among the events were golf, tennis, swimming, baseball band concert, horseshoes, boxing, motorcycle stunting, dancing, etc. At a recent meeting of the Association, all active commissioned personnel at Patterson Field were made honorary members of the Welfare Association, and it was pleasing to note that many of the officers attended the annual picnic.

The following were cross-country visitors at this station, June 16th to 30th: Lieut. Haynes with Lieut. Williamson; Major Pirie; Lieut. Mulligan and six enlisted men from Mitchel Field, N.Y. - Captain Sullivan; Capt. Muffat; Major Oldfield from Bolling Field, D.C. - Lieut. Shoemaker; Lieut. Landon with Lieut. Smith from Fort Crockett, Texas - Lieut. Welsh with Lieut. Ross; Lieut. Gibson from Bowman Field, Ky. - Capt. Colgan; Lieut. Coleman; Major Outcalt from Lunken Airport, Ohio - Lieut. Douthit; Lieut. Wriston; Lieut. Westley from Chamute Field, Ill. - Lieut. Carpenter with Lieut. Caldwell from Stout Field, Ind. - Lieut. Price; Lieut. Gaffney; Lieuts. Higgins and Shea from Kelly Field, Texas - Captain Barnhill; Captain Gill from Cleveland, Ohio - Lieuts. Robinson, Lewis and Morriel; Lieut. Bisson and 7 enlisted men; Lieuts. Henderson and Eckert from Langley Field, Va. - Lieut. Grover; Lieuts. Wallace and Alexander from Randolph Field, Texas - Major Lynd and 5 enlisted men; Captain Merritt from Fort Leavenworth, Kansas - Lieuts. Kennedy and Johnson; Lieuts. Kennedy, Darby and Waddell from Brooks Field, Texas - Lieut. Mitchel from Fort Sill, Okla. - Lieut. Genare from Schoen Field, Ind. - Lieut. Pittman with Major Ducot from Selfridge Field - Lieut. Newhall and Captain Mann; Lieut. Heiman from Chicago - Lieut. Rogers from Columbus, Ohio - Lieut. Marcum from Rodgers Field, Pa. - Lts. Vance and Moon from Maxwell Field, Ala. - Lieut. Steed from Chamute Field - Capt. Salisbury from Boston, Mass. - Lieuts. Haley, Miller, Sullivan and Morse from San Diego, Calif.

Cross-country flights by officers at this station were made as follows: Lieut. Zeigler to Barnwell, S.C., June 18th and to Wooster, O., June 24th; Lieut. Irvine to Bowman Field, Ky., June 18th; Lieut. Timberlake to Columbus, Ohio, June 23rd.

Major A.L. Sneed, Commanding Officer, departed June 20th on 21 days' leave, which he is spending on a fishing trip in Galena, Mo.

Captain Wood with Lieut. Gunn, from Chamute Field, Ill., Lieuts. Kirby and Schott from Selfridge Field ferried planes to this station for major overhaul, while officers ferrying planes here for minor repair were: Capt. Wood with Lieut. Gunn from Chamute Field, June 16th, in O-25A; Lieut. Caldwell in a BT-1, June 17, and Lieut. Carpenter in an O-38B, June 23rd, from Stout Field, Ind.; Lieut. Wilson with Lieut. Murtha from Middletown in an O-19C, June 19th; Lieut. Welsh from Bowman Field in a BT-2B June 28th; Lieut. Newhall from Chicago in an O-38, June 29th.

Lieut. Goodrich ferried an O-19C to Buffalo, N.Y., June 17th, returning by rail.

The personnel of the Quartermaster Corps at this station celebrated anniversary day with a picnic at Eastwood Park on June 16th.

Officers from this station ferrying Air Corps supplies to other stations were: Lieut. Irvine to Chamute Field, June 17th; Lieut. Williamson to Selfridge Field, June 23rd; Lieut. Timberlake, June 24th, and Lieut. McPike, June 25th, to Chamute Field.

Boston Airport, Mass., July 1st.

The month of June was a very active one for the Air Corps Detachment at Boston. Reserve flying took up some time, but there was an increase in visiting ships which meant many busy Sundays for the crew. Among the visitors were (June 11th) Lt. T.J. Creedon from Mitchel Field in an O1-G, (Lieut. Creedon, a Brookline, Mass. Reserve Officer, later lost his life when his plane crashed in a severe storm at Fort Washington, Long Island, June 27th); Lieut. W. Shepard from Mitchel Field, enroute to Waterville, Maine, and return; Lieut. Frank Klein dropped in from Buffalo, N.Y. in a Boeing P-12C; and Lieut. J.C. McLeod came in from Fort H.G. Wright, where he had been cooperating with the Coast Artillery on various missions.

On June 18th, Lieuts. Alexander and Robertson from Mitchel Field, also Lt. Bond were among the visitors. Lieut. Richard Cobb, formerly stationed in Boston in the early days of the Boston Airport development, was a very welcome visitor from Randolph Field, Texas.

Capt. Glenn C. Salisbury, A.C., made a fast trip from San Antonio to Boston in a day and a half.

A formation of four airplanes with one blank file was flown by Air Reserve officers over the funeral of the late Lieut. T.J. Creedon, Air Reserve, on July 1st. Lieut. Creedon was killed in an airplane accident at Mitchel Field, N.Y.

Rockwell Field, Coronado, Calif., June 25th.

The activities at Rockwell Field were augmented by considerable activity of the units from the First Bombardment Wing, March Field, which are in camp at the west end of Rockwell Field on North Island for the purpose of aerial gunnery and bombing training. The camp has been named "Camp Forrest L. Neville" in honor of the late 2nd Lieut. F.L. Neville, Air Corps. It is expected Camp Neville will be occupied for gunnery and bombing training by March Field units during the greater part of the summer.

New wooden bungalows have been built to replace the tent barracks formerly occupied by the troops of the 76th Service Squadron. New shrubbery, including flowers and palm trees, add to the beauty of the new squadron area.

Captains Cortlandt S. Johnson and Richard K. LeBrou were recently promoted to their new rank and are both happily wearing two bars.

Captain Harold M. McClelland with Corp. Fred E. Salter as crew chief just returned to Rockwell Field after ferrying a YO-31A to Brooks Field, thence by rail to Middletown, Pa., for the purpose of securing a B4-A for this station.

All of Rockwell Field very much regret the loss of their present commander, Lieut.-Col. Barton K. Yount, and his family. Col. Yount is scheduled to sail from San Francisco August 3rd, enroute to his new station at Bolling Field, D.C.

Captain Harvey H. Holland arrived at Rockwell in April after completion of a tour of duty in Hawaii and was appointed Post Adjutant. He is one of the Army's foremost authorities on air navigation and is author of the text "Avigation."

Chanute Field, Rantoul, Ill., July 1st.

The following officers were in Chicago participating in the Military Tournament in connection with smoke screens: Captains Samuel M. Connell, Arthur G. Hamilton and Edward H. Wood. First Lieut. George W. Goddard and 2nd Lieut. Russell Scott also participated in the Tournament with photographic airplanes.

Friday night, June 24th, the Officers' Club held a graduation dance in honor of the graduating classes of the Communications and Mechanics Departments.

Master Sgt. Clyde B. Hamlin, former line chief, was transferred to Kelly Field, and his replacement has arrived. We welcome Master Sgt. Joseph Kindergan.

Lieut.-Col. Mars, Post Commander, and Lieut. W.C. Farnum, Post Adjutant, participated in an interception problem on June 28th, taking off and intercepting the Army Airship TC-6 on its way from Scott Field to Chanute Field. The first interception was made in the vicinity of Pana, Ill., by Col. Mars, and the second interception between Pana and Decatur by Lieut. Farnum. When the blimp landed, the Scott Field pilots got out to rest, and the ship was taken on a two-hour flight by Lieut. Cressy, assisted by Col. Mars and Lieut. Farnum. Various of our friends in this vicinity were treated to the sight of the blimp, which was an unusual spectacle for them.

First Lieut. Dan C. Ogle, M.C., our new Flight Surgeon, who just graduated from the Army Medical School and the Medical Field Service School, Carlisle Barracks, Pa. reported for duty.

Our new Chaplain, Major Milton O. Beebe, who recently graduated from the University of Chicago and secured his AM degree, reported for duty, but it is understood he contemplates taking leave for a month or so. Our former Chaplain, 1st Lieut. F. Herbert Moehlmann, under orders for Panama, is staying around and will assist the new Chaplain in getting acquainted. Chanute Field wishes to express its sincere regrets at this time in the loss of Chaplain Moehlmann. He is very popular and Chanute Field feels he is just about what a Chaplain should be.

Cross-country flights by Chanute Field officers to various localities and return to the field were made as follows: To Wright Field, Ohio, Captains W.A. Hayward, F.S. Borum, Lieuts. S.O. Carter, N.R. Laughinghouse, W.K. Burgess and G.W. Goddard -- To Patterson Field, Ohio, Lieut. H.W. Anderson -- To Selfridge Field, Mich., Major A.E. Brown, Capt. E.H. Wood, Lieuts. J.W. Spry, D.J. Keirn, T.S. Power, C.R. Storrie, A.F. Merewether, G.S. Stuart and A.L. Harvey -- To Bowman Field, Ky., Lieuts. A.F. Merewether, T.S. Power and C.R. Storrie -- To Scott Field, Ill., Lieuts. H.F. Gregory, L.H. Douthit, J.K. DeArmond, D.F. Henry and G.S. Stead -- To Fort Crook, Neb., Lieut. C.B. Stone, III -- To Chicago, Ill., Lieut.-Col. James A. Mars, Captains S.M. Connell, W.B. Wimer, Lieuts. L.C. Westley and R.S. Farrar -- To Ottawa, Ill., Lieuts. R.L. Easton, K.G.E. Gimmler and A.F. Merewether -- To Galesburg, Ill., Lieut. C.B. Stone, III -- To Muskogee, Okla., Lieuts. H.W. Anderson and G.W. Sparhawk -- To Lafayette, Ind., Lieut. A.W. Kissner -- To Indianapolis, Ind., Lieuts. C.B. Stone III and H.W. Anderson -- To Nashville, Tenn., Lieuts. C.R. Storrie and A.W. Shepherd -- To Wassau, Wis., Lieuts. A.F. Merewether and S.O. Redetzke -- To Dyersburg, Tenn., Lieut. M.N. Reed -- To Alton, Ill., Lieut. T. S. Cushman, U.S.M.A. -- To Decatur, Ill., Lieut. L.H. Douthit.

Air Corps officers visiting Chanute Field by air recently include the fol-

lowing: From Patterson Field, O., Capt. B.F. Lewis, enroute to Scott Field; Lieut. L.E. Massie, enroute west -- From Selfridge Field, Capt. R.C.W. Blessley, Lieuts. F.H. Griswold and P.M. Jacobs, last two named enroute to Scott Field -- From Scott Field, Capt. W.C. Connell, enroute to Chicago; Lieut. R.H. Talbott, enroute to Selfridge Field; Lieut. H.A. Clark, enroute to Escoda, Mich. -- From Ft. Leavenworth, Kans., Capt. R.H. Ballard, enroute to Wright Field; Lieut. J.L. Jackson -- From Wright Field, O., Lieut. C.S. Irvine, enroute to Omaha, Neb.; Lieut. R.J. Minty, enroute to LaSalle, Ill.; Lieut. J.L. Davidson -- From Selfridge Field, Lieuts. T.M. Bolen and B.L. Boatner.

On the evening of June 16th, the Officers' Mess held the seventh and final of the season's series of "Dancing Dinners," at which about sixty dinner guests were present.

Taking advantage of the opportunities afforded by duty in this pastoral atmosphere of Central Illinois, members of the command this season are enjoying many avocations and hobbies, ranging from Col. Mars with his German Shepherd dog, Persian and Siamese cats, roses and pheasants, through Captain Skemp with his Sterling Silver Sebright Bantams, down to a soldier, Staff Sgt. E.J. Jusko, the proprietor of a kennel of two wild red foxes. Other hobbies at which Chanute Field plays hard include landscape gardening, small scale truck farming, turtles, rare fish, fishing, heraldry, swimming, baseball, and others too numerous to mention.

Brooks Field, San Antonio, Texas, June 18th.

The following-named officers were ordered to report at this station upon the completion of the School Course at Chanute Field: 2nd Lieuts. Edward A. Dodson, Lorry N. Tindal, Carl R. Storrie and Samuel O. Redetzke.

The following-named 2nd Lieutenants, Air Reserve, who were on active duty during the past year, were relieved July 1st and reverted to civilian status: Henry B. Fisher, Reginald L. Needham, J. Will Campbell, John H. Foster, Fielden A. Creech, Donald M. Kesler, George F. Keene, Charles T. McKinnie, Roy O. Ralston, Mell M. Stephenson, Jr., Carl A. Gerlicher, Albert J. Boot, Jr., Ralph S. Johnson, Walter M. Wood, Benjamin G. Holloway and William Beverley, Jr.

Major Henry J.F. Miller, recently graduated from the command and General Staff School, Fort Leavenworth, and due to arrive July 1st, will be assigned as Air Corps Technical Inspector of Brooks Field.

Captain Robert Kauch, from the Air Corps Tactical School at Montgomery, Ala., due to report July 1st, will be assigned as Commanding Officer of the 22nd Observation Squadron.

First Lieut. Raymond Morrison, recent graduate of the Engineering School at Wright Field, Dayton, Ohio, will report during July and is to be assigned as Post Engineering Officer.

First Lieut. Milton J. Smith, who reported from the Middletown, Pa., Air Depot, will be assigned as Station Supply Officer.

First Lieut. Joseph H. Hicks, who has been Commanding Officer of the First Photo Section, is being relieved of that duty and assigned to the 88th Observation.

First Lieut. Arthur L. Bump, Jr., Personnel Adjutant, is being relieved and assigned to the 12th Observation Squadron. He is to be succeeded as Personnel Adjutant by 2nd Lieut. Richard I. Dugan, due to report here from Chanute.

First Lieut. Arthur I. Ennis, who just graduated from the Air Corps Tactical School at Maxwell Field, Ala., will report July 1st and is to be assigned as Group Communications Officer, relieving 1st Lieut. Frederick D. Lynch, who will be assigned to the 88th Observation Squadron. Lieut. Ennis, who prior to his assignment as student at the Technical School, served a four-year tour in the Information Division, Office Chief of the Air Corps, (Press Relations Section) is a wartime pilot, receiving his training at Payne Field, West Point, Miss. (Ed. Note: He was well on the road to fame as a radio announcer when the exigencies of the service nipped his ambitions along that line. It has been learned from good authority, however, that while a student at Maxwell Field he gained quite a reputation as a horseman - whether he joined the famous Four is not known).

Major Thomas L. Gore, Flight Surgeon, received orders transferring him to Maxwell Field, Ala. He will be succeeded by Major Andrew W. Smith, Medical Corps, Randolph Field. The transfer of these two officers was accomplished June 30th.

Second Lieut. Louie P. Turner accompanied the 63 enlisted men of the 58th Service Squadron by train on their transfer to Langley Field.

Hqs. Air Corps Troops, Fort Sill, Oklahoma, June 30th.

On May 31st, Flight "E" became the 101st Observation Squadron (Provisional) and went to war in earnest as a part of the Field Artillery School spring maneuvers. These exercises proved most interesting and instructive, involving the following types of missions: Close reconnaissance, Infantry liaison and contact, photographic reconnaissance, night reconnaissance, attack (using flour bombs),

artillery adjustment and surveillance of scheduled fires, and command, staff and messenger missions. The maneuvers ended on June 4th.

Annual gunnery practice began on June 14th, with completion date estimated as July 10th.

Students on training flights from Kelly Field who remained overnight here enroute to El Paso, Texas, were: an Observation flight of 20 O2-H planes, led by Captain H.K. Ramey, June 1-2; a Pursuit flight of 3 A-3's and 16 P-1's, led by 1st Lieut. D.V. Gaffney, June 16-17; a Pursuit flight of 3 A-3's, 1 BT-2B and 16 P-1's, led by Lieut.-Col. H.B. Clagett and 1st Lt. F.I. Patrick, June 10-11.

The following pilots visited this station on cross-country flights: From Randolph Field, Major T.E. Harwood, Flight Surgeon, 1st Lieuts. J.E. Duke, T. Griffin, R.W. Douglass, S.W. Van Meter, 2nd Lieuts. G.O. Barcus, L.R. Brentnall, and O.C. George -- From Brooks Field, Cpts. C.E. Giffin, B.F. Griffin, 2nd Lieuts. H.S. Houghton, R.L. Spickelmier, J. McK. Thompson, F.A. Creech, D.M. Kesler, B.G. Halloway, Morse W. Beverley, M.O. Travis, J.W. Campbell, L.V. Stanley, W.R. Walner, J.N. McCormick, H.C. Dennison, C.T. McKinney, C.A. Brandt, Baird, and Staff Sgt. O.E. Henderson -- From Lowry Field, 1st Lt. L.V. Beau -- Baltimore, Md., Capt. R.H. Ballard -- Kelly Field, 1st Lieuts. O.A. Anderson, H.R. Baxter, Staff Sgts. Peter Besiot and J.B. McCauley -- Shreveport, La., Capt. H.L. Clarke -- Hatbox Field, 2nd Lieuts. Sam Gribi and H.B. Fleming -- Langley Field, 2nd Lieuts. P.K. Moriell, M. Lewis and S.K. Robinson -- Fort Leavenworth, Capt. W.E. Farthing -- Mather Field, 2nd Lieut. C.P. Gilger -- Duncan Field, Sgt. J.H. Price, making aerial freight run -- Boston, Mass., Capt. G.C. Salisbury -- Maxwell Field, Corp. J.H. Williamson.

During the period May 31st - June 4th, the 1st Balloon Company participated in the annual field maneuvers of the Field Artillery School, spending the entire period in the field under simulated war conditions. Captain Creighton being sick in quarters recuperating from a broken collar bone, and Lieut. McCormick on detached service at Omaha, Neb., left Lieut. Kirkendall in command.

The following cross-country flights were made by pilots of this organization: 2nd Lieut. Claire Stroh, pilot, Capt. J.H. Carriker, F.A., Passenger, to Shreveport, La., Maxwell Field, Fort Benning, Pope, Langley, Bolling, Wright, Chanute, Scott and Hatbox Fields, June 17-24 -- 1st Lieut. Wm. L. Ritchie, June 4th, to Olney, Texas, to assist 1st Lt. Fearcy, Kelly Field, who was forced down by motor failure; June 14th to Oklahoma City; June 16th to Brooks Field, ferrying tow target ship; June 20th to Helena, Ark., via Little Rock -- 2nd Lieut. D.T. Mitchell, June 6th to Duncan Field, Capt. R.E. O'Neill, passenger; June 10th to Mineral Wells, Texas; June 14th to Mineral Wells; June 21st on extended cross-country flight to Mitchel Field.

The latest trophy copped by the Balloon Company was the Fort Sill Enlisted Men's Individual Tennis Matches, won by Pvt. J.R. Varnell. After getting off to a poor start, dropping the first two sets 2-6, 2-6, he came back, winning 6-2, 6-4 and 7-5.

Mitchel Field, L.I., New York, July 9th.

Captain Howard Z. Bogert, Operations Officer, 99th Obs. Squadron, with Lieuts. Carr and Carlson, of the same organization, and Lieuts. Williamson and Creedon, 1st Observation Squadron, left Mitchel Field on May 27th for Fort Dupont, Del., to participate in the Annual Command Post Exercises of the Army War College. The flight was composed entirely of O-1G's. Their job was to fly the War College officers over the area involved in their "paper" war. This they did in a manner highly commendable and satisfactory to all concerned, and after a two weeks' perusal of the situation from aloft the boys headed for home, arriving at Mitchel Field June 11th, with 84 flying hours to their credit.

The 9th Observation Group loses 15 Reserve pilots with the arrival of July and the end of the fiscal year. Lieuts. Carlson, McLeod, Moulton, Orr and Mulligan will be leaving the 99th Squadron. Lieuts. Bond, Springer, Folmar and Hollidge say good-bye to the 5th, while from the 1st, Lieuts. Haynes and Williamson will retire to the hills of Tennessee and the river banks of Louisiana, respectively. Lieuts. Chapman, Waterman and Cassell will go back to their wives and kids, while Lieut. Black, well, he hesitate to predict his future.

Despite the repeated entreaties and warnings of the few remaining bachelor officers (who know better, no doubt) in the 1st Squadron, Lieut. Daniel I. Moler trotted off to the hill country of West Virginia, and at 10:00 a.m., Saturday, June 25th, took unto himself as co-pilot and life partner Miss E. Lane Mohler, of Engle, W. Va. The ceremony was performed in Hagerstown, Md. To a Reserve officer, who at these difficult times unhesitatingly adorns himself with the fetters of matrimonial bondage, we offer our most sincere congratulations and heartiest wishes for many more happy landings, despite the ever incumbent ball and chain.

Throughout the month of June, the 1st Observation Squadron was busily engaged in cooperative missions with the 62nd Coast Artillery, A.A., at Fort Tilden, L.I. Lieut. J.J. May, Air Reserve, was detailed as radio liaison officer at Fort Tilden, one-way radio communication between airplane and gun batteries being used. The work consisted of high altitude 3-inch gun and low alti-

tude machine gun firing. The last successful mission was accomplished on June 30th, and Lieut.-Col. Carpenter, in command at Fort Tilden, expressed his acclaim and approval of the excellent work done by the Air Corps.

Major Carlyle H. Wash arrived at Mitchel from the Tactical School; Captain John G. Colgan, now at the field, came from Lunken Airport, Cincinnati; Captain Edward W. Raley from Montgomery, Ala.; Capt. Leo F. Post from March Field; 1st Lieut. John S. Gullet from assignment and duty as student at the Graduate School of Business Administration, Harvard University; 2nd Lieut. Arthur J. Lehman from Panama; Lieuts. Draper F. Henry, Julius K. Lacey, Arthur F. Merewether from Chanute Field, Ill.

On July 4th, at 6:00 a.m., at the Polyclinic Hospital, New York City, a son was born to Captain and Mrs. Frederick W. Evans. The son will be named Frederick W. Evans, Jr.

111th Obs. Squadron, Texas National Guard, Houston, June 14th.

For the past six weeks the Squadron has been engaged in its annual pistol practice, 19 officers and 37 enlisted men firing their record, and 12 officers and 33 enlisted men qualifying. One officer and nine enlisted men fired their preliminary and are now ready for record firing. Twenty enlisted men fired part of their preliminary. Four officers and 31 enlisted have not fired their preliminary as yet.

On May 28th, a five-ship formation took off for Austin, the State capital, to attend the Austin Airport opening and celebration. Five Douglas O-38's made the flight, led by Major Blackburn, the pilots being 1st Lieuts. Earle T. Showalter, Burton L. Austin, 2nd Lieuts. Charles H. Jost, Robert L. Haldane, and the observers Capt. J.O. Edge, 2nd Lts. Benj. Schnapp, R.L. Wisheart, Henry L. Borden and Sgt. J.R. Wilson. The return flight was made the next day.

The Squadron officers and their ladies enjoyed a dinner dance at Houston Yacht Club, May 22nd, going by motor car. Preliminary to the dinner, motorboat trips were made over the waters of Galveston Bay. These outings are a regular monthly function. The previous one was held on Galveston's west beach, where to the rhythm of the pounding surf, music, dancing, swimming and a picnic lunch were enjoyed.

On Sunday, June 11th, 1st Lieut. Alex Greig, Operations Officer, was presented with a dozen silver goblets. Rather it should be said Lieut. and Mrs. Greig were the recipients, Lieut. Greig having taken unto himself a bride.

Capt. Fred S. Willbur qualified as unit gas officer, having taken the Corps Area correspondence course in chemical warfare, and is now rated as competent to serve either as battalion or regimental chemical warfare officer.

San Antonio Air Depot, Duncan Field, Texas, June 15th.

The Engineering Department of the Depot overhauled during May 33 planes and 54 engines, and repaired 16 planes and 47 engines, viz: Planes - overhauled - 1 A-3, 1 A-3A, 1 LB-7, 3 O-2H, 4 O-19B, 1 P-1C, 2 P-1F, 9 BT-2B, 7 PT-3, 3 PT-3A, 1 C-10; engines, 12 V-1150, 12 R-790, 19 R-1340, 6 R-975, 2 R-1750, 3 R-1690, Planes, repaired - 2 A-3B, 1 LB-7, 2 O-19C, 1 O-19E, 1 O-29A, 2 O-38, 2 P-12B, 1 BT-1, 2 BT-2B, 2 C-9; Engines, 16 V-1650, 17 V-1150, 2 R-790, 2 R-1340, 10 R-1750.

The Duncan Field Gun Club again swung into action on the afternoon of June 10th, on its own home skeet grounds. E.L. Lyman, visiting shooter, of San Antonio smashed 44 out of 50 birds to lead the field.

Sgt. John H. Price, 67th Service Sqdn., Randolph Field, was placed on detached service here, June 7th, for duty as transport pilot in the Depot's recently established system of delivery of supplies by air to stations in this control area.

Capt. Edward R. Stapley, Air Reserve, of Stillwater, Okla., began 14 days' active duty training at this Depot, June 12th. He is Associate Professor of Civil Engineering in the Okla. Agricultural and Mechanical College at Stillwater. This is his third tour of active duty here, and we are glad to have him with us again.

Messrs. R.L. Collins and G.R. Johnson, Field Service Section, Materiel Division, Wright Field, who brought down to Kelly Field an E-12, 1200-gallon, 16-ton service truck from Wright Field, visited here June 13 and 14, conferring on various supply matters. They reported a very good trip overland with their monster truck.

Major J.H. Pirie, of the Office Chief of the Air Corps, who landed June 11th at Randolph Field, ferrying one of the new P-26 Douglas amphibians from the west coast to Washington, accompanied by 3 enlisted men, paid a visit here on the 13th for some minor repairs to his plane, continuing on his journey the next day. Maj. Pirie, in command of this Depot some years ago, was busy greeting old friends.

Out of town Air Corps officers visiting here for the regular monthly Air Corps supply and engineering conference and luncheon, June 7th, were Capt. S.J. Idzorek and Lieut. J.J. O'Connell from Fort Crockett and Capt. R.E. O'Neill and Lieut. D.T. Mitchell from Fort Sill.

Captains J.P. Temple and H.L. Clark, of Barksdale Field, Shreveport, La., were visitors at the Depot June 10th, on cross-country in an O-19B.

Lieut. Lucas V. Beau, Jr., Instructor with the 45th Division Aviation, Colo-

rado National Guard, Denver, brought in an O2-H for overhaul on June 2nd, and returning June 4th, also in an O-2H.

Capt. Ralph B. Walker reported for duty June 15th, following leave of absence in California at the conclusion of his tour of duty in Hawaii. Captain Walker, formerly on duty at Kelly Field, is no stranger in this vicinity, and he, Mrs. Walker and their son, Paul K, are warmly welcomed in our midst.

San Antonio Air Depot, Duncan Field, Texas, June 30th.

On June 28th, this Depot had the pleasure of an all too brief visit from Major-General B.D. Foulis, Chief of the Air Corps, and Major W.G. Kilner, of the office of the Assistant Secretary of War, on their recent trip to San Antonio to attend the graduation ceremonies of the Primary Flying School, Randolph Field, and the Advanced Flying School, Kelly Field.

Major P.E. Van Nostrand, Executive of the Air Corps Tactical School, Maxwell Field, Ala., while on a recent visit to Kelly Field, called informally on Lieut.-Col. Fisher, our Commanding Officer, on June 18th.

Captain Robert V. Ignico, who just completed the course at the Army Industrial College, Washington, was assigned to this Depot and reported June 29th. He was formerly on duty here and was given his old job as Depot Supply Officer. Capt. Ignico's family will join him here later. The Depot cordially welcomes them back.

Lieut. Lucas V. Beau, Jr., Air Corps Instructor with the Colorado National Guard, Denver, was a visitor June 21-24, securing and ferrying back to his station an O-2H plane overhauled by the Depot.

Lieut. C.E. Thomas, Jr., took off June 26th in a BT-2B for an extended navigation training flight to Atlanta, Ga., and return.

Mr. Edward E. Reynolds, Technical Assistant of the Field Service Section, Materiel Division, Wright Field, visited here June 28-29 on temporary duty in connection with the new plan of issue of Air Corps supplies by Depots to National Guard organizations.

An interesting golf tournament was just completed on the course of the Air Corps Golf Association at Duncan Field, consisting of the Duncan Field Officers' Club Handicap Tournament and the Duncan Field Athletic Club Handicap Tournament. In each tournament, preliminaries were followed by match plays, low net in the preliminaries winning six golf balls, and the prize for Match play being a handsome silver goblet, engraved with the name of the winner. In the Officers' Club Tournament, the preliminaries were won by Mrs. Lois Redman, and the winner of the match play was Captain Edgar E. Glenn. In the Athletic Club Tournament, Mr. Wm. R. Hutchison was victor in both the preliminaries and the matches.

Albrook Field, Panama, July 1st.

Lack of men coupled with the advent of the rainy season tended to slow up the work at Albrook Field. However, improvement is noticeable and by the end of another month still greater improvement will undoubtedly be observed. It is hoped the present personnel will soon be augmented by another Squadron and, if such should be the case, material progress will be shown in the next 3 months.

The Post telephone service finally passed its "makeshift" stage. Old field phones were removed and permanent desk instruments installed throughout. This was made possible through the completion of a modern switchboard in the exchange.

Although lodged in temporary quarters, the Post Exchange broadened its activities considerably. A restaurant recently opened is housed in the same building with the Post Exchange. Contracts were made with foreign concerns and a Foreign Order Department is now in operation. Bids for a tailor shop are now being submitted and it is expected to open it in the very near future.

The enlisted personnel was strengthened by 20 previous service men who recently arrived. This precluded the necessity of carrying out plans previously made to transfer 20 experienced men from France Field and replace them with available recruits.

June 11th marked the first activities of the new Officers' Club, when a dinner and dance, sponsored by Mrs. Earl W. Barnes and Mrs. C.E. O'Connor, were given at the Union Club. On June 15th, Lieut. and Mrs. Barnes entertained the members of the Club at a card party.

Selfridge Field, Mt. Clemens, Mich., June 22nd.

Flying activities for the past week were mainly in preparation for the Military Tournament in Chicago, June 24th to July 5th. General Frank Parker, the Corps Area Commander, made an informal visit at the field June 15th and witnessed a rehearsal of the demonstration scheduled for Chicago.

The transfer of the 36th Squadron to Langley Field and the shifting of a number of officers in that command to squadrons remaining at the field necessitated a revision of element and flight leaders in some cases. Most of the rough spots have been ironed out and hopes are entertained that the demonstration in Chicago will be worthy of the best traditions of the Group.

An unfortunate and unusual accident occurred at Selfridge Field on June 17. Private N.E. Garlich, 27th Squadron, was on a fatigue detail filling up chuck holes on the flying field during the morning. A squadron of airplanes landed near where he was working and one of the planes, a P-16, piloted by Lieut. Bolen, rolled into Garlich at a speed of over 50 miles an hour. Garlich had evidently not seen or heard the approach of the planes and was working when struck. His injuries, though serious, are not showing complications, and he is expected to recover. He suffered five broken ribs, a broken shoulder and crushed vertebrae. Fortunately, the spinal cord was uninjured.

On June 18th, at Brantford, Ontario, Canada, occurred the wedding of Lieut. Flint Garrison, Air Corps, and Miss Isabelle Watson, daughter of Mr. and Mrs. E.B. Watson, of Brantford. The marriage was solemnized in the Anglican Church at 3:00 o'clock in the afternoon. Immediately following the reception, Lieut. Garrison and his bride left for Toronto and New York City on their honeymoon.

40th Division Aviation, Los Angeles, Calif., July 5th.

On June 12th, the 115th Observation Squadron took part in joint maneuvers with the 80th Brigade. This field problem was worked out well in advance, and in detail, resulting in excellent training and good results for both the Air Corps and Infantry. Brigade and regimental command posts functioned under actual field conditions. Wire telephone connected all command posts; radio was also used between commands, and communication was established and carried on between the ground and planes via panels, dropped messages and radio. Troops advanced by waves through various areas, enemy movements being simulated. Front lines were marked by panels at various stages of the advance, and the positions radioed down to H.Q. by plane. Artillery, both enemy and supporting, was simulated, moved and silenced. The field problem was carried out in the low hills near Culver City, just outside of the residential district of Los Angeles, using a nearby airport for messenger and liaison planes. The 40th Division Aviation furnished planes and personnel for messenger, photographic, liaison, command, communications (radio) and observation patrol. The problem was carried out between 10:00 a.m. and 1:00 p.m.

Lieut. Claiborne recently completed a cross-country training trip to Crissy Field, San Francisco, and return.

This Squadron welcomes two new officers - 2nd Lieuts. O.D. McKenzie from the Q.M. Reserve and Charles Haas from the Ohio National Guard. The former was overseas with the Signal Corps, is 32 years old; married; residence Glendale, Calif.; graduate of Mississippi A. & M.; occupation, airplane salesman with the Curtis-Wright Corp., and holds private pilot's license. Lieut. Haas graduated from Kelly Field in October, 1928, is 26 years old; married, residence in Los Angeles; formerly flew the National Air Transport Line between Cleveland and New York; graduated from University of California; occupation, finance business.

On June 26th, this Squadron carried on usual Sunday drill operations, including radio communication, puff target and gunnery; also flew a six-plane review formation for Mayor and Mrs. John A. Porter of Los Angeles, who were later entertained at the Officers' Mess at luncheon.

On June 28th, a four-plane, blank file funeral formation was put on during services for Roy Wilson, commercial stunt flyer, killed in a plane crash on June 25th at Dry Lake.

Final drill before field service will be held Saturday evening, July 9th, at which time the enlisted personnel, with baggage, will be entrained for Camp San Luis Obispo, arriving there the next morning. Advance detail under Lt. Harry Gilmore will proceed to camp on July 7th. Lt. McKenzie will command the rail transport of personnel. Officers will proceed by air Sunday morning, July 10th. The unit will return home Sunday, July 25th.

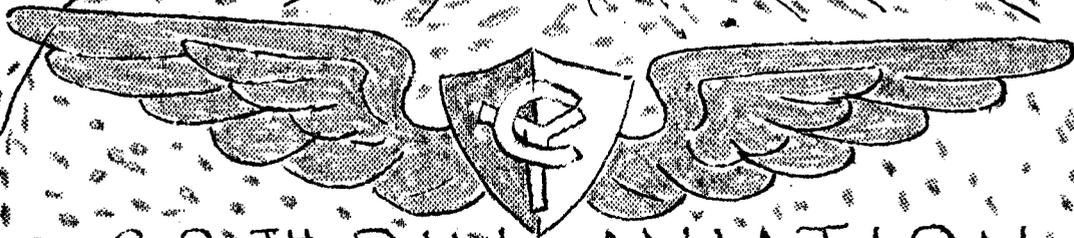
18th Pursuit Group, Wheeler Field, T.H., June 17th.

The month of May afforded this Group the opportunity of testing its ability to move out from the home airdrome and operate in the field under such conditions as arise in time of stress. On May 25th, at 3:00 a.m., the Squadron Commanders were ordered to move their entire command to an outlying field, prepared to stay from two to ten days.

The first echelon, including planes and pilots fully equipped, took off at daybreak and proceeded, under radio control, to Haleiwa Field, where they were inspected by the Group Commander. They returned to Wheeler Field, fully confident that they could operate on short notice. The second echelon, consisting of the command and supplies, was ready to leave shortly after daybreak.

The long awaited new Quartermaster furniture arrived and was delivered. It is of a very attractive design and has an appropriate setting in these lovely quarters.

The bachelor officers' quarters were opened May 20th with much pomp and ceremony. Each officer was assigned to a separate set of quarters consisting of two rooms and bath. The furniture for the main club rooms has not as yet arrived, but the mess opened on June 1st.



38TH DIV. AVIATION
IND. N. G. STOUT FIELD.
INDIANAPOLIS, IND.

The Squadron celebrated the 4th of July at Evansville, Indiana, dedicating the new bridge over the Ohio river. Five of our planes went down in formation with three from our neighboring Squadron from Ohio, and one from Fort Benjamin Harrison (Schoen Field). Schoen also sent down a separate formation of four ships.

Our new short wave radio station W9JKG, authorized to be installed on our field is now in operation, so give us a buzz, as we shall be glad to swap dots and dashes to anyone in the Air Corps.

We are glad to announce two additional officers to the Squadron, Lieut Edward W. Maschmeyer, recently on duty at Selfridge Field, and Fred W. Sommer ORC, from Schoen field.

Lieuts W. B. Morgan and E. L. Stephenson, have just completed examinations for pilots rating- We congratulate them.

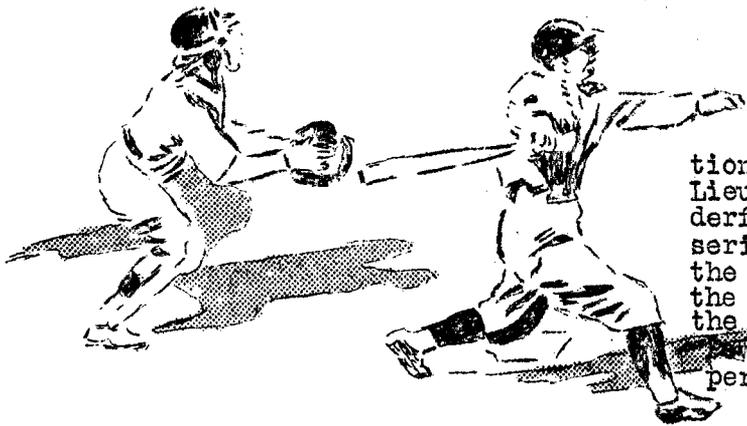
Captain Thomas S. Voss, flew up from Randolph Field for a brief visit, stopping off while on an extended cross country trip. While here Captain Voss was presented with a commission as honorary Colonel of the Squadron. The presentation was made by Major Taylor, Commanding Officer, during officers meeting on last drill night. The Squadron also made Ollie A. Davis, State Adjutant General of the American Legion an honorary Colonel. We are glad to extend to these gentlemen the courtesy of their new rank.

On Tuesday, July 6th, Colonel Ollie Davis officially installed the officers of our Aviation Post 171, of the American Legion.

Colonel H. Kress Muhlenberg, Air Officer, Fifth Corps Area, will be our inspecting officer at camp this year and we are looking forward to renewing our friendship with him.

Scott Field, Ill., June 22nd.

The Signal Corps pigeon loft at Scott Field placed again in a 400-mile race from Texarkana, Ark. The race was held by the St. Louis Championship Club, June 18th. In all, 95 birds were entered, 85 of these belonging to clubs and fanciers in St. Louis, and the balance coming from Scott Field. The latter group were therefore under a handicap as to a greater distance to be covered. Furthermore, the smaller group "dragged" along with the larger one and only branched out to its home left after reaching St. Louis. In spite of these handicaps, Scott Field finished fifth in a field of ten. The birds took off at daybreak of the 18th and flew until late afternoon. The wind started out as a favorable southwest breeze but shortly shifted to a brisk headwind. The maximum speed attained by the winner was slightly over 1075 yards per minute, for a period of about 10½ hours.



The 4th Observation Squadron celebrated their victory in the Inter-Squadron League with a chicken dinner on May 5th. Lieut. D.D. FitzGerald, Squadron Commander, and Lieut. S.A. Ofsthun, baseball coach, were the speakers at the celebra-

tion. Plenty of credit should be given Lieut. Ofsthun and his team for the wonderful fight they put up during the series. No further proof is necessary of the skill of both coach and players than the fact that we have nine men playing on the Post Team, four of whom - Miller, Well, Hutton and Babain - are holding permanent positions, and the other five - Lieut. Ofsthun, Staup, Sadler, Moss and Hoffman - are very reliable re-

serves. The playing of "Heinie" Miller is causing a sensation at Luke Field. Who said he is getting old? Did you hear what the "Subs" call him - "Spudy Texas Leaguer."

The Wheeler Field baseball team has come back with a bang. After dropping two of the first three games by one or two runs, the team hit its stride and won the next five games played, giving a nice percentage of .750. One of these games provided many thrills, going 14 innings before the winning run was made. The team has its eye on the Schofield pennant and is out to get it.

The 76th Service Squadron, Rockwell Field, boasts of two baseball teams, namely, the "Rinkydinks" and the "Allstars," which have furnished some interesting exhibitions, closely approaching the interest of league games.

The Chamute Field baseball team challenged Selfridge Field to a game. Undaunted by the fact that a Post team had not yet been organized at Selfridge, the Athletic Officer here wired a defiant answer. Capt. Ennis C. Whitehead, Commanding Officer of the 36th Squadron at Selfridge, agreed to take over the job of organizing a good representative team from among the various squadron teams. The resulting success of the Selfridge team against Chamute is testimony of Captain Whitehead's canny ability as a baseball manager. The game was played at Selfridge on June 11th. It ended in the tenth inning, 2 to 1, favor of Selfridge. Baseball fans had a treat and the box score proves it. Selfridge made 2 runs, 4 hits, 1 error, and Chamute 1 run, 4 hits, 1 error. As Chaplain McNally said: "That is good baseball." Batteries for the game - Hagemeyer - Soderstrom for Selfridge and Riverd - Leary for Chamute.

The Chamute Field team returned home bloody but entirely unbowed. The Selfridge team will undoubtedly challenge them to a return game soon, and a good battle it should be.

The sports writers who made predictions on the outcome of the Post League baseball season at Selfridge Field have retired in gloom and dismay. The 27th Squadron is in the lead with 3 wins and one loss; 94th follows with two victories and one defeat; 57th with one victory and two defeats, and 17th with one victory and three defeats. The 17th Pursuiters, favored in the betting, now stands in lowest place. However, as we go to press, they have just licked the 94th again, so the above standings are by no means permanent. Four games have yet to be played in the league, and the dopesters are staying in the background with puzzled looks on their faces.

At the completion of the Post League season, Captain Whitehead will take definite charge of the Post Team, to be organized from players of the several squadrons, and outsiders will be played. The game with Chamute indicates the brand of baseball that will be played.

Once again the San Antonio Air Depot baseball crew is coming to the front with a whiz of a team in local amateur sports. The present aggregation has hopes of following in the footsteps of the 1928 Depot Airmen, who won the city championship by defeating the Public Service Utilities in one of the fastest and best series ever played locally. Only a few mainstays of the 1928 champs remain with the Airmen, among them being "Lefty" Alexander and Eddie McCarty, pitchers; Julius Glau, outfielder, and "Big Ben" Ralls, infielder. This bunch of veterans, with the aid of a number of local stars, are well on their way toward demonstrating their power. At present the Duncan Field nine is leading the Sunday Morning League, having completed the first half of the series with seven victories and no defeats. The next game, starting the second half of the series, was scheduled to start June 19th.

Under the shrewd leadership of Charles H. "Dink" Leipart, the Depot team expects to keep up its good work in the Sunday Morning League to grab the flag. Leipart is well remembered as one of the leading catchers who played semi-pro ball with the leading teams of the city several years ago. He is ably assisted behind the bat with Entzenberger and Eddie McCarty, both the latter alternating at the pitching job also. Alexander, Garrett and Jones are the other twirlers

who have been setting the opposition down.

The infield stacks up well in handling the hard and hot ones. Clifford Fikes is doing first base duty, while "Red" Ralls, the old fire-cracker, is taking over the second bag job, with Ed Hill, former Brackenridge High School star, shifted to right field. Ray Dixon, Harlandale High School coach, and last year's shortstop for the Fraternal Order of Eagles champs, is guardian of the hot corner. His brother, Roy Dixon, former Mo-Pac and Charlotte star, is covering the shortfield territory. This well-balanced crew is backed up by a hustling bunch of youngsters, consisting of Ed Hill, right field; Howard Fikes, the sensational ball-hawk, in center, and Alfred Casillas in the other garden. Casillas, who is also a nifty first baseman, will no doubt work at the sack at times. Joe Mendiola is utility infielder, while Julius Glau is Manager Leipart's right-hand man, doing the coaching and pinch hitting duties.

The Airmen have the fine support of Lieut.-Colonel Fisher, Commanding Officer of the Depot, and it is through his interest that they have come out of their four-year layoff to do battle again for the shampionship honors.

In a hard-fought, well played game, the San Antonio Air Depot nine, leaders of the Sunday Morning League in San Antonio, defeated the Kelly Field Post team on the Depot's diamond on the afternoon of June 17th, score 5 to 4. Good work on the part of both pitchers featured the game.

The Depot team nosed out the strong 23rd Infantry nine, 7 to 6, on the afternoon of June 21st. The Infantrymen got 9 hits and the Depot 10, but the latter's four run lead in the first inning was too much for the Doughboys.

The Langley Field Flyers, with Lieut. I.D. Snyder, Air Corps Reserve, at the helm, have been enjoying another successful baseball season, running up 11 victories as compared with 3 defeats, for the excellent percentage of .786, in games played to include June 18th.

Langley Field opened the season on May 21st with the Newport News Apprentice School as the opposition. The result was a sweeping 15 to 0 victory for the air-minded boys over the students. Following in rapid order, the Flyers brushed aside the Gobs of the U.S.S. MISSISSIPPI; the Newport News City nine; the baseball club of Fox Hill, and the powerful Leathernecks of the Quantico Marines, for five consecutive wins. On May 31st, Langley dropped its first encounter, an eleven to nine verdict to these same Marines. A summary of all games played and results of same are listed below, viz:

May 21st, Langley Field, 15; Apprentice School, 0 -- May 22nd, Langley 6, U.S.S. Mississippi 5 -- May 28th, Langley 3, Newport News Club 2 -- May 29th, Langley 21, Fox Hill 3 -- May 30th, Langley 5, Quantico Marines 1 -- May 31st, Langley 9, Quantico Marines 11 (13 innings) -- June 1st, Langley 11, U.S.S. IDAHO 9 -- June 4th, Langley 3, Federal Prison (Ft. Eustis) 4 -- June 5th, Langley 10, Fox Hill 3 -- June 7th, Langley 14, Quantico Marines 1 -- June 8th, Langley 2, Quantico Marines 11 -- June 11th, Langley 10, Franks Athletic Club 0 -- June 16th, Langley 4, Norfolk Police 3 -- June 18th, Langley 11, Edgewood Arsenal, Md. 1. Thirteen more contests have already been booked at the time of this writing. Among them are included the baseball aggregation of Port Norfolk Athletic Club, U.S.S. IDAHO, Franks Athletic Club, Norfolk Police, Newport News, U.S.S. MISSISSIPPI, Apprentice School, and a six-game series with the Caissons of Fortress Monroe for the baseball laurels of Section IV of the 3rd Corps Area.

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Kelly Field, San Antonio, Texas, June 13th.

Since the lid has been lifted and extended cross-country flights authorized, the Operations Office has been swamped with requests. The following-named officers applied for navigation training flights: Major Ocker, Washington and New York; Lieut. Percy, Columbia, S.C.; Lieut. Rhudy, Galax, Va.; Lt. Gaffney, Boston, Mass.; Lieut. Anderson, Salt Lake City; Lieut. Robinson, Seattle, Wash.; Lieut. Joseph Smith, Washington and New York; Lieut. Ferrin, Detroit, Mich.; Lt. Boyd, Asheville, N.C.; Lieut. Higgins, Framingham, Mass.; Lieut. Pennington, Nashville, Tenn.; Capt. Voss, Indianapolis, Ind.; Lieut. Ferris, Rockwell Field; and Lieut. Haney, Dayton, Ohio.

War Department orders were just received, transferring 1st Lieut. John S. Griffith to Kelly Field, to report not later than June 30th.

Lieut. F.I. Patrick will soon depart for his new station, the Air Corps Tactical School at Maxwell Field, Ala. The greater part of Lieut. Patrick's commissioned service has been at Kelly Field, and his departure has been cause for many gay farewell parties.

Capt. C.W. Ford left on two months' leave of absence to visit friends and relatives in Malvern, Pa.

Staff Sgt. Jeff Mills, Q.M. Detachment, was transferred to Ft. H.G. Wright, Staff Sgt. V.L. Gard, Master Sgt. A. Killgore, Tech. Sgt. C. Hoffman, Mess Sgt. E.R. Johnson, and Pvt. M.O. Whittenberg, all of the 41st School Squadron, returned from furloughs. -- Privates E.Z. Johnson and J.C. Epple are spending a 30 days' furlough in Oklahoma.

Kelly Field, San Antonio, Texas, June 25th.

A new class will begin training at the Advanced Flying School on July 5th, after having completed primary training at Randolph Field. The class will consist of one officer of the Guatemalan Army, 45 officers of the Regular Army, 58 flying cadets, 5 enlisted men, and 2 Chinese civilians who will take the Observers' course.

The 40th School Squadron observed its annual Organization Day at Boerne, Texas, on June 18th.

Sgt. Velliquette and Corp. Johnson, 40th School Sqdn., returned from furloughs. -- Pvt. Woody B. Dennis, 40th School Sqdn., is on a 10-day emergency furlough at his home in Gonzales, Texas, necessitated by death of his sister. -- Lieut. E.H. Lawson left for Fremont, Minnesota, on a navigation training flight in a P-1 plane, June 24th. -- Col. Humphries, Chief of Staff, Cavalry Div., Fort Bliss, Texas, was a visitor June 16th. -- Lt. Watson and Major Van Nostrand arrived from Maxwell Field in an O-25, June 17th, returning on the 19th. -- Lt. Mills, leading a flight of five Navy land planes, arrived June 24th from San Diego, Calif., and departed for Pensacola, Fla., the same day. -- Lt.-Commander Browning, USN, arrived in an amphibian plane from Pensacola, Fla., June 25th, and left for San Diego the next day. -- Lieut. A.F. Shea left for Syracuse, N.Y. on a navigation training flight in a P-1 airplane on June 24th.

Langley Field, Va., June 21st.

8th Pursuit Group: Major B.Q. Jones was designated as Commanding Officer of the 8th Pursuit Group and has taken over the duties in this capacity.

The Group welcomes three new Air Corps officers. Captain Marion L. Elliott, who comes to us from the 2nd Bombardment Group, was designated as Group Operations Officer. Second Lieuts. Archibald J. Hanna and Richard A. Grussendorf recently returned from a tour of foreign service in the Hawaiian Department.

Congratulations are in order - 1st Lieut. George F. Schulgen recently took the fatal plunge into the sacred vows of matrimony. The Group joins in wishing him and his "better half" all the luck in the world.

The Group entertained the Graduation Class of Artillery officers of Fort Monroe, Va., with a talk on Pursuit tactics by Captain Harold H. George. Other events included a discussion on Armament by 2nd Lt. John E. Bodle, and a small aerial exhibition staged by 1st Lieuts. L.E. Hunting and George F. Schulgen.

Major B.Q. Jones has inaugurated a school committee system by which the Group is divided into contingents to report on various phases of military procedure in the Air Corps. This should prove extremely educational to new officers in order to acquaint them with the inside of a great organization.

With all the track and field stars of Langley Field participating in the annual Inter-Squadron Meet held recently on the Athletic Field, the 8th Pursuit Group Headquarters, with a total of 45 points, captured Post honors, with Pvt. A.L. Scott, diminutive middle-distant runner featuring. The 20th and 96th Bomb Squadrons followed in close order with 34 and 32 points, respectively.

Appropriate trophies for first and second places in the meet and individual medals for 1st, 2nd and 3rd places of each event will be awarded by Colonel R.C. Kirtland, Commanding Officer of Langley Field, at a later date.

2nd Bombardment Group: The entire personnel of the Group are now settled in their new barracks, after a few extra hours' work by them. The old adage - "efforts will be rewarded," was certainly very much in evidence here, for these new "triple deckers" are a real treat for sore eyes.

The Group moved to their new hangars. Untiring efforts on the part of the Group personnel, who were handicapped by very inclement weather, really accomplished the job in good fashion.

Eighteen officers from Selfridge Field, Mich., were guests of the 8th Pursuit Group recently for a short visit. Many old acquaintances were renewed. There officers ferried P-12's to this Group.

The track and field aspirants of Langley Field easily proved superior to the "cream" of the Caissons of Fortress Monroe, as they captured 12 of the 17 events in the Inter-Post Track and Field Meet held June 15th.

Lieut. R.C. Hutchinson, captain of the Airmen's track and field team, was by far the outstanding performer of the evening, taking first place in five events, and placing second in two events and third in one, to place in all eight events entered. Private A.L. Scott, 8th Pursuit Group, was next in line for track honors, as he bested the Monroe half-milers and two-milers without a struggle, to roll up 15 of the 92 points registered, against 48 for Fortress Monroe. Lieut. Hutchinson was presented with a silver loving cup for Langley Field, presented by the Recreation Department of Fort Monroe.

With the 8th Pursuit Group Hqrs. being made active June 25th, the following commissioned officers were recently added to the new Group: Captain C.H. Welch, 1st Lieut. J.C. Hodgson, 2nd Lieuts. H.W. Dorr, W.D. Eckert, C.F. Hegy, G.L. Mason, O.S. Picher, S.O. Ross, L.P. Turner and H.E. Wilson.

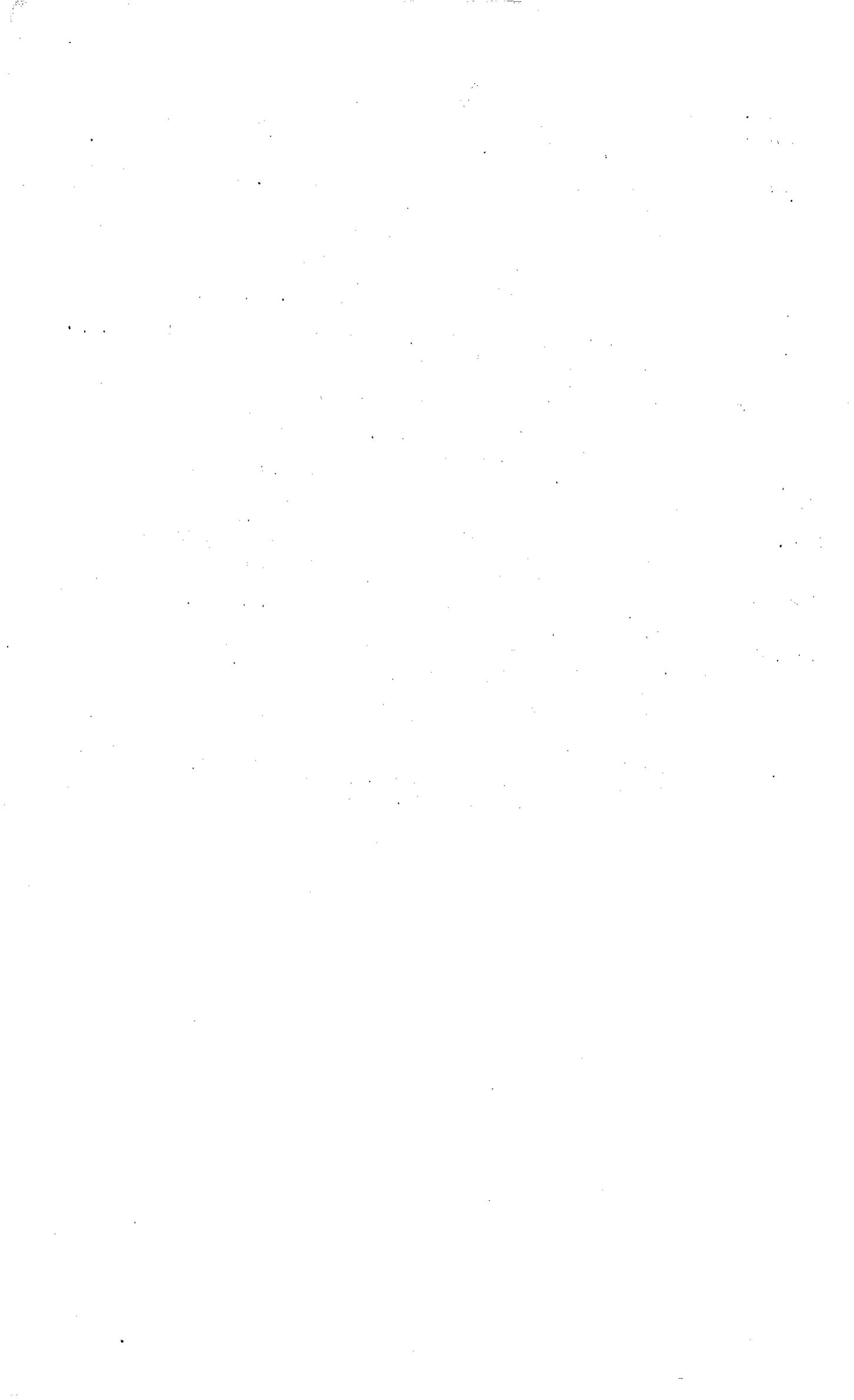
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- D 00.12/4 PTL-102 Vibration tests of Model XFF-1 Airplane Fuel and Oil Tanks Contract 21520, by Physical Testing Laboratory, Engr. Dept. Naval Aircraft Factory. Phila Navy Yard 4/7/32. PTL-102.
- D 00.12/103 #158 Trouble Reports on Engines - Submission of, by Navy Dept. Bu. of Aero. Tech. Order #158. Wash. Navy Dept. May 23, 1932.
- D 00.12/103 #159 Safety Belt Clamp in Front Cockpits of O2U-1 Airplanes, by Navy Dept. Bu. of Aero. Tech. Order #159. Wash. Navy Dept. May 26, 1932.
- D 00.12/103 #160 Damage to Fuel and Oil System Piping, by Navy Dept. Bureau of Aero. Tech. Order 160 Washington, May 26, 1932.
- D 00.12/103 #161 Parachutes, Transfer of, for Inspection and Repair, by Navy Dept. Bu. of Aero. Tech. Order #161 Washington June 10, 1932.
- D 00.12/103 #162 Corrosion of Aircraft Parts, by Navy Dept. Bu. of Aero. Tech. Order #162. Washington June 15, 1932.
- D 00.12/103 #163 Streamline Tie Rods - Removal of Brass Identification Tags after Assembly, by Navy Dept. Bu. of Aero. Tech. Order #163. Washington June 22, 1932.
- D 00.12/103 #164 O2U-1, O2U-2 Airplanes, Replacements of 30" x 5" Wheels not Equipped with Brakes by Navy Dept. Bu. of Aero. Tech. Order #164. Washington June 28, 1932.
- D 00.12/105 #293 Rapid Analyses of Aerial Photographic Information by Capt. Petitot Materiel Div. Dayton, O. June 14, 1932. A.C. Trans. #293.

- D 00.12/123 #116 Aluminum Alloy Castings in Naval Aircraft- Cases of Failure, by Navy Dept. Bu. of Aero. Tech. Note #116. Washington June 23, 1932.
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- D 13.3/144 Your Flying Time Recorded... Automatically. n.p. n.d. Extract from "The Aeroplane" Aug. 19.
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- D 13.51/Gaertner/1 Handbook of Instructions for the Assembly and Maintenance with Parts Catalog of the Gun Camera Type G-3 Manufactured for U.S. Army Air Corps on Contract W535 A.C. 3394 by The Gaertner Scientific Corp. Chicago, 1932.
- D 52.1/Autogiro/14 The Autogiro. Phila. Autogiro Co. of America, 1932.
- D 52.1/Bristol Fighter/50 Motions of a stalled Bristol Fighter Fitted with Auto-Control Slots and Interceptors by A. Ormerod. Aero. Research Committee Report & Memo #1442. London H.M. Stationery Office, 1932.
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- D 52.33/346 Tests of Nacelle-Propeller Combinations in Various Positions with Reference to Wings, by Donald H. Wood. N.A.C.A. Report #415. Government Printing Office Washington 1932.
- D 52.7/39 Air Force on Airship Model at Large Angles of Yaw, by R.H. Helmholtz. Navy Ward, Washington Aerodynamical Laboratory Aero. Report #476. March 31, 1932.
- D 52.9/4 Replies to Requests for Information Regarding Instructions Regulating Parachute Jumps at the A.C. Technical School by A.C. Technical School, Rantoul, Ill. June 1932.



INSPECTION DIVISION NOTES

FORCED LANDING REPORTS

Paragraph 5 of Air Corps Circular 15-30, dated June 27, 1932, prescribes that a suitable record of all forced landings due entirely to weather, darkness, pilot becoming lost, or other similar causes will be maintained by organizations operations officers in such a manner that the pertinent facts of such forced landings will be always and easily available for future reference.

The use of the following chart, or one similar thereto, is recommended to facilitate the maintenance of this record.

RECORD OF FORCED LANDINGS
(Paragraph 5, Air Corps Circular 15-30)

Date	Pilot	Serial No. & Model of Aircraft	Time & Place	Remarks of Pilot and Operations officer
12/30/31	James Brown, 2nd Lt., AC	BT-2B #31-94	4:30 PM Augusta, Ga.	PILOT: En route Atlanta, Ga. to Pope Field, forced down account rain. OPR OFF: FL not available; weather poor over entire route.
3/15/32	William Smith, Capt., AC	P-6E #32-273	10:00 AM Richmond to Va.	PILOT: En route Bolling Field to Charleston, S.C., lost map.

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AIRCRAFT TIE RODS

Sample tie rods submitted to the Chief, Materiel Division, in connection with unsatisfactory reports, AC Forms #54, thereon, have indicated after investigation and tests, that, in general, tie rod failures have been caused by excessive vibration. The Chief, Materiel Division has recommended that when unusual vibration of tie rods is observed while in flight the initial tension of such rods be changed or anti-vibration birds installed as soon as possible as a temporary measure of correction. Tensiometers, which will enable the mechanics to determine proper tension of tie rods, are in process of manufacture and will be available in the near future. A study is being made to determine the proper initial tension to be recommended for individual tie rods on different airplanes.

SPARK PLUG RUBBER SAFETY NIPPLES

In the past some trouble has been experienced at various Air Corps activities with rubber safety nipples, Part #066424, for spark plugs. In many cases these nipples have necessitated removal after a few hours flying due to cracking. Necessary action is being taken to correct the drawings for these nipples so as to eliminate this trouble in the new stock. However, until this is accomplished it will be necessary to make replacements of these nipples from stock now on hand as often as necessary.

The following Technical Letters, Radiograms and Orders have been distributed since the June 22d issue of the Air Corps News Letter. These publications are furnished by the Chief, Materiel Division, Wright Field, Dayton, Ohio.

Technical Letters

<u>Date & No.</u>	<u>Subject</u>	<u>Distribution</u>
TL-32-117 6/14/32	- Replacement of Lugs, Engine Mount Attachment Consolidated PT-3, PT-3A, & O-17 airplanes	Chanute, Wright, FAD, MAD RAD, SAAD.
TL-32-118 6/20/32	- Change on Tunnel, Exhaust Stack, Curtiss O-G Airplanes	Chanute, Wright, FAD, MAD, RAD, SAAD.
TL-32-15 6/17/32	- Piston Ring Gap, Cyclone & Whirlwind Engines (This TL replaces TL Serial No. 32-15 dated January 28, 1932.)	Chanute, Wright, FAD, MAD RAD, SAAD.
TO-01-1-1 6/14/32	- Airplanes and Spare Parts- General-Cleaning of Aeronautical equipment.	General
TL-32-120 6/22/32	- Changes on Fairing, Landing Gear Oleo Strut- Boeing P-12E and P-12F Airplanes	Bolling, Chanute, March, Mather, Nichols, Selfridge Wright, FAD, AO Hawaiian Dept. PAD, RAD, SAAD.
TL-32-111 6/8/32	- Reworking of M-8 Parachute Flare Suspension Bands for Installation of Flares in Horizontal Position. (This TL replaces TR 32-111 dated May 28, 1932.)	AO Hawaiian Dept., Kelly March, Mather, PAD, PHAD, Selfridge, Wright
TL-32-57 6/25/32	- Change in Fuel System of Keystone B-3A, B-4A B-5A, B-6A, Y1B-4 & Y1B-6 Airplanes to Eliminate Water Traps in Lines (This TL replaces TR 32-57, dated March 14, 1932.)	Aberdeen, Chanute, France, Kelly, Langley, Ft. Leaven- March, Maxwell, 4th Comp. Gp. Nichols, Wright, FAD, MAD, PAD, PAD, RAD, Hawaii- an AO
TL-32-122 6/24/32	- Reinforcement of Rear Rudder Pedals- Curtiss A-3, A-3B, O-11, O-1B & O-1E airplanes	FAD, RAD, SAAD, MAD, Hawaii- an D., Chanute, Wright. V-6302, A.C.

(Technical Letters Cont'd)

<u>Date & No.</u>	<u>Subject</u>	<u>Distribution</u>
TL-32-119 5/24/32	- Assembly of Blower Clutch on Pratt & Whitney Engines	All Depots, Chamute Wright.
TL-32-121 6/22/32	- Change in location of rudder pedals - Thomas Morse, O-19B, O-19C & O-19D Airplanes	Barksdale, Bragg, Brooks Chamute, Bolling, France Hensley, Hatbox, Kelly, Nichols, Scott, Selfridge Ft. Sill, Wright, FAD, MAD RAD, SAAD, PAD, Hawaiian Dept., PHAD
TR-32-133 7/9/32	- Testing Pilot's Safety Belts	All Depots and major stations.

The following Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on June 22, 1932. These publications are furnished by the Chief of the Air Corps.

AIR CORPS CIRCULARS

<u>Number and Date</u>	<u>Subject</u>
15-1 7/1/32	BLANK FORMS AND REPORTS - Air Corps Form No. 1 - Airplane Flight Report.
15-5 7/1/32	BLANK FORMS AND REPORTS - Air Corps Form No. 5 - Individual Flight Record.
15-30 6/27/32	BLANK FORMS AND REPORTS - Forced Landing Report.
15-103 6/23/32	BLANK FORMS AND REPORTS - Receiving Reports and Shipping Tickets.
15-121 6/24/32	BLANK FORMS AND REPORTS - Personal Report - Officers.
65-10A 7/1/32	SUPPLY - Property Classification of Air Corps Equipment and Supplies.
65-5A 6/21/32	SUPPLY - The Air Corps Supply System.
60-11 6/16/32	FLYING - Provision for Avigation Training Flights.
120-1A 6/17/32	INSPECTION - Inspection Division, Office of the Chief of the Air Corps

AIR CORPS CIRCULAR LETTERS

W-2073 AC 6/15/32	Revision of Operations Records and Reports.
W-2079 AC 7/6/32	Revision of Operations Records and Reports.

NEWS LETTER U.S. AIR CORPS



ISSUED BY THE
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D. C.

BENDIXEN
18th WING Hdqrs.

Fort Shafter, T. H.

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1932
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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from the Fields.

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THE EARLY DAYS OF THE AIR CORPS IN HAWAII
By the News Letter Correspondent

Here is a tale that should make old timers look back with a feeling of security:

Nine flying officers, one decrepit seaplane that none of them could fly and a ground officer in command! This sounds like a tale from Central America or Tonga or Timbuctu. But it isn't. It describes the 6th Aero Squadron as it existed on the beach at Fort Kamehameha in 1918. This was revealed when Mr. B.A. Moeller, now an official of the Standard Oil Co. in Hawaii, congratulated the 5th Composite Group on its 13th birthday and thereby revealed that he was the ground officer in command of that squadron when its equipment consisted of one seaplane that nobody there could fly.

Mr. Moeller went to the 6th Aero Squadron as Supply Officer in 1918. Describing the first inter-island flight, made in May or June, 1918, by Major Harold Clark, he related:

"The ship was a two-pontoon, single motored (I think with an OX5 motor), and the Major had her so loaded down with a sea anchor, a boat hook, spare spark plugs, tools, rope, food and other miscellaneous items, besides her maximum capacity fuel load, that with his weight and the weight of his crew chief, he was afraid he couldn't get her off the water if I added my weight to her. So I had the pleasure of being dumped on the wharf at Kamehameha and watching the start of this 'Famed' flight.

"As far as I know, this was the first inter-island flight undertaken and, not knowing exactly what might come up, it can be imagined that Major Clark took along everything in the way of tools, etc., that might be needed in emergency. The old ship was sure loaded down. However, they made good time to Maui, where the people gave them a royal time, it being remembered that this ship was the first to reach that point under its own power.

"I feel that the royal time on Maui was what caused the crash later over on Hawaii, because it was around three o'clock in the afternoon before the ship got away for Hawaii, and on reaching that island the weather was bad, being cloudy and foggy. As it was getting rather late in the evening, the Major started across country rather than following the coastline, and this is where his 'pilikia' came in. (Mistake, hard luck or what have you).

"We had no instruments in those days, and the Major was flying blind in the clouds and fog. The old ship was pretty well loaded down and he couldn't get her up very high, so you can imagine the fun he was having. He didn't know just where he was and up in the mountains at that, with darkness coming on and fuel running low. So he looked for a nice big tree and let her settle down. Well, it took four days for him and his crew chief to get out and find civilization."

As Supply Officer, Lieut. Moeller was responsible for the plane. His letter tells how he finally got through a "survey" and dropped the plane from the records. This left the squadron with one seaplane instead of two. But that was only the beginning of his troubles. For the letter goes on:

"During the latter part of July, 1918, the regular transport came in and without a word from anywhere a first lieutenant and eight second lieutenants dropped in with orders to report for duty to the squadron. Well, I was senior to the first lieutenant and retained command. These fellows, all fine youngsters, had received their flying training down in Texas, but that was about all they knew about the service.....Anyway, here were nine flying officers, none of whom had ever been up in a seaplane, and the squadron commander a 'ground officer' with about as much knowledge of flying as nothing.

"Finally we got up enough nerve, and one of the lieutenants, who was

somewhat older than the rest and who had some flying experience in civil life, took the old N-9 up and got the feel of her, after which he gave the others their instruction.

"We had one ship and nine men to do flying, so you can imagine how we petted that old tub to keep her going. Fifteen minutes each man each morning was the limit for flying. If they had crashed her they would have done their flying on blackboards and with books, so you can understand how they cared for her. One morning, when they thought I wasn't around, they took her over Pearl Harbor and I looked up just in time to see one of them loop her, something which was strictly forbidden. Because, being a seaplane, she was naturally clumsy, and we just could not take a chance on having a crash. You can imagine what Mister So-and-So got when he landed."

The letter goes on to tell about the removal to Luke Field and the arrival of better planes. It will form a valuable part of the files of the 5th Composite Group, now 13 years old.

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MOSQUITO HUNTING IN HAWAII

Believe it or not, there are no mosquitoes to be found on the Island of Oahu - that is, not many. At least, such is the experience of those who recently conducted mosquito-hunting experiments in the Hawaiian Islands. The 18th Composite Wing, cooperating with the Territorial Board of Agriculture and Forestry, flew over 270 miles in pursuit of this insidious pest, without finding a single one!

The purpose of these experiments was to discover if the mosquitoes that breed in the swamps on the windward side of the Island follow the trade winds across the mountains to Honolulu. A special trap, consisting of a series of screens coated with a saturated solution of resin in castor oil, and so arranged that these screens could be exposed to the air individually, was mounted in the front gunner's cockpit of a Bomber.

Luke Field was assigned to conduct these experiments. Lieuts. Fred S. Stocks and Charles G. Williamson piloted the "Bugchaser" on this series of missions. These pilots reported that flying in chase of mosquitoes was very enjoyable, as for once in a lifetime the rules were suspended and that popular outdoor sport known as "hedge-hopping" was allowed.

In the 270 miles covered, which involved about six hours' flying time, it is estimated that approximately 1,425,600 cubic feet of air passed through the trap plates. Five separate flights were made - three by day and two at night. "Perhaps," adds the News Letter Correspondent, "the appearance of a six-ton Bomber, with its two 575 horsepower engines thundering, frightened the mosquitoes so badly that they disappeared back to the swamps. It is believed, however, that the experiment was successful in every respect. The data gained bears out the theory that mosquitoes do not fly to any considerable altitude above ground, and that by reason of lack of endurance cannot fly any great distance from their breeding grounds.

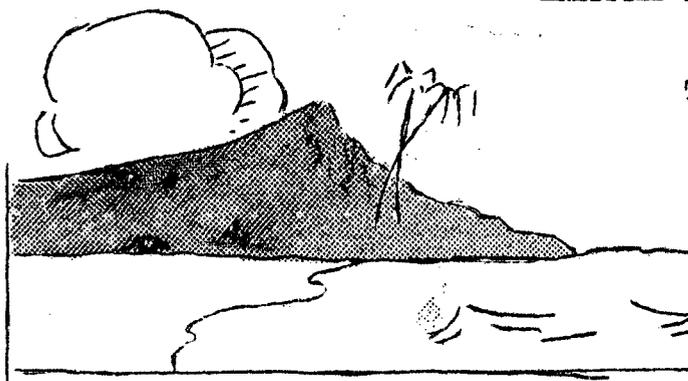
All of which points to the fact that the mosquito is purely a local problem and that he does not stray very far from home in his short but bothersome life."

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ENLISTED FLYERS IN HAWAII

Of the 27 enlisted men holding aeronautical ratings in the Army Air Corps, six are on duty in Hawaii, as follows: Master Sergeants Samuel J. Davis, John L. Waugh, Bernard Wallace, Arvin E. Miller, Chester F. Colby and Staff Sergeant Maurice M. Beach. Staff Sergeant Beach recently completed active duty as a Reserve Officer, serving 18 months at Fort Crockett after completing his advanced flying course at Kelly Field. Master Sergeant Miller holds a "Lighter-than-Air" pilot's rating. The six enlisted men have flown a total of 10,887 hours, or at an average of 1,814 hours each. Master Sergeant Colby, who has 14 years' service, is one of the oldest pilots in the Army. He has flown 4,021 hours, almost twice as many hours as the next highest, Master Sergeant Bernard Wallace, who has 2,171 hours to his credit.

ENLISTED MEN'S QUARTERS COMPLETED AT
WHEELER FIELD



The progress of Air Corps construction on the Island of Oahu has been most satisfactory. Out on the Leilehua plains, the Wheeler Field construction for aviation has been going forward steadily.

The four Air Corps barracks to house the "Composite Group" at Wheeler Field were completed June 1, 1932. These barracks will house 600 men - two of them having a capacity of 100 men each and the remaining two having a capacity of 200 men each.

The plans for these buildings were developed in the construction division of the Department Quartermaster at Fort Shafter, T.H., and mark a departure in some respects from the type of barracks heretofore constructed by the War Department. The buildings are of reinforced concrete frame, floor and roof construction inclosed with hollow cement tile and finished in stucco. They are three stories in height, the smaller having a ground area of 75 x 92 feet, and the larger having a ground area of 75 x 181 feet. The motif of the design is Spanish. The stucco is a subdued tint of buff, and color contrast is secured by red tile roof, apple green trim and polychrome panels in the tower-like corners of the buildings. The structures are screened throughout. The flat concrete roof serves as a ceiling for the upper floor and is insulated against temperature changes. The roofs are of five ply built up felt and gravel. Oil burning heaters supply hot water throughout the buildings, and chilled drinking water is supplied on each floor.

The buildings are located north of the hangars and are separated from them by a wide driveway. They are accessible from all sides by similar driveways. Kitchen waste is evacuated from platforms adjacent to the side roads.

Kitchen equipment has been made complete in every detail. All shelving and racks are of galvanized steel. Kitchen tables are of monel metal. Mechanical dish washers have been provided, as well as mechanical refrigerators, oil burning ranges and portable food bins. The dining rooms adjacent to kitchens will be fitted up for modern cafeteria service.

The organization administrative offices, recreation rooms and large storerooms are located on the lower floors. Smaller storerooms with metal inclosures and shelving are located on the upper floors, where also are located the dormitories, toilet rooms, barber shops, tailor shops and writing rooms.

The labor for the work was supplied chiefly from Honolulu. Crushed sand, concrete tile, cement pipe and prepared stucco were furnished locally. No delay was experienced in carrying out the work, the contractor completing same three months before the expiration of his contract time. The contract included not only the buildings, but the adjacent roadways, concrete walks, drains, sewer, water and electric services. The character of the work was satisfactory in every detail, and credit is due the contractor for this accomplishment.

Acid color stain was adopted for the floors of the recreation rooms and for securing certain exterior color effect in the concrete.

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Of late, Lieut. Deerwester, Squadron and Post Engineering Officer, 80th Service Squadron, Mather Field, Calif., has been conducting some interesting experiments. It seems that several pilots on the field complained of gas fumes in the cockpits of the P-12E airplanes. In order to determine the nature of these fumes and the amount of danger undergone by a pilot, Lieut. Deerwester has been flying around with guinea pigs placed in various parts of the airplane. For the benefit of pilots at other fields, he wishes to state that he does not carry guinea pigs as mascots; he carried them for experimental purposes only. The guinea pigs after each flight were turned over to the medical authorities for examination.

Lieut. Deerwester has also tried his hand at sky writing. Ordinarily "Heinie" smokes a muchly advertised brand of cigarettes, but on the day in question he was smoking candles. While doing some airdrome flying, one of the smoke candles in the head-rest compartment of a P-12E ignited. No damage was done to the ship.

STUDENTS GRADUATE FROM PRIMARY FLYING SCHOOL

A

NEW CLASS of 111 students reported for training at the Air Corps Advanced Flying School on July 1st and began flying on July 6th. The new class consists of one officer from the Guatemalan Army; 45 second lieutenants, members of the June, 1931, graduating class of the U.S. Military Academy, West Point, N.Y.; 58 Flying Cadets (including 7 holdovers from the previous class); 5 Air Corps noncommissioned officers training in grade, and two Chinese students who are taking a special observers' course.

The students who graduated from Randolph Field in June and were transferred to Kelly Field are listed below, as follows:

Second Lieutenants

Charles T. Arnett	Robert E.L. Easton	Paul G. Miller
Milton W. Arnold	John A. Feagin	Henry K. Mooney
Royden E. Beebe, Jr.	Robert F. Fulton	Ernest Moore
William J. Bell	John C. Gordon	David N. Motherwell
Gordon A. Blake	Russell H. Griffith	Hilbert F. Muentert
Wendell W. Bowman	Louis A. Guenther	John R. Skeldon
Daniel F. Callahan, Jr.	George F. Hartman	<u>Jacob E. Smart</u>
Carl W. Carlmark	John T. Helms	Dean C. Strother
Gunnard W. Carlson	Earle W. Hockenberry	Robert A. Stunkard
Joseph F. Carroll	David W. Hutchison	<u>Edward J. Timberlake, Jr.</u>
James B. Corbett	Arthur R. Kerwin, Jr.	Gerald E. Williams
Carl F. Damberg	Lester L. Kunish	Hoyt D. Williams
Charles F. Densford	Robert M. Lee	Richard H. Wise
Charles B. Dougher	Raymond T. Lester	Donald N. Yates
Marcellus Duffy	A. J. McVea	Millard C. Young

Flying Cadets

William W. Amorous	James W. Furlow	Russell I. Oppenheim
William T. Bogen	Edward H. Gavin	Bruce C. Pettigrew
Joseph D. Caldara	John Gebelin, Jr.	Everett C. Plummer
Clayton B. Claassen	Laurel J. Gephart	Harry N. Renshaw
Claire B. Collier	Lars J. Halverson	Craven C. Rogers
Marcus F. Cooper	Harold D. Harmon	Stuart E. Rutherford
Quinn M. Corley	Lester S. Harris	Morris H. Shedd
Charles A. Cowing	Donald R. Hutchinson	William J. Sindo
Harry Crutcher, Jr.	Earl D. Johnson	Arthur H. Skaer, Jr.
Harold E. Dahl	Edwin A. Joyce	Richard B. Stophlet
Cecil Darnell	Joseph J. Kelley	Charles W. Stouff
Charles M. Dittrich, Jr.	Leonard P. Kleinoeder	Luther W. Sweetser, Jr.
George A. Doole, Jr.	Charles H. Lesesne, Jr.	Orville E. Tibbs
James R. Ducrest	Horace H. Manchester, Jr.	Richard F. Vavrina
Samuel B. Eisenmann, Jr.	Clark L. Miller	Donald N. Wackwitz
Jephtha W. Fator	Frank N. Meyers	Clyde H. Wood, Jr.
Vincent Ford	Dolf E. Muehleisen	Raymond C. Woodward

Noncommissioned Officers Training in Grade

Master Sgt. Julius A. Kolb	Tech. Sgt. Raymond Stockwell
Staff Sgt. Arthur Hanson	Staff Sgt. Ancel Lovvorn
Sergeant Charles C. Cunningham	

Foreign Student

1st Lieut. Nicholas H. de Leon, Guatamala

A new schedule of hours went into effect with the beginning of training for the new class. Flying begins at 6:00 a.m. and ends at 10:00 a.m., and ground school begins at 10:30 a.m. and ends at 1:00 p.m.

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The 5th Composite Group celebrated its 13th Anniversary on May 18th. Major General Briant H. Wells, Commanding the Hawaiian Department, arrived at Luke Field at 11:30 a.m., and presented medals and trophies to the outstanding athletic stars of the current season. The new baseball diamond was opened in the afternoon. Major Maxwell Kirby, Commanding Officer of the Group, pitched the first ball at the opening game of the Sector-Navy League between Luke Field and their ancient rivals, Fort Kamehameha. The home team showed considerable strength and promise and outclassed the Fort Kamehameha team, the final score being 6 to 1.

WEST POINT GRADUATES DETAILED TO THE AIR CORPS

SLIGHTLY over 25 percent of the class which graduated from the United States Military Academy, West Point, N.Y., last June, was detailed to the Air Corps for flying training. Under War Department orders recently issued, 68 of the 258 West Point graduates are under orders to proceed to Randolph Field, Texas, upon or before the expiration of their present leave of absence.

These 68 students received commissions in the various branches of the Army, except the Air Corps, as follows: Corps of Engineers, 2; Signal Corps, 1; Infantry, 33; Cavalry, 5; Coast Artillery, 13; Field Artillery, 14. Under the policy of the War Department, based upon the provisions of the Air Corps Act, approved July 2, 1923, no officers are eligible for permanent commissions in the Air Corps unless they are graduates of both the Air Corps Primary and Advanced Flying Schools. A year of intensive flying training is ahead of these West Point graduates to whom aviation presented a special appeal, i.e., an eight months' primary and basic course at Randolph Field, and a four months' course at the Advanced Flying School at Kelly Field, Texas.

It is now eleven years since the policy was inaugurated of detailing West Point graduates to the Air Corps for flying training. During this time, a total of 648 West Pointers were accepted for detail, viz: 1922, 16; 1923, 51; 1924, 61; 1925, 42; 1926, 18; 1927, 30; 1928, 77; 1929, 110; 1930, 86; 1931, 89; 1932, 68.

The newly commissioned 2nd Lieutenants, who will begin flying training this coming fall, are enumerated below, as follows:

<u>Corps of Engineers</u>	<u>Field Artillery</u>	<u>Infantry</u>
Julian D. Abell	Frank L. Howard	William G. Beard
Allen F. Clark, Jr.	James F. Thompson, Jr.	Harvey H. Fischer
<u>Signal Corps</u>	Loren B. Hillsinger	Robert H. Terrill
Kenneth F. Zitzman	John P. McConnell	Samuel A. Daniel
<u>Cavalry</u>	Walter P. Goodwin	James L. Massey
Charles H. Anderson	Dwight E. Beach	Thomas C. Darcy
Charles M. Iseley	Ray J. Stecker	Clifford H. Rees
Sam H. Wiseman	Curtis A. Schrader	Arnold L. Schroeder
John R. Sutherland	Harvey P. Huglin	Eugene P. Mussett
Byram A. Bunch	George D. Campbell, Jr.	Edward W. Suarez
<u>Coast Artillery</u>	William R. Huber	Paul D. Bunker, Jr.
Stanley R. Stewart	Gordon W. Seaward	Walden B. Coffey
James H. Cunningham, Jr.	David H. Kennedy	Joe E. Golden
Howard R. Martindell	Edwin G. Simenson	Frank G. Jamison
Byron L. Paige	<u>Infantry</u>	Harry C. Quartier
Torgils G. Wold	Joe W. Kelly	Harley N. Trice
Leo P. Dahl	Daniel S. Campbell	Harold E. Shaw
Robert D. Glassburn	Kenneth B. Hobson	Robert L. Carver
Walter A. Rude	Hunter Harris, Jr.	Romulus W. Puryear
Robert L. Williams, Jr.	William H. Maguire	John G. Coughlin
John J. Hutchison	Kenneth E. Tiffany	William M. Garland
Stephen M. Mellnik	Nicholas E. Powell	Thomas C. Morgan
Donald L. Hardy	Andrew Meulenberg	James W. Gurr
Robert F. Moore	Erskine Clark	Robert L. Scott, Jr.

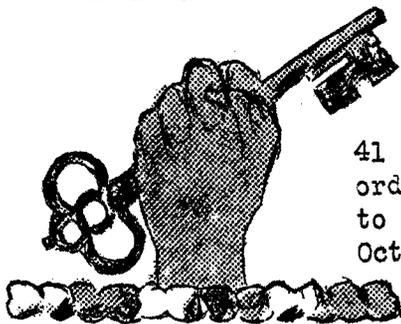
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FAST FLIGHT BETWEEN SELFRIDGE FIELD AND SAN ANTONIO

Captain Audrey B. Ballard and 1st Lieut. Harlan T. McCormick, both members of the 1st Pursuit Group, Selfridge Field, Mich., completed a long cross-country trip in extremely fast time from San Antonio, Texas, to Selfridge Field on July 12th. Flying stock Boeing Pursuit planes, one a P-12E and the other a P-12C, they completed the long grind of 1290 miles in eight hours and fifteen minutes, averaging for the whole distance a speed of 156 miles per hour.

"For stock airplanes this is believed to establish a record for a south to north trip," says the News Letter Correspondent. Two stops were made along the way, one at Muskogee, Oklahoma, and the other at Scott Field, Belleville, Illinois.

OFFICERS DETAILED TO THE AIR CORPS TECHNICAL SCHOOL



The Air Corps Technical School, Chanute Field, Rantoul, Ill., is making preparations to accommodate this coming fall a total of 41 officers who, according to War Department orders recently issued, are scheduled to report to the Commandant of this School not later than October 1st next for duty as students. Of these 41 Air Corps officers, 17 will pursue the course in Aircraft Armament, 2 in Aerial

Photography, 12 in Airplane Maintenance Engineering, and 10 in Communications, viz:

Aircraft Armament: 1st Lieut. Charles G. Pearcy, Kelly Field, Texas; 1st Lt. Bernard A. Bridget, 2nd Lieuts. George R. Acheson, Edward H. Alexander, James L. Daniel, Jr., William H. Doolittle, Max H. Warren, Randolph Field, Texas; 1st Lieuts. William Turnbull, Fort Bragg, N.C.; John F. Guillett, 2nd Lt. James P. Newberry, Brooks Field, Texas; 2nd Lieuts. Howard G. Bunker, Rockwell Field, Calif.; Leon R. Brownfield, Fort Benning, Ga.; Ralph O. Brownfield, Douglas M. Kilpatrick, Jr., Langley Field, Va.; Frank F. Everest, Jr., Fort Crockett, Texas; Charles G. Goodrich, Mitchel Field, N.Y., and Stuart G. McLennan, Scott Field, Ill.

Photography: 2nd Lieuts. Kenneth C. Brown, Crissy Field, Calif.; Merlin I. Carter, Marshall Field, Kansas.

Communications: 1st Lieuts. Wm. L. Ritchie, Fort Sill, Okla.;

Manning E. Tillery, Randolph Field, Texas; 2nd Lieuts. Thurston H. Baxter, Wm. B. Blaufuss, George W. McGregor, Elmer J. Rogers, John T. Sprague, Lloyd H. Watnee, Randolph Field; Harry G. Montgomery, Jr., Langley Field; Edgar A. Sirmyer, Jr., Scott Field.

Airplane Maintenance Engineering: 2nd Lieuts. Samuel E. Anderson, Mitchel Field; Theodore M. Bolen, Selfridge Field, Mich.; Joseph A. Bulger, Scott Field; Oscar P. Carlson, Clarence D. Wheeler, Franklin C. Wolfe, Randolph Field; Reuben Kyle, Jr., Fort Leavenworth, Kansas; Douglas T. Mitchell, Fort Sill; Charles Sommers, Brooks Field; Robert M. Kraft, A.J. Kerwin Malone and Dyke F. Meyer, Chanute Field.

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NEW OFFICERS' CLUB FOR THE 18TH PURSUIT GROUP

The new Officers' Club for the 18th Pursuit Group, Schofield Barracks, T.H., is at last ready for the critical eyes of all. Furnishings suitable to the Hawaiian atmosphere have been installed and, says the News Letter Correspondent, "the approval of our guests so far seems to be most sincere. One of the highlights of the decorative scheme is a large oil painting which hangs over the fireplace in the lounge. This was especially painted for the Club by Howard Hitchcock, one of the best known Island artists. The composition is an Oahu landscape painted as if viewed from the air. It depicts a point of beach with its characteristic palm trees, and the rest is sea and sky, done in all the colors which are so typical of the islands. In the center of a shaft of sunlight is a single airplane, symbolical of our branch of the service.

This beautiful painting was presented to the Club by Mrs. Suzanne C. Adams, of Honolulu, as a memorial to her nephew, the late Lieut. George Cook Baker. Lieut. Baker, Honolulu-born Army pilot, was killed March 22, 1931, when his Pursuit ship failed to come out of a dive while on an Aloha flight for a departing transport. The official opening of the building was held on July 8th, when a tea was given for all officers and ladies of the Hawaiian Department.

PURSUITERS RETURN FROM CHICAGO TOURNAMENT

THE First Pursuit Group just recently returned to its home station at Selfridge Field, Mich., after having spent twelve days at Chicago taking part in the George Washington Bi-Centennial Military Tournament. There was a triple reason for the participation of the Group in this mammoth military tournament - a military, patriotic and charity reason. In a military sense, the intensive flying at Chicago fitted in with the training program of the Group; in a patriotic sense the military demonstrations honored the memory of our first President, and it was in the name of charity that the gate receipts to the Tournament were dedicated to Army Relief and Chicago unemployed.

The Group flew to Chicago on June 24th and established a base for flying operations at the Curtiss-Reynolds Airport, together with the 15th Observation Squadron from Scott Field, Ill. Quarters for pilots and mechanics were furnished by Fort Sheridan. Two flights a day, one at noon and one in the evening, were made from June 25th to July 6th, except for Sundays.

Favorable flying weather prevailed during the entire two weeks, and no untoward incidents marred the programs. Major G.E. Brower, Commander of the Group, had one near accident which ended happily. The motor of his XP-936 low wing Boeing cut out at an altitude of 3,000 feet and refused to start again until the ship had glided to within 200 feet of the surface of Lake Michigan. By that time the Major had gotten all set for a good wetting, but to his great satisfaction and relief the motor picked up in time.

Two days after the Group had returned to Selfridge, Major-General Frank Parker, the Commanding General of the 6th Corps Area, flew to Selfridge Field to compliment and personally thank the Group for its military offering, high morale and excellent flying while at Chicago. He read to the Group several letters from prominent men and a newspaper editorial, all of which lauded the accomplishments and showing of all the units which took part in the Tournament.

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COLONEL KIRTLAND DEPARTS FROM LANGLEY FIELD

Colonel Roy C. Kirtland, Air Corps, who reigned over the destinies of Langley Field, Va., for the past two years, turned over the duties of Commanding Officer of the Lower Peninsula Air Corps Station to Colonel Clarence C. Culver on July 13th. The evening before, at the historic Chamberlain Hotel at Old Point Comfort, Va., Colonel Kirtland was tendered a stag farewell party with the entire commissioned personnel of Langley Field attending. From the dinner party at the Chamberlain, the large gathering moved to the Officers' Club at Langley Field for the final get-together with the departing C.O.

Chaplain Walter K. Lloyd performed in the role of Master of Ceremonies, and Major Herbert A. Dargue, Commanding the Second Bombardment Group, acted in the capacity of spokesman for the officers of Langley Field. In a short but fitting speech, appropriate for the special occasion, Major Dargue expressed sincere regret at the Colonel's departure and paid tribute to the former Commandant of Langley Field, pointing to the vast improvement which has taken place during his two years' administration. "From an ordinary war-time military reservation to one of the most beautiful and picturesque Army posts in the country has Langley Field grown under the close supervision of our popular Colonel Kirtland," is the way Major Dargue feelingly expressed himself.

The occasion was made very touching by numerous songs with all the officers lending their vocal ability. "Should Auld Acquaintance Be Forgot," brought tears to the eyes of the many stalwart officers formerly under his command. With a fond farewell to each individual officer, Colonel Kirtland departed for his new station at the Second Corps Area Headquarters, Governors Island, N.Y.

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The 70th Service Squadron, March Field, Calif., held its Organization Day on June 27th. The Squadron, commanded by Capt. Gilbert Collar, was two years old on that date. A new floor in the squadron day room was coincidentally dedicated by a dance, followed by a buffet supper and refreshments during the evening. During the forenoon, a baseball game was played between the married and single men. The newly opened swimming pool was crammed to capacity for races and other water contests. Tennis matches were also indulged in.

FORMATION OF BOMBERS FLIES IN ARIZONA GRAND CANYON

THE 9th Bombardment Squadron, stationed at March Field, Riverside, Calif., climaxed the training of the Fiscal Year on June 29th and 30th by a very interesting flight through the Grand Canyon of Arizona in their Keystones. The many wierd tales of the tricky wind currents found in the Canyon piqued the curiosity of Captain H.D. Smith, the Squadron Operations Officer.

Taking as guests Major McNarney, Commanding Officer of the 7th Bombardment Group, and five news reel and feature service cameramen, Captain Smith led the Squadron up and down the Canyon several times, 1,000 feet below the rim. Three free lance ships accommodated the cameramen, while the remaining six maintained close formation. And wind currents there were! The air surged over both edges of the Canyon, met in the middle, and rose rapidly, buoying the ships upward with it. One camera ship, flying slightly lower than the formation as it passed over the rim, was suddenly caught in the clutches of a down current.

Staff Sergeant J.D. Meeks, of the 23rd Photo Section, riding in the rear of the fuselage, had some big stories to tell about this particular "bump." "I was bending over to pick up a camera," he said, "when I suddenly saw the floor of the ship drop from under me. There I was, floating helplessly in mid air. That awful, vacant sensation passed over me, and then the ceiling overtook me, and I was pressed firmly against it - lying on my back on the ceiling. Then, just as suddenly, the floor came up and gently settled itself beneath me. The camera had been lifted from the floor and set back upside down." Although Sergeant Meeks had no witnesses with him to prove the truth of his tale, the other members of the crew vouched for the fact that there was really a severe drop which made them grab straps and bars to keep from being left suspended over the Canyon without means of support.

Except for this one instance, no serious trouble was experienced in flying through the Canyon. Landing at the Canyon Airport, the officers and men were taken by bus to the rim, where they spent the night, returning the next day to March Field.

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MACON, GA. PLAYS HOST TO 49TH COMBARDMENT SQUADRON

Nine Keystone Bombers, 18 officers and 9 enlisted men departed from Langley Field, Va., July 21st, for Macon, Ga., where they were the principals in the christening of one of the large Keystone Bombers of the 2nd Bombardment Group "The City of Macon, Georgia."

Captain Eugene L. Eubanks, Commanding Officer of the 49th Bombardment Squadron, commanded the flight, and Captain Robert Olds, Operations Officer of the 2nd Bombardment Group, represented Major Herbert A. Dargue, Group Commander, in the flight. The christening took place at 3:30 p.m., at Miller Field, an elaborate ceremony having been arranged by officials of the city government of Macon and by the Chamber of Commerce of that city. The Squadron returned to Langley Field the following afternoon.

The purpose of this tactical mission and christening is far reaching, and has more significance than is readily seen. At present, Langley Field is the sole air force unit on the Atlantic seaboard and is expected to be in contact with the entire seacoast from Maine to Florida. The post is so situated that, should it be necessary to mobilize at any place on the Atlantic coast, same could be accomplished within 24 hours. With this aim and purpose in view, personal contacts are being made with every airport suitable for landing of Army formations on the coast and in nearby inland cities. By such visits it is hoped to gain the cooperation of practically every airport within a radius of Langley Field and so establish "bases" all along the coast which can be utilized at any time either in case of emergency or in carrying out the regularly prescribed training course of the Air Corps. This joint tactical and christening was arranged in order that the personnel of the Group may become more familiar with Macon Airport, adjacent territory and airways enroute.

Officers representing the 49th Squadron at this christening were Major R.F. Weldon, M.C., Flight Surgeon; Captains Eugene L. Eubanks, commanding the Squadron; Robert Olds, Operations Officer, 2nd Bomb. Group; L.H. Dunlap, Commanding the 59th Service Squadron; 1st Lieut. A.L. Harvey; 2nd Lieuts. J.H. Ives; H.Q. Huglin; C.G. Foxworth; E.L. Todd; J.A. McAnulty; D. Kilpatrick; T.J. Miller; R.L. Waldron, R.B. Collins; H.P. Dellinger, R.O.S. Akre, W.D. Harrison and R.C. Hughes.

THE TE-3 AIRSHIP CAR

By P. B. Smith, Lighter-than-Air Unit, Wright Field

Delivery is about to be made of the second TE-3 airship car developed by the Air Corps for use with small type non-rigid airships employed in Lighter-than-Air training operations. This car is of tubular steel construction and designed especially for an internal suspension system that differs from the conventional suspension arrangement for non-rigid airship in that the car is rigged close to the bottom of the envelope and all cables suspending the car are contained within the envelope and therefore not exposed to air flow with its attendant drag.

The entire front of the car and practically all the siding is of transparent material which affords extremely good vision from any position within the car. This is very desirable since the car is to be used for training purposes, for which reason a dual control system has been provided throughout. The flight control arrangement for airships differs from that of heavier-than-air craft to the extent that two pilots are usually employed in handling the airship, one of whom is responsible for the altitude and pressure control, whereas the other is concerned with the directional control equipment which keeps the airship to its course.

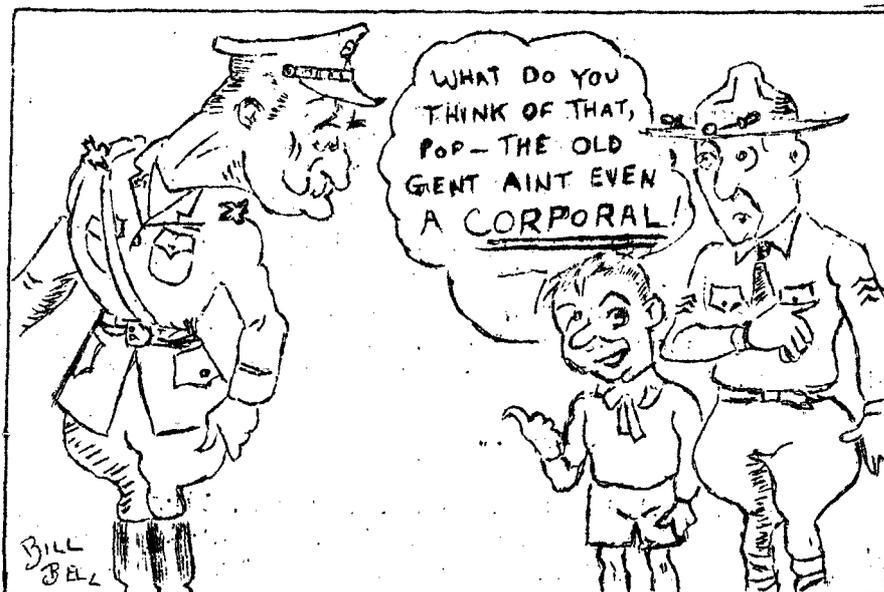
In the TE-3 car the two pilot seats are located in the extreme front, side by side, and the airship can be completely controlled from either position. The conventional air inflated pontoon used for landing purposes has been omitted in favor of a landing wheel, which has been found of considerable advantage in the operation of the smaller types of non-rigid airships. Another feature of considerable interest is the engine platform which, when not in use, is actually part of the car siding, but is so arranged that it may be released and swung downward, thus serving as a platform upon which the engines may be inspected or repaired while in flight. Two air-cooled 70 horsepower engines are installed, one on each side of the car, capable of giving a speed of 55 miles per hour to the airship. Two engines are employed in all non-rigid airships, except the very smallest, as a safety feature for maintaining pressure in the airship envelope, which is accomplished by means of air scoops in the slipstream of each propeller. Thus, in case of the failure of one engine, pressure and therefore the rigidity of the envelope can still be maintained, as well as forward speed, the latter of secondary consideration, however, from the point of view of engine failure on airships.

The TE-3 car will be installed on an airship envelope now being prepared at Scott Field, Ill., where it will be used for Lighter-than-Air training operations.

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SURVEY OF FLYING FIELDS IN HAWAII ✓

In line with the annual inspection required of all ungarrisoned military reservations under the jurisdiction of the Department Commander, two Inter-Island flights were performed, one in May and the other in June, by Lieut.-Col.



WHAT! NO CHEVRONS?

Aero-Vue

Gerald C. Brant, Commanding the 18th Composite Wing, and Captain Byron T. Burt, Wing Operations Officer, for the purpose of making a survey and inspection of emergency flying fields. The itinerary and inspection of the first flight included the Islands of Molokai, Maui and Hawaii. The first inspection covered over 800 miles and, on the second flight, the inspection was V-6315, A.C.

continued and included the Islands of Kauai and Niihau. Inspections of the new Territorial field at Lihue and Sanborn Field at Hanalei was also included.

The emergency fields on Molokai, Upolu Point and South Cape are in good condition. It is hoped in the near future to develop an additional field on the south end of Molokai. The new field at Kalaupapa, on the Island of Molokai, was also inspected. One of the best landing fields on the Island of Hawaii is the Parker Ranch at Kamuela. Fields for new development were also located on Hawaii. It is interesting to note some of the comments of the Wing Commander relative to the rapid development aviation has made since his last survey of emergency flying fields in 1925. He states in part:

"When I was here first seven years ago, there were only two good places to land in Hawaii -- at the Parker Ranch and in the bottom of the volcano at Kilauea. I guess that was the only landing field in the world in a live volcano, but the big eruption threw rocks over the field and spoiled it.

"In 1925, I landed a DeHaviland plane on the Island of Niihau, in connection with the maneuvers then going on and caused a cattle stampede. However, the owners have since made provisions which eliminate this."

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GENERAL MALONE INSPECTS LANGLEY FIELD

Major-General Paul B. Malome, Commanding General of the Third Corps Area, was a visitor for several days recently, when he was occupied in an inspection of the camp and post activities at Fortress Monroe and Langley Field, Va. At Fortress Monroe, the General addressed a large audience of 400 CMTC candidates, 200 odd ROTC students, members of the Organized Reserve and personnel of the post. At Langley Field, he paid an informal visit and inspected post activities, the daily routine continuing during his brief stay.

Accompanying General Malome on his tour of inspection was his Staff, as well as Colonels Harold E. Cloke, Commanding the Third Coast Artillery District; Harry P. Newton, of the 917th Coast Artillery, and Allen Smith, CMTC Officer for the Third Corps Area.

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19TH AIRSHIP COMPANY ACTIVITIES

The old Fort Eustis Balloon School has finally given up the ghost. The steel hangar from that station has been transferred to Langley Field and is being erected on the west side of the airship hangar of the 19th Airship Company. This building fills a long felt need for a place of storage and operation of observation and free balloons. This, along with the new heating system in the shops, a new heating plant, new heated machine shop, and new barracks has brought back the realization that there is a Santa Claus.

The 19th Airship Company is installing a new radio station in the shop to replace the station in the main hangar. This station, to be known as DI-3, will be in operation as soon as masts can be erected. This installation is expected to increase the efficiency of an already efficient department of the Company.

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HIGH SHOTS AT FORT SILL

Aerial gunnery practice was completed at Fort Sill, Okla., on July 19th. All officers qualified as "Expert Aerial Gunner," with 1st Lieut. Wm. L. Ritchie making high score in the pilot's course, scoring a total of 950 points. Second Lieut. Claire Stroh won honors in the observer's course by scoring a total of 1193 points. A summary of the scores made by all officers who participated follows: Pilot's Course - total score - 1st Lieut. Wm. L. Ritchie, 950; 2nd Lieut. D.T. Mitchell, 897; Captain F.H. Pritchard, 890; 2nd Lieut. C. Stroh, 887.

Observer's Course - total score - 2nd Lieut. C. Stroh, 1193; Captain R.E. O'Neill, 1022; 1st Lieut. Wm. L. Ritchie, 998; 2nd Lieut. D.T. Mitchell, 964; Captain F.H. Pritchard, 892.

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Major-General Benjamin D. Foulois, Lieut.-Col. Jacob E. Fickel, Major Leslie MacDill, Captains Wm. J. Flood, Hugh Elmendorf and A.B. McDaniel spent several days at Wright Field early in July in conference with the Chief of the Materiel Division.

INCREASED ACCURACY IN BOMBING

RECENTLY there appeared in the News Letter an article contributed by Langley Field, Va., in which, among other things, it was stated: "In the Bombing Matches held at Langley Field in 1929, the average radial error, the distance from the point of fall of the bomb to the pin point center of the target, was about 200 feet. An improvement was shown in the 1930 Matches, the radial error being 194.07. A still greater improvement was shown for 1931, a cut of 45 feet for an average error of 149.6 feet being the result of the observers. This shows a steady, though slow, improvement among the recognized expert bombers of the Army, the contestants in the Matches being the team having the highest score in each squadron."

The News Letter Correspondent from Nichols Field, Rizal, P.I., commenting on the above, states:

"We noted with pleasure the article ... setting forth the gradual increase of accuracy in bombing obtained by the contestants who are the leading bombers of their respective bombardment squadron, in the yearly Bombardment and Machine Gun Matches held at Langley Field, Va., during the years 1929, 30 and 31. The 28th Bombardment Squadron wishes to cite the record obtained by their organization during the training season 1932, not to reflect on the ability of the expert bombers of the service, as they are called by the Langley Field correspondent, but to substantiate the conclusion that bombing accuracy is steadily improving. This improvement, we should realize, has not been the result of more accurate instruments or superior equipment, as the materiel is identically the same used by Bombardment since 1923. More conscientious application and better understanding of bombing procedure has enabled Bombardment to steadily improve and overcome the increased error due to speed and cross wind blowing. This in itself is an accomplishment to be proud of by the active Bombardment personnel.

Our entire officer personnel qualified as Expert Bomber. Eleven officers qualified with a score of 1800 or better, the remaining six scoring 1738 or more. The average probable radial error was 135.2 feet, ranging from the minimum of 94 to the highest, 174; only three being over 150. These figures cannot give the true indication to such a fine record, considering that out of 300 bombs dropped for record, only two defective bombs were re-dropped. This is without question the best results obtained by an entire active squadron. The squadron proposes to continue bombing practice from 13,000 to 15,000 feet whenever weather conditions permit. Two missions have already been flown at 13,000 feet with encouraging results, with the results approximately 80% of the scores at 8,000 feet. These higher altitudes necessitate a very careful check in every bomb, as the least irregularity, projection, or a slightly warped fin greatly affects their flight; as the practice bombs now used closely approximate their terminal velocity, 875 feet per second, at these altitudes.

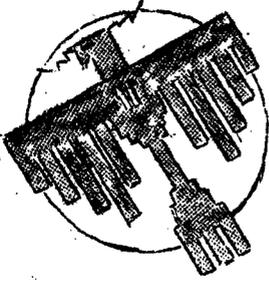
Greater improvement in bombing accuracy is to be expected in the next few years, as the projected bomb sights are expected to give a minimum of instrumental error at any predetermined altitude, antiquating our present system of scoring.

The gunnery scores of this Squadron are also a matter that should be shared with the Air Corps at large. Seventeen officers qualified as Expert Gunners, one as Sharpshooter failing to qualify as Expert Gunner by a very small margin. This officer left for China before completion of his record bombing. As an expert and Match runner-up two years back, his score, without question, would have boosted our average.

The average score for bombing was 1819. The average score for gunnery was 916."

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Captain V. L. Burge, Nichols Field, P.I., commanded a flight of three O-19's on a Southern Island flight recently. The pilots, in addition to Capt. Burge, were Lieuts. Wienecke and Eppright. Observers included Captain Reed, Lieut. Selway and Tech. Sgt. Freathy as mechanic. Landings were made at San Jose, Mindoro, Iloilo, Zamboanga, Jolo, Camp Keithley, the Del Monte Pineapple Plantation at Bukidon in Mindanao, and Tacloban. Fine weather was encountered except for the first day, when heavy rains forced the flight to return to San Jose for the night, when about half way to Iloilo. The rest of the flight was very interesting, and a visit was made to the Sultan of Sulu's Palace at Jolo. The Palace was destroyed by the recent typhoon.



INSIGNIA OF THE 34TH PURSUIT SQUADRON

The War Department recently approved the following insignia, hereinafter described, for the marking of airplanes of the 34th Pursuit Squadron, stationed at March Field, Riverside, Calif.:

On and over a plate a conventionalized thunder-bird, displayed bendwise with lightning flashes emitting from eyes and on the breast an inverted pyramid of three steps divided palewise of seven white and red.

The 34th Pursuit Squadron, Air Corps, was originally organized in May, 1917, at Kelly Field, Texas, as 2nd Company H of the Provisional School Squadron. Soon after its designation was changed to the 1st Company G. In July, 1917, the designation was changed to 34th Aero Squadron. The 34th Aero Squadron served overseas from August 23, 1917, to May 26, 1919, as a construction squadron, and was not engaged in combat. The squadron was demobilized at Garden City, Long Island, New York, June 10, 1919.

In 1923, the 34th Aero Squadron of the World War was reconstituted as an inactive unit and designated 34th Pursuit Squadron. In 1931, the 34th Pursuit Squadron was made active at March Field, California.

Under the provisions of G.O. 16, 1921, as amended, and paragraph 11-b, A.R. 260-10, the 34th Pursuit Squadron is entitled to a silver band for its guidon engraved "World War."

The thunder-bird is used as a patron symbol of the 34th Pursuit Squadron.

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SIXTH CORPS AREA RESERVE CAMP

Thirty-six Reserve officers of the inactive list are now at Selfridge Field, Mich., for a two weeks' period of active duty, with Major Bedinger, A.C. Reserve, in command. Captain E.C. Whitehead, Air Corps, is Executive Officer, and has as his assistant Lieut. Emmett O'Donnell, Air Corps. The equipment for the camp is of varied types - 2 PT-3A's, 3 P-12C's, 4 P-6A's, 4 O-19's and one O-33 being used. The improved housing facilities for both officers and equipment have made this year's camp much more satisfactory than in past years.

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GUNNERY AND BOMBING BY SECOND OBSERVATION SQUADRON

As a result of the aerial gunnery and bombing practice conducted by the 2nd Observation Squadron, Nichols Field, P.I., during the training season ending May 31, 1932, 10 of the 12 officers firing the Pilot Course qualified as Expert, one as Sharpshooter and one failed to qualify. All of the six officers who fired the Observers' Course qualified as Expert.

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PISTOL PRACTICE BY TEXAS GUARDMEN

In the annual dismounted pistol practice of the 11th Observation Squadron, Texas National Guard, Houston, Texas, 22 officers completed the course, 13 of them qualifying. Sixty-three enlisted men finished the course, 22 qualifying.

During July, a total of 135 hours' flying time was credited to the Squadron. The flying included the cavalry liaison detail, the Cuero mosaic mapping expedition, tow target and ground target practice, blind flying, navigation problems, formation flying and City of Houston mosaic mapping flights.

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The landing fields prepared by 1st Lieut. Everett S. Davis, stationed at Nichols Field, P.I., are in excellent shape, with the exception of Camp Keithly, which is somewhat rough, but sufficiently large for any purpose. The field at Cebu is not ready as yet. With its completion, the flight from Iloilo to Zamboanga will be broken up and made more interesting. The field at Bukidon is excellent. It is 2,500 feet above sea level, and excellent facilities are available. It is worth anyone's time to visit the factory and watch the methods followed in the canning of pineapples.

DEATH OF LIEUT. H. C. MINTER

MARCH Field suffered a severe blow in the death of 1st Lieut. Hugh C. Minter, Air Corps, Commanding Officer of the 73rd Pursuit Squadron, on July 8th. While leading his squadron in a spread-out formation, during which cross-over turns were being practiced, his ship collided with that of Lieut. John R. Merritt, Air Reserve. The latter made a safe landing with his parachute, sustaining minor injuries. Officers of the 73rd Pursuit Squadron, on July 10th, paid a fine tribute to their dead commander while the remains were being placed on the Union Pacific Golden State Limited. As the train left the Riverside station, the flight of Pursuit pilots accompanied it to the city limits and then returned to March Field with saddened hearts.

Lieut. Minter, who became a member of the Air Corps during the World War, was born at Redlands, Calif., December 24, 1898. After graduating from grammar and high schools, he attended the University of California for two years, 1916-1918, preparatory to taking a legal course. In 1918, he enlisted in the Aviation Section, Signal Corps, and, after completing his ground school training at the School of Military Aeronautics, University of California, on August 24th, and serving for a period of one month at Camp Dick, Dallas, Texas, he was ordered to the Aerial Gunnery School at Selfridge Field, Mich., for training as a Pursuit observer. Upon the completion of this course, he was, on November 12, 1918, commissioned a 2nd Lieutenant and assigned to duty at Selfridge Field.

In the following January, he was transferred to Kelly Field, Texas, where he served with various squadrons, and later attended the Air Service Mechanics School, completing the courses in motor overhaul and parachute rigging. Also while at this field he completed his flying training, and was rated as "Airplane Pilot," effective October 16, 1919. Lieut. Minter was appointed a 2nd Lieutenant, Regular Army, July 1, 1920.

In the latter part of 1921, he was transferred to Mather Field, Calif., where he served as Supply Officer, and also participated in forest fire patrol work conducted from that station. During the remainder of his career with the Air Corps, Lieut. Minter served at France Field, Panama Canal Zone; Brooks Field, Texas, and March Field, Riverside, Calif., his last station.

The following tribute in verse, which appeared in the Riverside Daily Press, was contributed by Mrs. Retta E. Ewer in honor of the dead pilot:

A vacant space is left in our ranks
Since you took your last flight;
A vacant place that breaks the ranks
Since you took your last flight.

A vacant space, when we assemble review,
Since you took your last flight;
A vacant space when we think of you,
Since you took your last flight.

A vacant chair, when the evening is done,
Since you took your last flight;
A vacant heart and a fatherless son,
Since you took your last flight.

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~~THE AVERAGE FLYING CADET~~
~~THE AVERAGE FLYING CADET~~

Statistics recently compiled by the Medical Division, Office of the Chief of the Air Corps, covering a period of about four or five years, with regard to the physical characteristics of students undergoing flying training, were given careful study with a view to ascertaining the law of averages in this respect. The interesting fact was disclosed that the average cadet graduating from the Advanced Flying School, Kelly Field, Texas, is 24 years of age, 5 ft. 9½ inches tall, weighs 155 pounds, has a pulse of 71, a blood pressure of 116, and a depth perception of 12.

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The Hon. F. Trubee Davison, Assistant Secretary of War for Aeronautics, paid a visit to Selfridge Field, July 26th and 27th. An air review and inspection of ships and personnel on the line was staged on the morning of the 27th, after which the Secretary flew to Oscoda to inspect the gunnery camp.

LIEUT. GORDON BECOMES MEMBER OF CATERPILLAR CLUB

Second Lieut. John C. Gordon, a student officer at Randolph Field, Texas, saved his life June 15th when he bailed out of his burning basic training plane, about one-mile north of Cibolo, Texas, and landed with his parachute, while his ship crashed and burned. Lieut. Gordon was practicing slow rolls when his ship caught fire. He stated that on previous rolls he had noticed gasoline spraying back into his face, and the board of officers investigating the wreck came to the conclusion that the filler-cap had somehow become unfastened. The ship he flew was a PT-12. He stated that he encountered a great deal of difficulty in getting the belt loosened and estimated that he fell at least 1,000 feet before he could actually clear the ship. This ship was equipped with the metal type belt.



Lieut. Gordon was cut and scratched when he landed down thru a bunch of mesquite trees. He was painfully burned on the legs, arms and face. A farmer rushed Lieut. Gordon to the Station Hospital, and the chute was later retrieved from the trees.

"So far as feelings and reactions were concerned," Lieut. Gordon stated in his report, "the most trying moments were while the ship was diving, the flames coming back on me and the belt would not come unhooked. My decision was that the next best thing would be to stay up as long as possible, so I pulled the ship out of the dive. To say the least, it was a marvelous relief when the flames shifted away from me. I then considered trying to land but found the fire still around the gas tank; my face and hands seriously burned. I was anxious to get away from the gas tank which might explode any instant. I had no fear of jumping. After the parachute opened, I was suspended in a position to watch the ship crash and explode. Everything seemed to move terribly slow. That feeling remained until I was in the hospital for an hour or so."

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MACHINE GUN AND BOMBING MATCHES AT LANGLEY FIELD

Langley Field, Va., will be the scene of unusual activity in September, when the Annual Machine Gun and Bombing Matches will be staged. This competition will be participated in by Army Air Corps officers from most of the Pursuit, Bombardment, Attack and Observation squadrons stationed in the United States. The officers selected to participate are those who made the highest expert scores in record firing practice in their respective organizations during the past year. An invitation is to be extended to the Secretary of the Navy to send Navy and Marine Corps pilots to pit their accuracy in machine gun fire and bombing against that of the Army personnel.

Aside from the Army Air Corps organizations stationed at Langley Field which will be represented in the matches, it is expected that teams from other Army Air Corps fields in this country, aggregating some 40 officers and 31 enlisted men, will fly to this field, each team imbued with the determination to "bring home the bacon."

The matches will consist of four events:- one for Pursuit pilots, the second for Attack and Observation pilots, the third for observers and the fourth for Bombers. The winners of these events receive the ratings of Distinguished Aerial Gunner or Aerial Bomber and are ineligible to participate in any of the future annual matches.

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"It was a great trip. We went places, saw a lot of people, and accomplished something for aviation in this part of the world," said Capt. Joseph A. Wilson, commanding the Boston Airport, in describing the recent good will flight of Army Reserve flyers of the New England States. "And we received a great ovation everywhere we went," he added. "The seven planes covered about 700 miles without a mishap, gave a remarkable performance, and were back in their hangars in less than 10 hours. It was a good day's flying and a mission worth while; first, because it gave the pilots experience, and, secondly, because it helped stimulate interest in aviation at the fields we visited." Capt. Wilson explained that while the circuit of the States as the crow flies involves only 480 miles, yet his group did so much extra flying that it brought the total up to 700 miles of actual flying.

ALBROOK FIELD PROGRESSING

 STEADY progress continues at Albrook Field, Canal Zone. Under the influence of the pick and shovel and dump trucks, the grounds around quarters and barracks are fast assuming a finished look. The tons of Bermuda grass seed scattered by Lieut. Meeden on the flying field are still playing the role of "Watched Kettle," and the advocates of paved runways and landing mats are standing ready with the "I told you so."

"The flying field is still our chief concern," says the News Letter Correspondent, "for while it has been proven safe for any size ships in any weather, the mud does fly and certain areas must be avoided. It is hoped that the present rainy season will bring forth a sufficient sod of Bermuda so that ships will not need a bath after every flight. Only three planes are being operated at present, and flying is limited to cooperative missions and necessary practice flights.

The supply and engineering hangars are nearing completion, the exterior and partitions being finished. With the pouring of the floors they will be ready for use. One double hangar on the line is nearly up to the floor pouring stage, and the other two are slightly less advanced.

Definite information on future construction is not available at the present time, but plans for a number of important technical buildings are ready and approved, and funds for their construction are expected shortly."

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WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Fort Crockett, Texas: Major Harry H. Young from Brooks Field.

To Mitchel Field, N.Y.: Captain George W. Polk, Jr., Randolph Field, for duty as Air Corps Representative, Eastern District, Materiel Division.

To Barksdale Field, La.: Major George E. Lovell, Jr., from Maxwell Field.

DETAILED TO THE AIR CORPS: 2nd Lieut. Benjamin J. Webster, Coast Artillery Corps, and to Randolph Field, Texas, not later than Oct. 15, 1932, for flying training.

PROMOTIONS: Rank August 1, 1932 -- To Colonel: Lieut.-Colonel Arthur G. Fisher; to Lieut.-Colonel: Majors Albert L. Sneed and Walter R. Weaver; to Major: Captain William O. Butler; to Captain (rank July 1, 1932): 1st Lieut. Melvin B. Asp; (rank July 23, 1932): 1st Lieut. George C. McDonald; (rank August 1, 1932): 1st Lieuts. Peter E. Skanse, Alfred E. Waller, Harold A. Moore, Malcolm N. Stewart, Odas Moon, Arthur G. Liggett, Westside T. Larson and Newton Longfellow. To 1st Lieutenant (rank July 1, 1932) 2nd Lieuts. Clarence D. Wheeler, Walter S. Lee, Manning E. Tillery; (rank July 24, 1932) 2nd Lieut. Gerald C. Johnston; (rank July 26, 1932) 2nd Lieut. Elmer J. Rogers; (rank August 1, 1932), 2nd Lieuts. John C. Crosthwaite, Clarence S. Irvine, Ralph E. Holmes, Darr H. Alkire.

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From the Boston Airport comes advice to the effect that the Air Reserve officers wound up one of the finest years they have ever had by participating in night flying up to midnight on June 30, 1932. Just at dusk on this same night, a formation of five airplanes, all piloted by war time trained Air Reserve officers, put on a demonstration of formation maneuvering for the benefit of the Crosscup Pishon Post Athletic Carnival that was perfectly timed and accurately flown, and made a very favorable impression with all who witnessed it. To see these old timers landing and taking off in close formation leads one to believe that there is still plenty of kick left in the old grads who have carried the Air Reserve Banner these many years.

War Department orders were issued to the Commanding General, 8th Corps Area, to transfer 17 enlisted men of the Air Corps from Kelly Field, Texas, and 18 men from Randolph Field, Texas, to form the Air Corps Detachment at Barksdale Field, La. The movement to be by air and to be completed prior to August 16, 1932.

The present garrison at Barksdale Field consists of 6 officers and 8 enlisted men. When completed, this field will be the station of the 3rd Attack Wing, consisting of the 3rd Attack Group, now at Fort Crockett, Galveston, Texas, and the 16th Pursuit Group to be made active at Barksdale Field about December 1, 1932.

NOTES FROM AIR CORPS FIELDS

Material on this and subsequent pages are not for publication.

March Field, Riverside, Calif., July 8th.

Anyone who thinks an Army Chaplain has nothing to do should follow the hurried steps of Major Axton for a few days. His character building activities have been varied and numerous. Sunday evening song services at the Post Theatre have been followed by free movies. Many a budding young Caruso has been discovered and developed among the soldiers. In the future it is believed that it will be necessary to hold these informal meetings secretly in order to prevent our local talent from being lured away by stage and screen offers. In addition to his full program of religious services, Major Axton has sponsored numerous special celebrations and gatherings. His latest idea is a series of boys camps at March Field's new camp at Big Bear. His first camp enticed nine prospective and actual Boy Scouts to the site, where more than a week of campcraft, woodcraft, swimming, hiking, fishing, and boating kept the boys busy and happy. A similar camp will be sponsored shortly.

The Big Bear Camp, located in the San Bernardino Mountains, 20 minutes by air from March Field, is rapidly taking form. The plans read almost too good to be true. When completed, the main design will be built in the shape of a square-cornered "U". One wing, 20 feet by 44 feet, will be used as mess and club room for officers and their families. The other main wing, identical with the first, will be used by enlisted men and their families. The connecting portion of the building will contain a kitchen, store rooms, and offices. Between the two wings will be a patio, a fountain and fish pool, a flag pole, winding rock paths, lawn, and flowers. Home-made rustic furniture will be used throughout the camp. Materials for construction will be mainly native lumber and rock found abundantly in the vicinity, and lumber salvaged from torn down buildings at March Field.

An abundant supply of clear, cold spring water will be more than adequate for the use of the camp. A swimming pool is contemplated. A tennis court will be constructed with a curb surrounding it in order that it may be flooded for ice-skating in the winter. A former log slide from the top of a nearby mountain will be transformed into a toboggan slide. Skiing will be a favorite winter sport.

The camp expects to maintain its own string of horses and boats for summer guests. Shower rooms and clothes tubs will be erected in convenient places about the camp. It is contemplated that the temporary tents now serving as shelter will be replaced eventually by cabins. When completed, there will be accommodations at the camp for 200 people at one time.

Swimming and fishing are the favorite sports at present. Bass and lake trout are found abundantly. Lieut. Ralph Snavely (with witnesses present) recently pulled in two fine bass with one cast! Numerous pleasure resorts near the camp furnish a variety of recreational facilities at rates to the Army which are in keeping with the national economy program. Even the golfers have their favorite haunts.

The modern touch to the Garden of Eden was recently added when permission was obtained from a nearby farmer to use a large, level piece of his land as a landing field. Continuous radio communication with March Field now links the obscure mountain resort with the outside world.

The marriage of Miss Margaret Hastings of Riverside to Lieut. Arthur E. Livingston, 95th Pursuit Squadron, is announced.

The 23rd Photo Section, commanded by Lieut. M.W. Kaye, celebrated Organization Day on June 24th by a deep sea fishing trip. A boat was chartered for the day, and the Section and its guests came back sun-burned, wind-blown, wave-washed, and loaded with yellow tail, bass and baracuda.

The 70th Service Squadron held its Organization Day on June 27th. The Squadron, commanded by Captain Gilbert Collar, was two years old on that date.

Second Lieut. George Campbell lost in the semi-finals of the Olympic wrestling tryouts in the 123-pound class to the man who became champion. The fact that Lieut. Campbell was twice national amateur champion is evidence that he is an amateur in classification only. We offer no alibi for the home town boy who went to the big city, for he put up a good battle. We feel that he deserves great credit for his game performance. After months of starving and training, he reduced to his desired weight of 123 pounds from 155 pounds - weakened but hard. He received orders late one evening, took off from March Field at day-break the next morning, reached Grand Rapids the next day and entered the semi-finals the same evening.

Fort Sill, Oklahoma, July 28th.

During the period July 7th to 15th, Captain F.H. Pritchard, with Private Coleman as passenger, completed an extended cross-country flight and visited the following fields and cities; Kansas City, Mo.; Scott Field; Patterson Field; Langley Field; Fort Bragg; Asheville, N.C., and Bolling Field.

It is the opinion of the officers who participated in extended cross-country

flights from this station that at least one such flight per year should be included in the Air Corps Training Directive.

Pilots visiting this station on cross-country flights during July were: Lieut.-Col. Fickel, Major Hale, Captains Berman, Whitehead, Bissell, Cannon, Lts. Myers, Beau, Campbell, Brentnall, Johnston, Randall, Foster, Walner, Percy, Braddick, Moore, Greeson and Sergeant Pride.

Lieut. W. L. Ritchie, with Lieut. J.P. Kirkendall as passenger departed July 26th on an extended cross-country to Chicago and points East, expecting to visit Scott, Wright, Bolling, Mitchel and Langley Fields before returning to this station.

Kelly Field, San Antonio, Texas, July 11th.

Lieut. W.E. Baker, formerly Personnel Adjutant at Kelly Field, is on two months' leave of absence prior to sailing for the Philippines Sept. 20th. Capt. Edgar E. Glenn was assigned as Personnel Adjutant and Captain Earl H. DeFord took over the duties of Secretary and Operations Officer.

Major E.F. Harrison, Medical Corps, left July 4th for six weeks' leave of absence prior to reporting to Bolling Field, D.C., his new station.

Capt. C.E. Hart, Ordnance Dept., reported here for duty June 25th.

Captain Walter R. Peck, flying an O2-H, was a recent visitor here from Maxwell Field, Ala. He returned to his home station in an O-25.

Privates Niemann Sledge and James J. McLaughlin recently returned to the 40th School Squadron from Chanute Field, Ill., the former after completing the Armorers' course, and the latter from duty as instructor in Drafting.

Private Speedy Morgan is enjoying a reenlistment furlough in Alabama.

The 41st School Squadron celebrated its Organization Day at Landa Park, New Braunfels, with a picnic on Saturday, July 9th.

Private Whitting, 40th School Squadron, is enjoying a 30-day furlough in Oklahoma, and Private Brannin is doing likewise in Kansas.

Kelly Field, San Antonio, Texas, July 25th.

Captain Woody and Lieut. W.W. Welsh, of Bowman Field, Ky., the former piloting an O-1B and the latter a BT-2, were visitors here on July 21st.

Lieuts. Charles B. Stone and Wm. C. Farnum arrived at Kelly in a BT-2 plane, July 21st, from Chanute Field, and left for Marfa, Texas, on the following day.

Major Willis Hale and Capt. H.M. Elmendorf stopped here July 23rd and 24th while enroute to Los Angeles, Calif.

Capt. Lewis A. Dayton, Adjutant at Kelly Field, is enjoying a month's leave of absence in Texas and California.

Major William E. Lynd made a cross-country flight in an O-25 from Fort Leavenworth to Kelly Field on July 14th.

Lieuts. J.W. Rowe, H.W. Wells and H.L. Kreider, flying P-12 planes from Langley Field, arrived here July 16th and returned three days later.

Capt. U.G. Jones, Lieuts. J.M. Fitzmaurice and J.A. Samford recently ferried three P-12 planes from San Diego, Calif., to Kelly Field.

First Lieut. F.H. Kuhn, who was on duty in Hawaii, reported here July 12th for temporary duty with the Quartermaster Detachment and was scheduled to leave July 26th for duty in the Quartermaster School at Philadelphia.

Private E.C. Mullins, 39th School Squadron, is on a 90-day reenlistment furlough. Sergeant Mayes and Private R.M. Johnson, of The Headquarters, are enjoying reenlistment furloughs.

Fort Crockett, Texas, July 14th.

Lieut.-Colonel Horace M. Hickam assumed command of the Third Attack Group and the Third Attack Wing on June 29th. Major Davenport Johnson, former Group Commander, left for Washington, D.C., June 16th for duty on the War Department General Staff.

Major-General Benjamin D. Foulis, Chief of the Air Corps, arrived at this station June 24th, from Shreveport, La., for an unofficial visit and inspection of the Third Attack Group. Accompanying General Foulis were Major W.K. Kilner and Captain A.B. McDaniel. These officers were traveling in three O-38 planes. Lunch was served at the Officers' Club at Fort Crockett, and the three visitors from Washington were guests of the Chamber of Commerce at a dinner at the Galvez Hotel on the evening of June 24th.

Capt. C.E. Hart, Ordnance Department, who has been on duty with the Group, left here June 26th for duty at Kelly Field, Texas.

Lieuts. Truman H. Landon, Robert K. Taylor and Talma W. Inlay were relieved from the Group to assume duties as Instructors at Randolph Field, Texas.

The Third Attack Group received four of the new YA-8 Attack planes which will replace the A-3B now in service. Capt. Lotha A. Smith ferried the first YA-8 from the Buffalo, N.Y., factory, arriving here June 21st.

Chamute Field, Rantoul, Ill., August 1st.

The Chamute Field Officers' Club held its semi-annual election of officers on July 13th. Upon the motion of Colonel Mars, the President and members of the Board of Governors were unanimously reelected, as follows: President, Major L.W. Ballantyne, M.C.; Capt. Simon Jacobson, Q.M.C.; Captains Arthur G. Hamilton and William A. Hayward, Air Corps. Upon the submission of resignation as Secretary-Treasurer by Lieut. Herbert W. Anderson, A.C., Lieut. Robert L. Easton, A.C., was appointed to that office.

On Saturday evening, July 9th, approximately 40 officers and ladies of Chamute Field held a Dutch Picnic at Sangamon Grove, 11 miles west of Rantoul, on the Sangamon River. The picnic was enjoyed to such an extent that a series of them is planned for the summer season. On July 11th, the Officers' Club held a swimming party at the post pool. About 50 officers and ladies attended. The pool was decorated with colored lanterns, and light refreshments were served between splashes.

Lieut. Wm. Lanagan, of the Personnel Division, Office of the Chief of the Air Corps, visited here for several days the latter part of July to confer on personnel matters. While at Chamute he was the guest of many officers and ladies who were delighted with the opportunity of seeing "Bill" again.

Recent extended aviation flights by Chamute Field officers included Lieut. James Spry with Major Arthur E. Brown to Washington and return; Lieut. Lawrence H. Douthit with Lieut. Walter T. Meyer to Washington, New York, and return; Lieut. Charles E. Stone with Lieut. W.C. Farnum to San Diego, Los Angeles, San Francisco and return.

Major Milton Q. Beebe, Chaplain Corps, reported for duty, relieving Chaplain F. Herbert Moehlmann, who was transferred to Panama. Chaplain Beebe already demonstrated his air-mindedness by becoming a habitue of the flying line during his spare time, and his opinion of flying is summed up when he speaks of it as "Delicious." Chamute Field has been fortunate in its association with Chaplains Moehlmann and Beebe.

Captain Harold R. Rivers returned from two months' leave of absence spent in touring Europe. We are informed that he toured Switzerland at the expense of the Prince of Monaco, thru courtesies extended to him by the Bank of Monte Carlo, during its regular evening office hours at the Casino. Since Capt. Rivers' return to American soil, Chamute Field subscriptions to Vanity Fair have dropped off, in view of the fact that we have living depiction of the latest continental styles in floppy hats and black walking sticks.

Capt. Earle G. Harper and Mrs. Harper arrived at Chamute Field. The Captain, having taken quarters in the village of Rantoul, is seen daily wending his puzzled way around and thru fields of corn 14 feet high, to and from Chamute Field, with the firm conviction that each Californian ordered to duty here should be issued an Inductor Compass for personal use.

Lieut.-Col. James A. Mars, Commanding Officer, and Mrs. Mars, spent the week end of July 15th in Chicago.

France Field, Panama Canal Zone, June 9th.

The field is plenty proud of its band of 35 musicians and its leader, Bandmaster Kenneth Hebert, Warrant Officer, U.S. Army., for they are more than generous with their concerts. The band also has a considerable popularity off the post and is recognized as about the finest on the Isthmus. The last concert off the post was given in the Cristobal Army & Navy Y.M.C.A. on May 8th, where the band was given a hearty reception by an unusually large audience. The closing number on this program was the "March Parati Defendre," written by Mr. Hebert and dedicated to the men of the Sixth Composite Group - "We are prepared to defend."

Hqs. 36th Division Aviation, Texas Nat'l Guard, Houston, July 30th.

Liaison with the 56th Cavalry Brigade, Texas National Guard, featured the 11th Observation Squadron's July activities. A flight of two planes participated in the Cavalry's annual field maneuvers at Mineral Wells, July 10th to 14th, inclusive. Two O-38's, one equipped for radio and the other for photography, were sent to the Cavalry camp upon request of Brigadier-General Jacob F. Wolters. The flight was under command of Captain Justin F. Aldrich. Lieuts. Chas. H. Jost and James C. Neely accompanied the flight as did Master Sgt. R.P. Godwin. Radio communication was established and maintained with the different units of the Cavalry Brigade during field problems. A considerable number of photographic missions were also carried out.

Another mission of importance was also successfully carried on by the 11th Observation Squadron, the mosaic mapping of the territory around Cuero, Texas, where the 36th Infantry Division will engage in a staff problem during the annual 15-day field training period August 6th to 20th, inclusive.

The entire division aviation will accompany the 36th Infantry Division, Texas National Guard, during field maneuvers at Camp Hulon, Palacios, Texas, during the annual maneuvers on the above dates. Problems in infantry and artillery

liaison will be carried out. Aerial gunnery and bombing will be featured, as will radio communication and photographic work. In preparation for the annual aerial gunnery practice, Major Thos. W. Blackburn, Commanding, has had his pilots rehearsing ground and tow target work - position maneuvering and sighting without actual firing. Some really good target scores are expected when the firing takes place at Camp Hulen.

The squadron pilots and observers have just about completed a mosaic map of the city of Houston, the officers taking turns in shooting the strips. When finished, every officer in the squadron will have done his share in the work.

During July, the enlisted men of the Squadron were instructed in and practiced rolling packs and putting up and striking pup tents. Infantry drill for the squadron was also carried on thoroughly. The Brownings to be used at Camp Hulen for target practice were overhauled and tested on the gunnery planes so there will be no delay upon arrival at Camp Hulen in swinging into the scheduled drill program. All equipment and materiel to be used at Camp Hulen has been checked over and packed ready for shipment on August 6th. An advance detail will proceed to Camp Hulen several days in advance of August 6th to prepare camp for the arrival of the squadron and have a hot meal ready for the arriving officers and enlisted men.

The officers of the squadron enjoyed a boat trip down the Houston Ship Channel and out on Galveston Bay during the month. Their wives accompanied them.

Second Lieut. Jas. C. Neely was appointed Asst. Operations Officer.

Capt. Walter H. Reid, Air Corps, former commander of the Squadron, was a visitor during the month.

Wright Field, Dayton, Ohio, July 11th.

June seemed a month for snappy formations to appear in the blue above Wright Field, and when they dropped down for a landing, pleasantly familiar faces were found peering over the cockpits. Among such arrivals were Capt. M.D. Mann, Chicago, leading three O-38's; Lieut. M.N. Stewart, leading two BT-2's and five O-25's; Lieut. W. Welsh, Louisville, leading two O-1's and one BT-2; Lieut. W.H. Tummer, Randolph Field, leading five O-25's and two PT-2's; and several Selfridge groups.

A day of rifle and pistol practice was held on June 5th in connection with the Reserve Officers' Contact Camp at Wright Field, the gun range being at the service of officers and contestants from 8:30 to 6:00 p.m. A large number enjoyed the meeting.

Capt. V.J. Meloy, Office of the Chief, Militia Bureau, Washington, flew in on June 13th in an O-38 plane from the plant of the Douglas Company, and remained here several days for the testing of this plane.

Weld Arnold and T.S. McCabb, of the Institute of Geographical Exploration, Harvard University, were interested guests at the Division for several days early in July, where they renewed acquaintances with Capt. Dache M. Reeves, A.W. Stevens, Bruce Hill and Lieut. J.F. Phillips, who lectured at Harvard during the scholastic year on different phases of aerial photography.

Lieut. H.W. Anderson, with 22 officers and 2 enlisted men, members of the Officers' class of the Air Corps Technical School at Chanute Field, arrived on June 28th for five days' temporary duty at the Materiel Division. Lectures and classes occupied the mornings, a study of the Division laboratories the afternoons. A majority of the lectures were given by Division personnel on engineering subjects connected with Materiel Division developments.

Major H.A. Straus and Lieut. F.D. Klein flew to Buffalo, the latter ferrying back to Wright Field an O-19C plane from the plant of the Thomas-Morse Company.

Capt. D.B. Howard and Lieut. C.H. Caldwell took off June 23rd for Atlanta, Miami, Fla., and Montgomery, Ala., for conferences concerning Air Corps supplies.

Captain C.S. Axtater and Lieut. R.P. Williams, Lighter-than-Air officers, assigned for heavier-than-air training in the July 1st Class at Randolph Field, left to report to their new station. Best wishes of their Wright Field confreres accompany them for their success as Heavier-than-Air pilots. Their capability in Lighter-than-Air work is beyond question.

Mr. H. Wictum, Air Corps Inspector at the plant of the Douglas Aircraft Co., Santa Monica, Calif., spent several days at Wright Field conferring with officers on inspection problems in connection with Air Corps contracts.

Mr. P.G. Johnson, President of the Boeing Company, and Mr. E.N. Gott, President of the Keystone Aircraft Corp., recently conferred with Wright Field officers.

Lieuts. S.R. Harris, Jr. and W.N. Amis were granted each a month's leave.

Major Robert L. Walsh and Lieut. R.S. Heald flew to Washington on June 21st.

Lieut. E.M. Powers flew to Selfridge Field and Chicago, June 23rd, on business connected with tests of the V-1570 engines.

Mr. R.M. Ferguson of the Armament Branch left June 13th for Hartford, Conn.; Boston, and Miller Field, Staten Island, on business concerning armament installations.

Capt. J.Y. York left June 21st for Erie, Pa. on business concerning procurement planning.

Brooks Field, San Antonio, Texas, July 20th.

Major-General Benjamin D. Foulis, Chief of the Air Corps, conducted a technical inspection of Brooks Field on June 28th, and was accompanied by his aide, Major W.G. Kilner. Following the inspection, luncheon was tendered General Foulis and Major Kilner at the Officers' Club, the Commanding Officer and the Staff of Brooks Field being hosts to the Chief of the Air Corps and his aide, and the Commanding Officers of the Air Corps stations in the vicinity of San Antonio.

Major Henry J.F. Miller, recent graduate of the Command and General Staff School, Ft. Leavenworth, Kansas, reported at Brooks Field and assumed the duties of Executive, relieving Major Harry H. Young, who was transferred to Fort Crockett, Galveston, Texas.

First Lieut. Arthur I. Ennis, graduate of the Air Corps Tactical School, Maxwell Field, Ala., reported for duty as Assistant Operations Officer for the 12th Observation Group and Brooks Field.

Captain Robert Kauch, graduate of the Air Corps Tactical School, reported July 1st and is now commanding the 22nd Observation Squadron, relieving 1st Lt. A.S. Heffley, who was transferred to the 88th Observation Squadron.

Other changes in the personnel of Brooks Field include the addition of 2nd Lieuts. Wm. T. Hefley, formerly of the Corps of Engineers, recent graduate of Kelly Field; Richard I. Dugan, now on leave, graduate of Chamute Field, who will assume the duties of Assistant Personnel Adjutant, relieving 2nd Lieut. J. R. Novake, Air Reserve, whose tour of active duty terminates July 30th; Lorry N. Tindal, graduate of the Technical School, who was assigned to the 12th Observation Squadron, and 2nd Lieuts. Carl R. Storrie, Samuel O. Redetzke, also graduates of the Technical School, who were assigned to the 38th and 22nd Squadrons, respectively. First Lieut. Milton J. Smith, formerly of the Middletown, Pa., Air Depot, is another addition to the official personnel of Brooks Field. He assumed the duties of Station Air Corps Supply Officer.

Second Lieuts. Ormond J. Mosman, David R. Nelson and Paul J. Hanspeter, Air Reserve, recently graduated from the Air Corps Advanced Flying School, will be stationed at Brooks Field for their year of active service.

Mather Field, Sacramento, Calif., July 20th.

77th Pursuit Squadron: The old law of supply and demand is taking its toll. This time it is a scarcity of flying time and pilots that curtails activity. Ten pilots with an individual allotment of ten hours isn't very conducive to Squadron training.

Lieut. "King Bee" Wittkop is now Assistant Executive Officer, and our new Squadron Commander is that old timer, Joseph G. "Big Chief" Hopkins. Lieut. Hopkins seems to assume command of the organization at frequent intervals. Perhaps this time it will be a permanent assignment.

"The 77th Pursuit Squadron Rifle and Pistol Club" was recently organized and is affiliated with the "National Rifle Association of America." All members of the Club are individual members of the Association. The membership is 16 and the scores are 49 and 50.

80th Service Squadron: There were several changes in personnel this past month. Captain H.N. Heisen, who was transferred to Rockwell Field, was replaced by Captain Clark. Lieut. Kingham's active duty expired the first of July. Lieut. Coutlee was transferred to this organization from the 55th Pursuit Squadron and is Squadron Adjutant, Operations Officer and Assistant Engineering Officer. The Squadron also has a new First Sergeant - Golden from the 64th Service Squadron, March Field, Calif., was transferred to us on June 5th.

55th Pursuit Squadron: This Squadron, with 1st Lieut. Clarence E. Crumrine in command, is on detached service at Camp Gerle, El Dorado National Forest, for three weeks. Lieut. Gordon P. Saville, Post Adjutant, mentioned something about good fishing there. However, the men of the Squadron are eating a great deal of ham and eggs.

Langley Field, Va., July 25th.

Mayor Crosby Thompson, founder of Fort Richmond, who died in his home on July 20th, was buried on the 24th with full military honors. While the services were in progress, three planes of the 96th Bombardment Squadron, flew overhead. They continued circling low until the casket was lowered. The Rev. A.P. Gray, West Point minister, conducted the services at the home, and Lieut.-Col. Lloyd, Langley Field Chaplain, the services at the grave. A volley of three guns was fired over the grave and taps was sounded by a Langley Field bugler.

Mr. Thompson, a graduate of Brooks Military Academy, and later Williams College, came to Virginia from Cleveland, Ohio, in 1911. He was an officer in the famous "Black Horse Cavalry escort of Presidents."

Captain Louis R. Knight left Langley Field July 23rd for his new station at the Massachusetts Institute of Technology, where he will assume his new duties as Instructor of the Air Corps unit of the R.O.T.C. at that College at Cambridge.

Mass. Captain Knight is in command of a group of 14 students who have just completed a six weeks' training period at Langley Field, learning the practical work in connection with Aeronautics, having already acquired the theoretical knowledge in their studies at Boston Tech. These fourteen scholars gained the privilege of attending this course as major students in Aeronautical Engineering at school.

Prior to Captain Knight's assignment as instructor of the Air Corps unit of the R.O.T.C. at the M.I.T., he was Director of Ground Instruction and Instructor of Training at the Air Corps Primary Flying School, Brooks Field, Texas, now located at Randolph Field, Texas.

Major Ralph I. Sasse, football mentor at the United States Military Academy, and 1st Lieut. T.A. Sims, Instructor at West Point, landed here in a BT-2 type seaplane on July 20th. After refueling and spending the night as guests of the commissioned personnel of Langley Field, they took off early next morning for West Point. Major Sasse and Lieut. Sims had visited Anacostia previous to their brief stay at Langley Field.

Captain Robert Olds, Operations Officer of the Second Bombardment Group, left on an extended cross-country July 22nd for Kelly Field, Texas. He represented Major Herbert A. Dargue, Group Commander, at the recent christening ceremonies at Macon, Ga. From there he continued on his trip to the Advanced Flying School, Kelly Field. During his absence, 2nd Lieut. Richard S. Freeman will act as Operations Officer of the Group in addition to his duties as Photographic Officer of the Second Photo Section.

Henry J.E. Reid, Chief Engineer of the National Advisory Committee for Aeronautics at Langley Field, Va., was the speaker at the weekly meeting of the Hampton Kiwanis Club on July 14th at the Hampton Roads Golf and Country Club.

Patterson Field, Fairfield, Ohio, July 18th.

The customary party was held at the field on July 4th, the events including: Swimming race for children, picnic supper at the Officers' Club, shooting of parachute bombs and a general fireworks display.

Officers ferrying airplanes to this station for minor repair during the past two weeks were: Lieut. Smith in a BT-2B from Schoen Field, Ind., on July 2nd; Lieut. Welsh in a BT-2 from Bowman Field, July 9th; Capt. Colgan in a BT-2B from Lunken Airport, July 11th; Lieut. Carpenter in an O-38 from Stout Field, July 12, and Lieut. Catron in an O2-H from Sky Harbor, Tenn., July 13th.

The following were cross-country visitors at this station from July 1st to 15th, inclusive: Lieut. Ehyart with Lieut. Haunce; Lieut. Bisson from Langley Field, Va. - Lieut. Shea from Kelly Field, Texas - Lieut. Smith with Lieut. Houle; Lieut. Johnston with Captain Whitehead from Schoen Field, Ind. - Captain Wood; Lieut. Goddard; Lieut. Stone from Chamute Field, Ill. - Lieut. Abbott; Lt. Rogers with Lieut.-Col. Muhlberg from Columbus, Ohio - Capt. Hine from Fort Crockett, Texas - Lieut. Crabb; Lieut. Bolen with 7 passengers from Selfridge Field, Mich. - Lieuts. Hoffman, Hart with Hodgson from Lunken Airport, Ohio - Captain Farthing with 4 passengers from Fort Leavenworth, Kansas - Captain Fritchard from Fort Sill, Okla. - Lieut. Wrisching from Stout Field - Lieut. Newhall from Chicago - Lieut. Welsh from Bowman Field, Ky.

Major A.L. Sneed, Commanding Officer, departed July 14th, ferrying an O-25B to Fort Leavenworth, Kansas, and returning in a BT-2A from Richards Field, Mo.

Officers who ferried planes to this station for major overhaul during the past two weeks were: Captain George and Lieut. Mills each an O-25A; Lieut. Horton an A-3; Lieut. Kase a P-12, July 12th; Lieut. Watson a P-12C; Lieut. Davidson an A-3, July 13th, all from Maxwell Field, Ala.; Lieut. Putt a P-12C from Selfridge Field, July 13th.

Lieut. G.V. McPike ferried a cargo of Air Corps supplies to Selfridge Field on July 7th.

Lieut. Irvine made a cross-country flight to Fort Wayne, Ind., on July 6th, and to Bolling Field, D.C., on July 8th.

Captain Polk and one passenger, and Lieut. Pillet from Randolph Field, Texas, landed here July 3rd, ferrying two Y1P-T11's from Cleveland to Bowman Field, Ky.

Technical Sergeant Cecil B. Guile, 15th Observation Squadron, was transferred to Patterson Field from Scott Field, Ill., June 24th. During the past two weeks he ferried Air Corps supplies to Chamute Field on July 1st and 2nd; to Schoen Field, July 5th, and to Selfridge Field, July 6th.

Randolph Field, Texas, June 26th.

Lieut.-Col. H.M. Hickam was a recent visitor at Randolph Field. In view of the fact that he assumed command of the Third Attack Group, Fort Crockett, it is expected that he will be a frequent visitor here.

On June 15th, Major Percy E. Van Nostrand, Executive Officer of the Air Corps Tactical School, and 1st Lieut. D.D. Watson, visited here for several days with a view to familiarizing themselves with training methods in use at the Air Corps Primary Flying School.

Major Hubert V. Hopkins and Captain Edwards were guests at Randolph Field

from June 16th to 18th, while on an extended cross-country flight from Washington. They expressed themselves as being highly pleased with what they found at Randolph Field.

Lieut. John T. Helms and Flying Cadet Dolf E. Muehleisen departed for Washington, D.C., June 23rd to compete in the Beech Cup Tennis matches. Cadet Muehleisen just recently won the Texas State Singles Championship. In 1930 he played on the team that won the Intercollegiate Doubles. In 1931 he won the singles and doubles in the Beech Cup matches; also in that year he won the singles and he and Lieut. Stanley K. Robinson won the Beach Haven, N.J. championship. They also won the doubles in the West Virginia State Championship. Cadet Muehleisen won the singles in the Inter-Mountain Championship in Salt Lake City, and he and Robinson again won the doubles in the Allahambra Championship. In the Open Texas Competition, Lieut. Helms played as his partner in the doubles, which they lost, but Cadet Muehleisen came through and won the singles easily.

Paired with Robinson, they recently carried off the District of Columbia doubles title.

Hqs. 18th Composite Wing, Fort Shafter, T.H., July 12th.

Colonel John S. Fair, Chief of Staff, Hawaiian Department; Lieut.-Col. Gerald C. Brant, commanding the 18th Composite Wing; Captain Wm. M. Weiner and Lieut. Robert Hutchins, Aides-de-Camp to the Department Commander, recently returned from a 10-day tour of inspection via airplane of all military resources in the territory. Their itinerary took them to the Islands of Maui, Kauai and Hawaii. The inspection included the question of agriculture and area suitable for various crops, the development of live stock industry, etc. The facilities of the several emergency fields visited were also inspected, as well as the topography of the surrounding country.

Preparations for the annual field exercises were started on July 1st. Waimanalo Military Reservation was designated for all bombing and gunnery problems. The 4th and 50th Observation Squadrons will be the first to make their summer camp, and will be followed by the 23rd and 72nd Bombardment Squadrons. Aerial gunnery and bombing, both practice and record, will be carried out while the squadrons are in the field. The object of these summer camps is the development of individuals and squadrons, as units and as a part of the Group and Wing, to insure the proper tactical operation of the Hawaiian air force. Practically all personnel and equipment will be transported to and from the Waimanalo camps by air. The 5th Composite Group will finish their practice and field exercises on August 31st, and will turn the camp areas over to the 18th Pursuit Group, which will also occupy the ground for two months.

The Waimanalo Flying Field was the site of a party for all officers of this command and their families on June 25th. This party took the place of the Wing Organization Day celebration scheduled to take place May 1st, which was postponed because of a heavy training program. The program committee very ably arranged for a baseball game between Wheeler and Luke Fields, a tug-of-war, races and other athletic events, swimming and dancing. The celebration having been held on a military reservation, the program committee took necessary precautions that all details were covered and issued a Field Order to emphasize the importance of this gathering.

The 23rd Bombardment Squadron, commanded by Capt. Raphael Baez, Jr., successfully completed the rebuilding of its squadron area destroyed on June 15th, 1931. All the work was done entirely by the enlisted personnel of this squadron. Since last June the men have been carpenters, plumbers, electricians, painters and gardeners, and now they are ready to rest upon their creditable accomplishments. From the ashes of the old buildings a complete unit has risen. There is a large and airy mess hall, a well equipped kitchen, 14 sets of quarters housing eight men each, a commodious recreation room, a supply room and a well planned orderly room and headquarters unit. Individual quarters for the noncommissioned officers and a non-com club room will be added later, and when the flowers and lawns respond to constant care and liquid sunshine, this squadron will have the most modern and beautiful area on Luke Field.

During the months of May and June, a total of seven Inter-Island flights were made, utilizing two Douglas Amphibians, the Sikorsky Amphibian and a number of Bombing planes. These flights were made to accomplish various missions, such as the inspection of new barracks buildings, as well as landing fields and servicing equipment, transporting supplies and personnel.

5th Composite Group, Luke Field: During May, a varied training program was completed, including aerial photography, inter-plane radio communication, day and night reconnaissance, combat maneuvers, aerial gunnery on ground and on tow targets. The Group also participated in numerous Wing maneuvers, consisting of rendezvous, quick landing and taking off as a Wing unit. Cooperative missions were performed, consisting of artillery adjustment for the 11th Field Artillery; day and night tracking missions for the 64th Coast Artillery (AA), and experimental flights for the purpose of target location at long range for the Coast Artillery. With the close of the fiscal year, it is interesting to note that the Group not only almost completed the required yearly training program, but has already flown approximately 636 hours in cooperation with other branches of the service. The work with the Infantry, Field Artillery and Navy was very successful and valuable.

During May, three Wing exercises were flown by the Squadrons, the problem being chiefly one of communications and rendezvous. Two-way radio communication was used throughout the exercises, the Wing Commander, Lieut.-Col. Gerald C. Brant, controlling the Wing from the air. The 5th Composite Group was led throughout the exercises by Captain Raphael Baez, Jr., commanding the 23rd Bombardment Squadron.

Members of the Group receiving athletic awards from Gen. B.H. Wells, Department Commander, were: Lieut. Wm. M. Pryce, Jr., Sgt. Francis Vickery, Pvts. B.W. Finklestein and George Baddour, basketball medals. Track medals were awarded to Pvts. Louis A. March, Howard R. Williams, G.R. Baddour and Harry R. Beemer. Pvt. Richard Miller was awarded a silver boxing glove for being runner-up in the recent Army-Navy fights at Schofield Barracks, defeating the Navy light-heavyweight in the Division. Master Sergeant Fitch, excelling as usual, walked away from the field in the cracker eating contest on Group Anniversary Day and was awarded, for his prowess, the remainder of the box of crackers and a ticket to the Luke Field post cinema. Capt. Baez, commanding the 23rd Bomb. Sqdn., put up an excellent fight in the Squadron Commanders' race, but was beaten in the home stretch. It was later discovered that all the other Squadron Commanders had been secretly training for months prior to the race, which was supposedly a strictly impromptu affair. There oughta be a law, etc.

Major Maxwell Kirby and Lieut. Rowland Kieburtz departed aboard the USAT GRANT, June 17th. Major Dixon will arrive in September to take command of the 5th Composite Group, Luke Field. Lieut. Kieburtz will be stationed at Fort Sill, Okla. Captain James F. Powell assumed command of the Group.

Lieut. Edgar Cheatele departed on the USAT ST. MIHIEL May 3rd. After ten days' temporary duty at Mitchel Field, N.Y., in order to complete his flying and training records for the second half of the fiscal year, he was scheduled to go on three months' leave with permission to visit foreign countries.

During the current Fiscal Year the Group, in flying over 625 hours for the Coast Artillery, accomplished what is believed a record for cooperative work with other service branches. The required yearly training program is completed, excepting photography, which is due to shortage of photographic material here.

Wing Exercises were continued the past month, the problem being one of coordination of Attack, Bombardment, Observation and Pursuit in various offenses and defensive problems. On May 27th, Bombardment, Attack and Observation combined in an offensive against Pursuit and Observation acting in defense of ground installations at Wheeler Field. This mission was considered a "draw" by Col. Brant. On June 10th, however, combined forces of Luke Field, consisting of the 23rd and 72nd Bomb. Squadrons, the 4th and 50th Obs. Sqdns. (the 4th acting as Attack), launched a similar attack on the same objective and, taking advantage of local showers and broken clouds, took the defending forces completely by surprise (assumed) without any considerable losses (assumed). This was even admitted by the Pursuiters. The 5th Composite Group was led by Captain Raphael Baez, Jr.

The last match of the Post Tennis Tournament was played off, with the 23rd Bombardment winning and the 65th Service Sqdn. being a close second. The 23rd won 11 points out of a possible 16, and the 65th won 10 out of a possible 16.

4th Observation Squadron: During the month, normal flight training schedule of typical Observation and Reconnaissance missions were carried out, also artillery adjustment missions for the 13th Field and 15th Coast Artillery.

Approximately 150 enlisted men and their families were present when the Squadron celebrated a belated Organization Day with a "Luau" at the famous Kailua Beach on June 23rd. A number of officers and their ladies were also present. Baseball games, swimming and horseshoe pitching were the features of the day. A most appetizing barbecue lunch and dinner were served. Everyone had an enjoyable time.

Upon the departure of the Post Commander, Major Kirby, four members of this squadron received letters of commendation, viz: Master Sgt. A.E. Miller, N.C.O. in charge of the Post Schools; Staff Sgt. J.F. Miller, Chief Steward of the Post Exchange; Sgt. A. Assner, N.C.O. in charge of landing field at Fort Allen, Kauai; and PFC T.D. Sadler, the most valuable all-around athlete on the post.

The Squadron was exceedingly sorry to learn of the transfer of 1st Lieut. Otto P. Weyland, pioneer of Observation Aviation, to the 72nd Bomb. Sqdn. We sincerely regret seeing him leave us and we all wish him the best of success and luck in the future. At the same time we are saying goodbye to Lieut. Weyland, we are welcoming 1st Lieut. David M. Ramsay, who comes to us from the 72nd.

65th Service Squadron: Our one and only airplane, the C-6A Sikorsky amphibian, was loaned to Wheeler Field for completion of searchlight and tracking missions and experimental flights for target location for the 64th Coast Art. (AA). In its place, one of the new Douglas Dolphin amphibians, graciously loaned us by the 4th Obs. Sqdn., will be used as the alert and safety airplane for inter-island flights.

On May 18th, at the annual Group Organization Day festivities of Luke Field, four squadron members were presented awards by General Wells, Department Commander, for outstanding athletic achievements in track and field during the past season. Capt. James F. Powell, Squadron Commander, was presented with the Major Sheldon H. Wheeler Trophy and the Luke Field Athletic Trophy, won by the Squadron for scoring the highest number of points in the Annual Track and Field Meet.

This Squadron held its Annual Organization Day Outing and Celebration at Nanakuli Beach, June 7th. The Squadron went by boat from Luke Field to Pearl

City, then by truck and private cars to the beach. Swimming and battling with the incoming surf and sun-bathing seemed to be the most popular diversion of the day. Many of the new members of the outfit learned for the first time the real meaning of "Sunburn" and its after effects.

First Lieut. Fred C. Fishback was placed in command, relieving Capt. James F. Powell. Lieut. Otto P. Weyland, recently assigned, will serve as Squadron Communications, Engineering and Operations Officer, in addition to his duties as Station Engineering Officer and Station Inspector.

72nd Bombardment Squadron: Spike, the 72nd's mascot, is claiming the record for time in the air for the length of time he has been flying. Since the 1st of October he has put 140 hours in the air. This time includes bombing missions, aerial gunnery, camera obscura, radio communications and inter-island flights. During the maneuvers in February, he took part in all flights against the "Enemy" including the raids on the "Saratoga" and "Lexington," 65 miles at sea. At this time, Spike is suffering from exceeding his allotment of flying hours; therefore, he gets in only a small amount of time each month. However, during the past month he was able to get a flight to Upolu Point, Island of Hawaii, when the Squadron sent a flight of three B-5A's there to transport furniture for use of radio personnel on duty there. He is also able to get in some time each week, when the Squadron takes part in the Wing Exercises. Steps are being taken to secure a kapok coat and parachute for Spike.

23rd Bombardment Squadron: The versatility of Bombardment material and personnel was demonstrated recently by the 23rd, when a series of five missions were run between June 1st and 8th to determine the service ceiling, speed, endurance and cunning of the mosquito whose common habitat is in the marsh land of Kailua and Waimanalo. -- April 30th was Graduation Day for certain members of this organization, when Certificates of Graduation from the Luke Field Radio School were handed (after appropriate Commencement Day Exercises, of course) to Sergeant James F. Vickery, Pvts. David A. Richmire, Aubrey M. Lowe and Lloyd Clayton.

Recent changes in Squadron personnel were: 2nd Lt. Lawrence T. Pugh relieved 2nd Lt. Floyd E. Nelson as Engineering and Transportation Officer -- 2nd Lt. Wm. M. Pryce, Jr., relieved Lt. Pugh as Communications Officer -- 1st Lt. Joseph W. Benson relieved Lt. Nelson as Armament Officer -- Staff Sgt. J.H. Peters left for Fort Crockett, Texas. -- Staff Sgt. Cruz Cardenas, discharged by purchase, is on his way to accept a position with his brother in South America -- 2nd Lt. F.E. Nelson returned July 23rd on the USAT REPUBLIC after a short stay in the Philippines -- the USAT GRANT arrived June 13th, bringing Staff Sgts. Albert B. Kerns, Edward A. Peters and Joseph C. Laza, from Langley and March Fields and Fort Crockett, respectively -- 2nd Lt. Charles G. Williamson returned after a speedy recovery from an operation at the Tripler General Hospital.

Pvts. K.C. Fairchild and M.J. Griggs, 23rd Bomb. Sqdn., were placed on the eligible list for the October class at Randolph Field. It is fast becoming a tradition for the 23rd to have a man in each class at Randolph. Cadet Wilcox Wild, son of Major Herbert J. Wild, 3rd Engineers, Schofield, was the last man to be sent to the Primary Flying School from the 23rd. He is progressing well.

50th Observation Squadron: Games and a picnic lunch were the diversions at the first Organization Day picnic at Kailua Beach, May 4th, and both were thoroughly enjoyed. Major Kirby, Lieuts. Warren and Brown were our guests. The Noncommissioned Officers enjoyed an outing on Saturday, May 7th.

In the transfer of Staff Sgt. S.V. Anthon and Sgt. Fred'k Leonard to Randolph Field, the Squadron suffered its first loss of enlisted personnel since its reorganization. Corporals Suprenant and Reed are returning to the mainland for discharge from the service, as well as 7 privates. Pvt. Bynoski returned to the mainland to enter West Point, having attained an appointment thereto.

Lieut. E.N. Coates returned July 23rd after several weeks' stay in the Philippines. Staff Sgt. S.D. Mullinix, Sgts. F.R. Alford and O.T. Martin were new arrivals on the USAT GRANT, June 13th.

On July 2nd, the Squadron moved to the Military Reservation at Waimanalo for two weeks' field duty, and while there finished the Pilots' and Observers' courses in aerial gunnery for the coming fiscal year.

The Squadron Tennis Team, composed of Lieut. Lathrop, coach; Pvts. Duncan, McNeven and Kerr, finished third in the Inter-Squadron Tennis Tournament, gaining 10 points on the Atterbury-Mills Trophy.

Training for June was greatly curtailed due to the small amount of time left on the 184-hour allotment, laid down in the Directive for Air Corps Training. The Squadron, however, participated in aerial gunnery and bombing, aerial photography and night flying. There was one cooperative mission with the 13th Field Artillery (simulated artillery adjustment).

18th Pursuit Group, Schofield Barracks, T.H.: The high point of the month professionally was an inter-island flight to Hilo, Hawaii, to inspect landing and supply facilities enroute. The entire Group participated and landings were made on the Islands of Molokai, Maui, Lanai and Hawaii. Refueling took place at Upolu Point Field, Hawaii, and at Hilo. One day was spent at Hilo, most of the officers making the trip to Kilauea volcano. Officers were quartered at the Hilo Hotel and enlisted men at the Pacific Hotel. The return trip was made with a Group rendezvous at Koko Head, Oahu. All ships landed shortly after noon. The entire trip was successful from all standpoints.

Officers of this field with their families were present in full force at the Wing Picnic at Waimanalo, June 25th. This was a splendid opportunity for the Air Corps officers of the Department to get together for a good time.

During the brief stay of the USAT REPUBLIC here, enroute to the Philippines, Lieuts. Iscar Beal and Ford L. Fair with their wives were guests at Wheeler Field, visiting many of their old friends.

The Air Corps is ably represented in Schofield Polo Circles by Lieuts. Bob Oliver and Nick Craw, playing with 13th Field Artillery Freebooters. Lieut. and Mrs. Craw also featured in the Division Horse Show at Schofield Bks., June 10th and 11th. Lieut. Craw placed in several classes, and Mrs. Craw's excellent performances were rewarded by the principal trophy of the event, that given usually by the U.S. Remount Association for the best horse and rider of the Show.

6th Pursuit Squadron: Gunnery is starting early this year in preparation for a high increase in scores at Waimanalo in September. The Squadron is working daily on bombing, tow targets and ground targets, and in a week or so we expect to have our schedule worked out, our range details functioning and some good scores coming in. Much credit is due Lt. Frank J. Havelick for the time and labor spent in getting the new range, south of Wheeler Field, in shape. There was no range near Wheeler Field heretofore for ground targets, and firing on targets was done at Waimanalo. This new range will give us a chance to brush up on our gunnery and, at the same time, save a lot of preliminary work when we go to summer camp.

The Squadron carried on cooperative training with the Attack and Bombardment Squadrons the past month. A great deal was done towards ironing out some difficulties encountered in mass attacks on these types of planes.

Lieuts. Sterling and armagost returned to the Squadron after a month's diverting duty at the School for Bakers and Cooks. The same day, two ornate picture frames were ordered for the proper preservation of the hard earned sheepskins.

19th Pursuit Squadron: Lieut. Wm. R. Morgan and family are recent arrivals, having come from Selfridge via Chanute. They are now at home on Wahiawa Heights, awaiting available quarters on the post.

Mrs. John M. Holmes presented her husband with a son and heir recently. So gratified was "Softy" at the successful outcome that he not only handed out the customary cigars, but presented Mrs. Holmes with a brand new Hupmobile coupe. Lt. Holmes and family are daily to be seen tearing about the Island with their new possessions.

The Squadron regrets the loss of Capt. Auby C. Strickland, our former commander, and Lieut. Henry W. Dorr. The former was ordered to Kelly Field and the latter to Langley Field. -- Several tow target missions for the 64th Coast Artillery (AA) were flown and, from the training point of view of the 64th Coast Artillery, all missions were successful. -- Lt. Don Sheets, usually so modest and retiring, decided to get himself some favorable publicity recently, and hit upon a timeworthy, if slightly overworked, method. Coming in for a night landing with the Sikorsky, he decided that his chances of rolling too far would be lessened if he made no use of wheels. Accordingly, he slid to a rapid stop with very minor injuries to his ship. Don claims he was unaware of the occurrence until he tried to turn and taxi to the line. -- Lieut. Kershaw is spending several weeks' leave on the Island.

26th Attack Squadron: Flying training for the 26th for May included defensive operations against Pursuit, continuing the cooperative work begun last month, and radio telephone communication work. Practice firing was begun both on ground and tow targets, together with practice runs on the bombing range at Haleiwa. For the most part, the radio telephone work was confined to the lead ship in formation flying, but due to frequent changes of leaders, practically every pilot had a chance actually to carry out a mission, following the radioed instructions of the Group Commander. -- We are glad to welcome Lieuts. Napier and Miller, transferred to this Squadron from Luke Field. -- The close of the year finds most members of the Squadron with their allotment of 200 flying hours practically used, so they must perforce remain on the ground the latter part of June. In addition to the much anticipated trip to Hilo, flying operations for the past month included Aerial Gunnery on ground and tow targets, simulated bombing on the range at Haleiwa, and a number of aerial navigation and rendezvous problems. -- When the REPUBLIC arrived June 1st, it carried four passengers for whom the Squadron had a special welcome and Aloha - Lieut. George McCoy, Jr., returning from leave in the States and accompanied by his bride, and Lieut. and Mrs. Casper P. West. Lieut. West was transferred here from Chanute Field, Ill.

75th Service Squadron: The Squadron received, assembled and put into operation two caterpillar, ten horsepower tractors, one equipped with hoist and one without. The Engineering Department is expecting great results from these little fellows. -- The gold craze literally descended overnight upon the 75th, resulting in a new nine-hole adolescent golf course adjoining the east side of the Squadron area. This new venture into the realm of sport and recreation has proven the most popular of all games with the personnel of this Squadron. -- Lieut. Tourtellot, Squadron Commander, returned from a short leave, getting in a lot of golf and fishing. Lieut. Eareckson was temporarily in command during his absence. -- Lieut. Bassett departed for the mainland on a month's leave recently. He will return to this station, having requested an extension of one year on his tour of foreign service. -- Applicants for transfer to the Air Corps are now being given "trade tests," under the direction of Lieut. Eareckson.

Rambling Digressions of an Observer from Kansas City, Mo.

Whoee! its hot...lots of chatter...Army Appropriation Bill...How about the Reserves?...What! no flying time yet?...Where is that fan?...Wonder if I could wangle a trip to Leavenworth...due for a 64...better wait until tomorrow...feel better after some sleep...What's this Air Corps News Letter...See if my name is in it...not a publicity hound...of course not...just curious...Boston...or thereabouts...a comment on our last article...more power to the boys from that Corps Area...glad to see the old Esprit de Corps crop out...can't be serious though...New England flattened out is about the size of a dollar or a dollar and a quarter...In the west we have wide open spaces...What's that going on up on the bulletin board? Hope its good news...seems to be some excitement...let's get an eyefull...Volunteers for the trip to the Speed Boat Races at Warsaw, Mo....Do I want to go or do I want to go?...Hey! Cap, put me on that list...Hear that new lake is great stuff...Big new dam at Bagnell...across the Osage...Right down in the heart of the Ozarks...1750 miles of shore line...big lake for we all in the west...plenty of good fishing...bass...perch...croppie...jack salmon...summer resort country...stamping around of the Big and Little Osage Indians...caused settlers plenty of trouble around 1804-5...now oil millionaires...great stuff...oil...makes folks rich...wish I was rich...Gosh! its hot...lots of hillbillys down in that country...razorback hogs...corn...squirrels...no thought of depression...they have always had it...poor in purse and rich in leisure...say! let's get going...What's this...another invitation...Lieut. Clare Bunch...yes sir! down in the same neck of the woods...Camdentown, Mo....for a week end...only 40 miles from Warsaw...put me down for that too...better break out the bathing suit and fishing tackle...just a few things...don't anticipate women...female trouble on a trip...bad medicine...Say! who is on that list anyway...Come on Cappy, break down and issue orders...Well, well! will wonders never cease...At last...2nd Lts. "Tony" Hunter and "Spike" Poquette...just a couple of Cappy's Precious Pets...all 2nd Looeys are Precious Pets...well someday they will be promoted and become Rollicking Roues...now for the Broken Down Roues...this trip must be successful...sure enough there they are...Captain W. Shakespeare Green, 1st Lieut. "Woff" Lewis...who's the leader...why none other than that indomitable character 1st Lieut. Graham M. St. John accompanied by Pvt. Bullard...looks like this trip is going to be promising...this bunch goes to Warsaw and Camdenton on Saturday morning...the rest follow Sunday morning for Warsaw...everyone returns Sunday before sundown...Saturday morning...shoving off early...two PT3's...one BT2B...get these in any kind of a field...claim they have good landing fields...Maybe yes...maybe no...maybe! I don't know...still hotter than the hinges of hades...getting altitude...cooling off...couple of line squalls...some dust clouds...rain clouds...getting so the heat is bearable...Gosh! these PT's are slow...wish we had all service type equipment...some day I'll speak to the manager of this man's army...At last, the airport at Warsaw...plainly visible from the air...1500 foot runways...sod taken off...Say! look at that sock on top of the silo whirl around...wind from all directions...right on the edge of that storm...Poquette with Bullard as passenger going in first...look at that PT bump...For God's sake...look below...a bounce...a flip...upside down...wasn't there an order out against crackups...someone is due to catch it...first crack up since the Lord knows when...I wonder if anyone is hurt...sure is a case for old Doc Fairfield Air Depot...complete washout...better hurry and get down...may need some help...Nope there they are crawling out from under...Wonder what the alibi is going to be...better be good...but not good enough in any case...there goes the other ship in its okeh...well we're in safe...now to pour it on the unfortunate...what a silly grin...my...my...Poquette's trip ended for the present...better remind him of the fact that he is eligible for the "DISORDER OF THE FLYING MOO MOO"...a plaque which hangs in the headquarters of the Association...adorned with a silver winged cow and a silver dumbbell engraved with the names of Air Reserves...Awarded now and then to those daring Birdmen of the Air Corps Reserve whose intelligence, quick wit and prompt action so closely resemble that brave intrepid animal THE COW...My Hero...Here comes some of the Warsaw home town boys...I declare if they aren't greeters from the Chamber of Commerce...lunch...sure...had it on the mind all the time...Fried chicken with all of the trimmings...I like Warsaw better...back to the field...better send a wire that the O-1's can get in okeh...on our way again...headed for Camdenton...Sorry Poquette and Bullard can't continue the trip...Quite a bit cooler now...beautiful lake winding and curving through the hills...country spread out beneath us in scenes in which cliffs and high table lands...bottoms and barrens...naked hills and heavy forests...rocks and streams...all follow each other in rapid succession and wonderful variety...peaceful...harmonious...picturesque...sublime...what's that...a fire...sure enough...must be some campers...No sir! a moonshiner's still...sure far enough away from everything...no habitation...imagine my embarrassment...no place to land...what's this?...a beautiful castle...set up high on the peak of a mountain...Oh yes! Ha Ha Tonka...name like a joke...Looks just like a feudal castle on the Rhine...Bet old Blue Beard would like to have that for his castle and his women...just the place if you had lots of the old nasty lucre...good idea though...just a dreamer...finally and at last...Camdenton...not a very big town...County seat...airport just a block from the Court House...Sure...Why not? Bunch's father...presiding judge of the County Court...got a hangar on the Airport...population out en masse...first time two airplanes have landed on the airport at the same time...curious natives...how much mileage do you get out of them there tires?...Ho hum...Bunch greets us with open arms...motor over the gravel roads...motor boating...swimming...dinner...everything swalegant...change clothes...go fishing...it's morning anyway...sleep on

the fishing trip..no fish..who cares..needs must we start early for Warsaw to meet the rest of the squadron..chiggers and mosquitoes..only bites..ten thirty AM and off for Warsaw..eleven o'clock..Sunday morn..land at Warsaw..Here comes the four O-1's..Captain William B. Wright leading..how those boys do strut their stuff..back and forth..Vee formation..inverted Vees..stacks..in line..echelon..etc..how those boys put those ships in there and hold them..plaudits from the crowd..everyone assembled to see the speed boat races..diverting attention..landing..of course no more accidents..those boys are really good..let's see who they are..Captain William B. Wright, leader..2nd Lieuts. Jimmy Going, Chuck Dailey, R.A. Morehouse, E.A. Jaquish, E.P. Curry and H.F. Cook..lunch again at the hotel..motor boat to watch the races..speed..speed and then more speed..pumpkin seeds powered with Evinrudes and Johnson Sea Horses..Plenty of RPM's 6000 or 7000..anyway sound like it..one does a Poquette and flips over in the water..too dangerous..let's start for home..great time..dandy people..need some sleep..bound for Richards Field at last..What no flying time..well then..Where and When is the next cross-country?..Say I wonder if I could wangle a hop to Leavenworth?..Due for a 64.

---oOo---

Nichols Field, Rizal, P.I., July 6th.

We have been participating in radio controlled problems which have been fairly successful. These new tactics offer great promise and are being well advanced under Major Brooks' supervision. We are using camera guns in these problems and the result of the last effort resulted in one hit for the Pursuit at 135 yards and forty-four hits at 300 yards for us.

Three ships of this unit made a trip around the Southern Islands from the 9th to 13th. The first night was spent in Iloilo; the second in Zamboanga; the third in Jolo, and return to Zamboanga; the fourth day, Zamboanga to Keithly to Del Monte; the fifth day, Del Monte to Tacloban to Nichols. During the visit to Jolo, the officers visited the Sultan of Sulu at his summer palace. Most of the establishment is a wreck, having been knocked over by the typhoon in April; but the Sultan was getting his place back in shape slowly. Many valuable trophies were brought back to serve as mementoes of the trip. The personnel of the flight were Major Brooks, Captains Black and Ferson, Lieuts. Greer, Engler, Colman and nine enlisted men. Several valuable pictures were secured by Lts. Colman and Engler of the Sultan, who does not ordinarily pose for photographers, and of the palace guard. These guards were small fellows, but with their Remington carbines and barongs they look big enough.

Captain John G. Whitesides and 2nd Lt. Richard D. Reeve arrived on the USAT REPUBLIC on June 17th.

First Lieut. James S. Stowell, who has been acting C.O. of the 66th Service Squadron during the temporary absence of Capt. V.L. Burge, is scheduled to return to the United States, via Suez Canal, on or about July 3rd.

Selfridge Field, Mich., August 2nd.

On July 19th, a golf team of eight officers from Wright Field, captained by Lieut.-Col. A.W. Robins, was defeated by a Selfridge Field team, captained by Major George H. Brett, in a decisive manner. The Wright Field group, however, are bent on revenge in the near future, when a return match will be played at Dayton.

Lieut.-Col. Jacob E. Fickel, Office of the Chief of the Air Corps, visited this field on July 25th on business relating to buildings and grounds.

Hawaiian Air Depot, Luke Field, T.H.

During the period April 25th to June 20th, inclusive, the Depot completed major overhauls on 4 P-12B, 1 LB-6 and 5 P-12C airplanes. Repairs were completed on 4 O-19B, 1 C-6A, 2 Y1C-21 and 3 O-19C airplanes. This completed the tail wheel installation on the O-19B's. Various jobs, such as installing range finding equipment in Y1C-21 #32-282, for use in cooperation with the Coast Artillery, and inspecting and replacing parts in the R-975E engines in our three Douglas airplanes were accomplished at the same time.

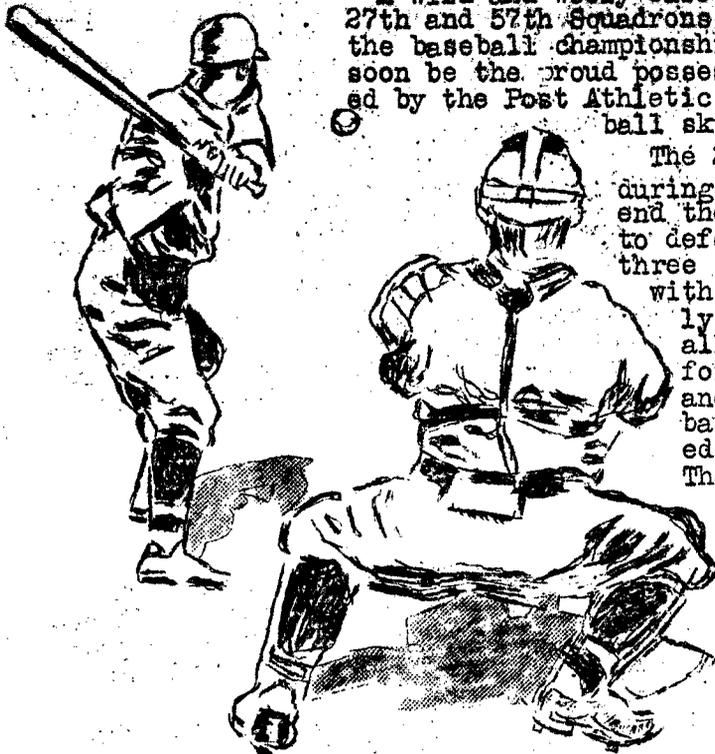
The Engine Repair Section overhauled 6 SR-1340-D, 6 R-1750-B, and one each V-1150-C, SR-1340E and R-1340C engines. In addition, six R-975E engines were repaired. One R-1340-D engine was surveyed during the month.

The advent of so many airplanes constructed of metal has begun to be felt in the sheet metal shop. There is no doubt that the repair of metal aircraft assemblies is much more costly at the present stage of metal development than the repair of fabric covered or welded tubing assemblies.

During the period April 25th to May 20th, the Machine Shop and sub-departments completed 41 jobs on work orders and 407 jobs on construction slips.

On May 14th, the Depot was inspected by Lieut.-Col. Gerald C. Brant, Air Officer, Hawaiian Department, accompanied by Captain Byron T. Burt, Wing Opera-

Continued on page 328



A wild and woolly baseball game on July 12th between the 27th and 57th Squadrons, Selfridge Field, Mich., decided the baseball championship of that field. The 27th will soon be the proud possessor of a silver cup to be presented by the Post Athletic Officer in reward for their baseball skill.

The 27th had the lead in the League during most of the series, but at the end the 57th played really good baseball to defeat the 27th, 17th and 94th in three successive games to tie the 27th with a .666 percentage. Unfortunately for the cause of good baseball, all squadrons had to go to Chicago for two weeks before the play-off, and during those two weeks all the baseball players got greasy fingered, near sighted, and rusty jointed. The final score of the play-off championship game, 16-9, shows what a basketball game that baseball game was. However, all agreed that the best team won, and that is the important thing.

After losing two games to Kelly Field, Randolph Field and Fort McIntosh, the Fort Crockett baseball team took two games from the Brooks Field nine at Fort Crockett on July 9th and 10th. To date the Crockett nine has played 13 games, winning 7 and losing 6. Hughes and Pulliam are taking the mound honors, while Lieut. Randolph L. Wood is playing a great game at third base and hitting for extra bases. Lieut. Earle T. MacArthur, with Lieut. Wood as his assistant, is managing the post team since the transfer of Lieut. Truman H. Landon. Lieut. Nathan F. Twining relieved Lieut. Landon as Post Athletic Officer.

In a ten-inning thriller, the Fortress Monroe Artillerymen captured a 6 to 5 verdict over the Langley Field Airmen to net the championship playoff of the Southern District honors of the Third Corps Area "even stephen," each team having registered two victories. It was a nip-and-tuck pitcher's battle, with one team forging ahead in one inning only to see the other club taking the lead away the following stanza.

Langley Field seemed to have things all their own way, capturing two straight games with the Redlegs of Monroe, but in the third contest the Artillerymen wheeled out their big guns, fired a 16-hit salvo which they translated into eleven counters to score their first victory. Langley scored 7 runs in this contest.

Langley captured the first contest 6 to 1, with "Ace" Thomas, fork-armed slab artist of the Airmen, enjoying a banner day on the hill. Spectacular play afield by Jeanette and Sodastrom of Langley was the outstanding feature of this contest. The second contest was a tight one, Langley nowing out the Fort Monroe boys by the score of 2 to 1. Both Hoens of the Aviators and Ingle of the Artillerymen pitched creditably, but the former put the game on ice for his side by rapping out a circuit drive after two men had been retired in the 7th.

Fort Monroe gained the edge in this 7-game series by capturing the fifth contest, but "Red" Tyrell's home run in the seventh inning of the sixth game proved to be the deciding factor in Langley's 7 to 6 victory.

Although outhit 9 to 4, the Birdmen were not to be denied and captured the seventh and deciding game in the playoff for baseball honors of the Southern District, Third Corps Area, scoring two runs against one by Fortress Monroe.

In the opening game of the Third Corps Area baseball finals, Langley Field slaughtered the Fort Hoyle Field Artillerymen under a 15 to 2 count. Thomas, slab artist of the Flyers, allowed his opponents but five scattered hits.

By virtue of their 4 to 1 victory over the Engineers from Fort Humphreys, Va., on July 23rd, Langley Field advanced nearer their goal for baseball honors of the Third Corps Area. Hoens pitched a great game, allowing five scattered hits and striking out seven. His hitting was also timely, as was that of Hamm, Langley's guardian of the initial sack.

The Luke Field baseball team, after a good start in the first round of the Sector-Navy League, let down in the beginning of the second round and lost two games, one to the Marines and one to the Harbor Defenses of Honolulu. These two teams, being tied for last place, feel proud of their victory over a team now tied for second place.

The Wheeler Field baseball coach had the following to say as this issue went to press: "As an indication of the closeness of the 'Red Dirt' League (Schofield Barracks, T.H.) this season, figures show that there are two teams

ted for many positions, with the leaders only one game ahead of the pack. The Wheeler Field Fliers are tied for second place, with a crack at the leaders scheduled for next week's game. The boys have built a reputation for being one of the best batting teams of the league. Cheeseman is capable of supplying good enough pitching to win most of the games in these parts, and O'Neil is batting 1000 percent as a pinch hitter. Base running is one of our outstanding weapons, with McMichael leading in stolen bases. To date, 15 games have been played - 11 won and 4 lost."

Hawaiian Air Depot (Continued from page 32a)

tions Officer. The Colonel expressed satisfaction with the functioning and appearance of the Depot.

Chief Clerk David L. McClelland and Mrs. McClelland, of the Supply Section, Hawaiian Air Depot, sailed for the mainland on the ST. MIHIEL, May 3rd. Mr. McClelland has been Chief Clerk in the Supply Section for a period of four years, and credit is due him for establishment of an efficient supply system. The personnel of the Hawaiian Air Depot regret losing the McClellands, and extend their best wishes for Mr. McClelland's continued success in his new assignment at the Materiel Division. Other Depot employes who are on leave are Mr. P.H. Holohan, who with Mrs. Holohan is enroute to Ireland; Mr. Max Zinsman, who is also enroute to Europe, his destination being Germany; Mr. and Mrs. W.W. Harris and Mr. Richard Bishop are visiting relatives on the East Coast; and Mr. and Mrs. Harry F. Williams and Mr. and Mrs. Richard T. Harrison, and their families are spending their vacation in Texas.

On July 1st, a picnic was given by the Hawaiian Air Depot Welfare Association at Waimanalo, which was the first anniversary of the organization of the Hawaiian Air Depot. Lots of good food, swimming and inter-department athletic contests were on schedule, and over 350 persons attended.

At the farewell party and Aloha Dance for Major Kirby, Captain Greene demonstrated the latest ideas in sausage grinders. Captain Greene hasn't explained yet why the black and white weiners came out the little end when a red cat and brown dog were thrown in, or why the red ones came out when the black and white dog went in. However, when last seen, he had a smoking slip-stick, a determined look in his eye, and his clerk said "shush" when he came in.

Lieut. Baylor, our capable Assistant Supply Officer, has found a new use for the ends of the lower wings on C-19 airplanes. He is gradually moving the Quartermaster coal pile onto our flying field and says "it saves the brakes." Captain Greene feels that the Quartermaster should move their own coal.

Master Sergeant Colby, from Brooks Field, joined our force and will be found in the Final Assembly hangar hereafter. Welcome, Sergeant Colby! Captain Burt has had his eye on you for some time. Rodgers Airport isn't so far away, but it takes a half hour to make the trip just the same.

Albrook Field, Canal Zone, August 1st.

The enlisted strength of the post has been augmented by 25 men of the 78th Pursuit Squadron, placed on detached service from France Field. The remainder of the Squadron is expected soon. Major Edward C. Greene, M.C., was transferred from France Field and has taken up the duties of Post Surgeon. - Major Robert C. Candee, upon his arrival in the Panama Canal Department, was assigned to Albrook Field. -- Captain James C. Browne, QMC, was transferred from Corozal, C.Z., and is now Post Quartermaster. -- Lieut. Frank D. Sinclair, 78th Pursuit Squadron, France Field, is on detached service at this station. -- The strength of the command is 14 officers and 153 enlisted men.

Lieut. and Mrs. Lehman entertained the officers and ladies of the post at dinner in their quarters on July 9th, after which the monthly dance of the Officers' Club was held at the Mirimar Club in Panama City.

The monthly card party was held at the home of Lieut. and Mrs. Lehman on July 20th.

THE COVER DESIGN

The cover design for this issue of the News Letter, and which, by the way, is one of the most attractive thus far received, is the work of Private, 1st Class, LeRoy Bendixen, of Hqrs. 18th Composite Wing, Fort Shafter, T.H. In addition to being of aeronautical significance, it has just enough Hawaiian atmosphere to make it interesting.

We are still waiting for more designs from artists among Air Corps personnel and others interested in the News Letter.

SERIAL NO. 320. LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
July 19th to Aug. 10th Incl.

Available for loan to Air Corps Organizations only upon request to
the Air Corps Library, Munitions Building, Washington, D. C.

DOCUMENTS

- A 00/9 Di Alcune questioni Molto Importanti di Costituzionalistica Attin-
enti Alla Medicina Legale Militare, per Dott. Giuseppe Sgarbi,
Tenente Colonnello medico R.N. Roma, Tipografia Operaia Romana,
1930-31
- A 00.2/42 Convention between his Majesty in respect of the United Kingdom, and
the President of the Hellenic Republic, respecting air transport ser-
vices Athens, April 17, 1931 (Ratifications exchanged at Athens, April
16, 1932). Presented by the Secretary of State for Foreign Affairs.
London H.M. Stationery Office 1932. Treaty Series No. 15, 1932
- A 10/192 Calculation of Potential Flow Past Airship Bodies in Yaw by I. Lotz.
No. 675 N.A.C.A. Tech. Memo. #675 Washington 1932.
- A 10/192 Towing Tests of Models as an Aid in the Design of Seaplanes, by
No. 676 P. Schroder. N.A.C.A. Tech. Memo. #676 July 1932. Washington
- A 10/192 Stresses Developed in Seaplanes while Taking Off and Landing, by
No. 677 Rudolfo Verduzio. N.A.C.A. Tech. Memo. #677 Washington July 1932
- A 10.23/109 Effect of Length of Handley Page Tip Slots on the Lateral-Stability
No. 423 Factor, Damping in Roll, by Fred E. Weick and Carl J. Wenzinger.
N.A.C.A. Tech. Note #423 Washington July 1932.
- A 10.23/109 Preliminary Photomicrographic Studies of Fuel Sprays, by Dana W. Lee
#424 and Robert C. Spencer. N.A.C.A. Tech. Note #424 Washington July 1932
- A 10.23/109 Methods of Visually Determining the Air Flow around Airplanes, by
No. 425 Melvin N. Gough and Ernest Johnson. N.A.C.A. Tech. Note #425. Washing-
ton July 1932.
- A 10.231/70 Sul Campo Aerodinamico Attorno a Solidi di Rivoluzione in Corrente
Rettilinea Uniforme, per C. Ferrari. Roma, Istituto Poligrafico
dello Stato Libreria, 1932. Laboratorio di Aeronautica della R.
Scuola di Ingegneria di Torino, No. 46.
- A 10.231/71 Sul Campo Aerodinamico Attorno ad un Solido Siluriforme, per Carlo
Ferrari. Torino, Libreria Fratelli Bocca, 1932. Laboratorio di
Aeronautica della R. Scuola di Ingegneria di Torino Publication 49.
- A 40.2/16 The Structure of Wind over Level Country. Report on Experiments
Carried out at the Royal Airship Works, Cardington by the late M.A.
Giblett, M.Sc., by Meteorological Office. London H.M. Stationery Office
1932. Geophysical Memoirs No. 54. 4th Number, Vol. VI.
- B 10.9/28 Pamphlet Containing the Question Papers of the Preliminary and In-
terpretership Tests in Spanish Used at an Examination Held in Jan-
uary 1932 of Officers of the Navy, Army and Air Force, by Civil
Service Commission. London H.M. Stationery Office, 1932.
- C 10/5 Schematic Diagrams Showing Communications of Air Corps Units. Max-
well Field, Ala. A.C. Tactical School, 1932.
- C 21/25 Annual Report 1932. Ft. Shafter, T.H., Hawaiian Dept. 1932-
- D 00.12/103 Fuel and Oil Line Installation, by Navy Dept. Bu. of Aero. Washing-
No. 165 ton Navy Dept. July 2, 1932. Tech. Order 165, Series 1930.
- D 00.12/103 Marking of Aircraft, by Navy Dept. Bu. of Aero. Washington. Tech.
No. 168 Order 168. Navy Dept. July 8, 1932.
- D 00.12/103 Safety Belts - Dressing of Leather Straps, by Navy Dept. Bu. of Aero.
No. 167 Tech. Order 167, Series of 1930. Washington. July 8, 1932.
- D 00.12/103 Service Engines - Fuel Requirements of, by Navy Dept. Bu. of Aero.
No. 169 Tech. Order 169 Series of 1930. Washington July 11, 1932.

- D 00.12/122 Performance of Gallery vs. Ramming Manifolds on Allison V-1410
No.3636 Engine, by Robert H. Clarke. A.C.Materiel Div., Dayton, May 24, 1932.
A.C.Tech.Report #3636.
- D 13.3/Indi- Aircraft Speed Instruments by K. Hilding Beij. N.A.C.A. Report
cators Air #420. Washington Government Printing Office, 1932.
Speed/3
- D 52.1/Avro Avro, by A.V. Roe & Co., Ltd. London, Gale & Polden, 1932.
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- D 52.1/Bris- Spinning of a Single Seater Fighter with Deepened Body and Raised
tol/Fighter Tailplane. Pt.1. Model Experiments by H.B.Irving and A.S.Batson.
51 Pt.2. Full Scale Spinning Tests by A.V.Stephens. London H.M.Station-
ery Office 1932. Aero.Research Committee Report & Memo. #1421.
- D 52.1/Cur- Handbook of Instructions with Parts Catalog for the P-6E "Hawk"
tiss/69 Pursuit Airplanes Manufactured by the Curtiss Aero.& Motor Co.Inc.,
on Contract W535 ac 4434 Specification 1637-C. Published by author-
ity of the Chief of the Air Corps by Materiel Division, Field Ser-
vice Section, Wright Field, Dayton, Ohio. May 1932.
- D 52.1/431 The Farman Night Bombers 211 and 212 (French) Four-engine High wing
No.165 Monoplanes, by N.A.C.A. July 1932. Aircraft Circular #165.
- D 52.151 Nuovi Problemi Sullo Studio dello Vibrazioni dei Mezzi di Trasporto,
129 per Prof. Ing.Modesto Panetti. Milano, Industrie Grafiche N.Moneta
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Torino Publication 48.
- D 52.16/13 Costruzione Geometrica del Fuoco di un Bipiano e dell'Ala Equiva-
lente, per Modesto Panetti. Torino, Vincenzo Bona Tipografo della real
Casa 1932. Laboratorio di Aeronautica della R. Scuola di Ingegneria
di Torino Publication 45.
- D 52.41/33 The Effect of Humidity on Engine Power at Altitude, by D.B.Brooks
and E.A.Garlock. N.A.C.A. Report #426. 1932.
- D 52.41/36 Notizie su Motori a Nafta per Aerei, per A. Castagna. Roma. Istituto
Poligrafico dello Stato Libreria 1932. Laboratorio di Aeronautica
della R. Scuola di Ingegneria di Torino Publication 47.
- D 52.43/552 Calcolo dei Parametri del Diagramma delle Coppie Resistenti di un'
elica e Relazione Fra le sue Velocita Progressiva e di Rotazione per
Coppia Motrice Costante, per Modesto Panetti. Torino, Vincenzo Bona
Tipografo della Real Casa, 1931. Laboratorio di Aeronautica della R.
Scuola di Ingegneria di Torino Publication 44.
- D 52.6/Black- Full scale lift and drag curves of a standard seaplane by A.S.
burn/1 Crouch.. London H.M.Stationery Office, 1932. Aero.Research Committee
Report & Memo. 1448.
- D 72.9/3 Prove su proietti Intorno Alla Velocita del Suono, per Filippo
Burzio. Roma, Arti grafiche Ugo Pinnaro. 1931. Laboratorio di
Aeronautica della R. Scuola di Ingegneria di Torino Publication 40.

INSPECTION DIVISION NOTES

TECHNICAL FILES:

The following is a complete list of all technical instructions, catalogs, etc., which pertain to Armament Sections in general. Such of the following publications and instructions which affect equipment operated by the activity or organization should be made a part of the technical file maintained by the Armament Section concerned:

- All Technical Orders, Classification 11, "Aircraft Combat Materiel".
- Armament Catalog, Classification 11, April, 1926.
- Handbook of Instructions with Parts Catalog, Type G-3, Gun Camera, 1932.
- Air Corps Circular O-2, Numerical Index to Air Corps Circulars.
- Air Corps Circular 15-43, Armament Inspection Record.
- Air Corps Circular 15-54, Unsatisfactory Report.
- Air Corps Circular 115-2, Fire Prevention.
- TL #32-112 - Instructions on installation of auxiliary gas tank and bomb rack on O-19B and C airplanes.
- TL #31-135 - Gun synchronizer control on O-38 airplanes.
- TL #31-140 - Change on gun synchronizer manual control unit - (Lever and bracket assembly).
- TL #31-218 - Bracing of mount for C-3 fixed gun sights on certain O-19B airplanes.
- TL #31-279 - Towing targets with C-6A airplanes.
- TL #31-288 - Flare equipment for C-7 and C-7A airplanes.
- TL #32-3 - Change in position of A-2 Bomb release handle, Drawing No. O154393 on models O-1E, O-1G, O-13C, O-26, and O-39 airplanes.
- TL #32-19 - Airways flare installation for Sikorsky C-6A airplanes.
- TL #32-27 - Modification of type G-6A bomb rack on model B-3A and B-5A airplanes.
- TL #32-53 - Installation and operation of M-8 parachute flare.
- TL #32-111 - Reworking of M-8 Parachute flare suspension bands for installation of flares on horizontal position.
- TR #140-5 - Range regulations for firing ammunition in time of peace. (Also Change No. 1 thereto, dated 1/2/32.)
- TR #300-5 - Anti-aircraft Combat. Basic for all arms except Anti-aircraft artillery. (Tentative.)
- TR #320-15 - Automatic pistol, caliber .45, model of 1911.
- TR #440-40 - Aerial gunnery and bombing. (Also Change No. 1, dated 1/2/30; Change No. 2, dated 1/2/31; Change No. 3, dated 1/2/32.)
- TR #440-96 - Bomb ballistics and bomb sights.
- TR #1170-88 - Instructions for handling titanium tetrachloride smoke-screen material.
- TR #1170-330 - Bomb racks, general classification and description. (Also Change No. 1, dated 1/2/32.)
- TR #1170-331 - Bomb Racks, external, type A-3, (Also Change No. 1, dated 1/2/32.)
- TR #1170-332 - Bomb rack, external, type B-3.
- TR #1170-333 - Bomb rack, external, type C-3.
- TR #1170-334 - Bomb rack, internal, types G-6 and G-7.
- TR #1170-335 - Bomb rack, external, type H-4.
- TR #1170-336 - Bomb hoists, types C-2, E-1 and H-1.
- TR #1170-337 - Bomb shackles, types B-4, B-4A, B-5 and B-5A.
- TR #1300-30G - Browning aircraft machine guns, caliber .30, M1918M1 & M1919.
- TR #1300-30H - Lewis aircraft machine gun, caliber .30, M1918.
- TR #1300-50B - Browning aircraft machine gun, caliber .50, M1921.
- TR #1350A - Ammunition for small arms.
- TR #1370-A - Ammunition, general. (Also Change No. 1, dated 1/2/31.)
- TR #1370-G - Bombs for aircraft.
- TR #1395-A - Instructions covering the characteristics, purpose, handling, etc., of cleaning and preserving material, tools and materials for use therewith, and oils, greases and cutting compounds issued by the Ordnance Department. (Also Change No. 1, dated 1/2/30; Change No. 2, dated 1/2/31; Change No. 3, dated 7/31/31; Change No. 4, dated 1/2/32.)

In addition to the above technical publications and instructions all Armament Sections should be provided with such of the following Ordnance, Standard Nomenclature Lists as pertain to the equipment maintained or operated by the activity or organization. The normal distribution of these publications to the Regular Army is by Corps Area and department Ordnance officers to all posts, camps and stations, non-exempted and exempted, within the territorial limits of the Corps Area or department. The militia bureau distributes through the adjutants general of states and territories to national guard units and organizations:

- Introduction to The Ordnance Catalog, June 2, 1930.
- Standard Nomenclature List, No. A-11, Lewis Aircraft Machine Gun, Caliber .30, M1918.
- Standard Nomenclature List, No. A-12, Browning Aircraft Machine Gun, Caliber .30, M 1919.

Standard Nomenclature List, No. A-13, Browning Aircraft Machine Gun, Caliber .30, M1918M1.
 Standard Nomenclature List, No. A-20, Gun, machine, caliber .50, Browning aircraft, M1921.
 Standard Nomenclature List, No. A-28, Gun, machine, Caliber .30, Browning aircraft M2.
 Standard Nomenclature List, No. B-6, pistol, automatic, caliber .45, M1911 and pistol, automatic, caliber .45, M1911A1.
 Standard Nomenclature List, No. B-18, projector, pyrotechnic, for Air Corps (Note: SNL #B-18 replaces SNL #B-12, pistol, Very, 25mm, Mk. IV.)
 (The Ordnance Department has advised that the publication of SNL #B-18 is being held up pending the completion of drawings for this equipment.)

MAINTENANCE OF TECHNICAL FILES:

Technical files should always be securely bound in proper order and clearly indexed for ready reference. Immediately upon receipt of new indexes, files should be carefully checked. Instructions rescinded or replaced should be removed from file and destroyed and active instructions which are not in file should be immediately requested through the proper channels.

Additional Technical Orders will be furnished Commanding Officers upon request, in sufficient number to meet the needs of the station, in accordance with the provisions of Technical Order 00-5.

The Chief, Materiel Division has also advised that Technical Letters will be furnished Air Corps activities in sufficient quantities to meet the necessary distribution requirements of the activity.

With reference to Training and Technical Regulations and Training Manuals, Paragraph 5-c, of TR 1-10, provides for additional distribution of these Regulations and Manuals upon proper request to the distributing agency.

Files of the various technical departments are more accurately maintained if such departments are furnished with the indexes and changes thereto pertaining to each class of instructions.

Any requisition for the following listed publications and instructions and forms, should be forwarded to the distributing agency indicated below THROUGH THE PROPER CHANNELS:

- | | | |
|--------------------------------|---|--------------------------|
| Training Regulations |) | |
| Technical Regulations |) | WAR DEPARTMENT |
| Training Manuals |) | |
| Information Circulars |) | |
| Air Navigation Maps |) | |
| Airport Bulletins |) | |
| Airport Information Bulletins |) | |
| Air Corps Circular Letters |) | CHIEF OF THE AIR CORPS |
| Air Corps Circulars |) | |
| Air Corps Forms |) | |
| Specifications |) | |
| Handbooks |) | |
| Air Corps Catalogs |) | |
| Air Corps Stock Lists |) | CHIEF, MATERIEL DIVISION |
| Technical Letters |) | |
| Technical Orders |) | |
| Blue Prints and Change Notices |) | |

HOSE CONNECTIONS:

The following information was furnished by the Chief, Materiel Division in a recent reply to an Unsatisfactory Report, Air Corps Form No. 54, submitted on defective fuel and oil hose connections:

"It is believed that the breakdown of the inside rubber lining of hose connections is due to the mechanical action of the metal tubing and brass liner against the rubber and the deterioration of the rubber when in contact with oil and gasoline. Breakdown is more rapid when the fuel and oil lines are subjected to relatively greater vibration. The design of the hose connection is such that the ends of the abutting tubes and flange of the brass liner dig into the rubber lining as vibration is continued.

"A new type flexible joint, in which a rubber ring provides the flexibility and cushioning effect, is being developed. Until such time as the improved type joint has been service tested, the present hose connections, conforming to Specification 20-26-C, shall be continued in use. Regular inspection of the fuel system connections should be made to guard against excessive deterioration of the hose. Fuel line and carburetor screens should be removed frequently for cleaning."

NEW OPERATION SYSTEM:

Several of the new Individual Flight Records, Air Corps Form No. 5, (revised April 29, 1932), received in this office for the month of July, 1932, have not shown the correct pilot time totals on Lines, A, B, C, D and E, in Column 2. These errors are, no doubt, due to the fact that all flying time on this Form is re-

ported by Fiscal Years, that is, from July 1 of one year to June 30 of the next year.

To clarify the preparation of this form in this respect, the following information is furnished:

- Line A, "Totals This Month". Totals entered on this line are for the current month only.
- Line B, "Previous Months This Year". (This means previous months this Fiscal Year.) On the July report no entries would be made on this line since, obviously, there would be no previous months in the present Fiscal Year. However, the totals entered on this line on the August reports would show the various totals flown during the month of July, which, of course, would be the only previous month during the Fiscal Year.
- Line C, "Totals This Fiscal Year". The totals entered on this line on the July reports, would be identical with those entered on Line A. For the month of August, these totals would be those for the time flown during both July and August, 1932.
- Line D, "Previous Years". The totals entered on this line on the July 1932 reports would be those which had been flown in each type of aircraft prior to July 1, 1932.
- Line E, "Totals to Date". The totals of figures on Lines C and D will be entered on this line.

The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on July 19, 1932:

<u>Number & date</u>	<u>SUBJECT</u>	<u>Distribution</u>
TL - #32-123 7/9/32	Gaskets, Spark Plug, Solid Copper type for V-1570 engines	Ft. Crockett, Brooks, Aberdeen, Boeing, Bolling, Chanute, Crissy, Langley, Lawson, Leavenworth, March, Marshall, Maxwell, Mitchel, Selfridge, 6th CA, Wright, FAD, MAD, RAD, & SAAD.
TL - #32-126 7/12/32	Loose propeller hubs and thrust bearing lock nuts on R-1750 and R-1820 engines	Aberdeen, Bolling, Chanute, Crissy, Kelly, Langley, March, Mather, Maxwell, Selfridge, Wright, FAD, MAD, SAAD, RAD and Hawaiian Dept.
TL - #32-127 7/15/32	Rocker arm bearing retainer and spacer Wright radial engines.	Chanute, Wright, FAD, MAD, SAAD, RAD, PAD, PHAD and Hawaiian Dept.
TL - #32-130 7/18/32	Installation of inspection door Tail skid oleo unit on P-12B, C, D, E and F airplanes.	Chanute, Wright, FAD, MAD, SAAD, RAD, PAD, PHAD and AO Hawaiian Dept.
TL - #32-131 7/19/32	Reinforcement of exhaust pipe support brackets on B-5A, B-6A and Y1B-6 airplanes.	Chanute, Wright, FAD, MAD, SAAD, RAD, PAD, PHAD and AO Hawaiian Dept.
TL - #32-132 7/18/32	Reinforcement of fuselage tube, upper truss diagonal on P-12B, C and D airplanes.	Chanute, Wright, FAD, MAD, SAAD, RAD, PAD, PHAD and AO Hawaiian Dept.
TL - #32-134 7/20/32	Supercharger impeller shaft bearings for R-540, R-760 and R-975 engines	Chanute, Wright, FAD, MAD, RAD, SAAD, PAD, PHAD and Hawaiian Dept.
TO - 02-25-3 7/9/32	Engines and Spare Parts - V-1150 Type - Printing Lines	General
TO - 06-10-2 7/2/32	Fuels and Lubricants - Lubricants - Rocker Arm lubrication	General
TL - 32-128 7/21/32	Servicing of CO ₂ Fire Extinguishers	General
TL - 32-129 7/21/32	Servicing of CO ₂ Fire Extinguishers	MAD, FAD, RAD, SAAD, Hawaiian Dept. PAD and PHAD
TL - 31-100 7/21/32	Inspection of Roller Type bearing in Tail and Landing Gear wheels. (This TL replaces TL NO. 31-100 dated May 29, 1931.)	General
TL - 31-179 7/27/32	Replacement of brackets, Ring cowl support-Douglas O-38 and BT-2B airplanes. (This TL replaces TL No. 31-179 dated June 17, 1931.)	Ft. Bliss, Boston Airport, Bowman Brooks, Candler, Chanute, Crissy, Ft. Ben Harrison, Hensley, Kelly, Logan, Long Beach, Lunken, March, Mather, Maxwell, Norton, Offutt, Pittsburgh Airport, Randolph, Salt Lake City, West Point, Wright, FAD, MAD, RAD, SAAD, Nat. Guard.
TL - 32-133 7/21/32	Testing Pilot's Safety Belts (This TL replaces Tech. Radio 32-133 dated July 9, 1932.)	General
TL - 32-135 7/21/32	Connection Assembly, Oxygen high pressure supply, Type A-1, Part No. 046363.	Aberdeen, Barksdale, Ft. Bliss, Boeing, Bolling, Boston AP., Bowman, Ft. Bragg, Brooks, Burgess, Candler, V-6315, A.C.

Chanute, Chapman, Port Columbus, Ft. Crockett, Edgewood Arsenal, France, Ft. Ben Harrison, Hatbox, Hensley, Kansas City AP, Kelly, Langley, Lawson, Ft. Leavenworth, Logan, Long Beach, Lunken AP, March, Mather, Maxwell, Mitchel, Offutt, Pittsburgh AP, Randolph, Ft. Riley, Salt Lake City, Pres. of San Francisco, Scott, Selfridge, Ft. Sill, 6th CA, Southwestern Airways, Vancouver Barracks, West Point, Wright, FAD, MAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept., Scott.

TL - 32-136 Scintilla Type SC-1
7/21/32 Distributor Heads

Aberdeen, Boeing, Brooks, Chanute, Crissy, Ft. Crockett, Langley, Lawson, Ft. Leavenworth, March, Marshall, Maxwell, Mitchel, Selfridge, 6th CA, Wright, FAD, MAD, RAD, SAAD.

TL - 32-137 Replacement of Jackshaft assembly, hand pump control-Curtiss
7/25/32 O-1G and O-39 airplanes.

Boston AP, Chanute, Langley, Mitchel, Wright, FAD, MAD, RAD, SAAD

TL - 32-138 Replacement of oil cups, aileron
7/29/32 Hinge bearing-Curtiss O-1E, O-1G, O-13C and A-3B airplanes
Chamute, Wright, FAD, MAD, RAD, SAAD, Hawaiian Dept.

TL - 32-141 Relocation of Generator control
8/4/32 boxes, Thomas-Morse O-19E airplanes
SAAD, Chanute, Wright

The following Air Corps Circulars and Air Corps Circular Letters were published and distributed since the July 19, 1932, issue of the Air Corps News Letter.

AIR CORPS CIRCULARS

Number & Date	Subject
15-123 7/15/32	BLANK FORMS AND REPORTS - Report of Enlisted Men on Flying Duty
15/124 7/15/32	BLANK FORMS AND REPORTS - Report of Mechanics Pay
65-23 7/16/32	SUPPLY - Price List of Aircraft Fuel and Oil.

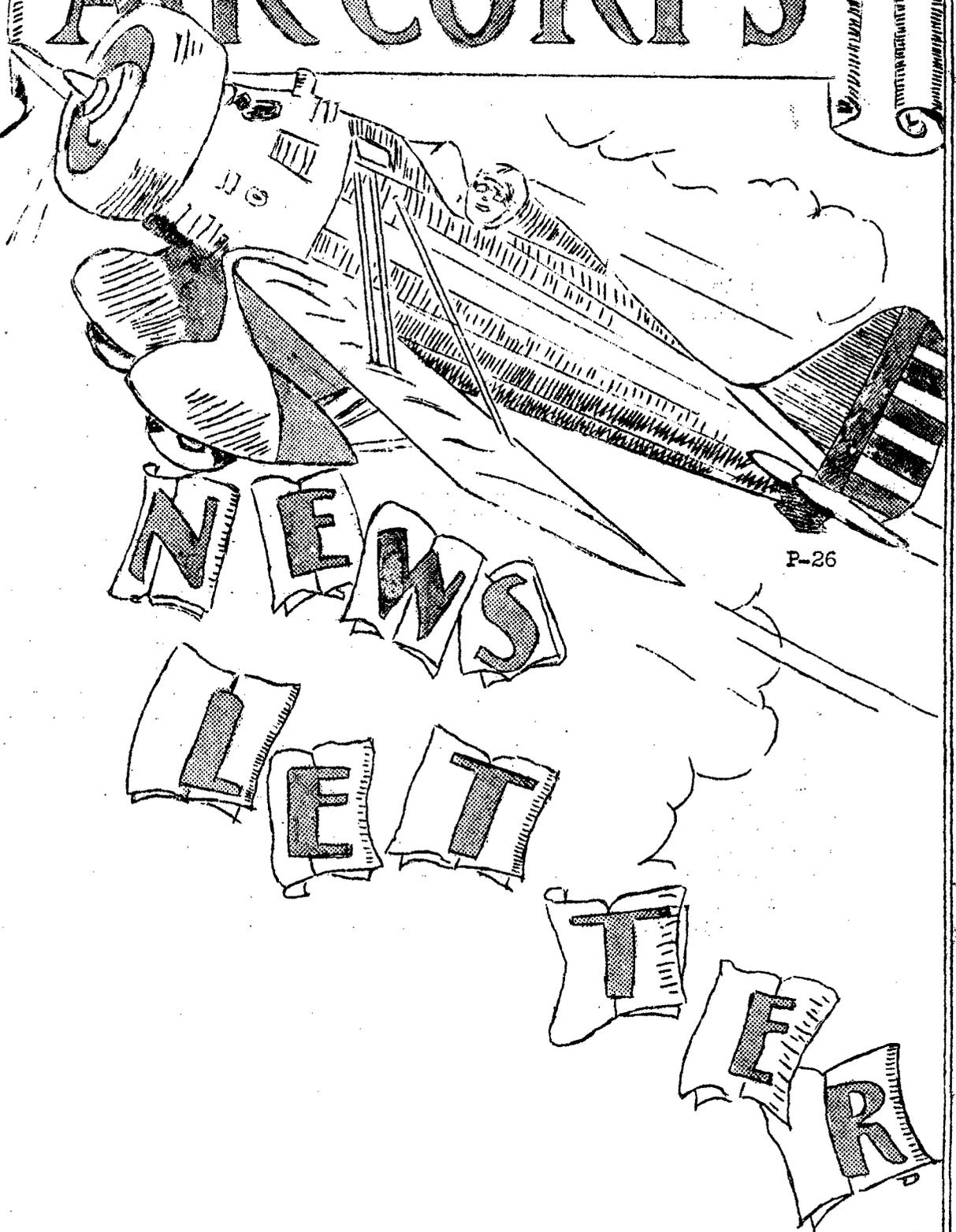
AIR CORPS CIRCULAR LETTERS

W-2084AC7/18/32 Training of Reserve Officers, Branch Assignment Group
W-2090 AC 7/23/32 Surplus Books

The following supplementary data to Technical Letter No. 32-100, dated May 18, 1932, subject: "Operation Instructions", has been issued to date:

Date of Issue	Airplane	Distribution
June 6, 1932	B-3A	MAD, FRANCE, Nichols, RAD.
June 18, 1932	P-12E	Boeing, Selfridge, Mather, March, Wheeler, Rockwell, Clark, Nichols, Wright, Chanute.
June 28, 1932	O-19B and C	Pope, Chanute, Scott, Selfridge, Brooks, Hensley, Hatbox, Kelly, Post, Barksdale, Luke, France, Clark, Nichols, FAD, SAAD, Wright.
July 12, 1932	BT-2A, B & C	Bowman, Biggs, Boeing, Boston, Brooks, Candler, Chanute, Chapman, Crissy, Hensley, Kelly, Logan, Long Beach, Lunken, March, Mather, Maxwell, Norton, Offutt, Pearson, Pittsburgh, Randolph, Richards, Salt Lake, Schoen, West Point, Wright, FAD, HAD, MAD, PHAD, RAD, SAAD, SAD
July 13, 1932	O-38, A & B	Bolling, Randolph, Wright, FAD, HAD, MAD, PAD, PHAD, RAD SAAD, SAD and Nat. Guard.
July 21, 1932	O-25C	Crissy, Langley, Mitchel, Wright, Scott. All depots.
July 22, 1932	B-6A	Langley, Maxwell, Scott, All depots.
July 22, 1932	O1-B & E, A-3, A-3A & B	Boston AP, Bowman, Candler, Chanute, Chicago AP, Edgewood Arsenal, Ft. Crockett, Kelly, Langley, Lunken AP, Maxwell, Port Columbus, Pittsburgh AP, Richards, Schoen, Wheeler, Wright, Scott, All depots.
July 22, 1932	O-25A	Boeing, Chanute, Ft. Leavenworth, Lawson, Marshall, Maxwell, Wright, Scott, All depots.
July 22, 1932	O-19E	Brooks, Wright, Scott, All depots.
July 26, 1932	O-1G	Boston AP, Langley, Mitchel, Scott, All depots.

AIR CORPS



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ISSUED BY THE
 OFFICE OF THE CHIEF OF THE AIR CORPS
 WAR DEPARTMENT
 WASHINGTON, D. C.

1932
 Aug. 27
 2431

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Information Division
Air Corps

August 27, 1932

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from the Fields.

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THE MISSION OF BOMBARDMENT

In a recent address through Station KFXM, San Bernardino, Calif., 1st Lt. Charles H. Howard, 11th Bombardment Squadron, March Field, Calif., gave a very interesting discussion on the subject of "The Mission of Bombardment." Lieut. Howard's address was as follows:

Textbooks give as a definition the quite obvious statement that "Bombardment aviation is that component of an air force, the primary function of which is to destroy objectives on land and sea by means of projectiles dropped from airplanes." Unfortunately, the problem so simply stated is not so simple of accomplishment, involving as it does, the design and production of the airplane, the training of the pilot and bomber, the development and production of suitable bombs and of sighting apparatus that will insure accuracy in dropping.

The story of civilization, through every race, is filled with symbols, drawings and writings indicative of man's age old ambition to fly, and we may be sure that along with any conception of flight came also the idea of dropping missiles on the heads of the enemy.

The earliest record of aerial warfare of this type is found in the Mahabarata in India, dated about 600 B.C., from which it is quoted that the enemies of Krishna "built an aerial chariot with sides of iron and clad with wings. The chariot was driven through the sky till it stood over Dwarka where Krishna's followers dwelt, and from there it hurled down upon the city missiles that destroyed everything on which they fell." But even though the written record of aerial bombardment has its beginning in ancient mythology, we must drop down some two thousand five hundred years to find the first actual use of the airplane in the role of bomber.

From all accounts this occurred in 1911, during the Italian campaign in Tripoli. Apparently, the effects were largely moral, the material damage being slight. The next use of the aerial bomb was by the Spanish forces in the Moroccan campaign, where it came as a cooperative effort with the ground troops.

On August 30th, 1914, with the enemy almost at the gates of Paris, a single German airplane appeared in the evening sky and loosed on the city a shower of small bombs, accompanied by a note saying - "People of Paris! Surrender! The Germans are at your gates! Tomorrow you will be ours!" The comparative damage done by note and bombs is not recorded. It is from this raid that aerial bombardment of the World War may be said to date.

The Germans early recognized the value of long distance bombing and proceeded with the organization of special bombardment units designed to attack the manufacturing cities along the English coast. However, due to limitations of the aircraft, it was not until the 21st of December that they succeeded in reaching their objective and dropped several bombs near Dover.

Aerial activity on the front constantly increased and all the belligerents kept up continuous raids on the front lines and on munition dumps and railroad yards immediately to the rear. From the scattering efforts of the first part of the war, in which one or half dozen airplanes participated, bombardment aviation, at the time of the Armistice, had developed into a major arm in which literally hundreds of airplanes carrying tons of bombs took their part.

America's effort at bombardment began with a raid by the 96th Squadron the 12th of June, 1917. They were equipped with the French Breguet Bombers, American machines not yet having appeared on the front. It was after the St. Mihiel offensive that our First Bombardment Group was organized, and among the four squadrons forming it we find the 11th Squadron, now part of the 7th Bombardment Group and the First Bombardment Wing at March Field.

During the first years of the war, many and varied types of planes were employed as bombers. The same machine used in observation work was found in bombard-

ment squadrons. The bomb load was necessarily limited to some hundreds of pounds; the carrying and releasing mechanisms were crude, the bombs in some cases having been heaved overboard. Sighting devices had not been developed, and accuracy was largely a combination of the pilot's skill, luck and experience. The bombs were crude affairs, being in the earlier stages largely supplied from reworked artillery shells.

The year 1917 is marked by the appearance of the modern two-engined bomber of which the Handley Page was the British version and the Gotha that of the Germans. Both these machines were capable of carrying nearly a ton of bombs but, due to their huge size and slow speed, were used almost entirely at night. As the war progressed, the value of bombardment aviation became increasingly apparent to the Allies to the extent that the British planned an increase in their air force from 86 squadrons, with ten for long distance bombardment, to 179 squadrons, of which 66 were to be for long distance bombardment. The plans of our own forces contemplated the formation of 101 bombing squadrons with 1600 planes by July of 1919.

It is out of this crucible of the World War that modern bombardment aviation is molded. We say molded advisedly, for with the realization that practical aviation is scarcely more than a decade old it would be foolish, indeed, to crystallize one's ideas in the face of ever changing improvements. However, the experience of the years from 1914 to 1918 has given us some very definite ideas of what is desired in a bombardment plane. We have, for convenience, divided our requirements into two general types called light and heavy bombers. The line of demarcation has been arbitrarily drawn at a load of eleven hundred pounds for the light, and two thousand pounds for the heavy bomber. It has been generally assumed that the light bomber would be a much faster plane and able to carry on its mission in daylight. Recent developments give rise to the belief that we may have our heavy bombers equalling the speed of the other type and both approaching the speed of the present Pursuit plane. The study of the requirements of any airplane soon convinces one that each design is a compromise among a number of desirable features. Some of the essential elements of a good Bomber are: bomb carrying capacity; speed; radius of action and range; ceiling or operating altitude and rate of climb; defensive power; landing speed; maneuverability; field of view; ease of maintenance and reliability. A few of the more important qualities will be taken up briefly.

By bomb carrying capacity we mean not only the ability to lift the necessary weight but also such structural arrangement as will allow us to carry this weight either as one large bomb or several smaller ones. In the case of the light bomber, we should be able to distribute the load as one 1100, two 600 or four 300-pound bombs. The need for this ability to carry various sized bombs arises from the variety of targets which it may be necessary to attack. It is useless to drop ten 100-pound bombs on a target that we know requires a direct hit from an 1100-pound bomb. It is equally useless to drop 1100 pounds in one lump when greater damage can be done by a series of smaller explosions over a greater area.

Closely related to bomb carrying capacity is the radius of action and range. Modern conception of bombardment anticipates actions to a depth of some 300 to 400 miles in enemy territory or, in the case of the defense of our shores, an equal distance out to sea. It is unnecessary to point out that a plane making such a flight must be able to return to its base without landing. This imposes a severe penalty on load carrying due to the huge amount of fuel required.

Speed! In this one word we have the essence of aircraft employment, whether commercial or military. Heretofore it has been necessary to make considerable sacrifice in this vital requirement in favor of carrying capacity. Two elements now dictate that more consideration be given this feature. They are, the high speeds developed by the modern Pursuit ship and the increasing accuracy of anti-aircraft fire. With fighting planes making speeds up to 250 miles per hour, it is obvious that Bombardment at 100-miles per hour cannot hope to perform its missions without tremendous losses. The increased problem for anti-aircraft resulting from high airplane speeds can be readily appreciated when it is known that a plane flying 100 miles per hour at an altitude of 15,000 feet travels some 1800 feet forward while the shell is in flight, while at 160 miles per hour it travels nearly 3,000 feet in the same time, not only making the sighting and computing of data more difficult but giving the plane that much more room in which to maneuver.

Under defensive power we find what is to the speaker one of the most fundamental requirements of a good Bombing plane. By defensive power we mean the pro-

vision of sufficient machine guns to withstand the attacks of pursuit airplanes. However, in considering this question we must think, not of a single airplane but rather of from nine to thirty-six planes flying in formation. One of the greatest lessons of the World War was the effective mutual support achieved between Bombers when flown in close formation.

Another important attribute of the ship must be reliability. Not only from the expectancy of having it in service every day and able to complete each mission without mechanical or structural failure but from the standpoint of moral effect on the crew, who feel that no matter how tough the fight or dangerous the mission their ship will do its part. Absolute confidence in the airplane cannot be overestimated as a morale contributing factor. With this in mind, the Air Corps insists to the utmost on the best in materials and design in their equipment. It is largely through the rigid Government requirements that civil aviation has developed its present degree of reliability and safety.

Representative of the present Bomber equipment of the Air Corps are the two types now in use at March Field. The Keystone Bomber, with which the 9th and 31st Squadrons are equipped, is of the biplane type, with a wing spread of 75 feet, a weight empty of 8,000 pounds, two air-cooled motors of 575 horsepower each, a crew of five, a bomb load of 2,000 pounds and a top speed of 120 miles per hour. The 11th Squadron is equipped with the Curtiss Condor, also a biplane type, with a wing spread of 90 feet, a weight empty of 9,000 pounds, two water-cooled V-type motors of 625 horsepower, a crew of five, a maximum bomb load of 4,000 pounds and a top speed of 143 miles per hour.

Several manufacturers have under development Bombing planes embodying to the fullest degree the desirable features previously enumerated. These newer developments show a trend away from the familiar biplane to the monoplane type. One such ship, of which a sample is undergoing test, has a single thick wing into which two 600-horsepower motors are carefully streamlined. The fuselage is small and so round and long as to resemble a cigar. The bombs are carried underneath the wings and not inside the fuselage as in present types. This ship, with its unofficial speed of over 180 miles per hour, marks a definite step forward for this type. Another prominent manufacturer has developed a light Bomber known as a "gull wing" type, so called because when viewed from the front the wings drop into the fuselage as do those of a sea gull. This machine is powered with two 600-horsepower V-type liquid-cooled motors and does something like 200 miles per hour. These two machines are indicative of present day Bombardment types and mark a distinct advance in design and performance.

High performance airplanes are just one of the problems of Bombardment aviation. To many people a bomb is just so many pounds of dynamite, but to the initiated it resolves itself into a complicated mechanism of design, production and operation into which have gone years of research. As noted before, demolition bombs have been more or less standardized, according to weight, into a series which include 100, 300, 600, 1100 and 2,000-pound bombs. There are numerous other specialized types, including those used by Pursuit and Attack squadrons. These bombs are not to be thought of as just a container for the explosive. They must be built strong enough to penetrate heavy concrete and earth gun emplacements and certain types of protective armor.

This matter of penetration brings up the problem of designing a fuze that will not explode the bomb on impact but will give an appreciable delay and penetration before going off. The idea of dropping 2,000 pounds of TNT from a height of three miles and having it so educated as not to go off instantly is one to which the Ordnance Department is giving much thought. In order to insure that a bomb once launched will proceed along a predetermined path, it has been necessary to provide them with fins somewhat after the manner of a Zeppelin. So equipped, the modern bomb has a remarkable degree of accuracy in its fall.

But this accuracy goes for naught unless we have some means of determining from what point the bomb must be released to hit the target. The fact that the plane at the instant of dropping will be going over 100 miles per hour makes quick and accurate work necessary. An airplane, unlike a dirigible, cannot hover over the target. On the contrary, it will be making its maximum speed. The bomb, then, will leave the ship in a horizontal position, with the same forward velocity as the plane. In falling, the nose gradually drops and the bomb becomes more nearly vertical as it falls. Were it not for air resistance, the bomb would, if the airplane maintained its course, strike directly underneath it. Experiment has shown that a bomb released at a speed of 180 miles per hour from an altitude of 15,000 feet requires 32 seconds to reach the earth. In that time it will have

traveled forward some eight thousand feet, or about a mile and a half. When it is remembered that there is only one point on our course from which, under these conditions, this bomb will travel to the target, the problem confronting both the sight designer and the bomber is appreciated.

That progress has been made in the design of sights is indicated by the fact that the present instrument is five times as accurate as the best sight used during the war. Results, however, still depend on the training, skill and experience of the bomber. It is with the idea of reducing the personal factor that development is being continued. The ultimate achievement along this line is a sight with a small telescope which, when kept on the target by the bomber, signals the pilot for changes in direction and at the proper instant automatically releases the bomb.

Having thus far equipped ourselves with the mechanics of Bombardment aviation, we may turn to a consideration of the targets against which such equipment may be used. Contrary to general belief, heavy Bombardment rarely concerns itself with operations primarily against personnel. Their mission is the destruction of munitions factories, air depots, docks and shipyards, heavy fortifications, munitions dumps, railroad centers, aqueducts and reservoirs and naval vessels of all types.

This matter of targets brings closely to home the subject of the defense of Southern California. Surrounded as it is by a ring of mountains, with few passes, and with its shores offering possible landing places for enemy troops, it appears as a most vulnerable spot, particularly to an attack launched from the sea. The damage or destruction of the Los Angeles water system, the harbor at San Pedro, the huge stores of oil and gasoline, or the highways and railroads through the mountain passes would be disastrous. It is not hard to imagine the havoc and confusion resulting from the bombardment of a rail center such as our own here in San Bernardino.

But in picturing a defense from such a possibility, we must not lose sight of one factor common to all air defense, a factor which, ultimately, will bring all thought of the protection of our country to the realization that the air force must be our first line of defense, ready at a moment's notice to take the field against any threatened attack, whether on the Atlantic or Pacific, and destroy or hold off any foe while the mobilization of our military resources is completed. This factor is mobility, the basic attribute of this arm which makes it possible to move a thousand miles over night and immediately go into action.

And in conclusion I would leave with you this thought; that while the nations of the world in conference make much of the abolition of certain weapons of war, these same nations have under development even greater air fleets than any contemplated by our own country. And as for ourselves, committed as we are to a policy of defensive warfare only, we should remember the oft quoted axiom that "the best defense is a strong offense" and that Bombardment lends itself most powerfully to that role.

And as you see these aircraft in maneuvers over the cities of Southern California, remember that they are your first line of defense, a part of our national insurance against hostile aggression and for peace.

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EXCELLENT RECORD IN GUNNERY AND BOMBING IN HAWAII

A large number of officers in the Hawaiian Department qualified as Expert Aerial Gunners and Expert Aerial Bombers during the 1932 training period. Practically every officer exceeded his score of last season. First Lieut. Otto P. Weyland made the highest score in aerial gunnery - a record of 969. There were also ten other officers who qualified with scores of 790 to 929. This included firing on a sleeve target towed by another plane, firing at ground targets from a dive and dive bombing.

The highest score in the Observer's Course in aerial gunnery was made by 1st Lieut. Charles G. Brenneman - a total of 1288. In the Observer's Course, both towed aerial and ground targets are fired on the pivot-mounted guns. Thirty-six other officers qualified in this event, with scores ranging from 716 to 1194.

Second Lieut. Lloyd H. Tull made the highest score in aerial bombing with a mark of 1870.2. In this event the wreck of an old ship lying on the reef outside the mouth of Pearl Harbor was used as a target. Sixteen other officers qualified in this course, with scores ranging from 1562 to 1864.

LANGLEY FIELD BOMBERS CHRISTENED

THE 49th Bombardment Squadron of Langley Field, Va., returned to its proper station August 12th, following an impressive christening of one of the huge Keystone Bombers at Salisbury, Md., on the afternoon of the preceding day. Captain Eugene L. Eubanks, Commanding Officer of the 49th Squadron, led the formation of nine ships, which were manned by 16 officers and 24 enlisted mechanics, and which left Langley Field for Salisbury on the morning of August 11th. During the recent two weeks' maneuvers of the Squadron, when it was encamped at the Hebron Airdrome, the City of Salisbury has requested informally that plans be laid to christen one of the Bombers, and August 11th was designated as the date.

An avigation and tactical problem was assigned to the 49th, the mission being to occupy the Del Marva Airport at Hebron as an advanced airdrome at 10:30 a.m., and theoretically refuel and take on bomb loads to bomb an enemy industrial center at 2:00 o'clock that same afternoon. During the period of the refueling, the christening ceremonies were conducted at the Hebron Airport.

Miss Carrie Lee Burroughs made a charming sponsor and was immediately proclaimed as honorary member of the Squadron. Captain Robert Olds, Group Operations Officer, offered the plane to the City of Salisbury, Md., and Mayor Easley accepted. Miss Burroughs allowed the foaming contents of an intriguing-looking bottle to trickle down the nose of #181, which was piloted by 2nd Lt. Russell L. Waldron, Air Reserve. Captain Olds, representing the Group Commander, made the opening address, expressing his sincere appreciation for the charming hospitality extended the Second Bombardment Group by the citizens of Salisbury.

The entire ceremony was very nicely performed, due to the efficient cooperation of the authorities of the City of Salisbury and, says the News Letter Correspondent, "we intend to take this as a model for future christenings." Following the ceremonies, Captain Olds returned direct to Langley Field, while the 49th Squadron executed various tactical formations in the vicinity of Salisbury, enroute to their proper station at Langley Field.

While the 49th Bombardment Squadron were the interested spectators during the christening of a Bomber at Salisbury, Md., members of the 20th Bombardment Squadron attended a similar event on the same day at Charleston, S.C., when one of the large Keystone Bombers of the Second Bombardment Group was christened "The City of Charleston, South Carolina."

A nine-ship formation, led by Captain R.T. Cronau, Commanding Officer of the 20th Squadron, took off from Langley Field at 7:45 a.m., August 11th, accompanied by a lone ship from Group Headquarters, which was piloted by Captain Phillips Melville, who represented Major H.A. Dargue, Commander of the Second Bombardment Group. The route was made via Pope Field, N.C., where the flight arrived at 10:15 a.m. for servicing. With this completed, the Squadron took off at 11:40 a.m., arriving at their destination at 2:00 o'clock that afternoon.

Mayor Maybank, of the City of Charleston, and his staff of officials were at the Airport to greet the Squadron. A very delightful lunch was served, at which place the Mayor and other dignitaries of the City gave welcoming speeches. Following this, Mayor Maybanks introduced Captain Melville, who acted in the capacity of the Group Commander. Captain Cronau spoke in behalf of the 20th Squadron and introduced Lieut. Wm. B. Offutt, pilot of the Keystone Bomber, which was christened "The City of Charleston, South Carolina."

With these impressive ceremonies completed, the Squadron took off for Folly Beach, a short distance from Charleston, where they theoretically bombed a convoy of ships, a tactical problem previously planned.

The contingent of the Squadron, which included 18 officers and as many enlisted mechanics, were guests overnight, and at 10:15 a.m., August 12th, took off in formation, arriving at Langley Field at 4:30 p.m.

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The 27th Pursuit Squadron, Selfridge Field, Mich., is at present engaged in high altitude formation work. This work compares the activities of pilots who have been at high altitude for some time with those of pilots who have been at low altitude for a similar time. Flights meet at a common altitude after their work at high and low altitudes and fly in the same formation. These experiments are expected to prove of considerable value in determining the actual effect of high altitude on personnel.

AERIAL GUNNERY AND BOMBING IN HAWAII



QUADRONS from both Luke and Wheeler Fields are each putting in two weeks at the Air Corps reservation at Waimanalo, engaging in aerial gunnery and bombing. The 23rd Bombardment Squadron, commanded by Captain Raphael Baez, Jr., departed from Luke Field on August 1st. The 4th Observation Squadron, commanded by 1st Lieut. Donald D. FitzGerald, and the 50th Observation Squadron, commanded by 1st Lieut. Charles G. Brenneman, have completed their gunnery. The 72nd Bombardment Squadron will occupy the camp when the 23rd Squadron completes their gunnery, and they will be followed by the two Pursuit Squadrons and Attack Squadron from Wheeler Field.

Of interest to the ordinary observer on the ground are the different positions a plane is required to go into in order to place the hits properly. The plane is banked 180 degrees and flown back on the same side of the target. This allows the gunner only a few seconds to swing his weapon over to the other side of the plane and prepare to fire again as the plane passes the target.

Farther from the roadway, pilots may be seen dropping bombs. The Observation planes also have fixed guns pointing forward. To fire these at the target, it is necessary to aim the whole airplane and dive. The guns are fired by mechanism which is synchronized with the motor. The bullets pass through the plane of the propeller 20 degrees after the blade has gone by. Sometimes a delayed explosion in the cartridge upsets the calculations and the plane comes down for a new propeller. Most of the bombs dropped are filled with sand. Small, line fragmentation bombs are also used. The first week at camp is spent in practice, and the second in record firing and bombing.

The Attack planes carry four guns forward and one flexible gun in the rear. The forward guns are synchronized, although two of them are located in the wings and thus are not fired through the propellers. Firing is usually done from 7:00 to 10:00 a.m. After that, the mechanics take over the planes and tune them up for the following day. The armorers also work on the guns after each practice.

Areas from 1,000 up to 200 yards from the target are indicated by ground markers. The pilot is required to do his firing within this area. Usually he pulls the trigger at about 400 or 500 yards from the target. Most of the pilots put in only a short burst, as the plane cannot be kept long on a straight line.

During the past year, the Waimanalo camp has been developed from four to forty tents, a mess hall, officers' quarters, recreation hall and other facilities. The planes land on smooth, hard runways instead of weedy strips of sand dune that worried pilots a few years ago. The main runway is nearly 1,000 feet long and there is a subsidiary runway for planes using the live bombing range area. Each squadron has done a little landscape work - palms have been planted, grass plots cultivated and, in time, Waimanalo Camp will be a show place.

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EFFICIENT FUNCTIONING OF SELFRIDGE METEOROLOGICAL SECTION

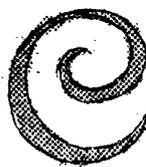
The efficient functioning of the Meteorological Section at Selfridge Field, Mt. Clemens, Mich., was noted in a letter from the Chief Signal Officer at Washington, as witnessed by the following extract:

"1. The meteorological reports for June, 1932, received from Selfridge Field, have been checked at this office. No errors of consequence are noted. The checking of these forms indicates that the accuracy and neatness of the reports received from this post are of a somewhat higher standard than the average of reports received from other Army meteorological stations."

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Lieuts. R.W. Burns and Robert S. Fisher, of the 18th Pursuit Group, Wheeler Field, T.H., on a recent flight in an A-3 equipped for blind flying, landed at the auxiliary field at Haleiwa in order to change cockpits, putting Lieut. Fisher in front. Shortly after their take-off, the engine failed and they were forced to land in a rough field straight ahead. Immediately after landing, they struck a large hole which piled up the ship and it instantly burst into flames. Both officers managed to get out quickly, but they received minor burns about the face and hands. A passing motorist took them to the Waiialua Hospital, and shortly afterward they returned to Wheeler Field. They are both feeling normal at this writing.

AIR CORPS OFFICER COMMENDED ✓



CAPTAIN Ralph H. Wooten, Air Corps, Military Attache of the American Embassy, Chile, is warmly commended for performing a number of perilous flights in a humanitarian interest. In a letter addressed to the Hon. Patrick J. Hurley, Secretary of War, under date of July 27th, the American Ambassador to Chile, the Hon. W.S. Culbertson, says:

"Under the date of March 13, 1931, I wrote you a letter commending the services which Captain Ralph H. Wooten, Military Attache of this Embassy, had rendered in Chile to the science of aviation and in particular during the flight which he made (with me as passenger) from Santiago across the unexplored section of the Cordillera south of Puerto Montt and across Patagonia to Tierra del Fuego.

Prior to that flight (June 15, 1930) Captain Wooten made two flights over the Cordilleras east of Santiago searching for M. Roger Guillaumet the French flier who was lost during a flight between Santiago and Mendoza.

During this month Captain Wooten has again given evidence of his personal courage and has honored the American Army and increased the prestige of the American military attache in Santiago. On July 16th the regular trimotor airplane of Panagra with its crew and passengers disappeared completely in the Cordillera. Captain Wooten was requested to assist in the search and I authorized him to make such flights as seemed to him proper in order to help locate the lost plane. On July 16th he flew to Mendoza in his single motored Army plane and from there made a series of flights along the edge of the Cordillera searching for the plane. In the meantime a heavy snow storm (it being winter here) started in the Cordillera making flights over the central part of the mountain range impossible. During the following week, in spite of the bad weather conditions which made flying extremely dangerous, Captain Wooten continued his efforts practically every day, assisting in the search which covered all the sectors of the highest parts of the mountains. Unfortunately the lost plane has not yet been located.

The expressions of appreciation of Captain Wooten's services are universal and I desire to add my own words of hearty commendation and praise for the services voluntarily rendered by him. I hope that you may be able to find some way to recognize his effective services not only in connection with the flights which I have mentioned above but generally in connection with his useful services as Military Attache of this Embassy."

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FOREIGN NOTABLES VISIT WHEELER FIELD

During the month of July, Baron Jean Empain of Belgium, with his party was cruising the waters of the Hawaiian Islands in his yacht. On July 23rd, Lieut. Tourtellot, piloting a Douglas amphibian, flew the Baron and one of his guests, M. Henri de la Cloche, French War Ace, around the Island of Oahu. They were accompanied by Lieut.-Colonel Gerald C. Brant, Department Air Officer. Upon landing at Wheeler Field, the party was met by Major Ernest Clark, Commanding Officer, after which the 18th Pursuit Group flew an aerial review in honor of the foreign visitors. The feminine contingent of the Baron's party arrived by motor in time to witness the review, after which all the pilots participating were introduced. A great lament arose from the bachelors when they learned that the party was leaving that same day on their yacht for the Olympic Games.

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"It has been suggested," says the News Letter Correspondent, "that the occasional announcement of commissioned personnel with their official positions be made as a matter of interest to Air Corps officers who may be due for transfer to Wheeler Field. Accordingly, the names of some of our 'key men' follow:

Commanding Officer-----	Major Ernest Clark
Adjutant-----	Captain R.H. Finley
Personnel Adjutant-----	Lieut. E.H. White
Station Operations-----	Lieut. L.S. Smith
Station Engineering-----	Lieut. G.P. Tourtellot
Commanding 6th Pursuit Squadron-----	Lieut. R.E. Fisher
Commanding 19th Pursuit Squadron-----	Lieut. R.C. Oliver
Commanding 26th Attack Squadron-----	Lieut. L.H. Rodieck

HOW THE WINDS BEHAVE AT HIGH ALTITUDES

THE meteorological section of the 18th Composite Wing, Fort Shafter, T.H., recently made some observations of the winds at very high altitudes. These observations consisted of pilot balloon soundings made at various times with special balloons that ascend 200 yards a minute. The highest altitude attained at this station was 42,300 feet, which the pilot balloon reached in 70 minutes. This ascension was made at 1:30 p.m., June 30th. Ideal conditions for such an ascension were present that day, there being but few clouds and excellent visibility.

This observation showed the usual moderate northeasterly winds for altitudes up to 9,000 feet. Above that altitude the direction of the wind gradually became southeast, south, and then southwesterly to westerly. The velocity remained moderate, around 20 miles per hour, up to an altitude of 33,000 feet, when it increased to a maximum of 50 miles per hour at 39,300 feet, from which point the velocity of the wind rapidly fell off to 14 miles per hour at 42,300 feet.

The fact that the wind velocity fell off at the highest altitude reached is unusual, because the velocities at such altitudes usually remain quite high, averaging 55 miles per hour in the summer time and 70 miles per hour in the winter. The westerly direction shown at upper altitudes is the prevailing direction of the upper winds aloft for the northern hemisphere. The temperature at the altitude reached by the balloon in this observation was approximately 70 degrees Fahrenheit below zero, and the barometric pressure was around six inches of mercury, as contrasted with a temperature of 82 degrees Fahrenheit and a pressure of 30 inches of mercury at the surface.

Another upper air observation was made April 8th. In this observation, the wind remained easterly with moderate to gentle velocities up to an altitude of 11,000 feet. From this point, the wind direction became successively southeast, south and southwest at 24,000 feet, when it remained west-southwesterly for the altitudes from 24,000 feet to 33,000 feet. The velocity from 11,000 feet gradually increased to 59 miles per hour at 30,900 feet, from which point the speed of the wind rapidly increased to an unusual velocity of 120 miles per hour at 32,700 feet. At 33,900 feet, when the balloon was lost, the velocity of the wind had dropped to 113 miles per hour. Such velocity of the wind at the altitudes reached was much higher than the average for that time of the year, which is approximately 60 miles per hour.

The westerly direction shown is customary. Observations made in the fall of the year show the direction of the wind at high altitudes to be westerly to northwesterly as contrasted with the westerly to southwesterly direction in the summer.

The high altitude observations are attracting much comment at Luke Field. The taking of such long ascensions is very seldom permissible in this section, due to the ever present clouds which obscure vision of the balloon. However, when such ascensions are made, interesting results are always secured. The pilot balloons are inflated to an approximate diameter of 26 inches with hydrogen gas until they balance a weight of 4.66 ounces, which gives the balloon an ascension rate of 200 yards a minute. These balloons are made of the very best rubber available. The inflated balloon is released and its course is followed with a theodolite. Readings of the elevation and azimuth angles of the balloon are made every minute. From these readings, the course of the balloon is plotted on a special board. The true direction and velocity of the wind are taken from the plot.

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Homestead Field, on the Island of Molokai, is to have a barracks, radio station and other facilities similar to the airplane fields at Port Allen, Kauai, and Upolu Point, Hawaii. A barracks building that will house some 40 men during inter-island expeditions and operations from an advance base will be constructed. As at the other two fields, two or three men will be left there to operate the wireless, report weather data daily and keep up the post.

A section of the field was already turned over to Federal control. The three fields are used frequently by the Army in training exercises on the other islands and are a part of preparations that will permit the Air Corps to operate from any point in the Territory in time of emergency. During the Army-Navy Maneuvers this spring, Army planes operated simultaneously from all the main islands.

INSIGNIA FOR THE 12TH OBSERVATION GROUP



Brooks Field is justifiably proud of the attractive insignia, product of the artistic ingenuity of the Commanding Officer, Major Frank D. Lackland, which has just been approved by the War Department. In the future, visitors will be impressed by the graceful artistry of the insignia, a gray goose in flight, by an attractive electrical sign that will be erected on the lawn, and also by two gray geese, which are being procured to represent the insignia, which will make their habitat on the front lawn, now being enclosed with an attractive garden fence. A fountain will be added to further beautify the enclosure.

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COLD SUMMER MONTHS FOR PURSUIT PILOTS

In accordance with yearly training schedule, tactical squadrons at Selfridge Field, Mich., are busily engaged in gunnery activity at the gunnery camp at Oscoda in Northern Michigan. The 17th Pursuit Squadron recently completed its tour and returned to Selfridge Field on August 10th. The 94th Pursuit Squadron reported at Oscoda the following day to brave the perils of sand and "Jack" Pines, and the 27th Pursuit Squadron expects to leave for the camp about September 1st.

The following extracts from a letter written by Lieut. Frederick W. Castle serve as admirable cross-section views of activity at the gunnery camp:

"The 17th Pursuit Squadron, now based at Camp Skeel, Oscoda, in Northern Michigan, desires to report satisfactory progress with gunnery practice and with beards. At present, Lieut. N.D. Sillin, Squadron Armament Officer, leads in gunnery, with a score on ground targets of 684. As for beards, Don Putt has achieved a Mongol type black beard which neatly surrounds his mouth, while French has a Gladstone-Burnside type whose reddish hues afford an attractive setting for the mottled coloring of his peeling nose.

The only drawbacks - and they are not inconsiderable - to this northern resort are that all guests are required to arise at 4:00 a.m., and the nights are so cold that bed socks have to be worn in bed. When Pursuit pilots wear bed socks it is an indication of very cold temperatures.

Outside the above mentioned drawbacks, most of those here are enjoying themselves hugely. The firing itself is plenty fun. In fact, your correspondent is of the belief that it is the best sport in the world. After flying hours, pilots are detailed to the more arduous tasks of warming the beach at Oscoda or chasing a ball on the local golf links. Sometimes they rally all their failing energy to go so far as to get up a volley ball game on the beach, with Captain Hoyt doing the organizing of the game. The Captain is a volley ball enthusiast from way back."

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AERIAL PHOTOGRAPHY IN IDAHO AND WYOMING

Turning the training of its aerial photographers to good advantage in the accomplishment of useful work for another government agency, the Air Corps is planning to photograph almost 300 square miles of country along the Snake River in Idaho and Wyoming and in the Falls River Basin in the vicinity of the Yellowstone National Park. The work is being done for the Bureau of Reclamation, Department of the Interior, at their request, and consists of the vertical photography of this area by a single-lens K-3 camera from an altitude of 10,000 feet. The photographs are required for a thorough stereoscopic study of the areas and for later use in topographic surveys of possible reservoir sites to determine their storage capacity. The 15th Photo Section, stationed at Crissy Field, Presidio of San Francisco, Calif., is preparing its Fairchild Photographic cabin monoplane for this project. An officer pilot and an enlisted photographer will do the aerial work.

Specifically, the area to be photographed extends along the Snake River from the mouth of the Hoback River to the mouth of the Grays River; then between the mouths of the Elk and Bear Creeks, and downstream from the mouth of Pine Creek for about 15 miles, - the total Snake River area to be photographed being about 55 square miles. The Falls River Basin area embraces approximately 240 square miles.

TRIANGLE PARACHUTE GIVES SATISFACTION

MITCHELL Field Parachute Department personnel are becoming more and more enthusiastic over the Triangle Parachute, now at that station for service tests, as they become acquainted with the many advantages this type 'chute has over the present standard parachute.

It is nothing unusual to see one or even two men leave planes while flying across the flying field any good flying or jumping day. But the observer's eye is held when he sees not the usual circular parachute open but a triangular 'chute, the circular type being used quite frequently on the field.

A practiced eye immediately recognizes the lighter shock load opening, the lower rate of descent, the outstanding maneuverability during descent and the lighter shock load of landing of the Triangular Parachute in comparison with the Standard 'Chute. Recently, Sergeants Pearson and Marchewka, both of the Parachute Department, made a double parachute jump while the anemometer registered a 14-mile per hour surface wind. Sergeant Pearson used a 24-ft. Triangle 'Chute, while Sergeant Marchewka used a 28-ft. Triangle 'Chute. They bailed out at approximately 2,000 feet. Their drift during descent was in the neighborhood of only 2,000 feet, which shows the desirability of a parachute which can be maneuvered to advantage during descent, especially in a moderately strong wind. Both men reported an exceptionally light landing shock as compared to that one would expect using a Standard parachute in such a strong wind.

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NO PARACHUTES IN BOLIVIA

There is at least one country in the world where parachutes are about as useful as snowshoes in the tropics. According to Lieut. A.Y. Smith, Air Corps, who recently returned from a tour of duty in Panama and who visited South America during a leave of absence, the Bolivian Air Force does not include the parachute as an item of individual equipment for its fliers.

As is well known, Bolivia is a very mountainous country. La Paz, the capital, is situated at an altitude of about 13,000 feet, and it may be said that this city, in point of altitude above sea level, is the highest in the world. The same holds true of its landing field. Due to the rarity of the atmosphere in this country, the rate of descent of a parachute is so fast that it is dangerous to life or limb. Instances are known where Bolivian fliers suffered broken legs and other severe injuries after making parachute jumps.

As may be surmised, flying in Bolivia faces many handicaps. Because of the lack of density of the atmosphere, landing fields must, of necessity, cover large areas. Landings are fast, between 60 and 80 miles an hour, depending on the type of plane used. Take-offs are difficult and require a very long run before the plane finally takes the air.

Lieut. Smith states that there are a number of very good landing fields in Bolivia, some of these being on vast plateaus at an altitude of about 12,000 feet. Bolivia uses British Vickers and some French Breguets. A number of planes are equipped with extra size wings in the endeavor to overcome the high altitude handicap.

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BOEING XP-936 POWERED WITH PRATT-WHITNEY

In the issue of the News Letter of May 28, 1932, page 206, touching on the new XP-936 Boeing Pursuit plane which Major Gerald E. Brower, Air Corps, ferried from the Boeing Plant at Seattle to Selfridge Field, Mich., it was stated that this airplane is powered with a Wright SR-1340G engine. This was an error, the proper designation for the engine being "Pratt-Whitney SR-1340-G."

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On his first visit to Rockwell Field, Calif., since he became Chief of the Army Air Corps, General Benj. D. Foulois arrived by plane on August 2nd for a 3-day stay. General Foulois, flying in an O-38, was accompanied by Major W.G. Kilner, Executive Officer to the Assistant Secretary of War; Major Ralph Royce, General Staff; Lieut.-Col. G.I. Jones, Chief Flight Surgeon; and Capt. A.B. McDaniel from the Office of the Chief of the Air Corps.

HAROLD GATTY AT WRIGHT FIELD

WRIGHT Field was the scene of an interesting event on August 1st, when Harold Gatty, round-the-world air navigator, opened the new course of the Air Corps Engineering School, by conducting a concentrated course in Celestial Navigation, same lasting a week. Mr. Gatty is at present stationed at Bolling Field, where he is engaged in the development of different methods of aerial navigation and methods of navigational instruction. He recently completed a tour of Europe during which he studied and coordinated European air navigational systems in use in different countries. He also attended the Conference of International Transoceanic Fliers held at Rome early in June.

Gatty is conceded to be one of the foremost living authorities on aerial navigation. Few flights of world importance are made without his advice and that of Captain Albert F. Hegenberger, who stands in the same category, being sought by the fliers in the planning of their routes and instruments. Gatty considers the greatest flight ever made from the point of view of navigational precision to be that of Coste and Bellonte, from Paris to New York in September, 1930. His own flight with Wiley Post, in which the two aviators circled the world in June, 1931, in 8 days, 15 hours and 51 minutes, is considered by the flying fraternity a feat possible in the given time only because of Gatty's navigational expertness. A combined speed and drift-indicator invented by himself was used constantly on this flight.

Student-officers found Gatty's lecture and demonstration classes of intense interest and value. He returned to Washington at the end of the week.

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BORDER RECONNAISSANCE MISSION AT FORT ETHAN ALLEN

The 9th Observation Group, stationed at Mitchel Field, N.Y., recently carried out a 17-plane border reconnaissance mission, using Fort Ethan Allen, Vt., as the point of rendezvous. The flight consisted of five 3-ship elements, the Fokker Transport, and the command plane, piloted by Major William Ord Ryan.

The Transport preceded the flight to Fort Ethan Allen with the new SCR 177 portable radio transmitting and receiving set now on service test at Mitchel Field. The set was put in operation prior to the arrival of the five separate units, and radio communication was successfully established with each unit on different simulated reconnaissance missions from five to thirty miles distant.

The SCR 177 was designed at the Signal Corps Laboratories at Fort Monmouth, N.J., as a replacement for the present SCR 136, and represents the latest equipment in a 50 watt transmitter. Excellent results were obtained with the SCR 177 set, and with the safe and timely arrival of all five elements at Fort Ethan Allen, the mission was considered highly successful.

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PLANE LOCATES PARTY LOST IN THE HAWAIIAN WILDS

Again the eyes of the Service were instrumental in locating personnel lost in the mountains and dense forests of the Koolau Mountains, Hawaii. On the morning of August 1st, planes were requested to make a search for seven men, reported missing from Schofield Barracks, who were on a mission of blasting new trails. Two planes from Wheeler Field immediately took off and flew over the area in an effort to locate the men and drop food to them. Two attack and two pursuit ships were paired up and sent out, one attack and one pursuit plane covering each side of the range.

The discovery of the missing men was made by Lieut. Sloan, with Lieut. Woodbury as his observer. Lieut. Craw, flying the pursuit plane in the windward Koolau team, then stood by while Lieut. Sloan went back to Wheeler Field.

Pilots flying on the leeward side of the mountains were Lieuts. J.W. Stribling and E.W. Napier in an attack plane, and Lieut. Rudolph Fink in a pursuit ship.

As soon as contact was made with the men, searching parties from Schofield Barracks were sent out in the direction given by the planes, and within one hour all seven men, four officers and three enlisted men, were being escorted back to their post, somewhat exhausted from their harrowing experience.

NUMEROUS COOPERATIVE MISSIONS WITH OTHER BRANCHES

COOPERATIVE missions with other branches of the service have accounted for 689 hours and 20 minutes of flying time by planes stationed at Luke Field, T.H., the past year. Artillery adjustment, both Coast and Field, Infantry missions, searchlight drill, radio communications and many other exercises were performed. All of these have the common purpose of uniting the air and ground forces into a combination in which every part will coordinate perfectly.

Reports of the results achieved in long range artillery adjustment have appeared previously in these columns, and it will be remembered that experiments by the long range firing board were responsible for the development of new methods and procedure along this line. During these exercises, which occupied approximately 150 hours flying, a specially equipped plane was used to adjust coast artillery fire at ranges varying from 8,000 to 40,000 yards.

The location of shots was first obtained by means of observation from the spotting plane coupled with the efforts of radio direction finders located along the shore of Oahu, which found and plotted the position of the plane in relation to the firing battery, while the plane was discovering the location of the target with relation to itself. Cooperation with the anti-aircraft and searchlights have also helped both forces. The fliers learn how to avoid "archy" fire and the searchlight beams, and the ground forces learn how to shoot accurately and how to hold a plane in the searchlight beam.

Missions with the Infantry have been equally satisfactory, and prove without doubt the value of the air force as the "eyes of the army." Close cooperation is possible here only with perfect communication and a meticulous attention to all details involved.

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EDWARD J. STEICHEN AT WRIGHT FIELD

During the first week in August, Wright Field had a notable visitor in Edward J. Steichen, of New York City, generally conceded to be America's leading photographer. Col. Steichen's visit was for the purpose of securing information for the making of an airplane mural which is to be mounted in Theatre No. 8 in the Rockefeller Center (Radio City) in New York. In securing this material, Col. Steichen's work at the field lay principally in photographing airplanes and parts of the field.

A native of Milwaukee, Col. Steichen early through natural taste drifted from amateur into professional photography. Establishing a studio in New York, he gradually became known not only for his portrait work but for his "still" photography which had been used in some of the best known advertising features in the country. For some years Vogue and Vanity Fair have held the contract for the exclusive magazine use of all of his photographic work. He is also a painter of note, having studied in Paris, and some of his pictures being in the Luxembourg Museum in Paris and the Metropolitan Museum in New York.

Col. Steichen also has an enviable war record, having been in charge of aerial photography for the U.S. Army Air Service during that period, with the consequent flying experience entailed. When the war ended, he retired with the rank of Colonel, returning to his commercial and artistic work. Hence he is very much at home at the Army post.

Although his favorite photographs are of still life, he has photographed many of the most famous people in the world. Greta Garbo, Lillian Gish, John D. Rockefeller, Gene Tunney, Bill Tilden are but a few of the notables who have come under his camera. Nor is the list confined to those of the stage and sporting fields, but includes leading diplomats, professionals and scientists.

Col. Steichen returned to New York upon completion of his work at Wright Field. He was accompanied by his assistant, Henry Flannery.

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In cooperation with the Forestry Department of the Hawaiian Sugar Planters Association, Bombing planes completed a mission of scattering a cargo of tree seeds in the Koolau Mountains on the Island of Oahu. Requests of this nature have been made on several occasions, and planes of the 18th Composite Wing made available for same.

TROOPS ARRIVE AT ROCKWELL FIELD

BEGINNING June 25th, considerable activity marked the operations at Rockwell Field, Coronado, Calif. On that date, 12 officers and 88 enlisted men reported to that station from March Field, and two days later the personnel was supplemented by the arrival of 15 enlisted men from the First Balloon Company, Post Field, Fort Sill, Okla. On June 25th, in compliance with War Department orders, the 19th Bombardment Group Headquarters, 30th Bombardment Squadron and the 32nd Bombardment Squadron were given active status with station at Rockwell Field. On that date also, the 76th Service Squadron, which was stationed at this field since it was placed on active status in November, 1930, was transferred from the 20th Pursuit Group to the 19th Bombardment Group. The new units were organized on a skeleton basis from the incoming personnel from March and Post Fields and by transfer of approximately 50 men from the 76th Squadron to the new units. The 72nd and the 23rd Bombardment Squadrons, both active units of the 19th Group, are to continue their station in the Hawaiian Department, attached to the 5th Composite Group.

The Group Staff is as follows: Group Commander, Capt. H.M. McClelland; Group Adjutant, 1st Lieut. Guy Kirksey; Group Operations, 1st Lieut. W.T. Larson; Group Supply, Capt. H.B. Chandler; Group Engineering, 1st Lieut. D.H. Dunton; Group Personnel Adjutant, 2nd Lieut. W.W. Gross.

The Staff of the 30th Bombardment Squadron is as follows: Squadron Commander: Capt. J.L. Grisham; Adjutant, 2nd Lieut. T.B. Anderson; Operations, 2nd Lt. Gerald Hoyle; Engineering, 2nd Lieut. J.W. Brown; Supply Officer, 2nd Lieut. C.W. Haas. The First Sergeant of the 30th is Edward Smith, recently transferred to Rockwell Field from Randolph Field. Line Chief of the Squadron is Master Sergeant Andrew May.

The Staff of the 32nd Bombardment Squadron is as follows: Squadron Commander: Captain H.N. Heisen; Squadron Operations and Engineering, Capt. C.W. Pyle; Asst. Squadron Operations and Engineering, 2nd Lieut. H.G. Bunker; Adjutant, 2nd Lieut. R.W. Goetz; Supply, 2nd Lieut. R.W. Goetz; Acting First Sergeant, Staff Sgt. Jack Kerr; Line Chief, Master Sergeant T.W. Richards.

The Staff of the 76th Service Squadron consists of Capt. R.K. LeBrou, Squadron Commander; 1st Lieut. C.E. Archer, Adjutant, also Operations and Engineering; 2nd Lieut. J.F. Walsh is Squadron Supply Officer. The First Sergeant is F.J. Birk and Line Chief, Tech. Sgt. Charles Loeffler.

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RESERVE OFFICER TRAINING AT MITCHEL FIELD

Air Corps Reserve pilots of the Second Corps Area just completed a successful tour of active duty at Mitchel Field. Forty pilots received active duty training during the two periods of instruction. The 861st Observation Squadron, with 21 pilots, was in camp from July 10th to 23rd, and the 303rd Observation Squadron, with 19 pilots, from July 24th to August 6th. The training was under the supervision of Lieut. C.J. Kenney, Air Corps, with planes and equipment of the 1st Observation Squadron.

The schedule for air work included a check ride, Gunnery, Photography, Avigation and Cross-Country. Each pilot averaged 13 hours in the air for his two weeks' training. The avigation and cross-country were incorporated in flights to Albany, Boston, Camp Dix and Atlantic City.

With every ship intact, without even so much as a scratch on any, the officers should be proud of the record made. Mitchel Field was glad to have these officers with them again, even if for only the two weeks' period.

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BOMBERS AID RESERVE TRAINING AT PEARSON FIELD

A flight, consisting of one B-2 and one B-4A Bombers left March Field, Calif., July 22nd, for Pearson Field, Washington, for the purpose of aiding in the training of the 489th Bombardment Squadron (Reserve) at Vancouver. The pilots were 1st Lieut. P.E. Burrows, 2nd Lieuts. John S. Mills, M.L. Harding, Air Corps, and Fred N. Ward, Air Reserve. As an inaugural event commencing the second week of training, the B-4A, piloted by Lieut. Ward, found a soft spot in the Department of Commerce field at Troutdale, Oregon, 22 miles east of Pearson Field, and turned upside down. The plane was so severely damaged that it required a major overhaul, but there was no injury to personnel.

A NEW CROSS-COUNTRY KIT

HAVE you ever seen a pilot leaving any post operations about to start on a cross-country? Envelope under his elbow, trying to balance the first aid kit and smoke candles on one arm, helmet on his head with his goggles gingerly dancing in his eyes and, perhaps, his clearance protruding from between his teeth?

"Well, gone forever are such days, especially if you are lucky enough to be stationed at Mitchel Field, N.Y., and luckier to have a cross-country," says the News Letter Correspondent.

A new idea consisting of a handy kit made to contain all cross-country necessities was originated in Captain Pursley's office in Post Operations through the combined efforts of Captain Pursley and Lieut. Bawsel. The Parachute Department under Tech. Sergeant Pearson has just finished the first ten of these kits. They are made out of khaki-colored waterproof duck, with a web carrying strap securely sewn across the top. The inside dimensions are 9" x 12" x 2½", which snugly accommodates the cross-country envelope, three smoke candles, and the new Aeronautical First Aid Kit recently received at Mitchel Field. A generous flap protects the contents from the elements and is held down by two Lift-the-Dot fasteners. On the reverse side one finds an open pocket sufficiently large to receive all the necessary maps for the flight. Stenciled identification states the office and station of origin on each kit.

It is rumored that an additional compartment will be added to the original kit in the near future and will contain ample space for such flight indispensables as ear-cotton, chewing gum, and a year-old issue of "True Detective Stories" for the back seat boys.

The Operations Officer at Mitchel Field will gladly give out all information concerning these kits to any and all interested parties.

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MARCH FIELD ENTERS OLYMPICS

March Field was active recently in Olympic Games activities - not as contestants but as interested co-workers. A mosaic map of certain areas in the vicinity of Los Angeles was prepared by the 23rd Photo Section to assist officials in laying out routes for marathon runs, equestrian events, and automobile traffic.

Together with 200 Navy and Marine airplanes, the First Bombardment Wing, March Field, participated in a mass flight over North Island in honor of the N.E.A. and foreign journalists on July 28th. This flight was the greatest peacetime air spectacle ever held on the Pacific Coast. On the following day the Wing flew over the new State Building in Los Angeles during the dedication ceremonies. Vice President Curtis and numerous governors and other celebrities assisted in the program. Following this review, the Wing proceeded to the Los Angeles Municipal Airport where it put on fifteen minutes of tactical formation in honor of Olympic participants and officials, and landed for an inspection by the distinguished guests. The March Field band aided in the program by a series of selections before and after the review. A professional radio announcer, assisted by an Army officer, explained the maneuvers to the visitors over a loud speaker system. It was estimated that a million people saw the Wing in action during the two days.

On the Los Angeles flight, the Wing had as its guest of honor Major-General Benjamin D. Foulois and his staff, who arrived at March Field the day before on an inspection trip. General Foulois attended the opening of the Olympic Games before returning to the East Coast.

MISS EARHART GUEST OF MARCH FIELD

Amelia Earhart Putnam, famous Trans-Atlantic flyer, was the guest of the Commanding Officer, March Field, Riverside, Calif., on August 6th, at which time the First Bombardment Wing staged a review in her honor. Mrs. Putnam was accompanied by her son. Following the review, the two visitors were the guests of Lieut.-Col. and Mrs. Arnold at luncheon. Early in the afternoon they returned to Los Angeles to attend the Olympic Games.

A PRETTY TWO-POINT LANDING ✓

FLYING three hundred miles with the broken right wheel of his plane suspended in mid air under the left wheel, reaching his station, and successfully landing his plane without further damage thereto or injury to himself was the distinctive experience of 2nd Lieut. James E. Darby, Air Reserve, 12th Observation Group, Brooks Field, Texas, on July 30th.

Lieut. Darby had accomplished a cross-country mission to Graham, Texas, near Dallas, and was leaving the Graham airdrome for the return to Brooks Field, when the landing gear of his O-19 plane struck a slight embankment, with the result that the right wheel was torn from the plane, and swung in mid air underneath the left wheel.

Noting his plight, Lieut. Darby hastily scribbled a note and threw it down to airdrome personnel who immediately informed Brooks Field by phone. When the pilot arrived at Brooks Field he was met by two planes. On fuselages in box lettering, he read: "Either jump or land, at your discretion." Lieut. Darby elected to land, whereupon he accomplished, in the vernacular of the crew breathlessly watching, "one of the prettiest two-point landings ever accomplished at Brooks Field," - on the belly tank and tail wheel of his plane.

The young officer was highly commended by the Commanding Officer of Brooks Field, Major Frank D. Lackland, and by his fellow officers for his unusual feat, especially noteworthy, since Lieut. Darby is but a recent graduate of the Air Corps Advanced Flying School, and the sum total of his experience in flying covers a period of less than a year since his orders to active duty at Brooks Field.

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RESERVE FLYERS "DO THEIR STUFF" DURING OPENING OF WATERWAY

When the Hon. Patrick J. Hurley, Secretary of War, officially opened the Kansas City-St. Louis waterway on the Missouri River recently, he did so to the tune of roaring D-12's and Wasps, ships of the 430th Pursuit Squadron, led by Captain William B. Wright. The waterway being a revival of transportation methods of 75 years ago, the two forms of transportation must have afforded a unique contrast to the members of the party aboard the boat.

The squadron put on two performances, one group going up the river at nine o'clock in the morning and another at three in the afternoon. They consisted of one 3-ship formation of O-1E's and another of one O-38 and two O-1E's. The flying drew a commendation from the Secretary. The pilots were Captain W.S. Green, Lieuts. A.L. Darby, J.N. Going, B.A. Sweeney, T.S. Poquette, A.G. Hunter, C.D. Daily, W.M. Campbell, W.R. Alemang, R.C. Farrell and Captain W.B. Wright. All are Reserve pilots except Captain Wright, Army Air Corps, and Commander.

The News Letter Correspondent from Richards Field, Kansas City, Mo., forwarded a photostat copy of a letter of July 23rd which the Secretary of War addressed to Captain Wright. Appended thereto was a slip reading: "Ye Editor:- With no apologies to Boston Reserves." The Secretary's letter reads as follows:

"Dear Captain:

I congratulate you and the officers who served with you in the flying escort that preceded the Mark Twain, on board of which I entered the Port of Kansas City on my recent inspection of the Missouri River.

I deeply appreciated the courtesies shown me by your organization and I commend you and the members of the organization on the splendid ability shown by the fliers throughout the maneuvers.

With kind personal regards and best wishes, I am

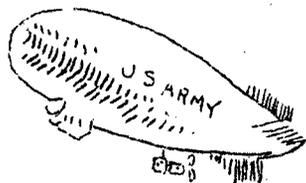
Sincerely yours,

(s) Patrick J. Hurley."

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The March Field Band became inactive as of July 14, 1932. The personnel thereof were attached to other organizations on the field, but have continued to operate as a volunteer organization. Warrant Officer Eto Innocenty, Band Leader, was assigned to duty as Leader of the 14th Coast Artillery Band at Fort Worden, Washington.

ARMY'S BIGGEST BLIMP NEARS COMPLETION



The largest non-rigid airship in the United States, now under construction by the Goodyear-Zeppelin Corporation of Akron, Ohio, and to be used by the Army Air Corps for coastal patrol work, is expected to be completed and ready for trial flights by October 15th next.

This airship, known as the TC-13, will have an overall length of 233 feet, a diameter of 54 feet, and a height, including the airship car carried underneath, of 69 feet. It will have a gas capacity of 360,000 cubic feet, with a gross lift of 22,300 pounds. Its lifting power will be non-inflammable helium gas, and it is designed to carry from 900 to 1300 gallons of fuel, depending on the length of the cruise. Its cruising range will vary according to the rate of speed it will travel. For instance, it will cover a total of 1,000 miles at a speed of 65 miles per hour, 1800 miles at 50 miles per hour, and it can remain in the air about 100 hours at a speed of 25 miles per hour. A noteworthy feature of this big airship will be its ability to pick up fuel during flight.

At present the largest airships operated by the Army are approximately 200 feet long, with a gas capacity of 200,000 cubic feet.

The airship car in the TC-13 is to be internally suspended flush with the envelope, its supporting cables dropping from the top of the inside of the gas compartment of the envelope. Two air balloonets will be installed in the envelope for trim and expansion. The present type airships have the car suspended below the bag with cables supporting it attached to the exterior of the envelope. On each side of the car at the center will be installed two engines of 375 horsepower, each of which will be geared at a ratio of three to two for three-bladed propellers, the motors turning three times to two turns of the propeller, thus reducing the speed of the propellers and causing less noise.

The car will be of welded tubular construction, enclosed, and the covering will be corrugated metal and fabric. There will be space for three pilots, two mechanics, a navigator, radio operator, and bomber, with sleeping accommodations, toilet facilities for the crew, a compartment for bombs, a sub-cloud car, and an extra-strong radio set with a range of 3,000 miles. The tanks for fuel, water, and storage will be overhead. These tanks, in the event of trouble, can be dropped by the pilot at his discretion, thus providing greater buoyancy.

The sub-cloud car, originally designed in this country by the Air Corps, is an improved model of the first car, its advantage lying in the fact that the ship may hide above the clouds, while an observer in the car below the clouds can observe actions on the ground and report by telephone to the ship. A single cable will support the sub-cloud car about 1,000 feet below the ship.

A distinctive feature of this new airship is five control surfaces instead of four as in present types. These stabilizing surfaces will be in the rear of the ship - one atop the envelope, an elevator on either side and two rudders on the bottom.

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WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Langley Field, Va.: Captain Paul J. Mathis from Office Chief of the Air Corps; 2nd Lt. Dwight B. Schanep from Panama.

To Kelly Field, Texas: 2nd Lieuts. John J. O'Hara, Jr., and Fredric H. Smith, Jr., from Panama.

To Bolling Field, D.C.: 2nd Lieut. George P. Moody from Panama.

To Barksdale Field, La.: 1st Lieut. Jack Greer from Philippines.

To Mitchel Field, N.Y.: 1st Lieut. Otto Wienecke from Philippines.

Orders transferring 2nd Lieut. Kenneth C. Brown from Crissy Field to Chanute Field revoked.

DETAILED TO AIR CORPS: Captain Harold J. Adams, Signal Corps, and to Randolph Field, Texas, not later than October 15th for primary flying training.

RETIREMENT: 2nd Lieut. Henry A. Winters to proceed to his home to await retirement.

PROMOTIONS: 1st Lieut. Fred E. Woodward to Captain, rank August 8, 1932; 2d Lieut. Thurston H. Baxter to 1st Lieutenant, rank August 7, 1932.

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Send in your contributions to the News Letter on the 1st and 15th of the month.

NOTES FROM AIR CORPS FIELDS

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Material on this and subsequent pages are not for publication.

Rockwell Field, Coronado, Calif., August 3rd:

Rockwell Field was the scene of a brilliant farewell reception to its Commanding Officer on July 25th. Leaders in San Diego and Coronado civic circles, as well as Army and Navy society, attended a reception on the lawns surrounding the Commanding Officer's quarters, both as a farewell gesture to Colonel and Mrs. Yount and as a welcome to the new Commanding Officer, Major S.W. Fitzgerald and Mrs. FitzGerald. Col. and Mrs. Yount left Rockwell in time to attend the opening of the Olympic Games at Los Angeles on July 30th, and motored from there to San Francisco to embark on the transport en route to Col. Yount's new command at Bolling Field. Maj. Shepler W. FitzGerald assumed command of Rockwell Field on July 29th.

Eleven recent graduates of Kelly Field arrived at this post to begin their one year tour of active duty and were assigned as follows, effective July 25th.

To 30th Bombardment Squadron: 2nd Lieuts. Wilbur W. Breeding, Henry M. Celik, William G. Ditzen, Theron S. Jobson and John R. Kane, Air-Res.

To 32nd Bombardment Squadron: 2nd Lieuts. Cedric J. Brockliss, Glenn C. Clark, Lloyd W. Earle, Francis H. Matthews and Nathan F. Searles, Air-Res.

To 76th Service Squadron: 2nd Lieut. William L. Trimble, Jr., Air-Res.

The rather scant lineup of aircraft assigned to the 30th and 32nd Bombardment Squadrons was further depleted on Aug. 1st, when Capt. Ellers, Nutt and Lieut. Steel, all of Kelly Field, cleared this station with two B3-A's and one Y1B-4, until recently assigned to the 30th and 32nd. The three Kelly Field pilots and the necessary enlisted crews were flown here by Lieut. George Price in a Ford Transport. It is understood that the Keystones are to be only a four months' loan to the Kelly Field School.

Lieut. Joseph T. Morris, A.C., arrived here July 18th for duty with the Rockwell Air Depot. Lieut. Morris is a recent graduate of the Engineering School, Wright Field, Dayton, Ohio.

Warrant Officer Harry B. White arrived this station June 30th for duty and was assigned as Chief Clerk. Mr. White was transferred to this station from duty with the Reserve Officer's Training Corps, University of California, Berkeley, Calif.

Brooks Field, San Antonio, Texas, Aug. 15th:

Brooks Field is in the unusual position of having more airplanes than pilots. The post is seriously handicapped by a shortage of officers. Under the Army Tables of Organization, as prescribed by the War Department, the Twelfth Observation Group at Brooks Field is allotted a total of 90 officers, including Regular Army and Air Corps Reserve officers on active duty details. The greatest number of officers the group has ever had since it was concentrated at Brooks Field has been 78, and this number has been continually reduced. The group comprises 800 enlisted men and 48 airplanes.

The Group was scheduled to have 18 graduates from the last class of the Advanced Flying School, Kelly Field, but finally only two of these 2nd Lieutenants of the Air Corps Reserve were assigned for active duty training.

First Lieut. Winfield Scott Hamlin, Adjutant of Brooks Field, is receiving the congratulations of his many friends throughout the Service on the announcement of his engagement to Miss Vivian Johnson, charming young social favorite of San Antonio. The wedding will be solemnized the latter part of September.

Lieut. Claire Stroh, A.C., of Flight "E", 16th Observation Squadron, Ft. Sill, Okla., was a recent visitor at Brooks Field, en route to the Depot Supply Conference. Other guests at Brooks Field included Lieuts. Day and Meyers in two P-12 E's, who arrived August 8th on extended cross-country missions from Selfridge Field. Lieut. Franklin, also of Selfridge Field, joined them the following day, having had motor trouble at Scott Field.

On August 3rd, Capt. Benjamin F. Griffin led a flight of six O-19E airplanes from the 12th Observation Squadron to Brownsville, Texas, on a night aviation flight.

Officers of the 12th Observation Group, Brooks Field, have been seeking relief from the heat wave which swept over the country the past few months by trips to Matagorda Island, where they report the fishing excellent and the sea breezes exceptionally refreshing.

Langley Field, Va., August 5th:

Lieuts. Rowe, Gunter, Moxin, Foley and Turner of the 8th Pursuit Group recently returned from Middletown, Penna., following a very instructive and interesting trip through the Air Depot at that station. These officers were extended the privilege of visiting the Depot and were well pleased with the knowledge of engineering and maintenance gained by them. The personnel of the Middletown Air Depot extended every courtesy possible to the Langley Field officers. Trips of this nature bring about a better understanding between the Depot and Tactical units of the Air Corps.

March Field, Riverside, Calif., Aug. 2nd:

The following Reserve officers who completed their training at the Air Corps Flying School, reported for duty at March Field: 2nd Lieuts. Robert W. Brady, William L. Clark, Clifton V. George, Wilburn R. Hunt, John P. Spake, James T. Workman, Robert E. Cooper, Jr., Paul J. Hanspeter, Roger M. Reynolds and Fred D. Stevers.

Lieut. and Mrs. J.C. Crosthwaite are the proud parents of a new aviator, age 4 years. He was recently adopted and will go under the name of John Hugh, ("Kim" Crosthwaite).

The following men left March Field August 4th to report to the 9th Corps Area Athletics Officer for training with the West Coast Army Football Team: Pvts. Maurice Goldberg, Frank M. Miller, Wilbur J. Arnold, Robert S. Pechner, Eldred V. Scott, Joseph Markovich, John W. Smith, Jacob G. Orr, Cecil C. Sanders, Adolph Willers, Albert E. Rhoades and Homer Strickland.

Three matrimonial announcements were made since the last issue of the News Letter.

2nd Lieut. Calvin B. Simmons, A.R., was married on July 6th to Miss Emili DeVore at Pueblo, Colo., where her parents live.

2nd Lieut. Arthur E. Livingston was recently married to Miss Margaret Hastings of Riverside.

Announcement was made of the engagement of Miss Joan Kimball of Los Angeles to 2nd Lieut. Donald Lyon.

The 95th Pursuit and 11th Bombardment Squadrons, from this station, in camp on the sandy shores of Rockwell Field, spent the first week of their bombing and gunnery season in the most morale-destroying activity known to man - waiting for weather to clear. But Old Devil Gloom was finally conquered by a series of athletic contests. A baseball game between the officers of the two squadrons resulted in a dinner in Mexico, paid for by the Bombers. But this defeat at the hands of the quick-thinkers served only to arouse the pride and fighting spirit of the 11th. A challenge was issued to their rivals for a novel "Triathlon", in which each officer drew the name of a rival for contest in tennis, trap-shooting and horseshoes. For two days, during off-duty hours, battle-cries filled the air as tennis balls shot across the island like golf-balls, horseshoes buried themselves in the sand, and clay pigeons tried in vain to escape the persecution of carefully directed buckshot. The contest ran even up to 17-18, in favor of the 95th, when Graves, the Army's champion Pursuit gunner cinched the victory by coming thru with a spectacular finish in horseshoes. And again the 11th paid for the dinner. But the 95th, in appreciation of the hospitality shown, invited the 11th, without a contest, to a third dinner across the border.

Mitchel Field, L.I., N.Y., Aug. 15th:

Organized sport is being developed not only in tennis but also in golf, squash, handball, basketball and bowling. An Athletic Association was formed, which will foster the development of clubs engaged in the various sports. Each club will have a captain and manger and will generate all impetus toward actual participation in the sport.

During July, two new children were born to officers of Mitchel Field - a boy to Capt. and Mrs. Evans and a girl to Lieut. and Mrs. Morrow. Capt. Evans' boy was born on the morning of July 4th, and started off the fireworks for the day. He was born at the Polyclinic Hospital in New York and was named Frederick W. Evans, Jr. Lieut. Morrow's baby girl was born on July 12th at the base hospital, Fort Totten, N.Y. This baby, who was named Jane, is the second for Johnny Morrow, the other being a boy now two years old.

Patterson Field, Fairfield, Ohio, Aug. 2nd:

Capt. H.W. Flickinger departed from this station July 21st on 30 days' leave, accompanying Maj. Aldrin, Air-Res., former Captain in the Air Corps, to Venezuela, South America.

The following were cross-country visitors at this station July 15th to 31st, inclusive: From Ft. Sill, Okla: Capt. Pritchard; Lieuts. Ritchie with Kirkendall - Selfridge Field: Lieuts. Bradley; McFerren with two passengers; Garrison; Schlanser; Hersam; Black and McLaughlin; Muffat; Auton - Cleveland, Ohio: Capt. Barnhill; Lieut. North; Capt. Price - Ft. Crockett, Texas: Lieut. Foster - Langley Field, Va.: Lieuts. Hanna and Picher; Rowe, leading a flight of five P-12's; Robertson; Capt. Olds - Columbus, Ohio: Lieuts. Rogers with Collins; Bryan and passenger; Davidson - Chanute Field, Ill.: Lieuts. Williams; Scott; Spry with Maj. Brown; Burgess; Capt. Hayward; Rivers - Schoen Field, Ind.: Lieuts. Gullet; Smith; Houle with Matthews - Scott Field, Ill.: Capt. Hayes with Lieut. Bulger; Lieut. Schulgen - Bolling Field, D.C.: Capt. Crosthwaite; Lieut. Jamison - Stout Field, Ind.: Capt. Gale with Lieut. Daniels - Lunken Airport, Ohio: Capt. Schlegel; Lieuts. Coleman with Wheat; Hart - Chicago, Ill.: Lieut. Newhall with passenger - Bowman Field Ky.: Lieut. Welsh.

The following officers ferried airplanes to this station for major overhaul during the past two weeks: From Maxwell Field, Ala.: Capt. Blackburn in a P-12C, July 16th; Maj. Echols in an A-3, July 19th; Lieut. Mills in an A-3, July 20th; Capt. Paul in a BT-2B; Moore in an O-25A; Lieuts. Horton and Moon in A-3's, July 21st; Lieut. Kase in P-12C, July 29th - From Cleveland, Ohio:

Lieut. Backes in an O-38, July 21st - From Ft. Benning, Ga.; Lieut. Mace in an O-25, July 24th - From St. Paul, Minn.; Capt. Palmer in an O-38, July 24th - From Selfridge Field; Lieut. Adams in a P-12C, July 25th - From Scott Field, Ill.; Lieut. McLennan in an O-19, July 25th.

The following officers ferried planes to this station for minor repair during the past two weeks: Lieut. Coleman in an O-1-E from Lunken Airport, July 15th; Lieut. Catron in an O-2-H from Sky Harbor, Tenn., July 16th; Lieut. Rogers in a BT-2 from Columbus, July 16th; Lieut. Smith in a BT-2 from Schoen Field, July 18th; Lieut. Carpenter in an O-17 from Stout Field, July 19th; Capt. Herold in an O-2-H from Robertson, Mo., July 20th; Lieut. Barnett in an O-25 from Ft. Benning, Ga., July 24th.

During the past two weeks cross-country flights by officers at this station were made as follows: Capt. Flickinger and passenger to Columbus, July 15th, and with Lieut. Irvine to Columbus, July 18th; Lieut. Irvine to Columbus, July 15th; to Ft. Wayne, Ind., July 20th; to Columbus, July 21st; Capt. Bivins with Sgt. Blair to Selfridge Field, July 18th; Lieut. Timberlake with Lieut. Irvine to Columbus, July 19th; to Stout Field, July 26th; Lieut. Goodrich to Marshall, Mich., July 29th; Lieut. Zeigler to Denmark, S.C., July 30th.

Lieut. Melvin B. Asp, visited this Depot on July 29th, en route to Maxwell Field, Ala., where he was assigned for duty. Lieut. Asp has been on leave of absence from this station since June 5th, which he and Mrs. Asp have been spending in Panama.

The following airplanes and engines (both major and minor) were overhauled at this Station during June: Airplanes - total, 38; major 19, minor 19. Engines - total 63, major 41, minor 22.

Lieut. G.V. McPike ferried a P-12B airplane to Langley Field, July 22d. Tech. Sgt. Guile ferried Air Corps supplies to Selfridge Field, Mich., July 20th; to Scott Field, Ill., July 21st; to Scott Field, Ill., July 22nd; to Selfridge Field, Mich., July 23d and to Lunken Airport, July 30th.

Lieut. R. L. Williamson ferried Air Corps Supplies to Scott Field, Ill. on July 15th and Lieut. F.M. Zeigler to Scott Field, Ill., on July 19th.

Lieut. G.V. McPike entered the Hospital at Ft. Hayes, Ohio, on July 25th and underwent a minor operation from which he is recuperating as rapidly as can be expected at this writing.

Richards Field, Kansas City, Mo., Aug. 1st:

On July 2nd the Kansas City Reserve pilots flew to Overland Park, Kans., to help the Veterans of Foreign Wars celebrate a holiday. Five O-1E's were used, two BT-2A's and one PT-3. The first formation was led by Capt. George Wiggs, local Department of Commerce Inspector, followed by Lieuts. B.A. Sweeney; T.S. Poquette; E.P. Curry; A.G. Hunter; L. Kierman; E. Klose; M. Mullins.

The group was split up over the 3rd-4th-and-5th, six ships going to Grand Island, Nebr., and three going to Emporia, Kans. At Grand Island, the pilots were the guests of the Grand Island Whisker Club. This Club is dedicated to the growing of whiskers for six weeks out of the year, and what is meant is that those boys up there really grow 'em. The pilots were: Captains W.S. Green, J.R. Ransom, Lieuts. J.N. Going, M.R. Pincomb, B.A. Sweeney, C.D. Dailey, A.G. Hunter, T.S. Poquette, E.P. Curry, and Sgt. Mathews. Capt. W.B. Wright was in charge. Pilots to Emporia were: Lieuts. B.D. Morley, B.M. Diggle, E.L. Winn; Capts. Wilton Briney, W. Moore.

On July 7th Capt. Wright led a formation to meet Col. McCormick, owner of the Chicago Tribune.

Kelly Field, San Antonio, Texas, Aug. 11th:

Capt. Wilfred H. Hardy, A.C., reported for duty at Kelly Field, having completed a tour of duty in the Philippines.

Lieut. Harold A. Moore, Instructor in the Observation Section, and Lieut. Odas Moon, Instructor in the Bombardment Section, were promoted to the grade of Captain.

Capt. Orlo Quinn, A.C., Bolling Field, Washington, D.C., is on leave visiting friends in San Antonio and Kelly Field.

Lieut. E.A. Hillery was a visitor at Kelly Field July 28th on his way from his home station, Langley Field, to El Paso, Texas, in a B-6 airplane.

Capt. Lawrence P. Hickey, Maxwell Field, Ala., spent a few days at Kelly Field recently. He left for Ft. Crockett Aug. 6th.

Capt. B.M. Giles arrived at Kelly Field Aug. 6th from his home station, Rockwell Field, Calif. He was on his way to Randolph Field to fly a plane from there back to Rockwell Field.

40th School Squadron: Pvt. Stevent Ivie transferred from 9th Infantry, Ft. San Houston, Texas.

Cpl. Riley & Pvt. Levett returned from Hospital at Ft. Sam Houston, Texas.

The following named men are on furlough visiting their homes: Mr. Sgt. O'Briant - Corpus Christi, Texas; St. Sgt. Gaughey - Vincennes, Ind.; St. Sgt. Silberman - Fayetteville, Texas; Sgt. J. Casper - Wilkes-Barre, Pa.; Pvts. G.A. Russell - Myrtlewood, Ala., E.Z. Johnson - Barnes City, Ia., W.P. Chapman - Lufkin, Texas, A.F. Parker - Yamassee City, Mich.

Pvt. Bernard Doherty purchased his discharge and is now herding taxi's through the streets of San Antonio.

Pvt. Gus Peterson was promoted to Pvt. 1/cl. and we now see him driving a car that looks like a fire wagon. So far, we haven't been able to see under the red paint to find out what kind it is. At any rate, we have a new Fire Chief in the outfit.

41st School Squadron: 1st Lieut. George H. Steel made a cross-country to Rockwell Field, Calif. to ferry an airplane to this station.

Capt. C.W. Ford was relieved from this organization and departed for the Command and General Staff School, Ft. Leavenworth, Kans.

42nd School Squadron: The class has now entered into Observation training proper. Work in Puff targets, Photography, Reconnaissance and some formation flying with a navigation flight last week constitutes the training at present.

Promotion of 1st Lieut. Harold A. Moore to the grade of Captain was announced by the War Department. Capt. Moore has been an instructor in the Observation Section for quite a while. He is Flight Leader of Flight "B" in this class and also assistant Director of Observation.

The new puff target range was opened last week and so far is operating very satisfactorily. Although prearranged problems are used, any pot can be fired that is desired. This arrangement is far more desirable than the old system.

Selfridge Field, Mt. Clemens, Mich., August 9th.

Newcomers to the gunnery camp at Oscoda, Mich., include Lieuts. Brignall, Tennes and Waitkus, Air Reserve, who are serving a two weeks' tour of active duty with us. When they arrived here they received a hearty greeting from many friends of former days. Another newcomer is Lieut. D.C. Doubleday, just recently assigned to Selfridge Field from Chamute.

The annual Reserve Officers' Summer Training Camp for the Sixth Corps Area has just been completed, and all concerned feel justly proud of their unblemished performance record. Two forced landings were capably handled and no damage resulted to personnel or airplanes. Lieuts. O'Donnell and McCoy deserve credit for their excellent management of the camp.

To curtail the usual amount of preliminary training at Oscoda necessary to acquaint new officers with the technique of bombing, a bombing range has been constructed on the Eastern edge of the field. This expedient will allow all pilots to "keep their hand in" at bombing and will aid materially in training of new pilots.

Work on the field lighting system is in progress and will be completed within thirty days. The Group will start extensive training in night activities as soon as this is completed.

Movement of the various shops and field activities from old to new buildings is about completed and the machinery for efficient functioning is being set up.

Five new Reserve officers reported for a year's active duty, viz: 2nd Lts. Wilbur W. Aring, James L. Bruce, Lester E. Krug, Jesse Neal and Marion D. Unruh.

Fifth Composite Group, Luke Field, T.H., August 4th.

Four popular Reserve officers, 2nd Lieuts. Lawrence T. Pugh, Edward N. Foates, Floyd E. Nelson and George W. Peterson, completed their tours of active duty at this station and departed for their homes on the USAT "GRANT." Second Lieut. Howard B. Lathrop completed his two years of active duty as a Reserve officer and sailed for the mainland July 19th.

During the past month, the 4th and 50th Observation Squadrons each spent two weeks in the field, encamped at the Air Corps Reservation at Waimanalo, where they spent their time in intensive aerial gunnery, bombing practice and exercises.

A number of cooperative missions were flown for other branches of the service, including tracking for AA gun drill, observation, radio communications and tow targets.

Training for the units operating from Luke Field consisted of aerial gunnery, aerial photography, navigation, reconnaissance and radio communications.

The ancient and honorable game of "Barnyard Golf" - otherwise known as Horseshoe Pitching - was revived at this station, and the News Letter Correspondent has seen everyone from the C.O. to the lowliest Private indulging in this fascinating sport. A tournament is in full swing, and the enthusiasm and interest shown indicates that even though the noble horse is doomed, his memory will live forever in this game.

50th Observation Squadron: The new Squadron recreation room is almost completed and within a short time this Squadron will have the finest on the post. The Squadron area has been rearranged and landscaped, several buildings were moved and new walks laid.

4th Observation Squadron: In addition to the work at the gunnery camp at Waimanalo, the Squadron was occupied with aerial photography, mapping, reconnaissance and various other tactical training missions. Nine cooperative mis-

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The 1932 season of the Intra-Mural League, Mitchel Field, N.Y., composed of the three Observation and the Service Squadron came to an exciting climax on August 11th on the post diamond, as the exceedingly strong 5th Squadron turned back last year's champions, the 61st Service Squadron, in the most bitterly contested and thrilling game of the year, by the close score of 1 to 0. The contest was featured by the superlative hurling of the opposing pitchers, the 5th throwing Connally, their star bespectacled twirler against the smart young right-hander of the 61st. Not a hit was scored on either side until the 4th inning. Both teams battled evenly until the 5th Squadron's half of the 9th, when with runners on first and third Snow hit a hard drive to left which scored the winning run. Mix pitched a beautiful game and had he been afforded the same brand of defense as the 5th Squadron the outcome would have been pro-

longed indefinitely. His mates constantly made errors, which forced him to put everything possible on the ball.

The Selfridge Field baseball team has had, as is consistent with life, its ups and downs during the past two weeks. A combination batting practice and track meet with the Hazel Park nine from Detroit resulted in the rather decisive score - Hazel Park 7, Selfridge Field 16. Privates Harmer and Hepler pitched. The State Truckers team from Flint, Mich., won from Selfridge Field, 8 to 3, to avenge a last inning rally in last year's game that beat the Truckers' 8 runs. Selfridge won from Fairfield, 5 - 2, Private Hepler allowing only two hits.

The Fort Meade Tankers from Maryland, on July 29th, took the leadership in the 3rd Corps Area baseball playoff, dealing the Langley Field Birdmen their first setback in the championship series, score 4 to 1. "Ace" Thomas, south-paw star hurler for the Birdmen, pitched creditably, but bunched hits in the second and eighth enabled the Tankers to tally twice in each period. He set a record in Corps Area baseball this season by whiffing sixteen. Two of the six hits garnered from Wagner, speed ball merchant of the Tanks, were bunched in the final frame to net the Birdmen their solitary tally. Jeanette contributed three of these safeties. Meade presented a flashy squad of players - as fine a baseball aggregation as has been seen on the local diamond this year.

The Langley Field Birdmen, on July 31st, rallied in the later stages of the game to triumph over the powerful "Patrol Beaters" from Norfolk, 8 to 3, in a contest marked by the powerful pitching performance of "Svedo" Guin, the Airmen's speed ball merchant. Frequent spells of wildness by Gorganous, on the hill for the Coppers, proved his undoing, nine Fliers working him for free passes. "Lum" Leary, stellar shortstop of the locals, contributed a homer in the second inning, the longest drive on record this season. Wainright, Airmen's left fielder, led the assault on the Cop hurler with three singles in four times up.

On the morning of August 1st, the Langley aggregation journeyed to Fort Humphreys to meet the Engineers in a return contest. The Birdmen captured a 4 to 1 decision in the first contest. The Fort Meade Tanks are undefeated so far in the championship finals and are leading the play-off, with Langley right behind with 3 victories and one defeat. The squad will be away from their home station approximately a week for the final games of the Third Corps Area playoff. Either a championship for the Birdmen or the position of runner-up will be in the hands of the Langley aggregation upon their return from this crucial road trip.

The Intersquadron and Intergroup Baseball Leagues at March Field, Calif., which have been running full blast since last Fall, resulted in the selection of a post team which bids fair to be a leader in the great American sport in Southern California. The 95th Pursuit Squadron won the title in the Intersquadron League with a percentage of 857, with the 73rd Pursuit Squadron coming second with a 666 percentage. Eight teams comprised the Intersquadron League. The members of the 95th will be presented with individual awards at a later date. The 17th Pursuit Group continued to uphold the honors of Pursuit by winning the Intergroup series, teams being picked from four Pursuit squadrons of the Group. A trophy will be awarded to the winning Group in the near future.

Negotiations are under way for games with Mather Field, Presidio of San Francisco, Navy and Marines at San Diego and the Navy at San Pedro. The post team is composed of Tech. Sgt. J.M. Suggs, Captain; Staff Sgts. Andy Klapak, Howard B. McIlhenny, Sgts. Edgar R. Henderson, Benno W. Hild, Theodore E. Walker, Corporal David W. Norris, Pvts. Lee Cox, Donald Gagner, George P. Hammond, Robert J. Hill, Walter T. Kaylor, Arthur E. Lovering, James M. Lepper, Kenneth W. Lund, Joseph Rudolph, John P. Shadko, Edgar D. Swan and Matthew J. Woods.



Tennis for the first time since 1929 has made great strides at Mitchel Field, due to the interest stimulated by Capt. Leo F. Post, the new E. & R. Officer. A tennis tournament for enlisted men run off recently was won by Sergeant S. N. Lapsley, former champion of the Hawaiian Islands. Private George E. Miller of the 5th Squadron was runner-up. From the contestants in the tournament a team of four has been picked which will represent Mitchel Field in a Harbor League composed of teams from posts in the metropolitan area. It is expected that Mitchel Field will make a creditable showing in the opening match against Fort Jay.

BASEBALL (Continued)

Luke Field is now in fourth place in the Sector-Navy Baseball League, having dropped games to the Marines, Submarine Squadron Four, Honolulu and the Mine Craft during the month. The Luke Field nine defeated Fort Shafter and Fort Kamehameha. Although all chances of winning the pennant are gone, the team is fighting hard to rise a place or two on the list.

GOLF TOURNAMENT AT MITCHEL FIELD

A golf tournament for the championship of Mitchel Field is now being played on the Salisbury Country Club course adjacent to the field. Of the 19 starters, only about nine are left as the match play swings into the third round. Handicaps were computed on the basis of the three best scores played on the course and all play is run off accordingly. Some of the most prominent contenders at the beginning of the third round are Majors W.O. Ryan, C.H. Wash, Captains J.J. McCulloch, E.E. Harmon and Lieut. C.J. Kenney. Captain Harmon at this juncture is favored to win.

The award, a handsome silver golfer, mounted on a pedestal, has been donated by the Commanding Officer, Col. J.H. Howard.

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sions were performed, including radio communication with the 14th Naval District, target towing for the Harbor Defenses of Pearl Harbor, and artillery adjustment for the 11th Field Artillery.

23rd Bombardment Squadron: This organization moved to the Waimanalo Reservation by airplane and motor convoy, August 1st, and returned to Luke Field August 15th. The annual gunnery and bombing exercises were held there, and some high scores were made.

Several night tracking missions for searchlight drill were flown during the past month, and routine tactical missions were flown with an efficiency and dispatch that speaks well for the organization.

72nd Bombardment Squadron: The Squadron moved to Waimanalo August 16th. During the past month, training consisted of inter-plane radio communication, aerial gunnery, night flying and tow target missions. A number of tracking missions for searchlight drill were flown, boosting the total night flying time considerably.

65th Service Squadron: The 65th Service Squadron was kept busy the past month furnishing escort flights for a number of inter-island trips. Every island of the group was visited, transporting personnel and supplies.

11th Photo Section: During July, this organization was busy printing and laying mosaics. Two inter-island flights were made - one to Garden Island (Kauai) and the other to Hawaii. On these flights, several maps were made, covering approximately 400 square miles. The laboratory force turned out all the finished mosaics in record time.

18th Pursuit Group, Wheeler Field, T.H. All squadrons of the Group were occupied principally with preliminary aerial gunnery and bombing three days each week. On the fourth day, weekly, there was a Group tactical problem with radio control. Work on instrument flying, unit formation training and night flying has filled out our schedule.

Most of our pilots have become familiar with the task of towing targets for the anti-aircraft, working with the 64th Coast Artillery at Fort Weaver. Lieut. Hix just completed two weeks' temporary duty with the 64th, learning all about the problems of those on the ground and acting as liaison officer during our co-operative missions. Lieut. Horton is now serving in the same capacity.

On July 16th, the Group Commander and his staff inspected all airplanes and pilots of the Group. Following this, an aerial review was flown, units passing by in extended, open and close formation, respectively.

SERIAL NO. 321. LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Aug. 10th to 26th Incl.

Available for loan to Air Corps Organizations only upon request to
the Air Corps Library, Munitions Building, Washington, D. C.

DOCUMENTS

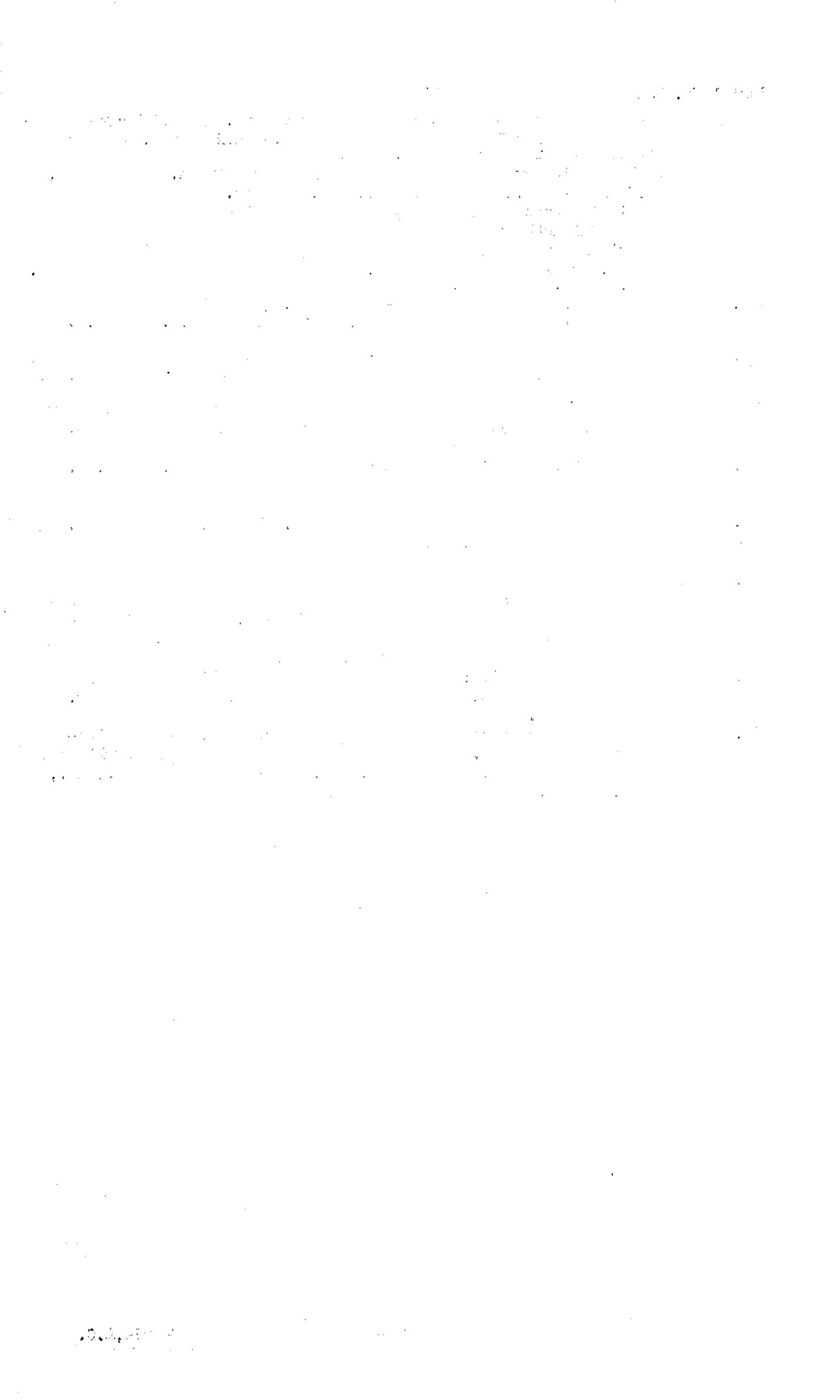
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#679 along a Wing Section, by Otto Cuno. N.A.C.A. Tech.Memo. #679,
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- D 00.12/103 Models XF8C-2, F8C-4, XF8C-7, O2C-1, O2C-2 Airplanes - tail group-
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- D 00.12/122 Allowable Shear from Combined Bending and Torsion in Round, Ellip-
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- D 00.12/122 Longitudinal Shearing Stress in a Beam of Constant or Variable
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- D 24.4/1 Stock List Class 04-B Rubber Goods. Comp. by Materiel Division, Field Service Sec., Wright Field, Dayton, Ohio. April 1, 1932. Supersedes that part of A.C. Catalog "Aircraft Hardware" dated May 1928 pertaining to Rubber Goods.
- D 52.1/431 #166 The Breda 32 Commercial Airplane (Italian); a Three-engine All-Metal Low-wing Monoplane, by N.A.C.A. Aircraft Circular #166. Washington, Aug. 1932.
- D 52.1/431 #167 Armstrong-Whitworth A.W. XV "Atlanta" Airplane (British); a Commercial Multiplace Monoplane, by N.A.C.A. Aircraft Circular #167. Washington. Aug. 1932.
- D 52.1/Key-stone/9 Stock List Class 01-E Parts for Keystone Airplanes. Comp. by Materiel Div., Field Service Section, Wright Field, Dayton, Ohio. March 1, 1932. Supersedes list of Feb. 23, 1931.
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- D 52.6/Antares 1 The Coast Guard's Flying Life Boat Antares; Detailed description of Coast Guard's New Flying Boats, built to save lives at sea via the air; most modern in service, by H.V. Thaden, Factory Manager, General Aviation Mfg. Corp., Washington, D.C. U.S. Coast Guard, July 1932. From "U.S. Coast Guard" Vol. 5, No. 9, July, 1932.
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- 629.142 Problemi Aeronautici, Dagli Albori Fino Alla Guerra. Roma, A. C 87p Stock, 1931. 7446.
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- 940.421 Liaison, 1914; a narrative of the great retreat, by Brigadier-General E.L. Spears. with fourteen maps & two sketches by Lt. Col. Sp 3 Sir Morgan Crofton. Garden City, N.Y. Doubleday, Doran & Co., Inc., 1931. 8020.



INSPECTION DIVISION NOTES

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The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on August 10, 1932.

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
TL-32-144 7/30/32	Replacement of Pin, Top Rudder Hinge-Douglas O-2H, BT-1, BT-2A, BT-2B, BT-2C, O-25A, O-25B, O-25C, O-38, O-38A & O-38B Airplanes.	Chanute, Wright, FAD, MAD, RAD, SAAD, PHAD.
TL-32-145 8/8/32	Intake Valves, Pratt & Whitney Engines	FAD, MAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept., Chanute, Wright.
TL-32-153 8/10/32	Distributor Timing - Wright V-1570 Series Engines	FAD, MAD, RAD, SAAD, Chanute, Wright.
TL-31-159 8/10/32	Securing Rotor End Plate Screws In Scintilla type SC-1 Magnetos. (This TL replaces TL-31-159 dated May 29, 1931.)	FAD, MAD, RAD, SAAD, Chanute, Wright.
TL-32-38 8/8/32	Cleaning, Treating, & Servicing of Stromberg Aircraft Engine Carburetors. (This TL replaces TL 32-38 dated March 4, 1932, changes having been made in paragraphs 1 d, e.)	FAD, MAD, RAD, SAAD, PHAD, PAD, Hawaiian Dept., Chanute, Wright
TL-32-78 8/8/32	Tube Assembly, Carburetor Air Scoop Drain, Rear, for V-1570 Series Engines (This TL replaces TL Serial No. 32-78 dated April 13, 1932.)	Aberdeen P.G., Boeing, Bowman, Brooks, Chanute, Crissy, Ft. Crockett, Langley, Lawson, Ft. Leavenworth, March, Maxwell, Marshall, Mitchel, Selfridge, 6th C.A., Wright, FAD, MAD, RAD, SAAD.
TL-32-83 8/4/32	Data on Landing Gear Oleo Unit-Douglas O-2H, BT-1, BT-2, BT-2A, BT-2B, BT-2C, O-25A, O-25B, O-25C, O-38, O-38A & O-38B Airplanes. (This TL replaces TL 32-83 dated June 13, 1932.)	General.
TL-32-142 8/4/32	Metallic Water Pump Packing for V-1150 & V-1570 Series Engines	Aberdeen P.G., Boeing, Boston, Bowman, Brooks, Candler, Chanute, Crissy, Ft. Crockett, Ft. Columbus, Edgewood Arsenal, Kelly, Langley, Lawson, Logan, Lunken, Ft. Leavenworth, Marshall, Maxwell, Mitchel, Pittsburgh A.P., Randolph, Richards, Schoen, Selfridge, Wright, 6th CA., MAD, FAD, RAD, SAAD, Hawaiian Dept.
TL-32-143 8/4/32	Modification of Leece-Neville Type B-1 & C-1 Generators to Leece-Neville Types D-1R & E-3R.	FAD, MAD, RAD, SAAD, Chanute, Wright
TO-01-1-45 7/26/32	Airplanes and Spare Parts General - Operating Fuel Systems (This TO replaces TO 01-1-45 dated August 20, 1927.)	General.
TO-02-30-1 8/8/32	Engines and Spare Parts R-1340 Type-Designation and Operation of supercharged R-1340. (This TO replaces TO 02-30-1 dated January 17, 1930 and TL's 31-238 & 32-2.)	General.
TO-04-10-1 7/15/32	Aircraft Hardware & Rubber Material Tires & Tubes-Airplane Tire Pressures (This TO replaces TO No. 01-1-38 dated February 27, 1929.)	General.
TO-11-40-2 7/9/32	Aircraft Combat Material Tow Target Equipment-Identification of Hits by means of Colored Bullets. (This TO replaces Circular Letter, OCAC, dated March 5, 1930, subject, "Identification of Hits on Tow Targets by Use of Painted Bullets.")	General.
TO-19-1-1 7/9/32	Flying Field and Hangar Equipment General-Painting of Wind Indicators, Danger Cones, Danger Flags, Markers, etc. (This TO replaces TO No. 19-1-1 dated July 17, 1930.)	General.
TL-32-146 8/8/32	Installation of Control Surface Locks Keystone B-3A, B-5A, Y1B-4, & Y1B-6 Airplanes.	FAD, MAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept., Chanute, Wright
TL-32-148 8/8/32	Replacement of Plunger Shaft and Jaw End, Landing Gear Oleo Unit-Thomas Morse O-19, O-19B, O-19C, & O-19D & O-19E Airplanes.	MAD, FAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept., Chanute, Wright
TL-32-147 8/8/32	Replacement of Brace Strut Fitting, Stabilizer Front Spar, Lower-Ford C-4A Airplanes.	RAD, MAD, FAD, SAAD, Chanute, Wright.

<u>Number & Date</u>	<u>Subject (Cont'd)</u>	<u>Distribution</u>
TL #43-140 8/9/32	Removal of lock wire from aircraft wing nut battery terminals.	General.
TL #32-151 8/12/32	Installation of Stop Collar and Grease Retaining Plug-Douglas Y1C-21 & Y1C-26 Landing Gears	FAD, MAD, RAD, SAAD, Hawaiian Dept. PAD, PHAD, Bolling, Chamute, Crissy, France, Mitchel, Wright.
TL #32-152 8/12/32	Reinforcement of Ribs, Vertical Stabilizer-Curtiss P-6E Airplanes	FAD, MAD, SAAD, RAD, Chamute, Langley Selfridge, Wright.
TL #32-154 8/12/32	Installation of Fasteners, Top Cowling Piece-Curtiss O-39 Airplanes	FAD, MAD, RAD, SAAD, Bolling, Chamute, Mitchel, Wright
TL #32-150 8/12/32	Use of 5/16-18 Cap Screws for Attaching Nose Cowling & Shutters to Nose Section on R-1340 Series Engines.	FAD, MAD, RAD, SAAD, PAD, PHAD, Chamute, Wright, Hawaiian Dept.
TL #31-236 8/16/32	Replacement of Control Surface Hinges on Thomas Morse O-19B, O-19C O-19D Airplanes. (This TL replaces TL-31-236 dated 8/24/31.)	Barksdale, Ft. Bragg, Brooks, Chamute, Hatbox, Hensley, Kelly, March, France, Scott, Selfridge, Ft. Sill, Wright, FAD, HAD, MAD, PAD, PHAD, RAD SAAD.
TL #32-149 8/15/32	Lubrication of Units Composing the Fuel Pump Flexible Drive.	General.
TL #32-157 8/20/32	Leakage of Fuel Around Cap of Relief & By-Pass Valve Assembly, Part No. 0153547.	General
	(This TL replaces TL 31-306 dated 3/23/32.)	
TL #32-156 8/15/32	Installation of Hose Connections, Auxiliary Gasoline Tank Outlet Lines-Consolidated Y1BT-7 (Formerly PT-12) Airplanes.	FAD, MAD, SAAD, RAD, Chamute, Randolph, Wright.
TL #32-57 8/10/32	Change in Fuel System of Keystone B-3A, B-4A, B-5A, B-6A, Y1B-4 & Y1B-6 Airplanes to Eliminate Water Traps in Lines. (This TL replaces TL dated 6/25/32.)	Aberdeen, Chamute, France, Kelly, Langley, Ft. Leavenworth, March, Maxwell, Wright, FAD, Hawaiian Dept MAD, PAD, PHAD, RAD, SAAD.
TL #32-107 8/5/32	Installation of Screen & Gaskets on Rotary Induction System Engines. (This TL replaces TL 32-107 dated 6/2/32.)	General
TL #32-158 8/19/32	Replacement of Lug, Fuel Tank Support Tie Rod-Boeing P-12E & P-12F airplanes.	MAD, FAD, RAD, SAAD, HAD, PHAD, Chamute, Wright.
TL #32-93 8/24/32	Installation of Retractable Tail Wheels-Douglas Y1C-21 Airplanes (This TL replaces Technical Radiogram 32-93 dated 4/26/32.)	Bolling, Chamute, France, Wright FAD, Hawaiian Dept., MAD, PAD, PHAD, RAD, SAAD
TL #32-159 8/23/32	Securing Metering Pin in Landing Gear Oleo Unit-Thomas Morse O-19B, O-19C, O-19D & O-19E Airplanes	FAD, MAD, RAD, SAAD, Hawaiian Dept. PAD, PHAD, Chamute, Wright

The following supplementary data to Technical Letter No. 32-100, dated May 18, 1932, Subject: "Operation Instructions", has been issued to date:

<u>Date of Issue</u>	<u>Airplane</u>	<u>Distribution</u>
August 4, 1932	Y1P-16	FAD, MAD, RAD, SAAD, PAD, PHAD, HAD, Scott, Selfridge, Wright.
August 16, 1932	BT-2A, B, C (Correction to letter 7/1/32) (same subject)	Bowman, Biggs, Boeing, Boston AP., Brooks, Candler, Chamute, Chapman, Crissy, Hensley, Kelly, Logan, Long Beach, Lunken, March, Mather, Maxwell, Norton, Offutt, Pearson, Pittsburgh AP., Randolph, Richards, Salt Lake, Schoen, West Point, Wright, all depots.

The following Air Corps Circulars and Air Corps Circular Letters were published since the August 10, 1932, issue of the Air Corps News Letter.

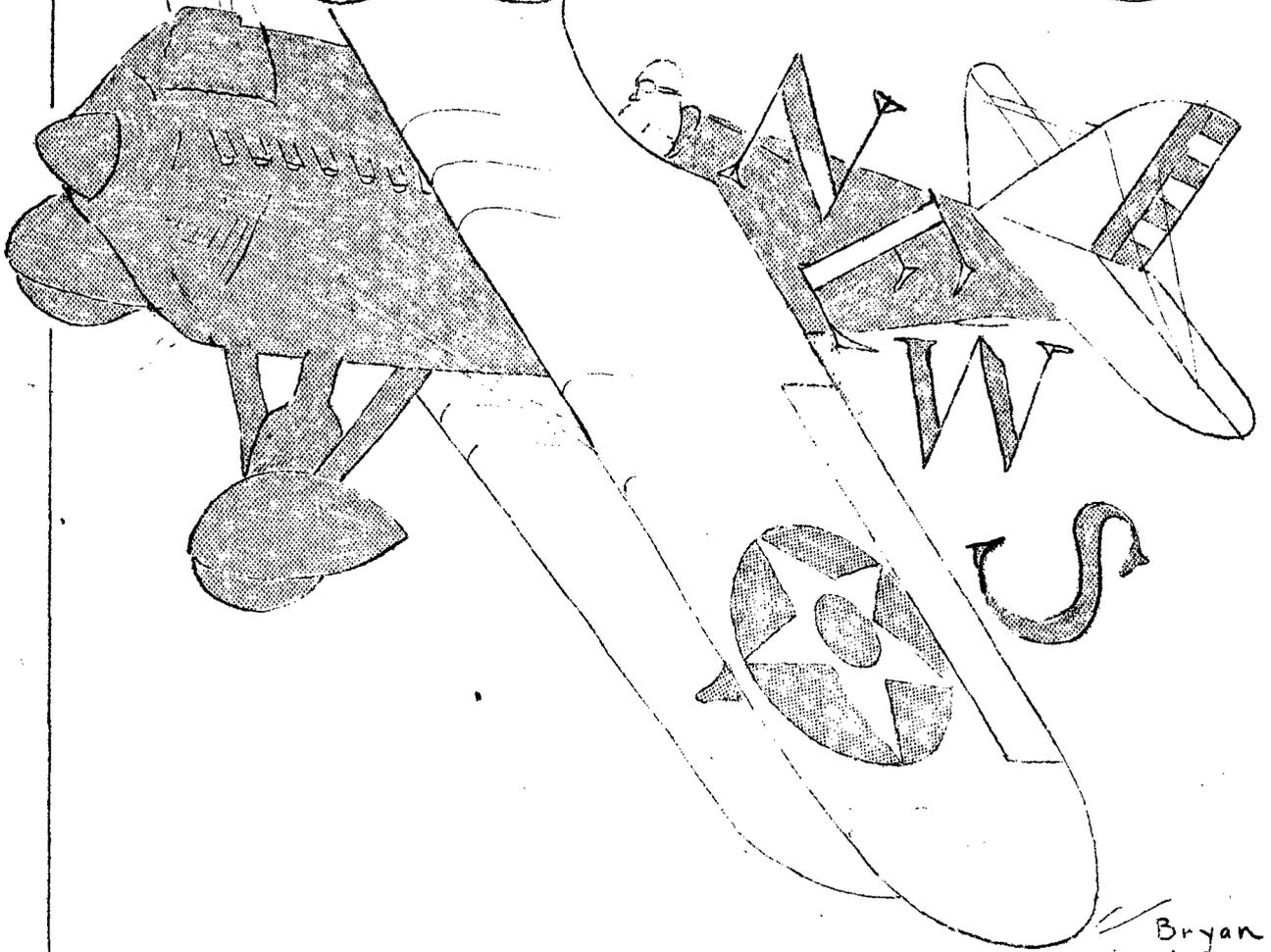
AIR CORPS CIRCULARS

<u>Number & Date</u>	<u>Subject</u>
0-2A 8/10/32	INDEXES - Numerical Index to Air Corps Circulars.
15-9 8/8/32	BLANK FORMS AND REPORTS - War Department Air Corps Form No. 9, Flight Envelope.
15-15 8/8/32	BLANK FORMS AND REPORTS - War Department Air Corps Form No. 15- Invoice.

AIR CORPS CIRCULAR LETTERS

W-2099 AC 8/1/32	Certificate of Delay, Air Corps Form No. 16.
W-2103 AC 8/8/32	Gasoline Exemption Certificates, Standard Forms Nos. 44 & 1066.
W-2106 AC 8/15/32	Tentative Air Corps Forms Nos. 60A and 60B. (Technical-Order-Compliance Charts.)

AIR CORPS



Bryan
stout Field
Ind. N. G.

LETTER.

ISSUED BY THE
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D.C.

1932
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Information Division
Air Corps

September 21, 1932

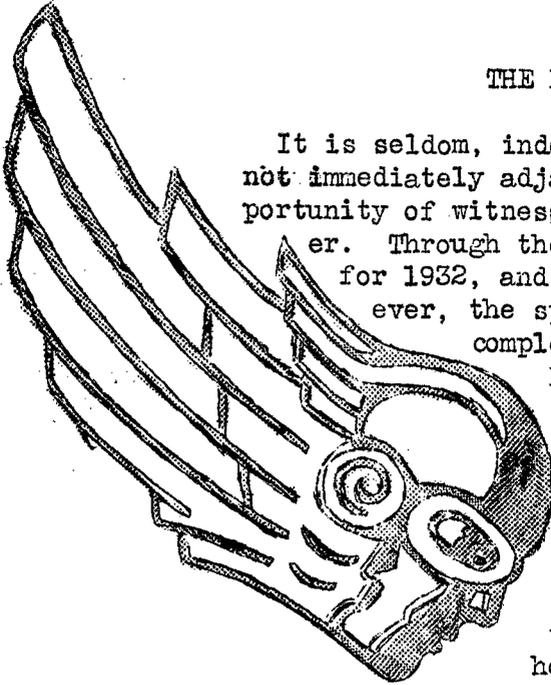
Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from the Fields.

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THE NATIONAL AIR RACES



It is seldom, indeed, that those citizens living in places not immediately adjacent to a large Army flying field have the opportunity of witnessing the daily aerial routine of the Army flyer. Through the courtesy of the National Air Race Committee for 1932, and the thoughtfulness of Cliff Henderson, however, the spectators at the National Air Races saw one complete Pursuit Squadron and an honest-to-goodness Bombardment flight go through their daily grind as they would high in the air above their home stations.

The Air Race Committee took care of the costs of operation and the personal expenses of pilots and mechanics for the duration of the Show, and in this way provided the participants with just so many hours of tactical training over and above that allotted at their home stations from appropriations made for that purpose. The Army flyers took part in no races or contests except, perhaps, the contest against possible inaccuracy in their flying maneuvers.

The participants were the following:

17th Pursuit Squadron of the 1st Pursuit Group at Selfridge Field, Mich., with Curtiss P6-E single-seater Pursuiters, with 600 h.p. Curtiss "Conqueror" Prestone-cooled and supercharged engines.

Captain Ross G. Hoyt, Squadron Commander.

Second Lieutenants

Norman D. Sillin	Flight Leader	Norman R. Burnett	Pilot
Donald L. Putt	" "	Lawrence O. Brown	"
Paul M. Jacobs	Engineer Officer	James O. Guthrie	"
John W. Kirby	Pilot	Dan Hughes, Jr.	"
Edwin R. French	"	Clyde A. Parlette	"
Daniel C. Doubleday	"	John D. Pittman	"
Llewellyn O. Ryan	"	Ernest K. Warburton	"
Morley F. Slaght	"	* Roger M. Ramey	Finance Officer
Frederick W. Castle	"	* Jarred V. Crabb	Press Relations Officer
George F. Schlatter	"	* Jesse Auton	Transportation Officer

* Reserve Pilots

Bombardment Flight from the 2nd Bombardment Group at Langley Field, Va.

Captain Robert Olds, Flight Commander, Group Headquarters)

2nd Lieut. William G. Bowyer, co-pilot)

Captain Robert T. Cronau, pilot, 20th Squadron Bomber)

2nd Lieut. Richard J. O'Keefe, co-pilot)

Captain John Paul Richter, pilot, 96th Squadron Bomber)

2nd Lieut. John P. Ryan, co-pilot)

Captain Eugene L. Eubank, pilot, 49th Squadron Bomber)

2nd Lieut. Lawrence S. Kuter, co-pilot)

Captain Emnis C. Whitehead and Lieut. Alfred E. Kessler, Jr., accompanied the Pursuiters, each piloting a transport load of mechanics. The ground crew for the Bombers flew as passengers in the multi-seaters.

Representing the Chief of the Air Corps as Liaison Officer between his office and the Army flyers at Cleveland was Lieut. Charles M. Cummings, of the Training and Operations Division. Having spent some time previously in Cleveland

as Regular Army Instructor with the National Guard Observation Squadron there, Lieut. Cummings was well acquainted with the Air Race Committee Staff, and thus easily and readily smoothed out the little details of cooperation between the military establishment and the Race Committee.

Lieut. Roland Birnm, of the Information Division, Office of the Chief of the Air Corps, was the announcer of all Army events and, in addition, arranged a 30-minute broadcast by the Air Corps over a large N.B.C. network, at 1:00 p.m. (E.S.T.) on Labor Day, through the kind efforts of Tom Manning, the local N.B.C. representative.

On Saturday, August 27th, the Bombing flight flew in to Cleveland, picking up its weather reports on their radio when thirty miles out of Langley Field, and gradually converging on Cleveland's radio range beacon. The weather could have been better over the Alleghenies, but each weather report gave a higher ceiling and rising barometer, which is always encouraging to the cross-country flyer. On the following day the Pursuiters arrived from Selfridge Field, after a short and uneventful trip, and parked their airplanes with the Bombers at the Army pit to the left of the grandstand line.

The Air Race Committee left nothing undone for the Army flyers' comfort. Officers and enlisted men were provided accommodations at several of the prominent hostleries of Cleveland.

Realizing that 40 minutes' flying a day was too short a practice period for their pilots, Captains Olds and Hoyt arranged for a "warming up" period of about an hour each noon, wherein combined tactics of Pursuit vs. Bombardment were indulged in over the lake front near the city proper. To the Pursuiters from Selfridge Field, removed as they are from contact with Bombardment aviation, this was a rare treat, indeed. It is a bit different to practice an assault on a flight of real Bombing planes than on another Pursuit or Training plane formation which simulates a bombing flight.

Just as welcome was the sight of these tactics to the residents of Cleveland and vicinity. Other visiting Army flyers in uniform were often plied with questions by spectators regarding the work of the Air Corps flyers in the air.

Flying over the airport, in view of the crowds at the Races, the Pursuiters held forth daily during the afternoon, and the Bombers in the evening, in addition to their noon-day combined practice. The Pursuiters flew an 18-ship formation, keeping three of their pilots on the ground in reserve. Just as interesting to the spectators as the perfectly aligned formations was the shifting of the squadron from one formation to another, and the manner in which the individual pilots, the elements and flights formed on the leader of the next largest group. Among the many formations flown were the flights in line, elements in echelon, and the massed diamond and wedge formation. The most thrilling, from a groundling's viewpoint, was the entire squadron flipping over, element by element, in a 90-degree diving turn and reforming into their regular squadron formation as they continued their screaming dive on an imaginary enemy in the air or on the ground.

At night, promptly at 8:30 p.m., a formation of three Bombers put in their appearance over the grandstands and went through a series of changing formations and maneuvers. A fourth Bomber usually stayed on the ground in reserve and acted at times as a ground radio station for the Bombers aloft. The pilots and co-pilots alternated responsibilities, for this was as much flying training as if it had been carried on at their home stations. After a 15-minute period over the airport, the Bombers retired to the city lake-front where their practice continued, during which time a fireworks display was held at the field. The display was followed by a simulated attack on a miniature village set up on the airport, in which troops of the Ohio National Guard (Infantry) attacked the village held by the enemy, after the Army Bombers had gone over on the split-second prearranged schedule and subdued the village by laying of imaginary "eggs."

Tuesday, August 30th, was Army Day at the Races, whereupon the rest of the First Pursuit Group from Selfridge Field flew down to Cleveland and combined with the 17th Squadron there to practice a Group problem in attack of a Bombing formation. Described by the Selfridge Field Correspondent to the News Letter, the description of the flying follows:

"On August 30th, a date designated as "Army Day" at the National Air Races at Cleveland, the 1st Pursuit Group, under the leadership of Major Gilkeson, Group Commander, took part in the program by passing through some of the

the formation and combat training flying which must be performed by Air Corps units.

All units of the 1st Pursuit Group were present for the demonstration. The 17th Squadron, Captain Hoyt commanding, had flown their P-6E's to Cleveland on the 28th, to remain for the duration of the Races. The P-12E's of the 27th and the B/J P-16's of the 94th Squadron flew down from Selfridge on the morning of the 30th to join the 17th. (The 27th is commanded by Captain R.C.W. Blessley, and the 94th by Captain A.B. Ballard).

The demonstration took the form of a regular 'Group problem,' and this fitted in well with the training program of the Group. The Pursuit squadrons were to cooperate in attacking an enemy Bombardment formation, the 'enemy' in this case being represented by a flight of four big Bombers from the Second Bombardment Wing of Langley Field. As a preliminary to the actual air battle, several close drill and review formations were flown by each squadron. Then when the Bombers flew over the Cleveland Airport, the battle began, and the Bombers were attacked again and again by criss-crossing flights of P-12E's, P-6E's and P-16's. There were 51 Pursuit planes in the air trying to 'get' the Bombers, and to the people in the stands at the Airport the air battle was a thrilling and impressive sight.

That Cleveland and the visitors to the National Air Races were pleased by the opportunity of seeing something of what the Air Corps is doing is well attested by the articles and editorials in the Cleveland papers. As one newspaper said: 'The Cleveland Plain Dealer calls the thrill provided by the army fliers the greatest of the air races to date. The awesome sound of the superb air flotilla not only created a tingle down the spines of some 25,000 persons gathered at the airport, but caused all Cleveland to pause and stare up into the hot sky.' And: 'To the Selfridge Field flyers, it was just another day's work. They went up into a bumpy sky, did their day's work, and came home. But to the thousands that saw them, it was a thrilling, never-to-be forgotten example of man's mastery of the air.'

And while we are on the subject of the National Air Races, we should not forget the work of our fellow service pilots - the Marines. The Navy did not participate this year, but the 6th Observation Squadron of Marines from Quantico, Va., under the command of Lieut.-Col. Ross E. Rowell, gave a wonderful exhibition of cross-over turns by sections, with a climax of actual dive-bombing of the circular target in front of the grandstands.

They were flying Curtiss "Hell-Divers," and each day after their squadron formation had strung out into a Luffberry Circle, the circle would suddenly break with the leader diving out and down for the circle, dropping a small practice loaded bomb as he dove, and pulling up to let the spectators see the precision of his hits. Following him came the others, one by one, until the crowd got a good idea of one phase of "bush warfare" from the air.

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BROOKS FIELD PLANES ACT AS EYES OF RELIEF WORKERS

Four planes from Brooks Field, San Antonio, Texas, played a big part in the rescue of and the sending of food to families marooned by the Rio Grande flood waters. Acting as the "eyes" of the relief forces, the planes flew up and down the flood areas of the Rio Grande Valley, locating marooned families and directing relief parties to them. The relief parties moved by boat, carrying food and clothing.

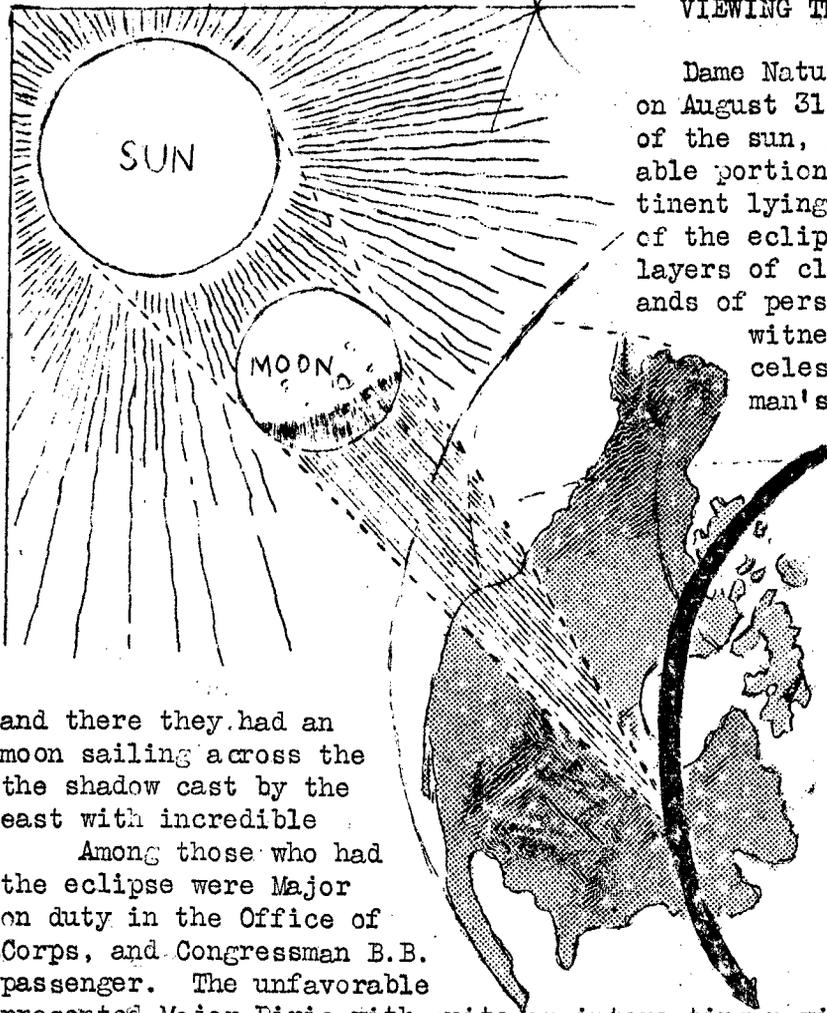
Lieuts. Howard C. Denison and W.B. Walner, Air Reserve, were forced to abandon one of the bases of relief operation when the flood waters inundated the municipal airport four miles west of McAllen. A civilian plane at the field was badly damaged because its owner, not trained in night flying, was unable to take the plane off the ground.

Two Brooks Field planes, manned by Lieuts. H.C. Stelling, L.J. Conners and Carl A. Brandt, K.H. Greeson, operated from Brownsville, Texas. Lieuts. Denison and Walner operated from McAllen, from an old Army field west of the town.

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At the close of the Cleveland Air Races, several of the International pilots visited Wright Field, Dayton, spending a day in going through the laboratories. They were Lieut. Assolant, France; Lieut. Zotti, Italy; Lieut. Atcherly, England; Colonel George Kossowski, Poland, and Lieut. d'Abreu, Portugal.

VIEWING THE ECLIPSE FROM ALOFT



and there they had an moon sailing across the the shadow cast by the east with incredible

Among those who had the eclipse were Major on duty in the Office of Corps, and Congressman B.B. passenger. The unfavorable presented Major Pirie with quite an interesting navigation problem, which was carried through to a successful conclusion.

Major Pirie and his passenger took off from Bolling Field, D.C., on Tuesday, August 30th, landed at Newark, N.J., for servicing, and then proceeded to Fort Ethan Allen, Vt., on Lake Champlain. They planned to take off from this ancient Army post the next day, shortly before the start of the eclipse, and fly eastward to the vicinity of Guildhall, Vt., about 85 miles distant.

As before stated, on the day of the eclipse the sky was overcast. Right above Fort Ethan Allen, however, there was a big hole in the clouds, over a mile in diameter. Taking off at 2:25 p.m., Major Pirie climbed above the clouds, the tops of which were at an altitude of about 2,000 feet, and headed due east. This was the only rift in the clouds within the vision of the airmen, and they noted that the top surface of the clouds continued to rise. At about 3:15 p.m., Major Pirie calculated he was at Guildhall at about 10,000 feet altitude, and that the top of the clouds was at about 9,000 feet. At that time the eclipse had nearly reached totality and, in order to be able to observe it as many seconds as possible, Major Pirie turned southeast at 3:20, moving directly down the path of the eclipse.

At 3:25, the airmen could distinctly see the shadow of totality approaching rapidly from the northwest. It grew so dark that it was necessary to switch on the navigation lights, and Mr. Harlan in the rear seat was unable to see the shutter adjustments of his camera. Three or four minutes before the total eclipse, the entire horizon in all the 360 degrees appeared just like a brilliant sunset, the shadows of the various cloud banks giving off a varied assortment of colored effects.

Major Pirie had with him a motion picture camera, and both he and Mr. Harlan took photographs just before, during and just after the total eclipse. They could distinctly see the stars blinking in the sky. After the shadow cast by the moon caught up with them, they followed down its path for about three minutes until it passed them and swept away rapidly in the opposite direction.

Before going aloft, Major Pirie carefully studied the weather maps and, while it was calm on the ground, he calculated that at 10,000 feet the wind would probably be from the west and blowing at the rate of at least 20 miles per hour. Receiving reports that there were some broken clouds to the south, he turned his plane a little to the west of south, about 190 degrees, and flew in that direction for 35 minutes. No openings in the clouds were to be

seen, and the tops became higher and much more dense. There was no cause for alarm, however, as the plane had a four hours' gas supply. At about that time it was realized that it would not be advisable to proceed southward any further. Earlier in the day a radio broadcast was received to the effect that there were broken clouds in the eastern part of New York State. Major Pirie turned and flew directly west, intending, if possible, to come down in the vicinity of the Hudson River, and then fly down to New York. Ten minutes later a small hole was visible in the clouds, but on looking down only the tops of mountains could be discerned, the clouds resting directly on them.

After flying for about 35 minutes longer, Major Pirie saw a large hole in the clouds, about a mile across, and underneath a river which he supposed was a stream about half way between Connecticut and the Hudson. There being no more holes in the clouds visible in any direction, he pointed his plane downward and found he could fly down across this river even though the clouds were completely down on the mountains on either side. He checked his location and concluded he must be on the Connecticut River at about Woodsville, Vt. Because of the low visibility not much could be done in the way of definitely checking his position. Flying over a town he saw, much to his joy, the name of Brattleboro, Vt., painted on a roof in large letters.

From Brattleboro, Major Pirie proceeded directly to Hartford, Conn., arriving there at 5:30 p.m. He figured that the wind at 10,000 feet was blowing at a velocity nearer to 40 miles per hour than at 20 miles per hour originally estimated, which probably accounted for the fact that he was between 30 and 40 miles farther to the east than he anticipated.

Reaching Hartford, he found the entire Connecticut National Guard Squadron at the airport, this organization just having gone through some exercises. He took the opportunity of looking over their airplanes and hangars and found the equipment in the very best condition, and as good as he had seen at any National Guard station. Following this inspection, he and Congressman Harlan accepted an invitation from the Guard officers to attend the regular dinner of the organization scheduled for that night. They remained at Hartford overnight and reached Washington the following evening.

In connection with radio reception, Major Pirie switched his radio receiver to the broadcast band, and in the period before, during and after the eclipse he listened to the broadcast concerning it which proved of great value and help, since advance information was imparted to them as to what they could look for. It was very noticeable that for about 15 or 20 minutes during the period of the eclipse the radio reception was much stronger and exceptionally clear.

In ascending to an altitude of 27,000 feet above sea level, Captain Albert W. Stevens, premier aerial photographer of the Army Air Corps, and 1st Lieut. Charles D. McAllister, pilot, viewed the eclipse from the highest vantage point of any of the other observers who went aloft for that purpose. According to newspaper reports, a total of 61 airplanes took the air for this special occasion. Lieut. McAllister piloted a Fairchild F-1A photographic plane, powered by a "Wasp" engine equipped with a supercharger geared to make 14 revolutions to one of the engine propeller.

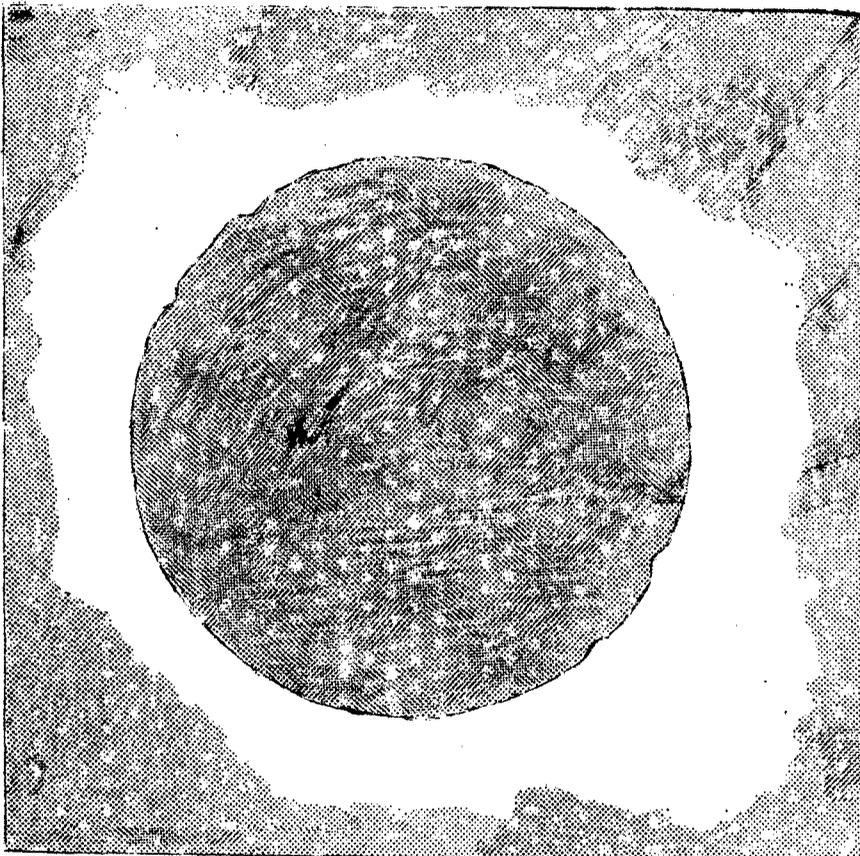
Captain Stevens took up with him three types of cameras, one with long focal length to shoot the corona; one of medium focal length and the third with a short focal length. Only the medium focal length camera was equipped with a ray filter. The shutters were slowed down to give an exposure of one-seventh of a second. This proved to be sufficient to obtain photographs of the moon shadow, using both the medium and short focal length camera. A faster exposure could have been used on the corona. Negatives were secured of the shadow moving across the clouds which show the character of the shadow very distinctly. With these negatives made a few seconds apart, the passage of the shadow can be noted from cloud to cloud.

In addition to the cameras, a device was carried for measuring the intensity of cosmic rays at high altitudes. This device is described by the Material Division correspondent elsewhere in this issue. Captain Stevens stated that since cosmic rays vary immensely with increase of altitude they offer the possibility of making altitude measurements through the varying intensity of the rays themselves.

The flight of Captain Stevens and Lieut. McAllister to the scene of the totality of the eclipse was sponsored by the National Geographic Society, which defrayed all the expenses incident to same. In reporting upon the eclipse,

Captain Stevens likened the phenomenon to a "Celestial hurdle race staged only for eyes that could view it from miles above the clouds. For 30 miles he and Lieut. McAllister watched the approaching great dark spot of shadow moving at a speed greater than that of a rifle bullet, as it topped cloud bank after cloud bank, apparently sinking to earth between the clouds. The cloud masses which almost ruined the observations of many astronomical expeditions in the New England area were actually a help to the National Geographic Society expedition, providing a splendid screen for Captain Stevens' observations. He made exposures of the approaching shadow at 5-minute intervals and is confident that some of his plates will show the curvature of the rushing shadow, a photographic feat never before successfully accomplished.

From 27,000 feet above sea level, Captain Stevens said, conditions for observing the sun itself were ideal. The delicate colors of the corona and prominences were visible in their full glory. A number of photographs were taken. To identify points around the sun's disk, he adopted in his report to the National Geographic Society the device of indicating the positions by comparison to those of an hour hand in its travels around a clock face.



"The corona," he said, "had a very marked extension or protuberance, giving a very sharp point at a position, relative to the sun, corresponding to the position of the hour hand at half-past 10 on a clock face. At the position corresponding to 4 and 5 o'clock, there were other protuberances.

At totality the entire corona had sprung into sight very much as if some one had snapped an electric switch. The color of the corona was a pale white. The 5 o'clock protuberance had a rose tint. The long one at 10:30 was a delicate bluish white. The maximum extension of the longest protuberance was about the diameter of the sun away from its disk. The balance of the corona ex-

tended about one-quarter of the sun's diameter, the protuberance at 4 and 5 o'clock being about one-third of the sun's diameter.

At the moment of the reappearance of the sun's disk the sun appeared as a point of light. At high altitude even this pinprick of light is so dazzling that it cannot be viewed by the naked eye. The corona instantly disappeared. As soon as the sun became uncovered even slightly the visible surface seemed to be more intense in appearance than when the sun as a whole is viewed ordinarily.

Before totality the shadow was seen advancing as a broad grayish-purple area with softened edges. It was definitely determined to be the moon shadow when it was about 30 miles away. Owing to the broken character of the cloud formation, the advance of the edge of the shadow from one cloud bank to the next cloud bank was distinctly marked. The most remarkable aspect of the shadow, visibly, was the appearance of the far edge. Near the horizon, it had a saffron color. Between the observer and the horizon the air appeared of an indigo color. The color of the horizon line can best be described as being that of steel just before it is ready to melt. It may also be described from five miles in the air above a layer of clouds as being half way between an orange and lemon color or as a little lighter than a yellow warning traffic signal.

Under the airplane could be seen the dark surface of the earth. The clouds directly underneath the airplane were platinum colored. After totality the shadow passed out to sea, where there were fewer clouds, and where it was soon

lost against the dark background of the ocean. This condition was exactly the same as the appearance of the shadow of the moon observed by me on the clouds of Honey Lake, Nevada, about two years ago, where it was also much more distinct on its approach than when it receded."

Captain Stevens reported an unusual phenomenon which appeared 15 minutes before totality. It was a formation that appeared to be made up of streamers of light like long columns extending from the clouds earthward. He believes that it was caused by the sharper projective power of the sun when its area was reduced. The effect was recorded photographically.

Some extremely unique and interesting airplane observations of the solar eclipse on August 31, 1932, were made from above the clouds over Salem, Mass., by Captains Hugh M. Elmendorf and Harlan W. Holden, who are on duty in the Office of the Chief of the Air Corps.

The flight to Massachusetts to view the eclipse was not decided upon until about 11:15 on the morning of August 31st. Thirty-five minutes later the two officers hopped off from Bolling Field in a radio-equipped O-38. The proposed destination was near the tip of Cape Cod but, due to rather disheartening weather condition reports from New England points, received during the flight to New York, it was decided to proceed to Boston where, reports stated, there were broken clouds. The cloudy conditions which prevailed over Southern New England were first encountered as the flyers reached the southern coast of Connecticut, the clouds being so low it was deemed advisable to follow the coast line looking for better conditions. At New Haven, the airplane was turned toward Hartford, where a stop of three minutes was made to inquire relative to conditions further along the route. Learning that there was a 700 foot ceiling at Stafford Springs, which was the low point, the flight was continued. There was none too much space between the top of the Connecticut ridges and the clouds for the next 40 miles, but after that conditions improved rapidly. Near Milford, Mass., a thin spot showed in the clouds and, knowing it was clear over Boston, the airplane was pushed up through to above the cloud level at 4,000 feet. The upper level of the clouds was nearly as smooth as a table, only a few slight mounds, approximately 5 or 10 feet high, pushing up above the surface.

From this setting the two officers began their observations of the eclipse, which at that time had reached probably about 20%, the airplane in the meantime being headed towards Boston. About 15 minutes later the airplane reached the eastern ridge of the cloud bank, directly over Boston, and then its nose was turned northward towards Salem. Each officer had one lens of his goggles lined with a piece of camera film, which made it easier to continue observations while still performing other duties connected with flying the airplane and working the radio.

The officers had hoped to view the eclipse from a point as near as possible on the boundary line of the zone of totality, but they missed this mark by being short of this line by approximately 2 or 3 miles. From the time the airplane left the vicinity of Boston until the time the eclipse had about 50% passed its total phase, the airplane had proceeded along the edge of the cloud bank at approximately 10,000 feet altitude. This position gave the flyers a chance to see the effect of the reflection on the white upper surface of the clouds, on the ground through the holes in the broken clouds, and on the ocean itself a little farther to the east. The white upper surface of the clouds turned a pale grayish color, taking on that well known tinge which is seen on the faces of those who have not enjoyed their air rides. Looking down through the holes in the clouds was like peering into the mouth of a deep pit, and the only objects visible were those of very light color. Out to the eastward there was a distinct black shadow, showing the path of totality, and where it crossed over the clouds the edge of the shadow was plainly visible.

Just before reaching the vicinity of Boston, coils were changed in the radio receiving set in order to pick up the broadcast reports on the eclipse being sent out from points in New Hampshire. As the eclipse progressed, there was a noticeable increase in the strength of the radio signals, and the improvement in the clarity was even more noticeable. Even with poor fitting headsets the broadcast came in so clearly that both officers were able to follow every word of the description being broadcasted from the more northern point on the path of the eclipse. Prior to the eclipse and after it had passed, there was considerable interference over the radio, which made complete concentration necessary in order to hear what was being said.

The airplane was landed at the Boston Airport about 4:15 p.m., and immediately after being refueled the return trip was started to Mitchel Field. Low visibility was again encountered on the flight across Massachusetts and Connecticut, it being necessary several times to turn the airplane back when clouds completely obscured the path. The return trip from Mitchel Field to Washington was delayed about two hours, due to severe thunder storms all along the line between Trenton, N.J. and Wilmington, Delaware. A more favorable weather report was received just before 9:00 p.m., which allowed the flyers to clear.

On the return trip the officers had several lucky breaks. Big thunder storms at three different points just failed to block them off, and landing at the home station was made at 11:00 p.m.

"Biggest Show on Earth!" Crowds rushing by water, rail, auto and airplane to witness the total eclipse of the sun. That was the spectacle that presented itself August 31st.

Captain Joseph A. Wilson, Commanding Officer of the Boston Airport, led a formation of five planes of the Air Corps Reserves to Bretton Woods, N.H., where they were guests of the management of the Mt. Washington Hotel. The Reserves ascended 16,000 feet over Mount Washington and observed the eclipse from this altitude. The spectacle was certainly worth the effort. The shadow caused by the eclipse appeared and disappeared in a second.

At the top of the clouds they saw a sort of "pool of mist" as one described it. It gave the impression of water suspended at quite an altitude. One of the Reserve officers decided to explore, dove towards the pool, and was suddenly seen to veer to one side. He later told the rest of the group that he could have sworn another ship was flying straight into him from the mist. It was evidently the reflection of his own ship, even to the Air Corps insignia.

Regardless of the fact that fur lined boots and heavy flying clothes were worn, all were very uncomfortable during the flight at this altitude. The Reserves returned to Boston feeling they had accomplished two things, namely, cross-country flying practice and witnessing the total eclipse of the sun.

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ATTACKERS ATTACK MOSQUITOES

Besides training for war, the Third Attack Group finds time to assist in mosquito-control work. After helping Dr. C.P. Coogle, Malarialogist, in experiments in mosquito extermination, the following letter was received by the Commanding Officer of Fort Crockett, Texas:

"Please permit me to again thank you for your kindness and cooperation in our mosquito destruction studies in the Galveston coastal areas.

A thorough examination and count was made of our test mosquitoes. The first group dosed with Sulphur Trioxide showed stupefication from one to six hours and a survival of all mosquitoes for three days. Lot Number Two dosed with Tan Chlorine solution did not fare so well. More than one half of them were dead after six hours and none survived the three-day period. Those dosed with Pyrethrum solution were all dead within six hours. Mr. Hopkins, our Engineer, is compiling a chart which he will show you during his next visit to Galveston.

Please extend our grateful appreciation to Lieutenant Crosher and Lieutenant Wheeler for their assistance and most gracious cooperation. We feel that this is the beginning of a new chapter in mosquito-control work, and with our combined ideas we feel very optimistic and that we may be able to solve the pest-mosquito problem.

Very truly yours,

Dr. C.P. Coogle, Malarialogist,
U.S. Public Health Service Medical Officer in Charge of Field Party"

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Quick work on the part of the Rockwell Field Fire Department on the morning of August 15th averted what might otherwise have been a serious and costly accident. The right motor of Y1-B4 airplane #30-344 burst into flames immediately after the plane had effected a landing. After a fast, hard run with their apparatus, the firemen, with the aid of the plane's crew, succeeded in subduing the flames before they reached dangerous proportions. The firemen displayed some real ability and headwork in fighting the fire, and are further commended for their quick response to the alarm.

RELIEVING MONOTONOUS EXISTENCE OF LONELY FOREST RANGER



ARCH Field claims the distinction of a unique friendship started between a lonely lookout ranger on Santiago Peak and the flyers from the Field. Perched on his lofty summit south of Corona, where he keeps constant vigil for fires in the Cleveland National Forest, Percy C. Everett, a Forest Service lookout man, is being kept in touch with the outside world by his aviator friends whom he has never seen except as they flew over.

During the past year, Everett has taken a keen delight in studying the training tactics and the equipment flown in the vicinity of March Field. From his vantage point on top of the highest point for many miles around, he can imagine himself a mighty general commanding the destinies of the nation by his control over the Army Air Corps. But one feature is lacking in his command. His communication system is extremely ineffectual. Mail arrives once a month. He has no radio, and telephone calls must be held to an absolute minimum because of expense. Consequently, in between mails, his only contact with the outside world is through what he sees from his lookout point and the reading material frequently dropped to him from the air by March Field flyers.

The forest is closed to hikers because of the fire menace, and so no visitors ever reach the mountain summit. The area used as a dropping ground is a narrow trail winding up to the top of the jagged peak. Several flights were necessary before the aerial newsboys gained sufficient skill successfully to bomb the mountain top without entirely losing the week's news down the sides of the forest-covered slopes. As the plane circles over, Everett enthusiastically waves his appreciation from the top of his steel tower. Once a month, when his opportunity comes to send his thanks to the outside world in writing, the officers receive "artillery adjustment" letters with vociferous commendations and scathing friendly criticisms on the successes and failures of their efforts.

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CHANUTE FIELD INSTRUCTOR WINS BLUE RIBBON AWARD

At the O.M.I.* International Photographer's Association Convention at Cedar Point, Ohio, on August 4th, 5th and 6th, an exhibit of Mr. Harold Hedger, Instructor in the Department of Photography, Air Corps Technical School, Chanute Field, Rantoul, Ill., won the Blue Ribbon award in its class - Commercial Industrial Photography. This blue ribbon award was won against competition open to all photographers in the world.

The exhibit itself is most interesting both to the photographer and to the layman. It is an eleven by fourteen inch print of the interior of the Projection Printing Laboratory of the Air Corps Technical School, taken under the exceptional conditions of being lighted only by its orange-red safe lights, ordinarily used to guard photographic sensitivity against light effects. With the safe lights as his only lighting medium, Mr. Hedger, using training equipment, made an exposure of one hour and a half, and though his technical skill obtained a print which shows detail, in the darkened room, to a fine degree, including reading matter, hands and figures on a small clock timer, intricacies of printing machines, and even in well defined clearness the filaments of the safe lights themselves.

While the photograph is classed as an "Interior, Industrial," it was made as a school training activity without thought of exhibition. Mr. Hedger desired to demonstrate to photographic students of the Technical School his contention that artificial lights could be photographed directly without halation or diffusion, and used this method of proving it as an experiment. The result justified exhibition, with the gratifying action of the Convention judges in awarding the Blue Ribbon against world competition.

Mr. Hedger was appointed as Instructor in Photography, U.S. Army Air Corps, with assignment to Chanute Field in March, 1931, and is a graduate of the Illinois College of Photography.

* Ohio, Michigan, Indiana.

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Lieut. Hez McClellan, flying a gull wing experimental Observation plane, recently arrived at Randolph Field, Texas, having flown the distance from Mitchel Field, N.Y. at an average speed of 160 miles per hour. Lieut. McClellan was enroute to California.

INVESTIGATION OF COSMIC RAY AT WRIGHT FIELD

Marguerite Jacobs Heron

A NEW and alien instrument has made its appearance the week before the Eclipse into the laboratories at Wright Field, introduced there by Dr. L.M. Mott-Smith, of the Rice Institute of Houston, Texas, who desired to make experiments with it in connection with flying. The instrument was an electroscope developed for the purpose of measuring the intensity of cosmic rays as they exist in the earth's atmosphere. Discovered about fifteen years ago, according to Dr. Mott-Smith, the cosmic ray has been the subject of wide controversy in scientific circles for the past several years.

Little is known of its source or nature. It is a type of radiation coming from somewhere beyond the earth's atmosphere, but whether directly from the sun or other star, or from interstellar spaces, scientists do not agree. Similar to the "X" and "Gemma" rays, it is not the same as either, and so far no one has succeeded in reproducing it in any laboratory.

Experiments with electroscopes carried to mountain tops have proved that the ray increases in intensity with altitude, and up to 12,000 feet rather accurate measurements of this intensity were obtained. For higher altitude measurements, it was realized, the airplane would have to be called upon, and thus it came about that Dr. Mott-Smith enlisted the aid of the Air Corps, through the Secretary of War.

Several flights were made at Wright Field, and 46 measurements at 5,000, 10,000, 15,000, 20,000 and 25,000 feet obtained, each measurement consisting of an average of ten individual readings. It is felt that these readings are accurate and may remain standard for some time to come. It was interesting to learn that the intensity of the ray at 25,000 feet proved to be about 21 times that at sea level and was still increasing rapidly. The intensity at 25,000 feet was seven times that at 10,000 feet. Another interesting discovery lay in the fact that at 25,000 feet, a one-inch lead case about the electroscope reduced the intensity of the rays by 40 percent. Although lead was known to absorb the rays, the absorption properties proved to be surprisingly high. Measurements were made without the lead case and with lead cases of thicknesses up to two inches. Lieuts. J.F. Phillips and C.D. McAllister served as pilots on the various test flights, Captain Stevens duplicating many of the electroscope readings obtained by Dr. Mott-Smith.

It is not known to what extent further knowledge concerning this cosmic ray may affect existing scientific theories, but data concerning it are constantly enlarged by increased scientific research and the development of more accurate instruments. Professor R.A. Millikan of the California Institute of Technology, one of the foremost investigators of the cosmic rays, believed until recently that the rays' intensity remained the same day and night, until discoveries with improved instruments proved the intensity during the day to be higher. This might seem to throw a partial source of the rays back upon the sun and in connection with that theory it was hoped to obtain added data from the eclipse of August 31st - again with the aid of the airplane.

When Captain A.W. Stevens, piloted by Lieut. C.D. McAllister, went aloft somewhere in the vicinity of Portland, Maine, on August 31st, to obtain photographs of the eclipse at the instance of various scientific organizations, the electroscope formed part of the airplane's equipment. By an ingenious hook-up, the measurement of the intensity of the cosmic rays present in the atmosphere at 27,000 feet, were recorded automatically on photographic film. These measurements were taken before, as well as during the 90 seconds of totality, and the results should prove an interesting indication of the extent of the sun's influence upon the cosmic ray, even if it cannot be hoped through such an experiment to place definitely the source. No measurements of this kind have ever before been made.

The electroscope used in the Eclipse experiments was especially developed by Dr. Mott-Smith and Dr. L.G. Howell, Houston, Texas, for airplane use. To prevent jars or the effects of vibration, it was hung in the cabin by shock absorber cord. Within the small cylindrically formed steel case the intensity of the cosmic ray is measured by the amount of ionization taking place, ionization being produced by cosmic rays in amounts proportional to the strength of the rays. Inside this small steel cylinder is a frame made of invar steel, a material chosen because of its extremely low properties of temperature expansion and contraction. A quartz rod hangs from the top of the

frame and from this are hung parallel two quartz threads or fibers, each .006 millimeters in diameter. A quartz fiber bow is hung at the bottom of the parallel fibers and anchors them by a metal arm to the bottom of the frame. The cylinder is filled under pressure with argon gas, chosen because of all gases it lends itself most easily to ionization. When ionization of the gas takes place the two parallel fibers come closer and closer, a scaled background making clear the extent to the observer looking through a tiny glass window, approximately $\frac{1}{4}$ inch in diameter, in the cylinder case by aid of a powerful microscope which forms part of the instrument. Only under a high-power microscope are the fine quartz fibers of .006 millimeter diameter visible to the human eye. If ionization occurs in a very small amount, the two fibers remain almost stationary.

Very little direct bearing upon the daily life of the average citizen may the existence or nonexistence of such an element as the cosmic ray seem to possess, but if scientists had not through endless searching found now and then a peep hole into the unknown and infinite, and widened that peep hole through endless labor, the average citizen would not today have radio, the X-Ray machine, radium, telephones or many other taken-for-granted things. No one knows how far the cosmic ray peep hole may be widened, but many average citizens are glad for such glimpses as may come their way over the scientist's shoulder.

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AIR CORPS PERSONNEL WEATHER THE STORM AT GALVESTON

The maintenance crew, post electricians, telephone men and carpenters at Fort Crockett, Texas, turned from their daily routine work Sunday, August 14th, to repair the damage done by the hurricane the night before. The hurricane originated in the Gulf, spending most of its force about 30 miles west of Galveston, causing a heavy property loss. At the time this was written by the News Letter Correspondent, 39 persons were reported dead and about 200 injured as a result of the storm.

The wind at Fort Crockett reached the velocity of 100 miles per hour, with the barometer dropping to 29:28 at 8:30 p.m., Saturday. Storm warnings were published and posted Saturday morning. A heavy sky overhead with frequent coastal showers gave the warnings of the approaching storm. At about 10:00 a.m., visiting ships began to arrive, but the airmen were told to find a more suitable place to take their planes, as no hangar space was available. This precaution probably prevented the destruction of several of Uncle Sam's choice airplanes. Besides many precautionary measures taken by various departments of the post, the transportation department filled all available water tank-trucks with water, which would have been of much value had the island been covered with salt water. It so happened that many of the hurried precautions proved unnecessary, but they were well based and would have been put to good use had the brunt of the storm struck Galveston.

At noon Saturday, orders were issued that all enlisted personnel would stand by for further orders. Roads leading to the beaches were closed and guarded by sentries furnished by the post. A radio station of Galveston furnished regular hourly reports concerning the whereabouts of the approaching storm, the height of the tide and the necessary precautions to be taken by civilians regarding live stock and property. At 2:00 p.m., the wind velocity continued to rise, with a steady downpour of rain. Orders were issued that all important records be brought to Headquarters Building for safe keeping. The meteorological men were very busy, giving the Adjutant readings from the barometer and anemometer. To pass the time away and keep more pleasant thoughts in one's mind, the day rooms were filled with people playing bridge and other card games and every other sort of indoor amusement.

Power lines were blown down, leaving the city and post in complete darkness. Candles and lanterns were brought out of storage, cleaned and put to use. No one was excited and perfect order was maintained. Word was received that the force of the storm was due to hit some 75 miles west of Galveston, but the barometer was reading around 29:30 at the moment. At about 7:30 p.m., organizations quartered in wooden buildings were told to move to the more substantial buildings. The 13th Squadron and the 60th Service Squadron moved to the Harbor Defense building. Headquarters Detachment and the Band went to Headquarters building. No bedding was carried with the men, so the desk tops and floors provided the only places to sleep. The floor was partly covered with water, making it a little uncomfortable.

Around 8:30 p.m., our share of the wind reached its highest velocity, with the barometer going down to 29:28. Windows were doing a heel and toe dance and a few gave way under the strong pressure of the wind and rain. Figures of men could be seen groping around the dim lantern light among the desks in the personnel office. About thirty minutes later, the barometer began to rise and the wind velocity began to drop. The wind rose again about an hour later and then decreased slowly.

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(Castle)

17TH SQUADRON RETURNS FROM CAMP SKEEL

The 17th Pursuit Squadron recently returned to its home station, Selfridge Field, Mt. Clemens, Mich., after spending nearly a month at Camp Skeel, Oscoda, Mich., in aerial gunnery training. The consensus of opinion of members of the Squadron was that Oscoda is a darn good place, but that it is good to get home. Camp Skeel, like all camps, is a good place to relax and acquire a sunburn, but possesses none of the luxuries of home life. All of the scenery of that part of Michigan is built on a foundation of fine white sand which has an undesirable tendency to drift into all sorts of places where it is not wanted. One place where the sand is desirable is on the excellent beach on the shores of Lake Huron, only a couple of miles from camp. The camp denizens spent most of their leisure hours soaking up ultra-violet rays on said beach.

From a training point of view, the 17th's stay at Skeel was highly successful. Every pilot of the command fired for practice and record both on ground and tow targets. The Squadron qualified one hundred percent, and the percentage of scores in the expert class was unusually high. The Squadron Statistician has not yet completed his analysis of the Squadron scores but confidently predicts that the 17th will qualify ninety percent of its pilots as "Experts."

At present the 17th is engaged in completing its gunnery course by running low altitude bombing on the new bombing range at Selfridge. While the new regulations, prohibiting diving on the bomb target at a greater angle than 45 degrees, tend to hamper high scores in bombing, it is believed, nevertheless, that the scores compare very favorably with those of last year.

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WRIGHT FIELD FLIERS RETURN FROM MAPPING PROJECT IN FLORIDA

Captain Bruce Hill and Lieut. J. F. Phillips, of the Aerial Photographic Unit, Materiel Division, Wright Field, returned recently from a photographic mission in Florida. This mission consisted in obtaining 5-lens aerial photographs for the proposed cross-Florida ship canal which is to be started in the near future. Approximately 7,000 square miles were photographed in a period of about a month.

The photographs are to be used in reconnaissance surveys of the various routes across the State of Florida and for the purpose of preparing a precise map of the route finally selected. The projected Florida Canal will be one of the largest in the world and capable of carrying more traffic than the Panama Canal. The probable route of the canal will lie somewhere between Jacksonville and Ocala, Florida.

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MARCH FIELD UNITS TRAIN AT ROCKWELL FIELD

After a month's intensive training in bombing and aerial gunnery at Rockwell Field, Coronado, Calif., the 11th Bombardment and the 95th Pursuit Squadrons left for their home station, March Field, Riverside, Calif.

It will be remembered that these two outfits were formerly stationed at Rockwell Field before moving to March Field to become units of the 1st Bombardment Wing, which was organized at March Field in November, 1931. The 11th Bombardment Squadron, under command of Capt. Charles H. Howard, is a unit of the 7th Bombardment Group, while the 95th Squadron, under Lieut. Leo H. Dawson, belongs to the 17th Pursuit Group.

These two units were replaced at Rockwell Field by the 9th Bombardment and the 34th Pursuit Squadrons two days later, coming also from March Field, and occupying the same camp site on North Island. The 9th and 34th Squadrons immediately started on a month's program of intensive training in bombing and gunnery.

NEW ENGLAND RESERVES COMPLETE TRAINING CAMP

The officers of the Air Corps Reserve from New England recently completed their first training camp held in New England. Camp was established at Marston's Mills Airport on Cape Cod, Mass. With Captain Glenn C. Salisbury and 2nd Lieut. B.F. Kelsey as instructors, the Reserves put in two strenuous weeks of duty. Many maneuvers were completed and tactical missions worked out.

Among those at the camp were: Majors Howard Nestor (C.O.) and Bartlett Beaman (Executive Officer); Captains Byron Switzer; Charles Clark; George Lusk; Frank C. Crowley; Robert A. Nagle; Edward A. Holderman; John A. Langley; Edward Fairfield; Walter Cleveland; Charles Rohrbach; George Chadderdon; 1st Lieuts. Ephraim Ingels; Edward Parker; Bernard Rose; John Wamsley; Ralph Warriner; Horace White; Crocker Snow; Paul S. Smith and Harry D. Copland; 2nd Lieuts. Walter Steet; Olaf Pierson; Herbert Horton; John E. Sandow; Mark Hopkins; Winthrop Towner; Andrew Ivanoff; William Tanner and Stanley Winch.

Major Nathan N. Linius, Medical Corps Reserve, was the Flight Surgeon on the job to safeguard the health of the camp.

The airplanes used were two PT-3; two BT-2B and ten of the O-1 type of service ship, five of which came from Mitchel Field and were flown to the camp by the Reserves.

Splendid results were obtained in gunnery, with the high score obtained by Lieut. Horace White - 262. Lieut. Crocker Snow followed with a score of 220 and Captain Frank C. Crowley with 213.

Camp was broken on August 20th, and the Reserves returned the ships to Boston and Mitchel Field. They proceeded to their homes satisfied that the camp was ideal in every respect.

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INDIAN WRITINGS PHOTOGRAPHED ✓

Not to be outdone by the embryonic scientists in the 11th Squadron, March Field, Calif., who aided Dr. Millikan in his important cosmic rays tests, Lieut. Minton W. Kaye, Commanding Officer of the 23rd Photo Section, chose anthropology as his field of scientific endeavor. In cooperation with Ethnologist Arthur Woodward, of the Los Angeles Museum, and Mr. George Palmer, a civilian flyer who had reported strange figures painted on the ground near Blythe, Calif., Lieut. Kaye organized an expedition to investigate. Accompanied by Sergeant Stephen McAlko and equipped with cameras, Lieut. Kaye flew to Blythe.

Crude images, probably drawn on the ground by an ancient tribe of Indians, were found, ranging in size from 50 to 167 feet. One is of a man with his arms outstretched. His neck is long, head small and round, knees knotty, and feet short and thick. A huge circle surrounded his body, bisecting his legs just below the knees. Another figure was found, 50 feet long, resembling a horse. Several other mysterious designs were found.

Three groups of figures were found. In each there is the colossal figure of a man, an animal, and a snake. Dark brown and light colored pebbles, varying in diameter from one to five inches, were the materials used by the artists who left records which have remained unknown for nobody knows how many centuries. The figures are so immense that only from a height can they be recognized. There are no hills close enough to permit detection. Undoubtedly, many people have ridden through the figures without recognizing them, so it is believed that they were not designed for the sake of art but rather for religious or ceremonial purposes.

From studies of the aerial photographs, which give definition impossible to obtain from the ground, scientists hope to discover clues that will help them unravel the mysteries of the Colorado mesas.

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At sundown on August 26th, the 94th Pursuit Squadron came roaring across Lake St. Clair in a long dive towards Selfridge Field, Mich. They were coming home after three weeks of strenuous gunnery work at sandy Camp Skeel in Northern Michigan. The Squadron, under the command of Captain A.B. Balland, had made an excellent gunnery record under the handicaps of poor weather and a shortening of practice time due to changes in the training program of the First Pursuit Group.

MORE ABOUT THE COSMIC RAYS



R. Robert A. Millikan, world-famous scientist, and head of the California Institute of Technology at Pasadena, Calif., recently completed at March Field, Riverside, Calif., a series of important tests on the intensity of cosmic rays at various altitudes. Spurred by the controversy between the two schools of thought - one maintaining that the rays are emitted from the sun and deplete the energy of that body; and the other, led by the scientist himself, believing that the rays come from other parts of the stellar universe and are perpetual in their nature - Dr. Millikan is attempting through a series of accurate tests to learn more of the nature of these important rays.

A supersensitive cosmic ray electroscope, automatically recording the intensity of the rays on movie film, and other highly accurate self-recording instruments such as clock and barograph, all developed in the Pasadena laboratory, were encased in 500 pounds of lead as a protection against conflicting rays. This "lead ball" was taken to Lake Arrowhead for preliminary tests before being installed in Army airplanes, but a mishap resulted in the entire ensemble of instruments - lead and all - being lost in the bottom of the lake. The eight months of laboratory work necessary for the construction of the instruments was not lost, however, for the experience gained enabled the physicist and his staff, by working day and night, to complete a new set in three weeks' time.

The instruments were then suspended by a network of shock absorber cords in the tool box of a "Condor" Bomber of the 11th Bombardment Squadron, and then the fun began for Lieut. Howard and his pilots and crews. Intermittent day and night missions continued through four days, in both good and bad weather. Oxygen tanks were necessary, as the pilots and crews flew to maximum altitudes. An average of five hours was required on each mission, the pilots remaining 45 minutes at each of the four required altitudes - 10,000, 14,000, 19,000 and 21,000 feet.

Dr. Millikan and his assistants expressed keen delight with the skill with which the missions were flown and the successful results obtained. The following statement was given to the News Letter Correspondent by Dr. Millikan:

"The first purpose of these tests is to measure accurately the rate of variation of the cosmic rays with altitude at higher altitudes than have yet been obtainable on mountain peaks. This is the first time it has become possible to make accurate measurements of this sort in airplanes, for Dr. Neher, Dr. Bowen and I have developed at the California Institute of Technology, new instruments, which are independent of vibrations and which should therefore yield accurate results in airplanes up to altitudes above 20,000 feet. These are higher than those at which the most accurate measurements of cosmic ray intensities have thus far been obtained.

Again, accurate measurements made at these altitudes, if repeated in widely different latitudes, also should furnish crucial data as to the nature of these radiations. The latitude of 34 is very suitable for one such test. It is hoped then to repeat these observations in other latitudes.

Also, the question as to whether the sun has any influence whatever on the cosmic ray intensities at high altitudes, as claimed by some, - a very important point in unraveling the nature of the rays - should be capable of more unambiguous determination through day and night high altitude flying than through methods which have heretofore been available.

In the present tests the pilots are endeavoring in each flight to hold their altitudes constant for three quarters of an hour at each of the altitudes 10,000 feet, 15,000 feet, 19,000 feet and 23,000 feet. The instruments are all self-recording, the barograph certificated by the Bureau of Standards, recording at all times during the flight the exact altitudes, independently of the pilot's instruments and the recording cosmic ray electroscopes yielding the corresponding cosmic ray intensities and temperatures.

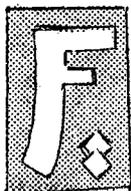
The Royal Canadian Air Force is cooperating with these tests in Canada as the United States Army Air Force is doing in this country."

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First Lieut. John H. Dulligan, Commanding Officer of the 73rd Pursuit Squadron of March Field, Calif., is satisfied with nothing short of perfection in his instruction methods within his organization. He has had constructed three flights of miniature airplanes, painted in flight colors, with which he demonstrates methods and theories of tactics before taking his squadron into the air for a training flight. This method has proved highly successful.

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AERIAL PHOTOGRAPHY AT HIGH SPEED
By the News Letter Correspondent



FIRST Lieut. George W. Goddard, Air Corps, Director of the Department of Photography of the Air Corps Technical School, Chanute Field, Ill., with Master Sergeant G. B. Gilbert of the department, recently spent two periods of special duty at Selfridge Field, Mich., for the purpose of making a mosaic of the Selfridge Field area, and of making a series of 100 photographs of the First Pursuit Group in action, both on the ground and in the air. The photographs of the group in its various aerial formations are of particular interest and are excellent from the viewpoints of both the flying and the photography. The flight formations are in perfect alignment. Lieut. Goddard speaks much of the cooperation and assistance given him by the Commanding Officer of Selfridge Field, and the Group Commander, together with their assistants. He states that taking photographs of a Pursuit organization, through its various evolutions in the air, is a distinctive profession in itself. He says that if anyone wants to experience a new thrill, he should climb into the rear seat of a P-16, with an aerial camera for a playmate, and let the pilot put the ship into a dive, in the meantime holding the camera out for oblique photographs.

According to Lieut. Goddard, the situation is fairly stable until the speed of 200 miles is reached, the photographer managing the camera without superhuman effort, but when 300 miles an hour is reached, the camera attempts to climb into the seat. Then (still according to Lieut. Goddard), when the speed becomes 400 miles, the photographer is willing to let his camera have the seat, while at 500 miles an hour, he is holding himself in with a strangle hold around the camera as an anchor. However, (again according to Lieut. Goddard), the real fun does not start until the diving speed reaches 800 or 900 miles per hour, with the photographer still riding backward, when he loses all thoughts of the camera, his whole effort being spent in pushing his eyeballs back in place as fast as they pop out.

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TEXAS NATIONAL GUARD AIRMEN GO IN CAMP

The 36th Division Aviation, Texas National Guard, participated in the Division's 15-day annual field training, August 6th to 20th, at Camp Hulen, Palacios, Texas. Twenty-one officers and 84 enlisted men put in a strenuous 15-day training period under the blazing Texas sun. But three officers and two enlisted men failed to make the camp, which is the best attendance record for the Squadron. The 16 pilots in attendance at camp qualified from marksmen to experts in aerial gunnery. The full allowance of machine gun ammunition was expended and 200 practice bombs were dropped. The Squadron had at camp six O-38's and one BT-1 and O-17. Day and night flying missions were executed, the latter for artillery fire control by radio. Missions were accomplished with both the Infantry and Artillery radio, message dropping and pickups, and panel work to practice the Division signal units.

The radio equipment worked perfectly during the day time, but considerable difficulty was experienced at night due to being on the broadcast bands and the numerous night stations yammering away. Recommendations were made to the signal officer to equip the Division signal units, including the planes, with short wave sets working around 70 to 90, so as to avoid the radio broadcasting and ship to shore bands. Several photographic missions were also performed.

The camp was not without its excitement. On Saturday, August 13th, a tropical hurricane swept in from the Gulf. The wind reached a velocity of 75 miles, covering the Gulf coast from Port Arthur down as far as Corpus Christi. One can never tell what a tropical hurricane will do, so the 2,000 tents in camp were struck and piled in the mess halls and storage buildings. This took but 30 minutes. The Squadron planes took off for Duncan Field, San Antonio, where they were securely housed. No damage occurred to the camp, but the surrounding country was a wreck, buildings, trees, poles and freight cars being blown away and demolished. Some of the towns in the path of the blow were 60 percent demolished.

During the blow, the Squadron's home hangars (two of them) on the Houston Airport were partly destroyed. The commercial hangar of the north end of the field, a large steel affair, was totally wiped out, together with eleven commer-

cial planes. The Guard hangars, rented from the Houston Airport, were of steel frame, welded with galvanized sheeting, closed at one end and open at the other, no doors being provided. A movement is afoot to replace the Guard hangars with Army type construction, open at both ends and with doors.

The Division Camp at Palacios, on Tres Palacios Bay, about 100 miles southwest of Houston, is an ideal location for the 7500 men who attend the annual training camp. Boating, fishing and surf bathing provide amusement and entertainment.

Captain Vincent J. Meloy, Air Corps Representative, Militia Bureau, Washington, D.C., was a visitor at the camp the final week end, piloting Brig.-General George E. Leach, Chief of the Militia Bureau, on his inspection tour.

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LONG DISTANCE NIGHT AND DAY FLIGHT IN TRAINING PLANE

Just what can be expected of the Air Corps in an emergency, even with training planes, was demonstrated recently by Lieut. Elmer J. Rogers, Jr., Flying Instructor, Randolph Field, Texas. Selecting a plane at random from the scores in service daily at the training school, Lieut. Rogers flew the distance of 1,800 miles from San Antonio to Boston, Mass., in 17 hours, 45 minutes. Lieut. Rogers obtained permission from the Chief of the Air Corps to make this aviation training flight. A mechanic accompanied the Flying Instructor in the training plane, same having been flown the preceding day by one of the students at the field.

The San Antonio flyer took off from Randolph Field at 3:10 a.m., and headed for Little Rock, Ark., where he landed for fuel. Landings were also made at Dayton, Ohio, and Middletown, Pa. He then went on to Boston of tea-party fame. The trip, however, was decidedly no tea-party for Lieut. Rogers, since a large part of the flight was through the blackness of night, which required valorous nerves in guiding his plane over territory unknown to him. Of the 17 hours, 45 minutes flying time, 8 hours were flown during the night, when sole reliance was placed on the night flying instruments. The total elapsed time was 19 hours, from which 75 minutes were deducted for landings, refueling and take-offs.

Lieut. Rogers set his plane down on Boston Airport at 12:15 a.m., completing the impromptu flight without a single motor, mechanical or human error, and chalked up an average speed of about 100 miles an hour for the entire trip in a plane not especially fast and built only for student training work. Returning to his home field he learned of his promotion to First Lieutenant.

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NEW CONSTRUCTION AT SELFRIDGE FIELD

Recent visitors to Selfridge Field commented on the large amount of new construction completed there. Within the past year, the hangars and all of the technical buildings were completed and most of them are now occupied by the activities for which they were designed. At present, Lieut. Walters, Constructing Quartermaster on the post, is supervising the installation of all the utilities pertaining to past construction. Roads are being laid in all directions, and in a short time the familiar Selfridge Field mud will be a thing of the past. A beautiful flag pole was erected in front of the Headquarters and post Operations Building, and the sidewalks connecting the Headquarters building with the road laid down. An interesting feature of this building is a giant wind "T" which is being installed on the roof. The "T" will be electrically connected to a device downstairs in the Operations Office which will indicate at all times the direction of the wind aloft.

A piece of construction, especially welcome to pilots, now being completed is the night lighting facilities for the landing field. Two giant batteries of lights, one on the northeast and the other on the south side of the field, will soon spread a blanket of light over the field after night fall and allow the 1st Pursuit Group to perform its quota of Individual and formation night training.

Within a few months, Lieut. Walters expects to begin work on the final stage of the Selfridge Field building program. The following buildings will be erected and, when completed, will finally put Selfridge in the category of a permanent post, with none of the old wooden war-time shacks left as reminders of the great conflict: Gym and theatre (combined), Q.M. Maintenance Building, Post Exchange, Officers' Mess, Enlisted Men's Service Club, Bakery.

THE CATERPILLAR CLUB



The roster of the Caterpillar Club is slowly mounting to the 500 mark, and the number of emergency jumps made since this mythical organization sprang into existence is very close to that mark. According to the best information available, the lives of 478 Americans were saved thus far through emergency parachute jumps, and a total of 496 jumps made, 18 being repeaters.

Col. Charles A. Lindbergh is still the Supreme Commander of the Caterpillar Club with four jumps. Other high officials who passed their second degree are the Air Corps contingent of Major James H. Doolittle (Air Reserve), Captains Frank O'D. Hunter, James T. Hutchison, Lieuts. Arthur R. Kingham, James A. Ronin, John G. Fowler, Sgt. Fred P. Miller; Lieut. Frederick M. Trapnell, U.S. Navy; Air Mail Pilots Harry Sievers, Samuel J. Samson, Verne E. Treat, James Rutledge; Civilian Pilot E.E. Dryer, and the late Lieut. Eugene H. Barksdale and

Al Wilson.

If Caterpillar Club statistics count for anything, it may be said that airplane accidents are steadily decreasing in number. In the period from January 1 to September 15, 1930, a total of 101 emergency parachute jumps were made. For the same period last year, the jumps numbered 63, while this year the figures disclose 51 jumps. "Slump" is an unwelcome word these days, but it does sound good so far as concerns the Caterpillar Club.

Trapped in a burning plane only 500 feet above the swollen waters of the Rio Grande at Fort Ringgold, September 2nd, 1st Lieut. Joseph H. Hicks and 2nd Lieut. Edwin S. Rawlings, of Brooks Field, Texas, escaped with minor injuries by resorting to their parachutes, landing on the Mexican side of the river. The two officers had just taken off from the airdrome at the post when the motor started to miss. The wind was from the north, and as they attempted to circle to land on the field again, the motor caught fire just as the plane was over the river. The fire quickly spread into the front cockpit where Lieut. Rawlings was piloting the ship. He was burned on the face and hands before he could unhook his safety belt and climb over the side of the cockpit. As Lieut. Hicks jumped, the plane swung around and he received a cut on the head. The north wind carried them across the river, which was beginning to feel the effect of the flood waters farther upstream. They landed safely, and the plane crashed and burned about 200 yards south of the river.

Lieut. Rawlings had three panels torn from his parachute as it hit the tail surfaces of the plane. Lieut. Hicks slipped his chute to prevent his landing on the burning plane. Mexican authorities in the immigration service hurried to the aid of the American officers and, waiving the usual formalities upon noting that each of them was in need of medical attention, escorted them to the river and sent them across to Fort Ringgold where they were treated.

Sergeant Lionel Edwards, 94th Pursuit Squadron, Selfridge Field, Mich., had the unusual experience of falling out of an airplane while riding as gunner for Lieut. Paul Blanchard in a P-16 airplane. During a barrel roll, Sgt. Edwards' safety belt became unlatched, whereupon he was dropped into the "ozone." The parachute worked, and Sergeant Edwards landed safely in a cabbage patch near Selfridge Field. He was unhurt, but extremely disconcerted. Lieut. Blanchard's feelings are not of record.

On August 22nd, Lieut. John G. Fowler fell out of his plane while practicing acrobatics. Lieut. Fowler, an instructor on the Primary Stage at the Air Corps Training Center, Randolph Field, stated that while practicing a slow roll, his safety belt snapped and he found himself out in mid air. He pulled his rip cord and floated safely to earth, while his plane crashed and burned. The accident occurred while he was flying at an altitude of 2,500 feet. He was flying a Y1PT-11B, which is equipped with one of the new type metal belts. Investigation of the wreck revealed that the belt had not been broken, and that Lieut. Fowler inadvertently released it in some way.

On July 7th, the peaceful routine of Clark Field, Pampanga, P.I., was in-

errupted by a couple of airplanes tumbling down from 3,000 feet and smacking the ground right in the middle of the field. This undesirable treat to the nerves was the result of a collision by Lieuts. Fair and Ronin while flying formation. Both pilots got out promptly and safely in their parachutes. Fair was pretty badly shaken up and received a sprained ankle upon striking the ground in his chute.

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WRIGHT FIELD PERSONNEL PHOTOGRAPH ECLIPSE

Besides Captain Stevens and Lieut. McAllister, who flew to Portland, Maine, for the Eclipse, other Wright Field personnel who flew to the region of totality were Major W.E. Kepner and Capt. Dache M. Reeves, and Lieut. H.P. Rush and W.C. McNeill of the Armament Branch. All were greatly impressed by the spectacle and obtained photographs of interest and value. Captain Stevens developed his photographs, taken for the National Geographic Society, in Washington, returning to the field on September 9th.

Of all the pictures obtained, Captain Stevens was most enthusiastic about the one showing the shadow of the moon, elliptical in shape, as it lay on the clouds beneath the airplane. The diameter of this phenomenon was so great that the exposure had to be made in two parts, pieced together in the completed print, in order to encompass it all on films. On his return, developments of film were immediately started which would give the measurements of the cosmic rays during the Eclipse, special equipment for the obtaining of which Captain Stevens carried as auxiliary equipment in his airplane. Dr. Lewis Mott-Smith also returned to the field after the Eclipse, and will remain to assist in final checking up of cosmic ray measurements and data.

Every photographer wanted to obtain pictures of the Eclipse. All would have preferred to get them where the real party was held - that is, in the location of totality. Since this was not possible for the men of the Aerial Photographic Unit at Wright Field, they did the next best thing and rigged up a camera of extremely long focal length - 90 inches - so that they might get as long an image of the rare phenomenon as possible. The camera consisted of a 90-inch piece of metal tubing, $2\frac{1}{2}$ inches in diameter and $\frac{1}{16}$ inch in wall thickness. In one end of the tubing they inserted a $\frac{1}{2}$ -inch diameter lens; in the other end, a 4-inch by 5-inch film pack holding orthochromatic film. Exposures of $\frac{1}{25}$ th of a second were made by mounting a compound shutter in front of the lens. A red filter (gelatin) was used in front of the lens for cutting out all but red rays. This gave an image of $\frac{7}{8}$ inch in diameter, probably the largest obtained in this part of the country without the use of a telescope. The full cycle of the Eclipse in twenty views was successfully photographed.

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NAVY SHOWS PICTURES TO THE ARMY

Through the courtesy of the Welfare Officer, Naval Air Station, which lies adjacent to Rockwell Field, Calif., two reels of sound motion pictures of Air Corps subjects were shown in the theatre of the Naval Air Station recently. Many interesting scenes of various Air Corps organizations and posts throughout the country were shown, as well as the scenes of actual flying missions, which included pictures of March Field units dropping food to snow-bound Indians in Arizona, bombing practice, parachute jumps, aerial reviews and things of general interest to Air Corps personnel. The pictures as a whole proved to be very interesting and entertaining, and the soldiers of Rockwell Field are very grateful to the Navy for their courtesy and kindness.

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A recent extended avigation flight of interest was completed by Lieuts. W.C. Farnum and C.B. Stone, of Chamute Field, Ill. On July 20th, the two officers, in a BT-2 plane, departed from Chamute Field, with their ultimate destination as Crissy Field, San Francisco. Their itinerary included: Muskogee, Okla.; Dallas, San Antonio and El Paso, Texas; Tucson, Ariz., Rockwell Field, Los Angeles, March Field and Crissy Field, Calif. After remaining at Crissy Field for two days, the officers departed on their return trip over the same route.

Lieuts. Farnum and Stone, in addition to carrying out their original purpose of avigation training, located fifteen new landing fields along the route, which they carefully indicated on maps as suitable for landing military aircraft. Their fastest single flight was from Muskogee, Okla., to Chamute Field, the distance of 500 miles being covered at an average speed of 138 miles an hour. The airplane and engine functioned perfectly throughout the long flight with its varied conditions. The two officers state that the outstanding memory of the entire flight is the extraordinary courtesy with which they were received and entertained at Air Corps Stations, together with aviation service of the highest order.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

Changes of Station: To Panama Canal Zone: 2nd Lt. Ernest H. Lawson, from Kelly Field; Capt. Stephen J. Idzorek, from Ft. Crockett; 2nd Lt. Ralph P. Swofford, Jr., from Randolph Field; 2nd Lts. Carl J. Crane and Howard W. Turner, Randolph Field; 2nd Lts. Roland C.S. Akre, Langley Field; ~~Jarred V. Crabb~~, Selfridge Field.

To the Philippines: 1st Lt. Lee Q. Wasser, Mather Field; 1st Lt. James W. Andrew, Randolph Field.

To Hawaii: Capt. Philip Schneeberger, Scott Field.

To Barksdale Field, La.: Capt. Edward V. Harbeck, Jr., San Antonio Air Depot; 1st Lt. Earl W. Barnes, Panama.

To Maxwell Field, Ala.: Capt. Byron T. Burt, Jr., Hawaii; 1st Lt. Charles E. Thomas, San Antonio Air Depot.

To New Haven, Conn.: 1st Lieut. Geo. H. Sparhawk, 2nd Lt. Daniel B. White, Chamute Field, for duty as students, Sheffield Scientific School, Yale Univ.

To Boston, Mass.: Captain Ray A. Duna, Middletown Air Depot, for duty as student, Babson Institute; Lieut.-Col. Alfred H. Hobley, Office Asst. Secretary of War, for duty as student, Graduate School of Business Administration, Harvard.

To Pasadena, Calif.: 1st Lieut. Paul H. Kemmer, Materiel Division, Wright Field, for duty as student California Institute of Technology.

To Kelly Field, Texas: 2nd Lt. Thomas L. Bryan, Jr., Panama.

To Wright Field: Captain Howard Z. Bogert, Mitchel Field.

To Washington, D.C.: Capt. Guy H. Gale, Indianapolis, Ind. To Walter Reed Hospital for observation and treatment.

To Cambridge, Mass.: Capt. Omer O. Niergarth, Bolling Field, for duty as student, Graduate School of Business Administration, Harvard University.

Transferred to the Air Corps: 2nd Lieut. Wm. T. Hefley, Corps of Engineers, July 19th, rank from June 9, 1928.

Detailed to Air Corps: To Randolph Field, Texas, for flying training - 1st Lieut. George D. Pence, Field Artillery; 2nd Lieuts. Harry H. Geoffrey, Field Artillery; Arville W. Gillette, Infantry.

Relieved from Detail to Air Corps: 2nd Lieut. James F. Stroker, Field Art.

Promotions: To Captain, rank Sept. 1, 1932 - 1st Lieuts. Lloyd Barnett, John A. Laird, Jr., Bushrod Hoppin, Charles W. Steinmetz, John M. Davies, Walter T. Meyer, Reuben D. Biggs, Wendell B. McCoy, James E. Duke, Jr., Martinus Stenseth, Rex K. Stoner, James B. Carroll; to 1st Lieut.: 2nd Lieuts. John T. Sprague, Frederick A. Bacher, Jr., Ward J. Davies, Yantis H. Taylor, George L. Murray, Claire Stroh, F. Edgar Cheattle.

Retirements: 2nd Lieut. Thomas J. Holmes (as 1st Lieut.); 1st Lieut. Hjalmar F. Carlson. Disability incident to the service.

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HIGH SCORES FOR MARCH FIELD AERIAL MARKSMEN

March Field is justly proud of its 1931-32 bombing and gunnery records. The 43 officers who dropped bombs for record with the 9th, 11th and 31st Bombardment Squadrons all made EXPERT ratings. The Squadron records were as follows:

- 9th Squadron - Average - - 1737.7; High score, Capt. H.D. Smith - - - 1928
(Lieut. Birrell Walsh, pilot)
- 11th Squadron - Average - - 1863.1; High score, Lieut. J.S. Mills - - 1935
(Lieut. Ivan Farman, pilot)
- 31st Squadron - Average - - 1811.3; High score, Lieut. Allen P. Shelly 1908
(Lieut. Calvin B. Simmons, pilot)

The 9th and 31st Squadrons were newly organized last year and did not have sufficient time to fire gunnery for record. The 11th Squadron qualified twelve officers as EXPERTS and four as SHARPSHOOTERS, with none failing to qualify.

Among the Pursuiters, the following records were made in gunnery:

- 73rd Squadron - Lieut. H.C. Minter - 1068.9; Squadron average, 760.2
- 34th Squadron - Lieut. J. C. Jensen - 735; Squadron average 514.2
- 95th Squadron - Lieut. D.D. Graves - 1232.9; Squadron average 846.5

On the basis of the above scores, Lieut. Graves was sent to the Matches last year and won first place in the national contest.

With the improvement in bomb sights, airplanes, and methods of bombing instruction, scores have steadily improved since the World War. The opinion prevalent among March Field pilots seems to be that the present 1500 score required for an EXPERT rating in bombing is too low to be an incentive for the most intensive effort. The majority of officers of the 7th Bombardment Group have had less than two years of experience in bombing, yet the average scores were well over the 1800, and not an officer, regardless of how scant his training, failed to make the "coveted" rating.

EXTENDED AVIGATION MISSION, LANGLEY TO MARCH FIELD

Piloting a Keystone B6A Bomber, 2nd Lieuts. M.C. Bison and H.G. Montgomery, Jr., 96th Bombardment Squadron, returned to Langley Field following an extended avigation training mission to Riverside, Calif., which was completed in an elapsed total flying time of 64 hours. They were assisted by their able crew chiefs, Sergeants Maul and Kauffman.

Excellent landing fields enroute were reported, with the exceptions of Roberts Field in Birmingham, Ala., and Lowery Field, Denver, Colo., which are too small for the take-off of a Bomber fully loaded. The average altitude of flight from San Antonio, Texas, to March Field, Calif., was 5,000 feet; and from Mather Field, Calif., to Cheyenne, Wyoming, 12,000 feet. When fully loaded, some difficulty was experienced in gaining altitude, but when once obtained no further trouble was encountered in cruising.

The pilots advised the taking of winter flying clothes on a trip of this nature, inasmuch as the mountains enroute made it necessary to gain high altitudes, with unusual cold weather being experienced. Very splendid courtesy was extended the officers and crew throughout the flight, especially by the Curtiss-Wright people at the Alameda, Calif. Airport.

It is interesting to note the ease with which the flight was accomplished, in comparison with the age of the "Early Bird."

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96TH SQUADRON FLIES TO WILMINGTON, N. C.

The City of Wilmington, N.C., extended an enthusiastic welcome to the 96th Bombardment Squadron from Langley Field, Va., upon the occasion of its recent visit in conjunction with the training program of the 2nd Bombardment Group.

The airport at Wilmington is ideally situated and large enough to accommodate a Bombardment squadron. Railroads, communication lines and other necessary requirements are convenient. The airport showed no signs of softness, after 4 days of continuous rain. It was estimated that approximately 20,000 residents of the city visited the Airport during the course of the week-end and inspected the airplanes. The officers and enlisted men took up their quarters at Wrightsville Beach and enjoyed the splendid swimming and pleasant hospitality.

The problem assigned the Squadron, commanded by Capt. J.P. Richter, and comprising nine Keystone Bombers, manned by 18 officers and as many enlisted mechanics, was to occupy an advanced airdrome at Wilmington.

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RADIO BROADCASTS BY MARCH FIELD DISCONTINUED

With the March Field Band disbanded, the regularly scheduled radio broadcasts which have been conducted for the past three months over Radio Station KFXM, San Bernardino, Calif., were discontinued. The Army Radio Hour as conducted, included with the band program, a 15-minute address by some March Field officer on Air Corps subjects. The following officers, with subjects as indicated, participated in the programs:

- Major J.T. McNarney - The Mission and General Organization of the Air Corps.
- Lt.-Col. H.H. Arnold - Development and Procurement of Aircraft.
- Capt. B.J. Toohar - Selection and Training of Air Corps Pilots.
- Lieut. J.A. Madarasz - Selection and Training of Air Corps Enlisted Personnel
- Major Carl Spatz - Specific Organization of the Air Corps into Pursuit, Attack, Bombardment, Observation, etc.
- Lieut. C.H. Howard - Mission of Bombing.
- Capt. F.O'D. Hunter - Mission of Pursuit.

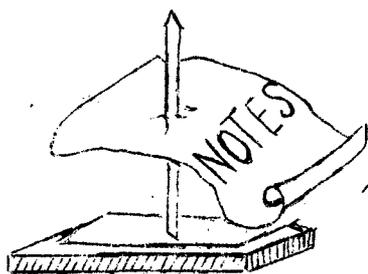
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DEATH OF LIEUT. SANBORN

The Third Pursuit Squadron, Clark Field, Pampanga, P.I., received a sudden shock when Lieut. E.A. Sanborn met with a fatal accident due to the premature explosion of a 100-pound bomb. At the time the explosion took place, the Squadron was demonstrating gunnery and bombing to a large crowd at Clark Field, composed of visiting Air Corps officers, and officers and men from other branches.

Lieut. Sanborn released his second bomb from a P-12E while diving toward a target on the ground, and it exploded in the air immediately beneath his ship. The explosion was attributed to the malfunctioning of the nose fuze on the bomb, and the matter is receiving the attention of the Ordnance Department.

The Squadron feels deeply the loss of Lieut. Sanborn, who has shown excellent ability both as a flyer and officer.



from Air Corps Fields

March Field, Riverside, Calif., Sept. 3rd.

The March Field Pistol Team, composed of Captain Hunter and Lieuts. Ives, Briggs, Ott and Bass, was defeated by the State Highway Patrol Team by a score of 1410 - 1170.

Oliver Burton, 21 years old March Field soldier, who spent his week-ends driving in automobile races, was killed August 21st when his fast racing car hurtled through the fence of the new race track at Culver City, Calif. Burton died of a broken neck as he was being rushed to the hospital by an ambulance. With several victories on the Huntington Beach Track to his credit, Burton was regarded as one of the best dirt track drivers of Southern California. The Culver City track was staging its first race at the time of Burton's crash. The road bed was loose and on one of the turns the automobile suddenly careened out of control, crashed through the fence, smashed a heavy cable and ploughed through a row of posts before coming to a halt.

James E. Briggs, Jr., was born August 9th at March Field. The 9½-pound youngster is the son of Lieut. and Mrs. James E. Briggs.

Randolph Field, Texas, August 31st.

The Air Corps Training Center Band, composed of Warrant Officer W.T. Herschenow and 28 enlisted men, was disbanded in accordance with the War Department economy plan. The personnel was assigned to the various squadrons at the field.

On August 16th, eighteen men were transferred from Air Corps unassigned at Randolph Field to the Air Corps Detachment at Barksdale Field, Shreveport, La. The men and their baggage were transported by air. These men will form a nucleus of the Pursuit Squadron at Barksdale Field, and will later be brought up to proper strength from other organizations and branches.

Lieut.-Col. and Mrs. Joseph F. Taulbee announced the engagement of their daughter, Imogene Shannon, to Lieut. Chester M. Young, now a student at Randolph Field on the Basic Stage. Lieut. Young graduated from the Military Academy, class of 1931. The wedding is to take place October 15, 1932.

Lieut. Herbert C. Lichtenberger, who faces ten years in a penitentiary and dismissal from the Army, is confined at Randolph Field awaiting commitment to a Federal prison. He was convicted of holding up the Schertz State Bank, Schertz, Texas, on February 15th last, and with committing assault on Mr. W.W. Lehr, a customer of the bank. The sentence was that Lieut. Lichtenberger serve 10 years at hard labor and that he be dismissed from the Army. The trial came to a close at 5 o'clock Saturday afternoon, August 20th, at Fort Sam Houston, when the court returned its verdict after deliberating for 45 minutes. The case now goes to the Court of Reviews at Washington, D.C.

Fort Sill, Oklahoma, August 29th.

The 120th Observation Squadron, Colorado National Guard, stationed at Denver, Colo., occupied hangar space at and operated from Post Field during their annual encampment from August 6th to August 20th. Major Carlos Reavis commanded the organization of approximately 12 officers and 90 enlisted men. The squadron had eight planes and operated as division aviation for the 45th National Guard Division. Major Harry Young and Lieut. Beau, Jr., were in camp as instructors.

First Lieut. Paul C. Wilkins and 2nd Lt. H.F. Gregory reported for duty with Flight "E," 16th Observation Squadron, as replacements for 1st Lt. Wm.L. Ritchie and 2nd Lt. Douglas T. Mitchell, who were ordered to the A.C. Technical School, Chanute Field, Ill., October 1st. Lieut. Ritchie will take the Communications Course and Lieut. Mitchell the Maintenance Engineering Course.

Capt. Benjamin F. Giles visited this station August 15th to conduct a technical inspection of Flight "E" and the First Balloon Company.

Lieut. Ritchie departed August 22nd for ten days' detached service at Houston, Texas. Lieut. Claire Stroh departed the same day for ten days' detached service at Denver, Colo.

111th Obs. Squadron, Texas Nat'l Guard, Houston, August 30th.

Brig. General Jacob F. Wolters, Commanding the 56th Cavalry Brigade, Houston, Texas, in a letter to the Commanding General, 36th Division, Texas National Guard, July 22, 1932, stated:

"1. Pursuant to Special Orders No. 152, A.G.O., dated July 6, 1932, Capt. Justin F. Aldrich, 2nd Lieuts. James C. Neely and Charles E. Jost, and Mr. Sergeant Richard P. Goodwin, reported for duty to the Commanding General, 56th Cavalry Brigade, on Sunday, July 10, 1932, during the field training and instruction of the 56th Cavalry Brigade to participate in the maneuvers from July 10th to 14th, inclusive. These gentlemen, operating planes in the capacity of both friendly and enemy observation and communication, conducted their work in a very efficient manner.

2. Captain Aldrich is especially commended for his efficient coordination between air and ground troops. The services of these officers and enlisted man were in every way satisfactory."

Lieut. and Mrs. Robert Haldane are the proud parents of a son, the first child born to them. The little Scotsman has been named Robert Bruce Haldane. It is predicted the youngster will give the world a tight fight.

Patterson Field, Fairfield, Ohio, August 16th.

Lieut.-Col. L.E. Goodier, Jr., U.S.A. Retired, reverted to inactive status effective August 15th, in accordance with the provisions of the Economy Act, dated June 30, 1932. Best wishes go with Lt.-Col. Goodier and his family to Princess Anne, Md., where they expect to make their future home.

The following were cross-country visitors at this station, August 1st to 15th, inclusive: From Bowman Field, Ky.: Lieut. Welsh, Capt. Woody - From Langley Field, Va.: Major Jones, Capt. Olds and four passengers, Lieut. Bond with Capt. Cronau, Lieut. Bond, Lieut. Bisson and 3 passengers, Major Dixon, Lieut. Wright - From Selfridge Field, Mich.: Lieut. Warburton with Lieut. Davis, Lieut. Hefner with Capt. Montgomery, Lieut. Findlay, Lieut. Hefner with Corp. Buckley, Lieut. Talbott, Lieut. McCoy and 12 passengers - From Schoen Field, Ind.: Lieut. Smith, Lieut. Genaro and one passenger, Lieut. Nixon with Capt. McMahon - From Chanute Field, Ill.: Capt. Skemp, Lieut. Stone and 3 enlisted men, Captain Rivers, Lieut. Easton, Lieut. Allen, Lieut. Kiern - From Columbus, Ohio: Lieuts. Houle, Rogers, Major Price - From Lunken Airport, Ohio: Lieut. Hart with Lieut. Coleman, Lieut. Veigle, Lieuts. Hart with Hodgson - From Cleveland, O.: Capt. Gill with Lieut. North, Capt. Gill with Col. Chandler - From Fort Sill, Okla.: Lieuts. Ritchie with Williams - From Bolling Field, D.C.: Lieut. Goodrich with Major Fields, Lieut. Shanahan - From Pope Field, N.C.: Capt. Skanse with Lieut. Stewart - From Scott Field, Ill.: Lieut. McLennan - From Stout Field, Ind.: Capt. Gale - From Chicago, Ill.: Lieut. Newhall - From Detroit, Mich.: Lieut. Russell.

Congratulations are extended to Lieut.-Col. Sneed on his promotion which became effective August 1, 1932.

Officers ferrying planes here for minor repair were Capt. Woody in an O1-B, August 1st; Lieut. Nicol from Detroit, O-38, on August 4th; Lieut. Hart from Lunken Airport, O1-E, August 9th.

Officers ferrying planes here for major overhaul were Sgt. Swisher in an O-19B, Aug. 2nd; Capt. Connell in P-3A, Aug. 8th; Lieut. White in O-23, August 10th, from Chanute Field, Ill. - Lieut. Harman in C-9, Aug. 5th; Capt. Moffat in C-9, Aug. 5th, from Wright Field - Lieuts. Aring in PT-3A and Blane in P-12C, from Selfridge Field, Aug. 9th - Lieut. Watson from Maxwell Field in P-12 on August 4th.

Col. Sneed, accompanied by Capt. Bower, Constructing Quartermaster, flew cross-country to Selfridge Field Aug. 9th for conference relative to incidental improvements made in new buildings there, and the questionnaire on the Engineering-Supply Conference.

Lieut. R.L. Williamson ferried Air Corps supplies to Chicago, Ill., Aug. 4th; Lieut. G.V. McPike to Columbus, O., Aug. 9th; Tech. Sgt. Guile to Chicago, Aug. 1st; to Lunken Airport, Aug. 5th; to Chanute Field, Aug. 8th and 12th.

A total of 20 planes and 33 engines were given major overhauls during July. Minor overhauls were given to 27 airplanes and 27 engines.

Lieuts. Goodrich, Timberlake and Williamson ferried three O1-E planes to Richards Field, Kansas City, Mo., Aug. 12th. The first two named officers returned in a BT-2A, Aug. 13th. Lt. Williamson returned in an O-25A from Fort Leavenworth, Kansas, on Aug. 14th.

Lieut. Zeigler with Col. Goodier flew cross-country to Bolling Field, D.C., in a BT-2B, Aug. 3rd. Lieut. Williamson and one passenger flew to Schoen Field, Ind., in a BT-2B on August 8th.

Col. Sneed, Lieuts. Goodrich, Timberlake and Zeigler, in 3 BT-2B's, departed at 2:00 p.m., Aug. 4th, for Cleveland, returning at 11:40 p.m., on a night training flight.

Capt. J.L. Corbett, QMC, was granted a month's leave during the "Hay Fever Season." Lieut. P.W. Timberlake was appointed Acting Q.M. during his absence.

Lieut. G.V. McPike, Depot Supply Officer, accompanied by H.L. Morgan, Chief

Clerk, visited the following National Guard activities, by air, to confer with A.C. Supply Officers of the National Guard Squadrons and Photo Sections regarding a change in procedure of furnishing Air Corps supplies to the National Guard; Cleveland, Ohio, Aug. 11th; Wayne Co. Airport, Romulus, Mich., Aug. 12th; Municipal Airport, Chicago, Ill., Aug. 13th; St. Paul, Minn., Aug. 13th; Aviation Field, Mars Hill, Aug. 14th.

Patterson Field, Fairfield, Ohio, Sept. 3rd.

The First Cavalry, Mechanized, stationed at Ft. Knox, Ky., spent Monday night, Aug. 15th, at this station, enroute to their home station from Toledo, O.

Capt. Burton F. Lewis departed Aug. 16th on 30 days' leave, which he is spending in Ontario, Canada.

Lieuts. D.R. Goodrich and P.W. Timberlake departed for Dundalk, Md., on Aug. 25th. The former returned in a BT-2B the next day, while the latter secured and ferried here a YO-27 from the General Aviation Mfg. Corporation.

The following cross-country flights were made by officers at this station during the past two weeks: To Schoen Field, Ind.: Lieut. McPike, accompanied by Mr. L.R. Teach, in BT-2B, Aug. 18th, and solo on Aug. 24th; To Columbus, Ohio: Lieuts. Zeigler with Stice, Aug. 19th, Capt. Flickinger, Aug. 22nd; To Bay City, Mich.: Lieut. Goodrich, in BT-2B, Aug. 20th; To Burgess Field: Lieuts. Zeigler with Stice, Aug. 24th.

Capt. Kiel, Maxwell Field, ferried a P-12C, Aug. 16th, for minor repair; Capt. Connell an O-25 from Chicago, Aug. 20th; Capt. King an O-1 from Schoen Field, Ind., Aug. 25th.

Tech. Sgt. Guile ferried Air Corps supplies to Columbus, in a C-14, on Aug. 16th; to Selfridge Field, Mich., Aug. 17th, 18th, 19th, 22nd and 24th; to Chanute and Scott Fields, Aug. 30th. Lieut. McPike ferried supplies to Selfridge Field on August 23rd.

Pvt. Elmer H. Stuchell was taken to the Post Hospital, Ft. Hayes, Ohio, on Aug. 29th in an O-19B, piloted by Tech. Sgt. Guile, for an emergency operation for acute appendicitis.

Following is a report on the progress of new construction at this station: Hangar A - Outside masonry wall complete. Steel, foundation, roof, complete. Painting and Plumbing, 50% complete. Hangar B - Outside masonry wall, 90% complete; painting, 50% complete; foundation, 95% complete; plumbing and heating, 50% complete; wood deck complete. Oil Reclamation Bldg. - Outside masonry walls, 25% complete; steel and foundation in place; Monorail in place; painting, 20% complete. Administration Building - Foundation to first floor, complete; outside masonry walls to first floor, 75% complete.

Lieuts. G.V. McPike and F.M. Zeigler ferried an F-1A plane to Scott Field, Aug. 17th, returning in two O-19B's for overhaul.

The following were cross-country visitors here from August 15th to 31st, inclusive: From Cleveland, Ohio: Lt. North; Lt. Backes with Capt. Gill - From Schoen Field, Ind.: Lts. Sommer with Veigel; Capt. Park; Lt. Coleman, leading a flight of six P-6's; Major Ludick; Lt. Leeth; Capt. Woody with King; Lt. Noble - From Selfridge Field: Lt. Griswold; Lt. Jacobs with 8 enlisted men; Lt. Sutherland with 7 enlisted men; Lt. French - From Chanute Field: Lts. Davidson with White; Capt. Rivers; Lts. Keirn and Carter; Lt. Burgess and 6 enlisted men; From Langley Field: Lt. Akre; Capt. Pascale; Lt. Offutt; Lt. Offutt and 2 enlisted men; Lt. Wood and 3 enlisted men - From Columbus, Ohio: Capt. Von Derau; - From Maxwell Field, Ala.: Capt. Asp and 6 enlisted men - From Lunken Airport, Ohio: Capt. Colgan - From Brooks Field: Lt. Foster with Major Bliss - From Scott Field: Lt. Holcomb with passenger - From Stout Field, Ind.: Lt. Carpenter - From Bolling Field, D.C.: Lt. Abbey with Captain Trunk - From Mitchel Field, N.Y.: Lt. Baxter and 6 enlisted men - From Sky Harbor, Tenn.: Lt. Edwards, - From Columbus, Ohio: Lt. Alverson with Lt. Spiers.

The following officers ferried planes here for major overhaul: Capt. Gill and Lt. Backes from Cleveland, Aug. 15th, both in O-38's; Lt. Unruh in P-12C from Selfridge Field, Aug. 17th; Lt. Beverly in P-12C from Maxwell Field, Aug. 17th; Capt. Palmer in O-38 from St. Paul, Minn., Aug. 18th; Major Lynd in P-1C from Ft. Leavenworth, Aug. 25th; Lt. Covington in PT-3A from Candler Field, Ga., Aug. 26th; Lt. Spiers in PT-3 from Columbus, Aug. 27th; Lt. Smith in PT-3 from Schoen Field, Ind., Aug. 30th.

Fort Crockett, Galveston, Texas, August 22nd:

To date, 11 YA-8's were received by the Third Attack Group. The Squadron colors and insignias applied to the new planes help to increase the vicious appearance of this new fighting equipment.

The Third Attack Group Band, a crack military organization which has been prominent in local civic affairs, was disbanded July 27th. Orders to disband were an economy move of the War Department, and they were received with considerable regret by Galvestonians. Since its assignment here, the band has won considerable recognition and cooperated with many civic organizations whenever requested. Warrant Officer Carl Mueller, who was the leader of the disbanded Attack Group Band, left August 6th for San Antonio, Texas, where he was assigned

to the 23rd Infantry Band at Fort Sam Houston. Mr. Mueller, an Army man for 33 years, is the only band leader in the United States Army who was ever cited for bravery under fire.

Major Harry H. Young, Air Corps, formerly with the 12th Observation Group, Brooks Field, Texas, reported for duty with the Third Attack Group.

Master Sergeant Walter E. Berg, formerly a member of the Third Attack Group, in charge of the Group Radio, arrived at Fort Crockett, August 10th, for a visit with old friends and to take on some Gulf breeze and sunshine.

Chanute Field, Rantoul, Ill., August 23rd.

During the month of August, the Air Corps Technical School ran on a reduced schedule, according to the annual training program. Advantage was taken of the reduced class activities to accomplish much needed renovation and minor reconstruction in preparation of the departments of the School for the next school year.

A considerable number of officers for whom quarters on the post are not available, and who have been living in Rantoul and Champaign - Urbana, have moved or are in the process of moving to the City of Paxton, Ill., ten miles north of Chanute Field, where they find living conditions to be most equable and pleasant.

Their friends and associates are congratulating Captain Malcolm N. Stewart and 1st Lieut. Ralph E. Holmes upon their recent promotions. It all goes to show that if you wait long enough -- etc. Immediately after executing the oath of office, Capt. Stewart and Lieut. Holmes received the officers of the post and school at the home of Lieut. Holmes in Rantoul.

Lieut.-Col. James A. Mars and Mrs. Mars left August 11th for New York City and New Canaan, Conn., by motor, on leave of absence for 25 days. During Col. Mars' absence, the post is commanded by Capt. Samuel C. Skemp, who is also serving as Acting Commandant.

Lieut. W.C. Farnum, Post Adjutant, recently spent five days' leave of absence at his home in Kansas City, Mo., where he was present at the Golden Wedding anniversary of his mother and father. While there, he was joined by Mrs. Farnum, who was enroute from a visit to the West Coast, and who returned with Lieut. Farnum to their home in Rantoul.

Capt. and Mrs. S.M. Connell spent two weeks' leave in New York City at the home of Mrs. Connell's family, Mr. and Mrs. Hancock.

Capt. Harold R. Rivers, Lieuts. Roy H. Lynn and Donald J. Keirn departed from Chanute Field for their new stations.

Capt. Thomas M. Jervey, Ordnance Dept., reported to Chanute Field as the new Post Ordnance Officer. The Captain and his family have taken quarters in Paxton, Ill.

Recent arrivals and departures at Chanute Field include: Captains H.R. Wells and A.C. Foulk, from Wright Field and return; 2nd Lieuts. C.E. Bruce and J.A. Bulger from Chicago to Scott Field; 2nd Lieuts. C.R. Kaye and A.W. Shepherd from Selfridge Field to Scott Field; Capt. Englebrecht and 2nd Lt. E.A. Simyer from Scott Field and return; 2nd Lts. W.F. Day and M.T. Blaine from Selfridge Field and return; from Selfridge Field, 2nd Lts. M.D. Blaine to Kirksville, Mo.; Geo. McGuire to Fort Riley, Kansas; S.P. Wright to Scott Field - 2nd Lt. D.W. Buckman from March Field; 2nd Lt. C.F. Wright from Langley to Scott Field; 2nd Lt. D.W. Goodrich and Major L.M. Field from Bolling Field to Mason City, Iowa; Major H.A. Strauss from Moline, Ill., to Wright Field; 2nd Lt. G.S. Bond and Capt. R.T. Cronau from Langley Field to Kansas City; 1st Lt. R.J. Minty from Wright Field to Dodge City, Iowa; 2nd Lts. M.W. Wiley from Scott Field to Chicago; T.M. Bolen, Fort Riley to Selfridge Field; E.F. Maughan, Bolling Field to Omaha, Neb.; J.L. Daniel, Randolph Field to Wright Field; F. Motl, Fort Crockett to Madison, Wis.

Chanute Field, Rantoul, Ill., August 31st.

Chanute Field and the Air Corps Technical School will resume the winter schedule of both forenoon and afternoon sessions daily, on September 6th.

Pilots and observers at Chanute have actively commenced their aerial training program to carry out the provisions of the War Department Training Directive. Since there are at Chanute Field officers trained in all types of aviation, and so many classes of flying officers, a cross section of the collective training schedules at this station are of exceptional interest.

Lieut.-Col. and Mrs. James A. Mars returned from their two weeks' trip, visiting Washington, New York City and New Canaan, Conn.

Capt. and Mrs. A.W. Marriner returned from two weeks' vacation spent in Chicago and Northern Wisconsin.

Captain Charles E. Branshaw, Operations Officer, returned from a furlough of one month, which he spent on a ranch in Western Texas.

Flights other than local, performed recently by Chanute Field officers, include: To Scott Field, Capts. E.H. Wood, F.S. Borum and M.N. Stewart; to

Bolling Field, Capt. H.R. Rivers; to Chicago, 2nd Lt. F.E. Cheatle; to Joliet, Ill., Capt. S.C. Skemp; to Boscobal, Wis., Capt. E.H. Wood; to Patterson Field, 1st Lt. J.L. Davidson; to Pekin, Ill., 1st Lt. W.K. Burgess; to Beloit, Wis., 2nd Lt. F.G. Allen; to Kansas City, 2nd Lt. R.E. Easton; to Angola, Ind., Sgt. D.M. Swisher; to Springfield, Ill., 2nd Lt. F.E. Cheatle; to Lincoln, Neb., 2d Lt. L.D. Fator; to Winchester, Ill., Capt. F.S. Borum; to Mitchel Field, 1st Lt. H.W. Anderson; to Little Rock, Ark., Capt. E.G. Harper, also to Peoria, Ill.; to Kenosha, Wis., 2nd Lt. F.E. Cheatle.

Air Corps officers visiting Chamute Field recently include: Major L.G. Heffernan, 2nd Lt. R.O. Akre from Langley Field; 2nd Lt. C.M. Hefner from Selfridge Field to Scott Field; 2nd Lts. L.I. Broun, J.O. Guthrie, N.R. Burnett, P.M. Jacobs from Selfridge Field and return; 1st Lt. E.W. Hillery from Kansas City; Capt. H. Pascale from Fort Crook to Langley Field; 2nd Lts. F.M. Zeigler, Patterson Field; C.O. Miller, Fort Crockett to Fort Leavenworth; T.E. White, Bolling Field and return.

Recently, a Chamute Field officer preparing for a northwestern aviation flight over a route not covered by strip maps, spent a couple of hours at his home, laying flight lines, distances and courses on several state maps. Upon completing the task to his satisfaction, he rubbed his hands and said to his charming bride - "There! Even the Lord would call that a perfect set of maps."

The estimable lady, without looking up, replied: "Darling, the Lord would not be interested in your maps - he made that country."

Albrook Field, Canal Zone, September 1st.

A statistically inclined non-com who took the trouble to record all rumors for the past month in some detail informs us that personnel and equipment for about five complete flying fields will pour into Albrook Field during the coming month. Be that as it may, our five airplanes will henceforth repose in hangars, as the floors are practically finished and Sept. 20th will see the contract for the three double hangars, the Engineering hangar and the Supply hangar completed on time.

Capt. Browne, Quartermaster, received the furniture allowance for all quarters now completed, and has an unoccupied barracks nearly filled with it.

A new piece of equipment worthy of note here are the refrigerators installed in the Squadron kitchens. They are a room about 10 x 10 feet, maintained at 34 to 38 degrees, accessible via a large and small door, also a freezing cabinet that produces 150 lbs. of ice daily. The one in use by the 44th Squadron has proven very satisfactory and is an important improvement over the old types of equipment.

The social life of the month was featured by a dance at the Century Club and a bridge party at the home of Capt. and Mrs. McDuffie. Both parties were sponsored by Capt. and Mrs. McDuffie and Lieut. Day. The bachelors entertained at an afternoon party at Bradys.

430th Pursuit Squadron, Kansas City, Mo.

On August 14th, the 430th Pursuit Squadron, Air Corps Reserve unit, famed for its flying throughout the middle west, took off from the Kansas City Airport for two weeks' active duty at Marshall Field, Fort Riley, Kans. Enroute to the training base, the Squadron dropped down at the Missouri National Guard encampment, Camp Clark, Nevada, Mo., and was greeted by General Raupp, Adjutant General of Missouri, and Colonel E.M. Stayton of the 110th Engineers.

Arriving at Fort Riley, a composite squadron was formed with our State Reserve officers being attached to the 430th for the period of training. Major Ollie Blan was placed in command of the unit, with Captain Burnham W. Diggle in command of the 430th Squadron. Capt. Wm. B. Wright, Air Corps, who has been in command of the Kansas City base for the past two years, handled the training program, with Lieut. Graham M. St. John, A.C., acting as Executive Officer. Both of these regular officers have done much to develop this unit to its present high state of efficiency.

For the first time in the history of active duty training for the Kansas City group there were a number of service type ships available for flying. The equipment consisted of 3 P-6's, 3 O-25's and 8 O1-E's. In addition, one BT-2C and one PT-3 furnished training equipment for the few men who needed dual work. This also marked the first year where a large number of officers were experienced on all types of service ships. Many of the younger officers were graduates of the Advanced School with a year or two of work with tactical units. A good many others were youngsters doing regular commercial flying who have kept their hand in on the service equipment at Kansas City. This type of materiel permitted the immediate operation of the training schedule.

In years past, over half the time at camp was consumed in giving dual instruction to officers who had not flown since their last duty period. Naturally, little time would be left for tactical training. Much work was done on the gunnery and bombing ranges, as well as formation and combat routine. A map problem was completed, working with ground units of the Kansas National Guard.

Cross-country flights were made to Beatrice, Neb.; Galesburg, Ill.; Denver,

Colo.; and Garden City, Kansas. Special missions were flown to Lincoln, Neb.; Wichita, Kansas, and Paola, Kansas.

During the active duty period, the Reserve officers enjoyed entertaining the following officers who dropped into Marshall Field: General W.L. Leech of the Militia Bureau, Captains Vincent J. Meloy, T.J. Koenig, Orlo H. Quinn, Isaiah Davies, Lieuts. O.K. Robbins and Lawrence Carr.

Rockwell Field, Coronado, Calif., August 17th.

The present appearance of the buildings, quarters and squadron areas is quite in contrast with that of a month ago. The work of painting and remodeling the mess halls, tents, latrines and day-rooms, which has been going on daily, has begun to show remarkable results. Corp. Joe Farrell, mess sergeant of the 32nd Squadron, has worked on the area fronting the mess hall until it is now a veritable flower garden, a mass of multi-colored flowers and plants. The lawns, too, have taken on rich, green hue and are now well banked and plotted, affording a very pleasant view down the squadron streets. Everyone seems to be more than willing to cooperate, and this work, along with its amazing results, has tended to boost the morale of the various organizations to its highest peak.

Fishing, deep sea and otherwise, seems to be the new rage and mania of both the officers and enlisted men of Rockwell Field. Every afternoon sees some soldier-fisherman headed in the direction of the Quartermaster docks, burdened with fishing tackle and equipment. And they don't all come back empty-handed, either! Just who seems to be the Master Fisherman, relative to sizes and weights, and the number of fish caught, is largely a matter of debate. Among the officers who vie for first honors in fishing ability are Capts. Pyle, Chandler, Lieuts. Archer and Bunker, while among the enlisted men, Tech. Sgt. Richards, if not the champion fisher, is certainly the most enthusiastic. The waters in and around Rockwell Field and Coronado afford wonderful opportunities to those interested in fishing. And all of Rockwell Field seems to be interested!

Captain Westside T. Larson, having recently attained that rank, was presented with an enormous pair of Captain's bars by the officers of the 19th Bombardment Group. Capt. Larson is Operations Officer for the Group and is well known throughout the Air Corps for his ability as such, as he has always maintained the highest standards of efficiency.

It is with much regret that Rockwell Field reports the loss of 2nd Lieut. Howard G. Bunker, 32nd Bombardment Squadron, who recently received orders transferring him to Chamute Field for duty as student at the Technical School to pursue the Aircraft Armament course. Lieut. Bunker was stationed at Rockwell Field since November, 1929, having reported for duty here upon the completion of the advanced flying course at Kelly Field. It is the sincere wish of everyone at this station that he will be reassigned to Rockwell upon finishing his work at Chamute.

Pvt. 1st Cl. Raymond G. Motley, 32nd Bomb. Sqdn., left August 8th for the Presidio of San Francisco to become a candidate for the West Coast Army football team. He made quite a name for himself in Army athletics, having been a member of the title-winning basketball squad of Fort Sill, Okla., and while on furlough from that station was a member of the Cameron University football squad for the season of 1931. We wish Pvt. Motley much good luck and many happy landings.

Rockwell Field, Coronado, Calif., September 3rd.

The 34th and 9th Bombardment Squadrons, March Field units encamped on North Island since July 8th, are preparing to return to their home station, after completing a month's intensive training in aerial gunnery and bombing. These two outfits will be replaced by the 73rd Pursuit and 31st Bombardment Squadrons which will conduct a training period of one month's duration also. Upon completion of their bombing and gunnery, they will be the last units in the 7th Bombardment Group to train at Rockwell this summer. Camp Neville has proven to be a success not only as a training center, but also as an ideal encampment for soldiers. All of the personnel of Camp Neville availed themselves of the opportunities offered on North Island for surf bathing, fishing, etc.

The flying activities of the 30th and 32nd Bombardment Squadrons are becoming more and better organized each day. The officers of these two squadrons are being initiated into the mysteries of "Avigation," with one night each week being devoted to night flying. The two above-mentioned squadrons are now the proud possessors of two brand new servicing trucks, which are the last word in field servicing trucks, being equipped with hydraulic brakes and having a tank capacity of 1500 gallons of gasoline and 700 gallons of oil, in addition to other new and modern appliances which tend to speed up the work and promote the efficiency of the line crews.

Captain Westside T. Larson, Group Operations Officer, with Staff Sergeant Clarence K. King, left this station in a BT-2B for Fairfield, O., August 30th, to ferry back a YO-27 airplane, the first of this type assigned to this station.

The officers of Rockwell Field have been going in for golf and squash very much lately, squash being the "official" conditioning exercise for the officers of the 19th Bombardment Group. Among those who have attained the title "First

Degree Golfer," are Captains McClelland, Chandler, Pyle, Grisham, Heisen, Lieuts. Archer, McKinnon and Brand.

Upon completing a course of training and study at the Air Corps Tactical School, Maxwell Field, Ala., 1st Lieut. Morton H. McKinnon reported for duty here and was assigned to the 32nd Bombardment Squadron, where he has taken over the duties of Squadron Operations Officer. At present, Lieut. McKinnon is on detached service at March Field, where he is undergoing dental treatment.

Hqs. 2nd Corps Area, Governors Island, N.Y., August 31st.

Lieut. C.J. Kenney, Air Corps, in charge of Air Corps Reserve activities in the 2nd Corps Area, reports the completion, at Mitchel Field, of two weeks' active duty training by the 861st Observation Squadron (Res.) on July 23rd, and the 303rd Observation Squadron (Res.) on August 6th. Both units received tactical training, including gunnery, photography, reconnaissance, formation and cross-country navigation, in which all officers in attendance proved the value of their war and post war training. A total of 40 officers attended these two periods and flew about 400 hours. Types of planes used were O-1G, O-25 and O-39.

A large majority of these officers hold AP ratings and Transport Pilot licenses, and are engaged in commercial flying. They unanimously voted this year's training the most interesting and beneficial of any heretofore taken.

Colonel Kirtland is now with us as the new Air Officer, and his interest in the Reserves is well known, so all are looking forward to bigger and better reserve activities.

Clark Field, Pampanga, P.I., July 20th.

Lieuts. Fair, Persons, Old, Ronin and Sutton are now with the 3rd Pursuit Squadron as replacements for the five officers who departed on the June boat.

Lieuts. Persons and Springer, each accompanied by his better half, are visiting China on leave. With all the new reductions in pay, leave, etc., they are expected to be returning soon.

The Clark Field officers Bowling Team is coming along in good shape again this year and has established a good lead over the Cavalry and Artillery teams from Fort Stotsenburg in the present tournament. Lieuts. Hawkins, DuBose, Henry, Fisher and Taylor have been doing most of the heavy work, but practically all other officers of the Squadron are practicing daily and are available at any time. Mr. Sgt. Klingler is captain of the men's team this year and they are showing up well in the Department Tournament which has just started.

Boston Airport, Boston, Mass.

While attempting to land his Keystone Bombing plane in formation at Boston, Sept. 2nd, Lieut. Merril DeLane, of Langley Field, Va., came to grief when his right wheel brake locked and swung the ship into the newly filled area of the airport. The right lower wing, propeller, and right landing gear element were damaged. The Bomber was one of a group of ten which had spent two days at Old Orchard Beach, Maine, the pilots being guests of the Old Orchard Chamber of Commerce. They were returning to Langley Field and had decided to land at Boston enroute.

Lieut.-Col. Rush B. Lincoln, Corps Area Air Officer, and Capt. Glenn C. Salisbury, Air Corps Officer in charge of Reserves here, witnessed the accident. They praised Lieut. DeLane for his coolness and action in the emergency. Already the corps of mechanics at the Boston Airport Army Reserve Detachment hauled the motor out of the ship and were ready to attach the new lower wing, to be shipped to Boston, with a new right element of the landing gear and a few other spare parts. Jack Breen, civilian employee, Sgts. Victor Viscil and Frame and their crew are doing very commendable work on the Bomber in face of lack of usual facilities for handling these big ships. Through cooperation of Capt. Albert Edson, Mass. National Guard Air Corps, who is Airport Superintendent for the City of Boston, the entire crew of nearly 100 welfare workers who are working for the city grading the airport to obtain city aid during the unemployment siege, were rounded up. With this large crew, the Army mechanics soon had the big ship rolled off the field and up to the Army hangars.

Captain Glenn C. Salisbury returned from a week's leave which he spent on Cape Cod, enjoying the cool breezes, the bathing and fishing.

Capt. Joseph A. Wilson led a group of three Army planes to the National Air Races at Cleveland.

Langley Field, Hampton, Va., August 25th.

Second Lieuts. F.P. Smith and W.O. Riley returned to the field following the completion of an extended avigation mission on August 15th, with San Antonio as their destination. The itinerary of the trip carried them through many scenic sections of the country, the route having been accomplished via Montgomery, Ala.; New Orleans, La., and Fort Crockett, Texas. Flying directly from Langley Field

to Fort Crockett, Galveston, Texas, a distance of 1275 air miles was made from sun-up till sundown, a total elapsed time of 12 hours, 40 minutes being required.

The pilots reported being handicapped by a few rainstorms but, taking everything into consideration, the trip proved most practical and helpful in the way of navigation, ship performance and airdrome study.

Materiel Division, Wright Field, Ohio.

General Pratt had a birthday - as even generals will - on Sept. 2nd. He was 50 years young. Because of the combination of years, youth and eminence, the officers of the Division decided flowers would be the fittest emblem of congratulations. The General's appreciation was phrased in a note as follows: "The flowers are beautiful and will help considerably to lessen the blow of having reached such a ripe old age. Please accept my sincere thanks for your thought of me." The General recently returned from a three weeks' vacation in Canada.

Captain T. Aoki of the Japanese Embassy, Washington, D.C., and Commanders K. Hashimoto and R. Tada, Imperial Japanese Navy, were recent visitors at the field.

The following cross-country flights were made by officers at the Materiel Division: General Pratt and Major Knerr to Washington, August 7th - Lieut. F.M. Hopkins, Asst. Commandant, A.C. Engineering School, to Washington for conference with Chief of the Air Corps - Captain A.J. Lyon to the West Coast - Lieut. K.B. Wolfe and J.W. Musser, Inspection Branch, to St. Louis; Marshall, Mo.; Kansas City and Wichita on business concerning inspection matters - Lieut. C.D. McAllister and Capt. D.M. Reeves to Camp Knox, Ky., where the latter delivered a lecture on Aerial Photography for Reserve officers encamped there - Lt. John Whitely to Mather Field to attend to special Air Corps matters - Lieut. W.M. Amis to various fields on Pacific Coast to confer with commanding officers on equipment and supply matters - Major H.A. Strauss and Lt. K.B. Wolfe to Milwaukee - Capt. D.B. Howard and Lt. W.J. Hanlon on flying tour of West Coast, including Mather, Crissy and March Fields, Rockwell Air Depot, and Santa Monica, stopping at San Antonio on return flight. Capt. Howard conducted certain navigation tests and Lt. Hanlon to supply and equipment matters. They were gone about three weeks - Major F.H. Coleman and Capt. A.F. Hegenberger to Schenectady, N.Y. for observing and performing tests on navigation instruments at plant of General Electric Co. - Lt.-Col. A.W. Robins and Capt. St. Clair Streett to Buffalo and Hartford for conference with Air Corps contractors - Lt. F.D. Klein ferried a YO-31C to plant of the Douglas Co., Santa Monica, Calif., for changes, and returned by rail - a 4-plane formation to Milwaukee Lts. K.B. Wolfe and F.D. Woodward; Lt. B.W. Chidlaw and Capt. D.B. Howard; Lt. J.A. Woodruff and Major J.L. Hatcher; Major Strauss.

Eleven O-19 planes from Scott Field arrived in formation, the officers remaining overnight.

Major-General B.D. Foulois, Majors Ralph Royce, W.G. Kilner and Capt. A.B. McDaniel arrived July 19th by air, spending several days in conference with Gen. Pratt - Lt.-Col. Jacob E. Fickel, our former Executive, arrived July 25th for a brief visit - Major-General Foulois, Lt.-Col. B.Q. Jones, Major Ralph Royce and Capt. A.B. McDaniel arrived August 9th, from Memphis, Tenn., taking off shortly thereafter for Bolling Field - Major-General G.E. Leach, Chief of the Militia Bureau, piloted by Capt. Vincent J. Meloy, arrived from Bolling Field Aug. 12th.

A formation of 25 planes, led by Capt. J.G. Colgan, Lunken Airport, Ohio, landed here August 19th, coming from Schoen Field, Indianapolis, where the Air Corps Reserves, 5th Corps Area, were serving two weeks' active duty. The formation was neatly flown and in every way a credit to the Reserves. They remained for lunch and made a tour of the Division in the afternoon.

The weather in our middle west was especially kind to aviators during the past six weeks, and they took advantage of it with a vengeance. The following is a typical getting-into-the-air for Wright Field officers of a Saturday - this happened to be August 20th: Lieuts. Paul Wolf, C.H. Caldwell and G.F. Smith to Selfridge Field; Capts. A.J. Lyon to Cleveland; H.R. Wells to Elmira, N.Y.; A.E. Jones and Rudolph Propst to Terre Haute, Ind.; Lieuts. J.E. Parker to Chicago; S.R. Harris to Youngstown; C.S. Irvine to Chanute Field; I.A. Woodring to Bolling Field; D.W. Watkins to Detroit; A.R. McConnell to Indianapolis; S.E. Prudhomme to Youngstown, O.; G.V. Holloman, piloting Major Wilmerding, to Newberry, S.C.

About this time the aviation reporter, taking the news for the day, chimes in - "Any officers left on the Field?" Of course there are - plenty of 'em; but there are not many available planes left in the hangars.

Lieut. John M. McDonnell, recent graduate of the Army Industrial College, reported for duty.

Capt. O.P. Gothlin flew a Boeing Bomber from the plant of the Boeing Co., Seattle, Wash., to Wright Field, for test. Lieut. Gothlin is the Air Corps representative at the plant of the Boeing Co.

Reserve Officers who reported for two weeks' active duty were Major W.M. Reading, Air Reserve; Capt. Wm. Brown, Specialist Reserve; Capt. G.W. Haskins, Air Reserve, and Lt. L.H. Body, Dental Reserve.

Capt. St. Clair Streett, formerly Chief of the Flying Branch, left recently for Fort Leavenworth for duty as student at Command and General Staff School. Captain Streett's work at Wright Field was extremely capable and constructive, and he leaves a large gap for a successor to fill. Best wishes for success in his new duties go with him.

Selfridge Field, Mt. Clemens, Mich., Sept. 7th.

By performing a feat unparalleled in local annals, Lieut. E.K. Warburton, Engineering Officer, 94th Squadron, won the local unofficial title of "Admiral." He decided he needed time in the Loening "Duck," sent to Camp Skeel as a rescue ship. Trying to take it off from Lake Van Etan, he found the "Duck" was more a submarine than an airplane, for instead of rocking up into its step in the hull, it rocked nose first under the waves to a watery grave. Unlike a true Admiral, Warburton refused to go down with his ship, allowing himself to be rescued in a rowboat. The accident was caused by a leak in the hull which allowed enough water to enter to change the buoyancy and balance of the amphibian.

Selfridge Field is now adequately equipped for night flying. The 1st Pursuit Group planned an extensive schedule of night flying to compensate for the time lost in this valuable training during the period of new construction.

After the 27th Squadron had taken part in the Army Day program, August 30, at the National Air Races, Capt. R.C.W. Blessley led the squadron up to Camp Skeel for their turn at the ground and aerial targets. The 27th is equipped with the new P-12E's and, as was the case with the 94th's new BJ P-16's, all hands are curious as to how the new ships would perform in gunnery work. This year all three squadrons at Selfridge are equipped either with new type ships or with new modifications of older types, none of which had been previously used in service at gunnery. Interesting conclusions as to the gunnery efficiency of the various types will undoubtedly be drawn when the gunnery season has been completed by all squadrons.

Capt. Ross G. Hoyt, Lieuts. Jesse Auton and Jarred V. Crabb represented the 1st Pursuit Group at the Aerial Gunnery Matches at Langley Field.

Capt. Fred C. Nelson reported for duty. He will command the 57th Service Squadron.

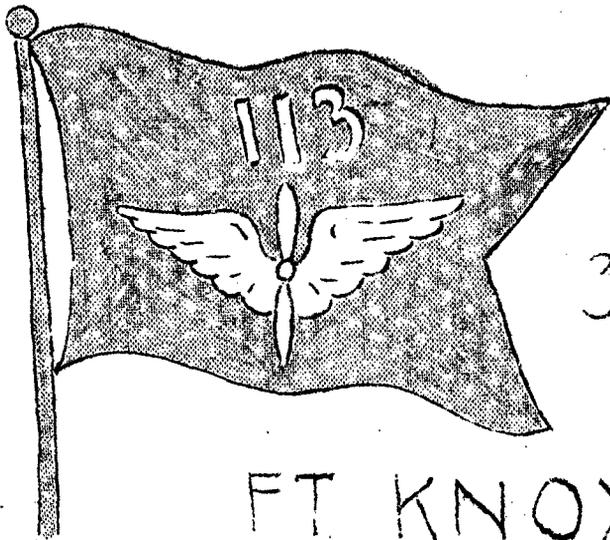
The 17th Sqdn. flew to Camp Skeel, Oscoda, Mich., August 18th for combat firing. Each ship was equipped with one 30 and one 50 calibre gun, and 200 rounds of ammunition. This somewhat new method of Pursuit firing was adjudged quite successful by Major Gilkeson. An average percentage of 33-1/3% hits was made. A large number of meteorological balloons were taken along with the hope of using them for free aerial targets for attack by individual ships. This practice was not carried out because of an adverse wind on Lake Huron, which carried the balloons over the land. This schedule of combat firing is to be carried out weekly by all the squadrons in the Group. After the 17th returned from Camp Skeel, the 94th flew north to occupy the vacated tents, and to follow the same schedule there as the 17th. Some trepidation is felt by the rest of the Group as to the fate of the 94th's P-16's at Skeel. They have a rather pronounced tendency to be nose heavy in landing, and the soft spots and holes of the sandy field at Skeel should prove rather exciting hazards for the pilots of the 94th. When the squadron first landed at Skeel on the 11th, one of the P-16's nosed over on its back rather violently after hitting a hole just after landing, and it is understood the 94th pilots are showing great wariness in all their landings now.

San Antonio Air Depot, Duncan Field, Texas, August 26th.

What with the hot weather, the Economy Act, and the comings and goings, etc., in addition to rather rushing supply and production schedules, this has been more or less of a busy summer for the San Antonio Air Depot.

A matter of profound shock to us was the fire which occurred here on the afternoon of July 26th, destroying the Dope House (Building No. 131) at the Engineering Department, with its contents, and resulting in the death of one civilian employee and the severe injury of two others. In this large building all operations pertaining to the doping of airplane surfaces, etc., were carried on, and during the process of a dope spraying job a large drum of nitrocellulose dope in some manner exploded, the whole building almost immediately being enveloped in a mass of flames. Due to the nature of the fire, it was impossible to save the structure, and only the prompt and splendid work of the combined Fire Departments of this Depot, Kelly Field, and the Normoyle QM Depot prevented the blaze spreading to other buildings. The personnel of the Depot mourns the death of Thomas A. King, Civil Service employe, who received the full force of the explosion, and whose burns were so extensive that he succumbed that same night. He is survived by his widow, three children, his parents and two sisters. James B. Morgan, Jr., and Robert H. Hartenberger, employees at the Dope House, were critically burned, requiring major medical treatment and hospitalization. At last reports they seemed to be progressing hopefully. Messrs. V.E.R. Brandenburg and Stephen Long, also of the Dope House personnel, received moderately severe burns and shock, but returned to work after treatment. Sixteen other employees received minor hurts, mostly from fire fighting, but resumed duty after first-aid. This was the only disaster to occur at this Depot. After thorough investigation by a Board of Officers, composed of Capt. Ralph B. Walker, Lts. Donald F. Stace and Charles K. Moore, the actual cause of the explosion could not be determined, but apparently it was not the fault of anyone and was, under the circumstances, unavoidable.

The Depot enjoyed a brief informal visit from Hon. Ross S. Sterling, Governor of Texas, who was unofficially visiting various points of interest in San Antonio in connection with his tour of this part of the State. The Governor was guest at luncheon of the Commanding Officer and officers of the Depot.



38 DIV. AVIATION
FIELD TRAINING
FT KNOX KY.

The squadron has just returned from their field training period at Ft. Knox, Kentucky. Lt. Backes, instructor of the 112th Observation Squadron, at Cleveland was Inspector. Lt. Bacbes was a very good card player, as well as inspector.

Over the week end at camp, six planes with twelve officers made a cross country trip to Savannah, Georgia, and "you all should have seen them step out to Tiaby".

Capt. Tom Voss, our honorary Colonel came up to spend the camp period with us, and spend was right after Lt. Sidney Stout hit his stride.

During camp, the squadron kept in close contact with the Indiana mine situation by keeping a plane in the mine territory most of the time. Just before camp we were called to active duty for two days when the trouble was at its height. While at Terre Haute, we recieved instruction in the use of Tear and Nausiating gas bombs and carried them in the planes. Fingers became itchy and we were tempted to try them out, but orders are orders, and the condition cleared up without tears.

Far be it from us to want any kind of trouble but even so we must say we enjoy active duty, even when we stay up all night.

After watching some of our younger pilots fly at camp we come to the conclusion that they are a bunch of dub golfers, preferring the rough and hazards to the fareways. We must admit however that they are really pilots in the ruff for they did not get a scratch on any of the planes.

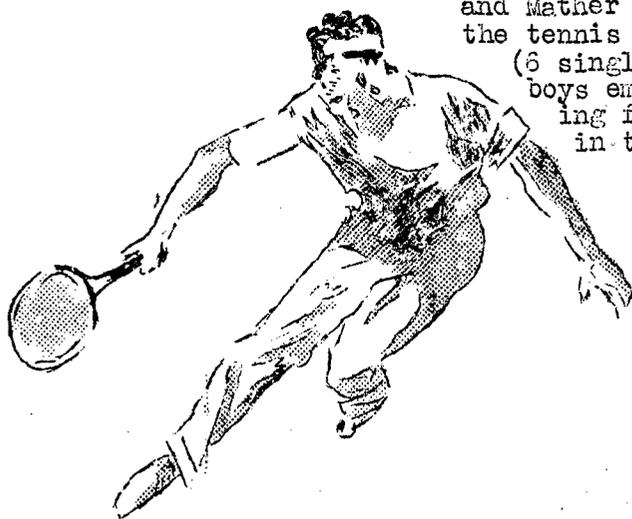
Hear ye' Hear ye' the squadron has a staff car, a big Lincoln seven passenger. Drop in now and ride to town in style in our staff car.

The old Ohio and the Kentucky hills looked good as we flew to camp. That rough country furnishes real flying experience, and believe it or not we hated to leave it. We really like he man flying and get a real kick out of camp life.

The squadron aviation post 171 flew five planes to the State Convention of the American Legion at Kokomo and added their formation flying to the Legion parade.

Several of the planes will go to Cleveland for the air races and we hope to renew some of our acquaintances from last year, both with the 112th and others that will be there.

The Racqueteers among the enlisted men of March and Mather Fields in Sunny California clashed on the tennis courts on August 28th in eight matches (6 singles and 2 doubles). The March Field boys emerged victorious from the combat, taking four of the singles and splitting even in the doubles. The scores follow: -Singles



<u>Mather</u>	<u>March</u>	<u>Scores</u>
Gibson*	Lovering	6-2; 7-9; 6-2
English*	Leet	6-4; 7-5
Johnson	Wayne*	2-6; 6-8
Waters	Davidson*	0-6; 9-7; 1-4
Default by Mather; injured ankle		
Wendle	Miller*	3-6; 3-6
Carlos	Ebel*	2-6; 3-6

* Won

<u>Doubles</u>		
Gibson) *	Wayne)	
English)	Lovering)	5-7; 6-4; 6-2
Wendle)	Davidson)*	
Johnson)	Leet)	3-6; 2-6

A Round Robin Tournament for enlisted men was scheduled to begin on September 1st.

BAKERSFIELD TENNIS CLUB vs MARCH FIELD

Lieut. Stone (March) vs Cartwright - 6-3 6-2 Won by Lt. Stone
 Lieut. Morrill (March) vs Urner 8-6 7-5 Won by Lieut. Morrill
 Lieut. Howard (March) vs Lovelace - 3-6 7-5 6-4 Won by Lieut. Howard
 Lieut. Robinson (March) vs Davis - 6-1 6-1 Won by Lieut. Robinson

Lieut. Robinson (March) vs Davis
 Lieut. Howard " Cartwright 10-8 Won by March Field
 1 set default (darkness)

Tennis singles championship of the United States Army is again in the possession of Lieut. Stanley K. Robinson, of March Field, who successfully defended his title in the recent tournament at Washington, D.C. Robinson is again back at March Field with the 1932 trophy. Paired with Dolph Muehleisen, Robinson is also doubles champion of the Army-Navy. With Lieut. P.K. Morrill, also of March Field, Lieut. Robinson entered the doubles contest at the Virginia Tournament, and the two were runners-up for the championship. Lieut. Millard Lewis was the third member of the team representing March Field.

---oOo---

Strengthened by the addition of "Light Horse" Harry Wilson, former All-American back while with West Point, the Langley Field Birdmen will face the most ambitious schedule in the history of football at the Peninsula Air Corps Post. Aside from championship service engagements scheduled and a tentative clash with the famous Parris Island Marine eleven, the Third Corps Area football champs of the past two successive seasons are slated to meet eight college elevens, Captain George L. Usher, Adjutant and Athletic Officer of the Post announced recently.



An innovation here this year will be night games, played under flood lights which are now being erected all around the gridiron. The majority of the games will be played Saturday nights. One Sunday game is booked, that being with the powerful Loyola College forces from Baltimore, on November 13th.

With the exception of three dates, the schedule of 13 games has been completed. Efforts are being made by the management to schedule a game for October 8th with Emory and Henry College. This open date occurred because of a cancellation by Long Island University of a game previously scheduled for that date.

West Liberty State Teachers College of West Liberty, West Va., is a new school on the Airmen's schedule this year and promises to be one of the toughest assignments for the local Birdmen. Campiglio, leading scorer of the country last year, was a member of this eleven. Loyola College is another new school on Langley's schedule. They were edged out last season by Holy Cross, 14 to 13, and played the rugged Western Maryland eleven to a 7 to 7 tie.

The husky Quantico Marines have been definitely booked for Saturday, November 19th, but the location of the game has not been decided at this date. It is

probable that the game will be played on a gridiron, either in Newport News or Norfolk, Va., in order to accommodate the vast football fans in military and civilian circles here.

A proposed game with the Parris Island Marines is yet tentative, but the management expects to schedule the contest as the final game of the season.

Lieut. R.C. Hutchinson will direct the activities of the Birdmen, in their ambitious bid this season for grid recognition, as head coach. Assisting him will be Lieuts. Smith, Bodle and Davis. With virtually all of last year's championship eleven intact and a number of additions besides Lieut. Wilson, a squad well above the ability of any former Langley team will be virtually assured. Lieut. Hutchinson issued the first practice call for his squad on Sept. 1st, and preparation for the season's opening clash on September 17th with Campbell College of Buies Creek, N.C., is under way, with preliminary and light practice now going on during the regular daily practice sessions.

The schedule for the season is announced as follows:

<u>Date</u>	<u>Opponent</u>	<u>Place of Game</u>
September 17th	Campbell College (Buies Creek, N.C.)	Langley Field
September 24th	Guilford College (Guilford, N.C.)	Langley Field
October 1st	Shenandoah College (Dayton, Va.)	Langley Field
October 8th	(Open Date) Emory and Henry College pending	
October 15th	West Liberty State Teachers' College (West Liberty, W. Va.)	Langley Field
October 22nd	Elon College (Elon, N.C.)	Langley Field
October 28th	Apprentice School of Newport News	Newport News, Va.
November 5th	New River State College (Montgomery, W.Va.)	Langley Field
November 13th	Loyola College (Baltimore, Md.)	Langley Field
November 19th	Quantico Marines (Quantico, Va.)	Undecided
November 24th	Appalachian College (Boone, N.C.)	Langley Field
December 3rd	Third Corps Area Championship (Pending)	
December 12th	Parris Island Marines (Savannah, Ga.)	(Pending)

- Pvt. Jack R. Germaine, Sports Correspondent.

---oOo---

BASE BALL In seven contests on the diamond, from July 31st to August 28th, the March Field baseball team won two and lost five. The two victories were from Hemet, 10-2 and from Blue Goose of Corona, 11-0. The team's opponents taking the long end of the score were Acme Brew of San Bernardino, 11-7; U.S.S. Salt Lake City, 8-6; 30th Infantry of Presidio, 1-0 and 8-5; and U.S.S. Augusta, 5-1.

The Patterson Field baseball team annexed three wins and was handed one defeat in the past three weeks. The wins were at the expense of the Clifton Nine at Clifton, Aug. 13th; the Germantown Merchants and Tawney's Movers at Patterson Field, August 14th and 28th, respectively. The defeat was handed them by the Selfridge Field boys.

Too bad, the San Antonio Air Depot Baseball Team suddenly ran up against hard luck! After a season of snappy and outstanding work, under the strong leadership of Manager Charles H. ("Dink") Leipart, during which they walked away with the lead in the local Sunday Morning League, beat the champions of the Commercial League in two straight games, and came easily to runner-up for the City Amateur Championship, they faced the Texas Chiropractic College Hawks for the final play-off series. On August 21st we won, 10 to 5. On the 23rd (a night game) we lost, 9 to 8, and on the afternoon of the 24th, the Hawks celebrated the championship victory, 4 to 0, which their veteran local amateur pitcher, Larry Miller, won for them on that date. The final line-up of our team was: H. Fikes, l.f.; C. Fikes, lb; Roy Dixon, ss; L. Fikes, r.f.; Ray Dixon, 2b; Hill, cf; Cockrell, 3b; Menard, c; E. McCarty, p. Well, next year is another season! The boys are especially grateful to Colonel Fisher, our Commanding Officer, as well as to the other officers of the Depot for the enthusiastic interest and support given the team.

The Selfridge Field baseball team is building up a reputation locally and in distant parts. A lost baseball game is a rarity. The team is improving steadily. On Aug. 20th, Lt. McCoy took his team to Flint, where they played the State Truckers and won 11-8 in revenge for previous score. The next day the Patterson Field team arrived at Selfridge and returned convinced that Selfridge has a superior team this year. Final score was 19-3. The pitching staff of Hagebauer, Dusing, Hepeler and Harmer have maintained a remarkable average, and the team's batting average is high. Much to the surprise of the local fans and to the delight of the baseball team, Lt. McCoy decided to play with the team, and in the one game he played was a little man with a big stick. His batting average is crowding a thousand. He also heads the "Strawberry League," with a remarkably large bruise on his right hip.

SERIAL NO. 322. LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Aug. 27th to Sept. 21st Incl.

Available for loan to Air Corps Organizations only upon request to
the Air Corps Library, Munitions Building, Washington, D. C.

DOCUMENTS

- A 00.51/11 Exchange of notes between His Majesty's government in the Union of South Africa and the government of the United States of America respecting certificates of airworthiness for aircraft Pretoria, Oct. 12/Dec. 1, 1931. Presented by the Secretary of State for foreign affairs. Great Britain. Secretary of State for Foreign Affairs Cmd. 4111. London H.M. Stationery Office, 1932.
- D 00.12/102 Titeflex metal tubing - Soldering of, by Navy Dept. Bureau of Aero. #173 Washington, Navy Dept. Tech. Order #173, Series of 1930. Aug. 4, 1932.
- D 00.12/123 NA-Y8C Carburetor, Fuel Feed in Maneuvers, R-1340 type, 6 to 1 and No. 117 10 to 1 engines by Navy Dept. Bu. of Aero. Tech. Note #117, Series 1930. Washington, Navy Dept. July 21, 1932.
- D 00.12/123 Hazard to Aircraft in Flight from Static Discharges by Navy Dept. No. 118 Bu. of Aero. Tech. Note #118, Series of 1930. Washington, Navy Dept. July 29, 1932.
- D 00.12/123 Installing Carburetor Float Assembly in Stromberg NA-Y8C or NA-Y8E No. 121 Carburetors, by Navy Dept. Bu. of Aero. Tech. Note #121. Washington Navy Dept. Aug. 27, 1932.
- D 11.23/7 Titanine Specifications for the Treatment of Metal Parts of Aircraft by Titanine-Emallite Ltd., London Titanine-Emallite Ltd. 1932.
- D 13.3/145 Vibration of Instrument Boards and Airplane Structures, by Stephen J. Zand. n.p. Society of Auto. Engineers, Aug. 30-31, 1932.
- D 13.3/Tach- Handbook of instructions with Parts Catalog for the Type C-2 Tach- ometer/1 ometer Manufactured by Elgin National Watch Co. on contract W535AC-4613, Specification 27209-A. Published by authority of the Chief of the Air Corps by the Materiel Div., Field Service Section, Wright Field Dayton, O. July, 1932.
- D 13.46/6 A Guide to Aerodrome Lighting (issued with the approval of the Air Ministry and preparatory to the publication of a British standard specification) by British Standards Institution. London, British Standards Institute. July, 1932.
- D 52.03/2 The Cord Cup Race; Transcontinental Sweepstakes Handicap Air Derby of the 1932-National Air Races sponsored by the Cord Corp. Cleveland National Air Race Committee, 1932-
- D 52.1/Bel- Air Force and Moment for XSE-1 Airplanes, by Aerodynamical Labora- lanca/5 tory, C. & R. Dept., Navy Yard, Washington, D.C. April 30, 1932. Aero Report #478.
- D 52.1/Con- Air Force and Moment for XBY-1 Airplane, by Aero. Laboratory, C. & R. solidated Dept., Navy Yard, May 25, 1932. Aero Report #479.
- 13
- D 52.151/130 Air Force and Moment for Design No. 110 Airplane with N-60 and with N.A.C.A. 2412 Wings, by Aerodynamical Laboratory, C. & R. Dept., Navy Yard, Washington, D.C. Apr. 30, 1932. Aero Report #477.
- D 52.16/91 Air-Transport-Design Economy and Air-Transport Testing, by Frank T. Courtney. n.p. Society of Auto. Engineers. Aug. 30-31, 1932.
- D 52.16/92 The Economic Aspects of Transport Airplane Design, by Ralph S. Damon, George A. Page and Kendall Perkins. n.p. Society of Auto. Engineers. Aug. 30-31, 1932.
- D 52.16/93 Late Developments in Airplane Stress-Analysis Methods and their Effect on Airplane Structures, by Richard C. Gazley. n.p. Society of Auto. Engineers, Aug. 30-31, 1932.
- D 52.43/555 Hollow Steel Propellers, by James H. McKee, Chief Engr. Pittsburgh Screw & Bolt Corp. n.p. Society of Auto Engineers, Aug. 30-31, 1932.
- D 52.43/556 Measurement of the Differential and Total Thrust and Torque of Six Full-scale Adjustable-pitch Propellers, by George W. Stickle. NACA Report #421. Washington, Gov't Printing Office, 1932.
- D 52.451/13 Indicators as a Means of Improving Aircraft Engine Performance, by Ford L. Prescott. n.p. Society of Auto. Engineers, Aug. 30-31, 1932.

Serial No. 322. DOCUMENTS (CONT'D)

- D 52.6/Con- Air Force and Moment for XP3Y-1 Flying Boat, by Aerodynamical Lab-
solidated/1 oratory, C. & R. Dept. Navy Yard, Washington, D.C. May 27, 1932. Aero.
Report #480.
- D 62/2 Air Route Maps Extracted from the Report on the Progress of Civil
Aviation 1931, by Air Ministry, Directorate of Civil Aviation. Lon-
don H.M. Stationery Office, 1932.
- 629.13 Effect on Engine Operating Conditions on the Vaporization of Safety
Un3ten Fuels by A.M. Rothrock and C.D. Waldron. NACA Tech. Note #430. Wash-
No. 430. ington, Aug. 1932.
- 629.13 Reduction of Wing Lift by the Drag, by A. Betz and J. Lotz. NACA
Un3tm Tech. Memo. #681. Aug. 1932. Washington
No. 681
- 629.13 Airplane Stability in Taxying, by E. Anderlik. NACA Tech. Memo. #682
Un3tm Sept. 1932. Washington.
No. 682
- 629.13 Propeller Tip Flutter by Fritz Liebers. N.A.C.A. Tech. Memo. #683.
Un3tm Sept. 1932. Washington.
No. 683

INSPECTION DIVISION NOTES

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The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on August 27, 1932.

Number & Date	Subject	Distribution
TL-32-160 8/26/32	Inspection of Supercharger Impeller Oil Retainer Bushing and Leather Washer R-1750 and R-1820 Series Engines	FAD, MAD, RAD, SAAD, HAWAIIAN Dept. Chamute, Wright.
TL-32-162 8/29/32	Replacement of Knuckle Pin Assembly R-1340 Series Engines	FAD, MAD, RAD, SAAD, Hawaiian Dept. PAD, PHAD, Chamute, Wright.
TL-32-163 8/29/32	Selection of Oil Pump Drive Gears for Pratt & Whitney Engines	FAD, MAD, RAD, SAAD, Hawaiian Dept. PAD, PHAD, Chamute, Wright.
TL-31-231 8/29/32	Installation of One-Piece Master Rod Bearings on Pratt & Whitney R-1340 & R-1690 Series Engines. (This TL replaces TL 31-231 dated 8/24/31.)	FAD, MAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept. Chamute, Wright.
TL-32-155 8/29/32	Venting Spark Plug Coolers on Wright Radial Engines	FAD, MAD, PAD, PHAD, RAD, SAAD, Hawaiian Dept., Chamute, Wright.
TL-32-139 7/29/32	Replacement of Fork, Tail Wheel-Douglas BT-2A, BT-2B, BT-2C, O-25A, O-25B, O-25C, O-38, O-38A and O-38B.	Chamute, Wright, FAD, MAD, RAD, SAAD
TL-32-116 8/29/32	Change in RPM of Certain V-1570 Series Engines. (This TL replaces TR 32-116 dated 6/2/32.)	Aberdeen, Bolling, Brooks, Chamute, Crissy, Langley, Maxwell, Mitchel, Selfridge Wright, FAD, MAD, RAD, SAAD.
TL-31-280 9/3/32	Inspection of Wing Terminal Fittings-Boeing P-12, P-12B, P-12C, P-12D, P-12E and P-12F Airplanes. (This TL replaces TL 31-280 dated 12/19/31.)	FAD, MAD, RAD, SAAD, PAD, PHAD, Hawaiian Dept., Bolling, Chamute, France, Kelly, Langley, March, Mather, Maxwell, Randolph, Selfridge, Wright.
TL-32-53 8/22/32	Installation and Operation of Type M-8 Parachute Flare. (This TL replaces TL 32-53 dated 4/9/32.)	General
TL-32-125 9/6/32	Propeller Nut Hub Cap, Part No. 25581 on R-1820 Engines.	FAD, MAD, RAD, SAAD, Chamute Wright.
TO-00-0-8 9/1/32	Monthly Index of Technical Instructions	General
TL-32-164 9/2/32	Reworking Scintilla Type V-AG 12-D Magneto to Incorporate Pivotless Type Breaker Mechanism.	MAD, FAD, RAD, SAAD, Mitchel, Chamute, Wright.
TL-32-165 9/2/32	Tightening Air Deflectors R-1750 & R-1820 Engines	FAD, MAD, RAD, SAAD, Hawaiian Dept., Chamute, Wright, Aberdeen, Bolling, Langley, Maxwell, Kelly, Crissy, March, Mather, Selfridge.
TL-32-166 9/2/32	Installation of Supercharger Impellers on R-1750 & R-1820 Series Engines	FAD, MAD, RAD, SAAD, Hawaiian Dept., Chamute, Wright.
TL-32-167 9/3/32	Inspection of Washer, Valve Spring, Upper on Wright R-975, R-1750 & R-1820 Engines.	FAD, MAD, RAD, SAAD, Hawaiian Dept. PAD, PHAD, Chamute, Wright.
TL-32-168 9/9/32	Replacement of Rudder Pedal Support Bushings-Boeing P-12B, P-12C, P-12D, P-12E & P-12F Airplanes	FAD, MAD, RAD, SAAD, Hawaiian Dept., PAD, PHAD, Chamute, Wright.
TL-32-169 9/6/32	Disposal of Oxygen Tanks.	General.
TL-32-170 9/9/32	Replacement of Carburetor Air Intake Tube-Douglas BT-2A, BT-2B, BT-2C, O-38, O-38A & O-38B Airplanes.	General.

The following Air Corps Circulars and Air Corps Circular Letters were published since the August 27, 1932, issue of the Air Corps News Letter.

Number & Date	AIR CORPS CIRCULARS		SUBJECT
15-6 8/9/32	BLANK FORMS AND REPORTS	- War Department	Air Corps Form No. 6 Pilot's Book.
15-7 7/1/32	BLANK FORMS AND REPORTS	- Air Corps	Form No. 7 - Lighter-than-Air Pilot's Book.
35-1 8/23/32	PERSONNEL - MILITARY	- Foreign Service of Non-commissioned Officers of the Air Corps.	

AIR CORPS CIRCULAR LETTERS

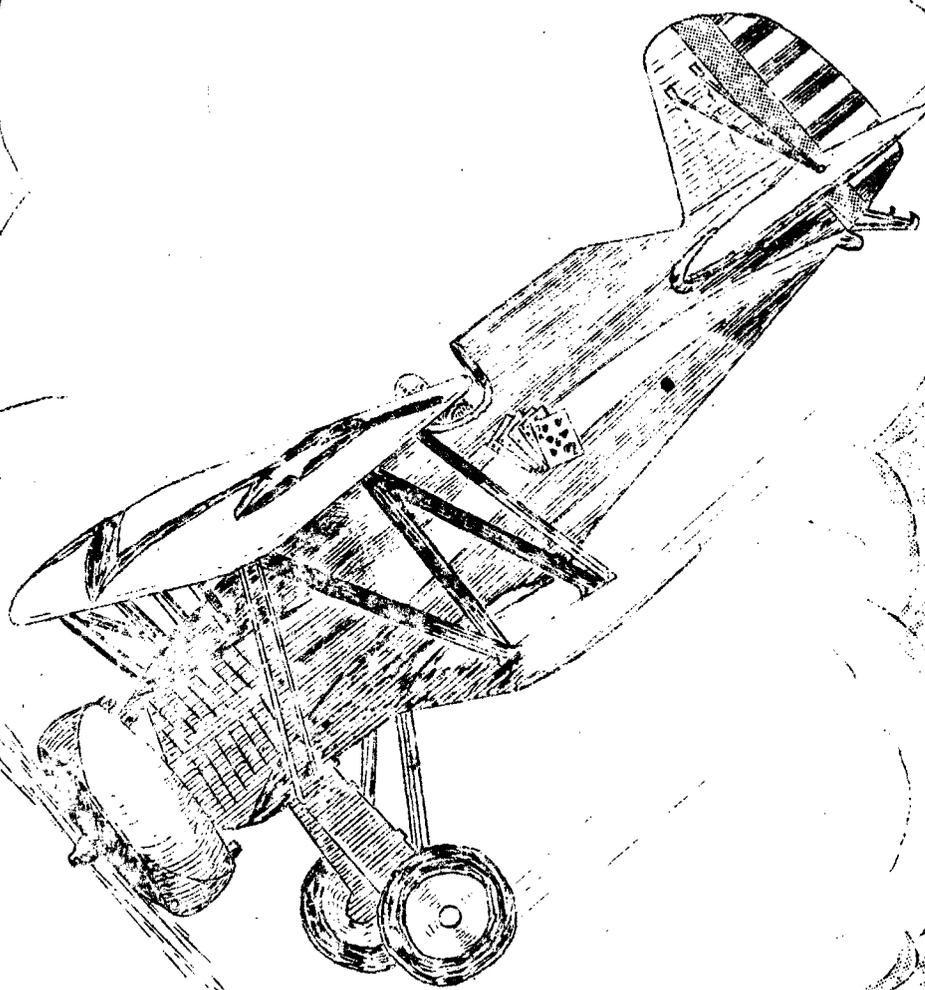
<u>Number & Date</u>		<u>Subject</u>
W-2108 AC	8/22/32	Personal Report, Air Corps Form 121.

The following supplementary data to Technical Letter No. 32-100, dated May 18, 1932, subject: "Operation Instructions", has been issued to date:

<u>Date of Issue</u>	<u>Airplane</u>	<u>Distribution</u>
August 26, 1932	B-2	Aberdeen, March, FAD, HAD, MAD, PAD, PHAD, RAD, SAAD, Scott.
August 27, 1932	B-5A	Chanute, Kelly, Luke, all depots, Scott.
August 29, 1932	Y1B-4 & B-4A	Ft. Leavenworth, March, all depots, Scott.
August 29, 1932	B-3A	France, Kelly, Nichols, all depots, Scott.
September 9, 1932	Y1B-4 & B-4A	Ft. Leavenworth, March, all depots, Scott.

(Correction to "Operation Instructions" dated 8/22/32.)

AIR CORPS



NEWS LETTER

ISSUED BY THE
 OFFICE OF THE CHIEF OF THE AIR CORPS
 WAR DEPARTMENT
 WASHINGTON, D. C.

Handwritten:
 4931
 Oct 18

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from the Fields.

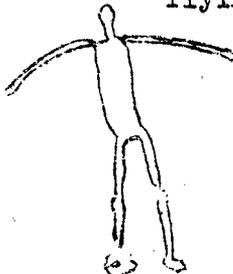
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WAS THERE AN ADVANCED CULTURE IN THE SOUTHWEST?

By 2nd Lieut. Minton W. Kaye, Air Corps.



George Palmer, an Army aviator during the World War, operated a flying field at Elythe, Calif., and also a field at Las Vegas, Nevada. Mr. Palmer frequently made trips between these two fields, and on one of these trips happened to see fashioned upon the level top of a mesa the giant figure of a man. This was in the summer time, and temperatures frequently crack the thermometer at 132 degrees around Elythe - and this was no cool day. As Aviator Palmer had no great faith in his motor, he did not venture too close to these figures, but made a note to come back at some future date and make a more detailed study of them. At a later date he did return, and while flying the plane himself took pictures with a small hand camera.



Times were hard in Elythe with the dropping off in prices of farm commodities. Palmer had to give up his field at Elythe. While in Los Angeles on his way north, he stopped in to report his find to the Los Angeles County Museum. Here he encountered Mr. Arthur Woodward, curator of History for the Museum. Mr. Woodward could see from the faint snapshots that the figures were, if authentic, of important archeological value and "itched" to make a close inspection. Remembering that the Air Corps had in past times cooperated with scientific societies in the discovery and recording of archeological material, Mr. Arthur Woodward and Dr. Charles Van Bergan, also of the Museum, visited March Field and requested aid from Lieut.-Colonel H.H. Arnold. The author of this article was called in and the pictures taken by Palmer presented to him with the query: "What do you make of these?" Faint as the photographs were, I made the remark that they were probably pictographs of markings of Indian origin and that their location was somewhere between Elythe and Needles, Calif., on the west bank of the Colorado. Upon closer inspection, the Colorado could be faintly seen in the horizon of the picture.

An inspection of a map of southeastern California showed an expanse of desert more than one hundred miles in length in which somewhere these figures were hidden. Upon asking where Mr. Palmer was at this time I was told that he had last been heard from somewhere in the San Joaquin Valley, but could not be located. One small clue, however, had been given that the figures were near the intake of the Canal system of the Palo Verde water district. With this small amount of data to work upon, a plan was worked out whereby an airplane party was to go out and make a reconnaissance of the territory between Elythe and Needles, while a ground party was to proceed to the Airport at Elythe and await news. If the figures were located, the airplane party was to photograph them and make notes as to the feasibility of bringing in a ground party by automobile.

The ground party departed on Sunday afternoon, while the airplane party contemplated departing on Monday morning as early as possible. On Monday, the weather turned decidedly bad and remained that way for the better part of a week, making flying dangerous if not almost impossible. The ground party in the meantime had made an inquiry around Elythe concerning any large figures in the locality and had met with no success. As developments later turned out, it had approached the location within approximately one mile and inquired at a cattle ranch if there was knowledge of any large figures cut in the earth by the Indians. All inquiries were answered in the negative. Within several days the storm that had kept me on the ground at March Field had moved eastward and softened the field at Elythe to such an extent that Mr. Woodward and Dr. Van Bergan decided that it would be unsafe to allow me to come on. It was then decided to abandon the search and come out again at a later date.

In the meantime, Mr. Palmer had been contacted and another expedition was

planned. Mr. Palmer stated to me that the figures, as he remembered, were not far from the Canal intake, so I plotted a course from March Field through the San Gorgonio Pass and then directly to the Colorado River at a point twenty miles above Blythe. It was the plan to then fly up the river to Needles, and if luck had not been with me, to back track to Blythe and await the arrival of Mr. Woodward, Dr. Van Bergan and Mr. Palmer to obtain more detailed information, which I would more readily understand after having familiarized myself with the country. With the failure of the first attempt, it was agreed upon that the ground party should not start until the airplane party had cleared the field. Upon taking off, a storm could be seen brewing in the north side of San Gorgonio Pass, and I had some doubts whether or not this attempt was to prove successful. The storm increased in violence as I approached it, but I was just able to squeeze through before it closed in right down to the ground. The ground party reached the pass about one half hour after I did, and reported to me later that the storm was so violent that they almost had to use their lights, so completely had the clouds and rain blanketed out the sun.

While flying across the desert, I was overwhelmed by the futility of finding anything in this great expanse of rock and sand, but being all fired up with enthusiasm of finding records of peoples long since passed I kept searching each mesa, mountain range and sand wash, hoping that I would see and imagining that I saw caves and burial mounds. Upon approaching the Colorado River, that snake-like sea of mud and water that for countless ages has been sweeping down to the Gulf our mountains of Utah and Colorado, and cutting that stupendous crevice known as the grand Canyon, I was still filled with the doubts that had assailed me while crossing the sand and rock wastes of the desert.

Lady Luck was riding with me, however, for I had hardly made one turn to look the country over when I discovered directly below me an immense man stretched out upon the brown roof of a mesa as though he were taking a sun bath or gazing up toward his Maker. And what a thrill I got! Words can hardly express my emotion upon seeing this thing too stupendous to have ever been conceived and built by modern man; for modern man would hardly spend the effort to construct such as this way out at the end of nowhere. Upon the discovery of the large figure, I began circling, losing altitude and studying the figure. So intent was I that I did not see that there were other figures forming a triangle with a base of about one-half mile. Technical Sergeant Stephen McAlko, my photographer, motioned to me to look to one side, where I saw another figure of a man and then still another. I noticed also that there were figures of animals and of snakes. I fairly "itched" to get down and make a closer inspection of these eerie moneters.

Remembering my instructions, I then made a mental note of the surrounding terrain and began searching for a road leading into this country. I noted that the figures were on mesa-like country with washes sweeping down from the not distant mountain in between. After a search I found a road which ended not more than a mile from the figures, built by the Metropolitan Water District. I also noted that the figures were on the third mesa from the south end of the experimental infiltration canal built by the water district. With this in mind I headed south for Blythe, as it was a bit too late in the afternoon for good photographic light. After landing at the emergency field of the American Airways, I engaged the radio operator in conversation and learned of the anxious hours of waiting that Woodward and Van Bergan had put in several weeks previous. It befell my turn at waiting, for the ground party had over 200 miles of pavement, oil, sand and dirt road to travel before they could arrive and take us into town.

They did arrive well after dark and plied me with questions. What were they like? How large were they? How many were there? What were they made of? and questions on end as only an archeologist can ask them. My reply was: "Gentlemen, you will have to see them yourself. I'm hungry."

The town of Blythe was all astir, for a mixed party of ethnologists, archeologists and aviators had never crossed their horizon before. We were curious to be sure, and were treated as such. It developed that the prior visit of Messrs. Woodward and Van Bergan had stirred up considerable enthusiasm and interest, and searching parties had gone out, acting upon the meager information that we had. One party had found the figures and had dug up some pottery near the figures which luckily had been turned over to the Chamber of Commerce.

After a good night's rest, we set out early to make our ground inspection. By following the mental road map I had made, we drove the 18 miles out to the locality and soon topped the mesa and came upon the first of the three groups. I

got a thrill out of this, but it was nothing to be compared with the thrill I got upon first seeing the figures. There was some wild scampering about, though, to find the other two groups of figures until the scientists tossed in their wet blanket of cold calculation and got out tape measure, pad and pencil and began to go to work.

The group of figures comprises three sub-groups. One figure stands alone and must be classed as a group. Another group consists of the figure of a man, a long-legged, long-tailed animal and a coiled snake-like figure. Still another group consists of a man stepping into or perchance stepping out of a large circle, an animal with long legs and tail and a coiled snake-like figure. They lie upon the mesa surface which is noticeably flat and level in positions that make them most imperceptible from a ground observer gazing not across the valley or toward some distant mountain, but up toward the heavens.

A great portion of the western deserts are made up of mountains with broad plains weeping down from their lower reaches to the sand washes through which dry streams wind and cut their way to the innumerable dry lake beds dotting the desert floor. During the greater portion of time, the deserts are dry wastes, but frequent cloudbursts and violent rainstorms dump great quantities of water upon their mountains and mesas at which time the canyons and washes are raging torrents for a while. Anyone who has witnessed one of these freshets and observed the country fairly swim, the washes raging torrents with water sweeping large boulders down the slopes, churning and clinking them together, does not wonder for long from where the forces come that have caused the tremendous erosion of such places as the Grand Canyon. These broad plains are so gradual in slope that the tops of them are almost level and one can drive a car for miles following the tops without the aid of a road bed. For the lack of a better name I have called them mesas.

The mesas along this part of the Colorado River are formed of gravel for the most part light in color. The larger rocks forming this gravel are chiefly oval and flat in shape. The intermittent rains have washed the finer gravel and sand away, leaving only the larger rocks of from one to four inches in size exposed. Water, wind and sun have eroded and polished these rocks whose texture is light grey, blue or pink in color, until they have attained a high polish and acquired a color as though fried in deep fat. The brownish chocolate appearance of so much of our western deserts is due to this so called "desert varnish." Inquiries have been made as to the length of time necessary for this patina to form upon a rock. Some geologists estimated fifty years, and some say many hundreds of years. There is, however, in northwestern Arizona, a mine, high upon the side of a mountain, composed of light colored rock which has acquired such a great deposit of this patina that the mountain appears as though composed of black volcanic slag. The roadways up to the mine and the mine dump were built in the eighties and have not acquired this patina and appear as great yellowish scars upon the face of the mountain. From this I would deduce that it takes hundreds of years for the "desert varnish" to form.

The figures are formed by the scraping of the surface rocks away from the central portion out into wind-rows around the peripheries of the figures. This leaves the light tannish colored sand exposed, which give the figures their great contrasts in color. In forming these figures it would have been necessary to remove rocks that had acquired this patina upon their exposed surface and place them upon the wind-rows around the edges. In doing this, it hardly seems possible that the makers would have taken pains to see that only the polished surfaces were exposed. And yet all of the rocks forming these wind-rows have acquired this polish which leads one to believe that the figures have been constructed long enough for all of the rocks therein to acquire the chocolate polish. Only the figures of the men and animals have been formed by the intaglio process. The snake-like figures and the large circle have been formed by the beating down into a smooth polished surface of the surface rock. The surfaces of these figures are, in fact, so smooth that a game of marbles could be played thereon with fair success.

These large figures have been termed as pictographs, which is slightly in error. Nor are they petroglyphs. Pictographs are representations or figures painted upon some surface, while petroglyphs are symbols carved in or on some substance. As the large figures on the west bank of the Colorado are neither painted nor carved, in the strict sense of the word, they are neither pictographs nor petroglyphs, but for the lack of a better term I shall call them petroglyphs. Two of the figures of men have head dresses, consisting of wavy lines emanating from either side of the head. These lines are six in number and were formed by the beating down of the surface pebbles into smooth surfaces.

The figures of men range in size from 167 feet from head to toe with an arm spread of 74 feet to the smallest figure, the length of which is 95 feet. The torsos measure from 17 to 25 feet. Each man has an excellent representation of the mammary glands, constructed of pebbles heaped to form a triangular shaped mound. Breasts, eyes, nose and mouth were formed in proper place by placing larger rocks of a texture which would not acquire "desert varnish," brought from a nearby wash. Each man had five fingers on each hand and five toes on each foot. The knee and elbow joints were accentuated oddly as though the models from which the figures were taken were afflicted with rickets in youth. The heads seem too small for the body while the neck appears to be much too long.

It is the opinion of the author that these figures, undoubtedly of Indian origin, are ceremonial in their nature. This is borne out by the fact that they are placed upon a level mesa top and hardly discernible from the surface, looking up toward that mystic void called Heaven. If they had been made for other purposes they would have been placed upon a slope or cliff to be seen from a great distance. On top of the mesa they can be viewed in their correct perspective only from above, by the gods or, perchance, as in these modern days, by a passing aviator.

The pottery taken from one of the locations proved to be a broken vessel made up of paddle beaten pottery, similar in culture to that brought into this district from the Gila River by the Hohokam tribe about 500 A.D. The fact that the pottery was broken is significant, in that it points toward a faint clue as to the age of these petroglyphs. Indians are of a superstitious nature, and things they cannot understand immediately are attributed to the gods. Now when an Indian comes across anything he cannot understand, he makes an offering, consisting of something of value to himself. In this case probably a poor Indian - and the Indians that inhabited this district were poor - came upon these figures and, not being able to understand them and having no legend concerning them, made an offering to his gods. In this case, being a poor Indian, he offered up a broken bowl. If he had been a wealthy Indian he might have offered up a spear point, knife or whole bowl. This particular bowl was made up of what is known as thin pottery, which pottery has not been made for over 80 years. This places the age at over 80 years.

There seems to be a connection between these petroglyphs and the Mystic Indian Maze near Needles, Calif. This maze is made up of wind-rows of rock scraped from the surface rock of the foothills on the west bank of the Colorado at the point where the River shoots down through the gorge below "the Needles." Upon questioning some of the old-timers at Needles, we found that there was a large figure of a man in conjunction with this maze which had been destroyed by the railroad when the Santa Fe was put through. The maze is 80 miles north of the Petroglyphs near Blythe. If it can be attributed to the same people, this tends to prove that an extensive nation at one time lived and thrived in this region. The maze is in itself a titanic piece of work, and consists of these wind-rows of rock not more than six feet apart covering an area almost one mile square.

It was reported that there is a large figure, similar to the Blythe petroglyphs, on a mesa in the Gila country in Arizona. There is a legend handed down through the tribe and is known by the Indians in the Gila country today. The legend runs that HAAK (HAAK), a legendary cannibalistic creature, was destroying many of the ancient Indians. A culture Hero, however, drove HAAK from one portion of the Pima country and, enroute to the mountains, this monster lay down for the night on a spot against the foothills, five miles north of the present Indian town of Sacaton on the Gila River. Where the monster rested, the large figure of a man was made in memory of the warriors carried away. This figure was made by scraping away the surface pebbles similar to that method used on the petroglyphs in the Colorado Mesas. This huge outline was termed "HAAK-VAAK" or HAAK lying down. This spot is a Pima shrine where offerings are made to this day. What these petroglyphs are, who constructed them and for what purposes are questions impossible to answer. The clues are too few and indistinct. It rests with archeologists to tie them in piece by piece to something of known origin and date. This is a stupendous task in this western country of great expanses. The archeologist on foot is practically helpless. In the air his horizon is extended many thousand fold.

It behooves us when flying cross-country, to keep our eyes open for such figures as those on the Colorado. Figures of men, burial mounds, lost town sites, and buildings gone back to nature are difficult to find from the ground but loom up in a startling manner when viewed from the air. And then it is something interesting to do to study minutely the terrain one is passing over. With the popularity of flying increasing daily, it won't be long before more data is brought in and these monsters of the Colorado will not be as much a mystery as they are today.

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ARMY-NAVY STANDARDS CONFERENCE

THE eighth annual Army-Navy Standards Conference was held at Wright Field, Dayton, O., Sept. 12th to 16th. The purpose of this conference is the standardization of aircraft parts, materials, equipment, and test methods used by the Army and Navy, with a view to avoiding duplication of work by the two services and the elimination of consequent expense of such duplication to the Government.

Manufacturers also take part in these conferences, and for them, through the agreements and understandings arrived at, it means a reduction of the number of jigs, dies and fixtures necessary for the articles and materials supplied. The conferences are held once each year alternately at Wright Field and the Naval Aircraft Factory. Notable progress was accomplished through the eight years of this cooperation. All through the year the standardization sub-committees of the separate services are at work, each in its own service, determining upon its own desired standards. These are presented for the acceptance of both services and for the comments of manufacturers at these meetings.

Major C.W. Howard, Chief of Engineering, Materiel Division, was in charge of the conference, assisted by Lt. D.G. Lingle and B.F. Senart. Other Materiel Division committees were represented by: Aircraft, Capt. J.G. Taylor and J.A. Roche; Electrical, Capt. D.L. Bruner, James Herr and E.R. Geisman; Materials, J.B. Johnson, G.P. Young, M.R. Whitmore and Charles Cleary; Power Plant, Capt. Clements McMullen, Lt. D.W. Watkins, Opie Chenowith, F.W. Heckert and J. B. Brelsford; Propellers, Lt. O.R. Cook and D.A. Dickey; Standard Parts, E.C. DuVal and J.L. Yost.

Lieut.-Commander R.S. Barnaby was in charge of the Navy committee, assisted by Lt. A. Sousek, Lt. G.A. Seitz, Lt. E.E. Waller, Lt. C.W. Smith, Lt. M.N. Kindell, C.L. Seward, B.H. Grant, R.S. Milne, G.P. Toews, H.J. Huester, C.S. Fliedner and J. Hardecker. All Navy members were from the Bureau of Aeronautics, Washington, D.C.

Dr. W.G. Brombacher from the Bureau of Standards attended. Mr. C.H. Helms represented the National Advisory Committee for Aeronautics and Mr. S.W. Crosthwaite the Department of Commerce. Representatives of more than fifty manufacturing concerns from all over the country were present.

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MARCH FIELD TO EXHIBIT AT LOS ANGELES COUNTY FAIR

The Los Angeles County Fair, held at Pomona, Calif., famous for its unique and wonderful display of every known craft as well as of agricultural products, has extended an invitation to March Field for an exhibition of aeronautical equipment similar to that shown at the Riverside County Fair in past years, which has attracted wide attention and much favorable comment. As the attendance at this fair exceeds over a quarter of a million, and reservation for the March Field Exhibit was made in a very prominent place, an elaborate display is being planned pending receipt of War Department authority. A Boeing Pursuit plane, radio equipped, with machine guns and bombs mounted, will be the feature display. Among the other features exhibited will be included the following Air Corps equipment: an open parachute, oxygen apparatus, camera and photographic display, several types of bombs and the new winter flying equipment.

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GOOD WILL AVIATORS INSPECT RANDOLPH

Cpts. A.B. Strickland, James A. Mollison and Lt. David M. Schlatter, of Randolph Field, escorted three Cuban Army "Good Will" flyers from Brownsville, Texas, to Randolph Field. The visitors made a tour of the various Army posts in the vicinity of San Antonio. Members of the "Good Will" Flight were Captain Mario Terres, Executive Officer of the Cuban Air Corps; Lieuts. Pablo Alonzo and Rodolfo Herrera, members of a Cuban Pursuit squadron, and their mechanics. They flew Vought-Corsair airplanes. Following an inspection tour of Randolph Field, they were the guests of Brigadier-General Charles Danforth, Commanding General of the Air Corps Training Center. Several days later they visited Major-General Edwin B. Winans, Commanding General of the Third Army, with headquarters at Fort Sam Houston, and toured that post.

The "Good Will" flyers departed on the morning of Sept. 24th for Dallas, where they refueled while enroute to Fort Leavenworth, Kansas. They planned to visit Wright Field, Dayton, Ohio, and Washington, D.C., before returning to Cuba.

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Three members of the Military Affairs Committee, House of Representatives, arrived by airplane at Randolph Field for an inspection of the Army posts in the vicinity of San Antonio. They were the Hon. John A. McSwain, of South Carolina, Chairman of the Military Affairs Committee; the Hon. Jack Johnson, of Oklahoma; and the Hon. John N. Sandlin, of Louisiana. Lieut. Harry A. Halverson flew the airplane in which these Representatives are making the trip.

SELFRIDGE FIELD TO SAN DIEGO IN 15 HOURS

Conducting a combined avigation training and equipment test flight, a formation of six Berliner-Joyce (P-16) two-seater Pursuit planes of the 94th Pursuit Squadron, 1st Pursuit Group, Selfridge Field, Mich., recently completed a flight to and from the West Coast. Capt. A.B. Ballard commanded the flight. The other pilots were Lieuts. O'Donnell, Warburton, Tellman, McCoy and Blanchard.

Leaving Selfridge Field at 4:00 a.m., Sept. 16th, the flight arrived at Rockwell Field, San Diego, Calif., 18 hours and 15 minutes later, with a total of 15 hours' flying time. Stops for gasoline were made at Scott Field, Belleville, Ill.; Post Field, Fort Sill, Okla.; Biggs Field, El Paso, Texas, and Tucson, Ariz.

On the return trip, which began Sept. 18th, the flight spent the night at El Paso and returned to Selfridge Field the following day. On the last leg from Scott Field to Selfridge Field, the 470 miles were covered in two hours and 30 minutes, an average speed of about 183 miles per hour. The air line distance through the refueling stops is 2,150 miles from Selfridge to Rockwell Field.

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20TH SQUADRON INSPECTS PRATT AND WHITNEY PLANT AT HARTFORD

Capt. Robert T. Cronau, Commanding Officer of the 20th Bombardment Squadron, Langley Field, Va., led a flight of 8 Keystone Bombers, manned by 15 officers and 22 enlisted men, to Hartford, Conn., where a visit was paid the Pratt and Whitney Motor Plant. Enroute to Mitchel Field, which was to have been the first stop of the Squadron, the flight encountered a heavy fog in the vicinity of the Maryland Eastern Shore, and the landing was made at the excellent airdrome at Princess Anne, Md., where the Squadron had spent two weeks on Air Corps maneuvers during the month of June. After $2\frac{1}{2}$ hours, the leading plane managed to get a weather report by radio to the effect that the fog was lifting, and the flight took off again and headed for Mitchel Field. On Long Island, a thick haze was encountered and the visibility was limited to about 300 yards. Some "circling around" had to be done before Mitchel Field was picked up. After landing, it was too late, also too foggy, to proceed on to Hartford, and the flight remained overnight at Mitchel.

On Sept. 24th, the Squadron took off again, landing at East Hampton, the final destination. An inspection of the Pratt and Whitney Motor Plant was made by the Squadron personnel, which proved unusually interesting and educational. The Company entertained the Squadron at a very enjoyable luncheon. Upon completion of the inspection, the flight headed back to Mitchel Field, where the night was spent, and returned to Langley Field the following morning.

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MODEL AIRPLANE CONTEST AT MARCH FIELD

More than 100 youngsters from all sections of Southern California congregated at March Field, Riverside, Calif., on Sept. 22nd, for a model airplane contest, held under the auspices of the Riverside Model Airplane Club. The contest was divided into speed, duration and novelty classes. The speed contest was won by Thomas Scully, whose entry flashed the official distance, 76 feet, in 1.20 seconds, a speed of over 43 miles per hour. Casualties in the speed contest were extremely high. Youthful builders spent weeks building a single model, correct in every detail, only to see it crash the first time it was sent into the air. Some of the planes, however, stood the battering and came back into the contest for second and sometimes third trials.

John Berg, of Los Angeles, won the duration contest by a time of 16 minutes and 38 seconds. One plane, which attracted wide attention in the novelty contest, carried a parachute which it released while moving along under the power of its "rubber band" motor. The tension of the power rubber, as it unwound, permitted a rubber band, which controlled the parachute trap pin, to tighten, and as it did so, the pin which held the door shut was withdrawn and a little parachute with a 10-inch spread was released. Another plane laid a smoke screen. The smoke maker was in the nature of a firecracker. It was attached to the bottom of the plane and the fuze was lighted before the plane was launched.

Second Lieut. James M. Troweek was in charge of arrangements and judging of the contest, and later presented the trophies and awards to the successful entrants at one of the Riverside theatres.

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Second Lieut. Winslow C. Morse won for the 95th Pursuit Squadron, March Field, Calif., its second consecutive victory at the National Gunnery Matches at Langley Field, Va. Last year's representative of the Squadron was 2nd Lieut. D.D. Graves, who started a tradition of victories which the 95th Squadron believes it can maintain. Lieuts. J.H. Bundy and Joe L. Loutzenheiser took second and fourth places, respectively, for March Field. The 7th Bombardment Group of March Field was represented by Lieuts. Shelly and Simmons, who took second place in the bombing matches; Captain H.D. Smith and Lieut. B. Walsh, who took fourth place, and 2nd Lieuts. Farman and Mills who took fifth place.



Gunnery And Bombing

Bob. E. Egan

THE MACHINE GUN AND BOMBING MATCHES OF 1932
By the Langley Field Correspondent

The 1932 matches held at Langley Field, Va., ninth of a series of annual events inaugurated in 1924, were completed here on September 14th, with highest scores yet attained in this annual Air Corps classic. Only three days were required to bring the events to a close. Excellent weather, as well as the facilities afforded by the use of the new high altitude bombing range and gunnery range at Plum Tree Island, made it possible to terminate the matches in this very short time. These ranges were acquired ten years ago, but were only recently developed and put to the use for which originally obtained.

Bombardment, Pursuit, Attack and Observation Squadrons from nearly all Air Corps stations within the United States were represented in the Matches by pilots or observers who had proven their superb marksmanship in the record practice conducted at their respective stations. Forty-two contestants were entered from Langley, Selfridge, March, Scott, Mitchel, Mather, Crissy and Brooks Fields and Fort Crockett. The results of the matches indicate, in a final analysis, marked improvement over the scores of previous years, except in the Bombers' match the contrast was not as great. The comparison tends to reflect the improvement in the tactical training and efficiency of the units represented. The matches this year, as in recent years, were classified as Match I, Pursuit Pilots; Match II, Attack and Observation Pilots; Match III, Observers, and Match IV, Bombers. In the first stage of competition, excellent scores were reported by two of the three Langley Field teams entered. These two teams comprised Captain Eugene L. Eubank, pilot, and 1st Lieut. Charles W. O'Connor, bomber, and 2nd Lieut. Wm. B. Offutt, pilot, and 2nd Lieut. Joseph J. Ladd, bomber. The former team finished the event of the day with a score of 980 out of a possible 1,000 points. The latter team trailed one point behind with a score of 979.

The March Field team, consisting of Lieuts. Shelly and Simmons, finished a close third in this event of bombing from 8,000 feet altitude. In the final analysis of the bombing match, the positions were somewhat reversed as a result of the bombing from 5,000 feet. In changing positions, Lieuts. Offutt and Ladd became winners of the match with a score of 1932. The March Field team from the Pacific Coast, as runners-up, finished with a score of 1920, while the Eubank-O'Connor team finished third with 1872 points. This last team, however, set a record for other bombers to shoot at, in one phase making a perfect score on a string of five bombs dropped from 5,000 feet - known in match parlance as Phase I of Event VI.

In Match III, Captain William B. Mayer, of Brooks Field, led a field of ten Observation pilots in the first day's firing with a score of 735 points, but finished in third place on the last day. Lieut. P.D. Jacques, of the 99th Observation Squadron, Mitchel Field, won this match with a score of 1024 points, second place going to Lieut. J.M. Thompson, of the 88th Observation Squadron, Brooks Field, with a score of 976 points.

Second Lieut. R.O. Cork, 5th Observation Squadron, Mitchel Field, set the pace in the low-altitude competition of Match II on the opening day by scoring 198 out of a possible 250 points. Lieut. Charles G. Goodrich, likewise from the 5th Observation Squadron, trailed second with a score of 197 points, but took the lead on the last day to capture the Observation and Attack Pilots' match, completing the course with a total score of 962 out of a possible 1750 points. Lieut. W.W. Messmore, of Brooks Field, one of the early leaders in this match, dropped to sixth place, meeting his waterloo in the finals.

Of the West Coast entrants from March Field, Lieut. W.C. Morse, 96th Pursuit Squadron, carried off the laurels in the Pursuit Pilots' matches over a field of nine entrants, with a score of 1014 points out of a possible 1750. Second place

went to 2nd Lieut. J.H. Bundy, of the 17th Pursuit Group, with a score of 970 points, while third place went to Lieut. M.J. Coutlee, 80th Service Squadron, Mather Field, who finished with 867 points. The Westerners carried away all honors in this Pursuit gunnery classic.

It is interesting to note the improvement made in scores this year over those of the 1931 matches. In comparing the results, an analysis will be made, starting with Match No. I. In the Pursuit Pilots' match, Lieut. W.C. Morse, with a score of 1014, captured this year's honors, his mark being well over that of Lieut. D.D. Graves, of Rockwell Field, who was the winner last year with a score of 849.5. Lieuts. Bundy and Coutlee, in finishing second and third with respective scores of 970 and 867, exceeded last year's winning mark of 849.5.

In Match II, Lieut. Goodrich, with his score of 962 in the Observation and Attack Pilots' match, exceeded last year's winning score by Lieut. Irving R. Selby, of Scott Field (671.8) by a considerable margin. Of the eleven entrants in this year's match, the first six finished with scores higher than did last year's winner. Lieut. Meisenholder, who placed seventh, was within two points of the score made by Lieut. Selby last year. Lieut. Goodrich's score showed an increase of 43% over last year's score.

In Match III, Lieut. Jacques headed a group of ten contestants for Observers honors, finishing with a total score of 1024 points, as compared with Lieut. John K. Poole's score of 657.7, made in the 1931 matches. This was an increase of 56% over the winner's score in the 1931 matches. The first seven entrants this year finished with scores well above that of last year's winner.

In Match IV, the Bombers gained only 38 points over the winner of last year Lieut. Burnside, as Bomber, won this event in 1931 with 1894 points. The percentage increase is only two, but as the possible score is 2,000 points, it can be readily seen that any more marked improvement would obviously necessitate increasing the competitive score requirements for this match.

Under the rules of the Matches, five winners in the various contests are eligible for the Distinguished Aerial Bomber and the Distinguished Aerial Gunner ratings. These ratings will be awarded to Lieut. Morse, winner of the Pursuit Pilots' Match; Lieut. Goodrich, winner of the Observation and Attack Pilots' Match; Lieut. Jacques, winner of the Observers' Match, and to Lieuts. Offutt and Ladd, winners of the Bombers' Match.

Mitchel Field may well be proud of having won two of the four matches, the remaining two having been divided between the West Coast entrants from March Field and the East Coast entrants from Langley Field.

Captain A.M. Guidera functioned as Executive Officer. He was assisted by a staff of some twenty odd officers of Langley Field, among whom were Captains W.H. Reid, Operations Officer; L.A. Lawson, Statistical Officer; P. Melville, Range Officer; J.A. Wheeler, Ordnance Officer; M. McCune, Engineering Officer, 1st Lieut. J.C. Hodgson, Adjutant, and their respective assistants.

As stated by the Langley Field Correspondent, the Annual Machine Gun and Bombing Matches were started at that field in the year 1924. As a matter of interest as well as reference, it may be well to record the winners of the various events constituting the Matches from year to year, as well as the scores. This information is tabulated below, viz:

<u>Machine Gun Firing:</u>	<u>1924</u>				<u>Combined Fixed and Flexible Guns</u>		<u>Total Aggregate</u>
	<u>Individual Fixed Gun Targets</u>		<u>Individual Flexible Gun Targets</u>		<u>Targets</u>		
	<u>Ground</u>	<u>Tow</u>	<u>Fixed</u>	<u>Tow</u>	<u>Ground</u>	<u>Tow</u>	
1st Lt. W.R. Carter*	361	284	339	883	204	1189	6094
1st Lt. H.C. Minter**	531	250	105	919	143		
<u>Bombing:</u>	<u>Score 5,000 ft.</u>		<u>Score 8,000 ft.</u>		<u>Total</u>		
2nd Lt. Harry J. Brady, Bomber	765		745		1510		
2nd Lt. John A. Collins, Pilot							

<u>Pursuit Pilots' Match:</u>	<u>1925</u>		<u>Individual Fixed Gun</u>	<u>Total</u>
	<u>Individual Fixed Gun</u>			
	<u>Ground</u>	<u>Target</u>		
2nd Lt. R.W. Douglass	560		177	737
* Pilot, ** Bomber.				

1925 (Continued)

Low Altitude Bombing:

1st Lieut. H. G. Crocker - Score 115.

	<u>Individual Fixed Gun Targets</u>		<u>Combined Fixed and Flexible Guns Targets</u>		<u>Total Score</u>
	Ground	Tow	Ground	Tow	
	1st Lieut. W. R. Carter	441	221	426	

	<u>Individual Flexible Guns Targets</u>		<u>Combined Fixed and Flexible Guns Targets</u>		<u>Total Score</u>
	Ground	Tow	Ground	Tow	
	1st Lt. J. T. Curry	108	460	426	

PURSUIT PILOTS' MATCH

<u>Year</u>	<u>Winner</u>	<u>Possible Score</u>	<u>Actual Score</u>
1926	2nd Lieut. L. M. Merrick	1525	730
1927	Captain H. M. Elmendorf	1525	902.1
1928	2nd Lieut. J. J. Williams	1525	765.4
1929	1st Lieut. Charles G. Percy	1600	775.7
1930	2nd Lieut. A.T. Johnson	1750	807.8
1931	2nd Lieut. D.D. Graves	1550	849.5
1932	2nd Lieut. Winslow C. Morse	1750	1014.

OBSERVATION AND ATTACK PILOTS' MATCH

1926	2nd Lieut. E.E. Partridge	1525	646.
1927	2nd Lieut. E.E. Partridge	1525	656.6
1928	2nd Lieut. E.E. Partridge	1525	627.8
1929	2nd Lieut. E.A. Sanborn	1600	902.5
1930	2nd Lieut. J.W. Sessums	1750	803.9
1931	2nd Lieut. Irving R. Selby	1350	671.8
1932	2nd Lieut. Charles G. Goodrich	1750	962.

OBSERVERS' MATCH

1926	2nd Lieut. H.C. King	1164	197.
1927	1st Lieut. James E. Parker	1164	253.
1928	1st Lieut. O. J. Bushey	1067	175.5
1929	2nd Lieut. J.N. Jones	1940	594.
1930	1st Lieut. C.W. Lawrence	1940	678.
1931	2nd Lieut. J.K. Poole	1940	657.5
1932	2nd Lieut. P.D. Jacques (Res.)	1940	1024.

BOMBERS' MATCH

1926	1st Lieut. E.E. Harmon (Pilot)	1600	1472.
	1st Lieut. Harold L. George (Bomber)		
1927	1st Lieut. W. T. Larson (Pilot)	1600	1519.
	2nd Lieut. H.C. King (Bomber)		
1928	1st Lieut. J.F. Whitely (Pilot)	1600	1537.
	1st Lieut. Wm. M. Lanagan (Bomber)		
1929	2nd Lieut. M.M. Burnside (Pilot)	2000	1867.
	2nd Lieut. A.H. Johnson (Bomber)		
1930	2nd Lieut. Clifford P. Burton (Pilot)	2000	1756.
	2nd Lieut. A.B. Duke (Bomber)		
1931	1st Lieut. Robert T. Cronau (Pilot)	2000	1894.
	2nd Lieut. Merrill D. Burnside (Bomber)		
1932	2nd Lieut. Wm. B. Offutt (Pilot)	2000	1932.
	2nd Lieut. Joseph J. Ladd (Bomber)		

BOMBERS' MATCH (Lighter-than-Air)

1926	1st Lieut. A.I. Puryear	800	776.
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With the recent promotion of 1st Lieuts. Harold A. Moore (Instructor, Observation Section), Odas Moon (Instructor in Bombardment), and John A. Laird (Post Exchange Officer), the number of Captains on duty at the Advanced Flying School, Kelly Field, Texas, was increased to 18.

LANDSCAPING AT WHEELER FIELD

SEVERAL issues ago, says the Wheeler Field Correspondent, we made note of the landscape of the new quarters at Wheeler Field. We give you here- with a full report:

Where some 70 new concrete houses stood bleakly early this spring amid the bare red dirt plains of Wheeler Field, young trees and more than 5,000 shrubs on well-kept green lawns now surround these same houses. The result is largely due to the efforts of Captain Donald G. Stitt, Air Corps, who is in charge of the work and who previously had charge of the landscape gardening of the Air Corps quarters at Fort Sill and at March Field.

Knowing Captain Stitt's experience, Major Ernest Clark, commanding the 18th Pursuit Group, assigned him in charge of landscaping at the very beginning of the Air Corps occupancy of their new areas at Wheeler Field, which include not only 72 sets of officers' quarters and 44 sets of noncommissioned officers' quarters, but also the new hangar and shop area. The grass lawns were planted by the contractors prior to the acceptance of the buildings by the government. Trees, shrubs and flowers, however, were totally lacking when the buildings were turned over. To remedy this, Captain Stitt procured from the Territorial Department of Agriculture and the Hawaiian Sugar Planters' Association some 2500 shrubs and young trees. These were set out, together with an equal number raised in the Wheeler Field nursery. Five thousand are now on hand in the nursery, for use in planting new areas and in repaying the Territory and the Hawaiian Sugar Planters' Association for shrubs obtained from them.

About 35 various shrubs have been put around each set of officers' quarters. A general scheme of planting was followed, to insure a harmonious effect, yet sufficient variation was made to give each set of quarters an individuality of its own. Among flowering trees, the peltosperum, with its yellow spikes of flowers; the cassias of different variety and color; the blue flowering jacaranda; the purple blooming bauhinia; the tulip and the poinciana were used freely. In addition, three or four fruit trees were planted for each set of quarters, including alligator pears, mangos and figs.

Macadamia nut trees are also being raised in the nursery. Captain Stitt transplants his young trees from small cans to those of gallon size, in which they can be raised until older than the seedlings usually put in the ground in their permanent location. The larger seedling trees, when set out, are less liable to injury than the smaller ones taken directly from the little cans.

The planting work on the officers' and noncommissioned officers' residential areas consumed three months. Work on planting around the hangars and barracks will not be undertaken until the buildings are ready for occupancy, largely because of the difficulty in watering and culture of the plants. However, with the necessary plants ready at hand, the actual planting will be quicker than in the case of the areas already completed, where shrubs and trees had to be raised or procured from outside sources.

Some difficulty was experienced at first because house occupants desired to obtain immediate effect and set out in a hit-or-miss fashion plants they had obtained individually. This has been corrected, however, and as the systematic landscaping progressed the effect resulted in great satisfaction to Wheeler Field residents.

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FIELD EXERCISES AT SELFRIDGE FIELD

(CASTLE)

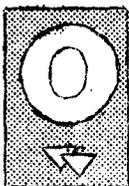
With a view of determining the feasibility of Pursuit Organizations moving into the field and operating for a short period of time without the assistance of motor trucks or other ground transportation, a series of problems are being conducted in this command.

On Sept. 23rd, the 17th Pursuit Squadron, with 20 pilots, flew to Harbor Beach, Mich., 85 miles north of the field on Lake Huron. Forty-one men and all the necessary supplies for pitching camp were carried by four transports to Harbor Beach. Pyramidal tents were used exclusively, and it was determined that eight men could occupy these tents without undue crowding. It was necessary for the transports to make several trips, but it was well established that eight or ten transports could carry all necessary supplies and mechanics for a Pursuit Squadron. Three meals were prepared in the field.

On September 24th, the Squadron flew across Saginaw Bay to Oscoda, where they engaged in combat firing, returning thereafter to their base at Harbor Beach. It is believed that 40 men would be sufficient for a few days' operation, but for a period of two weeks or more it would be necessary to double that figure.

It is planned to send each squadron to various points to establish camp with a view to having a Group camp at a later date.

GRADUATION OF STUDENTS FROM ADVANCED FLYING SCHOOL



OCTOBER 14th was tentatively set for graduating the present class at the Air Corps Advanced Flying School, which is the fourteenth class that has been trained under Plan "B," viz: eight months at the Primary Flying School and four months at the Advanced Flying School. Of the 107 students who are scheduled to receive their diplomas as full fledged aviators, the rating of "Airplane Pilot" and the much coveted wing insignia, 45 are commissioned officers of other branches of the Regular military establishment, who will be eventually transferred to the Air Corps; one is an officer of the Guatemalan Army, 56 are civilians training under the status of Flying Cadet, and 5 are enlisted men of the Air Corps who, while undergoing training, retained their status as noncommissioned officers. It may be stated, incidentally, that hereafter, under the new Air Corps policy, all enlisted students will undergo their flying training under the status of Flying Cadet, the same as civilian students. The civilian and enlisted students in this class will be commissioned 2nd Lieutenants, Air Reserve. Only the civilian graduates will be placed on extended active duty with Air Corps organizations. None of the enlisted graduates accepted active duty under their Reserve commissions, for this would have made it necessary for them to relinquish their noncommissioned status in the Air Corps.

This class was the first one to begin training at the new Air Corps Training Center at Randolph Field, and it reaped the benefits of the superior facilities afforded at this ideal flying school. All of the student officers are graduates of the United States Military Academy, West Point, N.Y., Class of 1931, except 2nd Lieut. Charles T. Arnett, who graduated in 1929. With the graduation of Flying Cadet Carl Homer Eaker, the Air Corps will be represented by two officers of that name, this young man being the brother of Captain Ira C. Eaker, veteran Army pilot. One of California's native sons, Cadet Dolph E. Muehleisen, University of California graduate, has made a name for himself in the tennis world.

According to the Kelly Field Correspondent, the class finished its ground school instruction on September 26th; after which the maintenance cross-country flights were scheduled, tentatively, pending approval of itinerary. Bombardment students were to make two flights, the first scheduled for Sept. 28th, and the second for October 5th, with the following itinerary: Kelly Field to Dallas, to El Paso via Midland, and return to Kelly Field via Marfa, Texas. The scheduled itinerary for the Observation Section, also divided in two sections, was: Sept. 28th, 1st flight; October 5th, 2nd flight - Kelly Field to Fort Sill, Okla., via San Angelo; to El Paso, via Lubbock, and return to Kelly Field, via Marfa and Dryden, Texas. The Attack students were to compose one flight, departing on Sept. 30th from Kelly Field to Dallas; to El Paso via Fort Worth, Sweetwater, Carlsbad; and return to Kelly Field. The Pursuit Section, also to be divided into two flights, the first departing Sept. 30th and the second October 7th, were to proceed from Kelly Field to Fort Sill, via Dallas and Muskogee; then to El Paso, the first flight via Lubbock and Midland and the second flight via Amarillo and Roswell, both returning to Kelly Field via Marfa, Dryden and Fort Clark.

The student officers, scheduled to graduate October 14th, are listed below:

Second Lieutenants

Arnett, Charles T.	Eaton, Robert E.L.	Miller, Paul G.
Arnold, Milton W.	Feagin, John A.	Mooney, Henry K.
Beebe, Royden E., Jr.	Fulton, Robert F.	Moore, Ernest
Bell, William J.	Gordon, John C.	Motherwell, David N.
Blake, Gordon A.	Griffith, Russell H.	Muenther, Hilbert F.
Bowman, Wendell W.	Guenther, Louis A.	Skeldon, John R.
Callahan, Daniel F.	Hartman, George F.	Smart, Jacob E.
Carlmark, Carl W.	Helms, John T.	Strother, Dean C.
Carlson, Gunnard W.	Hockenberry, Earle W.	Stunkard, Robert A.
Carroll, Joseph F.	Hutchison, David W.	Timberlake, Edward J.
Damberg, Carl F.	Kerwin, Arthur R., Jr.	Williams, Gerald E.
Densford, Charles F.	Kunish, Lester L.	Williams, Hoyt D.
Dougher, Charles B.	Lee, Robert M.	Wise, Richard H.
Duffy, Marcellus	Lester, Raymond T.	Yates, Donald N.
	McVea, A.L.	Young, Millard C.

War Department orders recently issued assigned the above named officers to various Air Corps stations, as follows: To Brooks Field, Texas - 2nd Lt. John A. Feagin; To March Field, Calif. - 2nd Lts. Wendell W. Bowman and John T. Helms; To

Barksdale Field, Shreveport, La.: 2nd Lts. Blake, Carlson, Kerwin, Kunish, Lee, Mooney, Moore, Motherwell, Strother and Arnold; To Hawaiian Department - 2nd Lts Beebe, Carlmark, Carroll, Densford, Dougher, Eaton, Gordon, Griffith, Guenther, Muentner, Skeldon, Stunkard, Timberlake, Williams (Gerald E.), Wise and Yates; To Panama Canal Department - 2nd Lts. Damberg, Fulton, Miller, Arnett, Bell, Smart, Callahan, Duffy, Hartman, Hockenberry, Hutchison, Lester, McVea, Hoyt D. Williams, Young.

The Flying Cadets who, upon graduation, will be assigned to extended active duty under their reserve commissions, are:

Amorous, William W.	Ford, Vincent	Muehleisen, Dolph E.
Bird, A.J., Jr.	Furlow, James W.	O'Hara, Byron G.
Bogen, William L.	Gavin, Edward M.	Oppenheim, Russell I.
Caldara, Joseph D.	Gebelin, John, Jr.	Pettigrew, Bruce C.
Claassen, Clayton B.	Gephart, Laurel J.	Plummer, Everett C.
Collier, Claire B.	Glasgow, Marvin C.	Renshaw, Harry N.
Combest, William L.	Halvorson, Lars	Rogers, Craven C.
Cooper, Marcus F.	Harmon, Harold D.	Rutherford, Stuart E.
Corley, Quinn M.	Harris, Lester S.	Shedd, Morris H.
Cowing, Charles A.	Henderson, Richard W.	Sindo, William J.
Crutcher, Harry, Jr.	Hutchinson, Donald R.	Skaer, Arthur H., Jr.
Darnell, Cecil	Johnson, Earl D.	Stophlet, Richard B.
Dittrich, Charles M.	Joyce, Edwin A.	Stouff, Charles W.
Doole, George A., Jr.	Kelley, Joseph J.	Sweetser, Luther W., Jr.
Ducrest, James R.	Kleinoeder, Leonard F.	Tibbs, Orville
Eaker, Carl Homer	Lesesne, Charles H., Jr.	Vavrina, Richard F.
Eisenmann, Samuel B.	Manchester, Horace H., Jr.	Wackwitz, Donald N.
Fator, Jephtha W.	Miller, Clark L.	Wood, Clyde H., Jr.
Flower, Scott, Jr.	Meyers, Frank N.	

The enlisted graduates who will resume their duties with Air Corps organizations under their noncommissioned grades, but with a flying rating to their credit and a commission as 2nd Lieut. in the Air Reserve, are:

Staff Sgt. Charles C. Cunning	Staff Sgt. Arthur Hanson	Mr. Sgt. Julius A. Kolt
Staff Sgt. Ancel L. Lovvorn	Tech. Sgt. Raymond A. Stockwell.	

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MORE CAPTAINS FOR THE AIR CORPS

It is assumed that, for some time to come, at least 17 Air Corps officers will no longer participate in the popular indoor sport of closely scanning the promotion list and indulging in dubious speculations as to when the time will come when they can add another silver bar to their insignia of rank or rub the gold off the solitary bar they will still continue to wear. War Department orders recently issued announced the promotion of 17 Air Corps officers - 12 to the rank of Captain and 5 to that of 1st Lieutenant, all with rank as of October 1, 1952. Those promoted to Captain are: 1st Lieuts. Harold F. Rouse, Thomas L. Gilbert, James D. Givens, William C. Farnum, Charles M. Cummings, William Turnbull, Joseph W. Benson, Frederick D. Lynch, James A. Woodruff, Lester J. Maitland, William W. Welsh and Arthur I. Ennis. The second lieutenants promoted are Herbert C. Lichtenberger, Arthur J. Lehman, Oscar F. Carlson, George E. Henry and Richard D. Reeve.

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Albrook Field was the scene of the first parachute activity in Panama for many years. Five parachute men from the Parachute Department, France Field, packed their 'chutes on the Atlantic coast and traveled by air to the Pacific shore to perform the jumps. "It is believed," says the News Letter Correspondent, "that this is the first time parachute jumps were accomplished at the end of a transcontinental flight." To Corporal H.G. Stollard, 63d Service Squadron, goes the honor of being the first man to make a parachute landing on Albrook Field. He was followed by Privates John C. Sherer, Henry H. Bibb, Harold McCaw, George W. McLain, Jr., The airplane, a Ford C-9, was piloted by 2nd Lieut. F.H. Smith, Jr. Parachute Officer, France Field. Master Sgt. Wilson was charged with the spotting.

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A new class of students from the Primary Flying School, Randolph Field, consisting of 3 officers, 87 flying cadets and 5 enlisted men, reported to Kelly Field for advanced training on October 10th.

AIRMEN LOCATE PARTY LOST IN HAWAIIAN MOUNTAINS



GOLDEN opportunity for hedge-hoppers presented itself early in August when a hurry call for assistance in locating a lost Infantry party came in at Wheeler Field, T.H. As part of their training program, several officers and men were crossing the formidable Koolau Range.

After they had been overdue many hours, the help of the Air Corps was requested. By the time the original lost party had been located, two more, which had been sent out to rescue it, were reported lost. The search by air went on sporadically for several days, the airmen being rendered almost helpless at times by the clouds and mist which hovered continuously over the Koolau Range. That the Air Corps did materially aid in the rescue work and that their efforts were appreciated was evidenced by the letter of commendation written by the Infantry and forwarded to the officers who flew on these missions.

Major J.P. Vachon, 19th Infantry, Schofield Barracks, T.H., addressed the following letter to the Commanding Officer, Wheeler Field:

"The party of the 19th Infantry which crossed the Koolau Range via undefined trails from July 29th to August 1st, 1932, wishes to express their appreciation of the efforts of the Air Corps to locate them when they were unduly delayed.

The exploits of the Squadrons during the Army and Navy maneuvers aroused our enthusiasm for the air service, but the personal risks taken by individual aviators in flying through the clouds, over the mountains, and in gulches without visibility, stimulated our party to greater efforts in moving with observation to and from gulches, and thereby placed it in a favorable position when the sun appeared on the morning of August 1st. On this date, the airplanes were directly over the members of the party still in a pocket and were first to report their location.

It is requested that this be communicated to the individuals concerned."

Those who participated in the search by air were Lieuts. Sloan, Craw, Fink, Rodieck and Stribling, pilots; Lieuts. Woodbury and Napier, observers.

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96TH SQUADRON BOMBER CHRISTENED AT PITTSBURGH

Captain J.P. Richter, Commanding Officer of the 96th Bombardment Squadron, Langley Field, Va., led a flight of nine Keystone Bombers to Pittsburgh, Pa., on Saturday, Sept. 17th, where the Squadron participated in the christening of one of their bombers, "The Pittsburgher."

The Squadron took off at 8:00 a.m., in javelin formation, which was later changed to a clover leaf which proved more comfortable for a long trip. After battling a strong head wind for four hours, the Squadron landed at the Allegheny County Airport. Bomber #167, the one to be christened, was placed right in the middle of the line and in front of the speaker's stand.

At 4:45 p.m., the ceremonies got under way. County Commissioner C.C. McGovern, in a short address, welcomed the Squadron to the airport. Captain Robert Olds, 2nd Bombardment Group Operations Officer, presented Bomber #167 to Thomas Dunn, President of the Pittsburgh Chamber of Commerce. Janice Bazley, two-year old daughter of Holsey R. Bazely, director of the Airport, christened the ship "The Pittsburgher," in a very charming manner, making a worthy sponsor.

With the christening ceremonies completed, the Squadron took off, flew over the city, and staged a mimic attack on the bridges leading into Pittsburgh. After theoretically demolishing the bridges, the Squadron flew back to the airport and indulged in tactical formations for a 30-minute period. A dance in honor of the Squadron at the Penn McKee Hotel proved a huge success.

At 1:45 p.m., Sunday, the 96th headed for home and, after circling the field for 15 minutes, headed for Langley Field, making the trip in the fine time of three hours and forty minutes.

The following officers made the flight: Captains Richter, Olds, Lundberg, Col. Cooper, M.C., Lieuts. Bisson, Cuno, Hillery, McDarment, Riley, DeLong, Young, Kilpatrick, Montgomery, Horvath, Ryan, Ladd, Patrick, Sprunger, Powers and Waddell. Nine enlisted mechanics accompanied the flight.

Just prior to the christening flight, Captain Richter received a letter which goes to show another of the many and varied uses in which Bombardment Aviation can be employed. This letter was copied verbatim, except that names of places

and persons were omitted for the protection of Mr. _____ who wrote the letter and which reads as follows:

"Pittsburgh, Pa.

To Colonel of Capt.,
96th Bomb. Sqdn.
Langley Field, Va.

Honorable Sir:- I see by today issue of a daily paper called the Post Gazette you are going to come this way for maneuvers. Now listen, in case you get this in time, I will give you a chance to do some actual bombing. If you want to blow some moonshiners out of a hollow and blow a ledge of rock out - go to _____ County, XC, and on _____ River look at maps and see 6 mi run (ledge of rocks at corner of hill) and up about half mile is _____ creek. (moonshiners) Above that is _____ Hill - also look for _____ Hill. These shiners are there for over four years. I was driven off land or be shot. Am part owner of land, so go to it.

P.S. No use to say see the regular authorities. Should be bombed after 5 P.M. 2 or more 500 gal. stills. Get busy.

Signed _____ "

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ANTI AIRCRAFT ARTILLERY IN CAMP AT SCOTT FIELD

Reversing the former practice of Air Corps organizations proceeding to military posts occupied by troops of other branches of the service for the purpose of conducting tactical problems, the 61st Coast Artillery (Anti-Aircraft) Regiment, comprising 15 officers, 242 enlisted men and 55 motor vehicles, under the command of Lieut.-Colonel J.A. Green, recently moved to Scott Field, Ill., where, until October 20th, in cooperation with the 15th Observation Squadron, it will engage in searchlight drills and other maneuvers. The practice drills at Scott Field will not include firing, but there will be contests between the aircraft and artillery searchlights. A field of operations in the form of a triangle has been selected, the points of the triangle being Lebanon, Freeburg and Okawville. The planes will try to reach Lebanon from Freeburg and Okawville without being detected by the searchlights. The lights have a range of five miles, and each has a candle-power of eight hundred million.

The 61st Coast Artillery Regiment, which is stationed at Fort Sheridan, Ill., marched to Scott Field via Chanute Field, Ill., and Effingham, Ill., making overnight stops at these two points. While at Scott Field the Regiment is quartered in tents in the area east of the airship hangar. Arrangements for this unusual cooperative training session at an Air Corps station were made by Major-General Frank Parker, Commanding the 6th Corps Area; Colonel John A. Paegelow, Commanding Officer of Scott Field, and Lieut.-Colonel J.A. Green.

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CHANUTE FIELD PILOT BECOMES RED-EARED

According to the Chanute Field Correspondent, upon the occasion of a landing at Bolling Field, D.C., recently, Lieut. George W. Goddard, Director of Photography at the Air Corps Technical School, who has long been known as a hot pilot and a hotter photographer throughout the Air Corps and in other professional circles, attained such a temperature that he himself reached the ignition point and caught fire. Opinions vary as to whether he became too heated over a photographic consideration and reached the flash point or whether he was making a hotter landing than usual. At any rate, upon rolling across the field, Lieut. Goddard noticed a very great increase in the temperature and benevolently blamed it on the humidity. However, when the extreme heat began to center around his head, he decided something should be done about it, so he removed his helmet to cool off. Much to his astonishment, as well as to his deep personal chagrin, he found his right ear on fire!

Soon the Bolling Field Fire Department had functioned successfully and natural excitement had subsided, while Lieut. Goddard rubbingly surveyed the blistering ruins of his ear, it was found and decided, without the services of a Board of Officers, that when the pilot had gunned his engine, in coming in for the landing, a stream of sparks from the exhaust had slipped under his helmet, setting on fire the pad of cotton around his ear.

RADIO EXPERIMENTS IN HAWAII

Lieut.-Col. G.C. Brant, Commanding the 18th Composite Wing, recently accompanied a Naval air reconnaissance flight to French Frigate Shoals, passing over the Islands of Kauai, Niihau, Nihoa and Necker - approximately 500 miles - entirely over water. The flight departed from Pearl Harbor 7:00 a.m., and arrived at French Frigate Shoals at 1:30 p.m. the same day. The flight consisted of six Navy seaplanes, and the return flight was made three days later, departing from Frigate Shoals at 7:00 a.m., arriving at Pearl Harbor 2:30 p.m.

An interesting experiment was carried out in connection with this flight. The Communications Section of the Wing was anxious to know just how far away a possible enemy might be located by radio, so the Navy flight was carefully followed as they proceeded from Oahu. The Navy had a string of destroyers and sub-chasers along the line of flight, and their planes were constantly checking in to these by radio, so that it was an easy matter for the Air Corps operators to log their flight. It was found perfectly feasible to intercept messages from these planes at the furthestmost position of their flight, or some 500 miles from the coast of Oahu.

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2ND BOMBARDMENT GROUP AT THE NATIONAL AIR RACES

The 2nd Bombardment Group, Langley Field, Va., was represented in the recent National Air Races at Cleveland, Ohio, by a B-6A type ship from each tactical organization. Officers making the trip included Capt. Robert Olds, Group Operations Officer, who led the flight of four Keystone Bombers; Capt. J.P. Richter, Commanding 96th Bomb. Sqdn.; Capt. E.L. Eubanks, Commanding 49th Bomb. Sqdn.; Lt. W.G. Bowyer, Group Supply Officer; Lt. J.P. Ryan, Squadron Armament Officer; Lt. L.S. Kuter, 49th Sqdn. Operations Officer; Capt. R.T. Cronau, Commanding the 20th Bomb. Sqdn., and Lt. R.J. O'Keefe, Asst. Sqdn. Engineering Officer, 20th Bomb. Sqdn.

Full advantage was taken of the opportunities to secure joint training with the 17th Pursuit Sqdn. of Selfridge Field, under Capt. R.G. Hoyt, and each day a series of problems involving search, attack and defense were arranged and flown in the vicinity of Cleveland. In addition, the three Squadron Bombers executed a series of formation maneuvers each night over the Municipal Airport and over Cleveland, with the words ARMY AIR CORPS outlined in electric lights under the three lower wings of the formation. Radio control of the night formation was injected into the problems after a remote transmitter had been rigged through the Municipal Airport station WWO to the race grandstand.

Comfortable accommodations and sufficient transportation were furnished by the Race Committee for all Army personnel attending in official capacities. The many and varied events on the daily programs were intensely interesting, but from our viewpoint it was highly gratifying to see Jimmie Haislip and Jimmie Doolittle, two former Air Corps pilots, carrying off first honors in the two major events of the 1932 National Air Races.

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FLYING CADET JOINS CATERPILLAR CLUB

On Sept. 20th, Flying Cadet Frank A. McDermott became a member of the Caterpillar Club when he fell from a plane near Airport City, while practicing slow rolls under the instruction of Lieut. Armstrong. While doing a slow roll, he suddenly found himself falling through space, made a wild grab for his rip cord, pulled it and found his downward flight checked. His 'chute carried him down safely, and Lieut. Armstrong, who had landed nearby, found Cadet McDermott uninjured and ready to resume work.

This is the third student to be initiated in the Caterpillar Club since the opening of Randolph Field.

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An extended avigation mission from Langley Field, Va., to San Antonio, Tex., was successfully completed recently with the return of Lieuts. Harvey, Huglin and McAnulty to their home station. These officers, members of the 49th Bomb. Sqdn., reported flying from Langley to San Antonio, via Pope and Cahdler Fields, in one day. The return trip was made via Fort Worth, Chanute Field and Dayton. While at San Antonio, the officers renewed old acquaintances at Brooks, Kelly and Randolph Fields. They piloted the B-6A type Bombing plane.

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In order to keep Army personnel trained in the latest flying methods developed, March Field has started a progressive system for the training of all pilots stationed at that field in instrument flying. A BT airplane has been equipped with the latest "blind flying" instruments available and has been assigned to the tactical units.

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Capt. R. Vega Fuentes, Mexican Air Attache in London for the past four years, recently visited Randolph Field, landing in a Fairchild plane while enroute to Laredo and Mexico City.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To March Field, Calif.: Major Clarence L. Tinker from Mather Field; 2nd Lt. Edwin S. Ferrin from Mather Field.

To Langley Field, Va.: 1st Lts. John H. McCormick, Leroy M. Wolfe and Dale D. Fisher from the Philippines; Capt. Malcolm S. Lawton from Bolling Field.

To Maxwell Field, Ala.: 2nd Lt. Robert E.L. Choate from Hawaii.

To Bolling Field, D.C.: Capt. George L. Lundberg, from Langley Field, Va.

To Randolph Field, Texas: 2nd Lts. Frederick R. Dent, Jr. and Wm. E. Karnes from Hawaiian Dept.

To Mitchel Field, N.Y.: 2nd Lt. Howard Moore from Hawaii.

To Fort Crockett, Texas: 2nd Lt. Pearl H. Robey from Hawaii.

To Crissy Field, Calif.: 2nd Lt. Donald W. Armagost from Hawaii.

To Post Field, Fort Sill, Okla.: 2nd Lt. Don Z. Zimmerman from Hawaii.

To Philippines: Capt. Philipps Melville from Langley Field; 2nd Lt. Thomas W. Steed from Mitchel Field; 2nd Lt. Leslie O. Peterson from Fort Crockett; 2nd Lt. Austin A. Straubel from Rockwell Field.

To Hawaii: 1st Lt. Glenn O. Barcus from Randolph Field; 2nd Lts. Earle T. MacArthur, Jr., and Wm. M. Prince from Fort Crockett; 2nd Lts. John J. Morrow, from Mitchel Field; Russell Scott from Chanute Field; Stuart P. Wright, from Selfridge Field.

DETAILED TO THE AIR CORPS, and to Randolph Field, Tex., March 1, 1933, for flying training; 2nd Lts. Walter E. Kraus, Field Artillery; Charles F. Born, Cav.

RESIGNATION: 2nd Lieut. Kenneth Clinton Brown.

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CAPTAIN WOODWARD PASSES INTO THE GREAT BEYOND

The recent death of Captain Fred E. Woodward, Air Corps, as the result of pneumonia contracted while on a brief leave of absence from the Materiel Division at Wright Field, Ohio, was a severe shock to his host of friends within and without the service. Captain Woodward made friends wherever he went and was one of the best liked officers in the Air Corps. His passing is greatly mourned by everyone who knew him.

The deceased officer, who was approaching his fortieth birthday, was born at Rockford, Ill. He attended high school in that city for four years and was a student at the Agricultural School at Milwaukee, Wis., for two years. During the War, while a resident of Vero, Florida, he enlisted in the Aviation Section, Sig. Corps, August 30, 1917.

Following his graduation from the School of Military Aeronautics, Georgia Institute of Technology, Atlanta, Ga., in November, 1917, he was sent to duty overseas, receiving flying instruction at several French schools and at the Aviation Instruction Center at Issoudun. Upon the completion of his flying training, he was on duty with the 1st Headquarters Flight at Chaumont, France, for about three months, and at the First Air Depot at Colombey Les Belles for a similar period. Returning to the United States in June, 1919, he remained at Mitchel Field until December, 1919, when he was transferred to the Primary Flying School at Carlstrom Field, Arcadia, Fla. When this school was transferred to Brooks Field, Capt. Woodward went with it and remained at this field until January, 1925, when he was transferred to Mitchel Field, N.Y. Four years later he was assigned to duty in the Hawaiian Department, and just recently, when he completed this tour of foreign service, he was assigned to the Materiel Division as Chief of the Administrative Branch.

The profound sympathy of the Air Corps is extended to Mrs. Woodward and others near to him whom he left behind.

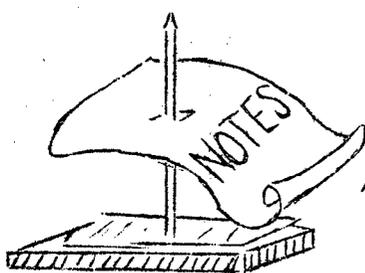
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* AVIATION INTELLIGENCE TEST

Five aviation executives and 5 employees went out to buy motors. The employees' names were Tom, Dick, Harry, Jack and Jim. Some of them bought second-hand motors and some had aviation motors built in accordance with their special ideas. They intended to use them for everything, from motorcycles to airplanes. Each individual purchased a motor, furnishing as many horsepower as he paid for the motor in dollars per horsepower. Each boss paid \$405 more than the employee for his motor. Glen spent most of all; Donald spent over four times as much as Rube; Rube \$288 less than Ted; Phil's motor furnished 63 more horsepower than Tom's; Dick's motor furnished 48 more horsepower than Harry's; Dick spent \$2912 more than Jack. PROBLEM -- Who did Jim work for?

Answer in next issue. Not responsible for brainstorms incurred in attempted solutions. Rules: Catch as Catch-Can, 133 pounds ringside and no more than 5 pencils used, 4 to chew on and one to write with. No such answers allowed as "Jim doesn't work," or "Jim got fired." Keep your solutions to yourselves. We know the answer and having doped it out are not interested in the mental agility of our fellowmen.

*Note: Normal Army officer should solve problem within 35 minutes.



from Air Corps Fields

2nd Bombardment Group, Langley Field, Va., Sept. 19th.

Four Air Reserve officers reverted to inactive status, having completed their active duty tour with the Group. We regret losing these fine young officers who have worked hard and diligently during their brief tour of duty, viz: 2nd Lieuts. C.C. Foxworth, R.C. Hughes, W.H. Harrison, R.V. Dunn, J.F. Biggerstaff, G.S. Bond, T.V. Crawford, F.P. Smith and A.P. Tucker. Especially will Lieut. Smith's loss be keenly felt. This former Univ. of Kentucky back played brilliantly on the gridiron for the Langley Field Birdmen last year, leading them to the most successful season ever known by the Post. We wish all these men much success in their venture back to civilian life.

20th Bombardment Squadron: Langley Field commissioned personnel officially welcomed Mrs. R.C. Hutchinson to the post by an impromptu parade of imitation bombers and pilots, followed by a reception at the Officers' Club recently. Mrs. Hutchinson, formerly Miss Sarah Barbara Brown, of Riverside, Calif., was married to Lieut. Hutchinson at the Mission Inn Chapel, Riverside, Calif., on August 20th. The romance between them began in 1930, when Lieut. Hutchinson was in training at the Primary Flying School, March Field, where he was sent following his graduation from West Point. The entire personnel of Langley combine in wishing the bride and groom good weather and many happy landings along the course of life.

The Squadron regrets the resignation of Lieut. H.W. Wells, Air Reserve, which went into effect Sept. 8th. Lieut. Wells was a member of the March class at Kelly Field, arriving here for duty on March 26th. Originally a Pursuit pilot of the 8th Pursuit Group, he was transferred to the 2nd Bombardment Group because of his extensive training and knowledge of radio work. We wish our brother officer the best of luck in his new venture.

Bolling Field, D.C., September 20th.

Bolling Field has had a number of changes in officer personnel during the last month. It is with much regret that we gave up our former Commanding Officer, Major Howard C. Davidson, who was here for 4½ years and who has gone to the Air Corps Tactical School. We extend to Major and Mrs. Davidson the very best wishes of all at Bolling Field.

We welcome our new Commanding Officer, Lieut.-Col. Barton K. Yount, who comes to us from Rockwell Field. Col. and Mrs. Yount are not strangers to Washington, having been here before. Their many friends are very glad to see them again.

We have also lost to the Tactical School our genial Operations Officer, Lieut. Louis M. Merrick, who functioned as such for the last four years. Operations are now under the direction of Capt. W.V. Andrews, and it is planned to maintain the same efficient, courteous organization as that of Lieut. Merrick.

Major Louis M. Field, M.C. departed for the Philippine Islands, and Capt. O.O. Niergarth, A.C., went to Harvard to pursue the course in Business Administration. We are fortunate in having as our new Assistant Flight Surgeon, Maj. Ernest F. Harrison, M.C., who comes to us from Kelly Field. Capt. Orlo Quinn reported for duty and took over from Lieut. Willis the cares and responsibilities of the Post Exchange and Officers' Club.

Work on the new Bolling Field is progressing, but it is hard to tell from the air whether the new or the old field is undergoing the greatest change. A large amount of dragging and scraping throughout the summer on the old field is about to produce results, and we hope soon to be able to take down the red flags and welcome our many visitors on a real landing field.

Among our visitors recently were General Pratt, Major Howard and Captain Hegenberger from the Materiel Division.

San Antonio Air Depot, Duncan Field, Texas, August 26th.

Our new construction is proceeding apace; the steel framework of the enormous Engineering Shops building is beginning to assume quite a substantial appearance. The two new large hangars, of steel frame construction, were completed and accepted from the Constructing Q.M., Capt. A.F. Dersheimer, in June; one of them has had to be occupied a little in advance of the contemplated time, due to the burning of the Dope House on July 26th.

Three additional Air Corps officers recently assigned to this Depot were 1st Lieut. Donald F. Stace, 2nd Lieuts. Charles K. Moore and Anthony Q. Mustoe. Lieut. Stace, who graduated from the Engineering School, Wright Field, was assigned as Assistant Depot Supply Officer. Both Lieuts. Moore and Mustoe are recent graduates of the Air Corps Technical School, Chamite Field. The former was assigned as Assistant Engineer Officer and the latter as Assistant Depot Supply Officer. We are happy to have these new members in our official family circle.

During the months of June and July a total of 78 airplanes were overhauled, 47 repaired, 108 engines overhauled and 68 repaired. The planes overhauled and repaired were the various service and training types in use by the Air Corps, and the engines were of the "R," "V," and "GV" series.

Mr. August W. Thiemann, Parachute Inspector at this Depot, was on temporary duty at Wright Field, August 1 to 20, attending a course of instruction at the Materiel Division in the care, operation and maintenance of parachutes, including the new triangle parachute.

Recent visitors at the Depot were Lieut.-Col. J.E. Fickel, of the Office of the Chief of the Air Corps, on cross-country flight, visiting Air Corps activities in the vicinity in reference to new construction matters, who conferred with the Commanding Officer and other officers on this subject; Major Junius W. Jones, Inspection Division, Office of the Chief of the Air Corps, on July 21st and 22nd, to confer with Capt. B.F. Giles, Technical Supervisor for this Control Area; Mr. E.J. Brew, of the Lycoming Mfg. Co., Williamsport, Pa., by private plane on Aug. 19th, in connection with matters pertaining to engines produced by his company.

Col. A.G. Fisher, our Commanding Officer, has been receiving congratulations on his promotion to the Colonelcy which came to him on August 6th.

Other visitors here during August to exchange greetings were Major Donald P. Muse, of Crissy Field; Captains Barney M. Giles, Rockwell Air Depot; Elmer E. Adler, enroute to the Command and General Staff School, Fort Leavenworth; Arthur W. Vanaman, of the Materiel Division, on an extended cross-country flight; and Harold L. Clark, of Barksdale Field, Shreveport, La.

An unusual number of Reserve officers availed themselves of 14 days' active duty training here this summer, viz: July 1-14, Major Myron A. Sine, of San Antonio, mechanical engineer; July 11-24, Capt. Ralph W. Stone, pilot with Pan-American Airways, Brownsville, Texas; July 18-31, Major Wm. F. LeBaron, San Antonio, General Agent in Texas for Guaranty Life Ins. Co., Davenport, Iowa (his fourth active duty tour); July 13-26, 1st Lt. Henry B. Fisher, son of Col. A.G. Fisher, our Commanding Officer, 2nd Lieuts. Arthur S. Graham, in real estate and investment business in San Antonio, and John F. Hardie, in construction business in San Antonio; July 24-Aug. 6, Majors Frank A. Vestal, Assistant Supervising Engineer with Government Helium Plant, Amarillo, Texas (second tour); Robert F. Garland, well known petroleum producer of Tulsa, Okla.; Capt. Zanna P. Lee, General Mgr. Tucson Construction Co., Tucson, Ariz.; 1st Lieuts. Albert M. Lehr, Jr., of the Lehr Shirt Co., Tulsa, Okla., and Otto E. Kirchner, Division Engineer, American Airways, Inc., (Southern Div., Love Field, Dallas, Tex.) These officers' sojourn with us appeared to be mutually enjoyable and profitable.

Mather Field, Mills, Calif., Sept. 21st.

77th Pursuit Squadron: "Lying like a Trojan" has become an anachronism. A contest held while this Squadron was on duty at the Rest Camp displayed prevaricative genius, the brilliance of which would have brought joy to the heart of any Baron Munchcrackers. Naturally, the finalists presented the most colorful tales. As each contestant recited his autobiography, bears assumed gigantic proportions and became unrecognizable in exaggeration; spectators listened in open-mouthed awe and marveled at this unequivocating declaration of human prowess; even Major Hoople must have hung his head in shame as he listened in green-eyed envy to a recitation of achievement which made the efforts of Paul Bunyan's Blue Ox seem lilliputian. Certainly Diogenes in his search for an honest man would have found Camp Gerle a barren land.

Then there followed a series of Kangaroo Courts which hailed a group of unsuspecting victims before an unmerciful but inquisitive mock tribunal, where injustice was meted out in a manner reminiscent of the French Revolution. Opposed by a garrulous prosecutor and defended by an equally garrulous but less zealous counsel, the accused found himself the center of an unintelligible verbiage that eventually made him doubt even his own innocence and the ridiculous nature of the charges against him.

While the many were enjoying the relaxation of Camp Gerle, the almost "forgotten" few of the Squadron were carrying on at Mather Field. The cheerfully willing work of a scant dozen men made possible the changing of a half dozen engines and the maintenance of a score of airplanes. Indicative as it is of the esprit of this organization, the high morale and ungrudging efforts of these men cannot be too highly lauded.

Lieut. Ed Perrin represented this Squadron in the Gunnery Matches at Langley Field. In spite of the paucity of practice, Lieut. Perrin conveyed to the rest of the Squadron the conviction that his name will be near the top of the scoring sheets.

80th Service Squadron: 2nd Lieut. Melie J. Coutlee left Sept. 3rd for Langley Field, Va. He made the high score among the 55th Pursuit Squadron pilots

and was sent to the Gunnery Matches to represent that Squadron.

Last month the Squadron received a new Trophy. Major C.L. Tinker, Post Commander, presented the squadron with a cup for winning the Post Baseball Championship.

Patterson Field, Fairfield, Ohio, Sept. 17th.

During August, 20 airplanes and 40 engines were given major overhaul, and 22 planes and 26 engines minor overhaul.

Lieuts. D.R. Goodrich and P.W. Timberlake attended the Air Races at Cleveland, departing Sept. 3rd and returning on the 5th.

Lieut. G.V. McPike, Depot Supply Officer, accompanied by Mr. Thomas C. Hughes, Auditor of Stock Record Section, visited the following National Guard activities by air for the purpose of conference with Air Corps Supply Officers of National Guard Observation Squadrons and Photo Sections regarding the issue of supplies by the F.A.D.: Sky Harbor, Murfreesboro, Tenn., Sept. 12th; Roberts Field, Birmingham, Ala., Sept. 13th; Little Rock, Ark., Sept. 14th; Lambert-St. Louis Airport, Robertson, Mo., Sept. 15th.

Officers ferrying planes here during the past two weeks for major overhaul were Lieuts. Carter with Morgan in O-1-B from Candler Field, Ga., Sept. 1; Capt. Connell in O-25A from Ft. Leavenworth, Kans., Sept. 1; Lt. Hart in PT-3 from Lunken Airport, Sept. 6th; and Capt. Herold in O-2-H from Lambert Field, Mo., Sept. 8th.

Major M.C. Grow departed Sept. 14th on a month's leave which he and Mrs. Grow are spending in Kenora, Ontario, Canada.

Cross-country flights made by officers at this station during the past two weeks were - To Lunken Airport, Ohio: Lieut. McPike, Sept. 1st; Capt. Bivins and Sgt. Blair, Sept. 2nd - To Muncie, Ind.: Sgt. Guile, Sept. 13th - to Bowman Field, Ky.: Capt. Bivins and Sgt. Blair on Sept. 3rd.

The following officers ferried airplanes from this station: Lieuts. D.R. Goodrich and P.W. Timberlake, an O-25A and a P-12 to Maxwell Field, Ala., Sept. 7th, returning in a PT-3A from Candler Field, Ga., Sept. 8th, for major overhaul; Capt. H.W. Flickinger an O-25A to Ft. Leavenworth, Kans., Sept. 6th, returning with Lt. G.V. McPike in O-25A, Sept. 7th, via Richards Field and Lambert Field, Mo.; Lts. R.L. Williamson and F.M. Zeigler, two P-12C's to Maxwell Field, Ala., Sept. 1st, returning in a PT-3A, Sept. 2nd, from Candler Field, Ga. -- Lieut. R.L. Williamson departed Sept. 8th, ferrying Air Corps supplies to Maxwell Field, Ala., Sky Harbor, Tenn., and Bowman Field, Ky., returning next day. -- Lt. North from Cleveland, Ohio, ferried an O-38 plane to this station on Sept. 13th, for minor repair. -- Lieut.-Col. A.L. Sneed ferried Air Corps supplies to Selfridge Field, Mich., on September 1st.

Fort Sill, Okla., Sept. 27th.

Capt. A. B. Ballard, leading a flight of six Y1P-16 airplanes, arrived at this station Sept. 16th from Scott Field, Ill., enroute to San Diego, Calif., from Selfridge Field, Mich. Lunch was served in Air Corps Headquarters, and after servicing the flight departed for El Paso, Texas. The flight to the West Coast was made for the purpose of completing a service test of V-1570F engines.

Lieuts. Wm. L. Ritchie and Douglas T. Mitchell, two veterans of Ft. Sill, Okla., departed Sept. 24th for Chanute Field, where the former will take the Communications Course and the latter the course in Maintenance Engineering. Needless to say, we will miss them very much during the coming year.

Capt. F.H. Pritchard returned Sept. 24th from leave on the West Coast.

On Sept. 21st, the "Aerial Express," piloted by Sgt. J.H. Price, arrived from San Antonio Air Depot with a load of supplies for this station.

Second Lieut. H.F. Gregory and 1st Lieut. Paul C. Wilkins flew an O-19C to Kelly Field, Sept. 19th, to attend the monthly Engineering-Supply Conference at Duncan Field. They returned the following day.

Second Lieut. H.F. Gregory, with Capt. Neal Creighton as passenger, was on an extended cross-country flight during the period Sept. 8th to 16th. They visited Biggs Field, Texas; Tucson, Ariz.; Rockwell, March, Crissy and Mather Fields, Calif., Salt Lake City, Utah, and Lowry Field, Colorado.

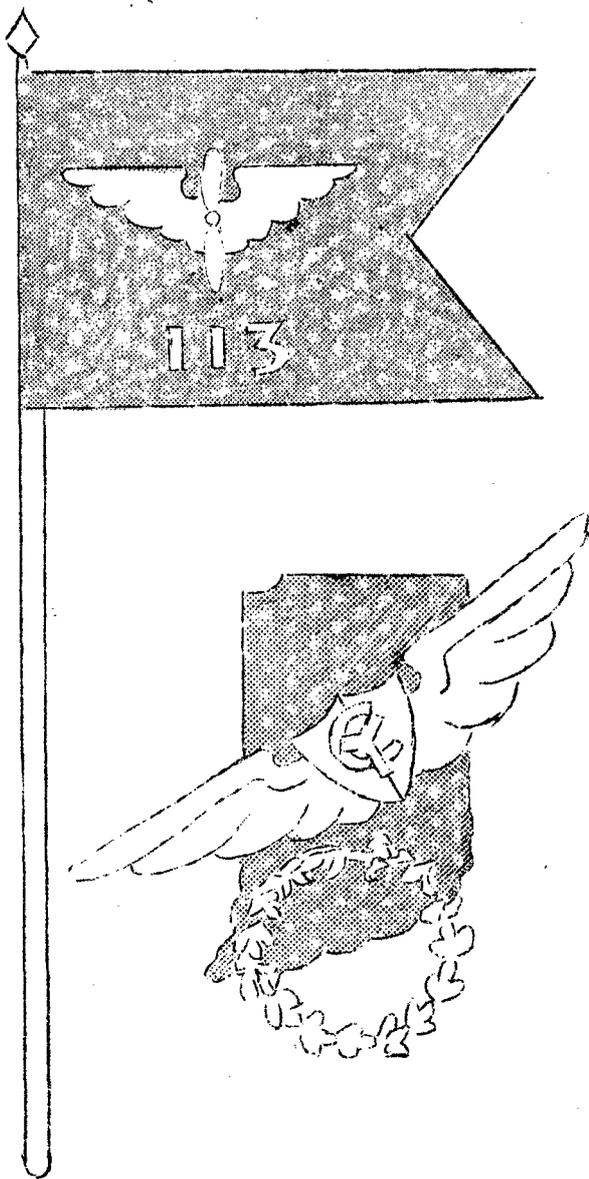
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NOTICE TO CORRESPONDENTS

It is regretted that, due to the necessity for curtailing the amount of paper used in the publication of the News Letter, it is no longer possible to publish in full all the material contributed by News Letter Correspondents. Our contributors are reminded of the good old proverb, viz: "Brevity is the soul of wit."

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The cover for this issue was reproduced from a design submitted by George W. Welsh, of the 77th Pursuit Squadron, Mather Field, Calif. The design was not rigidly followed because Mr. Welsh did not confine it to the 11" x 6 $\frac{3}{4}$ " dimensions of Mimeotype Stencil paper. The design was re-drawn by Mr. Frank Dunnington of the Information Division.



MAJOR RICHARD F. TAYLOR

Sir, we salute you in death as we have saluted you in life. We shall ever remember your whole hearted devotion of time and energy to the Squadron, as well as the dedication of your life to its function.

We shall miss you deeply as we carry on, but we shall hold our heads high and continue as you have taught us, giving your successor the same cooperation and respect which we gave to you.

We know that you left as you would wish to leave - in a plane - and on a mission for your Squadron and your State. It is our greatest wish that we may perform all our missions with the same devotion and sincerity with which you performed yours.

It seems that we still hear the hum of your motor in the sky, too high for us to see from here, but we can sense your nod and smile in a beckon for us to carry on to the greater heights of accomplishment which you had planned for us. And as we pledge ourselves to this, your last command, we hope to see you, though faintly, return our last salute as we say, "Very good, sir."

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Kelly Field, San Antonio, Texas, Sept. 13th.

Trap shooting was incorporated in the ground school for the class graduating Oct. 14th, six hours being scheduled. Capt. Thomas M. Jervey departed for a new station and Capt. Charles E. Hart, Ord. Dept., will instruct in all Armament subjects.

Lieut.-Col. Henry B. Clagett returned from a brief vacation. During his absence, Major H.H.C. Richards, Asst. Commandant, assumed duties of Commandant.

Major Wm. C. Ocker, one of the first in the field of Blind Flying inventions and research, was in the Base Hospital at Fort Sam Houston for the past two weeks suffering from a minor ailment.

Capt. Earl H. DeFord, Secretary (School) and Operations Officer, returned from 20 days furlough spent with family in Old Mexico.

Lt. Thomas L. Gilbert is Commanding Officer of the Headquarters Squadron during the absence of Major Wm. C. Ocker.

The 40th School Squadron took first place in the weekly "Line Inspection" by the Commandant, Lieut.-Col. Henry B. Clagett.

Lieut. E.T. Selzer returned from a navigation flight to Vancouver, Wash. He experienced good weather and an enjoyable trip. Lieut. Selzer is Engineering Officer of the 40th Squadron.

On Sept. 6th, Corp. Pink B. Judkins was promoted to Sergeant and Private Alden J. Bariteau to Corporal, 42nd Squadron.

Officers granted furloughs were Capt. Harold A. Moore, instructor in Observation, 30 days, Sept. 12th; 2nd Lt. Dudley D. Hale, Instructor in Bombardment, one month; 2nd Lt. Hansford W. Pennington, 15 days, September 9th.

Sgt. V.O. Burkett, 68th Service Sqdn., who volunteered for a tour of service in the Philippines, will sail from San Francisco about December 2nd. He will be replaced by Sgt. George M. Pogstad.

Staff Sgt. Robert A. Coulter, one of the first to volunteer for assignment to Randolph Field, is once more on duty in the Personnel Office. -- Sgt. Levi A. Freed, 42d Sqdn., will leave for duty in Hawaii on Oct. 29th. -- Pvt. John F. Tracy, 68th Service Sqdn., discharged and reenlisted Sept. 6th, will be assigned to Panama. -- Pvt. Charles T. Chapman, Jr., 39th School Sqdn., is attending the West Point Preparatory School at Fort Sam Houston.

Kelly Field, San Antonio, Texas, Sept. 26th.

Col. G.D. Arrowsmith, I.G.D., made an inspection of Kelly Field from Sept. 14th to 20th. Col. H.B. Clagett, Commanding Officer of Kelly Field, complimented all organizations and personnel on their excellent appearance and bearing during the inspection.

Second Lieut. Charles F. Densford, A.C. (F.A.) participated in the Army-Civilian Pistol Matches at Fort Bliss, Texas, Sept. 26th and 27th. He was a member of the West Point Pistol Team and won second place in individual pistol matches at Camp Perry, O., last year. He also holds the individual State championship for Texas for 1932.

Lieut. David D. Watson, pilot, with Major Frank M. Kennedy, ferried an O-25 to Kelly Field from Maxwell Field, Sept. 22nd. -- 2nd Lieut. Fred S. Stocks, who reported for duty, was assigned to the 42nd School Squadron. -- 1st Lieut. Chas. G. Pearcy left Sept. 24th for his new station at Chanute Field. -- Capt. Harold A. Moore is on 30 days' furlough. -- Capt. Calvin E. Giffin and 1st Lt. Fred'k D. Lynch ferried two O-25's from Maxwell to Kelly Sept. 24th. -- Staff Sgt. Haluptzck, 40th School Sqdn., is on 15 days' emergency furlough because of his mother's death. -- Staff Sgt. Simon and Pvts. George Nix and Harvey Ballinger, 40th School Squadron, reenlisted and are taking reenlistment furloughs. -- Sgt. Bubb, 40th School Sqdn., is taking 90 days' furlough. -- Staff Sgt. Rex DeLoach, transferred in grade from Randolph Field, is now a member of the Q.M. Detachment.

Patterson Field, Fairfield, O., Oct. 4th.

Capt. Mario Torres Nener, Lts. Rudolfo Herrera Rodriguez and Pablo Alonzo Echevarria, the three good-will flyers from Cuba, landed here Sept. 24th and departed for Washington, D.C., Sept. 28th.

The following officers ferried planes to this station during the past two weeks, for major overhaul: Lt. Wolf, Sept. 17th, an O-25; Capt. Skemp with Capt. Meyer, an O-25, Sept. 28th, from Chanute Field -- Lt. Clinch from Chicago, in an O-38, Sept. 17th -- Lt. Knoeller from Bowman Field, Ky., in a PT-3A, Sept. 28th -- Capt. King in an O-1-E from Columbus, O., Sept. 28th. For minor overhaul: Lt. Webster with Lt. Pichl, an O-25B, Sept. 21st from Chicago -- Lt. Carpenter, Sept. 21st, and Sgt. Long, Sept. 24th, both O-38's from Stout Field, Ind. -- Capt. Gardner, a BT-1 from Sky Harbor, Tenn., Sept. 24th.

With reference to the progress of new construction at this station, the entire project is 62% complete, the Oil Reclamation Building and Hangar "B" being each 60% complete; Administration Building 50% complete and Hangar "A" 75% complete. -- The following officers ferried airplanes from this station: Lt. Zeigler a BT-2B to Maxwell Field, Ala., Sept. 28th, returning next day; Lt. McPike with Lt. Timberlake a BT-2A to Kansas City, Mo., Sept. 28th, returning next day; Lt.-Col. Sneed an A-3 to Mitchel Field, N.Y., Sept. 25th, returning by rail Sept. 27; -- Officers ferrying planes to this station were: Capt. Gardner and Lt. McKnight an O-2-H from Sky Harbor, Tenn., for inspection, Sept. 28th; Lt. Alexander and two passengers a B-5A on Sept. 22nd from Chanute Field for engine change; Capt. Breene an O-38B from Spokane, Wash., Sept. 28th, for inspection; Lts. Loutzenheiser, Bundy and Morse, 3 P-12's from March Field for motor change, Sept. 16th. -- Lt. P.W. Timberlake flew cross-country to Columbus, O., in BT-2B, Sept. 21st. -- Lt.-Col. A.L. Sneed, accompanied by General Pratt, flew cross-country to Columbus, O., Sept. 23rd.

Chanute Field, Rantoul, Ill., Sept. 20th.

The Officers' classes for the school year 1932-33 commenced on October 1st, 40 officers being detailed to take the various courses.

Capt. Walter T. Meyer and 1st Lieut. F. Edgar Cheate are being congratulated upon the occasion of their recent promotions.

First Lieut. James L. Wheelchel, QMC, was recently appointed Mess Officer, Officers' Mess, and Secretary-Treasurer of the Chanute Field Officers' Club. Lt. Roger V. Williams, A.C., was appointed Assistant Secretary of the Club. Lt. Rob't L. Easton, who held the club secretaryship until recently, will soon depart from Chanute Field for his new station in Hawaii.

Recent cross-country flights performed by Chanute Field officers for various purposes under the provisions of the War Dept. Training Directive and administrative purposes were by Capts. S.C. Skemp, W.T. Meyer, F.S. Borum, E.G. Harper, M.N. Stewart, E.H. Wood, W.A. Hayward, S.M. Connell, Lts. F.E. Cheate, G.H. Sparhawk, R.L. Easton, L.D. Faton, H.W. Anderson, R. Scott, D.B. White, D.F. Meyer, M.I. Carter, W.K. Burgess, R.V. Williams, pilots; Major L.W. Ballantyne, Capts. W.T. Meyer, D.C. Ogle, A.W. Marriner, Walter Bender, Lts. W.C. Farnum, G.R. Bienfang, R.O. Walsh, R.O. Caswell, R.E. Holmes, J.L. Wheelchel, D.H. Baxter, passengers.

36th Div. Aviation, Texas N.G., Houston, Sept. 28th.

The 111th Obs. Sqdn. 111th Photo Section and 111th Medical Detachment, comprising the Division's aviation, are back at the home station after 15 days' field training at Camp Hulen, Palacios, Texas. A survey of the training work reveals a cheering improvement over former years. The Squadron functioned better in every detail, increasing the hours devoted to bombing, aerial gunnery, radio, and liaison with the Infantry and Artillery, and decreasing the hours devoted to individual training other than above and in administrative work.

Following is a comparative tabulation in hours of the training accomplished for the current year and the year preceding:

	1931		1932		
Bombing.....	19 hrs.	25 min.	39 hrs.	45 min.	*Included in cooperation for
Aerial gunnery..	75 "	40 "	131 "	40 "	1932 are radio missions with
Radio.....	7 "	45 "		*40 "	the Infantry and Artillery, and
Cooperation....	45 "	50 "	17 "		pick-up and message dropping
					and panel work. The 40 min-
					utes devoted to radio for 1932

were missions between radio planes and the Squadron's ground station for checking the radio sets.

	1931		1932	
Individual training other than above....	98 hrs.	30 min.	18 hrs.	05 mins.
Administrative.....	121 "	10 "	47 "	45 "
Exceptional.....			*18 "	40 "

*Flying the Squadron planes to San Antonio A.I.D. to escape Gulf hurricane of August 13th.

Gunnery Records	1931	1932
Pilots attending camp.....	15	17
Pilots firing.....	11	14
Qualified as Experts.....	4	9
Qualified as Sharpshooters....	0	4
Qualified as Marksmen.....	3	1
Total qualified.....	7	14
Total not qualified.....	4	0

Following the Squadron's return from field training, a matter of major importance has occupied Major T.W. Blackburn's attention, the replacement of the two steel and galvanized iron hangars rendered untenable by the storm, the galvanized sheet iron being stripped from the hangars and scattered over the country side. Too, the steel framework was rendered unsafe.

The business men of Houston were contacted in an effort to interest them in providing safe and adequate hangar space for the home Squadron. This contact resulted in a meeting with board of governors of the Houston Chamber of Commerce to whom the needs of the Squadron were presented. Assurance was received that the Chamber of Commerce would take action to provide the hangar space. The plans outlined provide for one steel and veneer brick hangar, 110 by 12 feet, with lean-tos on each side and open at both ends. The lean-tos are for machine shops, garage and offices.

The Chamber of Commerce has taken the matter of a loan for providing the hangar up with the Reconstruction Finance Corporation for decision of availability of funds for this self-liquidating project. The matter is now in the hands of the R.F.C. engineers for decision. As soon as decision is reached work will start immediately on the hangar. The liquidation of the loan would be met by funds from the State, county and city of Houston provided by law for armory purposes.

Bolling Field, D.C., October 4th.

A welcome was extended to Lt.-Col. and Mrs. Yount on Saturday evening, Sept. 24th, by the officers and ladies of Bolling Field.

The itinerary of Congressman John J. McSwain, Chairman of the Military Affairs Committee, and other members of the Committee, accompanied by Lt.-Col. J.E. Fickel, in a Ford Transport plane, flown by Lieut. H.A. Halverson, included Pope Field, Fort Bragg, N.C.; Candler Field, Atlanta; Fort McPherson; Lawton Field, Fort Benning; Maxwell Field, Montgomery; Barksdale Field, Shreveport; and Greenville, S.C. The plane departed from Bolling Field on September 26th.

Brooks Field, San Antonio, Texas, October 1st.

Col. G.D. Arrowsmith, Inspector General's Dept., Fort Sam Houston, Texas, conducted the annual inspection of Brooks Field September 6-10.

As a result of the War Department's ruling, reducing the allowance of planes for Brooks Field from 39 to 29, ten Observation planes will be sent to Maxwell Field, and Brooks Field will receive three of the new twin-motored, long-distance Observation planes from Dundalk, Md., near Baltimore. Major Frederick L. Martin, Commanding Officer of Randolph Field, will fly one of these planes from the factory to Brooks Field, and Lieuts. Wm. Kennedy and Wm. J. Sams, Jr., of Brooks Field, will fly two of them here after taking two of the ships transferred to Maxwell Field to that station. The new planes are being sent to Brooks Field for service flying by officers on duty and will be counted in the allowance at present.

School children of San Antonio are busily interspersing instruction in the "three R's" with brain "teasers" in the attempt to determine what the names of the two live gray geese, mascots of the 12th Observation Group, should be. For the child who submits the name that the authorities believe most applicable will receive a coveted honorary commission as a Lieutenant in the United States Army Air Corps. The geese are known as Canadian honkers, and were found on the beach near Port Lavaca. The design for the Group insignia was drawn up by Major Frank D. Lackland, Commanding Officer, and the gray goose was selected as particularly representative because of its swiftness in flight and ability to cover long distances, also because of its sagacity, keen observation powers and its fighting qualities, all of which are characteristics embodied in the representative true Army Air Corps observer.

As a result of a recent parachute jump by 2nd Lieut. Howard K. Stelling, Air Reserve, Brooks Field, a veritable epidemic of requests from other officers was instigated, only to be vetoed by the "powers that be." In an Observation plane, piloted by Lieut. W.W. Messmore, Lieut. Stelling took off with official permission to make a test jump and wore two parachutes required by regulations as a safety factor. He jumped at an altitude of about 2,500 feet, executed a perfect "one and a half" before opening the parachute at an altitude of about 1,800 feet, and landed in the middle of the airdrome. Lieut. Stelling's jump, however, does not admit him to the charmed circle of the Caterpillar Club.

San Antonio Air Depot, Duncan Field, Texas, Sept. 28th.

Col. A.G. Fisher, Commanding Officer, and 1st Lt. C.E. Thomas, recently made a cross-country tour to Hensley Field, Texas; Hatbox Field, Muskogee, Okla.; Lowry Field, Denver, Colo., and Biggs Field, Ft. Bliss, Texas, for conferences with the commanding officers of Regular Army and National Guard Air Corps activities there regarding Air Corps supplies and equipment and the new method of routing National Guard requisitions.

Capt. Edward V. Harbeck, Jr., was transferred to Barksdale Field, Shreveport, La., Sept. 26th, after a tour of duty here since Dec. 10, 1928. Capt. and Mrs. Harbeck enjoyed a short leave of absence before proceeding to their new station. Their departure is exceedingly regretted, and we extend to them every good wish for happiness in their new location. Capt. Ralph B. Walker succeeds Capt. Harbeck as Chief Engineer of the Depot.

Lieut. and Mrs. Donald F. Fritch are the recipients of hearty congratulations on the arrival of a little daughter on Sept. 19th. Mother and child are doing splendidly. Lieut. Fritch is wearing a broad smile and setting up the cigars and, as is usual with fond fathers, trying to take all the credit.

During the recent flood along the Rio Grande, this Depot made a plane available to Major L.B. Chambers, Comd'g Officer of Fort McIntosh, to enable him to make a personal survey of the river for the purpose of searching for rumored floating bodies. The plane was piloted by 1st Lt. David J. Ellinger. Major Chambers expressed great appreciation for the assistance rendered.

First Lieut. Morris A. Schellhart, Air Reserve, Bartlesville, Okla., was on active duty training here Aug. 28 to Sept. 10. He is Associate Natural Gas Engineer with the Petroleum Experiment Station, U.S. Bureau of Mines at Bartlesville, and this was his second tour of active duty here.

First Lieut. J.T. Allen, Specialist Reserve, of Dallas, Texas, was with us for his second tour of active duty training, Sept. 12 to 25. In civil life he is Assistant Southwestern Manager for Ernst & Ernst, C.P.A. He is also Vice Chairman of the Aviation Department of the Dallas Chamber of Commerce.

The Engineering Department overhauled 31 airplanes, 73 engines and repaired 24 airplanes and 48 engines during the month of August.

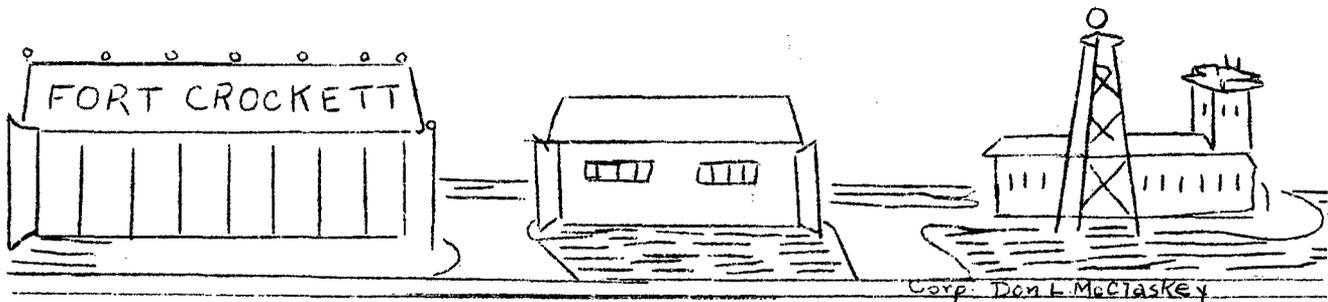
Selfridge Field, Mt. Clemens, Mich., Oct. 1st.

Since the completion of the flood lights on the field, considerable night flying has been accomplished, individual as well as by elements and flights. The beacon on the tower will operate nightly until 10:00 p.m., after which time it will be turned on when an airplane is expected or heard in the immediate vicinity of the field.

The personnel of the 57th Service Squadron will soon be responding "Aye Aye, Sir" to their Squadron Commander, Capt. Fred Nelson, who is in complete charge of the Selfridge Field Navy, which consists of one O-19 on Edo floats and one Loening "Duck" without engine. Recently, a second "Duck," the pride of the fleet, sank in Van Ettan Lake.

Major Ralph Royce, former Commanding Officer of the 1st Pursuit Group, Lts. Stanton Smith and Shanahan were on temporary duty at this station to engage in firing the gunnery course at Camp Skeel.

The golfers of Wright Field and Fairfield Air Depot organized a highly successful golfing party and tournament on Sept. 9th. The Selfridge Field team say it was highly successful, even though they were defeated at the hands of the Dayton players. A pleasant touch, especially appreciated by the Selfridge Field officers, was the donation to each Selfridge officer of a metal paperweight on which was a well executed design of the 1st Pursuit Group insignia.



Corp. Don L. McClaskey

Capt. Stephen J. Idzorek, A.C., who has been on duty with the Third Attack Group at Fort Crockett since its assignment to Galveston, was ordered to the Panama Canal Department, and is scheduled to sail from New York on Nov. 10th. Captain Idzorek is one of the most popular officers at Fort Crockett and news of his new assignment is received with regret in Galveston, where he has been active in civic and military affairs.

The 13th Attack Squadron, youngest of the 3rd Attack Group squadrons, but whose members are apparently the best athletes on the post, won the annual field day meet held at Fort Crockett on Sept. 13th as one of the features of Organization Day. The 13th amassed a total of 50 points, the 90th being second with 32, the 8th third with 5, and the 60th last with 4 points. Bentley, 90th Sqdn., and Guin, 13th, were the individual stars of the meet, both winning two first places to collect ten points each. In winning, the 13th Sqdn. copped six first places, 3 seconds and no third places. The events included the 50 and 100-yard dashes, sack race, high jump, running broad jump, shuttle relay race, tug-of-war, three-legged race and the shot put.

Materiel Division, Wright Field, Ohio, Sept. 15th.

The International Air Races made of Cleveland a mecca for Air Corps pilots with aviation training and flying time to get in. A total of 23 officers took advantage of the clear weather to fly to Cleveland.

Lieut. P.H. Kenmer said goodbye to associates at Wright Field when he left to matriculate for a course of instruction at Calif. Institute of Technology.

A formation of three planes recently took off for Buffalo, making a night formation return flight the same night. Planes were piloted by Lts. J.E. Parker, George Smith and Paul Wolfe. Lt. J.F. Early accompanied Lt. Parker as co-pilot.

Lt. C.S. Thorpe and Major J.L. Hatcher, observer, took off recently on a cross-country aviation training flight to Spokane, Wash., via Chicago; Bismarck, N.D.; Minneapolis, Great Falls, Mont. They were away about three weeks.

Lt. C.D. McAllister, who piloted Capt. Stevens on his altitude flight to photograph the Eclipse, had barely returned when he found orders awaiting him to fly to the West Coast. He is to visit Ft. Sill, El Paso, Los Angeles, San Francisco, Seattle, Great Falls, Minneapolis. - Casey Jones flew in from the Cleveland Air Races in his Curtiss Thrush, paid us a visit, and took off for New York -- The Hon. Patrick J. Hurley, Secretary of War, piloted by Lt. Cousland, landed here Sept. 9th, taking off shortly afterward for St. Louis -- Brig. Gen. H.C. Pratt, Lt.-Col. A.W. Robins, Major Hugh Knerr, Capt. A.W. Vanaman, F.D. Hackett, A.M. Drake and Lt. E.M. Powers flew to Washington to attend a meeting of the Procurement Planning Board held on Sept. 13th -- Capt. A.J. Lyon and R.V. Laughlin flew to Washington to attend a meeting of the Patents Board held Sept. 12th -- Capt. Wendell Brookley and Merrick G. Estabrook, of the O.C.A.C., spent several days at the field recently -- Lt. Floyer P. Hill ferried a new YA-10 to Wright Field from the plant of the Curtiss Co. at Buffalo -- Lt. K.B. Wolfe made an extended air journey recently, touching Mitchel Field, Hartford, Paterson, Baltimore and Washington -- Lt. L.F. Harmon ferried a YLB-9A to the plant of the Pratt and Whitney Co., Hartford, Conn. -- Major S.H. Anderson, Air Reserve, recently on two weeks' active duty in the Equipment Branch, spent some time at the Division about a year ago when he was making some experiments for the Guggenheim Foundation on the penetration qualities of different colored light rays through fog.

Langley Field, Va., October 3rd.

The 20th Bomb. Sqdn. is justly proud of two of its young officers, 2nd Lts. J.J. Ladd and W.B. Offutt, who were acclaimed winners of the annual machine gun and bombing matches (Bombing Match). The scores by which these young officers won indicates the conscientious efforts put forth by them in preparation for this contest, participated in by the picked bombing pilots of the Army. Lieut. Ladd hails from Cleveland, O., and is a West Point graduate. Lieut. Offutt is a product of Missouri. Lt. Ladd is Operations Officer of the 20th Sqdn., and Lt. Offutt, Engineering Officer.

A few days ago the husky members of the 20th Bomb. Sqdn. literally wrecked the Post Chapel. And not content with this accomplishment, they turned around and demolished the 96th Squadron Mess Hall. This wrecking business was not due to any particular desire on the part of the Squadron personnel to test its strength; it was ORDERS. With the erection of the new buildings, the old wooden structures, which have been landmarks since the war, are being dismantled. The Squadron was given this task while other units were assigned to other buildings designated for wrecking. The lumber from the old buildings is being salvaged un-

der the Government economy program. All sound pieces after removing nails are being shipped to Chapman Field, Fla., for such use as may be made of same.

19th Airship Company: The TC-11, on Sept. 14th, completed a coastal patrol flight of 15 hours' duration, flying from Langley Field to New York City, where it cruised over the city proper and adjoining suburbs for over an hour. The outward trip was made along the coast line, and the return trip, airline, in which the Langley Radio Beacon was used in conjunction with compass navigation. The ship left at 2:00 p.m., and returned at 5:00 a.m., the following morning. The crew was as follows: 1st Lt. Gillespie and Mr. Sgt. Short, Pilots; Coxswain, Tech. Sgt. Cheska; Radio Operator, Pvt. Slutter; Engineers, Staff Sgt. Quinn and Corp. Erhard. The ship carried 400 gallons of gasoline and landed with 143 gallons, enough for about seven more hours of flight. Approximately 700 miles were covered on this coastal patrol flight.

Hqrs. 18th Composite Wing, Fort Shafter, T.H., Sept. 9th.

Forced down in the water on account of motor failure, Lieuts. Robert E.L. Choate and John A. Tarro managed to free themselves from the plane and were almost immediately picked up by a crash boat. The plane sank but was later salvaged. Lieut.-Col. G.C. Brant, Wing Commander, in a letter to the Commandant of the 14th Naval District, Pearl Harbor, commended the conduct of Seamen Paul Samko and Cecil F. Lancaster who, fishing in the vicinity of Ford Island at the time, witnessed the accident, and without regard for personal safety but solely with the desire to render assistance to Lieuts. Choate and Tarro, dove into the waters of Pearl Harbor to effect or assist in the rescue.

On Sept. 8th, Lt.-Col. Brant, accompanied by Capt. Benj. B. Cassidy, Wing Adjutant, made an extended Inter-Island flight to the Islands of Kauai and Niihau to inspect and investigate the possibilities of developing auxiliary landing fields. Their first stop was at Port Allen, Kauai, where inspection of the radio installation was made. They then proceeded to Niihau, where a study was made of possible landing fields.

To familiarize personnel with outlying landing fields and facilities thereon, 30 planes departed from Luke Field Sept. 16th on an expedition which took in the Islands of Molokai, Maui, Lanai and Hawaii. The flight, entirely over water, was performed without accident.

Representing the 23rd Sqdn., Luke Field, in the new class entering the Primary Flying School, Randolph Field, are Pvts. Kenneth C. Fairchild and Marvin J. Griggs who, as a result of arduous work and study, were appointed Flying Cadets. Pvt. Fairchild, 27 years of age, is from Kansas City, Mo., and Pvt. Griggs, 21, from Salina, Kansas. These boys have many friends in Hawaii and expressed their intention of returning to the Islands they have learned to love to spend their tour of active duty in the event they are successful in completing the year's strenuous flying course.

New officers assigned to Luke Field were Lieuts. Harold W. Grant, Jack L. Randolph, Robert E. Jamon, Frank W. Cazier and Wm. E. Borgers. We bid aloha to Lieuts. Fred S. Stocks, Lawrence T. Pugh, Geo. W. Peterson and Edw. N. Coates, who left for the mainland, and 2nd Lt. Floyd E. Nelson, who left for Manila Sept. 29, where he will revert to inactive status.

During the past month, the 23rd and 72d Bomb. Sqdns. spent two weeks in the field at the Waimanalo Reservation on windward Oahu. Both squadrons carried out an intensive program of aerial gunnery and bombing. Cooperative missions with other branches of the service again occupied a large amount of flying time. Tracking missions for AA and searchlight units of the 64th Coast Art., Infantry liaison Observation, Photographic and Communications missions were among the types successfully performed. Training for the units remaining at Luke Field consisted of aerial gunnery at the range off Barbers Point, Aerial Photography, Communications, Field Exercises, Low Altitude Bombing and Formation Flying.

The 4th Obs. Squadron recently participated in cooperative field exercises with the 14th Naval District. Establishing an advanced operating base on the Island of Molokai, an observation chain was strung between Molokai and Oahu, with the intention of furnishing information as to the movement of a Navy formation operating from Hilo, on Island of Hawaii. They were spotted in a simulated attack on Oahu, and information from the 4th Squadron enabled planes of the 18th Pursuit Group to intercept the Navy flight and save Oahu from a dire fate.

Thirteen non-coms from the 50th Obs. Sqdn. braved the tempestuous waters of Molokai Channel recently, and many are the fish stories heard in the Day Room "bull sessions." As a matter of fact, they did catch five fish that averaged nine pounds each. They are all brutes for punishment, though, and are going out for more.

During August, the 11th Photo Sec. carried out regular routine of photographic training. A number of mosaics were laid out and a large number of prints made. All work was performed in record time.

During August, the 65th Service Sqdn. was kept busy acting as escort aviation for a number of inter-island flights. On several occasions, the Douglas Amphibian transported supplies and personnel to bases on Kauai, Molokai and Hawaii, flying these long over-water flights on perfect schedule. On all inter-island flights, contact with the home station is maintained by radio - position and progress reports being transmitted every ten minutes.

March Field, Riverside, Calif., Oct. 3rd.

November 1st, Organization Day of the First Bombardment Wing, will be a memorable occasion for the Wing personnel. In addition to appropriate ceremonies, eight athletic events are being planned. These events will include a majority of the officer and enlisted personnel of the organization. Points will be allotted for each event. The group winning the greater number of points will be awarded the Wing Organization Day Trophy. The eight events a baseball game between the 7th Bombardment and 17th Pursuit Groups; a Squash match between the officers of the two Groups, ten to a team; Tennis matches; Pistol Matches; Tug-of-War between squadron teams; Volley Ball between squadron teams; a novel "Triathlon" event, in which two officers of each Group hqrs. detachment and squadron will compete in pistol, trap-shooting and ground machine gunnery; and a 5-mile relay race, each squadron to enter a team of forty enlisted men and each man to run 220 yards.

Capt. Claude E. Duncan, Post Engineering Officer, and Capt. John M. Davies, Station Supply Officer, represented March Field at the Annual Engineering and Supply Conference at Wright Field. Both officers made the trip in P-12's.

March Field's new gymnasium is rapidly taking shape. The contract calls for completion of the work by January 25, 1933. A standard sized basketball court is planned. One main hall and a number of supplementary rooms and a gallery will be included. The Athletic Officer arranged for the services of a wrestling instructor in answer to the enthusiasm expressed by many local aspirants. A new supply of boxing gloves and equipment has spurred the ambitions of local pugilists. Although no active program has been announced, training has started in earnest.

The 31st Bomb. Sqdn., under the command of Lt. Ralph A. Snavely, performed an overnight training mission to Fresno, Calif., Sept. 16th and 17th.

Cupid is working overtime at March Field, three marriage announcements being received recently, viz: Miss Margaret Knuth, of Orange, Calif., to 2nd Lt. J.T. Workman, Aug. 21st; Miss Voncile Powell, of San Antonio, Texas, to 2nd Lt. C.V. George, Sept. 1st; Miss Jane Nash, of Hollywood, Calif., to 2nd Lt. R.W. Smith, Sept. 11th.

The March Field Swimming Team got their first taste of competition on Sept. 14th, when, despite lack of time for preparation, they took second place in the Riverside County Swimming Meet, held at Fairmont Park, Riverside. The wonderful work of the two Hodges Bros., Harold and Carl, who tied for high point honors, made the second place honor possible. Lieut. C.L. Sharp placed third in the diving event. March Field won the four-man relay, the team being composed of the Hodges Brothers, aided by Davison and Drew. Other members of the March Field team were Cox, Heffner and Pascal.

Sixty-five enlisted men under direction of Lieuts. A.F. Solter and Carl M. Christenson are working at top speed to complete March Field's Big Bear Rest Camp for winter occupation. The main building and several supplementary buildings are now nearing completion. A huge rock fireplace covers almost the entire end wall in each of the two main wings. One wing will be used as a mess and club rooms for officers and one for enlisted men. At present the officers and enlisted men on construction duty are living in the main tent area. Two supplementary tent areas - one for officers' families and one for enlisted men's families - are located within 100 yards of the main area. By air, the site is only 35 miles from March Field. Due to the rugged and mountainous country in which the camp is located, it requires approximately two hours of driving time over excellent mountain highways to reach the site. While orange trees bask in the warm California sunshine during the winter months, a short drive will take Army personnel to the mountainous, snow-covered regions in the Sierras. The altitude at the camp site is approximately 7,000 feet, while March Field is only 1,600 feet above sea level. A few of the contemplated recreational activities at the new site are: hunting, fishing, target shooting, boating, hiking, ice-skating, tobogganing and skiing. It is interesting to note that the camp is being constructed without appropriation. All materials used was salvaged from March Field, native materials being procured in the area on the camp site.

Randolph Field, Texas, October 3rd.

During September, 16 Randolph Field officers were ordered to Chamute Field, viz: 1st Lieuts. Bernard A. Bridget, Clarence D. Wheeler, Manning E. Tillery, Thurston H. Baxter, Elmer J. Rogers, John T. Sprague, 2nd Lieuts. George R. Acheson, Oscar F. Carlson, Wm. B. Blaufuss, Lloyd H. Watnee, Edward H. Alexander, James L. Daniel, Jr., Wm. H. Doolittle, Max H. Warren, Franklin C. Wolfe and George W. McGregor.

First Lieuts. Joseph C. Dennison and Albert F. Glenn received orders for foreign service and left the post on leave prior to sailing. First Lieuts. Clifford P. Bradley, Carl J. Crane, Howard M. Turner, and 2nd Lt. Ralph P. Swofford, Jr., also received orders for foreign service and will leave Randolph Field in the near future.

Sunday night, Sept. 18th, Frank Griner and N.G. Powell, of Randolph Field, were victims of an automobile accident when the machine skidded off the Seguin-San Marcos road, 4 miles from Seguin. Griner was killed and Powell was seriously injured.



Inaugurating their 1932 football season on Sept. 18th, the Gold and Blue gridders of the Langley Field Airmen rallied in the final quarter to score the only touchdown of the game to gain a 7 to 0 verdict over the game Campbell College Tarheels of Bries Creek, N.C. Under ideal summer weather conditions, the game was played before an estimated crowd of 3000 fans, who were rewarded with spectacular play on the part of Lieut. Davis, former Texas Aggie quarterback, who starred both on the offensive and defensive for the local Army eleven. The splendid punting duel between Howard of the Aviators and Dickson of the Yellow and Black aggregation, and the sensational aerial circus displayed to perfection by the visitors featured the game. Langley was bewildered by the overhead attack of the Tar Heels, who threatened twice, due to their successful completed passes, but they failed to penetrate the "Fay Station" of the Birdmen due to the powerful forward wall of the locals. The Flyers were outclassed in first downs, trailing the visitors nine to seven. Touchdowns are what count, and for that reason the Army Air Corps aggregation took the victory.

A 40-yard return by Lieut. Davis of a punt early in the third quarter placed the pigskin on the visitors 10-yard marker. Howard, Owens and Davis carried the ball nine yards on three line plays, but "Doggie" Kerr, diminutive quarterback of the Birdmen, fumbled, causing Langley to fall short of a touchdown. Playing inspired football in the final quarter, the Airmen rushed the visitors off their feet as they rolled up six first downs to none by the Scots of Campbell College. An intercepted forward pass which Davis returned to midfield, his 20-yard run on the next play, plunges and end runs by Howard, Davis, Kerr and Hunt scored the only touchdown. Howard's kick was good for the extra point.

Led by the terrific line thrusts of Hunt, off-tackle smashes by Flick, and a spectacular aerial attack with Kerr passing and Flick at the receiving end, Langley trounced the game Guilford College eleven of Guilford, N.C., 14 to 0, in the first night game played at Langley Field, Sept. 24th. The North Carolina aggregation had a light, fast and determined crew, but the weight advantage of the locals soon told the tale.

Guilford got off to an auspicious start as they rolled up two first downs after taking advantage of a bad punt. They were halted on the eight-yard marker and remained harmless for the remainder of the encounter. Guilford showed a wonderful goal-line defensive late in the second quarter when they halted the Birdmen's rush on their own one-yard line after the locals had staged a march down the gridiron from midfield. Langley made another threat in the third quarter and took the ball to the ten-yard line before being silenced.

In the final quarter the locals awoke to the fact that outplaying their opponents wasn't winning the game, so featuring an overhead attack, with Kerr passing and Flick receiving, and a line plunge by Hunt, Guilford's line was crossed for the first tally. Brown kicked goal. Taking the ball on their own 15-yard line, the Birdmen started another march down the field which was featured by forward passes, line and off-tackle smashes. Kerr circled eight yards on a reverse for the second touchdown, and Brown again kicked goal. Langley had marched down to Guilford's eight-yard line when the final whistle blew.

The Langley Field Birdmen continued their march to another banner year on the gridiron as they moved down the fighting Shenandoah College aggregation of Dayton, Va., Oct. 1st, score 43 to 6, for their third consecutive victory of the 1932 season. A capacity crowd saw Langley completely outclass and outgain their guests under the floodlights of the Langley Field stadium to score seven touchdowns to one by the visitors. The initial and third quarters turned out to be scoring riots for the Army gridders. Capt. Usher, Langley mentor, gave his second squad two quarters' action as he took out his first team to watch the Yannigans battle the Daytonians on even terms. Owens, Kerr, Reiter and Gobble shared the limelight for the locals, while Talbot and Wram performed well for Shenandoah College.

- Pvt. Jack R. Germaine.

With a tough schedule lined up for them, football enthusiasts at Selfridge Field are busy these autumn afternoons pushing each other around the greensward, kicking and throwing the pigskin, and organizing themselves into a smooth working offensive and defensive football machine. Head Coach, Lieut. Phares McFerren, admits he will have no easy job working up a combination able to cope with the tough assignments of the October and November week-ends. The line-up this year will have many new faces, largely due to the transfer of the 36th Sqdn. to Langley. Soderstrom and Harvey will be especially missed. Fortunately, Lieut. McFerren discovered some new material, especially several likely looking lads, recent arrivals from the Islands. They are Toth, Lalone and Shaw. The call of the pigskin was too strong for Sgt. Freedlund, and he had to get out there with the boys and do some of his well known bruising. Private Lalone is alternating daily with Saums as back, both trying to show each other up. Jarvis, Bates and Flannigan and Spindler are among the pass snatchers, and doing some very pretty snatching. Strong just returned from Oscoda and will shortly be heard calling signals. Mahler is, of course, at center.

Lieut. Bruce is at present helping Lieut. McFerren with the coaching. Soon Lieut. Bradley, who used to coach the plebes at West Point, will return from Oscoda and he too will be out there helping coach. The first game of the season scheduled for October 2nd with the Marine City Merchants, will be followed by seven other contests, viz: October 8th, Port Huron Junior College at Selfridge; October 15th, U. of D. Freshmen at Detroit; October 22nd, Michigan Tech at

Houghton; Oct. 29th, Scott Field at Selfridge; Nov. 5th, Fort Benj. Harrison at Selfridge; Nov. 11th, Flint Junior College at Flint; Nov. 20th, Fort Huron Independents at Selfridge; Thanksgiving Day, Nov. 24th, open.

Among the football "Turnouts" at Kelly Field, we find some of our old reliables, such as Sgt. Casper, linesman; Pozniak, halfback; Parker, linesman and halfback; Kaufman, halfback; Towle, Quarterback; Vielock, End; Son, Quarterback; Hanson, Fullback. First Lieut. Henry R. Baxter was designated as coach for the '32 team, and much rests on his shoulders as to the calibre of Kelly's team, as many of the old players will be absent from roll call this year. Though Lieut. Baxter was an iron horse with the West Point team of '25 and '26, he has not participated in football since his graduation. However, all of the boys like 'Tuffy' and with the spirit Kelly will carry the Golden-Yellow and Ultra Marine to victory. The schedule for the Army League for the 1932 season follows:

Oct. 15th, Brooks Field vs. 2nd F.A. Brigade, at Brooks Field; Oct. 19th, Randolph Field vs. Kelly Field at Randolph Field; Oct. 22nd, 23rd Infantry vs. 9th Infantry, at Ft. Sam Houston or Bullis; Oct. 26th, Randolph Field vs. Brooks Field at Randolph; Oct. 29th, 2nd F.A. Brigade vs. Kelly Field at Fort S. Houston; Nov. 2d, Brooks Field vs. 23d Infantry at Brooks; Nov. 5th, 9th Infantry vs. Randolph Field at Fort Sam Houston; Nov. 9th, 23rd Infantry vs. 2nd F.A. Brigade at Fort Sam Houston; Nov. 12th, Brooks Field vs. Kelly Field, at Brooks; Nov. 16, 9th Infantry vs. 2nd F.A. Brigade at Fort Sam Houston; Nov. 19th, 23rd Infantry vs. Randolph Field at Fort Sam Houston; Nov. 24th, Kelly Field vs. 9th Infantry at Kelly (if field available); Nov. 26th, Randolph Field vs. 2nd F.A. Brigade at Randolph; Nov. 30th, 9th Infantry vs. Brooks Field at Fort Sam Houston; Nov. 30, Kelly Field vs. 23rd Infantry at Kelly Field (if field available).

Despite the heat, the football season is on. The Honolulu Star-Bulletin has this to say about our prospects: "The Air Corps at Wheeler Field is being coached by Lieut. W.C. Bentley, assisted by Lieuts. Fink and Miller. Corporal McDonough, who last season gained enough ground through almost all opposition and whose kicking was a feature of the Fliers' game, is returning to the mainland prior to the opening of the season. However, Sgt. Vandiver, All-Schofield tackle, will be in the line-up and 15 others from last year's squad, as follows: Shumaker and Davis, centers; Bouton and Utter, guards; Brinkmeyer, Byerly and Kelly, tackles; Schultz, Spangler and Brannon, ends; James, Francis, Wilson and Gott, backs. Nadeau, who played quarter for the 'Fliers' last year under the name of 'Archibal' will reappear this year under his proper nomenclature."

Fort Crockett's football practice got under way Sept. 15th with Lt. Nathan F. Twining, Air Corps, as head coach, assisted by Lts. MacArthur, Belden, Wood and Richardson. Forty candidates appeared on the gridiron for the first practice. The Crockett squad, who call themselves the Golden Tide, played their first game of the season against a strong independent team from Houston, Oct. 2nd, losing by the score of 12-0. Coaches Twining and his assistants were well satisfied with the showing made by the Golden Tide in the first game and feel the possibility of Fort Crockett annexing another 8th Corps Area championship.



The Patterson Field baseball team annexed another win at the expense of the New Carlisle Merchants. Traveling to New Carlisle on Sept. 11th, they took the first of a 3-game series, 6 to 5, in one of the most exciting games played this season. The second game was also won by Patterson Field, score 4 to 2. The team had a very successful season with 14 wins and only 4 defeats.

The March Field baseball team has at last come into its own. After its organization early in August, the team missed numerous victories by close scores and bad breaks. Great individual power was present, but until recently team work was sadly lacking. However, a 15 to 7 win over the Polly Stars of Riverside turned the tide and raised the team morale to such an extent that since then the team has functioned admirably as a single unit. The following week the Arlington All Stars were defeated.

TENNIS The Army Central Tennis Committee recently announced the individual singles ranking of the first 12 Regular Army tennis players competing in 1932, basing their decision on results of the Army tennis tournaments and Leech Cup try-outs held in June and July at the Army-Navy Country Club. Among these twelve ranking players, four are from the Air Corps, Flying Cadet Dolph E. Muehleisen holding No. 1 position; 2nd Lieut. Stanley K. Robinson, No. 2; 2nd Lt. John T. Helms, No. 8; and 2nd Lt. Millard Lewis, No. 11.

Flying Cadet Muehleisen, a student in the Pursuit Section, Advanced Flying School, Kelly Field, Texas, became title holder of the Southwest Invitation Tennis Tournament when he fought his way into the finals through his flashy victory over the leading contender - Earl Taylor of Austin. The Tournament was held at the San Antonio Country Club and was witnessed by a large number of fans.

Muehleisen disposed of Taylor in a set of three games by the scores of 6-3, 6-1 and 6-0. He is the twenty-seventh ranking player in the United States and is intercollegiate champion for the year 1931.

SERIAL NO. 323 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Sept. 22nd to Oct. 17th Incl.

Available for loan to Air Corps Organizations only upon request to
the Air Corps Library, Munitions Building, Washington, D. C.

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- A 10.24/11 Eddy Systems Behind Discs, by T.E. Stanton and Dorothy Marshall.
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- D 00.12/4 Shear Tests of Small Plain and Lightened Aluminum Alloy Panels, by
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- D 00.12/103 Corrosion of Interplane Struts due to Instrument Tubing, by Navy Dept.
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- D 00.12/123 Inspection of Scintilla Magnetos to Detect Warpage of Distributor
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No. 123 Bu. of Aero. Tech. Note #123 Washington. Sept. 23, 1932.
- D 00.57/11 Milburn type ML-A Aircraft Welding Torch by Metallurgical Lab., Engr.
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- D 00.57/12 Airco-Davis-Bournonville Type 9100 Aircraft Welding Torch, by Metal-
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- 629.13 The S.P.C.A. 30 M. 4 Military Airplane (French); a Multiplace Un3ac/#171
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- 629.13 Dynamic Tests of Keystone B-3A Bomber Oleo Shock Absorbers by Theo. Un3teh
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- 629.13 Bearing Load Analysis and Permissible Loads in Aircraft Engines Un3teh
by Ford L. Prescott. Wright Field, Dayton, Ohio. Aug. 13, 1932. #3675
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629.13 Shear Strength of Corrugated Aluminum Alloy Sheet by Stanley R. Car-
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No. 3682 Aug. 29, 1932. Tech. Report #3682.

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629.13 The Aerodynamic Safety of Airplanes. by Louis Kahn. Washington.
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629.13 The Controls at Low Hinge Moments by M. Pris. Washington. N.A.C.A.
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629.13 Further Flight Tests on the Effectiveness of Handley Page Automatic
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629.13 Methods for Facilitating the Blind Landing of Airplanes, by M. Hein-
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No. 687

INSPECTION DIVISION NOTES

The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on Sept. 21, 1932.

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
TL 32-107 9/12/32	Installation of Screen & Gaskets on Rotary Induction System Engines-This includes all Radial Engines Except Wright R-790 Series. (This TL replaces TL 32-107 dated 8/5/32.)	General
TL 32-173 9/15/32	Replacement of Gauge, Main Fuel Tank Fokker C-14, C-14A, C-15 & C-15A Airplanes	Chanute, Wright, FAD, MAD, RAD, SAAD
TL 32-174 9/19/32	Installation of Oil Temperature Regulator Douglas O-38, O-38A & O-38B Airplanes	FAD, MAD, RAD, SAAD, Chanute Wright.
TL 32-32 9/22/32	Crankcase Diffuser Section R-975 E Series Engines (This TL replaces TL Serial No. 32-32, 2/29/32.)	FAD, MAD, RAD, Hawaiian Dept. PAD, EPAD, Wright, Chanute
TL 32-175 9/28/32	Installation of Chafing Strip, Fin Fairing-Boeing P-12E & P-12F Airplanes	Bolling, Chanute, Kelly, March, Mather, Selfridge, Wright, AO Hawaiian Dept. FAD, MAD, PHAD, RAD, SAAD.
TL 31-106 9/10/32	Cam-follower-Gun Synchronizer Impulse Generator-for Curtiss V-1150 & V-1570 Series Engines	Aberdeen, Boeing, Boston, Bowman, Brooks, Candler, Chanute, Crissy, Ft. Columbus, Ft. Crockett, Edgewood, Kelly Langley, Lawson, Logan, Lunk-en, Ft. Leavenworth, Marshall Maxwell, Mitchel, Pittsburgh A, Randolph, Richards, Schoen Selfridge, 6th CA, Wright, FAD, MAD, SAAD, RAD, Hawaiian Dept.

The following supplementary data to Technical Letter No. 32-100, dated May 18, 1932, Subject: "Operation Instructions", have been distributed since the last issue of the Air Corps News Letter on September 21, 1932.

<u>Date of Issue</u>	<u>Airplane</u>	<u>Distribution</u>
September 9, 1932	O-2H & BT-1	Kelly, Nichols, Pearson, Randolph, Salt Lake City, All Depots, Scott, NG Organizations.
September 28, 1932	P-12C	Boeing, Langley, March, Maxwell, Selfridge, Wheeler, Wright & Depots.
September 28, 1932	P-12D	Langley, March, Wright, & All Depots.
October 6, 1932	P-1C, E & F	Chanute, Kelly, Randolph, Scott, All Depots.
October 10, 1932	P-6E	Langley, Selfridge, Wright, Scott, All Depots.

The following Air Corps Circulars and Air Corps Circular Letters have been distributed since the September 21, 1932, issue of the Air Corps News Letter.

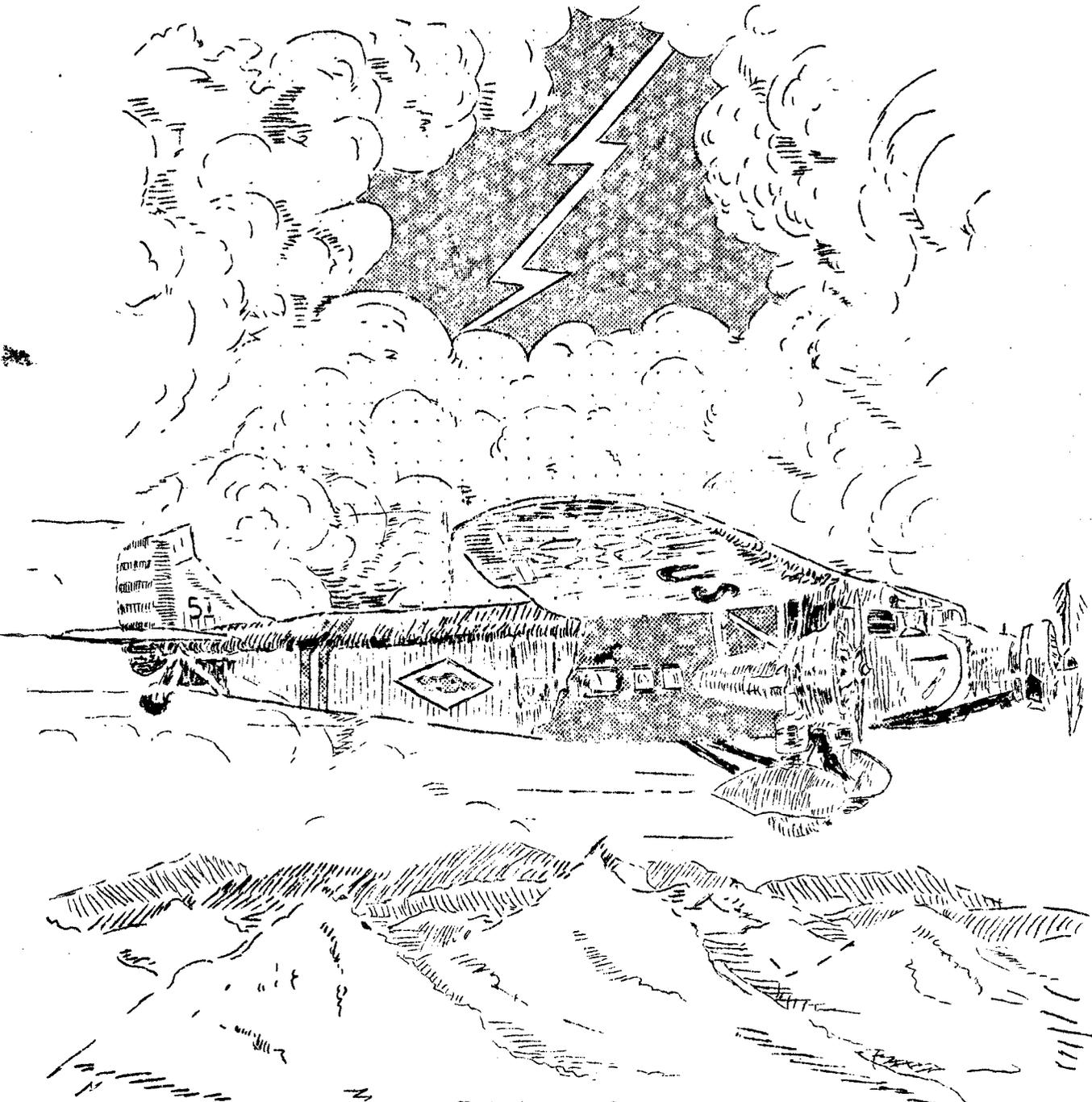
AIR CORPS CIRCULARS

<u>Number & Date</u>	<u>Subject</u>
5-3 9/2/32	PUBLICATIONS -PRINTING & BINDING Blueprints & Change Notices-Filing & Distribution
5-9 9/20/32	PUBLICATIONS -PRINTING & BINDING Distribution of Air Corps Circulars.
15-102 9/15/32	BLANK FORMS AND REPORTS Requisitions.
15-7 9/15/32	BLANK FORMS AND REPORTS Air Corps Form #7-Lighter-than-Air Pilot's Book.
35-5 9/16/32	PERSONNEL - MILITARY Educational Examination for Appointment of Flying Cadet.
60-1 9/16/32	FLYING Crash Tools & Equipment.
60-7 9/8/32	FLYING- Take-Offs and Landings at Other than Military Airdromes.

There has been no distribution of Air Corps Circular Letters since the September issue of the Air Corps News Letter.

NEWS LETTER

U. S. AIR CORPS



ISSUED BY THE
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D. C.

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Nov 4

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Information Division
Air Corps

November 4, 1932

Munitions Building
Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from Air Corps Fields.

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NIGHT FLYING - A REMINISCENCE

By Marguerite Jacobs Heron

The advent recently of several travelers who had flown over commercial air lines at night in order to make time on a long journey served not only to make vivid our present vast and growing night airways system, but also to rake up from memory the not so far distant years when night flying was virtually non-existent, except as a great and precarious chance, and when the airplane boasted not even a landing light to mark a path for itself through the darkness to a landing field.

It was in 1919 that Captain Donald L. Bruner, at that time an Air Service Lieutenant, approached the Chief of the Engineering Division at McCook Field and sought permission to undertake work on night flying equipment. The request met with some protest, because of the danger of night flying at that period, but was granted. Captain Bruner had made an analysis of the requirements for successful night operation and had concluded that the first essential would be a landing light to be carried on the airplane, one that would be reliable, capable of throwing a powerful beam, and lacking in the fire hazards attendant upon the pyrotechnic equipment then used for such purposes. The illuminating industry was canvassed for an incandescent electric lamp, capable of operating from the standard 12-volt direct current airplane source. After a thorough search, preliminary tests were conducted, using a 10-volt, 16-ampere bulb, mounted in front of an 8-inch parabolic reflector, the assembly being carried beneath the lower wing and close to the fuselage of a training airplane. Due to low light intensity, improper location, and probably in no small degree to the inexperience of the pilot in this pioneering field of endeavor, the tests were not highly encouraging.

A more powerful lamp was apparently needed. Finally, a few 100-ampere, 12-volt lamps, built experimentally for motion picture projection work, were mounted in a streamline case, a 13-inch parabolic mirror being used as a reflector. At the conclusion of a long and tedious series of flight tests, some 200 hours and 2,000 night landings having been involved, the first crude but successful landing light had been built, and the principles underlying the present designs had been established.

With concentration on a landing light rewarded, development of night airdrome equipment, consisting of wind indicators, flood lights, boundary lights, and a rotating beacon came under consideration by Captain Bruner and his assistants. Over 95 percent of the night flying tests of this equipment were made by Captain Bruner, no other flying officer being assigned to the project. In testing the rotating beacon, some 150 hours of night cross-country flying were performed. In one instance, when using pyrotechnic equipment, fire occurred in the air. This was extinguished before great damage was done to the airplane, but Captain Bruner's summer flying suit was so badly burned that it required salvaging.

In May, 1922, progress had been made to such a point that a complete system for night airways operation existed on paper, all the items having been exhaustively tested under varying weather conditions. A night airways system was then established from McCook Field, Dayton, Ohio, to Norton Field, Columbus, Ohio. This, it is believed, was the first night airways in the world. Regular scheduled flights by McCook Field officers were started over this airways in July, 1923, but one-third of the test flying was still done by Captain Bruner. In the meantime, the Air Mail Branch of the Post Office Department had become vitally interested in the experiment. Full plans and information for an expanded system were given a special agent to the Postmaster General, and an air mail plane sent to McCook Field for the purpose was fully equipped for night flying. The enormous success of night air mail operation, which so shortly followed, has its roots in this work, as well as that of the commercial night air lanes over which our friends travel in increasing numbers.

Captain Bruner has for several years been Chief of the Electrical Equipment Unit at Wright Field, after a period of foreign service which followed his work at McCook Field.

---oOo---

Ed. Note: Captain Bruner, from his room at Walter Reed General Hospital, where he is at present a patient, adds some of his own remarks to supplement the above.

"When I became interested in night operations," he said, "and approached the late Col. Thurman H. Bane, then head of the Engineering Division at McCook Field, he was a bit apprehensive for my safety, but told me if I was as keen for this work as he thought I was, then I should go ahead with it. Army flyers during the War participated in considerable night flying, but not with the consistent safety necessary for scheduled night air mail or passenger operations. They had the old wing-tip flares for night landings, and I knew there must be something better than these fire hazards. A number of airplanes were burned, it will be remembered, when their pilots failed to keep on taxiing around after making a landing with these flares burning, and the heat from the flares ignited the wing fabric.

Then, again, ordinary searchlights were not so good when used for flood lights to light up a field. For war time operations, a couple of buckets of gasoline set out around the field and ignited were enough to mark the boundaries and allow the pilot to set 'er down, but landing gear crack-ups were plenty. That was war, however, and such crack-ups were not important. However, you couldn't get passengers to go in a transport at night if they were in danger of finding a landing gear strut poked up through the cabin upon the pilot landing. Beacons to mark an airways were also needed - but what kind of beacons? How strong? How far apart? Tilted at what angle? Flashing, arcing or fixed? That was my job to find out.

On the flight when the fire took place, my passenger was Captain S.M. Stribling, Ordnance Department, who was at Dayton and who was also interested in the pyrotechnic part of my job.

A flare cartridge missed fire but jammed in the outlet chute. Not knowing this, I shoved another in the ejector breech and set it off. The ball of fire started blazing but became stuck in the chute on top of the first cartridge. I had to handle the airplane controls to keep the ship in the air, but reached up on the forward cowling for the Pyrene. It was in its clips too tight for me to release it, so Capt. Stribling climbed over the cowling of his cockpit, stood one foot on my knee and released the extinguisher. Just then his foot slipped, but he grabbed my head to steady himself. My neck was sore for a week, but he extinguished the fire. Fortunately, we were both equipped with parachutes, although this was before the Air Corps was universally equipped with them. Looking back at it now, we could have jumped via parachute had things gotten too bad, but at that time excitement reigned in and around the front cockpit of the D.H.

The funniest thing (it didn't happen to me, so I can view the incident in a humorous light) in connection with Very pistols was the time one pilot, in going aloft for a practice night flight, yanked out his pistol and held it over his head, preparatory to shooting the signal. The slipstream forced his arm, hand and pistol back so far that when he pulled the trigger the ball of fire went down into the empty rear cockpit and lodged in the tail. However, he came down, landed safely, and the fire was extinguished before it did any damage to speak of."

"Yes, I have been lost many times at night," Captain Bruner stated in answer to that inquiry, "but always managed to orient myself before my fuel gave out."

Almost fifty percent of Captain Bruner's flying time, it might be added, has been on night flights, little of which was on the lighted beacon-paved airways of the later days. Most of this time was over country only lighted up here and there by cities and towns which all look alike to a pilot flying through the night.

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SOLAR ECLIPSE EFFECTED NO CHANGE IN COSMIC RAYS INTENSITY ✓

The numerous negatives showing values of Cosmic Ray intensity, made from an Army plane by Capt. A.W. Stevens, Wright Field, piloted by Lt. C.D. McAllister, flying at 27,000 feet during the recent solar eclipse, were measured and plotted by Dr. Lewis Mott-Smith, of Rice Institute, at the Materiel Division, Wright Field. Within the probable limit of accuracy (2%) of the apparatus used in the plane, it was found that no change in intensity occurred during the eclipse. A small change is known to take place daily at the earth's surface. If the part of the Cosmic Rays responsible for this diurnal change in intensity has been coming directly from the sun, then at this altitude a change decidedly in excess of the probable error of measurements of the apparatus used might have been expected during the eclipse. The conclusion is that part of the rays responsible for the diurnal change probably comes from a much more extended region of space than the sphere of the sun itself.

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MIMIC WAR WAGED IN AIR ABOVE ST. LOUIS ✓

The 61st Coast Artillery (Anti-Aircraft) Regiment, of Fort Sheridan, Ill., commanded by Lt.-Col. J.A. Green, aircraft from Scott Field and the 110th Obs. Sqdn. Missouri Nat'l Guard, commanded by Lt.-Col. John A. Paegelow and Major Philip R. Love, respectively, staged a mimic war in Forest Park, St. Louis, Mo., on the night of October 12th.

An airship from Scott Field was the first to try to approach the city undetected by the lights of the regiment, but it had hardly reached the far limits of the Park when a 7-mile finger of light focused on it, illuminating its silver bulk. An instant later, the beams of the four other searchlights, located in various parts of Forest Park, were turned on the dirigible. As the first searchlight revealed the airship, the thrill of the scene brought a concerted "Ah" from the assembled thousands. Several minutes later, four of the light beams picked up a hazy bulk in the eastern sky which, on close inspection, proved to be three planes flying in close formation. One light, shifted to the left, picked up a fourth plane flying solo. As three of the planes swept across the sky at an altitude of 5,000 feet, the searchlights never left them. The single ship turned tail and fled in the direction from which it had come, with the searching glare of an 800,000,000 candle-power beam following it. The invaders came over in elements of three ships each at 10-minute intervals. Each element made two trips over the city as all St. Louis turned its gaze aloft.

Operating in conjunction with the searchlights were three sound detectors, an electrical apparatus with four metal ears capable of detecting the throb of an airplane motor several miles away. Light and detector are synchronized so that both will point simultaneously in the direction from which the invader is approaching. Having located the aircraft with its "ears" and "eyes" it is then the business of the regiment to go to work with the 3-inch anti-aircraft guns and the .50 caliber machine guns. Four of these guns were set up near the Municipal Theatre in the Park, but they were not fired, greatly disappointing hundreds of youngsters and a number of adults who visited the battery area. Tens of thousands of spectators thronged the Park and surrounding territory for a close-up of the show. Other thousands remained at home, viewing the spectacle from porch, windows or curb. Motorists arriving late at the Park endeavored to negotiate crowded drives while craning their necks to view the show overhead. Numerous minor collisions resulted.

The air program was suggested by Lt.-Col. John A. Paegelow, Commandant at Scott Field, where the anti-aircraft regiment was encamped, to give St. Louis an opportunity to observe the latest methods of anti-aircraft defense. Arrangements for the show were made by the Air Board of the Chamber of Commerce. The searchlights, guns and sound detectors were hauled to the Park in trucks belonging to the regiment and later returned to Scott Field.

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The cover design for this issue of the News Letter, portraying an Army transport flying over mountains during an electrical storm on an errand of mercy, was suggested by Private Henry H. Mazlen, 59th Service Squadron, Langley Field, Va. The sketch submitted by Private Mazlen was re-drawn by Mr. F.C. Barry of the Patent Section, Office Chief of the Air Corps.

ANNUAL TACTICAL INSPECTION OF FIRST PURSUIT GROUP



MAJOR General Frank Parker, commanding the 6th Corps Area, accompanied by Colonel Russell C. Landon, Infantry, commanding the 2nd Infantry, and Lieut.-Col. Francis A. Ruggles, F.A., Sixth Corps Area, Assistant Chief of Staff for Training and Operations, arrived at Selfridge Field at 10:00 a.m., Monday, October 17th, to make his annual tactical inspection of the First Pursuit Group. For the purpose of demonstrating the tactical ability of the Group, a Pursuit problem, typical of Pursuit operations during war time, was arranged. The problem concerned the protection of industrial centers from Bombardment aviation. A general situation was assumed involving a war between Reds and Blues. This situation is used as a basis for continual tactical training of the Group, and considers a state of affairs somewhat as follows:

GENERAL SITUATION - BLUE AND RED (Rand McNally State Map of Michigan used).

Two states, RED (West), whose boundary lies along the line Bay City - Saginaw - Lansing-Hillsdale, and BLUE (east), have been at war for approximately 1 1/2 years. During the winter of 1931-1932, the REDS, who were better equipped, drove the BLUES to the east of the St. Clair-Detroit Rivers and occupied the important centers at Detroit and along the St. Clair Rivers.

About the 1st of June, 1932, the BLUES, having assembled large forces drawn from the east, made a determined attack to regain the lost territory and reestablish the boundary line. On the 1st of October, 1932, they had driven the REDS west to the general line Port Sanilac (M-25) - Lapeer - Holly - Ann Arbor - Monroe, and were assembling additional forces to continue the offensive. Continued strong concentrations were taking place in the vicinity of Chatham (Canada) and London (Canada) with the intention of making movements across the St. Clair and Detroit Rivers as reinforcements. Several pontoon bridges had been established across the St. Clair River between Port Huron and Algonac, and also in and around the vicinity of Detroit."

The special situation concerned a radio problem which established information of enemy bombardment attack on Detroit industrial activities and involved immediate take-off, search for, and interception of enemy Bombardment. Unfortunately for all concerned, bad weather prevented the completion of the problem. The take-off, change into search formation, and a reassembly of the Group was effected, however. General Parker viewed the activity from the gunner's cockpit of a P-16, fast two-seater Pursuit.

After the problem, General Parker gave a short talk to the assembled officers of the Group, in which he expressed his approval of their training, and discussed plans for Air Corps demonstrations at the World's Fair to be held at Chicago next year. After the General and his staff lunched with Major Brett at the Officers' Mess, he departed for Chicago in an O-25B, piloted by Capt. Carl W. Connell, Air Officer, 6th Corps Area. Col. Ruggles, with Lieut. J.V. Crabb, Air Corps, departed in a P-16.

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TYPE B-5 PILOT'S HELMET

A new helmet which is especially comfortable to any shape of face or neck was developed at the Materiel Division, Wright Field. This helmet has adjusting cords around the binding edges, and the chin strap has been eliminated in favor of a piece of soft leather material which is fitted over the chin with a cut-out for the point of the chin to come through. The new helmet has been found more comfortable than the old type with the strap coming under the chin which, pilots complained, chafed the neck and often had a choking effect. The material used in the new type is a single thickness of lamb shearling without the conventional outer leather shell. This conforms nicely to the shape of the head. Chin guard and straps are of leather.

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TWO NATIONAL GUARD AIRMEN JOIN CATERPILLAR CLUB

From Lieut. H.C. Claiborne, of the 115th Observation Squadron, 40th Division Air Corps, California National Guard, who succeeded Lieut. Gard as correspondent for the News Letter, it is learned that during the annual encampment of this organization at San Luis Obispo, Calif., 2nd Lieut. Charles Haas and Private R.H. Hebner made forced parachute jumps from a disabled O-17 airplane. Lieut. Haas' story follows:

"On July 12th I took off at 2:25 in an O-17 with Pvt. Hebner as passenger. We climbed up over the fog and reached an altitude of about 3,000 feet. I started to dive down thru a hole in the fog and pulled out at about 2,600 feet. As I pulled out I heard a sharp report like that of a gun, followed by a crunching sound. I looked up to the right and where the right wing should be I saw blue sky. I caught a glimpse of the right wing leaving the ship out of the corner of my eye. The center section seemed to be raising up. It looked bad for us and I was afraid that Hebner would not be able to get out on account of the wires and struts that held to the ship. I yelled 'Let's go' but on account of the terrific noise he did not hear me. I put my legs underneath me, flipped my safety belt, straightening my legs as I did so. The ship had done a half roll and was diving vertically, throwing me out. I came out looking straight down and saw the ship headed for the ground in a right vertical spiral. I pulled the rip cord and the chute opened immediately. I wondered if Hebner was still in the ship and was greatly relieved to see his chute open three or four hundred feet below me. He landed safely and I saw him pulling in the shroud lines of the chute. I slipped my chute a little and made a quarter turn so as to land forward. It looked like I was going to land on some rocks so I decided not to try to stand up. I landed on a small hill just before reaching the top and was dragged about 15 feet before I could spill the chute. I saw Hebner walking over the top of the knoll toward me, and we were both O.K. We landed at 2:35 p.m."

The ship continued its vertical descent, crashed about 100 yards from the men, and was a total washout. Otherwise, the camp was a very satisfactory one. The entire training schedule of the Air Corps unit was completed and, in addition, several interesting cooperative problems were performed with the Infantry and Artillery. Lieut. J.G. "Dinty" Moore, of March Field, acted as our Camp Inspector and made himself thoroughly popular with all the officers of the command. We would like to have him again next year. Of course, our own

Capt. Eugene "Joe" Bayley, Unit Instructor, was with us and gave the outfit invaluable aid in a thoroughly practical and friendly way. The Squadron was happy in having as its guest during camp Lieut.-Col. Isaac Jones, ORC, and Mr. Paul Lukas, the well-known cinema actor, who flew his own ship into camp.

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GRADUATION OF STUDENTS FROM ADVANCED FLYING SCHOOL

A class of 108 students was graduated from the Air Corps Advanced Flying School on Oct. 14th. Graduation exercises were held at 10:00 a.m. in the War Department theatre, Kelly Field, Texas, preceded by an aerial review participated in by students. Brig.-General S.D. Rockenbach was the principal speaker, introduced by Lt.-Col. H.B. Clagett, the Commandant. Brig.-Gen. Charles H. Danforth, Commanding the Air Corps Training Center, presented the diplomas to the graduates. The class was specialized, as follows: Attack, 4 Regular Army officers, 4 Flying Cadets; Bombardment, 14 Reg. Army officers, 14 Flying Cadets, 2 enlisted men; Observation, 12 Reg. Army officers, 19 Flying Cadets, 2 enlisted men; Pursuit, 14 Reg. Army officers, 19 Flying Cadets, 1 enlisted man. First Lieut. Nicolas DeLeon, Jr., Guatemalan Army, was graduated in Attack, and two Chinese students, one an officer in the Chinese Army and one Chinese civilian, completed a Special Observer's course.

The names of the members of this graduating class were published in the issue of the News Letter of October 18th. Assignments to stations of the Regular Army officers were also given. Since that time, Special Orders of the War Department were issued, assigning the Cadet graduates to extended active duty under their Reserve commissions, as follows:

To March Field, Riverside, Calif.: Harry Crutcher, Carl Homer Eaker, Vincent Ford, Laurel Jesse Gephart, Dolf Edward Muehleisen, Arthur Henry Skaer, Jr. -- To Mitchel Field, N.Y.: Harold D. Harmon, Everett Cantwell Plummer, Charles Wallace Stouff, Donald Newman Wackwitz -- To Selfridge Field, Mich.: Quinn Marvin Corley, Clark Lorenzo Miller, Bruce Clinton Pettigrew, Clyde Hall Wood, Jr. -- To Scott Field, Ill.: Marvin Claude Glasgow, Lars John Halvorsen, Leonard Prine Kleinoeder, Morris Henry Shedd -- To Barksdale Field, Shreveport, La.: Joseph D. Caldara, Marcus Fleming Cooper, Cecil Darnell, Samuel B. Eisenmann, John Gebelin, Jr., Richard Filip Vavrina -- To Langley Field, Va.: Charles Albert Cowing, Richard W. Henderson, Earl Dallam Johnson, Edwin Anthony Joyce, Joseph John Kelley, Russell Isaac Oppenheim -- To Fort Crockett, Texas: William Leigh Bogen, Clayton Baxter Claassen, Harry Noon Renshaw, Craven Clark Rogers -- To Panama Department: A.J. Bird, Jr., Charles M. Dittrich, Jr., James W. Furlow, Edward Morris Gavin, Donald Robert Hutchinson, Charles H. Lesesne, Jr., Horace H. Manchester, William J. Sindo, Richard B. Stophlet, Luther W. Sweetser, Jr. -- To Hawaiian Department: William L. Combest, George A. Doole, Jr., James Roy Ducrest, Jephtha W. Fator, Scott Flower, Lester S. Harris, Frank N. Moyers, Byron G. O'Hara, Stuart E. Rutherford -- To Brooks Field, Texas: William W. Amorous, Claire B. Collier, Orville Tibbs.

A new class of students reported at the Air Corps Advanced Flying School on October 16th. Ground school began October 17th, and flying training on the 20th. The 97 students in this class (3 Regular Army officers, 89 Flying Cadets, and 5 noncommissioned officers) are assigned to Sections, as follows: Attack, 15; Bombardment, 18; Observation, 19; Pursuit, 45.

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INCREASE OF NIGHT FLYING ACTIVITIES

Since the installation of night flying equipment at Selfridge Field, night flying has increased rapidly. All Squadrons have alternated in individual, formation and night training flights. To date, everything has been according to schedule, and no trouble reported. It is planned to continue night flying activities indefinitely to insure the adequate training of all pilots in this important phase of flying.

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HUGH HERNDON AT MATERIEL DIVISION

By Marguerite Jacobs Heron

Wright Field personnel recently had the pleasure of hearing from Hugh Herndon an account of his and Clyde Pangborn's flight of last year, when their ambition to beat the time of the Graf Zeppelin around the world had to be speeded up to beat Post and Gatty's time around the world, which in turn had to be abandoned in favor of an attempt to win the \$25,000 prize offered by the Tokio Times for a non-stop flight across the Pacific Ocean from Japan to the United States. This prize the gentlemen won, and the manner of the winning made a yarn that lost no whit in Herndon's spirited telling. Newspaper details of the flight are no doubt well remembered.

Herndon and Pangborn, locking down above Tokio and mistaking the police who had come to arrest them for high officials come to welcome them, unaware that they had broken rigid Japanese laws by coming into the country without permission, had landed with their faces set for cheers only to gradually learn, even in the obscurity of the Japanese tongue, that hearty disapproval awaited them on every side. Well, Herndon made the picture exceedingly living and humorous.

The struggle to get their affairs so adjusted that they might leave the country; the paying of a \$2050 fine for their transgressions; their decision to try the Pacific crossing; the triumphant landing near Spokane after a splendid piece of aerial navigation - the whole story had the tang of gay adventure with courage, perseverance and good American ingenuity strongly present though unmentioned. The technical side of the flight was not neglected by Mr. Herndon in his talk. Ways and means had not been left to chance. But unlike many flights, the technical was overshadowed for us by the things that "happened." General Pratt introduced Mr. Herndon.

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The 325th Reserve Observation Squadron at Bowman Field, Louisville, Ky., recently observed the opening of their new hangar. With the object of showing the civilian populace a variance of types, Selfridge and Wright Fields were asked to send a ship of each type. Four officers from Selfridge Field, Mich., attended; Captain Fred C. Nelson flying a P-5C, Lieuts. Roger M. Ramey, a P-26, Donald L. Putt, a P-6E and George F. McGuire, a P-12E.

FORCED LANDING IN HAWAIIAN WATERS PROVES DISASTROUS

Failure of the left motor of a B-5A Bomber, piloted by 2nd Lieut. John C. Kilborn, and the inability of the plane to maintain altitude on one motor, necessitated a forced landing on the water, about 3 miles off Koko Head, as a result of which Corporal John Hart and Pvt. Johnnie W. Long, passengers, were drowned. The plane landed near a sampan which was cruising in the vicinity and, after striking a large wave, it nosed over. Lieut. Kilborn and Sergeant Stephen P. Riales, Crew Chief, managed to partially inflate the emergency raft and launch it. A Douglas Amphibian plane, piloted by 2nd Lt. Robert E.L. Choate, immediately landed beside the wrecked Bomber, but the waves, lashed by a strong wind, prevented an approach near enough to effect a rescue. The sampan immediately came to the assistance of the imperiled airmen and rescued Lieut. Kilborn and Sgt. Riales. Corp. Hart was picked up a few minutes later in an unconscious condition. He was rushed to the shore, but the use of a pulmotor, combined with adrenalin and caffeine injections, failed to revive him. Pvt. Long was not located, in spite of a prolonged search, and it is assumed he was carried down with the wrecked Bomber, which sank after approximately 15 minutes.

The high waves caused the left wing pontoon on the Douglas to fill with water and, because of this, was unable to maneuver or taxi, except in a circle. The sampan took it in tow, but the waves were so strong that on two separate occasions the tow lines of 1-inch Manila were snapped. Finally, the lines were doubled, and the 2-inch Manila held. The Airplane Tender, USS AVOCET, and Destroyer REEVES from the Pearl Harbor Naval Station, were promptly dispatched to the rescue, and the AVOCET lifted the Douglas on deck and returned it to Luke Field. Four Navy seaplanes from the Pearl Harbor Base also responded to assist in the rescue. Outside of shock and a few minor bruises, Lieut. Kilborn and Sgt. Riales suffered no other injuries and have now fully recovered.

The wrecked Bomber was one of 25 planes, consisting of Bombers, Observation and two rescue planes of the 5th Composite Group, carrying 35 officers and 49 enlisted men, which departed from Luke Field Sept. 16th for the Islands of Molokai, Maui, Lanai and Hawaii, for the purpose of gaining experience in Group and Squadron cross-country flying, to familiarize personnel with Inter-Island airways fields and facilities and to conduct Group communication problems. Landings were made at all of the above fields as per schedule. All Observation planes were equipped with auxiliary gasoline tanks and all were refueled at the airport base at Upolu Point. Rations and bedding for enlisted personnel were carried in the Bombardment planes of the flight and camp was established at Upolu Point. The commissioned personnel were housed at Kilauea Camp. All personnel of the entire flight were the guests of Kilauea Military Camp, and during their stay made the trip to Halemauau Crater, Kilauea. A guide was furnished by the National Park Service, and the party visited the lava tubes, sulphur banks, and all points of interest.

On Sept. 18th, the entire flight made their departure from Upolu Point, Hawaii. Constant radio communication was maintained with the home station and between the units of the flight. One of the Amphibians, acting as a radio net control plane, recorded all movements without deviation from the prearranged schedule and without mishap until the flight was within 5 miles of Oahu on the return trip, when Lieut. Kilborn experienced motor trouble.

On Sept. 22nd, a funeral service for Corp. Hart and memorial service for Pvt. Long were held in the chapel at Luke Field with full military honors. The 64th C.A.C. Band and the entire 5th Composite Group formed the funeral procession.

Major-General Briant H. Wells, Commanding the Hawaiian Department, in a letter of appreciation to Rear Admiral Yates Stirling, Jr., Commandant, 14th Naval District, for the valuable services rendered by the Naval personnel going to the rescue of the Air Corps personnel of the Bombing plane which landed on the water, stated that these men acted with promptness and efficiency and rendered timely aid. "The assistance given on this occasion," General Wells added, "is an indication of the efficiency of your organization and of the fine spirit that animates your personnel when called upon in an emergency."

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AND NOW HIS FORMER SERGEANT GIVES HIM ORDERS

According to the News Letter Correspondent, the newest rookie in the 1st Observation Squadron at Mitchel Field, N.Y., is Joseph B. Donnelly, of late a Second Lieutenant in the Reserves on active duty at Fort Crockett. He has been rated Private, 1st Class, enlisted pilot, by orders from Washington. Graduating from Kelly Field in October, 1930, Donnelly was assigned to the Third Attack Group at Crockett, and was subsequently placed on duty with the 8th Attack Squadron. While in this Squadron, Donnelly held down the job as Assistant Operations Officer and Mess Officer. His first sergeant was Staff Sgt. Patrick Hayes. Fate turned a peculiar crook when Donnelly was assigned to the 1st Squadron at Mitchel Field after his enlistment, because the first sergeant in that outfit is the same Patrick Hayes.

Donnelly now takes his orders from Sergeant Hayes with a grin, gets along well with the men, and says he likes life as an enlisted man.

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A PERFECT LANDING ON A PUBLIC HIGHWAY

While performing acrobatics in a Pursuit plane at an altitude of 3,000 feet over the Island of Oahu recently, 2nd Lieut. F.J. Havelick, Jr., Air Reserve, Wheeler Field, T.H., experienced motor trouble. Believing the float in his carburetor to have become jammed, he attempted to adjust it while in a glide. Being unable to do so and having lost 2,000 feet altitude, it was necessary for him to effect an immediate landing. There was no suitable landing field, but the broad highway of the Schofield Road loomed up beneath Lieut. Havelick. Picking a straightaway in the road free from traffic, he made a pretty 3-point landing on the crown of the road. After adjustment of the carburetor float, and with the aid of two traffic police, who held up traffic, Lieut. Havelick took off, completed his acrobatics and proceeded to his home station.

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All pilots of the 72nd Bombardment Squadron qualified as expert aerial gunners during their stay at the Air Corps Waimanalo Reservation, Hawaii, recently.

EYES OF THE ARMY

By 2nd Lt. Philip B. Foote, Air Reserve



ROBABLY it was in the crude brain of the prehistoric man as he watched with keen interest the graceful maneuverings of winged creatures and wished he might also soar in the sky that the spark of the idea of human flight was generated. But he understood nothing of the laws of nature; he did not know how to develop his idea; so he was forced to be content with only his dream. But that dream he passed on and on to all the generations that followed him. And each generation learned a little more about the principles of physics; and each generation put its new knowledge into practice. And finally man began actively to strive for the fulfillment of that old desire - flight. Crude, to be sure, were his early efforts and marked, perhaps, with foolhardy inventions predestined to failure. But experiment after experiment was made. And failure after failure followed, sometimes taking a toll of human life - life not wasted, however. And at last, relying more and more on the aid of science, man developed the balloon. Surely this was flight, but breath-taking as the first successful balloon ascension must have been, it did not quite satisfy man's craving to imitate the flight of birds, to which he again turned for his model in further experimentation.

The story of the first successful airplane flight by the Wright Brothers at Kitty Hawk, N.C., is well known to everyone. Then came the daredevil who went aloft to display to the world his skill and his daring; he thrilled vast crowds with his acrobatic maneuvers, put to shame the lesser birds, and often paid with his neck for this thrill. He also accomplished much for aviation, both in developing airplanes and in showing the possibilities of human flight; but on the other hand, his stunting, made flying seem more dangerous than it actually was, just as automobile driving would seem most unsafe if one were to consider only race track driving..... Then, in 1914, Mars gave to airplane development and human flight what has, perhaps, been their greatest single stimulus. Balloons had previously played an important part in military operations, but airplanes did not enter the field of combat to any great extent until the World War, during which the powers of the world vied with each other in construction of vast air armadas for the destruction of the enemy. The value of military aircraft was keenly realized on both sides of No Man's land; supremacy of the air meant a great tactical advantage for the force holding it. And so aviation took a powerful stride forward.

But the story of the development of aviation from the foolhardy experiment of a few years ago, through the phase of being a sport for the thrill seeker, on to its extreme importance in military operation, is common to all followers and enthusiasts of aviation, as is also its commercial development since the war, giving rise to huge airplane transportation lines, girdling the earth and carrying human cargo to points hitherto difficult of access, with speed, comfort and safety. The airplane is no longer an infant experiment. It is probably still in its extreme youth, but surely it is here to stay.

There is, however, a phase of aviation which is vastly interesting and vastly important, but which is little understood by people in general. I refer to modern military aviation. Since the World War, military aviation has established itself on a firm basis. Constant development of military aircraft, both of the combat and transport types, has been the guiding motive of our Air Corps. Experimental laboratories for perfecting aircraft and motors are operated, and final tests are given all those types of airplanes, motors, etc., which satisfactorily pass the initial or experimental stage.

Military aviation in our country is divided into four main branches of the Air Corps, namely, Attack, Bombardment, Pursuit and Observation. Attack is the branch which has as its prime function the attack of ground troops from the air. It is this force that is used to harass the enemy troops in the trenches and on the march by the use of small bombs and continuous machine gun fire. Used as it is chiefly against Infantry, Cavalry and Field Artillery at moments of concentration, it relies particularly on the element of surprise to accomplish its mission. The tactics employed by this branch of the Air Corps include a swift advance against the enemy troops by fast, low flying airplanes, carrying considerable fire power.

Bombardment Aviation is that branch of the Air Corps which has as its main objective the bombing of strategical points in the enemy's zone. Bombardment airplanes generally concentrate on such targets as bridges, railroads, railroad yards, supply depots, ammunition depots, concentration camps, etc., and therefore do not have to rely so much upon surprise to accomplish the mission. These planes, designed to penetrate deeply into enemy territory to destroy objectives and cause damage of strategical importance, carry an enormous quantity of bombs, and are able to stay aloft many hours. Speed is not of prime importance in this type of ship, although it is, of course, an advantage.

Pursuit aviation is that branch of the Air Corps which has as its tactical duty the destruction of hostile aircraft and the protection of friendly aircraft. To accomplish its mission, the Pursuit plane must be fast and extremely maneuverable. It is generally of the single-seater type, although one type of our Pursuit ships are two-seaters. In the execution of its mission, Pursuit aviation usually advances as a formation of nine or more ships, often acting as a convoy to a formation of Bombers. In such an instance, it is the mission of Pursuit aviation to see that hostile airplanes do not interfere with the execution of the Bombardment mission. For example, if an enemy flight were to attack the formation, it would be engaged by the Pursuit, thus allowing the Bombers to proceed on the mission of destruction. As soon as the battle is over, the Pursuit would again join the convoy, if possible. Pursuit aviation also operates largely against hostile Observation and Attack airplanes.

And finally there is Observation aviation, that branch of the Air Corps having as its prime mission the gathering of information of the enemy and of the friendly troops in combat, and the dissemination of this information to the friendly commanders from these aerial observations. Observation aviation is less spectacular than the other three components of the Air Corps. Pursuit, Bombardment and Attack form the tactical branch known as the Air Force, while Observation, known tactically as the Air Service, usually plays a lone hand in the performance of its mission of gaining information which in war is so vital to the effective employment of the air and ground forces. It is with this type of employment of Military Aviation that the average American is unfamiliar. He sees the Aerial Review of the Air Force, the spectacular maneuvers of the Pursuit, the unwieldy bulk of the monstrous Bomber, but he knows little of the operations of the Observation airplane and its crew - the pilot and observer.

Observation airplanes are the eyes of the Army, and without their employment aerial forces would be of little value. It is the Observation airplane that directs the Attack airplane to its target by radio; locates targets suitable for the Bombers; locates enemy air concentrations for the Pursuit; reports enemy ground concentrations to the friendly ground commanders; adjusts and reports artillery fire; maintains liaison between advanced units and higher command; and, in general, supplies all necessary information of both enemy and friendly forces within its zone of action to higher command. The Observation airplane, unlike other types in the Air Corps, does not as a rule work in formation, but as a single ship. In this way the probability of discovery and attack by hostile Pursuit is diminished. Each Observation airplane carries an observation team, composed of a pilot and an observer, who must be mutually supporting and have confidence in each other, as team work is absolutely essential if a successful observation mission is to be accomplished. This means that through training the pilot and observer must develop a style and form of working understandable to both.

The business of being an aerial observer is no easy profession. In the first place, the observer today is also a pilot of aircraft and must know all the sciences attached to flying, such as navigation, meteorology, motors, airplanes and related sciences. In addition to this knowledge, an observer must be a competent radio operator, able to transmit and receive radio code and radio telephone, both in the air and on the ground. He must also be a competent aerial photographer, familiar with various types of aerial cameras, their uses and limitations, able satisfactorily to secure all types of aerial photographs, including obliques, verticals, reconnaissance strips and mosaics, for aerial photographs play an important part in modern warfare.

The observer must also be well versed in the art of aerial gunnery and bombing, in order that he may protect his ship in case of attack by the enemy, and occasionally he may even be called upon to attack certain enemy positions. Of course, the prime duty of Observation aviation is to gain information and not to fight, as fighting only delays the mission and prevents valuable information from reaching the higher command, but fighting is often necessary to protect the ship against enemy attack. Less often will Observation airplanes be called upon to bomb, but in the pinch of circumstances during hostilities the observer must be ready to do a Bomber's job in addition to his own. Further, the observer must be thoroughly familiar with the tactics and organization of the ground troops with which he is working and with the tactics and disposition of the enemy troops within his zone of action. For example, if he is working with the Infantry, he must know Infantry tactics and strategy, so that he may intelligently interpret movements on the ground and foresee the information requirements of the troops which he is supporting in order to supply them with the necessary information concerning the enemy in time to aid the friendly commanders in making their decision.

The observer must be able to report and adjust artillery fire, for without accurate aerial observation long distance bombardment by artillery is greatly handicapped. To accomplish successfully this type of mission, the observer must have a knowledge of artillery tactics and be able to select and transmit by radio to the friendly artillery battery the location of advantageous targets in time for the battery to accomplish destruction. In a word, the observer must be a flier able to accomplish flying missions of all types related to Observation aviation. He must be familiar with the tactics and strategy of all ground troops - Infantry, Cavalry, Field Artillery, Coast Artillery, etc. He must be a radio operator, photographer, signalman, and gunner, and at times almost a mind reader. And, unlike other flying personnel of the Air Corps, he is handicapped and impeded in his work by the multitudinous paraphernalia with which he must equip himself for flight if he is to carry on a successful mission.

The very essence of his job is to be prepared for any type of observation mission on a moment's notice. And often his mission will be changed while he is in the air. To be prepared necessitates the carrying of a quantity of equipment. Of course, the mere act of flying in an open ship requires the wearing of flying suit, flying scarf, parachute, helmet and goggles - but add to that helmet radio phones with a six-foot cord attached, and its comfort is not increased. In addition to this equipment, the observer must carry a microphone strapped across his chest for voice transmission over the radio and for interphone communication with his pilot; a message board, on which all messages sent and received by radio are entered; a map covering the area over which he is to work; a number of drop message bags, which are used to drop messages to command posts or bodies of troops not equipped with radio. Then in conjunction with the drop message equipment, an air-ground message pad is used on which messages to be dropped are written. Often it is necessary for the ground troops to reply to the drop message, or further information may be desired, so the observer must carry pickup message equipment. This consists of a reel on which is wound about fifty feet of carpenter's cord, weighted on the end by a large lead hook. If the ground troops signal that they wish the airplane to pick up a message, the ship approaches close to the ground, and in a nearly stalled attitude. The observer unwinds the pick-up cord, and as the ship passes over a loop of rope into which the message in a bag has been tied and suspended on two ten-foot poles, he allows the lead hook to engage in the loop by lowering the cord the proper distance. In this manner the message is picked up. The observer then reels in the cord and has his message.

Then a very pistol must be carried by the observer as a means of transmitting signals by pyrotechnics to the ground troops, and likewise an aerial camera with which photographs are taken to show actual disposition of troops and objects on the ground and to show the result of artillery fire on the objective. Air-ground liaison code sheets, which are used to codify radio messages and deny the information to the enemy in case of interception of the message, are also carried, although during actual hostilities codes, of course, are not carried, and the code must be memorized by the observer. This probably makes up the total required equipment for the normal observation mission.

Yes, the work of the aerial observer is somewhat hampered by the necessity of carrying so much equipment, but to my notion his job is perhaps more interesting than that of any other military airman. He has a grandstand seat or a birdseye view, so to speak, of the zone of hostilities. He is in constant contact with the actual fighting, and can really understand what is going on below him. He is not lost in the rush of excitement, but has his fair share of thrills. He has his private battles in the air, and, finally, he accomplishes his bit toward the successful conclusion of war and the advancement of aviation.

Ed. Note: This article was broadcasted from the studio of the University of California over radio station KFO, at 7:30 p.m., Sept. 28, 1932, in conjunction with an aviation program arranged by the University.

SEARCHLIGHT DRILL IN HAWAII



SPECTACULAR searchlight drill was staged on the evening of Sept. 23rd in honor of Brig. General W.E. Cole, Commanding the Hawaiian Separate Coast Artillery Brigade, who departed for the mainland on October 4th. At 8:00 p.m., all lights on the main post were darkened and, simultaneously, 27 anti-aircraft searchlights, each having the high power of 800,000,000 candle, illuminated the sky. The beams of these searchlights converged over the center of the parade ground. Considerable comment was occasioned by the unique effect produced by the different colored searchlights and the light reflected from the highly polished arms and equipment of the 64th C.A.C. Regiment. The officers were dressed in white uniforms, while the enlisted men wore the new sand tan. Lieut. McNaughton, of the 11th Photo Section, cooperated with the demonstration by taking aerial night views of the display. Tech. Sgt. John P. O'Callaghan, of the 11th Photo Section, was stationed at the top of Punchbowl, approximately $2\frac{1}{2}$ miles from Fort Shafter, and there made still pictures. Lieut. McNaughton's reaction to night aerial reviews is as follows:

"Having 27 searchlights, with a combined strength of 2,800,000,000 candle power, flashed on you at the same time while flying 5,000 feet above them, is rather startling at first. I soon discovered, however, that the rays of light were so narrow that I could have one wing in the edge of the light and look over the opposite side of the plane and not get any glare at all. This fact was proven when we flew into the center of the beams and took a picture straight down without over exposure.

From the air, the rays appear perfectly parallel, forming a cylinder of light. They do not seem to converge at the top as they do when viewed from the ground. Whenever a cloud would intercept the rays, the reflected light would light up the sky much brighter than the unintercepted beam. In fact, it was possible to read the instrument board at a distance of approximately one-quarter of a mile away from the beam when the beam was reflected against a cloud. A photograph taken of a beam of light playing on an object would reveal the shape of the object, but would not show the ray of light."

The following are Technical Sergeant O'Callaghan's reactions:

"I expected a great volume of light of high actinic register and set up on "Punchbowl" with the idea of photographing the pattern and design of the searchlights from a distance. The exposures were made at 1/50 second on Hypersensitized Panchromatic Aerial Film. There was almost no deposit on the film. This leads me to believe that the rays were toward the long end of the spectrum, somewhere about 5,500 a.u. (green and yellow green). The beams of light were condensed into narrow pencils and showed very little where the axis of the lens was perpendicular to the beam. The clouds were very high, so that there was nothing to intercept the beams. If they had been projected more nearly horizontal, they would have been intercepted by objects, such as buildings on the ground, in which case, the reflected light would have been easily photographed. Some success was made in photographing the display from Luke Field. The exposure time in this case was about 10 minutes on Commercial Panchromatic Cut Film used in a View camera of 12' focus."

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TWO AMPHIBIANS FOR ROCKWELL FIELD

The number of airplanes assigned to Rockwell Field was increased on the receipt of two Douglas Amphibians, type Y1C-21, delivered from Bolling Field recently by Capt. Albert F. Hegenberger, 1st Lts. L.J. Carr, G.C. Jamison, 2nd Lieut. N.B. Harbold. Mr. Harold Gatty, of 'Round-the-World Flight fame, accompanied the flight, as did Sgt. D.J. McKinley, Corporal A.N. Aldridge and Pvt. J.N. Varcolik. All were attached to the 19th Bombardment Group for two weeks' temporary duty. While at Rockwell Field, lectures and practical instruction in Aerial Navigation will be given by Mr. Gatty and the officer personnel. The two Amphibians, first of their type to be assigned to the 19th Bombardment Group, are regarded by the officers and men with much anticipative interest.

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ALBROOK FIELD ACTIVITIES

New activities at Albrook Field, Canal Zone, are being started as rapidly as arrangements can be made. The Post Exchange installed a tailor shop and shoe repair shop and also bought their first bus, which is in regular operation between Albrook Field and Panama City and furnishes transportation for the school children to the Balboa schools. The first consignment of books for the Post Library is expected to arrive shortly, and the first allotment of money for the purchase of books was received. The Post Library is now included on the Department Circulating Library Service. Steps were taken for the procurement of motion picture equipment to be temporarily installed in one half of one of the new hangars. It is expected to have this in operation about November 1st, and it will be continued until the new theatre building is ready, which will probably be in about a year. Terracing and grass planting has practically ceased owing to heavy rains. The big job at the present time is the building of roads to the new hangars which, it is expected, will be turned over before the end of October.

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NEW MECHANIC'S CAP

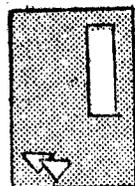
The Materiel Division, Wright Field, announces that a mechanic's helmet and cap are combined in a new mechanic's cap which, when worn on the ground in work about the airplane, with the visor in front, offers protection to the eyes and face from the slipstream and dust and sun, and when turned around with the visor to the back and the inside flaps pulled out forms a helmet for short flights. The cap is made of mercerized cotton cloth to match the mechanics coveralls.

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No contributions have been received for quite some time from Air Corps Reserve activities in various sections of the country. The News Letter would appreciate news from time to time as to what our Reserve organizations are accomplishing in the way of flying activities.

ACTIVITIES AT OSCODA, MICH., IN 1932
By the News Letter Correspondent

CASTLE



In Northern Michigan, on the wind-swept shores of Lake Huron, there rests in quiet solitude a vast area of pine-covered sand. This solitude is broken only by the screams of wild cats, the hissing of wind-swept sand, the rustle of virgin pines, the roar of Selfridge Field Pursuit ships and the constant staccato of Browning M 2 cal. 30 Model 1920. In this wilderness of sand and pines there exists a strange combination - the daily routine existence of the nineteenth century American Indian, as he leisurely fishes and hunts, is interrupted by the hurried, hazardous activity of the latest model 1932 American Pursuit aviator.

In the period of years before 1911, pioneer foresting and lumber industries began developments on the Ausable River and gradually built up the City of Oscoda. In 1911, the great Michigan forest fire swept this area and completely ended its use as a lumber center. Oscoda was rebuilt by a few hardy souls into a town to accommodate two hundred souls, and the remainder of the surrounding country given back to the Indians without the ceremony of plowing. Years later, when time and second growth of pines had filled the void caused by the fire, this deserted place was chosen as a possible site for conducting a hardening school for Selfridge Field's pampered pilots. Forty acres of the thickest spaced, most deeply rooted pines were cleared, and the resulting bare spot, by comparison, called a flying field. This field, named Camp Skeel, is located three miles from Oscoda, 20 miles from the nearest talking movie and 160 miles by air from Selfridge Field. For several years this has been the center of Selfridge Field's Annual Gunnery Activity.

On July 18, 1932, the 17th Pursuit Squadron of the 1st Pursuit Group, Selfridge Field, departed for Oscoda, to make camp and to begin the annual gunnery activities for the summer. Previous arrangements, including Ordnance supplies and radio service, had been made by Lieut. Miller, Ordnance Department, and one caretaker. For the actual move to Oscoda camp, three transports were made available - 1 C-4A, 1 C-14 and 1 C-24. These transports, augmented by squadron mess truck and 21 P-6E's, moved the entire officered and enlisted personnel, their personal baggage and camp supplies necessary to effect full squadron activity to Oscoda on July 18th. Upon arrival at the camp, the following plan was devised and put into effect: Eighteen pyramidal tents, for use as sleeping quarters by enlisted men, were set up in two rows running north and south, and south of the mess and officers' sleeping quarters. Five of the same type tents were set up in an east and west street at right angles to this street to serve as Supply, Medical, Canteen, Headquarters and Radio tent, respectively. Two of the same type tents were placed 200 feet south of officers' building to serve as armorers tent and Ordnance storage tent. One pyramidal and four small fly tents were set up north of the officers' building to house the overflow of officers not taken care of in the officers' building. Latrines and drainage facilities were dug, 600 feet east of main camp. The kitchen, enlisted mess, officers' mess and sleeping quarters for part of the officers were combined in a 200' x 25' three-room frame building.

During the period, July 18 to August 10, 1932, the 17th Pursuit Squadron maintained a roster of 23 officers and approximately 85 enlisted men. Both officers and men were messed by the Squadron, and excellent results were reported. Twenty-three officers fired the gunnery course as prescribed by regulations. Of the 21 P-6E Pursuit ships used, a daily average of 20 were in commission. One C-14 Transport plane maintained transport service with Selfridge Field as supplies were needed.

On August 10th, the 17th returned with its equipment from Oscoda, and the 94th Squadron began preparations. On August 11th, the 94th Squadron, with 25 pilots, 85 enlisted men, 19 P-16's, one C-4A, one C-14 and one squadron mess truck, moved to Oscoda and established camp there. The 94th maintained mess for 25 officers and 85 enlisted men for the period August 11th to September 3rd. Twenty-five officers fired the prescribed gunnery course in 19 P-16's. Of these 19 ships, two were damaged in activity on the field, and a daily average of 15 were kept in commission. Transport service was maintained, as needed, by one Y1C-14 Transport. One OA-2 Loening amphibian, maintained on Lake Van Ettan for service as crash boat, was damaged, due to structural failure in take-off, and was salvaged by personnel at that camp. A wrecking truck from Selfridge Field was sent for this work. The 94th returned to Selfridge Field on August 29th.

On September 3rd, the 27th Pursuit Squadron, with 31 officers, 83 enlisted men, 23 P-12E's, 1 C-4A, 1 C-9, 1 C-24 and 1 C-14, and one squadron mess truck, moved to Oscoda and established camp. The Squadron maintained mess for these officers and men for the period September 3rd to October 6th. During this time, 31 officers fired the prescribed gunnery course. In the latter part of this period, the 27th fired extensive courses in combat firing, to include firing by elements and flights. Some firing at glider targets, released by airplanes, was accomplished, and combat firing at tow targets was executed by elements. On designated days, the 17th and 94th Squadrons made trips to Oscoda to execute combat firing with the 27th Squadron. The results of this combat firing were interesting, and showed an average of about 40% hits. Transport service was maintained by alternate use of a Y1C-14 and a C-24. Glider targets were released by an O-19B, equipped with pontoons. This plane was damaged in landing and salvaged at Oscoda. The 27th returned to Selfridge Field October 6th.

To give a reader, who has never experienced the rigours of Selfridge Field's real Field Service Gunnery Camp, the following daily schedule is reviewed: Reveille, relentless rumble roars at four a.m. Coffee is served at 4:15, and freezing, swearing pilots stumble over and plow through sand dunes to their waiting ships at 4:45. From 4:45 until 8:00 a.m., ground target firing is conducted on schedule. At 8:00 a.m., breakfast is served. Tow target firing over Lake Huron begins at 9:00 a.m., and continues until 11:30 a.m., or until the firing or towing pilot has a forced landing in the Lake. Lunch is served at 12:00. At 1:00 p.m. begins the afternoon grind of bore sighting, engine repair repair and maintenance, target repair and trouble shooting on machine guns. At 5:30, the dinner bugle sounds, and all hands report for the daily critique and discussion of plans for the next day. Taps at 9:30 and so to another day.

During the period July 18 to October 6th, the following statistics are in order: Eighty officers and 255 enlisted men were quartered and rationed; 80 officers fired the prescribed gunnery course.

Sixty-eight airplanes were maintained in field service condition and a daily average of

sixty-two were in condition.

Approximately 200,000 rounds, cal. 30 ammunition and 40,000 rounds, cal. 50 were transported by air to Oscoda and expended there in firing prescribed course and combat firing.

Approximately 2,000 dummy bombs and 150 25-pound fragmentation bombs were expended.

Transport service to and from Oscoda totals 275 hours and 25 minutes. A total of 365 passengers and 43,850 lbs. supplies of all kinds were transported.

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ANTI-AIRCRAFT ARTILLERY EQUIPMENT TESTED AT SCOTT FIELD

Mimic warfare was conducted at Scott Field, Belleville, Ill., for the period of a month by the 61st Coast Artillery (Anti-Aircraft) Regiment, commanded by Lt.-Col. J.A. Green, which arrived from Fort Sheridan, Ill., Sept. 23rd, and aircraft from Scott, Lt.-Col. J.A. Paegelow, commanding. The searchlight drills, conducted each night except Saturday and Sunday, proved quite an interesting spectacle to the personnel of Scott Field and to thousands of residents of nearby country and towns, and visitors from several miles in all directions. These drills consisted of an aerial "attack" by aircraft flying toward the town of Lebanon, Ill., 6 miles northeast of Scott Field, and a "defense" consisting of locating of the aircraft by means of sound detectors, located on the ground along the base of a 15-mile triangle of which Lebanon was the apex, and the flashing on the aircraft of beams of light from the five 800,000,000 candle-power, 60-inch barrel-type mobile searchlights, which form a part of the equipment of the Anti-Aircraft regiment.

The searchlights were arranged in line across the sector, at 3-mile intervals, about midway between the 15-mile base of the triangle and the town of Lebanon. Several miles ahead of the lights were five listening posts, manned by lookouts with ear phones, who telephoned to the battery as soon as they heard the sound of the approaching planes or airships. As soon as this message was received at the searchlight, the sensitive sound locators got into action.

Long before the distant hum of the motors was audible to the men at the searchlights, the locators, each equipped with four amplification horns, picked up the sound and the direction, automatically turning the light at the proper angle. Another mechanism determined the altitude at which the aircraft was flying. The sound locator and detector had mechanical ears which hear from 7 to 15 miles away, depending on the weather, wind and unusual noise handicaps. The comparator registers the data obtained by the sound locator and compares it with the data of the searchlights.

As soon as a beam of light from the nearest searchlight located the aircraft, the beams from the other lights also focused on it, throwing it into clear relief and making it a target for the gunners of the regiment. In wartime the guns, which were brought to Scott Field but not used in the mimic warfare, would be concealed near the lights, arranged about 50 yards apart. The artillery forming the present equipment consists of four 3-inch guns on anti-aircraft mountings, firing 25 rounds a minute, and twelve .50 caliber anti-aircraft mounted machine guns, capable of firing 600 rounds per minute.

On the majority of trials the aircraft were caught by the beams of the searchlights while still several miles short of the objective, but at times they were successful in eluding the searching fingers of light and reached Lebanon to destroy "theoretically" that village with bombs. The aircraft operated at varying altitudes and approached the objective from any point on the 15-mile base of the triangle. The regiment, having only a small part of the equipment it would have in wartime, only endeavored to defend this 15-mile sector.

On completion of the practice at Scott Field and a demonstration in St. Louis, the regiment packed its equipment on trucks and departed for Fort Sheridan, its home station. Colonel Green, upon completion of the organization practice, expressed his extreme satisfaction in the cooperative work at Scott Field and also stated his desire to repeat the encampment next year.

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PROGRESS OF CONSTRUCTION PROJECTS AT MITCHEL FIELD

The construction program at Mitchel Field, N.Y., has been surging forward with a new impetus of late. A new bachelor officers' building is nearing completion; a new headquarters will be ready for occupancy in a few days, and the new engineering shops are being dusted out for a final inspection. A new appropriation made possible the building of necessary roads. The last is a blessed event, for the horrible condition of the roads lowered the morale of many a new shiny car, to say nothing of ruining the disposition of practically everyone on the post.

The operation of the various departments on the post was hampered from time to time, but their inconvenience can in no way compare with the plight of the Photo Sections. Cut off from the heat and hot water supply by new construction on all sides of them, they have struggled to accomplish their very necessary tasks in the most primitive manner. The situation became very difficult, due to the volume of film which arrives every day from Captain Taylor in Michigan and Lieut. Olive in Maine. Two electric heaters were obtained, but Lieut. Cullen complained because of the necessity of detailing a man to carry the heater around after him wherever he went. The situation was finally relieved when the Quartermaster and Utilities devised a special installation. The work goes on once more.

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The enlisted personnel at Rockwell Field, Coronado, Calif., are now housed in their recently completed "bungalows," built from salvaged material, and are nothing more than tent frames boarded over, screened, and the roofs covered with tar paper. They are, however, more comfortable than the tents, and are capable of retaining much more heat in cool weather and shedding much more moisture in wet weather. They present a very neat appearance, and the four men quartered in each one are much better housed than when in the tents which formerly occupied the area.

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Much attention is being devoted to the matter of insignia at Rockwell Field. Both the 30th and 32nd Squadrons are making deep researches for suitable squadron designs, and something appropriate will undoubtedly be brought forth in the near future.

ANTI-AIRCRAFT GUNNERY

Ed. Note: The following article was written by "A Pilot" who is evidently an active Royal Air Force pilot of world-war experience. This article first appeared in the May issue of the Journal of the Royal United Service Institution. It presents a number of ideas from the viewpoint of a service pilot of a country other than our own.

A number of articles, by gunners and others, have been published lately on antiaircraft gunnery, and the subject is one which the present writer has discussed with officers of the sister Services. The general impression left on the mind is that gunners hold that there has been a great improvement in this form of artillery, and therefore the experience of the late war may be very misleading. They seem to feel that gun and small arm fire from the ground is not accorded sufficient status in defense schemes, particularly by R.A.F. personnel. They suspect that the Air Force pilot, clinging obstinately to his war experience, believes, and teaches the younger generation that the A.G. gun is a nuisance, and may at times be alarming, but, provided that simple precautions are observed, it need not be taken very seriously. They argue that, for such as hold these views, there will be a rude awakening. A further complaint is that the R.A.F. during Army maneuvers and other tactical exercises, ignores fire from the ground, and impudently carries on as if it did not exist. This introduces so serious an element of unreality into such exercises that the part played by aircraft is not apt to be exaggerated, and this may lead to disappointment if the same performance be expected in war. Finally, there seems to be a belief that A.A. fire, even though it does not destroy or bring down many aircraft, will, if it reaches a sufficient standard of accuracy, act as a deterrent and cause aircraft to turn back and abandon their object.

It is proposed to examine these claims from the pilot's point of view, and in doing so it is not intended to take into account the advantages which aircraft can derive from clouds, mist, and bad visibility, as regards concealment and added possibilities of surprise. It will be assumed throughout that the weather is clear, and therefore most favorable to A.A. gunnery.

THE TARGET

First of all, the improvement which has taken place in A.A. gunnery is patent to anyone who has had the opportunity of seeing modern A.A. practices. Accuracy of fire from fixed defenses is, for various reasons, almost certainly greater than that from a mobile layout in the field, or from the A.A. armament of a ship; but that there is all-round improvement is unquestionable. It can be admitted that if an aircraft continues to fly absolutely straight and level at a constant speed in clear weather or with a background of high cloud, and within easy range of an A.A. battery, it will probably be hit; and if it is hit, it is possible that it will be brought down. Even supposing that the aircraft, in such circumstances, is almost certain to be brought down, this would not be serious from the pilot's point of view; and it is still possible to contemplate with calmness that A.A. fire will improve until such a standard is reached, for the question which immediately arises is need the airplane ever fly in this obliging manner?

The answer is, unfortunately, that there is one occasion on which it must do so, and that is when running up to a target using a bomb sight. Then it is necessary to maintain a straight and level run of about a mile. This is a disadvantage, for it means that there will be the maximum danger from A.A. fire at a critical moment, when the bomb aimer should be coolly and carefully operating his sight, and the pilot should be concentrating on flying straight and level. The accuracy of bombing is likely to be seriously diminished, if the aircraft during the "run up" to the target be subjected to accurate and heavy A.A. fire; but the disadvantage may not always remain, and it should not be an unavoidable condition of accurate bombing, although it is a necessity with present day equipment. At no other time is it necessary for an airplane or formation to fly straight and level at a constant speed, unless we except photographic air survey of unmapped country, which is not likely to be necessary in the face of organized A.A. defenses. At all other times aircraft and formations could and would alter course, height and speed, and a very small variation is all that is required to keep A.A. gunfire at a safe distance. At worst, a straight run of a mile takes about 25 seconds - not a very long time for the gunner to secure a hit on an airplane.

Consider the conditions when an airplane is traveling at 150 m.p.h. at 10,000 feet. Suppose that the effective diameter of the shell burst is 30 yards, and that the time of flight of the shell from the gun to the point where it bursts is 20 seconds. The A.A. gunner must lay his gun and set his fuze that his shell will burst within 15 yards of a target which will travel four-fifths of a mile after he fires. An alternative of course of 5 degrees at the moment the gun is fired will cause the gunner to miss by about 120 yards. Remember also that there must be some dead time in the setting of the fuze of the shell; because it must be set, the shell must be placed in the gun, and then the gun must be fired. This dead time is about 10 secs. Meanwhile, the target, which has freedom of movement in three dimensions, is traveling at 220 feet per second. The faster the airplane flies, the greater is the distance it will cover after the fuze has been set and the gun fired, and the smaller the deviation in flight needed to result in the shell bursting outside effective range of the target.

At 10,000 feet the radius of effective range of an A.A. gun is some 6000 yards. If an aircraft flying at 150 m.p.h. passes exactly over the gun, it will only be within range for about 2.8 minutes. There are a number of things to be done before the gun can come into action. The airplane must be spotted; it must be identified as hostile, and it must be indicated to the men working the height finder. All this takes time, and if there is the slightest hitch the gun may miss so fleeting an opportunity. In the late war, aircraft formations were often hard up against their ceilings, unable to climb, and unwilling to lose height owing to the difficulty of regaining it. They flew as high as possible, not so much out of respect for A.A. gunnery but because height gives the initiative in air fighting. Again, because they were up against their ceilings, they had no speed range. They had only one speed, which was necessarily slow, the speed which enabled them to maintain their height. They thereafter had only one resource to outwit the gun, that of small alterations in course. Yet it sufficed, and the number of aircraft brought down by A.A. fire was very small.

The modern formation, with its high ceiling, and tremendous speed range, suffers from no such disadvantages. It can climb, turn or alter speed at will, though I am bound to admit that if enemy fighter aircraft are numerous, formations will usually fly both high and fast. They

will, however, have more liberty of action under the worst conditions than did the formations of the late war. As speed and climb improve each year, the difficulties of the A.A. gunner increases, for he cannot shorten the time of flight of his shell appreciably without adding to his difficulties in other ways. A shorter time of flight would involve a corresponding increase in muzzle velocity, and a heavier charge; the former would mean more rapid wear of the gun, while the latter would necessitate increased weight and bulk of the ammunition, which would tend to reduce rate of fire and mobility. So far, then, from the chances of the A.A. gun bringing down aircraft having improved since the war, they appear to have been reduced, while the continued progress in the relative increase in aircraft speeds over time of flight of the shell will tend to minimize the chances of the gun still further.

SMALL ARM FIRE

Small arm fire from the ground is only effective when an aircraft is flying low, but if the air can be filled with bullets from rifles and machine guns, it is possible that the plane will be hit. But consider the enormous asset of surprise possessed by the airplane. Imagine that it is carrying out a low-flying attack on a marching column; it is seen when it tops the trees, half a mile ahead, flying at 180 m.p.h. at 150 feet; it leaps at the column of troops, flying down the road at 264 feet per second, dropping bombs and firing its machine guns; in 20 seconds the attack is over, and the airplane is disappearing over a ridge half a mile down the road. Will the column have got its rifles, let alone its machine guns into action in this brief space of time? Airplanes are not going to fly round and round at convenient heights for the A.A. or S.A. marksman. Low flying attacks will be over in a flash, and probably few other than the antiaircraft sentries will have time to open fire at effective ranges.

A.A. FIRE FROM SHIPS

The ship suffers from three drawbacks for effective A.A. fire which are not found on land; in the first place, aim is liable to be affected by unexpected movements of roll and by blast from the main armament, while allowance must be made for her course and speed; second, the masts, rigging and wireless aerials tend to limit the arcs of fire of the A.A. guns; finally, the threat of surface or under-water attack is likely to distract attention from the air. For these reasons, the ship will probably be comparatively easy to surprise by air attack. On the other hand, she cannot mount a heavier A.A. armament than can generally be brought into action on land, because the question of mobility does not have to be considered. This means that the effective range will be greater, and so will the effective radius of the shell burst, but the rate of fire will be less than from land artillery. As compared with fixed defenses on land, the ship has a much more difficult task, and it is reasonable to suppose that her A.A. fire will not reach the same standard of accuracy.

To sum up, we find that if aircraft fly straight and level at a constant speed within convenient range of hostile A.A. guns, they are in grave danger of being hit. We have seen, too, that if they loiter at low heights, they run a serious risk of being brought down. But with the one exception of bombing referred to, there is no need to do these things, which form no part of their functions if they are correctly employed. A.A. or small arm fire cannot be ignored, but if a pilot takes care to alter course and height, constantly and irregularly; and to make use of surprise in low flying attacks, he may rest assured that he is in no great danger. The stray shell or bullet no man can guard against, but the pilot who exercises care can carry out his duties with reasonable expectation of a safe return to his air-drome. In war time, he will ask for nothing more. The opinion is sometimes held that if the pilot is forced to make continuous small alterations of course and height, he will be placed in a position of some difficulty. This is certainly not so. It takes much experience and concentration to fly an airplane straight and level at a constant speed for a mile or more. It is the easiest thing in the world for a pilot to permit small and irregular alterations of course and height, and in war time, pilots will do so quite automatically after very little practice. In fact, it is suggested that, from the pilot's point of view, A.A. gunfire must be regarded as a nuisance, which may at times be alarming, but that it need not be taken seriously as long as he exercises due precautions; moreover, it may be said that this is a proper attitude for the R.A.F. as a Service, to adopt.

ARMY MANEUVERS AND TACTICAL EXERCISES

No one will deny that Army maneuvers and tactical exercises in which troops or ships and aircraft cooperate are necessarily unreal to a large extent. The bullet and shell are absent, and the most intelligent umpiring can never be a satisfactory substitute. On the other hand, the 100% safety requirements of the R.A.F. under peace conditions restrict the operations of the aircraft, and risks that would not be noticed in war are too great to be permitted in peace. For this reason, it is always unwise to attempt to base hard and fast tactical rules on the conclusions drawn from such exercises. They have great value both from an administrative and operational point of view, but we must never forget that neither bullets nor shells nor bombs are there. It is probably true that pilots go about their work very much as though A.A. gunfire and small arms fire did not exist, and that they do not take sufficient care to fly erratic courses, or to keep out of range of fire. But what is the alternative? Obviously, we ought not to say to them, "You must be very careful not to go near the enemy; if you do, he will probably shoot at you." Surely, the correct attitude for the pilot towards hostile fire from the ground can be summed up in some such words as these: "Be bold; do what you have to do, but do not waste time about it; take every opportunity to make your arrival a surprise; do not suppose that you are under fire until you have definite evidence of it, but do not fly straight and level at a constant speed whenever there is the slightest likelihood of it; keep your mind and your airplane moving at high speed; remember that the effect of A.A. firing is chiefly moral.

THE DETERRENT OF A.A. FIRE.

Remember that the effect of A.A. fire is chiefly moral. This is a good text on which to discuss the claim that, "although it may not destroy many aircraft, if A.A. fire reaches a sufficiently high standard of accuracy, it will act as a deterrent, and will cause pilots to turn back and abandon their object." A little reflection will show that the only way of stopping air attack completely is, indeed, to bring about a collapse of the morale of the personnel engaged in it. The air defenses cannot erect a barrier which the attacking aircraft cannot cross, nor can all the raiders be shot down by A.A. fire and fighter craft. But unquestionably, if the defenses can destroy so many aircraft that the survivors feel that they only escaped by a miracle, and that the next time they too will join the immortals; if, in fact they can be made to feel that the odds are heavily against their returning from the

the next raid, then their morale will collapse and the air offensive will be broken. But to achieve such a collapse in civilized personnel of high morale, fighting for their nation's existence, a very high rate of casualties must be produced. Mere inconvenience or a feeling of apprehension when penetrating a defended zone will not be sufficient to bring it about. We must remember that the zones which it is possible to defend by A.A. fire are relatively small when compared to undefended areas, and that fast aircraft pass through them very rapidly. Few enjoy a visit to the dentist, but all but a small number of obstinate spirits do go to him when they feel it is necessary. As often as not they find that it is not so bad as it seemed when viewed in anticipation. The same applies to flying through A.A. fire.

THE PILOT'S POINT OF VIEW

Let us examine the realities of the position from the pilot's point of view. At the worst a shell may secure a direct hit on the aircraft and explode, blowing the machine and crew to bits in the air. That is a rare occurrence, and although the present writer has seen it once, hundreds of pilots went through the war and never saw an instance of the kind. Next, the shell may burst so close that the aircraft is wrecked and the crew wounded; the aircraft will fall out of control to the earth, but the crew may escape by parachute and reach the ground safely. Thirdly, the aircraft may be so damaged as to be uncontrollable, while the crew are unhurt; in this case, they can almost certainly leave the aircraft by parachute and make a safe landing. Lastly, a stray fragment from a shell may kill or injure the pilot or a member of the crew without seriously damaging the machine; this belongs to the category of bad luck incidents which no normal person worries about. It is true that personnel may be attacked when parachuting to earth, but that is not very likely; it savors too much of killing in cold blood, and if they are over enemy territory it is equivalent to slaughtering prisoners. It is clear, therefore, that the parachute is of great value in the two most probable classes of damage from A.A. fire, and may, therefore, be regarded as a strong buttress to the morale of the pilot engaged in penetrating A.A. defenses. It is worth noting that some foreign powers, France among them, appear to rely a good deal on A.A. fire for stopping air attack. The recent French air maneuvers seem to show that their ideas of air defense are along what might be termed second class lines. They appear to favor territorial A.A. gunners, smoke screens to hide important centers, a doubtful form of defence - training of the population to suffer air bombardment with resignation, and a good ambulance and hospital service. The full scope of their defense measures, however, seems to suggest that they, too, have lingering doubts as to the stopping power of A.A. fire.

CONCLUSION

Our general conclusions on this subject of A.A. gunnery may therefore be summarized as follows:

(1) Although the accuracy of A.A. fire has improved a great deal since the war, the performance of aircraft has improved even more, and the relative increase of aircraft speeds over the time of flight of the shell is likely to continue. In consequence, if due care is taken by the pilot to make small, continuous, irregular alterations of course and height, the chances of hitting the aircraft are less now than they were in the late war, and for this reason war experience is not misleading.

(2) We are adhering to the correct doctrine in teaching our pilots that their work must be done, and done thoroughly and well, in the face of anti-aircraft fire.

(3) Anti-aircraft fire, unless it is capable of producing a high degree of casualties, may discourage aircraft from loitering in defended zones, but it will not act as a serious deterrent, while the provision of parachutes should make the pilot's morale in the face of A.A. fire firmer today than it was in the late war.

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SELFRIDGE FIELD TRIES OUT NEW PURSUIT PLANE

Times change, and in this changing process new developments are evolved. Selfridge Field recently received a new type airplane, YP-26, fast, low-wing monoplane. This ship offers more speed and greater visibility than any type previously developed. The ship is Boeing built, powered with 14 to 1 blower "Wasp" engine.

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PURSUITERS MAKE STRANGE FIELD LANDINGS

CASTLE

A very interesting and instructive program was carried out recently by the pilots of the 94th, 27th and 17th Pursuit Squadrons, Selfridge Field, in the form of a strange field landing program. All airports within approximately 100 miles of Selfridge Field were catalogued and divided into a series A, B and C. Squadrons were assigned these series daily, and reports were made on the airports. This sort of training is doubly beneficial to pilots. Training in actual routine of approaching and sizing up of a new field is accomplished, also the pilot is given an exact knowledge of the location of all auxiliary fields in case of trouble.

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COAST ARTILLERYMEN VISIT AIR CORPS FIELDS

Enroute to Fort Sheridan, Ill., following its field maneuvers at Scott Field, the 61st Coast Artillery (A.A.) with its motorized equipment arrived at Chanute Field at noon, October 15th, went into camp on the edge of the flying field, and remained until its departure early the next day for its next stop near Joliet, Ill. During the visit of this regiment, a demonstration was held at the University of Illinois for the ROTC Unit. One searchlight battery contacted an airplane flown by Lieut. George R. Acheson, Chanute Field, in a night maneuver.

Battery "A" (Anti-aircraft Searchlight) of the 63rd Coast Artillery Regiment of Fort MacArthur, arrived at March Field, Calif., Oct. 3rd, for a month of field maneuvers, during which its annual searchlight records will be made. The battery is commanded by 1st Lt. W. J. McCarty, assisted by 1st Lts. Arthur B. Nicholson and Harry F. Aldrich. Approximately 80 enlisted men are here for the maneuvers. Tents were pitched near the west gate of March Field. Personnel and equipment were transported in 16 Army trucks. Five searchlights, each having one billion, two hundred million candle-power, and five sound locaters are included in the equipment.

VETERAN ARMY FLYER LOSES LIFE IN PHILIPPINES

The death as the result of an airplane accident of 1st Lieut. Leroy M. Wolfe at Nichols Field, P.I., on October 28th, removed from the ranks of the Air Corps one of its war-time officers - a skillful pilot who, in addition, was exceptionally well versed in radio engineering, particularly in connection with aviation. Prior to the distressing accident, Lieut. Wolfe, with Capt. Edgar P. Sorensen, observer, was engaged in aerial gunnery practice. According to cable advices from Manila, the cause of the crash was a sideslip from a stall in a climbing turn. Fortunately, the injuries sustained by Capt. Sorensen were not serious, but Lieut. Wolfe died several hours later.

Lieut. Wolfe was born at Chicago Junction, Ohio, Nov. 18, 1895. After graduating from high school at Attica, Ohio, with the highest honors in his class, he attended the Ohio State University for two years. Curtailing his college career in order to enlist in the Aviation Section, Signal Corps, he graduated from the School of Military Aeronautics, University of Illinois, April 6, 1918. He served at Camp Dick, Dallas, Texas, for a month, when he was transferred to Taylor Field, Ala., for flying training, upon completion of which he was, on October 18th, commissioned a 2nd Lieutenant. On November 1st, he was assigned to Gerstner Field, La., as student at the Bombing School. Transferred to Ellington Field, Houston, Texas, on Jan. 5, 1919, he performed aerial patrols along the Mexican Border until early in 1921, when he was transferred to Bolling Field, D.C. After completing the 1923-24 course in communications at the Air Corps Technical School at Chanute Field, Ill., Lieut. Wolfe took a year's special course in radio engineering at the Sheffield Scientific School, Yale University. His next assignment was at the Engineering Division, McCook Field, Dayton, Ohio, which was subsequently moved to Wright Field.

In September, 1926, Lieut. Wolfe participated in the National Air Races at Philadelphia, Pa., and was the winner of the large capacity airplane race. Early in 1931 he was transferred to duty in the Philippines. The deceased officer, whose flying proficiency was such that he figured in only one previous accident in all his years of military flying which could be termed a "major" one, is survived by his mother, his widow and two children. The News Letter extends its deep sympathy to his bereaved family.

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MORE ABOUT THAT MATHEMATICAL BRAIN TWISTER

In the last issue of the News Letter the following mathematical problem was propounded to our readers:

Five aviation executives and 5 employees went out to buy motors. The employees' names were Tom, Dick, Harry, Jack and Jim. Some of them bought second-hand motors and some had aviation motors built in accordance with their special ideas. They intended to use them for everything, from motorcycles to airplanes. Each individual purchased a motor, furnishing as many horsepower as he paid for the motor in dollars per horsepower. Each boss paid \$405 more than the employee for his motor. Glen spent most of all; Donald spent over four times as much as Rube; Rube \$238 less than Ted; Phil's motor furnished 63 more horsepower than Tom's; Dick's motor furnished 48 more horsepower than Harry's; Dick spent \$2912 more than Jack.

PROBLEM -- Who did Jim work for?

Let X = Horsepower of employer's motor.
 And Y = Horsepower of employee's motor.
 Then X² = Cost of employer's motor.
 And Y² = Cost of employee's motor.
 Also, (X² - Y²) = 405 (1)
 And, (X - Y)(X + Y) = 405 (2)

Find suitable values of X and Y.

The first thing to notice is that 405 is divisible by only 1, 3, 5, 9 and 15 and, of course, 405, 135, 81, 45 and 27.

Substituting in (2)

- (X - Y)(X + Y) = 1X 405 = 405 (3)
- (X - Y)(X + Y) = 3X 135 = 405 (4)
- (X - Y)(X + Y) = 5X 81 = 405 (5)
- (X - Y)(X + Y) = 9X 45 = 405 (6)
- (X - Y)(X + Y) = 15X 27 = 405 (7)

Therefore, we have the following sets of equations:

- A. X - Y = 1, X + Y = 405 and X = 203, Y = 202
- B. X - Y = 3, X + Y = 135 and X = 69, Y = 66
- C. X - Y = 5, X + Y = 81 and X = 43, Y = 38
- D. X - Y = 9, X + Y = 45 and X = 27, Y = 18
- E. X - Y = 15, X + Y = 27 and X = 21, Y = 6

Employer's Cost	Employee's Cost
X ² = (203) ² = \$41,209	Y ² = (202) ² = \$40,804
X ² = (69) ² = \$4,761	Y ² = (66) ² = \$4,356
X ² = (43) ² = \$1,849	Y ² = (38) ² = \$1,444
X ² = (27) ² = \$729	Y ² = (18) ² = \$324
X ² = (21) ² = \$441	Y ² = (6) ² = \$36

From the employee's cost column we look for two figures differing by \$2912, and find that

Dick paid \$4356 for a 66 h.p. motor and Jack paid \$1444 for a 38 h.p. motor.

From the employer's column, we find that Glen, who spent most of all, paid \$41,209 for a 203 h.p. motor.

From the employer's column we look for one cost that is \$238 more than another, and find that - Rube paid \$441 for a 21 h.p. motor, and Ted paid \$729 for a 27 h.p. motor.

Looking for motors with a difference in horsepower of 63, we find that -

Phil paid \$4761 for a 69 h.p. motor, and Tom paid \$36 for a 6 h.p. motor.

Since Harry's motor had 48 less horsepower than Dick's -

Harry paid \$324 for an 18 h.p. motor.

From deduction, and since Donald spent over four times as much as Rube -

Donald paid \$1849 for a 43 h.p. motor.

Comparing the employers' and employees' cost figures and ascertaining those whose difference is 405, we find that -

- Tom worked for Rube
- Dick worked for Phil
- Harry worked for Ted
- Jack worked for Donald
- and, therefore, from deduction,
- Jim worked for Glen.

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WAR DEPARTMENT ORDERS AFFECTING A.C. OFFICERS

Changes of Station: To Panama, Capt. Karl S. Lxtater, from Randolph Field -- To Aberdeen Proving Ground, Md.: 2nd Lt. John P. Ryan from Langley Field -- To Fort Crockett, Tex.: 2d Lieut. George McCoy, Jr., from Hawaii -- To Mitchel Field, N.Y.: 1st Lt. Richard W. Gibson, from Philippines -- To Rockwell Field, Calif.: 2nd Lt. Wentworth Goss, from Philippines. Assignment of 2nd Lt. Don Z. Zimmerman to Post Field from Hawaii, revoked. Relieved from detail to Air Corps: 2nd Lt. James B. Corbett to 1st Cav. Div. Fort Clark, Texas. -- 2nd Lt. Robert L. Williams to 13th Coast Artillery, Fort Barrancas, Fla.
 Promotions: 1st Lt. Caleb V. Haynes to Captain; 2nd Lt. Signa A. Gilkey to 1st Lt., both rank from October 14, 1932.
 Retirement: 2nd Lt. Henry A. Winters, Oct. 31, 1932, for disability incident to service.
 V-6349, A.C.

NOTES FROM AIR CORPS FIELDS

Material on this and subsequent pages are not for publication.

18th Composite Wing, Fort Shafter, T.H., October 7th.

Tactical training for September within the Wing consisted of inter-island flights, cooperative missions with other branches of the service, aerial gunnery and bombing practice.

Major Vincent B. Dixon assumed command of Luke Field. The entire Wing met the Transport GRANT off Diamond Head, escorting it into Honolulu Harbor and flying an aloha for Major Dixon.

On Sept. 20th, the 26th Attack Sqn. flew to the Island of Maui to carry out a problem in conjunction with the Hawaiian National Guard who were holding their annual encampment on that Island. Two attacks were made upon them. A smoke screen was laid by one plane, screening the approach of the attacking planes, so that the mission was accomplished very successfully.

5th Composite Group, Luke Field, T.H.: In a joint Army-Navy communications practice, Sept. 20th, inter-plane communication between Air Corps and Navy planes was successfully carried out. WYQ, the Luke Field net control station, was constantly in communication with both units. The mission lasted 3 hours, various test messages and procedure being completed with commendable dispatch. The practice was pronounced the most successful ever held here.

All officers of the command are now enrolled in the Army Extension Course of the Air Corps Schools, under supervision of the Hawaiian Dept. One hundred hours study along these lines is required by the Air Corps Training directive, to be completed by May 1, 1933.

The Group Officers' Radio School started its new term with classes held daily under the direction of 2nd Lieut. Robert E.L. Choate.

The Post Tennis Team clinched the championship in the Sector Tennis Tournament, playing 25 individual and 8 team matches without a loss. The Post Swimming Team is now in second place in the Sector-Navy League. Due to the absence of football from the sports program, swimming has become a major sport, with a large number of men interested.

Second Lieuts. Harold W. Grant, A.C., Frank W. Cazier, Robert E. Jarmon, William E. Borger and Jack L. Randolph, Air Reserve, arrived in August and were assigned to Luke Field.

4th Observation Squadron: During September, this Squadron engaged in various tactical training missions - aerial photography, radio communications, individual aviation, infantry missions, combat maneuvers (camera gun) and night and day formation flying. Nine cooperative missions were flown, five with the Harbor Defenses of Pearl Harbor, two with the 22nd Infantry Brigade, one with the 13th Field Artillery and one with the 14th Naval District.

The appointment of 2nd Lt. Frank W. Cazier as Asst. Engineering Officer was the only change in commissioned personnel during September. Lieuts. Breitung and Cooper, C.A.C., were attached for temporary training for 15 days.

50th Observation Squadron: On his return from China, Lieut. Don Z. Zimmerman, popular basketball coach, was assigned to this Squadron, as was also Lt. Harold W. Grant, a new arrival. Lt. Edward N. Coates returned to the mainland and Lt. Henry C. Kristofferson was transferred to the 72nd Bombardment Squadron. Second Lt. Jack L. Randolph, who arrived Aug. 23rd, was assigned to the Squadron. Staff Sgts. L.R. Gray and R.L. Clifton arrived on the USAT GRANT as replacements for Staff Sgts. W.J. Andrerres and H.M. Laird.

23rd Bombardment Squadron: Upon his arrival on the August Transport, 2nd Lt. Robert E. Jarmon was sent to Tripler General Hospital for an appendicitis operation. The Squadron is hoping for his early return to duty. -- Four searchlight tracking missions were flown for the 64th Coast Artillery during September. -- Captains Lucas B. Schoonmaker, 64th CAC; George S. Pierce, 19th Inf., and A. Donald Cameron, 35th Inf., were attached for temporary training. Second Lt. Charles G. Williamson, of this Squadron, was sent to Fort DeRussy for 15 days' temporary duty with the Artillery units there.

72nd Bombardment Squadron: Starting September, this squadron began a series of experiments in bombing a moving target on the water. Arrangements were made for the towing of a surface target. Great interest was manifested in this work, as the 72nd pilots never before had the opportunity to try their skill on a moving target. -- Training for the 72nd during September consisted of aerial bombing, camera obscura, performance flights and aviation practice.

65th Service Squadron: During August and September, the Squadron was kept busy acting as escort aviation for a number of inter-island flights. On all inter-island flights, contact with the home station is maintained by radio - position and progress reports being transmitted every 10 minutes. On several occasions the Douglas Amphibian transported supplies and personnel to bases on Kauai, Molokai and Hawaii, flying these long over-water flights on perfect schedule. This ship is now at the Hawaiian Air Depot undergoing major overhaul, after its buffeting in rough seas off Koko Head. In order that long-range artillery adjustment missions might not be delayed, another Douglas was obtained from Wheeler Field and the necessary installation of instruments made. The first flight on this mission was made the last week in September, and was confined to the testing and calibration of the radio direction finders used in this work.

11th Photo Section: Tech. Sgt. Arthur Stolte returned to the mainland for station at Chanute Field, Rantoul, Ill. He served with the 11th Photo Sec. for two years, and performed some unusual and outstanding work as staff photographer, including photographs of Kilauea, spotting for long range coast artillery, and photographs of the attacking fleet in the Joint Army and Navy Maneuvers last February. Tech. Sgt. John P. O'Callaghan arrived Aug. 23rd as replacement for Sgt. Stolte. -- The entire 11th Photo Section, with 1st Lt. Donald D. FitzGerald of 4th Obs. Sqn.; Corp. Cundall, QMC, and John O'Callaghan, Jr., as their guests, enjoyed an excellent fishing trip Aug. 27th. Leaving Luke Field in a large sampan, they trolled all afternoon. Anchoring at nightfall, they fished until a late hour, Pvt. Hessler making the record catch. At daybreak they went to sea again and, while off Kaena Point, Lt. Kenneth P. McNaughton hooked and landed a large ulua. A school of large fish, estimated at about 100 pounds each and approximately 2,000 in number, was sighted just past Kaena Point. All members of the organization said they had never seen so many fish in such an area.

18th Pursuit Group, Wheeler Field, T.H. This uninspired correspondent, sitting at his desk in the hot afternoon sunshine of Hawaii, has just been aroused from his lethargy by the unexpected blare of an excellent band from under the office window. Although the 18th Pursuit Group is not favored with a band of its own, the various regiments at Schofield Barracks are kind enough to lend us theirs two afternoons weekly. The band concerts are much appreciated by our men, and also your correspondent, since the one today furnished him with that always difficult opening paragraph. -- Some 30 odd recruits who arrived recently are lounging



under the trees, listening to the music and looking most contented. They are temporarily quartered in tents, awaiting the move to new barracks, and undergoing recruit training under the direction of Lieut. Norstad. -- Gunnery, bombing, towing missions for anti-aircraft, water landings with the "ducks," smoke screens, dropping flares for illuminating the Infantry's water-borne targets, and many other activities somewhat curtailed our opportunities for strictly tactical flying in August. We have been able, however, to work out a few interception problems, including one with the Navy's flying boats. A hasty trip to Kauai by the Group Commander and some of his right-hand men presages a possible visit to that Island by the entire Group in the near future. Lieut. Eareckson had the honor of flying the Department Commander, General Wells, and his party, to Kauai recently. Eric was so awed by his passenger list that he negotiated a hair-raising ground loop at Port Allen and later, apparently in an effort to demonstrate that he had done it purposely, he repeated the maneuver upon landing at Wheeler Field. He reported that he managed to scare one of the Aides anyway, usually an impossible accomplishment.

With leis, aloha flights, and other appropriate gestures of farewell, the Group said good-bye to four young Reserve officers who sailed for the mainland Aug. 27th, after almost two years of duty with this organization. Lieuts. Ted Kershaw, Dusty Rhoades, Don Sheets and Bill Graham were the unfortunate four. All carefree young bachelors, these officers will be greatly missed by many on the island, and it is with the utmost sincerity that we wish them success in their civilian pursuits. But, with the passing of the old, comes the new. Lieuts. J.C. Doherty E.J. Corrigan and Ralph J. Moore, recent graduates of the Flying School, arrived Aug. 23rd, and were assigned to the 26th Attack Squadron. The Group extends them a hearty welcome and aloha.

6th Pursuit Squadron:

VERSES DEDICATED TO GUNNERY CAMP AT WAIMANALO

Well; summer camp has come and gone
And we shall have to carry on
Without arising at the dawn
To shoot our little gun.

No more the gleeful buglers blow
Us out of bed at four or so,
While fluent streams of curses flow
To greet the rising sun.

To tell the truth, 'twas not so bad,
He counts himself a lucky lad
Who thinks of all the fun we had
While living at the beach.

For, once the shooting time was o'er,
The ones whose backs were not too sore
From sunshine, went to get some more
Complexion like a peach

The waves rolled in with booming sweep,
And those who came to swim, not sleep,
Swam daily in the briny deep
Or lolled upon the sand.

And even those with bottoms sore
From contact with the "men o'war"
Disdained to quit and asked for more
And called it simply grand.

To prime us for our early flight,
They tucked us in at nine each night,
And, with the dousing of the light,
Mosquitoes swarmed and bit;
While scorpion, wasp and centipede
Made camp a lovely place indeed -
They stung and bit
And took no heed of either punk or Flit.

Of course, it wasn't all a pain
It seldom snowed nor did it rain
But twice a day and, in the main,
The food was good;
And though I guess I'm quite insane,
I'd just as soon as go back again
And shoot for record in the rain -
The ----- I would.

19th Pursuit Squadron: From Sept. 1st to 13th, the Squadron practiced aerial gunnery on ground targets at the Wheeler Field range. Then it moved to the Waimanalo gunnery range for 15 days of field exercises, preliminary and record firing on ground targets. Great interest was aroused in every pilot and man in the organization to make this training period go down in Air Corps history as being 100% perfect in every respect. Firing began at 5:30 a.m., the day following our arrival in camp. A time schedule of 20 pilots, firing three approaches each, completed firing at 9:30 a.m., thus getting the maximum advantage of smooth air conditions of early morning and allowing pilots to complete the required number of preliminary runs for the day. All pilots became acquainted with the landing field and range the first day. Weather was very clear, with a slight head wind until the third day, when it changed to a tail wind, and scores all dropped. To top off the rest of the period, the weather remained perfect for firing. Staff Sgt. Maurice M. Beach, enlisted pilot, completed the record course first and set a mark for all pilots to shoot at, and which some did surpass. As a result of the perfect conditions, hard work by the enlisted personnel, and fine cooperation of the pilots, the 19th fired a record which the writer believes to be the highest ever made by an Air Corps organization. Our final average for the regulation ground target course is 763.08. The aerial gunnery on towed targets has been equally successful, with an average of 129.81 for the record, with but one pilot left to compete. In the near future the 19th expects to do its record bombing. All pilots and enlisted men are looking forward to making that phase as successful as the gunnery proved to be.

On Sept. 23rd, this Squadron sent a 3-ship formation to Wheeler Field to participate in an aloha for the incoming USAT GRANT. The pilots were 1st Lt. Demas T. Crow, 2nd Lieuts. R.W. Burns and H.H. VanAuken.

26th Attack Squadron: Since Sept. 1st, the Squadron was engaged in aerial gunnery on tow targets. This work progressed very well, and most of the pilots were ready for firing record when the Squadron was ordered to move to the new barracks. This move was accomplished Sept. 19th and 20th, our Squadron being the first to occupy the new quarters.

Lieuts. John W. Stribling, John E. Nuhn and Wilfred Rotherham received commendation for their work in cooperative missions with the 8th Field Artillery in conjunction with their automatic rifle firing on towed sleeves. An extract follows: "These missions were carried out in an excellent manner, indicating that the officers concerned were particularly desirous of giving their fullest cooperation in assisting this regiment to obtain the objectives of this

phase of training.

75th Service Sqdn.: Squadron Organization Day was celebrated at Haleiwa Beach on Sept. 15th. Members of the Squadron left the field at 8:30 a.m. in private cars and trucks. In the morning, many racing events, games and swimming events were participated in by everyone. Plenty of lemonade, sandwiches and potato salad were served. Returning to Wheeler Field at 3:30 p.m., a chicken dinner was served to members of the Squadron and their families at 5:00 p.m. in the Squadron Mess, after which prizes were awarded the winners of athletic events. After dinner, Squadron personnel attended the Post movies. Thus ended the 1932 celebration of our Organization Day. -- Lieut. Earnest, Adjutant, was absent from the Squadron for two weeks while on duty with the 6th Pursuit Squadron at their field exercises at Waimanalo. -- Lieut. Tourtellot, Squadron Commander, was on duty with the 19th Pursuit Squadron at their field exercises at Waimanalo, Sept. 14th to 28th.

Hawaiian Air Depot, Luke Field, T.H.: Depot operations during September consisted of routine overhaul, repair work for the 5th Composite Group, and repairs to airplanes, engines and accessories. -- From Aug. 21st to Sept. 20th, inclusive, the Depot Engineering completed overhauls on eight planes and eleven engines, and completed repairs on two planes and 3 engines.

The Depot Reclamation had to get into action as the result of a Bomber crash in the ocean off Koko Head, which is described elsewhere in this issue. The Douglas Amphibian was unloaded at Ford Island at 7:00 p.m., and from then until 11:00 p.m., Depot personnel, under the personal direction of Capt. Greene, siphoned salt water out of the hull, gave the plane a fresh water bath inside and out, and did everything possible to protect it from any further damage than it had already received. Early the next morning, the plane was brought into the Depot and repairs were started immediately. -- The Wing planes from the Depot made the inter-island flight to Hilo and returned without incident, although Capt. Greene and Lieut. Robey could probably add a few comments regarding air conditions over the Kilauea Volcano.

New England Reserves, Boston Airport, Mass.:

At a meeting held in the Old France Restaurant in Boston recently, the New England Chapter of the Air Corps Reserve Officers' Association elected its new officers for the ensuing year. They represent a mixture of the war time pilots and our recent acquisitions from the Army Training Center. Capt. Maurice J. Connell was elected president.

Capt. Joseph A. Wilson, Commanding Officer of the Boston Airport Detachment, was speaker before the Jordan Marsh Co. - Boston Traveler Junior Aviation League on the development of Bombing planes. Col. Rush B. Lincoln, Corps Area Air Officer, related many experiences to this same group concerning early balloon experiments and some of his activities in lighter-than-air work. Many talks have been given before the young men and boys in this League, and it is felt that the work of those in the Army Air Corps and the Reserves in this connection is of decided benefit, both to the young men and to the service.

Albrook Field, Canal Zone, October 1st.

Albrook Field has suddenly taken on a boom appearance. The 78th Squadron moved in from France Field on October 1st. At the same time word was received that the 80th Service Squadron, stationed at Mather Field, will sail for Panama on the Transport U.S. GRANT, leaving Oct. 15th for station at this post. It is understood that these transfers will add about 200 men to this command during October. The quarters are rapidly being filled. Recent assignments to Albrook Field for quarters only were Major Horace Eakins, V.C.; Major John A. Smith, JAGD; Capt. E.F. French, S.C., and Lieut. A.L. Pachynski.

Mitchel Field, L.I., New York, Oct. 18th.

On Saturday afternoon, October 15th, all available officers at Mitchel Field paid their last respects to Capt. Fred Woodward at the Christ Episcopal Church in West Islip, L.I. Capt. Woodward, whose home station was Wright Field, was on leave with his wife in Babylon, L.I., when he was suddenly taken sick and succumbed several days later. His death came as a great shock to Mrs. Woodward and 'Woody's' host of friends. In the absence of his command, the officers from Mitchel Field turned out as one to give him the necessary honors at the funeral service and burial. Seven of Capt. Woodward's intimates from Mitchel Field officiated as pallbearers. General H.C. Pratt and Lieut. Ployer P. Hill, Wright Field, also attended the funeral. At the burial in the West Lawn cemetery in Jamaica, a firing squad from Mitchel Field fired the last salute, a bugler blew taps, and a formation of nine ships droned overhead. It was little enough to do for a man who was a good soldier and a man as Captain Woodward.

Rockwell Field, Coronado, Calif., Oct. 17th.

Work on the new Post Exchange building at this station, begun with great gusto, is now well on the road to completion. This new structure, of salvaged material, erected adjacent to the present 'PX' building, will also house the Post barber shop. The old 'PX' building will become the mess hall of the 30th Bomb. Squadron. Capt. H.F. Rouse, Exchange Officer, promises first class service to the personnel, with the installation of new and better facilities.

Major Shepler W. FitzGerald, Commanding Officer, returned after an extended absence from flight, having attended the Annual Engineering and Supply Conference at Wright Field, Ohio. From Wright Field, Major FitzGerald was called to the office of the Chief of the Air Corps, where he again sat in conference. The trip to the East and return was made in 3 BT-2B planes, Major FitzGerald having been accompanied by Capt. Kane, Depot Supply Officer; Capt. Giles, Post Engineering Officer, and Lieut. Ridenour, Technical Supervisor, Rockwell Control Area. They left Rockwell Field on Sept. 30th.

The 19th Bombardment Group suffered the loss of six Reserve officers, who were transferred to March Field, Calif., on orders received from the War Department. Our loss is March Field's gain, for these officers, recently graduated from Kelly Field, made many friends during their short sojourn at Rockwell. They are: 2nd Lieuts. W.L. Trimble, L.W. Earle, F.H. Matthews, W.W. Breeding, J.R. Kane and T.S. Jobson.

Second Lieut. Charles W. Haas, 30th Bomb. Sqdn., with Capt. Duran H. Summers, Medical Corps, left Oct. 7th in a BT-2B for Aberdeen, S.D., returning to Rockwell on October 16th.

Shortly after their arrival here from Kelly Field, 2nd Lieuts. G.C. Clark, C.J. Brockliss, H.M. Celix, W.G. Ditzen and W.F. Searles received orders for duty with the 11th Bombardment Squadron at March Field. -- The 30th Bombardment Squadron is the proud possessor of one Fokker YC-27, recently ferried here by Capt. W.T. Larson. Staff Sgt. C.J. King accompanied him on the eastern trip and assumed the duties as crew chief. This plane, however, was grounded indefinitely, due to structural defects which were found by the Materiel Division.

San Antonio Air Depot, Duncan Field, Texas, October 15th.

On Oct. 1st, the Depot was honored by a visit from Congressman John J. McSwain, of South Carolina, Chairman of the House Military Affairs Committee, and Lt.-Col. J.E. Fickel, Chief of the Buildings and Grounds Division, Office Chief of the Air Corps. They were on an air tour of various Army posts for conference on building and construction matters.

Col. A.G. Fisher, Comd'g Officer, Capts. R.B. Walker, Chief Engineer Officer, and R.V. Ignico, Depot Supply Officer, attended the annual Engineering-Supply Conference at the Materiel Division, Wright Field. They reported exceedingly interesting and helpful sessions at the Conference and a good journey, except for considerable weather on the trip north. They also reported an excellent landing field at Palestine, Texas, one of their stopping points en route, and evidence of much aeronautical enterprise and enthusiasm on the part of that city, which expects to open its new municipal airdrome on November 11th.

The Depot regrets to lose 1st Lt. and Mrs. Charles E. Thomas, Jr., and their two young sons, Charles E. III and Robert W., on their change of station. Lt. Thomas, who goes to Maxwell Field, Ala., came to duty here on May 6, 1929, from the Rockwell Air Depot, and was Depot Supply Officer of this Depot. They left for their new station by auto on October 4th, accompanied by our sincerest wishes for good luck and happiness in their new activity.

Major Donald Wilson, A.C., of Maxwell Field, visited here Sept. 29th, to secure an A-3B to ferry back to his home station.

While returning to the Materiel Division, Wright Field, in a BT-2 from a journey to the West Coast, Major R.L. Walsh, accompanied by Mr. Lawrence Eyer (Armament Section) visited here October 8-11.

Major Thomas W. Blackburn, Commanding Officer, and 1st Lt. Earle T. Showalter, both of the 36th Division Aviation, Texas National Guard, Houston, were recent visitors here.

Captains C.P. Kane, Depot Supply Officer; Barney M. Giles, Chief Engineer Officer, and 1st Lt. C.H. Ridenour, all of the Rockwell Air Depot, paid us a visit October 10th on their cross-country return from Wright Field where they attended the Engineering-Supply Conference.

Major J.H. Houghton, Comd'g Officer; Capt. Edward Laughlin, Chief Engineer Officer, and 1st Lt. Charles A. Ross, accompanied by Mr. Doty, all of the Middletown, Pa., Air Depot, arrived here Oct. 13th for a few days' visit on a flying tour to the West Coast to inspect supply and engineering methods at various Air Corps activities.

The Engineering Department of the San Antonio Air Depot overhauled and repaired during September a total of 56 airplanes and 92 engines of various types.

Patterson Field, Fairfield, Ohio, October 18th.

During September, 20 airplanes and 38 engines were given major overhauls, and 33 planes and 39 engines, minor overhauls.

Planes were ferried to various stations by personnel of this Depot, as follows: Lt.-Col. A.L. Sneed, an O-19 to Scott Field, Oct. 12th, returning with Capt. H.W. Flickinger in a BT-2B plane -- Lt. R.L. Williamson, accompanied by Lt. F.M. Zeigler, an O-19B to Scott Field on Oct. 7th, returning in a PT-3 for major overhaul -- Tech. Sgt. Guile a Y1P-16 to Selfridge Field, Mich., Oct. 3rd, returning in a C-14 -- Lt. D.R. Goodrich an O-25A to Ft. Leavenworth, Kans., Oct. 11th, returning here next day.

Officers from other stations ferrying planes to this Depot were: Lt. McNeil, accompanied by Lt. Wise, from Birmingham, Ala., a BT-1, Oct. 5th, for inspection -- Lt. Hart an O-1E from Lunken Airport, Oct. 3d, for major overhaul, also Capt. Mann, an O-38 from Chicago, Ill., on Oct. 5th; Capt. Palmer, an O-38 from St. Paul, Minn., Oct. 6th; Lt. Scott an O-25A from Chanute Field, Oct. 7th; Lt. Doubleday a P-6E from Selfridge Field, Oct. 10th; Capt. Melvin an O-1E from Columbus, Oct. 10th; Lt. Landers with Major Chipman, from Maxwell Field, on Oct. 13th -- Capt. Gardner with Lt. McKnight, an O-2H from Sky Harbor, Tenn., Oct. 1st, for inspection -- Capt. Herold an O-2H from Lambert Field, Mo., Oct. 13th, for yearly inspection -- Capt. Gale and Lt. Carpenter, an O-38 from Stout Field, Oct. 6th, for minor repair -- Lt. Stiles an O-1B from Chicago, Oct. 8th, for minor repair -- Lt. Mace with Lt. Scow, an O-25A from Lawson Field, Ga., Oct. 10th, for engine change.

Aviation flights were made by Tech. Sgt. Guile, accompanied by James F. Bane, to Columbus, O., Oct. 4th; Lt. G.V. McPike, accompanied by Major Chipman, to Selfridge Field, Oct. 14th; Capt. H.A. Bivins, accompanied by Staff Sgt. Blair, to Selfridge Field, Mich., on Oct. 11th.

Tech. Sgt. Guile ferried Air Corps supplies to the following stations during the past two weeks: Chanute Field on Oct. 6th and 12th, Scott Field on Oct. 7th and 11th, Selfridge Field on Oct. 14th.

March Field, Riverside, Calif., Oct. 18th.

In response to numerous requests in this vicinity, speakers were furnished for aviation instruction in high schools, colleges and clubs in Southern California. Interesting talks on aerodynamics, tactical flying, training and equipment, were given recently by Lieuts. Matheny, Christenson, Treweek, Bowman and Master Sgt. Brockway.

A recent announcement reveals the fact that 2nd Lieut. Leslie Rayhold, Air Reserve, of the 34th Pursuit Squadron, was married to Miss Thelma Muns of Redlands, Calif., May 21st.

Second Lieut. Phineas K. Morrill and Miss Katherine Sloane, of Riverside, were married on October 14th.

Bebe Daniels and Ben Lyon, famous motion picture stars, were present on October 15th, when the Commanding Officer received a review by the 1st Bombardment Wing.

Under the direction of Pvt. 1st Cl. Bannerman, the athletes of Rockwell Field organized a baseball team that the Field may well be proud of. Games were played with several teams representing ships of the Navy stationed at San Diego, and the Army team came out on the winning end of the largest proportion of the games.

The Hawaiian Air Depot is rapidly becoming socially and athleticly inclined. A baseball team is being organized and will enter the Honolulu Junior Business Men's League which starts in December. A big turnout was the result of the first call for players and great enthusiasm is being shown by the entire Depot. Funds for equipment were raised by subscription, and the response was generous. A benefit dance was the next means of raising money. Held at the Yokohama Inn on the bank of the Ala Wai Canal at Waikiki, the affair was a great success.



GOLF The annual Fifth Corps Area Golf Tournament was held at Patterson Field, Fairfield, Ohio, October 3rd and 4th, 94 entrants participating. A Blind Bogey Tournament, played on Oct. 3rd, was won by Lt. C.M. Smith, Air Reserve, with a score of 80. Low qualifying round was won by Major S.E. Wolfe.

Thirty-six holes of match play for the Barksdale Trophy were played on Oct. 4th and won by Lt. C.D. McAllister, of Wright Field, with a score of 160. Lt.-Col. A.W. Robins and Lt. E.A. Powers tied for second place with a score of 163.

Major-General Hugh A. Drum, Corps Area Commander, and the following members of his staff attended the tournament: Col. C. Lininger, E.J. Timberlake, W.C. Sweeney, Lt.-Col. C.R. Pettis, R.E. Beebe, Major O.J. Bond, Capt. G.C. Woodbury, C.E. Rayens and Major J.M. Mather. A total of 23 prizes, including the Barksdale Trophy, were awarded by General Drum on the afternoon of October 4th.

Clark Field, Pampanga, P.I., August 24th.

The Air Corps of the Philippine Department was honored by a Retreat Parade tendered to the Commanding Officers of Air Corps Units by the 26th Cavalry (Philippine Scouts). An impressive parade and review was held on the parade ground at Fort Stotsenburg.

The Squadron just lost two of its most popular and efficient officers, Lts. Hawkins and Harper, who proceeded to Baguio on detached service prior to the sailing of the REPUBLIC for the States. The Squadron (3rd Pursuit) regrets their leaving and will greatly miss them both.

For the second successive year the officers' bowling team won the Post Tournament by defeating the Cavalry and Artillery teams with commendable regularity. The Enlisted Men's Bowling team in the Department League is away out in front and it looks as if they will bring that trophy in also.

The Basketball team has not fared quite so well. To date they have a perfect score - no wins and several losses. They have put up a good brand of basketball, but with one thing or another they have lost by close margins.

Chanute Field, Rantoul, Ill., October 25th.

Of much local interest is the arrival and reporting for duty at Chanute Field of Captain Hartwell N. Williams, QMC, Construction Quartermaster, and Mr. Edmund Beer, Superintendent of Construction. Captain and Mrs. Williams have taken quarters on the post.

On October 8th, a review and inspection of the entire command of Chanute Field was held on the parade ground. This was the first review which included participation by the newly formed Headquarters Section of the Air Corps Technical School Detachment, and by the new student officers of the 1932-33 classes. Lieut.-Col. James A. Mars, Commanding Officer and Commandant, acted as Reviewing Officer.

On Saturday, October 1st, a convocation of the new officers' classes was held by the Commandant and his staff, at which the new student officers answered their first roll call, were introduced, and received instructions regarding school policies and regulations.

On October 5th, Chanute Field acquired two new Captains - W.C. Farnum and William R. Turnbull, and a new 1st Lieutenant - Oscar F. Carlson. The three newly promoted officers were recipients of enthusiastic congratulations of the officers of Chanute Field and the Air Corps Technical School.

Captain Takashi Aoki, Imperial Japanese Army, Assistant Military Attache of the Japanese Embassy, Washington, was a visitor at the Field on October 21st. Captain Aoki was received by Lt.-Col. Mars, Commanding Officer, and escorted through the Technical School on an inspection visit.

Additional copies of the Air Corps News Letter are being received and are being carefully distributed in order that they may be available for reading to every member of the command. It is noted that during the last year, the interest of enlisted personnel has become much centered in the Air Corps News Letter, in regard to articles and items of general interest, as well as reference to this and their home stations. Reports from both the Technical Library and Post Library, as well as from other points of distribution, show that the News Letter is thoroughly read by officers and enlisted personnel, as well as by members of the civilian instructional staff, resulting in the conviction that it is a most welcome and valuable Air Corps activity.

Recent aviation flights by Chanute Field officers include: Capt. S.C. Skemp to Chicago & Scott Field; Lt. C.G. Percy to Chicago, and with Lt. H.J. Platequal to Moline, Ill.; Lt. H.W. Anderson to Milwaukee, Wis., and with Major M.O. Beebe to Chicago; Capt. W.A. Hayward and W.C. Farnum to Wright Field; Lt. S.E. Anderson and Major M.O. Beebe to Chicago; Lt. F.E. Cheatle to Pekin, and with Capt. Walter Bender to Wright Field; Lt. O.F. Carlson to Scott Field; Lt. Geo. W. Goddard and Major L.W. Ballantyne to Wright Field; Lt. J.A. Bulger to Patterson and Scott Fields; Capt. E.G. Harper with Lt.-Col. J.A. Mars to Beardstown, Ill., and with Lt. J.P. Newberry to Lansing, Mich.; Lts. J.F. Guillett, R.V. Williams, M.H. Warren, G.R. Acheson and R.E. Holmes to Chicago; Lt. J.S. Stowell to Covington, Ind.; Lt. F.G. Allen and Capt. A.W. Marriner, Lt. R.L. Easton to Wright Field; Lt. H.G. Bunker to South Bend, Ind.; Lt. R. Scott

Patterson Field; Capts. F.S. Borum and W.C. Farnum to St. Paul, Minn.; Capt. S.M. Connell, Sgt. D.M. Swisher and Capt. C.E. Branshaw to Pekin, Ill.; Lt. C. Sommers to Knox, Ind.; Lts. E.H. Alexander and O.F. Carlson to Selfridge Field; Lt. W.B. Blaufuss to Scott Field.

115th Obs. Sqdn., California National Guard.

Lieut. Claiborne completed a photographic mission to San Luis Obispo, Calif., photographing the missions at San Luis Obispo, Santa Inez, Santa Barbara and Ventura.

Lieut. J.V. Wallen completed a visual reconnaissance of the San Francisco Bay area, and Capt. E.H. Robinson and Lt. Harry Gilmore reconnoitered the landing field at Menatchee Meadows. A sketch of this high altitude field is now on file in the operations office.

The new assignment list of the Squadron is as follows: Staff Air Officer, 40th Division, Lieut.-Col. John N. Jeffers; Commanding Officer, 115th Obs. Squadron, Major Eldo Peterman; Adjutant, Lieut. Leonard E. Thomas; Operations Officer, Capt. E.H. Robinson; Officer in Charge of Plans and Training, Capt. A.A. Barrie; Commanding "A" Flight, Capt. George C. Sherwood; C.O. 115th Photo Section, Lieut. Russell Larson; Chemical Warfare and Station Inspector, Lieut. C.A. Burrows; Engineering Officer, Lieut. J.V. Wallen; Armament Officer, Lieut. H. Paul Whittier; Mess, Range, Asst. Armament Officer and Club Treasurer, Lieut. O.D. McKenzie; Flight Surgeon, Recruiting Officer and Club Secretary, Capt. Richard O. Bullis; Transportation, Athletic, Police Officer and Fire Marshall, Lieut. W.H. Sanford; Parachute and Asst. Engineering Officer, Lieut. Charles Haas; Communications Officer, Lieut. Clifford R. Gard; Supply Officer, Lieut. Harry E. Gilmore; Asst. Flight Commander "A" Flight, Lieut. John Sewall; Asst. Flight Commander "B" Flight, Lieut. F.M.S. Miller; Intelligence, Public Relations, Non-Coms. School, Press Correspondent, Lieut. Harry C. Claiborne.

The last-named gentleman, who is the News Letter Correspondent, submitted some pertinent, impertinent, or what have you, comments on all of the above-named officers, including himself. These comments, while very interesting, cannot, with propriety, be inserted in the News Letter.

Hqrs. 12th Observation Group, Brooks Field, Texas.

Brooks Field, station of the 12th Observation Group, has decided to take care of any calls that would be ordinarily taken care of by the Red Cross or other outside agencies. Contributions will be made from the Brooks Field Community Chest to the American Red Cross, the Army Relief Society, Associated Charities and other relief agencies. This will prevent the various attempts that are made to solicit funds on the post during the year.

The budget calls for raising \$1,000 on Brooks Field, and the committee handling the collections expects to "go over the top" on the first pay-day. The response from all the personnel of the Field to its Community Chest is very encouraging and shows a high esprit among them.

Flying activities of the 12th Observation Group, Brooks Field, included training flights by Lieut. W.W. Messmore, leading flight of three, other pilots being Lieuts. Coates and Redetzke, with three mechanics, to Dallas, Texas -- Lieut. Joseph H. Hicks, leading a flight of three C-19's to Campbellton, Texas, Oct. 18th -- Lieuts. A.S. Hefley, Hiram Broiles, O.J. Mosman and Nelson, in four C-19's, to Hensley Field, Oct. 24th.

Lieut. John R. Novake, pilot, with Lieut. Redetzke, co-pilot, flying a C-7A, ferried students from Brooks Field, Kelly and Randolph Fields to the Air Corps Technical School on October 23rd.

Major Frank D. Lackland, Commanding Officer of Brooks Field, returned recently from an extended aviation tour which took him to Dayton, Ohio, where he attended the Engineering Conference, and to Washington, returning via Fort Benning; Maxwell Field; Shreveport, La., and Galveston.

Major H.H. Young, formerly Executive Officer of Brooks Field, and filling the same position at Fort Crockett, Galveston, Texas, visited here October 21st. Major Young is in temporary command of Fort Crockett during the absence of Colonel Hickam.

Lieut. and Mrs. Winfield S. Harlin returned from their wedding trip to Monterrey and other points in Mexico, and are at home at Brooks Field. Lieut. Harlin is Adjutant of the 12th Observation Group.

Officers of Brooks Field are contemplating some interesting hunting at Matagorda this fall. Fishing has occupied the program with enthusiasm and unusual success, as is effectively attested by the interesting photographs of actual "catches" brought back by the officers. Matagorda Island is but a few miles from Port O'Connor, known throughout the United States as offering some of the best fishing in the entire country.

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Charles "Casey" Jones, well-known commercial pilot, has just wound up two weeks of active duty at Mitchel Field, N.Y. While on duty at this field he was assigned to the First Observation Squadron along with Captain Charles Avery, Manager of the Valley Stream Airport. Captain Avery is the holder of several war-time decorations. "Both men enjoyed their tour exceedingly and commented on the efficiency of our present day craft," says the News Letter Correspondent.

Frank Smith, a fire guard, who was a member of the Wright Field Fire Department for some time, lost his life on Sept. 15th, as the result of burns received that day when fire broke out in the garage. The fire department was called and, in spite of the fact that it was known that 2 300-cu. ft. acetylene gas tank, which might explode, was in the vicinity of the fire, Smith entered the building to try to extinguish the flames. The tank exploded, blowing out the rear wall of the building. Smith took the risk in an effort to prevent what might have proved a serious fire, damage to other lives and property. His bravery needs no eulogy.

Our Correspondents are requested to omit items of a purely social nature when submitting contributions to the News Letter. Shortage of mimeograph paper makes it necessary to reduce the size of this publication.

A new YA-8A (revised YA-8) airplane is expected at the Materiel Division, Wright Field, from the plant of the Curtiss Company very shortly. This plane incorporates a geared V-1570F engine instead of the direct drive engine of the YA-8. Changes were also made in the bomb racks and smoke screen equipment.

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OBS.

The name of our American Legion post has been changed from Aviation Post No. 171 to the Richard F. Taylor Aviation Post No. 171, in memory of its founder and first Commander, Major Richard F. Taylor. The post is made up of officers and enlisted men of the National Guard and Reserves in the Air Corps, and any civilians who at some time have been in the Air Corps.

The Chester Jackson Trophy Race for 1932 was held at the Municipal Airport, Sunday, Oct. 23rd, for annual possession of the Trophy. The participants were Capt. Sweeney, Lts. Brown, Reynolds, Stout, and Lafeber. Four O-38 and one BT-1 were used in the race over a 5-mile triangular course. Capt. Sweeney has won the cup twice, and if he wins it again it will stay in his permanent possession.

The Indiana mine area camp at Shakamak Park was named Camp Richard F. Taylor, in memory of Major Taylor, who lost his life while on air patrol during mine duty, Sept. 10, 1932. This name is by order of Major Thompson, and signed by the Camp Adjutant, Lieut. Louis G. Bumen, 139th F.A.

Lieut. Wilbur Morgan is recovering from stomach disorder, due to which he spent several weeks in the hospital. We hope to see him at drill next week. Lt. Taylor ground-looped his Dodge and spent a week in bed. We expect to give him some dual time on Fords now before soloing him again on autos.

Capt. Dudley Pfaff returned to the Squadron after a four months' stay at Randolph Field, where he completed the course at the School of Aviation Medicine and received his rating as Flight Surgeon. Congratulations, Captain!

Sgt. Fred Wilson returned from Chanute Field, where he spent several months in the Radio School. He tells us he had an average of 91.8, which was the highest in his class. We also wish to congratulate him on this fine record.

Capt. Guy H. Gale returned from the Walter Reed Hospital, after having recovered from minor ailments. We are glad to have him back and are wondering just why our outfit is so hard on instructors.

We are happy to say that Sgt. Vickery is nearing complete recovery from injuries received in the crash with Major Taylor. We regret deeply that the Major could not make the same recovery.

Ed. Note: Wake up, you National Guard Squadrons! Send in as much material and as often as the Indiana Guard, or the Texans and Californians.

Wright Field, Dayton, Ohio, October 20th.

Lt.-Col. Aldo Guglielmetti, Royal Italian Aviation, and Commander Paolo Sbernadori, Air Attache of the Italian Embassy, Washington, visited Wright Field Oct. 11th and 12th. While in Dayton they were the guests of General Pratt, Chief of the Materiel Division. - The Division felt honored when Capt. G.S. Warren, of Selfridge Field, formerly of the Industrial War Plans Section here, used part of his furlough leave to pay it a visit. -- Captain George Polk arrived here Oct. 4th, ferrying a new Bellanca plane from the plant at New Castle, Delaware. Formerly Chief of the Equipment Branch at McCook Field, Capt. Polk is always especially welcomed by his old friends of the service. -- Donald Douglas, President of the Douglas Aircraft Corp., Santa Monica, Calif., arrived here Sept. 28th, remaining several days for conferences with the Chief of Engineering. -- Wright Field had the pleasure of having as its guests for several days the latter part of September, the Cuban Good Will Flyers, who stopped over here for a visit on their way from San Antonio to Washington. In command was Capt. Mario Torres Nener, the other two members of the flight being Lts. Pablo Alonzo Echevarria and Rudolfo Herrera Rodriguez. Several mechanics accompanied them. All were members of the Cuban Air Force. -- Capt. M.D. Mann flew in from Chicago, Sept. 16th, remaining at the Division until the 19th, when he returned to his home station. -- Capt. Wendell Brookley spent several days at the Division early in October. -- Brig. General Oscar Westover, Assistant Chief of the Air Corps, stopped at the field on his way west from Washington.

Major Robert L. Walsh, accompanied by Capt. Lawrence Eyer, Air Reserve, ferried an O-19 to Seattle, Wash. At Santa Monica they picked up an O-25A to ferry back to the Division. - Lt. F.M. Hopkins, Asst. Commandant of the A.C. Engineering School, took off Sept. 16th for Newark, N.J.; Langley and Bolling Fields. -- Lt. A.R. Crawford proceeded to the plant of the Douglas Co. at Santa Monica to ferry a YO-31C to the Materiel Division. -- Major E.L. Hoffman was at Akron, Ohio, recently for conference on parachutes. -- Major W.E. Kepner and Lt. H.H. Couch proceeded to Scott Field Sept. 28th to witness tests of the motorized observation balloon. -- Capt. R.C. Moffatt ferried a YO-27 plane to Dundalk, Md., to the plant of the General Aviation Corporation, Sept. 28th. -- On same day Lt. R.J. Minty flew to Newark, N.J., to have an automatic pilot installed in the C-4A airplane. -- Capt. A.W. Vanaman and C.W. Orton, Chief of the Finance Budget Section, proceeded to Washington on Oct. 11th, then to Hartford, New York City and Buffalo to audit Air Corps contracts. -- Lt. E.M. Powers and J.B. Brelsford, of the Power Plant Branch, proceeded on a tour of western fields to obtain information on the performance of V-1570 engines. Their itinerary included Santa Monica, Crissy, March, Rockwell, Randolph and Kelly Fields, and Fort Crockett. -- For the purpose of making a survey of radio equipment in National Guard units, Capt. T.C. Rives and Lt. W.G. Smith left Oct. 11th for Chanute, Scott and Lambert Fields, Kansas City, Fort Riley and Omaha. -- Change from the single to the double shoulder bar was made by Captain J.A. Woodruff on October 1st.



It was announced in the News Letter of Sept. 21st that Pvt. Raymond Motley, 32nd Bombardment Squadron, was a candidate for the West Coast Football team, and since that time Pvt. Motley has proven himself worthy of wearing the Army's colors on the gridiron. The following is an extract from Athletic Bulletin No. 7, Hqrs. 9th Corps Area, Presidio of San Francisco: "Private Raymond Motley, Rockwell Field, was clearly the outstanding performer in the ranks of the Reserves who played last Saturday night. This young man, playing the key fullback position in the backfield, ran, passed, kicked and blocked his way right into a berth on the first team. It was a pleasure to watch a lad play who really acted like he wanted to play. He has the right attitude, that young fellow, and you are going to hear plenty more of him as the season wears on."

The work this young man is doing is making a good showing for the Air Corps and for Rockwell Field, and the members of this command are very proud of Private Motley and the good record he has written.

In an hour of real football, Michigan Teck downed the Selfridge Field team, October 22nd, by the score of 13 to 0. Private Strong, Lieuts. Bradley, Bruce and Unruh starred for the Pursuiters.

After a thorough trouncing to the tune of 37 to 6 by the Jefferson University of Dallas, Texas, the Kelly Field football squad has leveled off to some real concentrated training under the able coaching of 1st Lt. Henry R. Baxter, who is assisted by 2nd Lieuts. M.W. Arnold and J.C. Gordon, recent graduates of Kelly Field. Kelly Field also lost a beautifully played game, the first league game of the season, to Randolph Field by a score of 6 to 0. It was during the first few minutes of play that Randolph made their lone touchdown as the result of a blocked punt.

Games in the Army League thus far resulted in the following scores: Oct. 15, Brooks Field 0, 2nd F.A. Brigade 0; Oct. 22nd, 23rd Inf. 13, 9th Infantry 7; Oct. 26th, Randolph Field 13, Brooks Field, 0.

Under the arclights of Langley Field stadium, before a capacity crowd of fans, the Gold and Blue gridders rolled over the heavy and versatile eleven from West Liberty State Teachers College, on the night of Oct. 15th, by the score of 13 to 6. This was the fourth consecutive victory for the Airmen, who entered this encounter as the "underdog," being figured less powerful than their opponents from West Virginia. Off to an auspicious start, when Miller spun his way 35 yards on the opening kickoff, five plays saw the visitors cross Langley's goal line to take the lead in the first few minutes of play. Langley, recovering from this quick work on the part of their rivals, settled down to real play, outrushing and outgaining their heavier adversaries for the remainder of the contest. Two sustained drives of 40 and 45 yards resulted in touchdowns for the Birdmen, with Kerr, Owens, Hunt and Tyrell carrying the ball. Superlative interference was featured on these plays, during which the locals ran up 15 first downs against 3 for the visitors. West Liberty's aerial attack, while brilliant at times, lacked sufficient consistency to be an effective scoring weapon after the opening minutes of play. The Army eleven depended on straight line plays and reverses for their scores and showed their actual fighting power. It will be remembered that West Liberty had the leading scorer in the country last year, and was an overwhelming favorite to give the Langley Airmen their first setback of the year.

19th Airship Co., Langley Field, Va., Oct. 25th.

Capt. L.A. Lawson was relieved of his duties as Personnel Adjutant, Recruiting Officer and Public Relations Officer and assigned in command of the 19th Airship Co. He holds the rating of Airship Pilot, Aerial and Balloon Observer. Capt. W.D. Wheeler was relieved as Post Police and Prison Officer and took over the duties formerly held by Capt. Lawson. First Lt. James C. Shively, former Commanding Officer of the 19th, assumed duties as Officer-in-Charge of Hangar, Operations and Engineering Officer of the Lighter-than-Air at Langley Field.

First Lieut. R.R. Gillespie departed Oct. 22nd for Edgewood Arsenal, Md., to pursue a six weeks' course in Chemical Warfare.

Kelly Field, San Antonio, Texas, Oct. 27th.

Capt. Albert F. Hegenberger and Mr. Harold Gatty, while enroute from Washington, D.C., to San Diego, Calif., visited the field on Oct. 10th. Capt. Hegenberger was the guest of Capt. Lester J. Maitland. It will be remembered that they were companions on the U.S. flight to Hawaii. -- A triple wedding of three newly made 2nd Lieuts., Air Corps Reserve, took place immediately after the graduation exercises at Kelly Field on Oct. 14th. Samuel J. Gephart and Miss Estelle Simmang, of San Antonio; Edward C. Plummer and Miss Josephine Thompson of San Antonio, and Richard W. Henderson and Miss Audrey Dowdy, of Chicago Heights, Ill., were married in the Kelly Field Chapel by Chaplain Auro J. Cohee of Fort Sam Houston. -- Captains J.A. Laird, T.S. Voss, U.G. Jones, Lts. J.M. Fitzmaurice, W.H. Hardy and H.W. Pennington ferried six Pursuit planes from Mather Field, Calif., to Barksdale Field, Shreveport, La., for the new Pursuit organizations being formed at that station.

Fort Sill, Okla., October 27th.

The new Combination Hangar was completed and accepted Oct. 1st, and immediate steps were taken to move all activities of Air Corps Headquarters and Flight "E," 16th Obs. Sqdn. into the new surroundings. All activities are located and are operating in the Hangar, except the Air Corps Supply, Parachute Dept. and Photographic Dept. These departments will be moved as soon as minor changes can be made to provide for their installation. -- From Sept. 27th to Oct. 26th, a total of 124 planes landed at this station - the largest number of visitors we have had since the Air Corps Maneuvers in May, 1931. -- The Hon. Patrick J. Hurley, Secretary of War, and party, visited here Oct. 11th, and departed for Hugo, Okla., the next day. -- Congressmen McSwain and Sandlin, accompanied by Lt.-Col. J.E. Fickel and Lt. H.A. Halverson, visited here Sept. 29th, and departed for Oklahoma City on the 30th.

SERIAL #324 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Oct. 18th to Nov. 3d Incl.

Available for loan to Air Corps Organizations only upon request to
the Air Corps Library, Munitions Building, Washington, D.C.

DOCUMENTS

- A 00/82/#1460 Report on the Royal Air Force Promotion Examinations "B", "C", "E" & "F" Held on the 8, 9, 10 & 11 March 1932, by Air Ministry. A.M. Air Publication #1460. London H.M. Stationery Office, 1932.
- A 00.7/1 Internationales Flugmeeting Zurich 22. bis 31. Juli 1932-Illustrierte Festschrift Officielles Program. Herausgegeben von Presse-Comite. Zurich, A.G. Schmidhof, 1932.
- A 10.231/73 Hot wire and Spark Shadowgraphs of the Airflow through an Airscrew by H.C.H. Towmend. G. Britain. Aero. Research Committee. Report & Memo #1434. London H.M. Stationery Office, 1932.
- A 40/82/Vol.1 Synoptic Studies in Fog by H.C. Willett. Cambridge Mass. Mass. Institute of Tech. 1930. Meteorological Paper Vol. 1, 1.
- B 10.9/29 Potentialities for Medical Contribution to Safety and Efficiency in Aviation, by Lt. Col. Glenn I. Jones, M.C. U.S. Army, Chief M.C., A.C. np. Journal of Aviation Medicine June 1932.
- C 32.2/9 The Daniel Guggenheim Medal for Achievement in Aeronautics; biographies of Orville Wright medalist for 1929, Ludwig Prandtl medalist for 1931, Juan de la Cierva medalist for 1932. N.Y. n.p. 1932.
- D 00.12/2/#14 Methode d'Appreciation des Lubrifiants, par J. Damian. Publications Scientifiques et Techniques #14. Paris. En Vente chez Blondel la Rougery, 1932.
- D 00.12/123 The use of Airplane Brakes, by Navy Dept. Bu. of Aero. Washington, #125 Tech. Note #125. Oct. 15, 1932.
- D 00.13/US/4 Air Force Logistics and the Cargo Transport by H.J. Knerr, Major, U.S. np. nd.
- D 10.1/165 Corrosion Test of Aluminum Alloy Anodized by the "Alumilite" Process by Naval Airc. Factory, Metall. Lab., Engr. Dept. Phila. Pa. ML-53 Sept. 26, 1932.
- D 10.1/166 Single Crystals of Bismuth Subjected to Alternating Torsional Stresses by H.J. Gough & H.L. Cox. G.B.A.R.C. Report & Memo. 1432. H.M. Stationery Office 1932.
- D 52.1/34 Acceleration of Aeroplanes in Vertical Air Currents by H.R. Fisher G.B.A.R.C. Report & Memo #1463. London. H.M. Stationery Off. 1932.
- D 52.1/93 Air Force & Moment for Design #115 Airplane, by Aero. Lab. C&R Dept. Navy Yard, Wash. D.C. Aero Report #481. July 25, 1932.
- D 52.1/Auto Lift & Drag Characteristics and Gliding Performance of an Autogiro/3 as Determined in Flight by John B. Wheatley, Gov't Print. Office, Washington. N.A.C.A. Report 434. 1932.
- D 52.1/Bellanca/6 Test in Yaw of XSE-1 Cabin Airplane with Second Alternative Fin & Rudder, by Aero. Lab. C&R Dept. Navy Dept. Wash. D.C. July 27, 1932. Aero. Report #482.
- D 52.1/Boeing Additional Wind Tunnel Tests on F4B-1 Airplane by R.H. Peterson. 27 Navy Yard, Wash. D.C., Aug. 15, 1932. Aero Report #484.
- D 52.1/Curtiss Air Force & Moment for Curtiss Modification of Design #113 Air- 70 plane, by Aero. Lab., C&R Dept., Navy Yard, Wash. 8/9/32 Report #483.
- D 52.1/DH/29 The Fox Moth, by De Havilland. Edgware, Middx. England. nd.
- D 52.1/Loring Catalogo dei Aparato de Reconocimiento "Loring R. III", by J. Loring- 2 Fabrica de Aeroplanos. Madrid, Imprenta de Cleto Vallinas, n.d.
- D 52.313/45 Physical Corrosion, Bending and Welding Properties of Cromansil Seamless Steel Tubing, by Metal. Lab., US Naval Airc. Factory, Phila., Pa. ML-71. Aug. 31, 1932.
- D 52.33/352 Wind Tunnel Interference on Aerofoils, by H. Glauert. London, H.M. Stationery Office. 1932. G.B.A.R.C., Report & Memo. #1470
- D 52.33/353 Wind Tunnel Tests of Recommendations for Prevention of Wing Flutter 52.33/353 by B. Lockspeiser & C. Callen. London H.M. Stat. Off. 1932. R. & M. #1464.
- D 52.33/354 Interference on Characteristics of Aerofoils in Wind Tunnel Rectan- 52.33/354 gular Section by H. Glauert. Lond. H.M. Stat. Off. 1932. R&M. #1459.
- D 52.41/Pratt Stock List Class C2-H Parts for Pratt & Whitney Engines, Compiled 52.41/Pratt Whitney/27 by Mat. Div., Field Serv. Sec., Wright Field, Dayton, O. 5/1/32.
- D 52.414/28 Induced Flow through a Partially Choked Pipe, by H. Glauert, D.M. 52.414/28 Hirst & A.S. Hartshorn. Lond. H.M. Sta. Off. 1932. GEARC R&M #1469.
- D 52.419/167 Rates of Fuel Discharge as Affected by the Design of Fuel-Injection 52.419/167 Systems for Internal Combustion Engines by A.G. Galalles & E.T. Marsh. Gov't Printing Office, 1932. N.A.C.A. Report #433.
- D 52.419/168 Experiments on the Distribution of Fuel in Fuel Sprays by Dana W. 52.419/168 Lee. Gov't Printing Office 1932. N.A.C.A. Report #438.
- D 72.1/Browning Guns-Browning Aircraft Machine Gun. 30 cal. type M-2-Description & 72.1/Browning- ing/6 Operation, by Navy Dept. Bu. of Ord. Pamph. #398. Jan. 1932.
- BOOKS**
- 629.13/Un3teh Laboratory Tests of 27-in. General Tire & Rubber Co. Streamline #3674 Wheel with Auto Fan & Bearing Co.'s 11-in. Brake, by E.K. Lasswell & E.D. Monroe. Wright Field, Tech. Report #3674. Aug. 15, 1932.
- 629.13/Un3teh Comparative Performance of XB Airplane with Three Different Crank- #3686 shaft-propeller Speed Ratio Engine Installations by O.R. Cook. Wright Field, Mat. Div. Tech. Report 3686 Sept. 7, 1932.
- 629.13/Un3ten Drag Tests of 4/9 Scale Model Engine Nacelles with Various Cowl- #432 ings, by Ray Windler, N.A.C.A. Oct. 1932. Tech. Note #432.
- 629.13/Un3tm Speed & Pressure Recording in Three-dimensional Flow, by Dr. F. #688 Krisam. N.A.C.A. Oct. 1932. Tech. Memo. #688.

INSPECTION DIVISION NOTES

The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on Oct. 18, 1932.

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
TL 32-79 10/14/32	Oil Leakage at the Nose Section On R-1750-E & R-1820-E Engines (This TL replaces TL No. 32-79 dated 5/4/32)	FAD, MAD, RAD, SAAD, Hawaiian Dept., Wright, Chanute
TL 32-171 10/8/32	Location of Type RS-87 Resistor	General
TL 32-176 10/17/32	Information on the Operation of Landing Gear & Tail Wheel Retracting Mechanism on Douglas Y1C-21 & Y1C-26 airplanes.	Bolling, Chanute, Crissy, France Mitchel, Wright, all depots
TL 32-177 10/21/32	Installation of C-5 Altimeters and Bank and Turn Indicators	General
TO 00-0-9 10/1/32	Monthly Index of Technical Instructions	General
TL 32-142 10/25/32	Metallic Water Pump Packing for V-1570 Series Engines (This TL replaces TL 32-142, dated 8/4/32.)	Aberdeen, Boeing, Boston, Bow- man, Brooks, Candler, Chanute, Crissy, Ft. Crockett, Pt. Colum- bus, Edgewood Arsenal, Kelly, Langley, Lawson, Logan, Lunken, Ft. Leavenworth, Marshall, Mitch- el, Pittsburgh, Maxwell, Ran- dolph, Richards, Schoen, Self- ridge, Wright, 6th CA., MAD, RAD, SAAD, FAD, Hawaiian Dept.
TL 32-172 10/21/32	Thermocouple Thermometers, Type B-5 (This replaces TL 32-61, dated 1/24/31.)	General, except National Guards.
TO 01-1-43 9/24/32	Airplanes and Spare Parts. General-Ex- pansion Tank Overflow Pipe. (This re- places TO 01-1-43, dated 5/20/27.)	General.
TO 01-35-1F 9/24/32	Airplanes and Spare Parts. P-1 Type- Replacement of Landing-Gear Bolt. (This TO replaces TO 01-35-1F, dated 5/3/30.)	General.

The following supplementary data to Technical Letter No. 32-100, dated May 18, 1932, Subject: "Operation Instructions", have been distributed since the last issue of the Air Corps News Letter on October 18, 1932.

<u>Date of Issue</u>	<u>Airplane</u>	<u>Distribution</u>
October 20, 1932	O-39	All depots, Scott.

The following Air Corps Circulars and Air Corps Circular Letters have been distributed since the October 18, 1932, issue of the Air Corps News Letter.

AIR CORPS CIRCULARS

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
15-22 10-24-32	BLANK FORMS AND REPORTS	Free Balloon Log Sheet
15-41 10-10-32	BLANK FORMS AND REPORTS	Airplane Maintenance Inspection Record.
0-2B 11-1-32	INDEXES	Numerical Indexes to Air Corps Circulars.

AIR CORPS CIRCULAR LETTERS

<u>Number & Date</u>	<u>Subject</u>
W-2123 AC 10/14/32	Freak Aircraft Accidents
W-2124 AC 10/20/32	Reports of Station Inspectors

TECHNICAL FILES:

The following publications should be added to the list of publications and instructions published on pages 331 and 332 in the August 10, 1932, issue of the Air Corps News Letter, as affecting Armament Sections:

AR-760-400- Targets and Target Accessories-Allowances. Dated Jan. 18, 1928.
Also Change No. 3 to AR 760-400, dated Dec. 3, 1930.
Also WD Circular No. 11, dated March 16, 1931, which amends
AR 760-400.

AR-775-10 - Ammunition Training Allowances, dated May 18, 1932.
Drawing Change Notice, 32J123, Change Letter "B", -Installation of type C-3
Tow target windlass on model C-6A airplanes.

In addition the following entry "TL #32-112" on page 331 of the above-men-
tioned News Letter should be corrected to read "TL #31-112".

The following is a complete list of all technical instructions, etc., which
pertain to each Technical Department as shown below. Such of the publications
which affect equipment operated by each activity or department concerned should
be made a part of the technical files maintained by that technical department.
In connection with the maintenance of technical files the attention of all con-
cerned is invited to page 332 of the August 10, 1932, issue of the Air Corps
News Letter:

COMMUNICATIONS SECTIONS.

All Technical Orders, Classification "08", RADIO AND ELECTRICAL.
Air Corps Circular 0-2, Numerical Index to Air Corps Circulars.
Air Corps Circular 15-21 and 21A, Monthly Communications Operations Report.
Air Corps Circular 15-44, Radio Inspection Record.
Air Corps Circular 15-54, Unsatisfactory Report.
Air Corps Circular 115-2, Fire Prevention.
WD, Circular #9, dated March 2, 1932, Storage Battery Record.
WD, Circular #10, dated March 7, 1932, Storage Battery Record.
Training Regulations 160-5, Signal Communications for all arms and services.
Training Regulations 162-5, Visual Signaling. (Also changes 1, 2 and 3, thereto)
Technical Regulations 1190-5, Storage Batteries for signal communication except those pertaining to aircraft. (Also changes 1 thereto.)
Technical Regulations 1210-5, Airplane Radio Set, type SCR 134, and receiving equipment used in conjunction therewith.
Technical Regulations 1210-20, Radio set, SCR-136.
Technical Regulations 1210-30, Radio set, SCR-132.
The following letters issued by the Chief Signal Officer to Corps Area and Department Commanders, who in turn distribute to Station Signal Officers within the Corps Area or Department:
Supply Letter #121, dated 4/27/31-Modification of Radio Receiver, type BC-SA-167.
Supply Letter #122, dated 5/21/31, -Radio Sets type SCR-134-A.
Blue Print ES-A-1530, dated 4/7/31-Instructions for modifying battery type BB-4 to battery type BB-4A.
Service Letter dated 3/29/32-Use of receiver BC-SA-167 with local transmitter.
Supply Letter #130, dated 4/22/32-Modification of Weights type WT-7.

PHOTOGRAPHIC SECTIONS

All Technical Orders, Classification "10", Photographic Equipment & Supplies.
Air Corps Circular 0-2, Numerical Index to Air Corps Circulars.
Air Corps Circular 15-10, Photographic Training and Operations Report.
Air Corps Circular 15-45, Aerial Camera Inspection Record.
Air Corps Circular 15-54, Unsatisfactory Report.
Air Corps Circular 95-1, Special Photographic Airplanes.
Air Corps Circular 95-2, Aerial Photographs of Coast Defenses.
Air Corps Circular 95-3, Code Designation of Army Air Corps Photographs.
Air Corps Circular 95-4, Use of K-3, K-3A, K-4 and "T" type cameras.
Army Regulations 850-65, Storage and Handling of Nitrocellulose Film in US Army Establishments.
Circular Letter OCAC, 6/14/32, reference disposition of exposed film and inviting attention to par. 3-b-(2), AR 850-65.
Technical Letter #31-294, dated 11/30/31, denatured alcohol.
Technical Letter #31-298, dated 11/30/31, Multiple and single lens photographs.
Training Regulations 190-5, Map reading. (Also see changes 1, thereto.)
Training Regulations 190-7, Map reading-The Harriman Geographic Index System.
Training Regulations 190-27, Aerial Photographic mapping.
Training Regulations 210-10, Tactical interpretation of aerial photographs.
Training Manual, 2170-5, Basic photography.
Training Manual, 2170-6, Aerial photography.
Handbook of Instructions of the Akeley Motion Picture Camera. (Publication 13) (Limited quantity.)
Handbook of Instructions of the Eastman Auto-Focus Enlarger (Model B) and the Reducing Attachment. (Limited quantity) 1931.
*Handbook of Instructions of the Fairchild K-3 Camera. 1926.
Handbook of Instructions of the Fairchild Improved K-3 Camera.
Handbook of Instructions of the Fairchild T-2A Camera and B-4A Transforming Printer (Limited quantity) 1930.
Pamphlet of Instructions for the Lubrication of the Fairchild Intervalometer (Units 29 and 84).
Pamphlet of Instructions for the Use and Care of the Fairchild Light Filters, Optically flat glass type. 1931.
Handbook of Instructions with Parts Catalog, Type T-3A Camera and Type B-7 Printer.
Air Corps Stock Lists - Photographic Equipment and Supplies. April 1, 1931.
Air Corps Stock Lists - Chemicals (Revised March 22, 1932.)

Note: Handbooks marked (Limited quantity) should not be requested unless urgently required.

* An asterisk denotes supply exhausted.

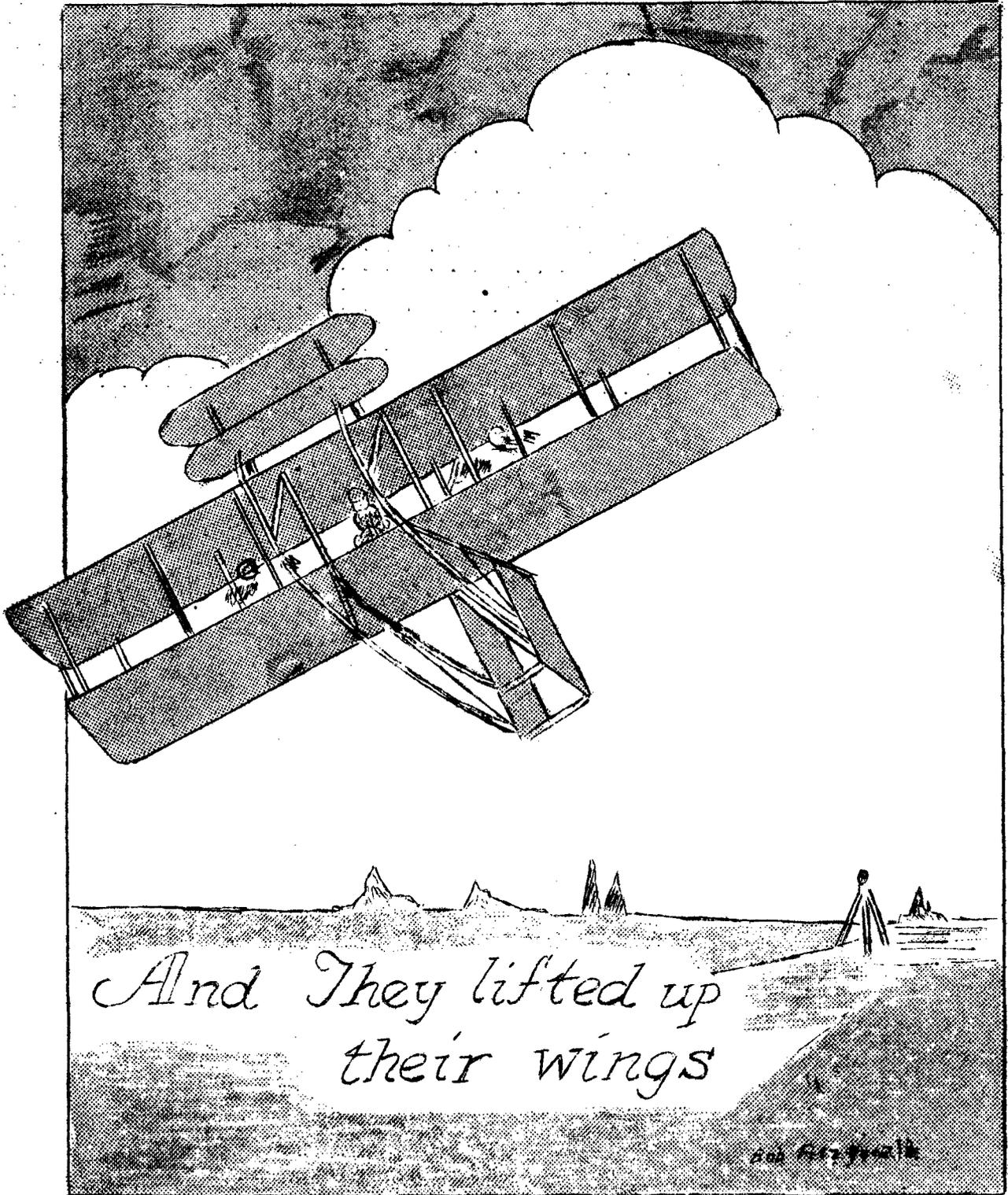
PARACHUTE DEPARTMENTS

Technical Order 13-5-2, dated July 12, 1927.
Technical Order 13-5-2A, dated December 1, 1930.
Air Corps Circular 0-2, Numerical Index to Air Corps Circulars.
Air Corps Circular 15-46, Parachute Inspection Record.
Air Corps Circular 15-54, Unsatisfactory Report.
Air Corps Circular 15-58, Parachute Inspection and Drop Test Record.
Air Corps Circular 115-2, Fire Prevention.

Technical Letter #31-160, 5/25/31, Cleaning Parachutes.
Technical Letter #31-163, 5/30/31, Packing Parachutes.
Technical Letter #31-283, 11/16/31, Inspection and soldering of clip, pilot parachute frame, drawing #066397.
Technical Letter #31-309, 12/21/31, Modification of Grip, Parachute Ripcord, Part #0158987.
Technical Letter, #31-310, 12/21/31, Packing Parachutes.
Technical Letter, #32-50, 3/14/32, Mildew Preventive for Parachutes.
Technical Letter, #32-70, 4/14/32, Changes in Parachute Flaps, Ripcords, Pockets and Harness Keepers. (This TL replaces TL #31-121.)
Training Manual, #2170-72, The Parachute Rigger.
Drawing Change Notice 0168818, Change Letters E - F, Harness strap keepers and Protector flaps.
Drawing Change Notices 0150841, Change Letter D - E; 076308, Change Letter E; 0150786, Change Letter F, Rip cord and Rip cord grip pocket.
Drawing Change Notice 069513, Change Letter AC, Rip cord Grip pockets.
Drawing Change Notice 067887, Change Letters AT - AU, Rip cord ring pockets and harness strap keepers.
Drawing Change Notice 0168903, Change Letter H, Harness strap keepers.
(Note: All of the above Change Notices are referred to in Technical Letter 32-70.)
Drawing Change Notice 0168818, Change Letter H, Identification pad for type S-2 parachutes.
Drawing Change Notice 0168818, Change Letter I, Rip cord housing for type S-2 parachutes.
Drawing Change Notice 31-2246, Change Letter B, Flap, Rip cord grip protector for type B-1, S-1, and S-2 parachutes.
Drawing Change Notice 076307, Change Letter R, Identification pad for type S-1 parachutes.

AIR CORPS NEWS LETTER

ISSUED BY THE
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON, D. C.



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4431
1932
Nov-30

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from Air Corps Fields.

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A FITTING MEMORIAL TO THE PIONEERS OF FLIGHT

In a story on "The Early History of the Airplane," written by the two famous aviation pioneers, Wilbur and Orville Wright, they tell us that "the first flights with the power machine were made on December 17, 1903. Only five persons besides ourselves were present. These were Messrs. John T. Daniels, W.S. Dough, and A.D. Etheridge, of the Kill Devil Life-Saving Station; Mr. W.C. Brinkley, of Manteo; and Mr. John Ward, of Naghead.

Although a general invitation had been extended to the people living within five or six miles, not many were willing to face the rigors of a cold December wind in order to see, as they no doubt thought, another flying machine NOT fly. The first flight lasted only 12 seconds, a flight very modest compared with that of birds, but it was, nevertheless, the first in the history of the world in which a machine carrying a man had raised itself by its own power into the air in free flight, had sailed forward on a level course without reduction of speed, and had finally landed without being wrecked. The second and third flights were a little longer, and the fourth lasted 59 seconds, covering a distance of 853 feet over the ground against a 20-mile wind."

Now, 29 years later, on the spot where the Wright Brothers made their first successful flight, stands a 60-foot granite

pylon, erected on the summit of Kill Devil Hill at Kitty Hawk, N.C., to mark the birthplace of modern aviation. This monument was dedicated on Saturday afternoon, November 19th, to the genius and courage of these two young Dayton bicycle mechanics who conquered the air. Wilbur Wright is dead, but Orville, who soared aloft for the first time in history in a power plane, attended the ceremonies dedicating the memorial.

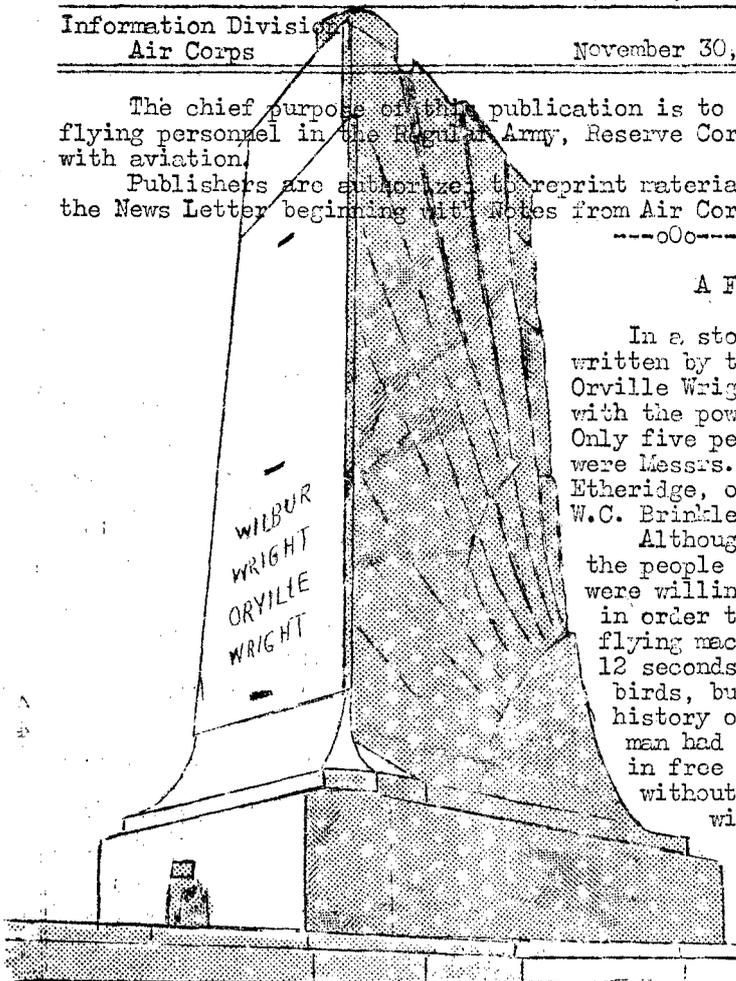
Led by Secretary of War Hurley and Secretary Adams of the Navy, a large crowd of famous flyers and flying enthusiasts attended the dedication of the Wright Beacon. The monument is a magnificent triangular granite shaft surmounted by an airways beacon. Flood lights will illuminate the monument at night, making it a distinctive feature of the landscape. It will serve as an aid both to aerial and marine navigation. The memorial was erected by authority of an Act of Congress by the United States Government at a cost of approximately \$250,000 to commemorate the marvelous achievement of the Wright Brothers at this location. The monument was constructed by the Quartermaster Corps of the United States Army, under the general supervision of a commission composed of the Secretary of War, the Secretary of the Navy and the Secretary of Commerce.

At the instance of the Kill Devil Hill Memorial Association, the Senators and Representatives of North Carolina secured the passage of a bill by Congress authorizing the acquisition of a site and the erection of a monument commemorating the first heavier-than-air flight. This bill was approved by President Coolidge on March 2, 1927. Kill Devil Hill has an elevation of 91 feet above sea level. On account of prevailing winds, the sand on this hill was shifting constantly, and one of the first tasks of the construction engineers of the Quartermaster Corps was to anchor this sand. This was done by clothing the wind-swept dune with a type of grass which tied it to the beacon. This was a remarkable achievement, especially in view of the fact that so far as known nothing of the kind had ever been previously attempted, and no data on the subject was available. Many engineers expressed the opinion that it could not be done and recommended a change of site.

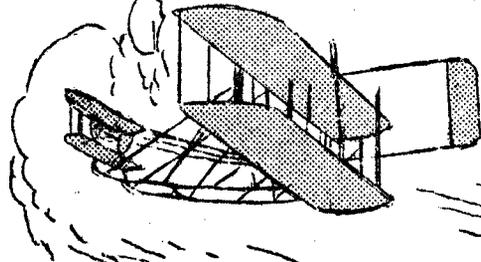
The design of the monument was selected after a nation-wide competition of artists and architects. The monument is made of Mount Airy granite. On December 17, 1928, the 25th anniversary of the first flight, the corner stone of the monument was laid by the Secretary of War, Dwight F. Davis, in the presence of a large gathering of persons from all sections of the country. Actual construction work on the monument, however, did not begin until February, 1931. The delay was necessary in order to permit the growth of the grass to anchor the sand dune. The completed monument, together with the cost of acquiring a site and incidental expenses, represents an expenditure of approximately \$250,000.

The site of the new monument is in a region rich in historic interest. Not only is it the birthplace of modern aviation, but it is within a few miles of the birthplace of Virginia Dare, the first white child born in the territory embraced within the United States. It will be recalled that the first English Colony in North America was established on August 17, 1585, by Sir Walter Raleigh on Roanoke Island, the outlines of which are plainly visible from the Wright monument. The following year the colonists, threatened with starvation, and Indian attacks, returned to England. A few days after they had left, Sir Richard Grenville arrived with supplies and more colonists, fifteen of whom agreed to remain.

In 1587, more colonists arrived, but none of the original fifteen was alive. Nevertheless the new colonists, numbering 101 persons, remained on the Island. Here, on August 18, 1587,



Virginia Dare, a grand daughter of John White, leader of the Colony, was born, the first native white American. White soon returned to England, leaving the colonists on the Island. He was detained in England until 1591, and upon his return to Roanoke Island he found not a trace of the ill-fated colony, save only the word "Croatan" carved on a tree. The assumption, which lacks positive proof, is that the Colony went away with some friendly Indians of the Hatteras tribe. There are in Robeson County, North Carolina, a remnant of a mixed people of Indian habits and occasional English names calling themselves "Croatans." It is quite possible that the identity of the lost English Colonists disappeared among their Indian hosts.



Near the site of the original Colony on Roanoke Island is the town of Manteo, named for the first Indian to accept the Christian faith. Not far from the new Wright Memorial is the village of Nag's Head. This is an interesting little summer resort frequented by North Carolinians. It is said that the village derived its peculiar name many years ago from a ruse practiced by beach combers who fastened a lantern to the head of a horse which, when the horse walked up and down

the beach, would have the appearance of a light on a ship gently riding at anchor. This ingenious device would lure vessels to the shore to be pillaged by the beach combers.

Near Nag's Head, the Hady, a ship of the British Navy, ran aground in 1698. This vessel had been sent to North Carolina to prevent the shipment of tobacco to Boston without the payment of the British tax. On the advice of the native pilot, the captain removed the guns in an effort to float the ship. As soon as the guns were off, the Colonists in the vicinity attacked and destroyed the ship. Off the coast in this vicinity in 1918, the British tanker, Murlo, was torpedoed and sunk by a German submarine. The members of the United States Coast Guard effected a daring rescue of 42 of the 52 members of the crew of the blazing and sinking ship.

Arrangements had been made to handle 20,000 persons, but heavy rains throughout the night and most of the morning cut the attendance to a bare thousand, and hundreds of these sat in automobiles far from the speakers' stand as the storm raged.

The Hon. Patrick J. Hurley, Secretary of War, paid tribute to the genius of the Wright Brothers, classing them as among "America's immortal sons," in the principal address of the occasion. Extracts from his address are quoted below, as follows:

"We have come here to dedicate a monument to the genius and the courage of the two great American pioneers, Wilbur and Orville Wright. While Orville Wright was to have the honor of piloting the plane in the first actual flight, the achievement was the joint accomplishment of both brothers. After years of intelligent and persevering experiment, they succeeded, for the first time in human history, in achieving a successful power-driven flight. As a direct result of their successful flight right here at Kill Devil Hill on December 17, 1903, the conquest of the air is to be achieved. I use the future tense advisedly. Great as has been the progress since these intrepid men achieved the first successful flight in a power-driven plane, air transportation is yet in its infancy.

By this eloquent monument America pays a profound tribute to two of her immortal sons. Little that we may say here today will add to the lustre of their renown or to the glory of their achievements. Far more eloquent than words, the mighty aircraft that fly above us day and night proclaim their handiwork. In honoring these two pathfinders, we should recognize in their achievement the spirit of America that made their inventions possible. We should dedicate ourselves to the perpetuation of the ideals of American life that encourage such individual enterprise. In world history our nation is very young, but many of civilization's most significant victories over the elements of time and space first were realized in this country.

In the dauntless courage of the Wright Brothers, who despite all perils, criticism and ridicule, persisted in their faith, and lived to realize their dreams, we see a manifestation of that same pioneer spirit that explored a continent, colonized a new world and developed American civilization. These very shores of North Carolina which witnessed the successful conquest of the air by Wilbur and Orville Wright have beheld many other striking examples of this great pioneer spirit. Close to this very sand spit, where now stands the monumental shaft to honor the Wright Brothers, landed Sir Walter Raleigh's band of fearless colonists. They came not as adventurers in a quest of gold and glory but as homemakers to create better surroundings for themselves and their families. Not far from here at Roanoke Island was born Virginia Dare, the first child of British parents in America. Ill fate followed many of these early expeditions. Sir Walter Raleigh's colonists disappeared. As the first pioneers vanished, always there were others, still undaunted, ready and eager to leave the Old World with its prejudices and limitations and its tyrannies to seek new hope and new promise on the new continent. These pioneers brought with them the ideals of freedom and justice, and other pioneers carried them across the continent to the Pacific. To the legitimate aspirations of the individual, America offered equal opportunity. On this new continent there has been established a new high level for individual happiness and human achievement by guaranteeing to each individual equality of opportunity and protection of the right of each to "life, liberty and the pursuit of happiness."

This American victory for the human race over the forces of greed and oppression was not won without sacrifice of blood and treasure. The constant increase of governmental functions is a decided threat to freedom and individualism. As the beacon light from this shaft will guide mariners of the sea and air to harbors of safety, so may the bright rays of individualism and equality of opportunity that made possible the feats of Wilbur and Orville Wright, show us the way to the achievement of the ideals of America."

The Hon. J.C.B. Ehringhaus, Governor-elect of North Carolina, and Representative Lindsay Warren, of the First North Carolina District, also spoke, each paying tribute to the Wrights and their achievements. Miss Ruth Nichols, one of the world's outstanding women fliers, paid a brief tribute and then, standing in the rain before the face of the monument, unveiled the marker, which stands atop of Kill Devil Hill, a large sand dune.

Hardly had the exercises been completed when the sun came out, and the weather was clear as honor guests of the occasion gathered at Carolina Beach for a luncheon given by the Kill Devil Hill Memorial Association. Orville Wright renewed acquaintanceships with residents of the Carolina Banks, who were here when he and his brother first experimented with their boxkite glider and then with their motor-driven plane. Noted for modesty and a retiring nature, he took no part in the ceremonies.

MARCH FIELD MAINTAINS HIGH MARKSMANSHIP



WITH the completion of the 31st Bombardment Squadron's field duty at Rockwell Field on October 10th, the 7th Bombardment Group finished its 1932-33 bombing and gunnery with credit to itself and distinction to its individual members. Every officer in the Group qualified as EXPERT bomber. Scorings were done by two commissioned officers riding in the rear of the plane on each record run. The Squadron's records are as follows:

9th Squadron: Average score - 1823.8; high scores, 2nd Lt. J.D. Hutchinson, Air Reserve, 1927; Capt. Harold D. Smith, A.C., 1914; 2nd Lt. Lester G. Heston, Air Reserve, 1914.

11th Squadron: Average score - 1827.6; his scores, 2nd Lts. Donald R. Lyon, 1965; Lewis R. Parker, 1900; Joseph A. Miller, 1390.

31st Squadron: Average score, 1757; high scores, 2nd Lts. Millard L. Lewis, 1868; Marvin L. Harding, 1860; 1st Lt. Ralph A. Snavely, 1857.

"It is the general consensus of opinion among the officers of this Group," says the News Letter Correspondent, "that the present requirement of 1500 points for qualification as EXPERT bomber is too low, and it has been suggested that the qualification requirement be raised. Out of 43 officers in this Group who shot the aerial gunnery records, forty qualified as Expert, two as Sharpshooters and one as Marksman."

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DETROIT CITIZENS INTERESTED IN AVIATION

Many calls are received each month at Selfridge Field for officers to address civic organizations and clubs in Detroit and vicinity, which is a very good indication of the interest that civilians in this community have in the Air Corps and aviation in general. No opportunity is passed up to fulfill these requests and to present to the various clubs and organizations a clear picture of the Air Corps, its duties and responsibilities.

During the month of October, Major George H. Brett, Commanding Officer of Selfridge Field, addressed the Boulevard Shrine Club on the "Organization and Functions of the Air Corps." Major A.H. Gilkeson addressed the Detroit Edison Club on the "History of the Army Air Corps and Selfridge Field." Lieut. A.A. Kessler also made an address on the "Duties and Training of an Air Corps Officer." All of these addresses were received with much enthusiasm and it is believed much can be done to acquaint civilians with the Air Corps in this way.

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SECOND LIEUTENANTS HAVE THEIR TURN IN PROMOTIONS

In recent months, 1st Lieutenants of the Army Air Corps happened to be so placed on the promotion list that most of the promotions in this branch of the service fell to their lot. Now the tide seems to have changed, and the second lieutenants are having their turn, according to Special Orders of the War Department recently issued, announcing promotions among commissioned personnel. Just lately, 19 Air Corps officers have either purchased new solitary silver bars or are still able to use their old bars with the gold rubbed off.

Lieut.-Colonel John H. Howard, Commanding Officer of Mitchel Field, N.Y., discarded his silver oak leaves for eagles, while Major John H. Pirie, on duty in the Office of the Chief of the Air Corps, changed his gold leaves for others of a silvery hue. The date of rank of these two field officers is November 1, 1932. The date of rank of 1st Lieut. Clinton W. Davies is October 29, 1932, while the other promoted second lieutenants, listed below in proper order, rank as of November 1, 1932, viz: Reuben Kyle, Jr., Harvey F. Dyer, Earl C. Robbins, A.J. Kerwin Malone, Russell Keillor, Mark D.S. Steensen, Ernest H. Lawson, John E. Bodle, William E. Doolittle, Russell Scott, Burton M. Hovey, Jr., Richard E. Cobb, Dale D. Fisher, Henry W. Dorr, Irvin A. Woodring, Carlisle I. Ferris, Elwood R. Quesada and Willard R. Wolfenbarger.

The latest Air Corps first lieutenant recently promoted is Captain Caleb V. Haynes. Among the next 200 first lieutenants of all branches of the Army on the promotion list are 36 members of the Air Corps (18%), viz: Harold A. Bartron, No. 4; John F. Whitely, 12; Guy L. McNeil, 16; Clarence P. Talbott, 22; Alfred L. Jewett, 25; Louie C. Mallory, 28; Lewis S. Webster, 30; Roy W. Camblin, 34; Cornelius J. Kenney, 43; Winfield S. Hanlin, 44; Robert T. Zane, 56; LeRoy A. Walthal, 67; Lucas V. Beau, Jr., 68; N.R. Laughinghouse, 73; James M. Gillespie, 107; Frederick von H. Kimble, 158; William J. Hanlon, 159; Howard A. Craig, 161; David E. Stinson, 162; Joseph T. Morris, 163; Armor S. Heffley, 166; Wm. R. Sweeley, 168; George A. McHenry, 170; Carlyle H. Ridenour, 176; Russell C. Macdonald, 177; Bennett E. Meyers, 178; Paul H. Prentiss, 181; Robert S. Heald, 182; Warren A. Maxwell, 183; Frederick M. Hopkins, Jr., 186; George E. Rice, 189; Leonard D. Weddington, 190; Edward M. Powers, 193; William D. Clarke, 196; Paul E. Burrows, 198; George H. Brown, 199. Among the next 200 first lieutenants on the promotion list, 64 are members of the Air Corps, or 32%. During October, a total of 24 first lieutenants from various branches of the Army were promoted. On the assumption that this number would be the average in the promotion of first lieutenants from now on, it would appear that Lieut. Brown should receive his captaincy within the space of eight months; furthermore, that promotions from then on should be at a much more rapid rate.

From the standing of second lieutenants of the Air Corps on the promotion list, it seems that for some months to come promotions will be at a slower rate. Among the first 200 officers of this rank on the promotion list, only 30, or 15%, hold commissions in the Air Corps, viz: George W. McGregor, 12; Charles A. Harrington, 13; Maurice F. Daly, 30; Laurence S. Kuter, 40; George McCoy, Jr., 53; Julius T. Flock, 58; John M. Sterling, 69; Mark K. Lewis, Jr., 71; Orrin L. Grover, 81; Milton L. Towner, 99; Fay R. Upthegrove, 104; Charles B. Stone, 3rd, 111; John W. Kirby, 132; Marion Huggins, 156; Neil B. Harding, 163; Robert L. Easton, 166; Frank K. Park, 173; Walter W. Gross, 174; Otto C. George, 177; John N. Jones, 178; Leo W. DeRosier, 190; Gordon P. Saville, 191; Charles B. Overacker, Jr., 192; George H. Macnair, 193; William B. Blaufuss, 194; James A. Ellison, 196; Hoyt L. Prindle, 197; James F. Walsh, 198; George R. Geer, 199; Donald W. Benner, 200.

During October, a total of 29 second lieutenants of all branches of the Army were pro-

moted. Assuming this number to be the average monthly rate of promotions, 2nd Lieut. Benner should receive his promotion within seven months. There should be considerable acceleration in promotions among Air Corps second lieutenants in the next 200 officers of this rank on the promotion list, for 78, or 39%, are members of the Air Corps. ✓

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WIND STORM CREATES HAVOC AT MARCH FIELD

A terrific wind storm, estimated at over 50 miles per hour, suddenly visited March Field, Riverside, Calif., on Monday, October 24th, and before five planes of the 11th Bombardment Squadron could be placed in hangars considerable damage was done to them. Three E-2 (Condors) had badly damaged vertical stabilizers and elevators. Two Y1-BG's (Keystones) had damaged wings. Sergeant Newman, 11th Squadron, received a broken arm when an unusually stiff gust of wind lifted a wing some 15 feet in the air, throwing the sergeant "for the count." Second Lt. E.S. Wetzel received a sprained ankle and is now in quarters. In spite of the seriousness of the situation, several amusing incidents happened during the height of the "maneuvers." One sergeant stated that it was a most unusual experience to sit in the cockpit of a Bomber and be able to fly straight up by merely pulling back on the wheel - an auto-giro feeling as it were. Another, who was evidently from Texas, compared it to a bucking broncho. ✓

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MARCH FIELD "DESTROYED" IN AIR RAID

On the night of October 26th, hundreds of spectators were afforded an opportunity to witness the 7th Bombardment Group attack and destroy March Field in a daring and spectacular air raid. The exercise took place as a part of the training program at March Field, and in conjunction with the training of Battery "A," 63rd Coast Artillery (Anti-aircraft). Major J.T. McNarney commanded the Bombardment Group.

Assuming March Field as being an enemy air base, strongly fortified by anti-aircraft artillery (simulated by the searchlight battery), the Bombardment Group left its base at Alhambra to bomb the field and destroy buildings and shops, thereby paralyzing the field's usefulness to the enemy. Each of the three squadrons of the Group flew different routes to the objective, and about 7:00 p.m. began converging over the appointed spot. Bombardment planes were preceded by supporting Pursuit planes, the idea being that the Pursuit planes should be mistaken for the huge Bombers insofar as the anti-aircraft sound detectors were concerned. This plan worked so well that, while the smaller planes flew around over March Field below 3,000 feet altitude, the Bombardment formations slipped over, dropped their loads of death and destruction (bombs were simulated by flares) and then roared away to safety, only one plane being spotted and theoretically lost before it had completed its mission. Considering the fact that a total of 23 Bombers passed over the objective during the raid, and that the searchlight battery had practiced at March Field for about one month, "it is believed," says the News Letter Correspondent, "the 7th Bombardment Group deserves high commendation in carrying out its mission with the 'loss' of only one plane."

Remarks of praise for the airmen were heard on all sides from the deeply interested visitors at the field. The people were highly pleased with the display of searchlight beams scanning the heavens for the birdmen; plane after plane zooming over at altitudes from 5,000 feet to 11,000 feet; bright flares hanging lazily in the sky, lighting up the entire countryside; and later the Group landing by flights and the planes stored in the hangars, but they also understood that the mission was a complete success for the Air Corps. They seemed also to be struck with the realization "of what might have been" had real live bombs been used instead of the flares.

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TECHNICAL SCHOOL LIBRARY REDECORATED

The Technical Library of the Air Corps Technical School, Chanute Field, Rantoul, Ill., was recently redecorated and rearranged. Among innovations are steel filing and index cabinets for 90,000 blue prints, new ceiling lighting, new curtains and photographs, all furnished and executed at a minimum cost. The curtains are of unbleached fabric, the valance carrying duplicate horizontal stripes of satin ribbon in the ultramarine and golden orange of the Air Corps, while the drapes are gathered with silk cords of the same colors. Cost of the curtains was covered by local post donations. The photographs, framed in walnut and glass, without cost to the government, are enlargements, 20" x 24" of a series of twelve aerial photographs of single planes and meticulously exact formations of elements of the First Pursuit Group at Selfridge Field, recently taken by Lieut. George W. Goddard and Master Sergeant G.B. Gilbert, of the Air Corps Technical School. These photographs, with their marvelous cloud effects and examples of precision formation flying, are considered the most beautiful set of aerial photographs ever made.

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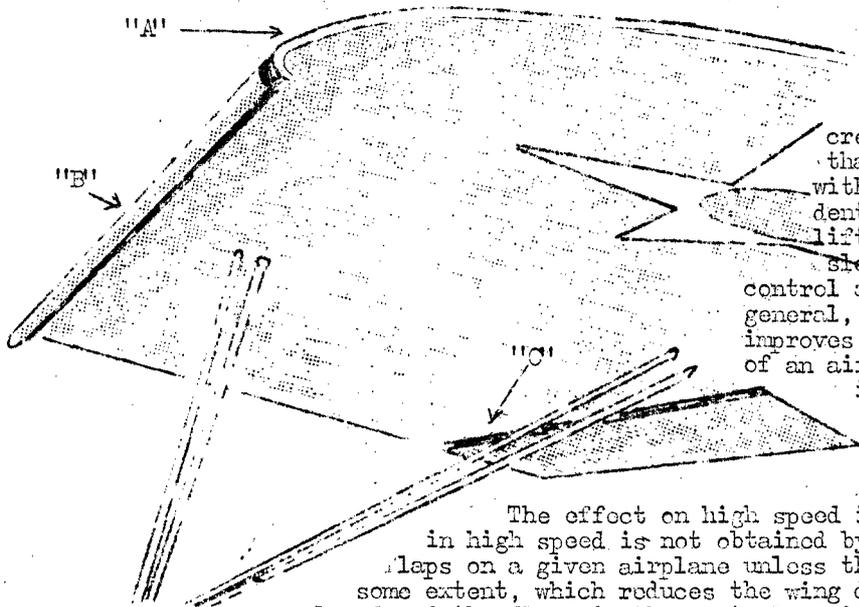
FORCED LANDING IN RAILROAD YARD ✓

What might have been a very serious accident ended happily for Lieut. Paul Hinds, Air Reserve, though not so happily for his ship, when he was forced down by motor trouble in Detroit recently. Lieut. Hinds, an inactive Reserve officer who lives in Detroit, was flying a Curtiss P-6A during the regular Sunday morning Reserve training period at Selfridge Field. He was flying over Detroit when, from some unknown cause, his motor ceased to function. The only available place to set his ship down was a railroad freight yard directly beneath him. He had already put his wheels on the ground between the railroad tracks when he saw that he was heading directly for a group of small boys who had come into the railroad yard to watch him land. His only recourse was to ground loop into a line of box cars to one side.

Lieut. Hinds escaped without a scratch. The ship, however, was damaged so badly that a preliminary examination indicated that it cannot be repaired.

NOTE ON THEORY AND OPERATION OF SLOTS AND FLAPS.

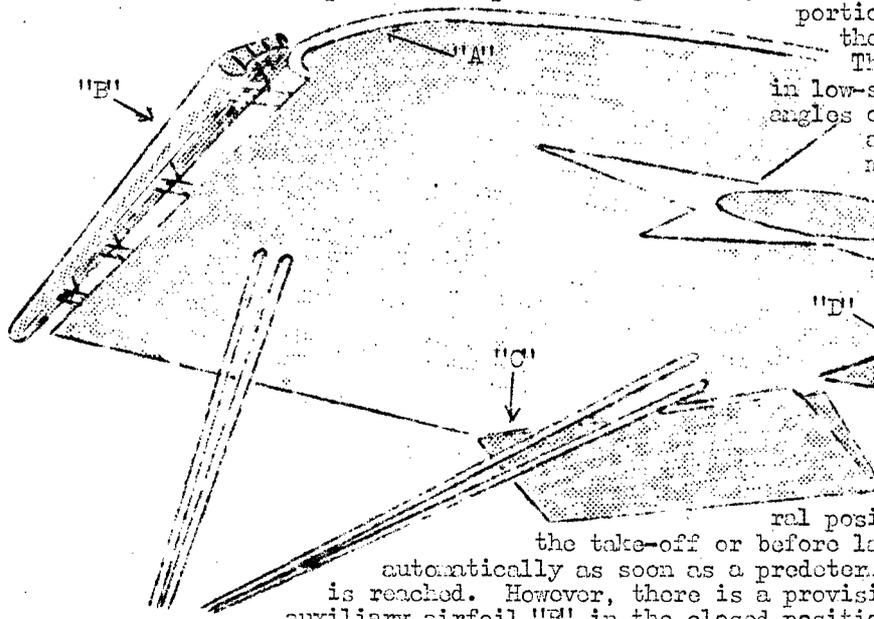
From an engineering standpoint, the arguments for and against the use of slots and flaps are approximately equal. The maintenance and experience of the service pilots on an Attack type airplane delivered to a tactical organization for service test in respect to these installations will have an important bearing upon future developments along this line by the Materiel Division. It should be pointed out that, in addition to the apparatus described herein, there have been a number of developments tested by aerodynamic laboratories in this country. These devices bear various trade names, but the principle and the effect are comparable to the device described.



Primarily, the function of flaps and slots on an airplane wing is to increase the maximum lift over that obtained on the wing without slots or flaps. Incidental to the increase of the lift, flaps and particularly slots, improve the lateral control at stalling speeds. In general, the use of flaps and slots improves the flying characteristics of an airplane at low speeds; that is, in landing and in take-off. They prevent or at least postpone the tendency toward involuntary spinning.

The effect on high speed is indirect. An increase in high speed is not obtained by the use of slots and flaps on a given airplane unless the wing area is reduced to some extent, which reduces the wing drag when the slots are closed and the flaps in the neutral position; that is, when both the slots and the flaps are inoperative. The airplane with wings of such reduced area with slots and flaps inoperative (or without slots and flaps) would have an excessive landing speed, but the opening of the slots and deflecting of the flaps would increase the lift and thus reduce the landing speed to approximately the same speed that the airplane had before the wing area was reduced.

Although there are several possible combinations of the flap, slot, and ailerons, the enclosed photographs show a representative type used on the Army Attack airplane, Curtiss YA-8. In the sketch below, the slot formed between the leading edge of the main wing "A" and the auxiliary airfoil "B," is open; the flap "C," hinged along the rear spar at the inner portion of the wing, is in the deflected position.



This combination is used in low-speed flying at high angles of attack, where the auxiliary airfoil automatically assumes the "open slot" position and the flap is depressed by a suitable manual control. The aileron "D" is shown in the "up" position, but it is controlled by the stick independently of the slot or flap. The flap is lowered from its neutral position by the pilot for the take-off or before landing. The slot opens automatically as soon as a predetermined angle of attack is reached. However, there is a provision for locking the auxiliary airfoil "B" in the closed position, thus making the slot action inoperative. The sketch at the top of this page shows the position of the auxiliary airfoil "B" in the "slot closed" position, the flap in neutral, and the aileron "D" in the "down" position.

It is fairly well known that the lift of any conventional airfoil increases with an increasing angle of attack. However, there is a limit to the increase of lift, since, depending on the shape of the airfoil and beyond angles of attack of 16 to 20 degrees, the lift does not continue to increase but decreases more or less sharply. It is further known that in the case of the conventional airfoil at small and medium angles of attack, where the lift is proportional to the angle, the flow of air above and below the airfoil is approximately parallel to its curvature. As the angle of attack increases, the flow of air begins to detach itself from the upper surface and to form a turbulent flow. This continues until the angle of maximum lift is reached, beyond which the flow breaks down quite suddenly and is accompanied by a drop in lift and a large increase in drag.

Both the flap and slot prevent the formation of turbulent flow above the airfoil; although each accompanies this by a different process. This is the reason why the maximum increase in the lift obtained with the flap alone is improved by the use of the slot and vice versa. By keeping the airfoil at some medium angle of attack and depressing the flap, the

airflow on a large portion of the upper surface remains undisturbed, because the wing itself did not change its angle; the flow of the air on the lower surface is, however, deflected downward by the depressed flap. This additional deflection of the mass of air is the cause of the increase of lift, although, as for the conventional airfoil, there is a limit of the flap angle (about 60 degrees down) beyond which the lift begins to decrease owing to the formation of a great turbulence behind the depressed flap. A slot, of an approved form, near the leading edge has the effect of producing a stream of air of high velocity passing through the slot, the direction of which is from below, up and over the upper wing surface. This stream of high velocity through the slot is due to a considerable positive pressure at the entrance of the slot and a high negative pressure at its exit.

The effect of the slot is due to the high inertia of the air particles emerging from the slot at high velocity substantially in a direction parallel to the upper surface, thus preventing formation of detrimental eddies above the wing and smoothing the general flow. The combination of a flap and slot increase the lift of the basic wing section as much as 150 percent if used on the full span of a thin or medium thick airfoil.

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NEW PURSUIT PLANE WITH SLOTS AND FLAPS TO BE TESTED

A new Pursuit airplane (XP-934), recently delivered to the Materiel Division, Wright Field Dayton, Ohio, by the Curtiss Company, is to be subjected to full performance testing for the purpose of determining its suitability for Air Corps use.

The new airplane is of low wing all-metal construction, having a monocoque fuselage. The wing is strut braced, with entirely automatic slots and flaps. These are designed to come into full operation of their own accord at approximately 15 m.p.h. above stalling speed. The pilot can lock them, however, in any position by operating a handle in the cockpit. Thus, he is able to use them in obtaining reduced landing speed and at the same time can glide faster than at the speed at which the slots would otherwise close.

The landing gear is of fixed type with the shock absorber behind the wheel. An enclosed cockpit provides comfortable operating conditions for the pilot. The XP-934 is powered with a Curtiss V-1570 geared liquid-cooled engine. The wing span is 36 feet, the length from nose to tail, 26 feet.

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AERIAL SURVEY OF THE GUATEMALA-HONDURAN BORDER

On July 30th, last, the 12th Photo Section at France Field, Panama Canal Zone, received War Department orders to make an aerial survey of the Guatemala-Honduran Border, the lack of definite information of which has caused much altercation. On August 8th, 1st Lieut. H. K. Baisley, pilot, and Staff Sgt. B.C. Powers, 12th Photo Section, photographer, left France Field for Puerto Barrios, Guatemala. The first stop was made at David, Republic of Panama, for gas and oil. After servicing the ship, flight was resumed to Progreso, R.P., where quarters for the night were obtained at the United Fruit Company's banana plantation. On the 9th, the flight was continued to Tegucigalpa, Honduras, by way of Managua, Nicaragua. On the 10th, arrival was made at Puerto Barrios, Guatemala, at 10:50 a.m., where the photographic personnel reported to Mr. S.H. Birdseye, senior ground control engineer, and received orders and instructions pertaining to the job to be photographed.

The trip from France Field, Canal Zone, to Puerto Barrios, Guatemala, is one of the most scenic that could be found in any country. Mountains, lakes, inactive and active volcanoes, and a beautiful coast line all tend to make the flight interesting as long as everything is working right. It is certain that quite a different opinion would have been formed if a forced landing had been experienced. Upon arriving at Puerto Barrios, the photographic personnel were quartered with the United Fruit Company, and too much cannot be said as to the service and kindness of personnel of the Company to the photographic crew.

On August 11th, photographic work began, and it was found that considerable difficulty would be experienced in getting suitable weather for photography. Early morning heavy fog covered the entire valleys and remained until about 9:00 or 9:30 a.m. In addition to the fog, cumulus clouds would form over the mountains. It was decided to take off each morning by 6:00 o'clock, and in that way photographs were made on sixteen out of twenty-nine days. Some were made under high clouds, and the results were remarkable, due to the use of the new super-sensitive film. After several days, the Guatemalan and Honduran Governments constructed a temporary hangar for the airplane.

The orders received from Washington were for only one airplane with no accompanying plane or mechanic, resulting in the photographer performing the mechanical work and getting a lot of experience in servicing the airplane with five-gallon cans, with the help of two natives employed by the Pan-American Airways. Their actions showed that they had very much more experience with caravans and oxcarts than airplanes. There were very few people in this part of the country who could speak English, and, as neither the pilot nor the photographer was any better versed in Spanish, it was quite comical to see the ways of making the natives understand what was desired. The flying field is under construction by the Pan-American Airways, and it is one mile from the quarters. After each photographic mission, the T-2A camera was carried to the quarters by Guatemalan soldiers for reloading.

Up to September 6th, 8½ rolls of T-2 film and two rolls of K-1 film were exposed. On that date the crew returned to France Field for mechanical check of plane. The return trip was started on September 27th. After flying 3 hours and 30 minutes on the afternoon of September 27th, trying to get through a rainstorm to David, R.P., and with night approaching, it was decided to land. It was found that the pasture - converted into a landing field at this emergency - was six hours by horseback to the nearest village. The only house in sight was occupied by natives, who came out to the plane on horseback to carry the pilot and photographer to the house for the night.

The house consisted of three rooms, occupied by eight or ten people, ranging in age from one to fifty. On account of their unexpected visitors, one room (consisting of one board about two feet wide for one bed and a canvas stretched over two boards for another) was converted into a guest chamber by putting a straw mat on the bed of boards. Shortly after dark, the gentleman of the house informed the guests that supper was being served - consisting of salt pork ribs, blue beans and rice, and plantain.* Though the supper did not appear very ap-

*Banana-like fruit which must be cooked or fried.

petizing, it was decided to sample the plantain to stay on the good side of the host. But after completion of the meal there was plenty left on the table for two more people. The night was spent in listening to the arguments of some natives, who came home late to find their space occupied by strangers, and fighting field rats. At six o'clock the next morning, not much worse for the night's experience, the flight was resumed and a landing was made at David an hour later. A thorough scrubbing and a hearty breakfast with the Navy radio operators there brought the pilot and photographer back to normal. The O-19C was then headed north again for Puerto Barrios, arriving at 4:30 p.m.

The second mission was accomplished in eight days with one roll of T-2 film, mostly photographing control points placed on top of the highest mountains by the ground control engineers. Upon return to France Field, it was found that it had required 98 hours and 25 minutes to complete the job. The 12th Photo Section printed and delivered one each of the photographs made on this job and still must print two more of each before the laboratory work will be completed.

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GOOD SERVICE AT MIDLAND, TEX.

Apparently it is not generally known in the Air Corps that government servicing facilities are obtainable at Sloan Field, Midland, Texas. A detachment of enlisted men is stationed there. There is a hangar at the field, and gasoline and oil are available - also meteorological data. A good hotel in Midland, the Scharbauer, gives special rates to Army personnel.

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TACTICAL FLYING IN PANAMA

For the past two months, a series of tactical problems, which involved all tactical squadrons, were carried out by the 6th Composite Group at France Field, Panama Canal Zone, each Saturday morning. These problems were intended to indoctrinate the pilots with the correct tactical principles of their weapon and to increase the efficiency of our communications. In the majority of the problems, the Bombardment simulated enemy bombers attacking a vital point on the Canal, supposedly operating from aircraft carriers at sea. In order to limit the action of the problem, it is assumed that the bombers were reported on the way and must cross a given line about 120 miles from the Zone in a certain interval of time. Pursuit move to an advanced airfield and remain on the alert, awaiting word from the Observation when the bombers have been picked up. "Our Pursuit have not been equipped with radio here in Panama," says the News Letter Correspondent, "and the messages had to be picked up on a field set which was spotted previously. In good weather Pursuit did not have much difficulty completing their interception, the problem developing into a race of who would arrive first - the bombers over their target or the pursuit on the bombers. When the sky was heavily clouded, the pursuit were under a severe handicap, as once they took off they could hear no further information from observation and had a blind chase.

All pursuit now have left for Albrook Field, and until they are again functioning different problems are undertaken - the bombardment being friendly and being directed to targets by the observation. In spite of the old equipment for communications and the severe conditions of static during the wet season, all problems have been carried out successfully.

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PURSUITERS SEARCH FOR LOST PARTY OF DUCK HUNTERS

On November 10th, the three tactical squadrons at Selfridge Field, Mt. Clemens, Mich., began rotating in the task of searching Lake St. Clair for a party of four duck hunters reported missing. At the time the civil authorities requested help from Selfridge Field in the task of searching for the missing men, more than 48 hours had elapsed since the men had been sitting out in their little duck boat on their hunting trip. At the time of this writing, all hope for the safety of the unfortunate hunters is lost. The Selfridge Field pilots are continuing with the search, hoping that the bodies can be found and recovered. The Squadrons take turns flying patrols low over the water back and forth between points on opposite shores of the lake.

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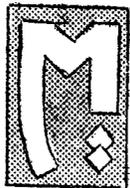
BOMBING WITH BUILDING MATERIAL

The Department of Agriculture, Territory of Hawaii, plans to build a galvanized iron building at the head of Kaipapau Valley, which runs into the mountains between Hanalei and Laie. The building will be 10 feet square, and will be used by mountain climbers and forest rangers when they find it necessary to remain in the mountains over night. Building materials are to be delivered by aircraft to the top of the Koolau Mountains by bombing planes, dropping them on a spot to be designated by the Board of Agriculture and Forestry. The delivery of materials in this novel manner was requested by Charles S. Judd, Territorial Forester. Mr. Judd pointed out that it was impossible to transport the materials in any other way, due to the dangerous mountain trails in that district.

Galvanized iron for the sides and the iron roofing, as well as wooden framework members, are to be done up in bundles of such sizes as may be dropped from an Army bomber from Luke Field. The airmen will try their luck at some practical bombing, and the Forestry Department will have materials on hand which probably could not have been delivered in any other manner. There are at present two similar cottages in the Koolau Mountains, at the heads of Poamoho and Lalaekahana Valleys. They contain a large bed and cooking equipment - the latter being under an overhanging portion of the roof.

Ed. Note: An Associated Press dispatch from Honolulu, Nov. 22nd, states that "An Army bombing plane today lifted a heavy load of sheet metal, lumber, nails and other building material over the Waianae Mountains, a few miles from Honolulu, and dropped the cargo at a spot where the Territorial Board of Forestry wished to build a cabin. Services of the Air Corps were obtained because the vegetation was too dense and the mountain sides too steep to permit surface transportation."

TRAPPING OF THE ELUSIVE COSMIC RAY
By Lieut. Minton W. Kaye, Air Corps



MARCH Field was busily engaged in tendering Mrs. Amelia Earhart Putnam an aerial review when Dr. Robert A. Millikan of the California Institute of Technology paid us a visit. After thoroughly enjoying the review, he requested of Lieut.-Col. H.H. Arnold the use of bombardment equipment to carry his instruments aloft for the purpose of recording the change of effect of cosmic rays upon an electroscope at various altitudes. Dr. Millikan desired his recording instruments carried to altitudes of 10,000, 14,000, 19,000 and 24,000 feet, remaining 45 minutes at each altitude. First Lieut. Charles H. Howard was consulted and stated that the mission was feasible, whereupon a tentative engagement was set.

When the pre-arranged date arrived, there were no scientists on the scene. Word soon came in that while running some preliminary tests at Lake Arrowhead, the instruments had been placed in a scow. The scow, tied to a wharf for the night with instruments aboard, was thought to be safe enough. Nature had not been consulted, however, for during the night a squall came up during which the wind reached such velocities that the scow was torn from its moorings, cast adrift and sunk. The mission was of necessity called off and the scientists went to work dragging Lake Arrowhead and constructing new instruments.

On August 29th, Dr. Millikan, accompanied by his assistant, Dr. Victor Neher, arrived at March Field with new instruments and again enlisted the aid of the Air Corps. The 11th Squadron immediately fell to the task of placing the instruments in one of their Curtiss Condor B-2 airplanes. It will now be necessary briefly to describe the instruments as well as give a brief account of the theory of the cosmic ray. Scientists, with the discovery of radium and the X-ray tube, discovered a peculiar phenomena, namely, that when a charged electroscope was placed in proximity to either radium or an X-ray tube, the electroscope more readily lost its charge. This phenomena had never been explained before. It was thought that rays were emanating from this radium or from the X-ray tube and discharging the electroscope. The electroscope, however, loses its charge regardless of the proximity to either radium or an X-ray tube. This was explained away by stating that, as radium is more or less prevalent in nature, that the rays emanating from such radium were causing this discharge. This theory went unchallenged until Dr. Robert A. Millikan started his experiments shortly after the war. Dr. Millikan constructed an electroscope and carried it aloft at Kelly Field, noting the rate of discharge with varying altitudes. This rate of discharge, contrary to expectations, increased with altitude, that is, the time interval necessary to discharge the electroscope was noted to be shorter at altitude altitude than at sea level. From these tests Dr. Millikan concluded that the force that was discharging his electroscope was emanating from some source other than the earth; out of the cosmos perhaps, so he termed his newly discovered force the cosmic ray - that this force was being filtered out by the earth's atmosphere and that as the instrument was carried into rarer atmosphere more force operated toward discharging the electroscope.

Several years of research and experimentation followed wherein readings were obtained at extremely high altitudes from sounding balloons in Northern Alaska and on top of various peaks. These experiments proved to Dr. Millikan that the force was coming in from without our atmosphere, that the force was as strong at night as during the day and that the earth's magnetic field did not influence it. It had long been Dr. Millikan's desire to obtain some graphic representation of his data so that he could put it before the skeptics and prove his theory. In Dr. Victor Neher, a young professor at California Institute of Technology, Dr. Millikan recognized a competent and skilled assistant, for it was Dr. Neher who constructed the delicate instruments used at March Field. Dr. Neher's problem was to construct an extremely sensitive electroscope, rugged enough, however, to withstand the shocks encountered in flight; to encase this electroscope in a steel sphere under a pressure of 450 pounds per square inch to increase its sensitivity and again to surround the whole with a blanket of lead to filter out any earthly influence.

The electroscope was constructed of fused quartz hair drawn to a microscopic thickness to give it the qualities of an electric wire, then, gold was sublimated upon its surface. This was placed in the sphere surrounded by a solenoid in such a position that light projected through a quartz window would shine upon the pointer of the electroscope, which pointer would cast a shadow through another window, thence through a microscope upon a motion picture film. A chronometric device was fitted which pulled the film past the microscope at a unit speed and also threw a current of 350 volts into the solenoid at fifteen minute intervals, thus charging the electroscope. As it has been found that the cosmic rays penetrated the equivalent of 28 feet of lead, it was shown that they had an extremely short wave length and were of an extremely high potential. A few inches of lead would have very little influence on these rays but would completely filter out the X and Gamma rays. A sphere of lead made up in sections, the whole hollowed out in the center to accommodate the electroscope, was constructed and fitted in such a manner that the lead blanket could be readily removed from the instrument. The assembled instrument weighed well over 500 pounds and with the battery used to charge the electroscope, made a weighty load to boost to 24,000 feet and remain for 45 minutes. An extremely accurate barograph completed the scientific layout.

While the 11th Squadron was engaged in suspending the 500-pound instrument in the tool box of the "Condor," Dr. Millikan was taken to lunch and plied with questions concerning the mysteries of science. Unlike most scientists, Dr. Millikan was willing to discuss his theory with the laymen. As a result, a number of the officers and enlisted men at March Field became profound scientists, for thus it seemed after listening to their discussion of atoms, rays and bombardment from the cosmos.

It was agreed that on each of the projected flights, a full crew would be carried and constant radio communication would be maintained with March Field. This plan offered an excellent opportunity to test personnel and equipment working under extreme difficulties of severe temperatures at high altitudes; for the altitudes had to be maintained to a fine degree of precision. To check the altitude maintained at the various stages was the barograph, standardized by the Bureau of Standards, forever grinding out its telltale record. A delay was encountered in the original take-off, due to the necessity of making readings of the radiation of the radium treated instrument dials on the instrument board of the ship. This was accomplished by placing an electroscope in the ship and recording the radiation after the ship had been removed. Recording the radiation with the electroscope in the same relative position. The difference between the two readings would be due to the radiation of the radium on the instrument dials.

All preparations completed and recordings taken, the ship and crew were ready to go at one thirty, getting into the air at one thirty-five. On this first trip, Lieut. Charles Howard, commander of the 11th Squadron, acted as pilot, with Sergeant Marquardt as co-pilot and Corporal Cooper at the radio. The first stage was speedily attained and that elevation maintained for 45 minutes. Being in constant communication with March Field by voice radio, we were constantly informed as to the goings-on above. The 15,000-foot elevation was next attained and kept without difficulty. Lieut. Howard then sent word that he was going to 19,000 feet and stated that fog was coming in from the ocean and also from the direction of Cajon Pass. As darkness was coming on, the ground crew became a bit apprehensive. Shortly after, dark high clouds closed in all about March Field, and there was some speculation as to whether Lieut. Howard would come down or head for the desert. About this time a message came through stating that the 24,000-foot altitude could not be attained and that he would remain at 21,000 feet for the stipulated time. Too much gas had been consumed on the flight already.

Shortly before eight p.m., Lieut. Howard asked for a check on the weather, and upon receiving the report, headed for Imperial Valley, landing at Indio at eight p.m. We all breathed a sigh of relief upon receiving the phone call telling us of his landing. The second day's flights were held up until mid-morning by ferrying the ship from Indio, changing records and such. However, the ship got away at 11:20 a.m., with Lieut. Emery Wetzel, pilot; Staff Sgt. Pazersky, co-pilot; Private Roberts, radio, and Dr. Victor Neher as scientific observer. This flight was terminated at 5:15 p.m. Upon landing, Dr. Neher stated that he had enjoyed the flight but that it had gotten a bit cold. Shortly after landing, the ship was checked, gassed and ready to go again. At 6:30 p.m., Lieut. Mills, with Tech. Sgt. Wiedekamp and Pvt. Camp, took off, landing at 11:20 p.m., and yet again the ship was checked, gassed, oiled and ready to go at 1:00 a.m. To Lieut. Ivan Farman, Master Sgt. Kilheffey and Staff Sgt. Patterson fell the graveyard shift. They took off at 1:30 a.m. and landed at 6:05 a.m.

The ship was then given a long rest of two hours, after which Lieut. Joseph Miller, Tech. Sgt. Berg and Sgt. Sellers took off at 8:20 a.m., landing at 1:25 p.m. The work had now developed into well turned out routine and the ship was ready to go again in less than two hours. Lieuts. Harold Bowman and Walter Bass, and Pvt. Sikes took off at 3:25 p.m., and landed at 8:15 p.m. The flights were drawing to a close, with only one more night flight necessary. Lieuts. Donald Lyon, George Campbell and Private Camp took off at 9:50 p.m., and landed at 2:40 a.m. With the termination of this flight, the scientists removed their equipment and hurried in to Pasadena to a few days' preparation and thence to Northern Canada, where the Canadian Air Force was to repeat our flights under the shadow of the Magnetic Pole.

The first three flights were made with the leaden coat around the instrument. Those following, however, carried the unblanketed instrument aloft. This was done to get readings of the radiation of the cosmic rays uninfluenced by earthly rays and also readings of the radiation of cosmic rays affected by earthly radiation. After each flight the records would be removed, the film developed and the barograph sheet fixed. It was found that as a more powerful globe had been installed in the electroscope the first films were tremendously over-exposed. This was remedied, however, at the Photo Section by reducing the film to the proper intensity. Examination of the barograph records showed that the flights were uniformly well flown. The climb was uniformly constant and the various elevations maintained with almost imperceptible variations.

Examination of the records showed that with the lead blanket dampening out all but the cosmic rays, the radiation increased as altitude was attained, the radiation being somewhere between four and five times as great at 21,000 feet as at sea level. With the lead blanket off, however, there was a great discharge at low altitudes which fell off as altitude was attained, and then as further altitude was taken on, increased with the same degree as they had through the lead blanket at those altitudes. This leads one to conclude that the earthly radiation is extremely weak as compared with the radiation of cosmic rays which are coming from without and penetrating untold light years of distance to reach us.

Great credit is due the 11th Squadron officers and men, for it was their splendid morale and efficiency that made the flights possible. With the exception of the first flight, which terminated away from March Field, the ship was never on the ground more than 2 hours and 25 minutes. During this short interval, the ship had to be checked, gassed and oiled and made ready to go again. A crew was on duty constantly at the hangar in spite of the Squadron carrying on its routine work. The enlisted men displayed fine morale and turned out wholeheartedly at all hours of the day or night to keep the ship in the air. The total elapsed time was 62 hours and 5 minutes, of which 13 hours and 45 minutes were spent at Indio. Of the remaining 48 hours and 20 minutes, 37 hours and 40 minutes were spent in the air. This is a splendid record and is another victory for the Jiggs Squadron.

Captain Robert G. Breene, Air Corps Instructor with the National Guard, State of Washington, also cooperated with Dr. Millikan in his scientific experiments. The recording cosmic-ray electroscope with accessories were installed in a Douglas O-38B at Felts Field, Parkwater, Washington, At 1:45 p.m., Sept. 22nd, Captain Breene took off on a flight of four hours and 35 minutes' duration, maintaining altitudes of 10,000, 14,000, 19,000 and 21,000 for 2 period of 45 minutes each. On the following day another flight of a duration of three hours and 27 minutes was made, carrying the same instruments. The gasoline capacity, however, was reduced from 146 gallons to 116 gallons, and the pitch of the propeller changed from 18 degrees, 42' to 18.50 - 42', in an endeavor to exceed 21,000 feet. Level flights of 45 minutes' duration were made at 16" Hg., 15" Hg. and 14" Hg. No material increase in ceiling was obtained. In the afternoon of Sept. 23rd, another flight of a duration of 3 hours and 10 minutes was made. The gasoline capacity was reduced to 86 gallons, the generator and battery removed, and the pitch of the propeller set at 18 degrees 42'. No material increase in ceiling was obtained. Level flights of 45 minutes' duration were made at 17" Hg, 15" Hg, and 13.3" Hg. Dr. Millikan expressed satisfaction at the results obtained.

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A total of 27 pilots from March Field, Riverside, Calif., assisted in ferrying Pursuit airplanes and transports from Mather Field, now abandoned, to Barksdale Field, Shreveport, La., during the latter part of October. The pilots returned to March Field by air transport.

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ITH the simultaneous initiation into the Caterpillar Club, on November 17th, at San Diego, Calif., of three officers and one noncommissioned officer of the Marine Corps, when a collision between two fighting planes at an altitude of 7,000 feet during the course of a mimic air battle made it necessary for all four to resort to the parachute, the membership of the Caterpillar Club passed the 500 mark, and Caterpillar stock, common, is now quoted at 503. Sixteen members of the Club pulled the rip cord twice during the course of their flying careers, and one, no less a personage than Colonel Charles A. Lindbergh, exercised the pulling muscles of his arm on four occasions when he encountered trouble in the air.

At this writing, therefore, a total of 522 emergency parachute jumps have been made, distributed over a span of 14 years, as follows:

1919 - 2	1920 - 1	1921 - 0	1922 - 2	1923 - 0	1924 - 10	1925 - 13
1926 - 17	1927 - 40	1928 - 46	1929 - 91	1930 - 131	1931 - 92	1932 - 77

Truly, we are living in a remarkable age. Through man's genius, a contrivance of silk and shroud lines was perfected which has proved a great boon to aviation, as strikingly demonstrated by this large membership in the Caterpillar Club. There is no denying the fact that aviation has made great strides forward. The airplanes of today are infinitely more sturdier, faster and reliable than those which have gone before, but that grim spectre - Accident - still haunts aviation, as it does all other forms of transportation, and while much has been done to curtail its destructive tendencies, the probability is that it will continue to remain with us indeterminably, or until that dim and distant future when the frailties of human nature - the tendency to err - undergoes a radical change.

Initiations into the Caterpillar Club have become so commonplace that those entering the sacred portals of this mythical organization seldom take the trouble to write a lengthy report of their experience for the information of their comrades in the flying fraternity who may in some way or another profit thereby should they ever be confronted with the necessity of undergoing an immediate initiation. Once in a while an enthusiastic Caterpillar takes his pen in hand and dashes off a story of absorbing interest. An instance of this kind is connected with the forced parachute jump of 2nd Lieut. Eugene H. Rice, Air Corps, who deserted his P-12C airplane on the morning of October 27th, while flying three miles east of the Fort Leavenworth, Kansas, flying field.

"I was at 4500 feet when I attempted a full roll on top of a loop," Lieut. Rice stated. "I completed the roll and was ready to loop out when the airplane fell into an inverted flat spin. I attempted to correct the spin but with no success. The engine had died at the end of the roll. When it became apparent the ship was not responding to the controls, I thought it might be necessary for me to use my 'chute, so glanced at the ring and also the safety belt so that I would know just where to reach when I needed them. I planned to leave the airplane between 2000 and 1500 feet, if not under control at that time. I had made about 5 or 6 turns when I reached for the stabilizer, thinking it would help if rolled back. The next thing I remember I was clear of the ship. I was thrown from the airplane with no effort on my part to get free from same. I do not recall unfastening my belt, which I may have done accidentally while reaching for the stabilizer adjustment, as I left the ship before I had fully decided to do so. However, I had in mind to leave the airplane soon if I had not regained control. I pulled my 'chute, which functioned perfectly. I do not know the altitude at which I jumped.

As soon as I found I was clear of the ship, I remember making a mental note of my sensation while in the free air, as I had always wondered what this sensation would be. It was a very pleasant sensation, such as lying on something very soft, seemingly with no resistance to any move I tried making. I lost no time in these meditations, however, and began getting my ripcord ring out. It never entered my mind that I should save the ripcord ring, so I gave it a yank and must have thrown it as far as possible at that time. It pulled with so little effort, I really wondered if I had pulled it, so looked at my hand to see if I had the ring there, which I didn't, so I then glanced toward the ring pocket at which time I saw the shroud lines running out between my legs. I watched the 'chute run completely out of the pack before I turned over, keeping me from seeing the 'chute fill with air. There was very little shock to the opening, but immediately thereafter I had the sensation of rising rather rapidly and wondered if I had been caught by an up current of air.

I then watched the airplane till it hit, after which I began wondering where I would land. My 'chute began to oscillate a little at this time and I tried to correct it by pulling the risers, but this made the oscillating worse, so I stopped doing anything about it. The 'chute soon stopped of its own accord. I followed my track across the ground by looking straight down and saw that I would land in the lake over which I had jumped, so I began slipping the 'chute toward the shore line and a small house thereon. While about 100 feet high, I yelled at a woman working in the yard of this house, who had not noticed me. She turned and looked up rather quickly and I imagined with some surprise. I did not get the 'chute over quite far enough, so landed about 200 feet from the shore in water and mud about knee deep. I had succeeded in getting headed around in the direction I was moving before I landed. I struck the ground before I thought I would, so fell flat on my face in the mud. The landing was not hard and I received no bruises, due probably to the soft ground. I grabbed the 'chute up as quickly as I could to keep it from getting any muddier or wetter than could be helped and started walking out of the lake. By the time I reached dry land, I felt pretty winded, so sat down to rest and think the situation over. I thought the next thing I had better do was to get back to the field, so I asked the owner of the house I had landed by to take me there, which he consented to do. We had gone about two miles from the house when I met a group of men from the field and an ambulance coming out for me. I told the men where the ship was and sent one of them to guard it and then returned to the field with another of the enlisted men."

The old trilogy of misfortune paid France Field a visit lately, but luckily, after the brush, there were no broken bones - only tangles and masses of twisted wires and tubes which had previously made up three P-12's. The first skirmish took place on a bright sunny morning, when the 24th Pursuit Squadron was getting rid of some of its vim and vigor by a brief exercise for formation acrobatics. After several maneuvers, a snap roll was performed at the top of a loop, when two of the planes, flown by Lieuts. Roger J. Browne and Frank D. Sinclair, went into a huddle and decided to give their pilots a bath. This was quickly done by joining

wings and starting a dive for the water, one plane still upside down. The planes made the water all right, but the pilots weren't quite as anxious, so delayed their descent as long as possible by taking to their parachutes. Each pilot struck the water, either on or practically on, his own plane, and when help arrived they were sitting quite contentedly on their upper wings, only the worse for a little ducking. As the performance took place over and in Limon Bay, the residents of Colon had a grandstand view, and boats reached the young Caterpillars very quickly.

Three days later, another root of the evil trilogy of misfortune struck when Lieut. E.N. Hamilton was accompanying the 24th Squadron on a navigation mission. The flight had passed Penonome and was headed for Santiago, when Hamilton received a sudden jolt and the impression that his world was coming to an end. After the jolt, no engine could be discovered, on a hasty investigation. As the plane could not be kept from a steep dive, the pilot decided to leave immediately, but his technique was not so good and, after putting most of himself overboard, was forced to reach back in the cockpit and hand the rest of himself out, which had been caught on gadgets. While floating down in his parachute he watched his plane disappear into the soft green cushion below him without a sign remaining where it went in. Then Hamilton landed on the soft green cushion but discovered to his chagrin he was literally "out on a limb," and the limb was at the top of a tree about fifty feet high! After already jumping 1,000 feet, Hamilton called it quits and refused to jump the measly little fifty feet to the ground, but played "Tarzan of the Apes" until he located a good strong creeper or vine on which he slid to the ground. "Three in three days is a pretty run for anybody's money," says the News Letter Correspondent, "but we hope the next time three hits, its three years."

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WHEELER FIELD TO BE PERMANENT HOME OF HAWAIIAN FLIGHT FOKKER ✓

Orders were received by the Hawaiian Department, directing that the U.S. Army Fokker "Bird of Paradise," the first airplane to make a successful flight from the United States to Hawaii, be placed near the main entrance to Wheeler Field as a monument of that historic event. At the present time the plane is at Luke Field in a dismantled condition, but it is proposed to restore it to approximately its condition at the time of the flight to Hawaii. It will be placed in a small pavilion which will be built near the entrance to the field where it landed after a flight from Oakland, Calif., in 1927. The plane will be given several coats of varnish to preserve it. The building will be so constructed as to permit an unobstructed view of the plane from all angles.

The Fokker, a tri-motored monoplane, was flown from Oakland to Wheeler Field in June, 1927, by Lieuts. Lester J. Maitland and Albert F. Hegenberger. The extra fuel tanks were later removed, and the plane was used for three years to transport personnel and freight between the Islands. The arrival of modern amphibian airplanes for these missions resulted in the retirement of the Fokker. It was planned earlier to have the Territory of Hawaii acquire the Fokker and place it on exhibition in Honolulu, but the necessity for economy led the 1931 legislature to deny an appropriation for a building to house the historic plane. Several museums have corresponded with Army officials regarding the airplane, but the expense of placing the huge craft in a mainland exhibit led them to abandon these plans. The building of the pavilion at Wheeler Field will be one of the last improvements in the extensive building program under way there.

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THREE-BLADED PROPELLERS FOR B-5 BOMBERS IN HAWAII ✓

The B-5A Keystone Bombardment planes of the 5th Composite Group, Luke Field, T.H., were recently equipped with three-bladed propellers in place of the old two-bladed type. This change was made following extensive experimentation by the Air Corps Materiel Division at Dayton, Ohio. Tests have shown that smoother operation and greater efficiency are obtained from the same expenditure of power, by using the three-bladed propeller. Another advantage lies in the fact that the multi-blade propeller has a short swing, eliminating the possibility of personnel being injured by accidentally walking into a revolving propeller while the plane is on the ground.

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CAMOUFLAGED PLANES FOIL INTENSIVE SEARCH OF OBSERVATION PERSONNEL ✓

The Observation units of the 5th Composite Group, Luke Field, T.H., in cooperation with the Pursuit Group from Wheeler Field, recently carried out an experiment in camouflage. Two planes of the Pursuit Group were camouflaged and placed on one of the outlying fields on Oahu, and six Observation planes were dispatched to locate them and report by radio when and if the "enemy" were detected. A time limit of an hour and one-half and a minimum of 5,000 feet was imposed. Although the Observers searched diligently during the allotted time and, as a last resort, flew as low as 1,000 feet, no trace of the "enemy" was found. The Wing Commander in an O-19 and his Operations Officer in a P-12 also searched the fields in vain. After the Observers had returned home, a photographic plane was sent out to obtain pictures of the field, having received pin-point instructions as to the exact location of the Pursuit. This was accomplished, and within 20 minutes after the return to Luke Field the photographs, ready for interpretation, were delivered to the Operations Officer. When shown the photos of the "enemy" planes on the field, one of the observers remarked: "Well, they were not there when I came over."

The camouflage consisted of green and brown washable paint applied to the top of each wing, to the undercarriage and to all parts which might reflect the rays of the sun. The paint blended so well with the surrounding foliage that even on the photographs one had to look carefully to detect the planes.

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Forty-three Air Corps officers at Luke Field are now enrolled in the classes of the Army Extension Course of the Air Corps School. This course of instruction covers a number of different subjects, each sub-course pertaining to one of the military knowledge qualifications prescribed for an Air Corps officer.

MUSIC ABOARD A FLYING TRANSPORT

Chanute Field, Rantoul, Ill., recently received music with its religion, at the hands of two of its officers, Major Milton O. Beebe, Chaplain, and Lieut. Roscoe C. Wriston, pilot.

Through the efforts of Major Beebe, the Post Chapel of Chanute Field was the recipient of a chancel organ, as a gift from St. Peter's Lutheran Church of Chicago, through the Coburn Organ Company of that city. The organ was delivered to the hangars of the 33rd Division Aviation, Illinois National Guard, at the Municipal Airport, Chicago. Lieut. Wriston, with a C-14 transport, flew to Chicago and, after due deliberation as to the merits of carrying a wind instrument into a head wind, decided to give the organ an even break. Attempts to load the organ into the transport through the doorway were met only with protesting squawks, in organly flute-like tones when the men tried to squeeze the keyboard in. Abandoning this method of loading the organ aboard, another plan, that of removing the floor of the C-14 and raising the organ into the fuselage from underneath, met with better success, and the musical instrument rested under the protective wings of Mr. Folker's guardian angel.

On the organic flight back to Chanute Field, a mechanic remained in the cabin guarding the organ to prevent any uncalled for complaints on its part. Not knowing that his mechanic was an amateur organist, Lieut. Wriston was surprised to find himself taking off to the plaintive, seemingly far away strains of "When the Roll is Called Up Yonder, I'll be There." On the entire flight the organ both played and traveled on air, and the pilot, necessarily summoning the full sense of humor at his command, approached Chanute Field for a landing to the tune of "She'll be Singing Hallelujah, When She Comes."

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TWENTY-SIXTH ATTACK SQUADRON WINS PROFICIENCY TROPHY

An Aerial Review, participated in by the entire 18th Composite Wing, Air Corps, Hawaiian Department, was given on November 10th in honor of the 26th Attack Squadron, stationed at Wheeler Field. The occasion for the Review was the presentation of the Annual Trophy for the flying proficiency and maintenance of aircraft for the past training year. The 26th acquired the best record of all Air Corps squadrons in the Hawaiian Department, completing 2,751 hours of flying, an average of 250 hours for each plane, without a forced landing. It not only completed its training schedule, but continued 14% beyond the schedule required.

In addition to this event, another matter of interest to Air Corps squadrons is the forthcoming competition between teams representing all squadrons in gunnery and bombing. There will be competition between pilots, firing the front guns; between observers firing the rear guns, and in bombing. Each squadron will pick its best men to represent it, and the competition will be held at Waimanalo Field.

The Wing Commander is arranging for suitable awards for the winners.

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SOME SPEED IN PHOTOGRAPHIC WORK

The Department of Photography of the Air Corps Technical School, Chanute Field, Rantoul, Ill., has developed instruction in speed photography with interesting results. Students start from the door of the laboratory, upon a signal, and proceed to and photograph their respective objectives, returning to the laboratory, where they develop and print their photographs. By means of a stop watch, the students are timed from the instant the first signal is given until they hand the instructor the finished prints.

At the first trials, the time ran as much as fifteen minutes, but, after practice, the time for proceeding 600 feet, taking the exposure, returning 600 feet, developing the negative and making the finished print was reduced to a record of 3 minutes and 38 seconds, which is lightning speed as compared with the newspaper speed photography of about 20 minutes.

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NEW HIGH ALTITUDE BOMBING RANGE FOR FIFTH COMPOSITE GROUP

A new high altitude bombing range for the 5th Composite Group, Luke Field, T.H., was completed and put into use on October 15th. In past years, the Group was forced to use for a high altitude bombing target the sunken hull of an old ship lying just outside of Pearl Harbor. Several disadvantages arose in connection with the use of this target, in that the bombing interfered with the firing from Forts Weaver and Kanehameha; the target itself was within traffic lanes for small craft and, finally, there was no satisfactory means of locating the bursts. All of the disadvantages have been eliminated in the new location, it being a simple procedure to locate the bursts by angular readings from two observation towers. No interference to traffic will result from the bombing, as the target is located on the flats of Ahua Point and a sufficient distance from all traffic lanes as to eliminate all possible danger to traffic. The range is also removed from the firing zone of the Harbor Defenses of Pearl Harbor. The target itself is a circle 200 feet in diameter, with a circle of 15 feet in radius as an aiming point, and is constructed of metal drums filled with sand. Lieut. Lloyd H. Tull, Post Armament Officer, was in charge of the constructing detail.

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AIR CORPS IN HAWAII PARTICIPATES IN NAVY DAY PROGRAM

Celebrating Navy Day, October 27th, all available airplanes of the 18th Composite Wing participated in an Aerial Review at Schofield Barracks, in connection with a Review of the Hawaiian Division. The Division was reviewed by Acting Governor Raymond C. Brown and Staff; General Briant H. Wells and Staff, Commanding General of the Hawaiian Department; and Admiral Yates Stirling, Jr., Commandant of the 14th Naval District. Following the Aerial Review, the 18th Pursuit Group of the Wing flew over Schofield Barracks and the Honolulu Sector in formation, spelling "N-A-V-Y," afterward forming a huge "S" in honor of Admiral Stirling. Admiral Stirling commended the Air Corps for the wonderful exhibition of flying, and stated that it was the finest he had ever witnessed. General Wells and his Staff were also highly pleased and extended to the Wing congratulations for the excellent performance.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Chanute Field, Ill.: Capt. James F. Powell and 2nd Lt. Lloyd H. Tull from Hawaii; 2nd Lt. Allen R. Springer from Philippines.
 To Fort Crockett, Texas: 1st Lt. David M. Ramsay from Hawaiian Department.
 To March Field, Calif.: 2nd Lt. Charles G. Williamson from Hawaiian Department; Captain Albert C. Foulk from Wright Field, Ohio.
 To Langley Field, Va.: Captain Charles B. DeShields from Aberdeen Proving Ground, Md.; 2nd Lt. Robert E. L. Choate from Hawaii, (Previous orders in his case revoked).
 To Maxwell Field, Ala.: 1st Lt. Charles T. Skow from Fort Benning, Ga.
 To Mitchel Field, N.Y.: 2nd Lt. George P. Moody from foreign service. Previous orders in his case revoked.
 To Rockwell Field, Calif.: 1st Lt. Donald D. Fitzgerald from Hawaiian Department.
 To Hawaiian Department: Majors Laurence F. Stone from Randolph Field; Michael F. Davis from Crissy Field; Captain Douglas Johnston from Scott Field; 1st Lieut. Harold G. Peterson from Mitchel Field; 2nd Lieuts. Douglas M. Kilpatrick, Jr., from Chanute Field; Bryant L. Boatner from Selfridge Field.
 To the Philippines: 1st Lt. Narcisse L. Cote from Brooks Field; 2nd Lt. Gerald Hoyle from Rockwell Field; 1st Lt. Ivan L. Proctor from Randolph Field.
RELIEVED FROM DETAIL TO THE AIR CORPS: 2nd Lts. Wm. H. Maguire to Infantry, 2nd Division; Gordon W. Seward to Field Artillery, 2nd Division, Fort Sam Houston, Texas; Howard R. Martindell to 6th Coast Artillery, Fort Winfield Scott, Calif.; Robert D. Glassburn to 62nd Coast Artillery, Fort Totten, New York.

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FLIGHT-CHECKING OF NEW STRIP MAPS ✓

Under orders directing flight check of new Air Corps strip maps between Fort Sill, Okla. and Midland, Texas; Midland and Dallas, Texas; Midland and El Paso, Texas, 1st Lieut. Harold G. Peterson and 2nd Lieut. Elvin F. Maughan, on temporary duty in the Information Division Office of the Chief of the Air Corps, completed this mission in an elapsed time of 35 days and in a total flying time of 131 hours and 25 minutes.

The total area of the three maps which were flight-checked was 77,600 square miles and, since there were about 7,000 square miles overlapping, the total area flight-checked was approximately 70,600 square miles. The total area covered per hour on this mission was 685 sq. miles, and the average altitude flown was approximately 11,000 feet. Twenty flying days were spent on the flight-check, for a total of 103 hours, or an average of 5 hours and 9 minutes per flying day. Seven days were consumed flying to and from the scene of operations, for a total flying time of 28 hours and 25 minutes.

Lieut. Peterson states in his report that, due to the short space of time allotted for this flight check, it was necessary to fly at altitudes greater than that flown in former flight checks, and to some extent the two officers were not able to go into as complete details as before. He believes, however, that they were able to perform the work with sufficient detail so as to correct glaring mistakes and to enter most of the new roads of importance, as well as lakes, railroads and oil fields not previously shown on the maps. A number of new towns were also located.

Leaving Bolling Field on October 7th, at 11:45 a.m., Lieut. Peterson arrived at Chanute Field the following day at 11:35 a.m., where he was joined by Lieut. Maughan. Reaching Hat Box Field, Muskogee, Okla., on October 9th, they took off to start the flight check of the first strip map. The trip to Fort Sill was made in 5 hours and 5 minutes, after flight-checking the northern end of this strip. The period from October 10th to 15th was spent in flight-checking the strip map from Fort Sill to Midland, this work being done in a total flying time of 33 hours and 45 minutes. The period from October 17th to 24th was spent in flight-checking the strip from Dallas to Midland - seven flying days for a total flying time of 37 hours and 5 minutes. From October 26th to November 2nd, the strip from Midland to El Paso was flight-checked, the flying time in seven flying days being 32 hours and 10 minutes.

The two officers were enroute from Midland to Dayton on November 3rd and 4th, the flying time being 10 hours and 15 minutes. They were delayed at Dayton from November 5th to 10th, due to dangerous flying conditions and motor trouble. The actual flight from Wright Field to Bolling Field was accomplished in 3 hours and 55 minutes.

Lieut. Peterson expresses the opinion that, due to the personal equation, flight-checking by hand drawing is far less accurate than the employment of aerial photography, and recommends that a high altitude airplane be built, in order that future mapping missions may be done photographically from an altitude of approximately 35,000 feet; this plane to have a super-charged pressure cabin. With an airplane of this type, one could cover a strip about 125 miles long and 80 miles wide in three flights in one photographic day. One loading of film in the new T-3A camera at this altitude will photograph a strip map 300 miles long, using a ten percent overlap.

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ORGANIZATION DAY FOR THE 19th PURSUIT SQUADRON ✓ (CRAW)

The 19th Pursuit Squadron, Wheeler Field, T.H., celebrated its organization day with a holiday on Oct. 15th. This squadron was originally the 14th Aero Squadron, June 17, 1917, at Kelly Field, Texas. It was redesignated the 19th Aero Squadron June 26, 1917, and was demobilized at Garden City, L.I., N.Y., April 14, 1919. The 19th Squadron (Pursuit) was organized October 1, 1921, and was made inactive June 29, 1922, and then was redesignated 19th Pursuit Squadron Jan. 25, 1923, and made inactive May 1, 1923. The 19th Aero Squadron, which was demobilized April 14, 1919, was reconstituted and consolidated with the 19th Pursuit Squadron on August 20, 1923. The unit was assigned to the 17th Composite Group May 1, 1923, and was relieved therefrom and assigned to the 5th Composite Group January 15, 1924. It was relieved from assignment to the 5th Composite Group and, with the 6th Pursuit Squadron, was formed into the Provisional Pursuit Group January 11, 1927, which was redesignated the 18th Pursuit Group on January 20, 1927.

KELLY FIELD RADIO MECHANICS KNOW THEIR JOB

When Brigadier-General Oscar Westover, Assistant to the Chief of the Air Corps, landed at Kelly Field, Texas, on October 31st, in an O-38 airplane equipped with a radio receiver, type BC-SA-167 and interphone, type SCR-167, both controlled from the pilot's cockpit, he reported his radio receiver as unsatisfactory, due to intermittent operation, and made a request on the radio department for a mechanic to place the equipment in satisfactory operation.

With the motor turning up at various speeds, the set was carefully ground-tested in the usual manner prescribed by regulations and found to be operating satisfactorily. The tubes, which had been furnished by Kelly Field, and which were now in the set, were removed and the old tubes, which had been removed, were replaced. Still the set functioned in a satisfactory manner. A short flight was made and the set worked for a while but again started giving intermittent service. When the airplane was returned to the line, two radio mechanics from the Communications Department began a minute check of the equipment to locate the trouble. This checking is a tedious, painstaking job, and to such a job must be assigned well trained, conscientious personnel. By gradually eliminating piece by piece, the junction box of the cable harness was reached. In the junction box is a fuse held in position by a small clip at each end. These clips are held in place by a machine screw, lock washer and nut. The nuts on these screws were loose, and apparently the weight of the fuse caused a connection when the ship was on the ground, even with the motor turning up, but taking off on a rough field or during maneuvers in the air, would change the position of the fuse from time to time, causing the intermittent operation complained of.

Kelly Field radio personnel have been called on in a number of instances to check visiting ships to locate trouble, and their experiences along the trouble-shooting line are many and varied. "This little incident is forwarded for publication," says the News Letter Correspondent, "in hopes that it may help clear up a 'bug' in some other radio receiver, type BC-6A-167, which is giving intermittent service."

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STAFF SERGEANT MILLER PRESENTED WITH "ORDER OF THE PURPLE HEART."

For exceptionally meritorious and conspicuous service during the war, Staff Sergeant Carl O. Miller, 65th Service Squadron, Luke Field, T.H., was awarded the Order of the Purple Heart by the War Department. The decoration was received from Washington by Sergeant Miller. This veteran noncommissioned officer was with the 2nd Ammunition Train, 2nd Division, during the war, and saw service at Verdun, Belleau Woods, Soissons, St. Mihiel, Champaign and the Argonne. At the close of the war he was given a citation for his service by General Pershing.

Sergeant Miller has completed almost 29 years in the Army, and will be retired in a little more than a year. His service has carried him to many posts of the Army, and his record has been excellent throughout. He served during the Philippine Insurrection and with the Punitive Expedition into Mexico.

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AERIAL GUNNERY AND BOMBING IN THE HAWAIIAN DEPARTMENT

"With the recent completion of aerial gunnery for the entire 18th Composite Wing, it is interesting to note the excellent showing of our enlisted pilots and the respective scores made," says the News Letter Correspondent. "Master Sergeant Barney Wallace, 975; Master Sgt. Chester F. Colby, 881; Master Sergeant Samuel J. Davis, 864; Master Sergeant John L. Waugh, 820; Staff Sergeant Maurice Beach is well up to the standards required, but at this writing had not completed the course."

The 26th Attack Squadron, after occupying their new barracks but a few days, moved to the Waimanalo Gunnery Camp, replacing the 18th Pursuit Squadron. "After spending the first day getting settled in camp," reports the News Letter Correspondent, "we started on the regular schedule of aerial gunnery on ground targets the next morning. The scores made this year, in this phase of work, were very gratifying, the Squadron making a much better average than last year. This was to be expected, for all but three of the pilots this season had had previous work in this type of gunnery, whereas in the 1931 season, two or three of the pilots had the advantage of previous experience. Lieut. Leonard H. Rodieck, Squadron Commander, was high man with a score of 887, which is also the highest score on ground targets made at the camp this season. Lieut. James L. Majors was second with a score of 859, and Lieut. John C. Horton, third, with 828. Others who made scores over 800 were Lieuts. Walter S. Lee and Ezekiel W. Napier.

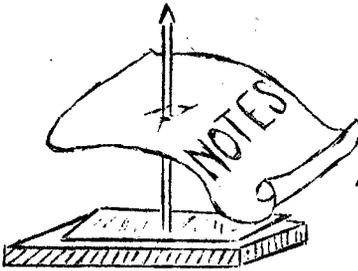
In record bombing, Lieut. George McCoy led the Squadron with a score of 213. Others who bettered 200 in this event were Lieuts. John E. Muhn and Ralph J. Moore, both Air Reserve. At present we are finishing up record firing on tow targets, both with the fixed gun and for those firing the observers course, the flexible rear gun. In addition, practice is being started on ground targets from a three-ship formation, or in column of three-ship elements, simulating regular attacks on ground troops.

The 72nd Bombardment Squadron conducted aerial gunnery and bombing practice, using sand-filled bombs, on the new range south of Alua Point, and demolition bombs against a floating target anchored off shore from Kepuhi Point. Instruction and practice in aviation and tactics will also be carried out. The aerial gunnery will be carried out on the course from Ewa to Barbers Point, using a towed sleeve target.

The 23rd Bombardment Squadron also engaged in aerial bombing, using the same range as the 72nd Squadron. Additional training consisted of camera obscura and formation flying.

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Send in your contributions to the News Letter on the 1st and 15th of the month. We have not heard from Mitchel Field, Maxwell Field, and the Middletown Air Depot for some time, and would ask the Correspondents from these activities to oil up their typewriters and get busy.



from Air Corps Fields

March Field, Riverside, Calif., October 31st.

Training for the 17th Pursuit Group started on October 10th for the year 1932-33. Ground training for this year will consist of practical instruction in Aerial Gunnery, Aircraft Armament, Engineering, Defense against Chemical Warfare, Use of Federal Troops in Civil Disturbances, Oxygen Equipment and Administration and Mess Management. Students were enrolled in Army Extension Courses as prescribed in Training Directives and Programs.

Post Schools are being established for the training of enlisted men in the subjects of Mechanics (Airplane and Engine), Radio Mechanics, Photography, and as Armorers and Assistant Cooks. School officers were appointed in each squadron to supervise these activities in the organizations.

Brigadier-General O. Westover, Assistant Chief of the Air Corps, piloting an O-19B airplane on a tour of inspection of Air Corps stations, arrived here on October 24th. General Westover was greeted at the time of his arrival with a typical Southern California "Santa Ana" (a wind and dust storm), during which the wind attained a velocity of 54 miles per hour, making flying conditions dangerous. The General, however, had no difficulty in overcoming these conditions. During his four days' visit, he had the opportunity of witnessing the following events:

1. Wing Review, followed by a dispersion problem.
2. Night attack on March Field by the 7th Bombardment Group, supported by a flight of pursuit planes, in conjunction with Battery "A," 63rd Coast Artillery (anti-aircraft), which was then in camp at this station from Fort MacArthur, Calif.
3. Bombing by the 7th Bombardment Group from an altitude of 12,000 feet of towed targets at sea, during which he accompanied the 31st Bombardment Squadron.

Announcement was received of the marriage of Miss Marian Kanause to 2nd Lieut. Henry G. Reynolds, 64th Service Sqdn., at Agua Caliente, Mexico, on October 24th.

First Lieut. and Mrs. Edgar T. Noyes, 7th Group Hqrs., announces the arrival of twins, a boy and a girl, on October 21st.

2nd Lieut. and Mrs. Charles B. Stone, III, were presented with a daughter on Oct. 24th.

San Antonio Air Depot, Duncan Field, Texas, Oct. 29th.

Colonel E.H. Humphrey, G.S.C., of the Staff of the First Cavalry Division, and Lieut. Wm. L. Boyd, A.C., of Biggs Field, Fort Bliss, Texas, visited the Depot Oct. 23-26. Col. Humphrey was a passenger with Lieut. Boyd, ferrying a BT-2B plane from Biggs Field to Wright Field, Ohio, by way of this Depot, for engine change.

Capt. A.K. Ladd, Lieuts. S.F. Landers and K.C. McGregor, of Maxwell Field, visited here Oct. 20th to ferry back to their home station three A-3B's. Lieut. McGregor, who was on duty at this Depot some three years ago, was busy greeting old friends and viewing new developments at the Depot. -- Lieut. E.M. Powers, of the Power Plant Branch, Materiel Division, Wright Field, enroute to the West Coast in an O-25, stopped here Oct. 25-26. He was formerly Assistant Engineer Officer at this Depot, and his old friends here were very glad to see him.

Lieut. L.V. Beau, Jr., Air Corps Instructor with the Colorado National Guard, Denver, arrived here Oct. 28th, ferrying in an O-2H plane for inspection and repair, and to ferry back to the Colorado National Guard an O-17 overhauled by the Depot.

Mr. C.H. Russell, of the Sperry Gyroscope Co., Brooklyn, N.Y., arrived at this Depot on October 25th for a visit to give a short course of instruction to our instrument repair personnel in connection with the maintenance of Sperry artificial horizons and directional gyros.

Patterson Field, Fairfield, Ohio, November 1st.

Delegates who were attending the Eastern Star Convention in Dayton, Ohio, visited this station on a tour of inspection on Thursday, October 27th.

The following officers ferried airplanes to this station during the past two weeks for major overhaul: Lt. Jackson with Major Maxwell from Ft. Leavenworth, Kans., in an O-25A on Oct. 18th -- Capt. Gardner from Sky Harbor, Tenn., in an O-2H, Oct. 20th -- Lt. St. John from Richards Field, Mo., in a PT-3 on Oct. 20th -- Lt. Trestel in a PT-3, Oct. 20th, and Lt. Hart in an O-1E, Oct. 25th, from Lunken Airport, Ohio -- Lt. Lee from Selfridge Field, Mich., in an O-19B Oct. 24th -- Capts. Connell in an O-25B and Mann in an O-38 from Chicago on Oct. 25th -- Lieut. Scott with Capt. Mayer in an A-3 from Chanute Field, Ill., on Oct. 28th.

Air Corps supplies were ferried to Chanute Field, Ill., by Tech. Sergeant Guile, Oct. 20th, and Capt. B.F. Lewis on Oct. 27th -- To Maxwell Field, Ala., Oct. 22nd, to Selfridge Field, Mich., Oct. 24th and to Scott Field, Ill., Oct. 28th, by Tech. Sgt. Guile.

Lieut. G.V. McPike ferried an O-1E to Candler Field, Ga., Oct. 19th, returning next day.

Lieut. D.R. Goodrich made an avigation flight to Baltimore, Md., on October 22nd.

Capt. Mann with Lieut. Newhall ferried an O-38 from Chicago, Oct. 27th, for minor repair.

Progress of new construction at this station may be summarized as follows: Stage of completion - Administration Building, 46%; Oil Reclamation Building, 80%; Hangar "A" 94%; Hangar "B," 82%. Entire project, 71%.

Capt. H.A. Bivins, accompanied by Major Hatcher, flew to Stout Field, Ind., on October 22nd on training flight, as did Lieut. F.M. Zeigler to Barrwell, S.C., Oct. 21st, and Lieut. P.W. Timberlake, accompanied by Major M.C. Grow, to Stout Field, Ind., on Oct. 24th.

The first entertainment of the season by the Wilbur Wright Welfare Association was a Halloween Party in the Post Gymnasium on the evening of Oct. 27th. Approximately 550 guests were present, and an enjoyable evening was spent in bowling, bridge, euchre and dancing. Music was furnished by the Ostorn High School band and Harry Gehring and his Melody Kings.

Lt.-Col. A.L. Sneed presented the Wilbur Wright Officers' Club with the "Sneed Trophy," a silver vase which will be contested for annually in a handicap golf tournament by those ladies who are members of the families of active members of the Club. In presenting this trophy, Col. Sneed requested that the title rest with the Officers' Club until some contestant has won it three times, when the title will then pass to such winner. The winner's name will be suitably engraved on the trophy by the Club. The prizes won in the Sneed tournament this year were presented on Oct. 26th, Mrs. John Y. York, Jr., winning the trophy for the first time.

Major H.W. Siebert, Air Reserve, Instructor in the Department of Aeronautics, University of Cincinnati, accompanied by approximately 15 students, visited the Depot, Oct. 26th, for the purpose of making an inspection through the Engineering Department at this station.

Petterson Field, Fairfield, Ohio, November 17th.

During October, the Depot gave major overhauls to 31 airplanes and 40 engines and minor overhauls to 16 airplanes and 28 engines.

Air Corps supplies were ferried to various stations by personnel of this Depot, as follows: Tech. Sgt. Cecil B. Guile to Chanute Field, Nov. 3rd; to Bowman Field, Ky., Nov. 8th; to Selfridge Field, Mich., Nov. 14th; Lieut.-Col. A.L. Sneed to Scott Field, Ill., in a C-14 on Nov. 2nd; Lieut. F.M. Zeigler to Bowman Field, in C-14, Nov. 7th; Lt. R.L. Williamson to Scott Field, Ill., Nov. 11th.

Aviation flights were made to Selfridge Field, Mich., Nov. 12th by Captain H.A. Bivins, accompanied by Tech. Sgt. Guile; by Lieut. P.W. Timberlake to Logan Field on November 4th; by Lieut. F.M. Zeigler to Lafayette, Ind., on Nov. 3rd.

The following officers ferried planes to this station during the past two weeks for major overhaul: Capt. Wright in O-1E, Nov. 2nd, from Richards Field, Mo.; Lt. Shepherd in a P-12E, Nov. 4th, Lts. Lee, Pettigrew, Unruh in P-12E's, Schlanser in P-16, Nov. 4th, Jacobs in P-6E, Nov. 14th, also Parlette in P-6E, Reed and Burnett in P-6E, Nov. 14th, from Selfridge Field, Mich.; Capt. Palmer in O-38 from Holman Airport, Nov. 4th; Capt. Gale with Lieut. Carpenter in O-38 from Stout Field, Ind., Nov. 10th; Capt. Peck in a P-12 from Maxwell Field, Ala., Nov. 14th.

Lieut. D.R. Goodrich ferried a P-1C plane to Kelly Field, Nov. 3rd, returning on Nov. 9th in a Bt-2.

Lieut. G.V. McPike, accompanied by H.L. Morgan, Chief Clerk of the Supply Department, departed Oct. 27th, ferrying an O-19E to Brooks Field, Texas; securing and ferrying an O-19B from Brooks Field to Rockwell Field, Calif.; returning to this station in a BT-2A from Rockwell Field on Nov. 6th.

Leave of absence, effective Nov. 15th, was granted Capt. H.W. Flickinger, also Warrant Officer Charles M. Smith.

The hunting season opened on Nov. 15th, with the majority of the officers taking advantage of the fact that hunting on the reservation was reserved for officers only on the first day of the hunting season. The number of pheasants on the reservation this season was appreciably increased due to the efforts of Major L.C. Grow at this station.

France Field, Panama Canal Zone, October 31st.

Now that the rain is falling steadily, the gates of Gatun spillway must be opened now and then in order to keep the level of Gatun Lake from becoming too high. The Chagres River carries the water from the spillway to the sea, a distance of about four miles. Here live a great rolling school of tarpon which attract many fishermen, both civilians and from the Army. One Saturday afternoon, a short time ago, while two boat loads of soldiers from the Field were among the many fishing on the river, seven of the gates were opened, releasing a flood which carried all before it down the river. When Monday morning arrived and the men had over-stayed their leaves, planes were sent over the river to attempt to locate them. Lieut. Harvey Boyden of the 24th Bombardment Squadron located the body of a man floating in the river close to the bank. Boyden landed at France Field, got out the speed boat and returned to the river. There the body was recovered, and in none too good shape, as a gator had attacked it. The man proved to be an ex-soldier who had lived in the Chagres Valley for several years since leaving the service. His canoe had been upset by the flood and as he could not swim he drowned while his woman companion was saved by the France Field men after she had hung on to some mangrove roots for about six hours. After much trouble with wet motors, the men returned to France Field Monday morning after a narrow escape.

The 12th Photo Section is making T-2 prints of photographs of the Inter-American Highway route. The purpose of this proposed highway is to form the land link between North and South America. First Lieut. A.Y. Smith, pilot, and Staff Sgt. H.L. Hackwith, Photographer, spent 4½ months in various portions of Central America making these photographs. These photographs cover parts of Panama, Costa Rica, Nicaragua, Honduras and Guatemala. The project had to be suspended, due to the rainy season of Central America but will be resumed as soon as the weather permits.

Albrook Field, Canal Zone, November 4th.

At present the problem of organizing the 16th Pursuit Group is being worked out at Albrook Field. The 78th Pursuit Sqdn., consisting of 3 officers and 142 men moved from France Field here on Oct. 1st. The 80th Service Sqdn., with 3 officers and 149 men arrived here from Mather Field aboard the U.S.A.T. GRANT on Oct. 24th, and the 24th Pursuit Squadron, consisting of 4 officers and 123 men, arrived from France Field on the 26th.

On Oct. 14th, the hangars, Air Corps Warehouse, and Air Corps Shops, were accepted from the contractor by the Constructing Quartermaster. The hangars were immediately occupied, and the warehouse is being used as a temporary Post Headquarters until such time as the headquarters building is constructed. The new Squadrons are getting settled rapidly, and it is hoped they will be ready to start operations the first week in November.

MERRY CHRISTMAS TO ALL YOUSE GUYS!



We wish to present our new commanding officer, Major Oliver H. Stout. Major Stout was promoted from the rank of senior Captain, which he has held for several years, to take the place of Major Taylor, who was fatally injured when his plane crashed near Clinton, Ind., while on mine patrol duty. We wish Major Stout a pleasant and successful tour of duty as commanding officer, and assure him of our hearty cooperation.

Lieut. Howard Maxwell just returned from Washington with V.M. Armstrong, representative of the Department of Indiana, for the American Legion. They flew to Washington to take part in the dedication of the tomb of the Unknown Soldier and place the wreath from Indiana on the tomb. After a four-mile march in the parade, they reported weakened landing gears.

Lieut. Maxwell was elected to Commander of the Richard F. Taylor Aviation Post 171 of the Legion, with Major H. Weir Cook, of the 309th Reserve Squadron at Schoen Field, as first Vice Commander. The Post had a dinner meeting at the Antlers Hotel on Nov. 10th.

For some time the Photographic Section has been taking mosaics of parts of the State for Purdue University. The Agricultural Department uses these photographs for a study of the soil conditions. By comparing their actual soil analysis tests to the aerial photographs it has become possible to estimate the soil conditions from photographs.

The pilots are making an earnest study of blind flying by reading texts through the week and doing their practical work on Sunday. During the last several drill periods the Squadron has been practicing night flying at the Municipal Airport. About six pilots are instructed each Monday night.

The enlisted men held a dance and card party in the hangar on November 5th, which proved to be a real party. These men have a high morale and devotion to the Squadron which makes all their undertakings a success.

Having won the Chester Jackson Trophy Race for the third consecutive time, Capt. Earl W. Sweeney now has the cup permanently in his possession. Walker Winslow offered a new cup for next year in memory of his brother, Robert Winslow. We think Captain Sweeney should be grounded from further racing.

The News Letter asked for more news from Reserve fields, so permit us to say that our neighbor squadron, the 309th Reserves, is well, happy, and flourishing, under the capable leadership of Lieut. Stanton Smith. On one Sunday each month we combine our efforts with Schoen Field and fly with them for training in larger formations.

Again we say "Merry Christmas to all youse guys." We live down by the river, so come by and drop in sometime.

Rockwell Field, Coronado, Calif., November 18th.

Three Keystone Bombers, which were loaned to Kelly Field last summer for the purpose of finishing up the advanced Bombardment class which recently graduated, were returned to this field. Lieuts. O.A. Anderson, R.G. Harris and G.H. Steele were the pilots of the Bombers. Captain E.H. DeFord commanded and accompanied the flight in a Fokker Transport and will return the flying personnel to their home stations.

Tuesday and Thursday nights were designated for night flying by the 30th and 32nd Bombardment Squadrons. The "usual" California weather which has prevailed for several months has made every pilot wary of the fog which has sneaked in over Point Loma on several evenings, and on one occasion caught 14 Navy planes, all low on gas. They all got down at various places, four of them after a fashion.

To date two Y10-27 Fokkers were received, and another is enroute from the factory, being ferried by Capt. Horace N. Heisen. In speed, and otherwise, these Bombers remind us of the Keystones, they're so different.

An inter-squadron indoor-outdoor baseball league was organized under Lt. Charles W. Haas, Group Athletic Officer, and is going full blast, with much interest being manifested. When Sgt. Mannheim gets thru razzing the batters, they stay razzed.

Monday, Nov. 14th, the anniversary of its organization, was celebrated in due and proper manner by the 76th Service Squadron. A turkey dinner with all the trimmings was served at noon. Several Post officers, including the Group Commander and Staff, were guests. Captain LeBrou, Squadron Commander, contemplated making a speech but decided instead to let all present have a good time, and they did.

During the past few weeks, Master Sgt. Lucy, Group Sergeant Major, has been putting all enlisted men of the Group through a modified course on the pistol range. On completion of the modified course, all officers will fire the full course.

Chanute Field, Rantoul, Ill., November 11th:

Recent aviation flights from Chanute Field to other points and return, performed by officers of this station, include:

Lieuts. H.G. Montgomery, M.L. Carter, W.B. Blaufuss, F.G. Allen, R.E. Holmes, C.G. Pearcy, L.R. Brownfield, E.A. Simyer, J.A. Bulger, E.J. Rogers, J.T. Sprague, G.R. Bienfang, D.T. Mitchel, W.K. Burgess, Major L.W. Ballantyne, Captains D.C. Ogle, W.R. Turnbull, W. Bender, also Lieuts. Lts. C.D. Wheeler and J.L. McDaniel to Scott Field, Ill. To Chicago, Ill.: Lts. O.F. Carlson, R.C. Wriston, S.E. Anderson, G.R. Bienfang, A.J.K. Malone, R.O. Brownfield, F.O. Tally, C.G. Pearcy, F.M. Bolen; To Wright Field, O.: Capts. E.G. Harper, W.A. Hayward, F.S. Borum, Lts. H.G. Montgomery, J.S. Stowell, R.V. Williams; To Savanna, Ill.: Capt. T.M. Jervey, Lts. E.G. Bunker, L.H. Warren, W.E. Doolittle, L.R. Brownfield, J.F. Guillet, F.F. Everest, J.L. Daniels, E.H. Alexander, W.E. Bridget, C.G. Goodrich, D.H. Kilpatrick, F.G. McLennan, J.B. Newberry and F.O. Tally; To St. Louis, Mo: Lt.-Col. J.A. Mars, Capt. S.M. Connell; To Patterson Field, O.: Lts. F.E. Cheate, W.B. Blaufuss, F.C. Wolfe; to Moline, Ill: Capt. W. Bender, Lts. W.K. Burgess, J.S. Stowell, E.J. Flatequal; to Springfield, Ill.: Lts. D.T. Mitchel and O.F. Carlson; to Selfridge Field, Mich.: Lt. F.E. Cheate; to Kirtville, Ill: Lts. D.T. Mitchel, D.F. Meyer; To Indianapolis, Ind.: Lt. S.W. McGregor; To Lansing, Mich.: Lts. D.F. Meyer, C. Somers; To Omaha, Neb.: Capt. E.H. Wood, Lt. H.J. Flatequal; To Pekin, Ill: Capt. S.M. Connell; To Leavenworth, Kans.: Lt. J.L. Davidson; To Schoen Field, Ind.: Capt. E.G. Harper; To Madisonville, Ill: Lt. R.W. Harper; To Bluefield, W. Va.: Lt. W.K. Burgess; To Wheaton, Ill.: Lt. W.L. Ritchie; To Cincinnati, Ohio: Capt. S. Jacobson, Lt. G.W. McGregor; To Kansas City, Mo.: Lts. L.R. Brownfield and R.O. Brownfield; To Omaha, Neb.: Capt. E.H. Wood, Lt. H.J. Flatequal; to Columbus, O.: Lt. W.L. Ritchie; To Fort Wayne, Ind.: Lt. C.G. Pearcy.

During an aerial review held at this field on October 29th, 25 airplanes of various types assigned to this station, together with flying line equipment and pilots, observers and mechanic personnel were first reviewed on the ground by Lt.-Col. James A. Mars, Commanding Officer, accompanied by his staff. Following the ground inspection, the planes were flown in review formation past the position of the Reviewing Officer. An exceptional point in consideration of this aerial review is that it was, with the true Chanute Field axiom that "the scheduled show must go on," carried on in the face of a 36-mile surface wind, accompanied by low-hanging muggy clouds.

On the evening of October 25th, the officers of Chanute Field were entertained at a banquet by the Rantoul Chamber of Commerce. A total of approximately 200 members, officers and other guests attended. After a delicious dinner tended by the ladies of Rantoul, and accompanied by orchestra music, Lt.-Col. James A. Mars was introduced as toastmaster, and throughout the remainder of the evening held his listeners to a high pitch of enthusiasm with his dinner stories and introductions of speakers. Guests of honor and speakers included Congressman Adkins, of Illinois, who told the history of Congressional action on the prospective new Chanute Field, and various officials and representative citizens from Champaign-Urbana and other nearby cities. Cooperation between military personnel and civilian population was stressed by Col. Mars and other speakers.

On October 21st, Pilot Lieuts. Javier Gonzales Gomez and Ricardo Castaneda Leon of the Mexican Army reported for duty at Chanute Field for entrance in the 1932-33 Officers Class in Communications. The two young officers, both of whom are graduates of the Mexican Military College, Class of 1928, and both of whom have seen strenuous war service with the Mexican Federal Army, are of particularly pleasing address, and have quickly taken their place in the official and social life of Chanute Field. Lieut. Castaneda is accompanied by his younger brother who is studying in local schools, while Lieut. Gonzales enjoys the company of his mother, Senora Emilia Gomez Viuda de Gonzales.

On November 4th, four officers of the Air Corps Technical School received promotions to the grade of 1st Lieutenant, viz.: 1st Lieuts. Reuben Kyle, Jr., A.J. Kerwin Malone, William H. Doolittle and Russell Scott. The newly promoted officers received congratulations of the entire officer personnel of the command.

Chanute Field, Rantoul, Ill., November 23rd.

On Friday, November 11th, Armistice Day was observed at Chanute Field at a patriotic memorial service, which all military personnel attended. After the morning classes and other work, officers and enlisted men assembled at the post gymnasium at noon. The memorial service, conducted by Major Milton O. Beebe, Post Chaplain, consisted of a prayer, followed by one minute silence in memory of the departed. This in turn was followed by an Armistice Day address by Major Beebe, who set forth bold facts, tempered with touching sentiment.

Original enlistments for Air Corps, Chanute Field (the student body, Air Corps Technical School) were resumed, to the extent of a total of this group of 175 on November 30th. This resumption of enlistments, restricted since January, 1932, will greatly ease the personnel situation at Chanute Field, as well as facilitate the procurement of enlisted students. All applicants for these enlistments must be of the highest type, and must be bona fide high school graduates. The eligible list of approved applicants at the resumption of enlistments included approximately 750 names.

On Nov. 11th, 1st Lieut. Ralph E. Holmes departed for his new station in Hawaii, driving overland to San Francisco, where he and his family will board the transport. Lieut. Holmes was on duty at Chanute Field since June 29, 1931, when he reported to enter the Communications course, from which he graduated in June, 1932. During his year of a year and a half at this station, Lieut. Holmes was three times the recipient of congratulations; first, upon his graduation; second, his promotion; and recently he passed cigars upon the arrival of a new daughter.

Familiar to officers and soldiers of practically every Air Corps post, the post mascot of Chanute Field, Billy, a Boston Terrier, who lives at the Post Exchange, sponsored by Mr. James H. McEwen, Post Exchange Chief Clerk, received his naturalization papers into the Air Corps and is now a full fledged citizen of Chanute Field. His papers take the form of registration with the American Kennel Club, under the name of "Backfire." Long a familiar sight to visiting pilots and other Air Corps personnel who have chanced to step into the Post Exchange, he invariably greets a newcomer with an enthusiastic offering of his private tire, of the tail wheel of an airplane, carried in his mouth. He is also the boastful daddy of two recent litters of Boston pups of show type.

Kelly Field, San Antonio, Texas, November 14th.

Six Bombers borrowed by Kelly Field for use in training Bombardment students of the last class are being flown back to the fields to which they belong by Kelly Field pilots. Three are being flown to Maxwell Field, Ala., and three to Rockwell Field, Calif.

Lieut. George E. Price made an emergency flight to Fort Clark, Nov. 7th, in the Kelly Field ambulance to bring the wife of a Fort Clark soldier to the Fort Sam Houston Hospital for an emergency operation.

Private Alfred E. Parker, 40th School Sqdn., was injured while playing on the Kelly Field football team, and is in the station hospital at Fort Sam Houston, Texas.

Staff Sgt. Burt, Corp. Stevens, and Pvt. Busby, 40th School Squadron, are on detached service to Maxwell Field, Ala., accompanying pilots ferrying ships from Kelly to Maxwell Field.

Selfridge Field, Mt. Clemens, Mich., November 19th.

A Selfridge Field Pursuit ship was involved in an unusual accident on October 29th at Detroit. Lieut. Donald L. Putt, Assistant Operations Officer of the 1st Pursuit Group, while crossing the City on an avigation mission, lost his emergency night landing flares. One of the flares dropped on a house and set fire to the roof. When Lieut. Putt returned to the field, an investigation was instituted, and it was found that faulty design of the M-VIII flare adapter was the cause of the accident. The adapters had only recently been installed in the Curtiss P-6E planes and had not previously been in use. Vibration of the plane in flight caused a safety catch to turn in its socket and release the whole flare adapter assembly and flare. On the same day of Lieut. Putt's accident, Lieut. Brown, Air Reserve, who was also flying a P-6E on an avigation mission, lost his flares on a take-off and burnt holes in the tail surfaces of his ship. The cause of his accident was the same as that of Lieut. Putt's.

During the period of Oct. 30th to Nov. 3rd, Fox Movietone representatives were at the field filming activities of the 1st Pursuit Group. Their cameramen were desirous of getting pictures which would include unusual cloud formations as backgrounds for the flight formations of the several squadrons, so the Commanding Officer, Major George H. Brett, obligingly led his command through, above and beneath all the clouds available. All the regular training routine was followed, including the different drill and review formations. If the pictures develop well, the public will be able to gain an idea of what a U.S. Army Pursuit Group can do, and will also see what beauty there is in the upper cloud world.

San Antonio Air Depot, Duncan Field, Texas, Nov. 14th.

Brig.-General Oscar Westover, Assistant Chief of the Air Corps, paid the Depot his first visit since his present appointment, and his call afforded us much pleasure.

Lieut.-Col. A.W. Robins, Executive, and Capt. A.W. Vanaman, of the Procurement Section, Air Corps Materiel Division, Wright Field, in the course of a tour inspecting conditions in the San Antonio Area, arrived here Nov. 3rd and were welcomed by old friends in this vicinity, Col. Robins having been in command of this Depot up to last year and Capt. Vanaman having been Chief Engineer Officer here some years ago. They left Nov. 6th on the return trip.

First Lieut. E.B. Wolfe, Materiel Division, Wright Field, visited the Depot Oct. 31-Nov. 1st, while passing through on his return trip by air from the West Coast.

Out of town visitors attending the regular monthly supply and engineering conference of this Control Area at this Depot, on Nov. 8th, were Major G.E. Lovell, Jr., and Capt. E.V. Harbeck, Jr., of Barksdale Field, La.; Capt. Alfred Lindeburg and 1st Lieut. J.J. O'Connell, of Fort Crockett, Texas, and 1st Lt. Paul C. Wilkins and 2d Lt. H.F. Gregory of Fort Sill, Okla.

First Lieut. D.F. Fritch took off Nov. 8th in a C-9 Transport, and 1st Lt. D.F. Stace and 2nd Lts. C.K. Moore and A.Q. Mustoe on the 9th in three A-3B planes from this Depot, to deliver the A-3B's to Maxwell Field, Ala., and return in the Transport.

Numerous duck hunting parties are taking advantage of the glorious weather down here at this season. To date the results were in equilibrium, so to speak, but it is believed the ducks are at least beginning to have a wholesome respect for the prowess of our nimrods.

In a lively tournament held by the Air Corps Golf Association here, Mts. T.H. Chapman, wife of Lt. Chapman, won first prize in the first flight for ladies, and Miss Mary Fisher, daughter of Col. A.G. Fisher, won the second prize. In a blind bogey played on the same date (Nov. 5th), Col. Fisher won first prize. Much strenuous golf practice is now under way in preparation for what will be known as a Golf Turkey Tournament.

Sgt. J.H. Price, 67th Service Sqdn., Randolph Field, on detached service here, took off Nov. 13th to ferry a BT-2B plane to the Middletown, Pa. Air Depot, ferrying to this depot on his return trip a Y1C Transport.

During October, the Engineering Department of this Depot overhauled 36 airplanes and repaired 25 of various types. Engines overhauled totaled 67, while 37 were repaired.

Air Corps Detachment, Port Columbus, Columbus, Ohio, Nov. 25th.

During October, this station had 180 visiting planes, from the Army, Navy, National Guard and Department of Commerce, from Bolling, Mitchel, Selfridge, Scott, Bowman, Lunken, Schoen, Randolph, Langley, Rogers, Maxwell Fields, San Diego, and from stations of the Minnesota, Ohio, Tennessee and New Jersey National Guard. Most of these ships required services, and a few required minor overhaul.

We have at this Air Reserve Hangar seven planes - 3 BT's, 3 o-1's and one PT-3. Over 100 Air Reserve officers, in Group I or II, are on inactive status for flying from this station. In October, 148 hours were used up in flying by these officers. First Lieut. O.L. Rogers, A.C., (DOL), Detachment Commander, is also Unit Instructor for Air Corps Detachment; 8th Corps Area Service Command; A.C. Reserve Officers Military Area of West Virginia; 415th Airdrome Co.; 308th Obs. Sqdn.; 308th Photo Section and 416 Pursuit Sqdn., and assigned to duty with Columbus Military District. This station is never closed. Teletype and weather station is open 24 hrs. daily. Some of the recent visitors at our Hangar were Wm. Stout, designer of Ford planes; Mr. Berliner of Berliner-Joyce Co.; Mr. Crider, publisher of Fort Worth Star-Telegram, Fort Worth, Texas; the Cuban Good-Will Flyers and Col. Roscoe Turner on his record-breaking East-West Flight.

18th Composite Wing, Fort Shafter, T.H., Nov. 1st.

October was a very busy month for Luke Field pilots and observers, who carried out a number of special cooperative missions, in addition to a full schedule of routine training. The 4th Obs. Sqdn. concentrated on instrument or "Blind" flying and combat maneuvers, using camera guns. Aerial photography and two missions with Infantry units will complete the schedule. The 50th Sqdn. Obs. engaged in aerial radio communication and formation flying; contact missions with the 11th Field Art. in the morning and night flying on October 17th.

The 65th Service Sqdn. furnished a plane for long range artillery adjustment, cooperating with the Harbor Defenses of Pearl Harbor. Continuing the good work of last year, new methods of procedure for the spotting of targets and the correction of shots on the longer ranges up to 40,000 yards were devised. A Douglas "Dolphin" was equipped with special instruments and is used for this work. The Squadron also held an amphibian on the alert as a rescue ship in case of an emergency.

Lieut. John A. Tarro, Luke Field, was designated to succeed Capt. J.W. Benson as Post School Officer, the latter returning to the mainland Nov. 12th for station at Fort Bragg, NC. The Luke Field Post School is one of the most successful Army School in the Hawaiian Department. The courses offered cover both primary and advanced educational subjects, and also include vocational classes in airplane engine mechanics, armament, radio constructions and operation of stenography. A special class in sound and motion picture projection meets in the operating room of the Post Theatre four nights weekly. These classes are given in order to supply the trained men and technicians necessary for the operation and maintenance of the varied departments of the post.

6th Pursuit Squadron, Wheeler Field, T.H.

The Squadron completed record firing on two targets with an average score of 140. Lieut. Luther S. Smith was high man with a score of 206. Our flying at present is being devoted to tactical problems and high altitude work, which will concern us in the forthcoming Army and Navy Maneuvers in February.

Lieut. Don Meade, Air Reserve, one of the leading characters in this Squadron for some time, suddenly decided to take off for Kansas. He departed on the USAT GRANT on Oct. 4th. The Squadron regrets his departure and wishes him luck in whatever pursuit he may follow.

75th Service Squadron: During October, the Engineering Department changed 13 engines - two in Douglas Amphibians, six in A-3's and five in P-12's. The reinforcing of the fuselages on all P-12's was also completed.

A prominent Air Corps officer who stopped at Wheeler Field for a brief visit late in September was Major Gerald E. Brower, who with Mrs. Brower arrived aboard the USAT REPUBLIC enroute to Manila.

Hawaiian Air Depot, Luke Field, T.H.: Depot operations for October consisted of routine overhaul, repair work for the 5th Composite Group, and repairs to airplane and engine equipment and accessories. From Sept. 21st to Oct. 20th, the Depot Engineering completed overhauls on 7 airplanes - 3 O-19C and 4 P-12C. Repairs were completed on 2 Y1C-21 airplanes. Twelve engines were overhauled during above period, 7 repaired. One SR-1340-C was surveyed, rebuilt and turned over to the Luke Field Post Schools for instructional purposes.

5th Composite Group, Luke Field, T.H.: In the Observation units, training consisted briefly of flying, aerial gunnery, aerial photography, communications, formation, combat maneuvers (camera gun) and day and night reconnaissance flights. Two missions in cooperation with the Harbor Defenses of Pearl Harbor were also flown by the 4th Observation Squadron.

Swimming classes were inaugurated for all Air Corps personnel at this station who are not proficient in the art. Each man is required by Wing Orders to demonstrate his ability to swim a distance of 100 yards and at the present time there are very few who are not qualified. We believe that in our next letter we can report that 100% are proficient in swimming. Instructions and demonstrations to all flying personnel in the proper method of releasing the parachute when forced to land in the water were also given during the month by Lieut. Pearl H. Robey, Post Parachute Officer. Instructions in swimming and releasing the parachute are necessitated by the nature of our flying, which is conducted mostly over water, making practically all forced landings extremely dangerous.

During September and October, a total of 16 hours were flown in cooperation with the Coast Artillery for testing methods of locating targets at sea with 16-inch guns. The Douglas Dolphin Amphibian Y1C-21 was converted into an Observation plane for this work, the Observer's cockpit being in the nose of the hull. Special radio equipment was required and was operated by remote control from the Observer's cockpit. First Lieuts. Courtland M. Brown, Otto P. Weyland, 2nd Lieuts. Robert E.L. Choate, Fred R. Dent and Sidney A. Ofsthun participated in these experiments.

72nd Bombardment Squadron: Training of the Squadron for October consisted of camera obscura 5000 feet and 8000 feet; aerial bombing, high altitude formation flying, day and night; employment and tactics, simulated bombing of objectives; avigation (flight and individual). Radio communications were used on approximately 40% of the missions and no failures due to personnel or mechanical error.

Test or performance flights were made with B-5A's assigned to this Squadron as to their ability to maintain altitude with one engine. This test was made with planes equipped with two and three blade propellers. On planes equipped with two blade propellers, loss of altitude was from 200 to 300 feet per minute; maneuverability was greatly reduced, but flying on a straight course was possible. These tests were made with one engine running at idling speed and the other engine at normal speed. Test made with planes equipped with three blade propellers averaged about 50 feet less loss of altitude than two blade propellers. Bombing by the organization has been on stationary targets by single planes and in formation.

4th Observation Squadron: During October, the 4th Observation Squadron participated in various tactical missions consisting of aerial gunnery, aerial photography, radio communications, instrument flying, formation flying, Infantry missions (simulated), combat maneuvers (camera gun), individual and flight, avigation and day and night reconnaissance. Two cooperative missions with the Harbor Defenses of Pearl Harbor were flown.

Lieuts. Brown, Choate and Ofsthun were placed on the Coast Artillery Long Range Board. Lieut. Tarro was appointed Post Schools Officer and Lieut. Townsend, Post Police and Prison Officer.

Captain
scrappy eleven
28th at the
20 to 6

Usher's Gold
from the
Naval

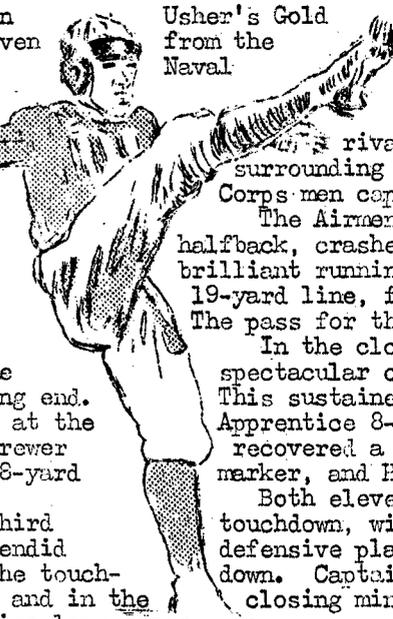
and Blue gridders from Langley Field repulsed a Newport News Apprentice School on the night of Oct. Stadium before an overflowing crowd, to capture a victory after a hard-fought battle. These capable football aggregations have developed a tradition of rivalry which reveals the leading football team of the surrounding Peninsula, and for the fourth consecutive year the

Army Air

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covered some
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ter, when Brewer
Apprentice 8-yard

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yards for the touch-
Apprentice, and in the
the Apprentice lone score.



Corps men captured the honors.
The Airmen scored in the initial quarter when Hunt, 200-pound halfback, crashed through for the first touchdown of the game, following brilliant running by Owens, stellar Langley back, who carried the 19-yard line, following a blocked punt by Gobble, with "Doggie" Kerr The pass for the extra point was broken up.

In the closing minutes of the second quarter, the Birdmen unspectacular overhead work, with Kerr passing and "Red" Tyrell on This sustained drive started from the Langley 30-yard line and was Apprentice 8-yard marker. Langley scored again in the third quarter recovered a punt blocked by Reiter, Airmen's center, on the marker, and Hunt took it across on three line smashes.

Both elevens scored in the final quarter, the Army eleven tally-touchdown, with Owens kicking for the extra point. Once again it defensive play of Reiter, who intercepted a pass and dashed 35 down. Captain Usher then rushed his Yannigans in to battle the closing minutes of the game, Cox snatched a pass from Hyatt for

The Gold and Blue warriors from Langley Field rolled over the Giants of the New River State Teacher's College of West Virginia, November 5th, score 7 to 6, in one of the most fiercely fought battles seen on the local grounds in years. A big and versatile Orange and Black clad eleven from West Virginia outweighed the scrappy Air Corps men 15 pounds per man and towered well over 6 feet, but this great handicap only made the gallant Army gridders fight harder, and they came out on top for a brilliant and spectacular victory over a heralded eleven that held the Holy Cross team of Massachusetts to a 13 to 6 verdict and the Davis and Elkins eleven of West Virginia to a 7 to 6 count. This victory was the most outstanding of the year, and Langley Field now has six brilliant wins over formidable opponents to compare with a lone 7 to 6 defeat.

The Birdmen scored near the end of the first quarter on a pass from Owens to Tyrell, who speared the oval over the New River pay-station for the score. "Red" Tyrell's kick soared between the uprights for the seventh point, and incidentally the winning margin. Tyrell performed brilliantly during his short stay in the game and was carried off the gridiron on a litter after splendid work.

New River scored in the third period on a sustained drive from the kickoff, using the double wing back formation. New River featured a passing attack which was always a menace to the Langley team, but the splendid work of "Doggie" Kerr broke up many overhead thrusts which were headed for completion. Hinchman, 190-pound plunging half-back, went off right tackle for the score, and "Red" Moore blocked DeHart's kick to save the day. Reiter, Gobble, Donn and Kerr shared the limelight for the winners, while Hinchman, Rado and Gatens were outstanding for the conquered.

- Jack R. Germaine.

Selfridge Field met their old football rivals from Scott Field, Ill., on October 30th, and defeated them 18 to 0. There was plenty of excitement and action during the game to provide thrills for the spectators, but after the first quarter there was little doubt as to the final outcome. The superiority of the home team was demonstrated very early in the game when Strong, Selfridge quarterback, and Bradley, halfback, alternated in carrying the ball around end and through tackle to the enemy 20-yard line, and then Lalone, fullback, rumped around end to score the first six points.

The third quarter found the Selfridge football machine slightly out of gear for a time, when two of their best players were injured. Kling suffered a dislocated shoulder blade in making a hard tackle, and as a result will not be able to play again this year. Up until the time of his injury, Kling had played a sterling game at right tackle. Lalone's injury left a vacancy in the fullback position, which was filled by Saums, who can pass. Not long after Saums entered the game he threw one of his passes to Lt. McCoy, end, who stepped across the goal line for six points for Selfridge. Again the extra point was missed. In the fourth period both teams opened up their attack a good bit, and many passes were thrown. Selfridge had some small success via the air route, notably when Lt. Unruh caught one for a 20-yard gain to the visitors' twenty-yard line. Selfridge, however, then lost the ball on downs. A few minutes later, Strong started calling a succession of line bucks, end runs and cross bucks, which caused dire confusion to Scott. Finally, from Scott's 20-yard line, Szczerba, a halfback with a stumbling name but fast legs, got away on a pretty off-tackle play and flashed across the Scott goal line for the last score of the game.

Line-up: Scott - Wilson, l.e.; Freund, l.t.; Keene, l.g.; Beech, c.; Deppe, r.g.; Richard Richards, r.t.; Canady, r.e.; Hodgson and Cook, halfbacks; Osborn, f.b.; Summers, q.b.
Selfridge: Spindler, l.e.; Girard, l.t.; LeTarte, l.g.; Schmidt, c.; Graham, r.g.; Kling, r.t.; Flannigan, r.e.; Durkee and Bradley, halfbacks; Strong, q.b.; Lalone, f.b.

The Fort Benjamin Harrison doughboys and the Selfridge Field flyers met on the gridiron on November 6th, and when the smoke of battle had cleared away neither had won, the game ending at 13 to 13. It was an exciting contest, because the fortunes of war changed back and forth so much during the afternoon that the outcome was always uncertain. The doughboys from Indianapolis got the jump on the flyers very early in the game in such an efficient manner that it looked as if the game would turn out to be a one-sided affair. After a bit of parrying back and forth and an exchange of kicks, the Hoosiers took the ball on the 50-yard line and started carrying it down the field rapidly. After only four rushing plays, including a center thrust, two end runs and a cross buck, they managed to plant the ball in the

end zone. Myers who carried the ball over also kicked the extra point. It looked bad for the Selfridge eleven at that point, especially when Strong, quarterback, was carried off with a bad knee after tackling the ball carrier on the next kick-off. At this point, Lieut. McCoy, who had just returned from a training flight which was delayed by fog, went into the game. Going to the fullback position, he shifted Bates to half and Bradley to quarter. Evidently the team was waiting for him because they immediately started another type of football.

After an exchange of kicks, Selfridge stopped the Infantrymen, who then kicked, Bradley in a nice run returning to the Harrison 40-yard line. Faking a pass, McCoy got away around right end for 30 yards. The Hoosiers stiffened their defense and it was only on the fourth down that Bates managed to inch the ball over the goal line. Saums, with a nice place kick, gained the extra point. Not content with tying the score, Selfridge went into the lead in short order. Saums caught the kick-off and started off on a weaving, twisting run that was halted on the Harrison 30-yard line. On the next play, McCoy, after faking a run toward his right end, tossed a pass to Saums who was waiting by his lonesome over beyond left end. Saums did not even have to hurry to make the next 20 yards to the goal. Unfortunately, he could not convert the extra point.

A kicking duel then developed and finally ended in the fourth quarter, when Harrison got the break they were waiting for. Recovering a fumbled kick on the Selfridge 30-yard line, an end run gave them first down on the 17-yard line. On the next play, Selfridge was penalized 15 yards, and with only two yards to go in four downs the doughboys added six more points to their score. Their failure to convert the extra point tied up the contest, which ended a few minutes later with Selfridge seriously threatening the visitors' goal line.

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On Armistice Day, November 11th, the Selfridge Field gridsters traveled to Flint, Mich., and defeated the Junior College by the score of 18 - 0, thus ending the Selfridge Field season in a highly satisfactory manner. Those spectators who were not affected by chilblains, and who had the warm blood circulation of Esquimaux, rather enjoyed the game, but most everybody else spent too much time thinking of their cold feet. The players indulged in some good football, despite the cold, but the spectators had difficulty appreciating it.

At two o'clock, the two teams commenced their battle on the field, located at the Flint Junior College campus. The first period was scoreless, despite several breaks which brought Selfridge very near the Flint goal line. At the beginning of the second quarter, however, Selfridge started using its line plunging power, with Bates, Bradley and McCoy cutting inside tackle and through guard by turns. With this type of straight football, Bradley and McCoy made touchdowns. Score at end of the half, Selfridge 12, Flint 0.

In the second half, Flint began using many passes. They completed several, but could not take advantage of the initial successes obtained. Selfridge also began flinging passes, and by this method obtained six more points. Saums threw to Spindler, who then stepped one yard across the goal.

A band of gallant Gold and Blue gladiators battled the versatile Leathernecks of the Quantico Marines on even terms through two gruelling quarters but finally bowed to the terrific smashes of Lieut. Bauer and Company, to drop a 13 to 0 decision to their powerful Service football rivals. This gridiron classic, played at Langley Field, Va., on November 20th, before an overflowing crowd, was a spectacular performance of two formidable elevens of Uncle Sam's military forces, who staged a brilliant battle from the opening to the final whistle.

Captain Usher's forces were a game clan, who fought through four periods against a team, 15 pounds heavier - not merely beef and brawn, but heady, shifty and intelligent. Lieut. Bauer, 200-pound man-mountain, was a threat each time he carried the ball, and without him the Marines failed to click. The Gold and Red Quantico aggregation scored in the third and fourth quarters, Bauer circling right end for the initial touchdown, after a drive of some 30 odd yards, which featured the famous "Statue of Liberty" play, and lateral passes mixed with terrific line plunging by Bauer and Zeher. Bauer's kick for the extra point was partially blocked as the third quarter ended 6 to 0. Up to this point, Langley Field had threatened on two occasions, after their aerial offensive had clicked with Owen passing and "Red" Tyrell on the receiving end. In the first quarter, Tyrell tried a kick from placement on the Quantico 15-yard line, a healthy kick but wide by inches. Once again the game Airmen had advanced to the Devil Dog's 18-yard line, where a pass over the end zone was incomplete, thus ending another Fliers' threat.

Quantico's second touchdown was aided by a 15-yard penalty on the part of the Airmen. This advanced the ball to the Langley 22-yard stripe, where Robertson circled left end on the "Statue of Liberty" play unmolested to cross the Langley goal line. This time Bauer passed to Zeher for the extra point. As the final whistle sounded, the Birdmen had completed a series of passes to the Marines' 2-yard line, and it appeared as though they were ready to take it across, but Referee Gooch halted the battle - a brilliant performance by two powerful elevens of Uncle Sam. - Jack R. Germaine.

Langley dropped a 13 to 7 contest to the Tar Heels of Appalachian State Teachers College. But three days rest between their terrific battle with the Marines told on the local lads, as they gave their most inconsistent performance of the year to an inferior team. A large crowd was out to see the gladiators of Langley in their final home appearance, Turkey Day, but were disappointed that they didn't click. All in all, Captain Usher's scrappy aviators have played well, considering their hard schedule. Victories over New River and West Liberty State Teachers Colleges were really great achievements, and then to sweep the Crusaders of Loyola, of Baltimore, after they had been an overwhelming favorite, showed the real power of the Army Air Corpsmen, and their hard-fought tussles during the year 1932 will be long remembered.

"Doggie" Kerr, 132-pound field general of the Army Fliers, was outstanding all through the year. A gallant quarterback and the best 132-pounds of man on the gridiron. Reiter, Haug, Owen and Hunt shared the limelight. Moore, Kawoleski, Donn, Worrell, Mason, Boynton, Tyrell and Brown played well through the year. Langley completed their home stand of ten games, with seven victories to three defeats. To show his appreciation for the untiring efforts and hard play all season by his eleven, Capt. Usher is taking the entire football squad to Philadelphia to witness the colorful Army-Navy football game on December 3rd. On the following day they will meet the Medicos of Carlisle Barracks, Penna., for the football laurels of the 3rd Corps Area. - Jack R. Germaine.

The Kelly Field football team showed a little of the form that made them last year's Army League champs when they rolled over the Brooks Field Maroons on their field on Saturday afternoon, Nov. 12th, to the tune of 25 to 0. Brooks now has permanent possession of the cellar with a record of 3 losses and one tie, while Kelly crept out of the bottom for the first time this season. Kelly scored late in the first quarter when Holcombe blocked a Maroon punt and Detlefs fell on the ball over the goal line, after players of both teams made frantic motions towards grabbing the ball. Towle missed on his try for the point. Neither team scored in the second period, although some mighty fine football was played by both elevens. The Maroons opened the second half with a 65-yard return of a punt by Blevins, who was stopped on the 20-yard line, but they could not muster enough strength to smash the powerful Kelly line and lost the ball on downs. Kelly scored in the third quarter and twice in the last quarter, two of the touchdowns through line smashes and the third through a 25-yard pass. Mlynczak, Pozniak and Michel were the shining lights in the Kelly backfield, while Blevins and Woodyard starred for the Maroons.

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March Field, Riverside, Calif., November 17th. ✓

Accompanied by a news reel photographer, the 11th Bombardment Squadron made an extended flight recently to El Paso, Pueblo, Denver, Salt Lake City and Reno. Navigation and radio training was particularly stressed on the trip. Radio communication was established at numerous points with local broadcasting stations which rebroadcasted graphic descriptions of the flight given by 2nd Lieut. Ivan L. Farman, Squadron communications officer, before the squadron came into view. Airway radio beacons were used extensively and all pilots in the squadron received training in the use of this new navigation device. Both at Pueblo and Reno, large crowds of interested citizens viewed the Army planes.

Recent arrivals at March Field included Major Clarence L. Tinker, A.C.; Major Samuel E. Brown, Med. Corps; Capt. John L. Gallagher, Jr., Med. Corps; 2nd Lts. Harry Crutcher, Carl H. Eaker, John R. Kane, Lloyd W. Earle, Theron S. Jobson, Francis H. Mathews and Wm. L. Trimble, Jr., Air Reserve, Warrant Officer Leland D. Bradshaw, Tech. Sgt. Wm. J. Riley, Sgts. Otis Purvis and Paul Gervasi.

Second Lieut. J.A. Brier, until recently stationed at March Field as a Reserve officer on active duty, was married on October 17th to Miss Ilo Edgell at Yuma, Ariz. Lieut. and Mrs. Brier are living in Riverside.

The March Field Pistol Team, composed of Lieuts. Harding (team captain), Briggs, Ott (team adjutant), Maxwell and French (alternate), will start intensive practice Nov. 28th. A match is scheduled to take place at Fort MacArthur on Dec. 27th with the Coast Artillery team.

Mr. Harold Gatty, Chief navigation engineer, Army Air Corps, recently gave two lectures to the officers and noncommissioned officers on the subject of "Navigation and Navigation Instruments." These lectures were thoroughly instructive, and it is the hope of March Field personnel that at a later date a complete course in navigation can be given by Mr. Gatty.

The local Officers' Tennis Team won five matches in the first tennis contest of the season against the Pomona Tennis Club, the latter winning four matches. Six singles and three doubles matches were played in this contest. A new arrival, 2nd Lieut. Dolf E. Muehleisen, gives the team a great deal of additional power. He recently won the Texas Tournament at Austin and the Southern Texas Tournament at San Antonio. He also defeated the ranking Navy player in the Army-Navy League Cup matches by a very decisive score in Washington last July.

The Enlisted Men's Tennis Team, recently organized at March Field, improved considerably during the past few weeks. A recent trip to San Francisco gave the local players the opportunity of playing Letterman General Hospital. The Medicos won, 4 - 3, after a hard-fought contest. A return match is contemplated in the near future.

November 1st was celebrated by the First Bombardment Wing as Organization Day, marking its first birthday as a permanent tactical organization. The celebration included contests between the Pursuit and Bombardment Groups in squash, tennis, baseball, pistol, tug-of-war, volley ball, five-mile relay race (220 yards per man), trap shooting and machine gunnery. The 17th Pursuit Group won by a score of 139-2/3 to 81-1/3. High point squadrons were the 73rd Pursuit and 31st Bombardment. A luncheon was served at the Officers' Club at noon in honor of participants and guests at the post.

Reserve activities in Sixth Corps Area.

Reserve activities at the Reserve Airdrome in Chicago are booming. Flights are being made by a considerable number of Reserve officers each month and, in spite of the low temperatures, interest in inactive duty flying seems to be on the increase.

Due to the large volume of air traffic at the Municipal Airport, Curtiss Wright and Ford Lansing Airposts get their quota of practice landings each month, as these are ideal landing fields and are within a few minutes flying time from Chicago.

Numerous aviation training flights are made to outlying cities, such as LaSalle, Ottawa, Aurora, Elgin, Lake Geneva, DeKalb, Woodstock, Waukegan, and others too numerous to mention.

Work was started on the runways to the Army hangar at the Municipal Airport, and it is expected the Air Corps Reserves in this Area will have their own Hangar in the Spring. In connection with this work, and due to the efforts of the Air Officer, Capt. C.W. Connell, and his assistant, Lieut. Webster, wheeled scrapers were located at Wright Field and brought overland by truck. Mack dump trucks were located at Camp Custer, Mich., repaired and driven overland by drivers from Selfridge Field, and cinders were located not very far from the airport. When the runways and needed alterations to the hangar are completed, the Air Corps Reserves in Chicago will have facilities for training second to none.

Recently, Majors Dallas M. Speer and Frederick H. Chetlain, Air Reserve, attended the National Convention of the Air Corps Reserve Officers Association as delegates from the Chicago Chapter, with 1st Lt. Lewis S. Webster, Reserve Instructor in Chicago. Returning to Chicago, Lieut. Webster ferried an O1-B airplane from Richards Field which had been transferred to this activity, accompanied by Major Speer in a BT-2B airplane.

The News Letter would like to hear oftener from the Philippines, Crissy Field, Langley Field, Scott Field, Fort Sill and last, but not least, Barksdale Field, Shreveport, La.

INSPECTION DIVISION NOTES

The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on November 4, 1932.

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
TL 32-29 10/28/32	Clearance Chart Revision, Pratt & Whitney Engines. (This TL replaces TL No. 32-29 dated 6/7/32)	All depots, Chanute, Wright
TL 31-107 9/10/32	Cam-follower-Gun synchronizer impulse Generator for Pratt & Whitney Engines (This TL replaces TL 31-107 dated 3/13/31.)	General
TL 32-92 10/28/32	Change in Location of Observer's Control Stick-Thomas-Morse O-19B, O-19C, 9-19D and O-19E Airplanes	Barksdale, Boeing, Brooks, Chanute, Crissy, France, Hatbox, Honsley, Kelly, Long Beach, Maxwell, Pope, Post, Pearson, Salt Lake City, Scott Field, Selfridge, Wright, all depots.
TO 05-15-1 8/26/32	Instrument & Laborator Equipment-Aircraft Compasses-General Instructions for Compensation and Maintenance. (This TO replaces TO 05-15-1, dated 10/25/27.)	General
TO 06-1-1 10/6/32	Fuels and Lubricants-General-Detection and Removal of Water from Fuel Storage	General
TO 06-5-1 10/8/32	Fuels and Lubricants-Fuels-Use and Disposition. (This TO replaces TO 06-5-1, dated 4/9/32.)	General
TO 01-1-80 10/10/32	Airplanes and Spare Parts-General-Replacement & Inspection of Ball & Socket Joints. (This TO replaces TO 01-1-80, dated 8/14/31.)	General
TL 32-180 11/7/32	Replacement of Streamline Rods, Empennage Brace-Keystone B-3A, B-4A, B-5A, B-6A, Y1B-4 & Y1B-6 Airplanes	Aberdeen, Chanute, France, Kelly, Langley, Ft. Leavenworth, March, Maxwell, Wright, all depots.
TL 32-178 11/1/32	Lubrication of Breaker Assemblies-Scintilla Types V-G & Sc-1 Magnetos	General
TL 32-181 11/11/32	Installation of Oil Temperature Regulator-Thomas Morse O-19B, O-19C, O-19D, & O-19E Airplanes.	Chanute, Wright, all depots
TL 32-182 11/8/32	Replacement of Spring Coupling Assemblies with rubber Coupling Assemblies in Eclipse Types D-1, G-1, E-3 & E-4 Generators.	General
TL 32-186 11/18/32	Installation of Oil Temperature Regulator Boeing P-12B, P-12C, P-12D & P-12E Airplanes	Chanute, Wright, all depots.
TL 32-59 11/18/32	Clutch Setting on Pratt & Whitney Engines (This TL replaces TL 32-59, dated 6/8/32.)	Chanute, Wright, all depots.
TL 32-188 11/22/32	Reworking Solenoid Assembly, Starter Control Type A-1 No. 0168766.	General
TL 32-190 11/25/32	Correction to Air Corps Specification for Stromberg Type MA-Y60 Aircraft Carburetors Drawing No. S32J1890.	Chanute, Wright, all depots
TO 00-0-10 11/1/32	Monthly Index of Technical Instructions	General
*TO 01-1-84 10/7/32	Handbook of Instructions for the Bendix Wheel & Brake	General
***TO 01-15A 10/7/32	Assembly and Maintenance Instructions O-2H	General
***TO 01-35 10/7/32	Assembly and Maintenance Instructions P-1C	General
***TO 01-45 10/7/32	Assembly and Maintenance Instructions O-19B & C	General
*TO 01-45A 10/7/32	Assembly and Maintenance Instructions O-19E	General
*TO 01-80 10/7/32	Assembly & Maintenance Instructions O-1B, O-1C, O-11 & A-3	Gen
***TO 01-80A 10/7/32	Assembly & Maintenance Instructions O-1E, O-13C, O-26, A-3B	Gen.
*TO 01-80B 10/7/32	Assembly & Maintenance Instructions O-1G, O-39	Gen.
**TO 01-120 10/7/32	Assembly & Maintenance Instructions O-25A & BT-2A	General
*TO 01-120A 10/7/32	Assembly & Maintenance Instructions O-25C	General
***TO 01-125 10/7/32	Assembly & Maintenance Instructions P-12B	General
***TO 01-125A 10/7/32	Assembly & Maintenance Instructions P-12C & P-12D	General
***TO 01-125B 10/7/32	Assembly & Maintenance Instructions P-12E & P-12F	General
*TO 01-130 10/7/32	Assembly & Maintenance Instructions Y1C-21	General
**TO 01-135 10/7/32	Assembly & Maintenance Instructions P-6 & P-6A	General
*TO 01-135A 10/7/32	Assembly & Maintenance Instructions P-6E	General
**TO 01-140 10/7/32	Assembly & Maintenance Instructions BT-2B	General
***TO 01-140A 10/7/32	Assembly & Maintenance Instructions BT-2C	General
***TO 01-145 10/7/32	Assembly & Maintenance Instructions O-38	General
**TO 01-145A 10/7/32	Assembly & Maintenance Instructions O-38B	General
**TO 01-150 10/7/32	Assembly & Maintenance Instructions B-3A, B-5A, Y1B-4, Y1B-6	Gen.
*TO 01-155 10/7/32	Assembly & Maintenance Instructions B-4A & B-6A	General
*TO 01-160 10/7/32	Assembly & Maintenance Instructions F-1A	General
***TO 01-165 10/7/32	Assembly & Maintenance Instructions C-3, C-4 & C-9	General
***TO 01-175 10/7/32	Assembly & Maintenance Instructions C-6A	General

<u>Number & Date</u>	<u>Subject (Cont'd)</u>	<u>Distribution</u>
**TO 01-180 10/7/32	Assembly & Maintenance Instructions C-7A	General
***TO 01-185 10/7/32	Assembly & Maintenance Instructions OA-2	General
***TO 01-195 10/7/32	Assembly & Maintenance Instructions YLC-24	General
*TO 02-1-48 10/7/32	Handbook of Instructions for Delco Coil & Vibrator Assembly	General
**TO 02-1-49 10/7/32	Handbook of Instructions for the Leece-Neville Types B-1, C-1, D-1, G-1, G-2 Generators	General
**TO 02-1-50 10/7/32	Handbook of Instructions for the Leece-Neville Types E-3 & E-4 Generators	General
*TO 02-20 10/7/32	Assembly & Maintenance Instructions R-790A & R-790B	General
***TO 02-25 10/7/32	Assembly & Maintenance Instructions V-1150, C, D, E, F & M Gen.	General
*TO 02-40 10/7/32	Assembly & Maintenance Instructions V-1570, GV-1570, GIV-1570 Gen.	General
*TO 02-45 10/7/32	Assembly & Maintenance Instructions R-1750, A, B, C, CE, D, E, & R-1820E	General
*TO 02-50 10/7/32	Assembly & Maintenance Instructions R-975, R-760, R-540	General
***TO 02-55 10/7/32	Assembly & Maintenance Instructions R-370	General
***TO 02-60 10/7/32	Assembly & Maintenance Instructions YR-270	General
**TO 02-65 10/7/32	Assembly & Maintenance Instructions R-985, R-1340, R-1860 Gen.	General
**TO 02-70 10/7/32	Assembly & Maintenance Instructions YLR-720	General
***TO 02-75 10/7/32	Assembly & Maintenance Instructions YLR-680A	General
**TO 05-5-2 10/7/32	Handbook of Instructions for Type C-2 Tachometer	General
***TO 10-10-3 10/7/32	Handbook of Instructions for Akeley Motion Picture Camera	General
***TO 10-10-4 10/7/32	Handbook of Instructions for Fairchild T-2A Camera and B-4A Transforming Printer	General
**TO 10-10-5 10/7/32	Handbook of Instructions for Type T-3A Camera and Type B-7 Printer	General
*TO 10-10-6 10/7/32	Handbook of Instructions for Type G-3 Gun Camera	General
*TO 19-5-1 10/7/32	Handbook of Instructions for Caquot Windlass (1918 Cunningham)	General

NOTE:- Technical Order numbers have been assigned to Handbooks of Instructions, and one-page Technical Orders issued for file purposes and as a matter of convenient reference. Activities will not be furnished copies of Handbooks unless they have the equipment to which the Handbook pertains, except, when quantities available permit, a copy of each Handbook will be furnished to the Station Engineering Office, for use in servicing transient aircraft, even though no equipment may be on hand. The one-page Technical orders will be considered as completing the files for those organizations not having equipment concerned.

Asterisks (*) have been entered opposite each Technical Order pertaining to a Handbook to indicate availability, thus:

*Adequate Quantity available for distribution.

**Limited quantity available for distribution.

***No copies available for distribution.

The following Air Corps Circulars and Air Corps Circular Letters have been distributed since the November 4, 1932, issue of the Air Corps News Letter.

AIR CORPS CIRCULARS

<u>Number & Date</u>	<u>Subject</u>
15-3A 11/12/32	BLANK FORMS & REPORTS - Air Corps Form No. 3, Monthly Aircraft Operations Report
65-6 11/ 5/32	SUPPLY - Supplies and Services Furnished the National Guard.

There has been no distribution of Air Corps Circular Letters since the November issue of the Air Corps News Letter.

TECHNICAL FILES

The following instructions which pertain to the Technical Departments as shown, should be added to the files of all affected activities. In this connection particular attention is again invited to page 333 of the August 10, 1932, issue of the Air Corps News Letter:

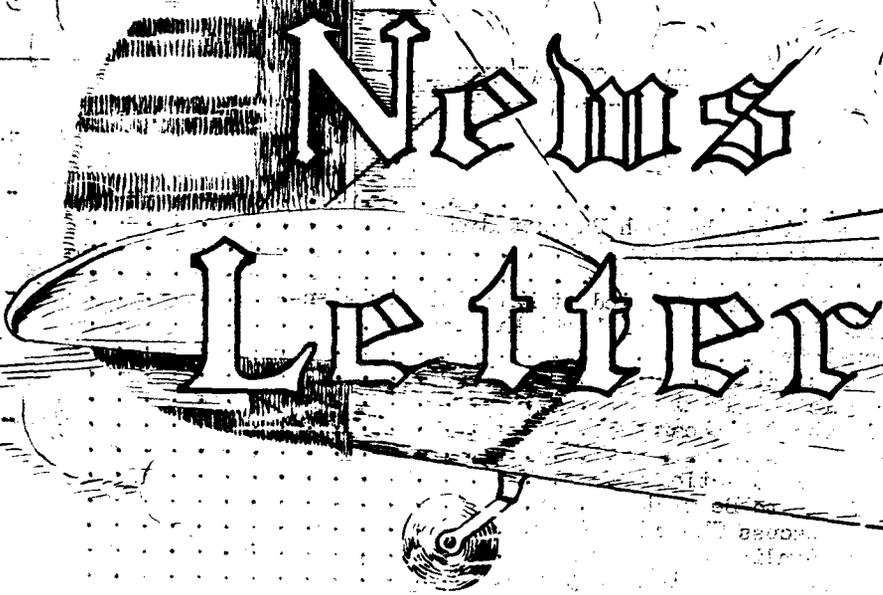
ARMAMENT SECTIONS

WD Circular No. 50, 1932 - Small Bore Paper Targets. Changes in AR 760-400.
 Technical Letter No. 31-107 - Cam-Follower - Gun Synchronizer Impulse Generator for Pratt & Whitney Engines.
 (This TL replaces TL 31-107 dated March 13, 1931.)

COMMUNICATIONS SECTIONS

Basic Field Manual, Vol. IV, Signal Communication. (This pamphlet supersedes paragraphs 3, 8, 9, 14, 16, 18-21, 24, 25, 27-30 & 32 and Sections V, IX, X & XI, TR 160-5, June 28, 1929; TR 160-6, June 29, 1929; TR 160-10, June 28, 1929; Sections II, III & IV and paragraphs 27-29, TR-162-5, Apr. 20, 1926; & TR 163-5, Oct. 1, 1929.)
 Note: Necessary changes in technical publications affected by the above should be made immediately.
 Supply Letter No. 139, Office of the Chief Signal Officer, dated Nov. 7, 1932, Subject, "Unsatisfactory "C" Battery"
 Note: This supply letter refers to "C" batteries on BC-GN-152 Radio Receiver. Letter, Chief Materiel Division, dated Sept. 28, 1932, Subject: "Signal Corps Equipment", and letter same headquarters and subject, dated Nov. 10, 1932.
 Note: These letters refer to the establishment of a Radio Repair Unit at the Fairfield Air Depot for purpose of eliminating present delays in returning unserviceable equipment to Signal Corps for replacement.
 Technical Order No. 08-5-1-Commercial Electrical Equipment-Aircraft Radio-Instructions for shielding, bonding & metallizing. (This TO replaces TO's #08-5-1 dated Sept. 28, 1926, 08-5-1B, dated Feb. 15, 1928, & 08-25-3 dated July 15, 1930, & Tech. Letters 31-101, 31-137, 31-274 & 31-286.)
 Note: Necessary changes in technical publications affected by the above should be made immediately.

THE AIR CORPS ³



ISSUED BY THE
 OFFICE OF THE CHIEF OF THE AIR CORPS
 WAR DEPARTMENT
 WASHINGTON, D. C.



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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing herein, except that portion of the News Letter beginning with Notes from Air Corps Fields.

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THE AIR CORPS FOR 1932

On June 30, 1932, the fifth year's operation of the Air Corps Five Year Development program came to a close, with certain noticeable shortages in the consummation of the original provisions of the program. On that date there was a shortage of 396 officers (pilots) with little hope that the shortage will be materially alleviated during 1933. The entire Army is practically up to its authorized officer-strength and there are no vacancies which the War Department could allot to the Air Corps for the latter to fill by commissioning as permanent officers those men who completed the prescribed flying course at Randolph and Kelly Fields as Flying Cadets and who were, and still are, second lieutenants in the Air Corps Reserve. Experienced officers of other branches are not transferring into the Air Corps and its only incoming personnel are the West Point graduates who desire an Air Corps career and are also able to complete the prescribed one year's course of flying which is a prerequisite to being commissioned in the Air Corps. Fine as these young officers are, they are hardly more than sufficient, in number, to compensate for losses among the other Air Corps officers due to death, retirement and resignation. On the experience of the last several years there appears no chance for the Air Corps to reach its authorized strength of flying officers for many years to come.

A shortage of enlisted men also exists, although not such an acute one. As this is written complete reports from Hawaii and the Philippines have not yet been consolidated. The last complete report, as of October 31, 1932, reads as follows for actual strength:

Regular Air Corps Officers - 1293 plus 77 officers detailed to Air Corps to undergo flying training.

Reserve officers on extended active duty - 303.

Warrant Officers - 27

Enlisted Men - 12,903 plus 301 Flying Cadets.

Changes were experienced early in the year in the directing heads of the Air Corps, Major-General James E. Fechet, retired as Chief of the Air Corps and was succeeded by Brigadier-General Benjamin D. Foulois, who had been Assistant Chief of the Air Corps and who was promoted to Major General, the rank commensurate with his new position. Lieutenant-Colonel Oscar Westover who had been Chief of The Air Corps sub-section at the Command and General Staff School at Fort Leavenworth, Kansas, was appointed to fill the vacancy caused by General Foulois' promotion and is now Brigadier-General Westover, on duty in the Office, Chief of the Air Corps. The two existing Assistant Chiefs of Air Corps at the time, Brigadier-General Henry C. Pratt as Chief of the Materiel Division at Wright Field, Ohio, and Brigadier-General Charles H. Danforth in command of the Air Corps Training Center at Randolph Field, remained in charge of their activities.

Our Air Corps consists of the following larger units:-

Continental United States -

West Coast

March Field, Riverside, Calif. - 1st Bombardment Wing, consisting of 7th Bombardment Group, of 9th, 11th and 31st Bombardment Squadrons and 70th Service Squadron and 17th Pursuit Group of 34th, 73d and 95th Pursuit Squadrons and 64th Service Squadron.

Rockwell Field, San Diego, Calif. - 19th Bombardment Group, consisting of 30th 32d Bombardment squadrons. 91st Observation Squadron at Crissy Field, San Francisco, Calif.

South

Primary and Advanced Flying Schools at Randolph and Kelly Fields, respectively, near San Antonio, Texas.

Barksdale Field, Shreveport, La. - 20th Pursuit Group of 55th and 77th Pursuit and 71st Service Squadrons. This group vacated Mather Field, Calif., on October 15th and removed to new station at Barksdale Field which is to be the home of the 3d Attack Wing, consisting of 20th Pursuit Group and 3d Attack Group, now at Fort Crockett, Galveston, Texas, of 8th, 13th and 90th Attack, and 505th Service Squadrons and Headquarters, 3d Attack Wing.

Air Corps Tactical School at Maxwell Field, Montgomery, Ala. 12th Observation Group of 12th, 22nd and 88th Observation and 62nd Service Squadron at Brooks Field, Texas.

Central and North

Saffridge Field, Mt. Clemens, Mich. - 1st Pursuit Group of 17th, 27th and 94th Pursuit and 57th Service Squadrons.

Air Corps Technical School at Chanute Field, Rantoul, Ill.

21st Airship Group at Scott Field, Ill.

Air Corps Engineering School at Wright Field, Dayton, Ohio, which is also the home of the Air Corps Materiel Division.

15th Observation Squadron at Scott Field, Ill.

16th Observation Squadron divided into flights with a flight each at various fields also in South and East.

East

Langley Field, Va. - 2nd Bombardment Wing, consisting of 2nd Bombardment Group of 20th, 49th and 96th Bombardment and 59th Service Squadrons, and 8th Pursuit Group of 33rd, 35th and 36th Pursuit and 58th Service Squadrons.

9th Observation Group of 1st, 5th, 99th Observation, and 61st Service Squadron at Mitchel Field, L.I., N.Y.

Also 19 National Guard Observation Squadrons in the following States: Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Ohio, Indiana, Illinois, Tennessee, Alabama, Minnesota, Colorado, Washington, California, Texas, Arkansas, Missouri and Michigan.

Possessions:

Panama - 1 Composite Wing, consisting of 2 observation, 2 pursuit, 1 bombardment and 2 service squadrons, organized into a composite group and a pursuit group.

Hawaii - 1 composite wing, consisting of the 5th Composite Group of 2 observation and 1 service squadron, and the 18th Pursuit Group, of 2 pursuit, 1 attack and 1 service squadron.

Philippines - 1 Composite Group, of 1 observation, 1 bombardment, 1 pursuit and 1 service squadron.

Five additional pursuit squadrons are yet to be organized if the provisions of the 5-year development program are carried out.

On June 30, 1932, the close of the fiscal year, there were on hand for the Regular Army, National Guard and Organized Reserves a total of 1729 airplanes, exclusive of experimental and service test airplanes, obsolete types and those awaiting survey as no longer capable of being repaired. Approximately 210 of all types were temporarily unserviceable on that date, either undergoing major repairs or overhaul at the depots. Considering only those airplanes which are serviceable, that is, those available for full use in tactical units or for training, the actual airplane strength was only 1509 with 70 additional which had been contracted for but not yet been delivered. In other words there was a shortage of 221 of the 1800 serviceable airplanes which were the goal of the five-year program. The National Guard was up to its authorized airplane strength, therefore, this shortage existed in the airplane strength of the Regular Army and Reserves.

Few contracts have been consummated for the current fiscal year as yet, but several new models, described below, which have been lately received and which have been given experimental and service tests to determine their suitability have given such promise that purchase of larger lots from existing appropriations will give the Air Corps a quality of equipment that was un hoped for a year ago. Many of these airplanes will be in use in the late Spring and the beginning of the next fiscal year should see most of them used by the various tactical squadrons, with some squadrons completely equipped with new models.

Pursuit aviation is progressing in the development of its tactics to keep pace with recent advance in bombardment speeds. In June the 8th Pursuit Group was organized at Langley Field, Va., making an active organization of the 2nd Bombardment Wing which consists of the 8th Group and the 2nd Bombardment Group. On October 15th the 20th Pursuit Group removed from Mather Field, Sacramento, Calif., and moved to Barksdale Field, Shreveport, La. This group will get one of the five pursuit squadrons which it is hoped to organize in the future. Mather Field reverted to an inactive status.

Standard models of pursuit planes now are Boeing P-12E, (most pursuit units are equipped with P-12's, P-12B's, C's, D's or E's) a single seater biplane with P.W. 525 air-cooled radial engine; Curtiss P-6E, (the equipment of 1 squadron of the 1st Pursuit Group and one in the 8th Group) a Curtiss Hawk single seater biplane with Curtiss Conqueror 600 H.P. Prestone-cooled V type engine. The above are single seaters. The 94th Squadron at Selfridge Field, Michigan, are service-testing the Berliner-Joyce P-16, a two-seater gull-wing biplane with prestone-cooled "Conqueror" engine to determine the tactical value of this two-seater. A six-ship formation of these airplanes made a forced flight from Selfridge Field to Rockwell Field, San Diego, Calif., on September 16th and returned several days later after a lay-over at Rockwell Field. Several stops were made for fuel and inspection and after each take-off the five junior pilots in the flight alternated in taking the lead; a valuable practice in flight leadership over strange terrain. The distance out, through refueling stops, of 2150 miles was made in 15 hours flying time.

Another two-seater pursuit model, the Consolidated P-25, an all-metal low-wing monoplane with retractable landing gear and powered with a prestone-cooled Conqueror, with a tunnel type radiator, was received on December 11th at the Materiel Division to undergo the routine experimental tests.

The low-wing monoplane trend is evidenced in the Boeing P-26 (formerly known as the XP-936), a small number of which are now undergoing service tests in the squadrons and the Curtiss XP-934, which was received November 10th at the Materiel Division for its experimental tests. The P-26 is powered with a P.W. "Wasp", much the same as in the P-12E, and the XP-934, equipped with slots and flaps for low landing speeds, has a prestone-cooled "Conqueror" in its nose.

During the past year, training in observation squadrons reached a higher standard than ever before, so far as the training of the observation crew of pilot and observer was concerned; due to a well rounded system of training. A shortage of flying hours, however, prevented many missions which required the services of a squadron or a group, and thus handicapped efforts at unit training.

Standard models of observation aircraft are:

Thomas-Morse O-19E, light biplane with P.W. "Wasp" engine.

Douglas O-25C, Douglas series with prestone-cooled "Conqueror" engine.

Douglas O-38B, with P.W. "Hornet" of 525 H.P.

Curtiss O-39, Falcon which with wheel pants and prestone-cooled "Conqueror" has a high speed of 173 M.P.H.

Observation aviation has a comparatively large number of satisfactory models, and the air service, or "eyes of the Army" is in better shape than the air force (bombardment, pursuit and observation) units. In addition to the above models, two new ones have made their appearance.

They are the Douglas O-31, a gull-wing monoplane with prestone-cooled "Conqueror" and capable of being equipped with the new double-row radial engine; and the Curtiss O-40, which is being tried out in two styles. One is a sesquiplane, the other as a monoplane with slots and flaps. The O-40 is equipped with the SR-1830 Wright "Cyclone" engine and has retractable landing gear. Late models of the O-31 have cantilever landing gears and larger rear cockpits than first O-31 models of late 1931.

These new models have boosted the high speed of observation aircraft to close to the 200 M.P.H. mark.

Our long range reconnaissance airplanes are the General Aviation O-27 with two "Conqueror" engines and the gull-winged Douglas O-35, which is similarly powered.

In attack aviation, the Curtiss A-8 is now being service tested. This is low-wing monoplane, with slots and flaps, powered with a 600 H.P. "Conqueror" and carrying pilot, gunner, 6 machine guns and 20 small bombs. It is expected that other manufacturers will submit

attack models for test in the near future.

In bombardment aviation, training in group and squadron formations has continued to develop greater flexibility. The 2nd Bombardment Group at Langley Field, Virginia, are experimenting with types of formations which allow the best defense against air attack by hostile pursuit and at the same time have offensive value and leave no opening for air attack while the bombers are deploying for their bomb-dropping runs.

The performance of Army aircraft has kept abreast of those used by other leading powers. Numerically, however, in personnel and numbers of tactical airplanes, the air force component of our Air Corps put us in fourth place in the air forces of the world as of June 30, 1932. No comparative figures are available as of the end of the calendar year 1932, for which this article is written.

Service tests, where certain new models are operated in the daily routine of the tactical squadrons, as well as prior experimental tests, have shown us that high speed airplanes have proven the necessity for improved streamlining of the fuselage and the 1932 tendency is toward this objective for all types of military aircraft. New data on the relative merits of streamlined wheels and retractable landing gear are on hand and have been incorporated into the Air Corps instructions to the contractors furnishing it with equipment; together with standards and criteria resulting from more careful analyses of airplane structures which have been required by increasing speeds and their resultant high stresses.

Alloy propellers and two types of those with controllable pitch, are being service-tested in small quantities. Magnesium alloys are being tested with the object of utilizing the large savings in weight made possible by this metal. Welded aluminum alloys are also being tested. The subject of the reduction of propeller noises is treated in the current issue of the Air Corps News Letter.

Structural research is being directed toward wing design, with stress analysis and design having been completed this past year for an all-spot welded, corrosion resistant steel wing of the stress-covering, single-web, cantilever type. Wing radiators were included in the type of wing studied.

The TC-13 dirigible, now under construction for the Air Corps will use two geared air-cooled engines. The five-fin control surface arrangement is expected to improve ground clearances, low speed control and surface stability at high speeds. It is equipped with an observation car that may be lowered 1500 feet below the airship for special forms of observation. The TC-13 is also expected to have an endurance, at the cruising speed of 52.6 M.P.H. of 35 hours, or a hovering speed of 25 M.P.H. for 100 hours.

Power plant developments tended toward the improvement in performance of service engines and accessories. Tests included carburetion, cooling systems, fuels, lubricants, spark plugs, radio shielded ignition, magneto and battery ignition, pressure indicators, silencers and superchargers.

A new laboratory was completed wherein conditions of cold winter and rarified air, high altitude flying may be simulated, thus enabling Air Corps engineers to test engines in the laboratory at 55° below zero Fahrenheit and with rarified air such as exists at 30,000 feet above sea level.

Lubricating oil tests, completed in 1932, resulted in a drastic change in specifications, the new oils showing marked improvements in conditions of the engines after extended periods of research. The Air Corps is entering upon a fairly large scale test program of oils produced by the aluminum chloride synthesis.

In the field of aerial navigation, definite progress has been made, through extensive research and experiments in application of the radio to fog flying and blind landings. The result was a demonstration at Patterson Field, Ohio, in May, 1932 by Capt. Albert F. Hegenberger of a complete blind solo flight, including blind take-off, 10 minutes or more of maneuvering and blind landing, without carrying a look-out or check pilot in the rear seat. Blind flying is part of the routine training of all Air Corps fields.

Earlier in the year, in January, Captain A. W. Stevens, flying at 23,000 feet altitude obtained a picture of Mt. Shasta, California, from a distance of 331.2 miles. This is the longest range photograph ever obtained and covers the greatest amount of the earth's surface (7200 square miles) ever encompassed by a single photographic exposure. Captain Stevens also obtained the high altitude photograph, to date, from 39,150 feet, taking in territory near Rushville, Indiana.

Achievements in gunnery and bombing have also been noteworthy. At the aerial machine gun and bombing matches of 1932 at Langley Field, Virginia, in September, the high score in each of the four events exceeded the high score of previous years, with winning scores as follows: Pursuit Pilots' Match - Lieut. W. C. Morse scored 1014 with a 1750 possible. Observation and Attack Pilots' Match - Lieut. C. G. Goodrich scored 962 with a 1750 possible. Observers' Match - Lieut. P. D. Jacques scored 1024 with a 1940 possible. Bombers' Match - (Lieut. Wm. B. Offutt, Pilot) Scored 1932 with a 2000 possible. (Lieut. J. J. Ladd, Bomber)

The high bombing score represents the expert's accomplishment, but the bombing average of the Air Corps is not far below this high score. All 43 officers of the 7th Bombardment Group at March Field, California, made their "expert" rating and the average score for the group was 1822, or 91% of the perfect score.

No announcement can be made as yet of the winner of the Mackay Trophy for the most meritorious flight for 1932. It will be recalled that the Trophy was awarded in 1932 for the most meritorious flight of the previous year, to Benjamin D. Foulois, then Brigadier-General and Assistant Chief of the Air Corps for his flight leadership of the 1st Provisional Air Division of 572 airplanes in its flight through the Northeast part of the country.

The Cheney Award for heroism in a humanitarian interest is yet to be made for 1932. It was presented this year for two acts of the previous year, to Lieutenant Robert D. Moor, (posthumously) for sacrificing his life to save his passenger in a disabled airplane, and to Private John B. Smith for rescuing an officer from a wrecked and burning airplane.

The opportunity for cooperative training with the Navy was taken advantage of and the Army Air Corps played a prominent part in the joint Army and Navy maneuvers at Hawaii

The aerial photographic sections of the Air Corps also cooperated with the various government departments and over 48,000 square miles of territory were photographed for non-military mapping purposes. This work was done for the new military activities of the War Department and for the Geological Survey, Coast and Geodetic Survey, Department of Agriculture, Department of Justice and others. The work included aerial mosaics, such as are

required for topographic mapping, flood control, highway planning, settlement of boundary disputes, etc.

Contrary to the general opinion that Army airplanes drop only death and destruction, the 11th Bombardment Squadron of March Field, California, last January at the request of the Indian Bureau, dropped 15 tons of foodstuffs to 2000 stormbound and starving Navajo Indians in northern Arizona.

Other achievements, worthy of mention but not yet officially recognized will probably be recorded for 1932, at some later date, but the above is a brief description of the record of the work of the Air Corps for 1932.

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GUNNERY AND HIGH ALTITUDE FLIGHTS BY 19TH PURSUIT SQUADRON

Gunnery season has just passed, and without a doubt was the most successful in many years. The writer personally believes this Squadron has established a record throughout the Air Corps. Lieutenant Burns won the honors for the highest score with a total of 1280 points, while the squadron registered 1094.35 for an average.

Six ships including P-12-E's and P-12-C's have been equipped with the latest oxygen paraphernalia. Participation in high altitude missions has been going on for several days. The highest altitude reached was 28,000 feet, with maneuvers being conducted around 20,000 to 25,000 feet. The biggest objection to these flights is the excessive cold, but everyone seems to get a charge out of it. May be its the oxygen. The 19th is at Wheeler Field, Hawaii.

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26TH ATTACK SQUADRON WINS WICHMAN TROPHY

On November 10th the personnel of the 26th Attack Squadron threw out their chests, and with faces beaming with pride watched the review given in their honor by the 18th Composite Wing as a reward for winning the H.F. Wichman Trophy. This trophy, a large handsome loving cup was obtained through Mr. John A. Hamilton, representing the Honolulu Chamber of Commerce, to be awarded to the Air Corps Squadron in Hawaii with the best flying record in flying hours, number of airplanes in commission, fewest forced landings, degree of completion of training schedule, and other factors. In winning this trophy the 26th Attack Squadron completed 2,751 hours of flying, an average of 250 hours per plane, without a forced landing. It not only completed its training schedule but continued 14 percent beyond the schedule required.

The trophy was presented by Lieut.-Colonel Gerald C. Brant, Wing Commander, to Lieutenant Leonard H. Rodieck, commanding the 26th Squadron. In presenting the cup Col Brant said, in part: "Through the efforts of Mr. John A. Hamilton, President of the Honolulu Chamber of Commerce, and Mr. Merle Johnson, the jewelry firm of H.F. Wichman was prevailed upon to donate an appropriate trophy to be awarded each year for the Air Corps organization maintaining the highest degree of efficiency throughout the training year. With the earnest cooperation and enthusiasm of these fine air-minded citizens, this beautiful trophy has been made possible.

In reaching a decision as to which squadron has attained the highest efficiency and therefore is entitled to this trophy, much time and computation was involved. With so little relative difference in the efficiency of these squadrons, it was hard to determine the rightful winner. Considering all conditions and phases of the work undertaken, the equipment used and the results obtained, together with a total lack of forced landings, it was decided that the 26th Attack Squadron was the squadron to be honored. Lieutenant Rodieck, it is with the utmost pleasure that I award you this cup, the H.F. Wichman Trophy, for the highest efficiency obtained by any Air Corps unit in the Hawaiian Department for the training year of 1932. You, your officers and men, are to be individually congratulated for their work in helping win this trophy. The work performed is indicative of a high state of training, morale and teamwork within your organization. I know that these conditions will continue to exist and that next year you will be a strong defender for further possession of this coveted trophy.

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THE NEW BOLLING FIELD

The work on the new Bolling Field construction project is making excellent progress. The installation of an underground, high-tension line by the Harrison-Wright Company and the Arundel Contract, for grading a portion of the new landing field, measuring 6400 feet by 1000 feet, have both been completed. The Air Corps Barracks is nearly ready to be turned over to the Constructing Quartermaster by the M.H. Sobel Company.

The following contracts are at present under construction: 11 double N.C.O. quarters; 11 company and 2 field officers' quarters; 1 fire and guard station; 1 A.C. warehouse; 1 Q.M. warehouse; 1 Q.M. maintenance building; A combined Post Exchange, Gymnasium and theatre; A Central heating system.

The Constructing Quartermaster has advertised for the construction of a dispensary and an incinerator, and specifications for sewers, water and gas are now being written by that office. This part of the work will soon be under way.

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Staff Sergeant Talmage Langston of Bolling Field, has been awarded the Order of the Purple Heart for wound received in action at St. Mihiel during the World War.

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Balloon Companies of the Air Service, A.E.F., at the Front numbered 23; at the time of the signing of the Armistice. The First and Second Balloon Companies were assigned to the Front on April 15, 1918. Three companies took part in the Chateau Thierry counter-offensive; they lost 8 balloons from attacks by enemy pursuit aviation; 1 balloon was damaged by shell fire and 12 of our balloon observers were forced to "bail out" and descend via parachute during these operations around Chateau Thierry.

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PROBLEM OF AIRPLANE NOISE REDUCTION STUDIED AT MATERIEL DIVISION

By Major F. H. Coleman, Air Corps.

THERE are probably no wholly unfavorable features in the aeronautical scheme which have not in the past decade yielded in some portion to the refinements of development, with the exception of the noises produced by the airplane in operation. That these noises have always been an undesirable characteristic, both from the point of view of the passenger traveling over a commercial airways and from the military point of view, goes undisputed. To the passenger they are wearisome and nerve-trying. From the military standpoint they are far more dangerous. They apprise the ground enemy of the approach of the military airplane from a great distance, thus rendering the principle of surprise more difficult of achievement if not totally impossible.

Attempts to solve the noise problem have been made in many countries, both for military and commercial airplanes. Marked progress, however, has not been achieved, nor is the outlook for complete solution altogether promising. A little over a year ago, the Materiel Division definitely took a hand in the work, and investigations have progressed to the point where it may be said that the sources of noise are understood and efforts to subdue them have reached practical limits, with the result that single-engined airplanes equipped with noise reducing equipment are not heard on the ground when flying at an altitude of 8,000 feet. This altitude will, of course, vary with the atmospheric conditions and the degree to which knowledge of sound reduction is applied to the airplane.

The principal sources of noise, in order of importance, are: the propeller, the exhausts, engine clatter, and whistling wires. The noise energy of any one of these is so great that even large reductions in that energy result in only what appear to be small reductions in the noise heard. This statement will become clearer if the relation between the heard noise and the energy required to produce this noise be very briefly discussed.

In discussing just plain noise such as that given off by an airplane, boiler factory, or subway train, we are not interested in quality, harmony and such characteristics, but rather in the quantity, or loudness of noise. The first thing we need, therefore, is a unit of measurement by means of which we can express the loudness of any particular noise. This unit to be readily understood should be such that we could refer to a noise of, for instance, 40 units as being twice as loud as a noise of 20 units. Such a unit has been devised and is called the "decibel," in honor of Dr. Graham Bell. These units are such that the noise of an ordinary conversation is a matter of 35 or 40 decibels, that of a Pullman smoking room about 65, that of a subway train about 85, and that of an ordinary military airplane about 110. A noise of about 135 decibels is painful and further increases produce in the ear more pain rather than a sense of more noise. Next we, of course, must be able to measure the loudness of any particular noise. This can be done only by measuring the energy represented by the noise. The fact that noise represents the display of energy is rendered clear by noting the vibration of walls, windowpanes, cans, and such diaphragms during the production of loud noises. Instruments involving microphones and vacuum tubes are now available for measuring this energy and are calibrated to read directly in "decibels." However, if we have an airplane producing a hundred decibels of noise and we place another airplane of the same kind beside the first we might naturally expect 200 decibels of noise. If, instead, our instrument shows only 103 decibels, we may wonder what is the matter. Therefore, to proceed understandingly, we must know the relation between the unit of loudness (the decibel) and the energy required to produce it because, after all, it is the noise energy that we must really reduce if we are to secure a reduction in the noise. This relation is a logarithmic one and has been found to be represented with fair accurateness by the expression that the number of decibels in a given noise is equal to ten times the logarithm of the ratio of the energy producing the noise to the energy required to produce a noise that would be barely audible. For example, the pressure required to produce a barely audible sound may be taken to be 1 dyne per square centimeter. If we have a noise, the noise pressure of which is 100 dynes per square centimeter, the heard noise is said to be 20 decibels, or 10 times the logarithm of 100 divided by one.

Similarly, the noise of an ordinary airplane as heard at a distance of 80 feet may be said to be 100 decibels. This would correspond to a noise pressure of 10,000,000,000 dynes per square centimeter. To reduce this 100 decibels down even to 90 decibels, which is still a great noise, we must reduce the noise energy down to 1,000,000,000 dynes per square centimeter, or a reduction of 90 per cent of the original noise energy. Hence it is quite clear that tremendous reductions in noise energy must be made to secure quite immaterial reductions in heard noise. In reducing this 100 decibels of noise energy by 99 per cent, we would still have a heard noise of 80 decibels, and, similarly, with a 99.9 per cent reduction, we would still have 70 decibels. This is still a considerable amount of noise, but the reduction is as great as has been achieved even in cabin planes where sound proofing of the walls may be resorted to. A further illustration is that of two engines of the same kind running side by side and giving out a total noise of 100 decibels. If one of these were shut off completely, a noise of 97 decibels would still remain.

From the above explanation it might seem that reductions in decibels are so small compared to the reductions in noise energy required that results are not worth the effort. But it must be remembered that even though these small reductions are not sufficient to decrease materially the discomfort of passengers of aircraft, they are of great value for military purposes, due to the fact that noise energy varies inversely as the square of the distance from the noise source. That is, if a sound that could be heard ten miles away were reduced by 6 decibels, it would be heard only five miles away. For this reason any reduction whatever, even of a few decibels, is valuable from a military standpoint.

The efforts of the Materiel Division to date have been restricted to the reduction of the noises produced by the propeller and exhaust as these form the predominant sources of noise energy. The noises produced by wires and engine clatter are negligible in comparison. Regarding the propeller, it has been established that the tip speed is the controlling noise factor, although the thickness, width, and pitch of blades are contributing elements. Therefore, it would appear that when a propeller with the widest, thinnest blade turning at the minimum practicable tip speed is employed, the ultimate has been achieved in propeller noise reduction.

Exhaust silencing has been the subject of constant experimentation for the past 30 years, and thousands of different ideas embodied in exhaust mufflers are to be found among commercial products of today. Effective mufflers must in general be bulky and heavy, two very undesirable qualifications when used in connection with an airplane. The conventional automobile muffler

is effective, but one of the same type to be made equally effective for a 500-h.p. aircraft engine would be in size of the nature of a 25-gallon barrel. For the airplane, a successful muffler must have practicable dimensions, similar to the ordinary exhaust pipe, with only reasonable increases in diameter and length. Various commercial concerns skilled in the art of muffler design cooperated with the Materiel Division in an effort to produce a successful muffler, and their products were tried out. The commercial design referred to and that of the Materiel Division are both cylindrical in exterior shape, the latter being of much smaller diameter and shorter length than the commercial design.

The principles that appear to determine the extent to which exhausts can be silenced are back-pressure, noise-absorption, interference, cooling, and tortuous passages. These have all been applied to aircraft mufflers but with indifferent success. Complete interference is impracticable due to complexity of emitted sound, arrangement of cylinders, and the necessarily cumbersome nature of design. Absorption is impracticable because of size, weight, and excessive heat. Cooling is impracticable due to size and weight of equipment. This leaves only the back-pressure principle, with some slight assistance from limited interference and tortuous passages remaining.

Of course, if exhausts could be completely closed, there would be no sound at all. This being impossible, it is a question how nearly they can be closed with impunity. The Division's present design gives a back pressure of five inches of mercury at cruising speed. Investigation has shown this is not excessive. However, for speeds to be used in silent flight this muffler gives only 2 inches of mercury. For use in higher speeds a cutout is provided, noise being unimportant in such cases. In this way the noise produced at the instant of the opening of the exhaust valve is suppressed. These cylinder discharges, however, also produce noise at the exit of the exhaust manifold. This noise can be interfered with by providing in the silencer a buffer chamber of suitable dimensions and by the use of tortuous passages. These features are also incorporated in the Division design.

According to conservative estimate, the efforts of the Materiel Division have resulted in a sound reduction of 20 decibels, or the elimination of 99 percent of the total sound energy of the airplane in operation. That is, if airplanes such as the P-6E, O-1, A-8 and O-13 should have applied to them all the noise reducing remedies that the Materiel Division investigation has disclosed, the airplane noise at cruising speed would be 20 decibels less after application of the remedies than before. This reduction, it must be remembered, is secured by reducing noise energy at its source and has nothing to do with noise reduction obtained by the insulation of airplane cabin walls with sound absorption materials.

While it would seem at present that the only completely silent airplanes ever to be achieved will be those on the ground with engines shut off, and that the results outlined above have reached approximate limits of practicability, nevertheless efforts are still in progress, especially those pertaining to the reduction of the tip speeds of propellers by means of controllable pitch blades. That this is a fruitful field of endeavor may be visualized from the example in which a BT-2 type airplane equipped with a controllable pitch propeller can be flown with the same throttle setting and approximately the same air speed at r.p.m.'s ranging from 1100 to 2000 by merely changing the pitch of the propeller blades. Reduction of propeller noise may be conservatively estimated at two decibels per 100 r.p.m.

It is anticipated that the reduction of useless, unwholesome noises is a subject that will receive ever increasing attention of Engineers not only in the field of aeronautics but in every line of human endeavor.

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PURSUITERS FIND IT DIFFICULT TO CARRY OUT NIGHT MISSIONS

Unforeseen and unprecedented poor weather caused the three tactical squadrons of Selfridge Field, Mich., to experience some difficulty flying in attempting to carry out formation night flying missions on the evening of December 8th. The three Squadrons (17th, 27th and 94th) as part of the 1st Pursuit Group training program, were to fly to three different cities in the afternoon, and then return in formation after dark to Selfridge Field. When the squadrons took off on this mission the weather seemed excellent, but fog and snow closed in along the routes of all the squadrons and forced them to change their plans.

The 17th found conditions getting poor near Battle Creek, the objective of their outbound trip. Since the visibility seemed to be getting worse, Lieut. McCormick, leader of the squadron, did not land at Battle Creek but returned immediately to Selfridge, where the squadron landed just after dark. The two other squadrons went to more distant points on their missions, the weather closing behind them in such a manner as to prevent their getting back to Selfridge that night. The 27th arrived at Dayton and started back to Selfridge but ran into fog and snow near Toledo, Ohio, landed at the airport there and stayed overnight. The 94th went to Chicago, but the weather turned bad before they started back, so they stayed overnight in the Windy City. Lieut. Adams, one of the 94th pilots, was forced down enroute at the airport at Gary, Indiana. Lieut. Muffat landed with him to render assistance.

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AERIAL DELIVERY UNIT DEVELOPED

The development of an inexpensive aerial delivery unit has been completed at the Materiel Division. This aerial delivery unit is designated as Type A-3. Experimental drop tests were conducted with this type unit, which is composed of a salvaged 24-foot service parachute canopy attached to a cylindrical-shaped bag of duck fabric in which is stowed a five-gallon commercial milk can in a separate compartment.

The complete unit is carried in and released from the wing bomb racks by means of a static line attached to the apex of the container.

Service tests were waived of this type equipment as its operation and function are identical to the previous Type A-1, except that it is of a simplified and less expensive design.

ENLISTED PASSENGER RESCUES HIS PILOT IN NICK OF TIME



EMERGING from his seat and moving away from the fuselage of a plane which had overturned during a forced landing, Private A.M. Farley, passenger, noticed to his horror that the ship was on fire. He rushed to the aid of the imprisoned pilot and, by dint of vigorous hauling and pulling, succeeded in extricating him from the cockpit. He got out just in time, for as soon as they had run a hundred feet from the ship the gasoline tank ignited and the ship became a mass of flames. The fire completely destroyed the airplane, and was so intense that it burnt the crankcase through in one place and melted all the aluminum fittings on the engine.

According to the News Letter Correspondent, this thrilling escape from death of the pilot and passenger occurred on December 6th, during the course of a flight near Selfridge Field, Mich. Lieut. William E. Dum, Air Reserve, was piloting a Berliner-Joyce P-16 Pursuit plane, with Private A.M. Farley as passenger, when the motor of the ship started missing badly and they were forced to land. The only available field for the emergency landing was very small and rough, and very shortly after Lieut. Dum had put his ship into the field, by skimming some trees and ducking under a high tension line, the ship struck a large bump and went over on its back violently. The top of the ship hit the ground so hard that it bent the headrest of the rear cockpit (the gunner in a P-16 faces to the rear, with his back to the pilot) over on top of the pilot's cockpit.

An investigation is being conducted into the cause of the engine failure and the cause of the fire. Evidence points to a "frozen" cam shaft as the immediate cause of the engine failure, though as yet nothing has been discovered as to the reason for the cam shaft stoppage. Either the oil line became clogged or the shaft became scored during a dive and heated beyond the safety point. The fire is believed to have started in the air by a backfire caused by the right cam shaft holding an intake valve in the right bank open after the shaft had "frozen."

Though the accident ended disastrously for one B/J P-16, Lieut. Dum and Private Farley are being congratulated for a happy landing.

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AIR CORPS ELIES GASTRONOMIC RESCUE MISSION

Almost a year ago the personnel of the 25th Bombardment Squadron at France Field read the thrilling account of the 11th Bomber Squadron, commanded by Lieut. Charles Howard, at March Field, Calif., dropping tons of food stuffs to the stow-bound and starving Navajo Indians in Northern Arizona. The hearts of the bombers in the Panama Canal Zone squadron thrilled at the humanitarian feat of their brother outfit on the West Coast, then felt envy. A pony, a complete howitzer battery, numerous sick and wounded gentry and other strange cargoes had been transported by the 25th squadron to or from various parts of the Isthmus, but the squadron hoped for the presence, somewhere, sometime, of some hungry tribe that they could feed by dropping food to them from the air. Then came their chance.

At 8:00 A.M., November 30, 1932, the 25th Bombardment Squadron received about 800 pounds of food in cans and bulk to deliver to the Fort Davis Rest Camp at the mouth of the Chagres River, opposite Fort Lorenzo. Due to the previous heavy rains in the vicinity of Gatun Lake, the gates at the spillway had been open for several days, making the Chagres River un navigable. For this reason the men at the camp could not be provided with supplies.

All types of supplies were delivered - hams, sausage, pork, flour, sugar, beans, butter, bread, potatoes and a great variety of canned goods.

Containers were obtained from the Coast Artillery Corps in the form of the "Cartridge Storage Case, Model 1901, for 12 "Rifles". These cans are corrugated galvanized iron with lids, cylindrical in shape, over-all dimension 15" diameter x 23" in height, with carrying handles. All containers were lined with packing felt and heavy paper.

The containers were adapted to be hung on the B-3A's standard internal bomb rack by fastening the MK IV Belly Band Adapter for 100-pound bombs to the containers with steel baling strap. This was accomplished by simply twisting the ends of the strap, after passing over the belly band, around the part about the container and pounding it flat. The lids were fastened on with galvanized iron wire. The containers were then fitted with bomb shackles and hung on the racks. The cans were small enough so that all six stations in the bomb racks were utilized. The releasing was accomplished by a bomber in the usual manner of dropping bombs.

A total of sixteen containers were loaded and dropped. Due to the location of the dropping ground selected a minimum altitude of approximately 100 feet had to be maintained. All containers and supplies were received in good condition with the exception of one which failed to release at the proper time due to the handle of the container catching a part of the bomb rack.

It is believed that the ease with which these containers can be adapted to the racks of bombers, the ease of handling and releasing and the good condition of the supplies received makes this method of dropping food a very desirable one. (But no eggs!)

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DAY AND NIGHT BOMBING IN THE CARIBBEAN SEA

On December 13, 1932, the 25th Bombardment Squadron had an opportunity to do some live bombing when the Commanding Officer of Fort Sherman requested the help of the Air Corps in disposing of a steel barge, 40 x 120 feet, which had been useless for some time. The barge was towed four miles to sea and turned adrift to await the attack of the bombers. The first attack was made at 5,000 feet by six B-30's flying in close formation, each armed with three 100-pound demolition bombs. The 100-pound size is the lightest of the demolition type bombs. The bomber in the lead plane only used a bomb sight - each of the other bombers released when they saw the bomb fall from the lead plane. The lead plane used one of its bombs as a sighting shot - none of the other planes dropping any of theirs. On the next pass over the target each plane dropped one bomb with the leader which resulted in the center of impact of the pattern being about 100 feet to the left of the barge, with the range, "on target". On the next pass the leader dropped his remaining bomb and the other planes all released two. The center of impact of this pattern was on the left half of the barge and at least four of the eleven bombs being hits. Within two minutes the barge up-ended and sank, but a wooden flooring which had been built on it was loosened and floated away. Upon inspection by the Captain of the tug which had stood by, it was decided the flooring was a menace to navigation and orders were received to break it up by further bombing. Three planes were then loaded with three 300-pounders each

and a new attack begun. This attack was started twenty minutes after the sun had set and with the low visibility of the half covered flooring awash and scattered, low clouds, approaches were difficult and last minute connections for deflection hampered the accuracy of the bombing, somewhat. Three attacks were made with each plane releasing one bomb at a pass. The range was correct in each case and the deflections in each run were lessened until at the third run the bombs dropped 30 feet to one side, which is about the theoretical distance from the hull of a ship at which bombs give their best effect, as the water acts as a tamper and throws the maximum blow against the hull under water. On the last run, two of the bombs were dropped dead, but the total damage caused by all the bombs broke up the flooring sufficiently that the tug captain decided that it was no longer a menace to navigation.

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DROPPING A HOUSE FROM A BOMBER ✓

When Mr. Judd, Chief Forester of the Territory of Hawaii, decided not long ago to build an overnight camp in the Kaipapau Forest Reserve on Oahu for the use of forest rangers he was confronted by the prospect of the arduous labor required to take the materials to the chosen site. It was not an elaborate structure that he planned, only a little one room hut with a lean-to, to be built of logs and roofed with sheet iron. Altogether, the materials required weighed only 1,200 pounds or so.

But consideration of the site chosen for the building will reveal just why the transportation of this nominal weight of materials presented such a forbidding task. The spot selected was on the summit of the Koolau Range about four miles by air from the little village of Hauula, on the North-east coast of Oahu and on the Kanehameha Highway which encircles the island. But these four miles are twice that many hours of hard, dangerous mountain climbing along high steep cliffs, stung by rain and buffeted by the strong North-east Trade winds that blow almost unceasingly. The trail winds along over ground eroded and softened by wind and rain and so steep and treacherous that each step must be guarded lest the ground give way beneath the traveller and hurl him into the depths of the chasm below. Not even the sure-footed pack mule can traverse that trail. Hunters out for the wild pigs that roam the wild, barely accessible summit, find that they can do no hunting the first day; the climb from sea-level to the 2,800 foot summit of the range is a full day's work in itself. Hence the transportation of 1,200 pounds of sheet iron, lumber and nails, represented many, many hours of gruelling labor, hardship and danger.

The Army Air Corps, however, solved the problem by offering the use of an Army Bomber to transport the materials by air and drop them at the required place. Accordingly, the galvanized iron for the sides and the roofing, together with the wooden framework members, were cut to convenient lengths and then done up into three (3) bundles and sent to the 23rd Bombardment Squadron at Luke Field for delivery. The forest rangers proceeded to the site unhampered by heavy loads and marked the spot with white cloth panels. Captain R. Baez, Jr., Squadron Commander and Lieutenant Howard Moore, Squadron Operations Officer, conducted an aerial reconnaissance over the territory and drew up a plan of operations. It was found that the almost vertical cliffs on the Northeast side of the Koolau Range interpose a barrier to the strong trade winds and cause a vertical current of warm, moist air up the side of the mountain range. This current is cooled by the 300-foot ascent, and the moisture is condensed into huge cumulus clouds which form and hover along the summit of the range, usually with no space intervening between clouds and mountain. Observation disclosed that occasionally rifts occurred in the clouds, and it was decided that by taking advantage of these rifts, a pilot could fly over the clouds and drop the bundles. Back at Luke Field an external bomb rack which is required for heavy loads, was fitted to a Keystone B-3A airplane and a system of slings was devised whereby the bundles could be slung from the bomb rack.

Master Sergeant Samuel J. Davis, enlisted pilot of the 23rd Bombardment Squadron, Air Corps, was selected to fly the bomber and drop the bundles at the first opportunity. The first day, after several hours of patient waiting, he succeeded in dropping one bundle. Then three days of heavy, continuous rain prevented further trials; but on the fourth day the rain ceased, and Sergeant Davis resumed his bombing practice and succeeded in dropping the remaining two bundles.

For an initial attempt at low altitude bombing under hazardous conditions the operations were eminently successful. All three bundles landed in the little clearing, and the last two were only a few feet from the panel. In about six hours of flying, the Air Corps had accomplished a task which would have taken at least two weeks by other methods.

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BARKSDALE FIELD, LA., COMES INTO ACTION

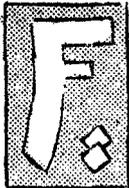
Since a rainy morning October 31, 1932, when a special train brought them here, Barksdale Field, Shreveport, Louisiana, has been recognized as home by the Twentieth Pursuit Group. For nearly two years this lusty new addition to the Air Corps has tried valiantly and with commendable success to make the wartime buildings of Mather Field, California, house its first uncertain growth. In contrast to the California home the ambitious building program at Barksdale, admirably planned in every detail and 47 percent completed, made a powerful impression upon the officers and men of the Group and has served as a strong incentive toward the attainment of a high standard of efficiency and morale. This ambition was further heightened by the warm welcome and thoughtful provisions made by the earlier arrivals for the comfort of the Mather Field contingent.

The buildings at Barksdale are of the conventional concrete hollow tile and steel construction and the heating, lighting, ventilating and refrigerating units, and the general completeness of details designed to promote comfort and efficiency are a constant source of pride and satisfaction. Technical and administrative buildings give the impression of farsighted and generous provision for the work to be performed there while the barracks and the commissioned and non-commissioned officers' quarters, of a modified French type of architecture, are the last word in comfort and convenience.

A system of landscape gardening, wisely conceived, will also eventually add its share to the ultimate effect that will rank Barksdale Field as one of the Air Corps' most ambitious projects.

(Barksdale will eventually be the home of the Third Attack Wing, when the 3rd Wing Hq. and the 3rd Attack Group are moved from their present home at Fort Crockett, Galveston, Texas, to augment the 20th Pursuit Group at Barksdale.)

NEW TWO-SEATER PURSUIT PLANE TO BE TESTED



FOLLOWING the announcement in the last issue of the News Letter that a new Pursuit airplane (XP-934) of low wing all-metal construction, having a monocoque fuselage and equipped with automatic slots and flaps, was delivered to the Air Corps Materiel Division, Wright Field, Dayton, Ohio, for full performance testing, comes a further announcement that another two-seater Pursuit airplane is making its bow to the Air Corps, this being a new bi-place ship delivered to the Materiel Division by the Consolidated Aircraft Corporation of Buffalo, New York.

The new airplane, technically known as the Y1P-25, is an all-metal low wing monoplane with monocoque fuselage, powered with a single V-1570 engine. The radiator is of the tunnel type. The retractable landing gear folds flush into the wing. The cockpits are enclosed, the design being cleanly streamlined into the lines of the airplane. The Y1P will be given full performance testing by the Wright Field test pilots.

The post-war Pursuit design has been that of single-seaters, although the need of two-seater Pursuit has been acknowledged for the past several years. Another such two-seater now in use by the Air Corps is the Berliner-Joyce P-16, with which the 94th Pursuit Squadron, Selfridge Field, Mich., is equipped.

Our Wright Field Correspondent reports that the XP-934 arrived at the Materiel Division in November, being flown in by H.A. Sutton, of the Curtiss Company, but formerly of McCook Field. He is well remembered for his spinning tests of the O-2 airplane, in which at personal risk he obtained information necessary for the correction of the faulty flying characteristics of that airplane. He was at that time Captain Harry Sutton, U.S. Army Air Corps, and retains many friends among officers and civilians at Wright Field.

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RESERVE OFFICERS MEET TO DISCUSS THEIR PROBLEMS

The following was received from the Air Corps Reserve Officers' Association of the United States:

The new Air Corps Reserve Officers' Association of the United States in this capacity met in their first business meeting at the Hotel President, Kansas City, Missouri, on October 29, 1932. Taking up their work where they left off at the conclusion of the organization meeting in Chicago last April, ends were discussed, policies were formulated to suit the special problems of the Air Corps Reserve units in the nine Corps Areas of the country. The need for an organization of this kind has long been felt by the Air Reserve units, resulting last October in an immediate attack upon the problems confronting them at the present time.

While most members of the new Association are also affiliated with the National Reserve Officers' Association, it is felt that the uniqueness of the problems of the Air Corps Reserve can best be dealt with by men in close contact with the difficulties themselves. It is expected that cooperation between the associations will be unanimous, with a distinct benefit to both. One of the major problems discussed at the last meeting was that of providing more flying time for Air Corps Reserve units. While this has always been somewhat of a bugbear, it has only been in recent years that it has taken on vital significance. With the increased output of Army trained pilots from the Regular Army Training Center at Randolph Field, Texas, it has been found necessary to relegate the greater percentage of these men to inactive status. In due course of time, the new officers are attached to some one of the Air Corps Reserve units scattered about the country. This factor and others have conspired to reduce the flying time per man to such an extent that he cannot get enough flying practice to keep up his confidence and morale as a flying officer.

An aircraft replacement program was given initial discussion, along with increasing the cross-country flying limits for Reserve Officers. Insurance for Army pilots trained since the World War was given the attention of the Association. Putting the Air Corps Reserves on a pay scale similar to the National Guard was mentioned as a possibility. In order to render expert advice, ten Regular Army officers, including Captain "Ted" Koenig, head of Reserve affairs at Washington, were in attendance, in addition to 18 Reserve officers from the several Corps Areas. The men attending the Convention and meeting were: Lieut. C.J. Kenney, Long Island; Lieut. L.S. Webster, Chicago; Capt. L.C. Harper, National Secretary and Treasurer, New York; Lieut. R.C. Farrell, National Judge Advocate, Kansas City; Capt. G.V. Kelly, National President, New York; Lieut. A.J. Reinhart, Senior Vice President, Dallas, Texas; Major W.L. Plummer, Atlanta, Ga.; Capt. Fred E. Edwards, San Francisco; Major W.F. Centner, Columbus, Ohio; Major H.J. Bazley, Capt. San Eaton, Lieut. V.L. Hubbard, Pittsburgh, Pa.; Capts. W.C. Lewis, Clint Johnson, Oklahoma City, Okla.; Capt. Wm. B. Wright, Lieuts. Woffard E. Lewis, Alford D. Hillman, Kansas City, Mo.; Major C.F. Gilchrist, Capt. Roy V. Sheldon, Lieut. Albert M. Lehr, Jr., Tulsa, Okla.; Major Atlas M. Speer, Chicago; Capts. A.M. Woody, Louisville, Ky.; W.F. Kyle, Seattle, Wash.; Greff Allen, New York, and Lieut. Raymond R. Brown, Atlanta, Ga.

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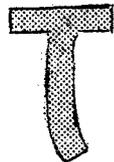
MAJOR GILKESON HAS FORCED LANDING AT SELFRIDGE

Major A.H. Gilkeson, Executive Officer at Selfridge Field, Mich., experienced several different emotions while on a flight near Selfridge on December 7th, when his motor cut cold and refused to start again. The Major was out on an individual acrobatic mission, flying above the clouds at an altitude of about 6,000 feet. When the motor cut out and he could not start it again by diving and working the various gadgets in the cockpit, the Major headed in a glide in the general direction of Selfridge Field. When he emerged beneath the clouds, at about 2,000 feet, he was greatly relieved to find himself directly over the town of Mt. Clemens and not very far from the field. However, he was none too close to his home port, for by gliding at the best angle he came in over the edge of the field at only about a hundred feet and landed quite some distance from the hangars.

Lieut. Jacobs, Engineering Officer of the 17th Pursuit Squadron, examined the motor immediately after the forced landing and tentatively diagnosed the trouble as water in the gas freezing on the carburetor jets.

MASSACHUSETTS NATIONAL GUARD AIRMEN IN NEW QUARTERS

By the News Letter Correspondent



THE 26th Division Aviation, Massachusetts National Guard, is housed in its new building at the Boston Airport, having moved in officially during the dedication ceremonies the latter part of September. The new building is the finest structure of its kind to be found in the United States. Being a combination administration building and hangar, it houses all the activities of the Division Aviation under one roof. It is a modern, up-to-the-minute plant which reflects a great deal of credit on those whose initiative and planning resulted in its erection. A description of the building and its furnishings will be given in an early issue of the News Letter, but in the meantime every member of the Air Corps is cordially invited to visit Boston and inspect for himself the new building, and to partake of its many conveniences and facilities. A friendly welcome and, perhaps an initiation, await all who come this way.

The General Staff of the 26th Division, Mass. N.G., just completed the first semester of an Observers' School established by the Division Air Officer, Lt.-Col. L.E. Boutwell, for the purpose of familiarizing the officers of the Staff with the problems encountered in aerial observation, to demonstrate its scope and its limitations, and to provide sufficient training in that subject so that each Staff Officer could, if the occasion arose, be detailed to make an aerial reconnaissance himself. The results are considered excellent so far, and it is with a great deal of anticipation that the Staff looks forward to the resumption of the course when weather permits next Spring. The last problem - a puff target practice - was conducted in such windy, zero weather that the Staff was dubbed the "26th Division Frostbite Staff."

The foregoing is only one phase of liaison which this organization is conducting with the rest of the Division. Such missions as practice in communications involving the establishment of message pick-up stations and panel stations; defense against aircraft; contact missions, and so forth, have been conducted with other branches during the last training year. A long series of missions was conducted with the 101st Field Artillery, using the familiar puff targets, the rest of the procedure of fire control being simulated to the Queen's taste. The organization has also just completed making aerial photographs of every State Armory in the Commonwealth for the State Quartermaster's Department. This work has been carried on for two years, and now that it is completed the value of such work is apparent. As a training medium with definite results, it cannot be excelled, for every pilot and observer was engaged in getting photos of the 56 armories, approximately 250 aerial views being taken, from which the best ones were selected. The Executive Department of the State has used air transportation extensively.

Training is being kept up to a high standard, and every Saturday afternoon a scheduled training program is carried out. To the casual observer watching the functioning of one of these schedules, it creates the impression that these boys do this sort of work continually instead of weekly. There is a remarkable lack of fuss and excitement, the take-offs and landings of each mission being made on scheduled time to the minute. It has thus been possible to carry out such work as aerial gunnery on the edge of a busy harbor like Boston with no danger, the time of fire being accurately held under control. Our ground targets are located on one of the harbor islands, and the aerial range is flown between the mainland and the outermost lighthouse. Under these conditions it has been possible to qualify the following aerial gunners: Expert, Lieut. Howard Keith, 740; Sharpshooters, Lieuts. Allen Thompson, 655; Wilfred Ashworth, 639; Henry Harris, 631; Bradford Shaw, 627; George Kimball, 519; Marksmen, Lieuts. Frank Kendall, 486; Joe Ballard, 459; Don Flinn, 407.

All of these officers are observers, the pilots losing out on the completion of their fire. Two-way radio communication was developed to the extent that conversation between ships, and from ground to ship and back are now part of the weekly scheduled problems. On a recent night training flight to Hartford, Conn., the radio ships were heard as soon as they took off from Hartford for Boston, 90 miles away, but communication to the ships was not possible until the range was considerably shortened, due to broadcast interference, WGN at Chicago being the worst conflict on our wave. It will be a happy day when or if the Air Corps secures some radio equipment which will operate outside the broadcast band and in its own channel.

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BOMBARDMENT BOARD IN SESSION

A Bombardment Board, convened on November 1st at Wright Field, Dayton, Ohio, and sat through the remainder of that week, studying the relative merits of several types of Bombardment airplanes, both as to flying qualities and general usefulness to the Air Corps. Those comprising the Board were Lieut.-Col. J.H. Pirie and Capt. C.M. Cummings, Office of the Chief of the Air Corps; Major H.A. Dague and Lieut. C.W. O'Connor, Langley Field, Va.; Major Carl Spatz, J.T. McNarney and Lieut. C.H. Howard, March Field, Calif.; Lieut. K.N. Walker, Maxwell Field, Ala.; Capt. J.G. Taylor and Lieut. L.F. Harman, Wright Field, Ohio.

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HEAVY SNOWFALL PERMITS SKI FLYING AT SELFRIDGE FIELD

A snow storm in the middle of November, lasting almost 24 hours, gave Selfridge Field a blanket of snow over six inches deep. The winter continued cold during the following days, and at the time the News Letter Correspondent submitted this item he said that "the snow is still with us." Every squadron at the field had several of its ships equipped with skis, so that every pilot was able to get some time practicing landings and take-offs on this type of undercarriage.

"For many of those here, ski flying is a brand new experience," says the Selfridge Correspondent, "for it has been two years since enough snow has fallen here to enable planes to use this field for ski operations. If the weather of the past two weeks is any indication of the winter we will have, all squadrons here will probably have to fly exclusively with skis during mid-winter."

AIR CORPS LOSES FOUR OFFICERS

The Army Air Corps was rather hard hit in the matter of casualties among its commissioned personnel during the past few weeks. Two of its veteran officers, Captains Louis R. Knight and Asa J. Etheridge, died from natural causes, while two younger officers, 2nd Lieuts. Donald W. Armagost and Laddie J. Miller, the latter of the Air Reserve, were killed when, during the course of a blind flying training mission, the airplane dived into San Francisco Bay. According to press reports, eye witnesses stated that there was an explosion before the craft hit the water. The airplane was completely wrecked and recovered without the engine. Up to this writing, the bodies of the two officers had not been recovered. The telegraphic report on the accident states that the cause thereof is unknown and that a board of officers was appointed to investigate same.

Captain Knight succumbed to heart trouble. He had been suffering from high blood pressure for the past several years. A native of Brownwood, Texas, Captain Knight was born September 21, 1880. He served in the Spanish-American War as Private, Company K, 2nd Regiment Texas Infantry, from May 13, 1898, to November 9, 1898. Upon the entry of the United States in the World War, he attended the first Officers' Training Camp at Leon Springs, Texas; was commissioned Captain, Infantry Reserve Corps, August 15, 1917, and assigned to duty with the 159th Inf. (5th California) 40th Division, Camp Kearney, Calif. Shortly thereafter, he transferred to the Aviation Section, Signal Corps; served for a month at the School of Military Aeronautics, Atlanta, Ga., and was then transferred to Wilbur Wright Field, Ohio, February 16, 1918. For a brief period he commanded the 265th Aero Squadron, but upon the opening of the Armorers' School at this field, March 15, 1918, he was assigned as Adjutant thereof.

The efficient services Captain Knight rendered earned him a promotion to the rank of Major in September, 1918. On December 14, 1918, he was transferred to the Aviation Repair Depot, Montgomery, Ala., where he remained until April, 1920, when he was transferred to the Aviation Supply and Repair Depot, Rockwell Field, Calif. While at Wilbur Wright Field and at Taylor Field, Montgomery, he availed himself of every opportunity to perfect himself in flying, and on March 31, 1919, he passed the necessary tests and was rated a Reserve Military Aviator. He was appointed a Captain in the Regular Army, July 1, 1920.

Captain Knight's next assignment was at Langley Field, Va., where he graduated from the Air Corps Tactical School and also served at this institution as an instructor. In 1923 he was assigned to Boston, Mass., for duty as Air Officer of the First Corps Area. After a two-year tour of duty in the Philippines, where for one year he was in command of Kindley Field, he was transferred to Brooks Field, Texas, where he served for about five years until May, 1932, when he was again assigned to Boston, this time in command of the R.O.T.C. Unit of the Massachusetts Institute of Technology.

Captain Etheridge, who died in Honolulu from pneumonia following an appendicitis operation, was one of the real veterans in the Air Corps, being affiliated with Army aviation practically from its beginning. He was born September 6, 1875, at Columbia, N.C. Entering the military service in 1897, he served three years with the Coast Artillery Corps, three with the Army Service Corps at West Point, N.Y., six with the Signal Corps and six with the Aviation Section, Signal Corps, holding the grade of Master Signal Electrician at the time of his appointment as 1st Lieutenant, September 20, 1917. He served with the 1st Aero Squadron and saw service across the border during the Punitive Expedition into Mexico. His expertness in engines and airplanes enabled him to render invaluable service during this emergency.

On September 24, 1917, Captain Etheridge was assigned to duty at Scott Field, Ill., as Officer in Charge of the Engineering Department. He received his promotion to Captain on Feb. 19, 1918. In January, 1919, he was transferred to the Aviation Repair Depot at Indianapolis, Ind., served there for several months and then returned to Scott Field. In December of that year, he was assigned to duty at Brooks Field, Texas. He received appointment as 1st Lieutenant, Regular Army, July 1, 1920.

Completing the lighter-than-air course at the Balloon School at Ross Field Arcadia, Calif., and being rated Balloon Observer, March 27, 1922, Captain Etheridge was assigned to duty at Lee Hall, Va., and commanded the 22nd Balloon Company. Early in 1923, he was transferred to Langley Field, Va., and after several months' duty at that station was assigned to the Advanced Flying School, Kelly Field, Texas, where he completed the Special Observers' Course. He completed a tour of duty in Hawaii, served for several years at Selfridge Field, Mich., and was on a second tour of duty in Hawaii at the time of his death.

Lieut. Armagost, a native of Kansas, was born on March 7, 1905. He graduated from the U.S. Military Academy, West Point, N.Y., June, 1929, and assigned to the Cavalry. Detailed to the Air Corps, he commenced flying training with the October 15, 1929, class at March Field, Calif. He graduated from this school, also from the Advanced Flying School, Kelly Field, Texas, and rated Airplane Pilot and Airplane Observer, October 11, 1930. He had just completed a tour of duty in Hawaii and was transferred to Crissy Field, Calif., when the unfortunate accident terminated the career of this promising young officer.

Lieut. Miller was born at Colorado Springs, Colo., Sept. 21, 1902. He graduated from the University of Nevada, and attended the University of California for six months. Appointed a Flying Cadet, he commenced flying training at March Field on July 1, 1929, completing the course there as well as at the Advanced Flying School, Kelly Field. On June 21, 1930, he was commissioned a 2nd Lieut., Air Reserve, and rated Airplane Pilot and Airplane Observer. He completed a period of 16 months of active duty at Crissy Field, Calif., and at the time of the fatal accident was on two weeks' active duty at this field under his Reserve commission.

The Air Corps feels the loss of these officers very keenly, and extends its deepest sympathy to their bereaved families.

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Send in your contributions to the News Letter on the 1st and 15th of the month. Have not heard as yet from Barksdale Field and would appreciate Langley Field resuming its former newsy contributions. And what has happened at Mitchel Field and Maxwell Field?

(Barksdale Field came in just before we went to press,-- and some of the dope is included in this issue.)

PREPARING FOR ANOTHER INVASION OF THE ANTARCTIC REGIONS



low-wing all-metal monoplane circled Wright Field, Dayton, Ohio, on November 29th and came in for a landing. Closer inspection showed it to be a Northrup "Gamma," powered with a single Wasp motor, and both sides bore the legend in fuselage high letters - "Ellsworth Trans-Antarctic Flight." When it stopped, Messrs. Bernt Balchen and E.T. Allen climbed out. Both are well-known veteran flyers. The former is especially remembered for his connection with the Trans-Atlantic Flight of Admiral Richard E. Byrd in 1927, and later with Admiral Byrd's Expedition to the Antarctic regions. Mr. Allen was in the flying game for a long time, and when the Air Corps Engineering Division was located at McCook Field, Dayton, he was on duty there as civilian test pilot. He is at present connected with the Northrup Company.

According to the News Letter Correspondent from Wright Field, "they were flying the plane, they explained, from the Northrup plant, Fairbanks, California, to New York, where, about the first of the year, they expect to board ship for the Arctic regions. They will take the plane with them in order to give it a thorough testing and also to test various types of equipment in temperatures of 50 degrees below zero and colder. These tests are to be in preparation for an expedition into the Antarctic upon which they hope to embark in August, with Sir Hubert Wilkins in charge. During the expedition, Lincoln Ellsworth and Bernt Balchen in the "Gamma" will attempt a flight from Ross Sea across the polar region to Weddell Sea for the purpose of learning whether the two seas are connected and also to discover whether the high range of mountains crossing that region is a continuation of the Andes range.

The flight will necessarily be non-stop from their base across Ross Sea to Weddell Sea and back again, with no chance of a landing, a distance of 3,200 miles. Leaving in August, they hope to arrive at their base in October or November, which is the Antarctic summer season. Fully automatic cameras will record the terrain they fly over. The plane is at present also equipped with a two-way radio set - long and short wave, an aperiodic compass, a directional gyro and drift meter. Final decision as to instruments will be made as a result of the preparatory Arctic tests. After a short visit, the two pilots continued their flight eastward."

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NO DEARTH OF CANDIDATES AMONG MASSACHUSETTS NATIONAL GUARD AIRMEN FOR SEAT OF HONOR

"At a recent drill period," writes the News Letter Correspondent of the 26th Division Air Service, Massachusetts National Guard, Boston, "a prolonged discussion took place, replete with legal phraseology, between two of our talented members of the bar (law) with regard to the occupancy of the revered 'Seat of Honor.' It seems that the Assistant Operations Officer, Lieut. John Sherburne, felt that his photograph in the Seat was an act of discourtesy to the Division Air Officer, Lieut.-Col. Boutwell, inasmuch as his (John's) modus operandi of acquiring the honor was open and above board, being nothing less than colliding with a small object such as a hangar, or a truck, or something insignificant like that, whereas the Colonel had, by high rank and authority valiantly endeavored to hush up an incident involving the elimination of a boundary light on the Airport by trying to run it off the field with a BT-1, the effect being disastrous to the light as well as the propeller and radiator, the subsequent leak making it appear as if Boston Harbor had overflowed its banks. The result of the discussion was, of course, a change of photographs in the frame. The Colonel's one NO vote was, however, insufficient to overcome the other 24 YES votes in the Squadron, as is usually the case.

It is felt, however, that due credit for honor is oftentimes overlooked in awarding the occupancy of the Seat of Honor, and this Correspondent's memory recalls a number of instances worthy of mention which were not brought up for consideration in due course. There was the case of Lieut. Frank Otis who neglected to keep on flying after a message pick-up at the gunnery range. Then there is the case of Lieut. Crawford Hellidge who, returning from Boston with a few loose articles in the cockpit, was much chagrined at not finding them when he landed. But his chagrin was nothing compared to his embarrassment when the remains of said articles were presented to him by the searching party which saw them fall out of the ship as he looped before landing. In another case, it may be that the narrow escape was sufficient, but it is recalled that Capt. "Pop" Mather never adorned the Frame for his parachute episode when, while making a practice jump, he pulled the rip cord too soon, wrapping the chute over the tail surfaces of the ship, but getting free with nothing more than a few small rents in the chute. We never lack candidates for honor positions."

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SOUTH SEA INSECT INVADES RANDOLPH FIELD

Randolph Field was forced to fight off its first overseas invasion recently, the invader, from the South Sea Islands, being known as an earwig. One hedge was almost destroyed before the insect was found by the Landscape Intelligence Department. Investigation following the dying out of a hedge fell upon one Charles Brooks, enlisted man. Digging about the roots of the hedge he found eight vicious insects, who leaped into the air and appeared about to attack him. He used great discretion because of a pair of wicked bayonets worn on the insect's hindmost parts. All but one of the insects was completely destroyed. Doctors and others around the hospital called the bugs poisonous. The head of one was removed but he continued to show evidence of life for two days. After the signs of life had disappeared, Brooks placed the remains of the insect in a match box and took it to Col. M.L. Crimmins at the Witte Memorial Museum. Here it was identified. The two bayonets worn as a rear guard by the invader, according to Col. Crimmins, are poisonous but not deadly in most cases. The bayonets also act as poles for vaulting from the ground for a quick take-off, as the bugs are winged though they seem to live largely on roots and underground feed.

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A war to the finish is being fought at March Field, Riverside, Calif., with the attacking forces consisting of the invincible "flu" germs. The hospital is full and many victims are at bay in quarters. The medical officers, however, have the situation well in hand, and no serious cases have so far developed.

INCREASED PERSONNEL FOR ALBROOK FIELD

A sudden influx of 24 Air Corps officers into the Panama Canal Department gives Albrook Field, Canal Zone, a present strength of 38 Regular and Reserve officers with 8 more expected this December. With those assigned for quarters only, the strength of the post is now 50 officers, 531 enlisted men and 7 civilians.

At the present time, the 24th and 78th Pursuit Squadrons, the 44th Observation Squadron and the 30th Service Squadron garrison the field. The two Pursuit Squadrons are staggering along with six Pursuit ships apiece, "but rumor has it that we will have 20 P-12's by the first of the year," says the News Letter Correspondent. The work of the Pursuit Squadrons is further hampered by the lack of mud guards, as the Beings cannot be flown when the field is muddy. The 44th Observation squadron, with six ships available, is performing mostly cooperative missions with the numerous Infantry, Artillery and Engineering units on the Pacific side, both in the Canal Zone and in the interior. With the coming of maneuvers, the scope of cooperative missions will be greatly increased.

Albrook Field is in the tropics, but a combination of new type tropical construction in the buildings and quarters makes newcomers understand why the FBW old timers here keep plenty of blankets for the chilly night winds that come over the Continental Divide or in from the Pacific Ocean. Like all new posts, the buildings and equipment are available here at Albrook are modern and complete in every detail, and before leaving the States your Correspondent had heard of the open tropical construction, electric refrigerators, high dry closets and late autumn nights.

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THERE ARE CHICKENS AND CHICKENS

One afternoon recently, a Captain of the Air Corps Technical School, Chanute Field, Ill., startled his tranquil home and family with the disturbing announcement that he would go to the local railroad station to meet the "four thirty-two morning train from Chicago to "pick up a couple of good looking chickens." This officer, known to be the soul of propriety, was not seriously doubted, but it was admitted that his action was to be viewed with some concern. Nothing further was said, his good lady preferring to regard it as a joke or to live in any slight tantalizing doubt, rather than to ask further and to receive a straight statement of shocking confirmation. However, when before retiring, the officer set the alarm clock with special care and tested it for double assurance of its proper functioning, even solidly founded family faith received a shaking. In the dark early morning, under the dim watchful rays of Orion, the sky giant, overhead, the Captain waded through eight inches of snow to the garage and backed out the family car, driving away not only with the car but with the deepest misgivings of his loved ones left behind. He was observed to meet the train with an expectant smile in which, on close scrutiny, could be seen an element of hidden excitement and well concealed delight. After the train stopped the Captain, to the surprise of those few who were present, literally carried out his expressed intention, and actually did pick up two of the best looking chickens in Illinois, which were being returned home after winning two first prizes at a Chicago Poultry Show.

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COLLISION WITH HIGH TENSION POWER LINE PROVES FATAL

Lieut. Walter A. Oglesby of the 8th Attack Squadron, Fort Crockett, Texas, crashed into a high tension power line near the Seguin Road, about five miles from Randolph Field, on the afternoon of November 13th, and was killed instantly. On his way from Kelly Field, where he graduated last June, Lieut. Oglesby apparently was flying low when the wheels of his landing gear hit the wire, hurling the plane into the ground. The motor of the high powered Attack ship was thrown 40 feet from the remainder of the plane. The plane did not catch fire.

Lieut. Oglesby was on his way to Randolph Field, where he was to pick up Sgt. Jackson and return him to Fort Crockett, his home station. When the plane hit the high tension line, it cut two main line circuits between San Antonio and the power houses at New Braunfels, requiring a complete new hook-up to give the city electric power. A crew of Public Service men was sent to the scene to make repairs, this requiring several hours' work. Lieut. Oglesby, who was 23 years of age, is survived by his mother, Mrs. B.J. Oglesby, Charleston, S.C. He was graduated from the Citadel Military College of Charleston, S.C., in 1931, and played on the varsity football team.

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KITCHEN MECHANIC DECIDES TO BECOME AVIATION MECHANIC

The Secretary of the Air Corps Technical School, Chanute Field, Rantoul, Ill., daily has his sense of humor whetted by letters received from applicants for enlistment. One recently received from a native of South Dakota and addressed to the "Manager, Airways Technical Army School, Shanute Field, Rantoul, Ill.," reads as follows:

"Dear Sir:

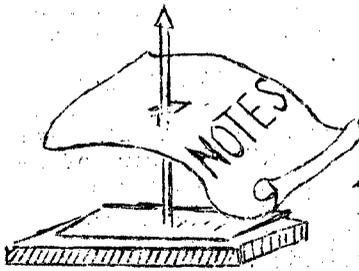
I've been reading about you in Popular Mechanics and I've had a scrap with the cld hellion I work wor and I'm tired of being a kitchen mechanic and have decided to become a Aviation Mechanic. I am a good girl twenty two years of age, weigh plenty and never get dizzy. So tell me when I'm to come to Rantoul, because I'm going to join the army or know the reason why

(Signed by the lady)

Note: She was delicately but definitely informed of the reason why.

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A large group of R.O.T.C. students from the Pasadena Junior College, Calif., paid a visit to March Field recently for the purpose of seeing the Air Corps in action. Under the direction of 2nd Lieut. Harry Crutcher, the visitors were given an opportunity to inspect the airplanes, shops, barracks, parachute department, hangars and supply departments, and to witness an aerial review and inspection conducted by the First Bombardment Wing.



from Air Corps Fields

26th Division Air Service, Mass. N.G., Boston Airport, Dec. 1st.

Like every other National Guard unit, we are greatly disturbed over rumors regarding the reduction of personnel, which will reflect disastrously on our morale. As everyone knows, the replacement problem for National Guard pilots and observers is very acute, and after spending years building up an efficient personnel it is discouraging to be faced with the possibility of a forced reduction. One of our rated JAO's, Lieut. Brad Shaw, is about to get a pilot's rating, and two other JAO's, Lieuts. Howard Keith and Frank Kendall, will undoubtedly receive their JAP shortly. Both the latter are commercial pilots.

Lieut. Don Flinn, JAO extraordinary, wrapped his car around a tree while grabbing a little shut-eye on the way home from drill period. Lt. Taylor of Indiana should consult Flinn on how to wreck a car without injury to himself.

The Squadron is very sad over the loss of our Instructor, Capt. George W. McEntire, A.C., whose recent illness proved so severe that he has retired from the service. Capt. McEntire made strong friendships while in Boston and was instrumental in the recent development of the Squadron to its present high standard. His pride and joy was watching the new hangar take shape, and we extend our sympathy to him since he will not be here with us to enjoy its comforts, which are so different from those which we provided when he first came to us.

San Antonio Air Depot, Duncan Field, Texas November 30th.

Major Thomas W. Blackburn, Commanding Officer, and Lieut. Meador, of the 36th Division Aviation, Texas National Guard, Houston, visited the Depot Nov. 26th to ferry back a repaired O-17 plane to that organization.

Other officers who visited here were Lieut. Lucas V. Beau, Jr., Air Corps Instructor of the Colorado National Guard, Denver, who ferried in an O2-H for inspection and repair; Lieut. Carlton F. Bond, of Pearson Field, Vancouver Barracks, Wash., to secure an O-19 to ferry back to that station; Lieut. Henry E. Wheeler, Air Reserve, of Mitchel Field, N.Y., for engine overhaul on his O-39 plane.

Sgt. Wm. J. Hagene, of the 1st Balloon Co., Fort Sill, Okla., just finished a two weeks' course here in Burroughs bookkeeping machine operation for Air Corps property accounting.

Duncan Field pilots ferrying overhauled or repaired planes to various destinations were: Lieut. Thomas E. Chapman to Maxwell Field, Ala., in an A-3B, returning by rail; Lieut. D.J. Ellinger in an O-19B to Rockwell Field, Calif., returning in an O-2E for Kelly Field; Lieut. A.Q. Mustoe to Rockwell Field, Calif., in an O-19B, then to Municipal Airport, Salt Lake City, Utah, by rail, to secure and ferry a BT-2A to Randolph Field.

Our hunters have been enthusiastically chasing wild deer and wilder turkey on the Duncan Field officers' hunting lease over in Medina County. Several turkeys were secured, but the only four-legged victim so far was a ten-point buck which fell to the gun of Lieut. Henry B. Fisher, son of Col. A.G. Fisher, our Commanding Officer.

Patterson Field, Fairfield, Ohio, December 2nd.

The following officers ferried airplanes to this station during the past two weeks for major overhaul: Lieuts. Rich and Davidson in P-12C's, and Landers in an A-3 from Maxwell Field, Ala.; Capt. Hamilton in a BT-2B from Chanute Field; Lieuts. McNeil in an O2-H from Roberts Field, Ala., and Aring in a P-16 from Selfridge Field.

Air Corps supplies were ferried to Selfridge Field by Master Sgt. Guile on Nov. 25th and 30th, by Lieut. McPike on Nov. 26th and by Lieut. P.W. Timberlake on Nov. 30th; to Chanute Field by Master Sgt. Guile on Nov. 23rd.

Major Anderson and Lieut. Nicol ferried two O-38B's to this station from Detroit, Mich., on Nov. 30th, for inspection. Lieut. Carpenter ferried an O-17 here from Stout Field, Ind., on Nov. 25th, for yearly inspection. The last named officer also ferried a BT-1 here on Nov. 29th for minor repair.

Lieut.-Col. Sneed left here Nov. 18th, ferrying an O-19B to Crissy Field, Calif., returning with a BT-2B to Selfridge Field, Mich.

Aviation flights were made by Lieut. Goodrich to Logan Field, Md., Nov. 23rd, and by Capt. Lewis to Burgess Field, Pa., on Nov. 17th.

A two days' furlough granted Lieut. R.L. Williamson enabled him to spend the Thanksgiving holidays with his family in Delphi, Indiana.

Air Corps Troops, Fort Sill, Okla., Nov. 28th.

All is quiet on the "Western Front." Flight "E" is occupied with routine work for the Field Artillery School, conducting observation for RSO's and demonstrations; giving orientation and adjustment flights to Field Artillery students and establishing themselves in the new hangar.

The transportation department of the First Balloon Company has been moved to Hangar #3, in order to make room for construction of new noncommissioned officers' quarters in the old area.

1933

"TIME FLIES AND SO DO WE."

IND. 113 N.G.

Stout Field, Ind.

Happy landings for 1933, and may you land at our field often. When you do you will find comfortable quarters ready for you, as we have accommodations at the field, including hot or cold shower baths, for four or five visiting pilots, and our own restaurant with home cooked food right on the field. The only charge will be for your food, and that will be very reasonable. We hope Air Corps pilots will look forward to stopping at our field while visiting Indianapolis.

We are happy to announce that 1st Lieut. Stanley G. Lafeber was promoted to Captain. He has been senior 1st Lieutenant for many years and well deserves his promotion.

The stork has just dropped in, and we have a new baby - a band. It cries and squawks just like any other baby, but we hope it will learn to talk good music young. If we only had a transport ship for the band, we could fly our formations to music.

Captain Guy H. Gale, Air Corps Instructor, is giving a series of lectures to the officers class on Mobilization Plans, Pursuit, Attack, Bombardment and Observation Aviation. The class has just completed two other lecture series on Radio and Photography by Lieut. Brown of the Communications Section and Lieut. Maxwell of the Photo Section.

On Sunday, Dec. 4th, one of our ships was utilized in conducting a simulated artillery shoot with the 139th Field Artillery and their ground station. The Observer worked from bursts plotted on photographs and made his corrections by locating these bursts on the ground.

The weather has been good to us, and as this is written we are still night flying each drill night. We're not the original night hawks, nor old bats, but we're learning.

Now to justify our cockey heading, - "Time Flies, and so do we." We should explain that our pilots hang around the field like vultures, ready to swoop down and devour any stray hour of flying time which may have escaped consumption. For 1932, we flew a total of 2,656:55 hours. Washington National Guard follows with 2,213:55 hours, Ohio with 2,148:45 hours and Alabama with 1,970:20 hours.

Chanute Field, Rantoul, Ill., December 6th.

Enlistments for Air Corps, Chanute Field, which were resumed on November 15th, after having been restricted since January of this year, have been progressing satisfactorily. The type of recruits obtained for the student body of the Air Corps Technical School, under the present system of selection for these enlistments, is exceptionally high, and no effort is spared to maintain the high standard for eligibility.

Recent aviation flights performed by Chanute Field officers to other points and return were: To Evansville, Ind.: Capt. A.G. Hamilton; to Kewanee, Ill.: Lt. E.J. Rogers; to Patterson Field, Ohio: Lt. W.K. Burgess; to Great Lakes, Ill.: Lt. E.H. Alexander and Capt. D.C. Ogle; to Indianapolis, Ind.: Lt. O.F. Carlson; to Kohler, Wis.: Lts. M.I. Carter and T.M. Bolen; to Wright Field, Ohio: Major L.W. Ballantyne, Capt. F.S. Borum, A.W. Murriner, E.G. Harper, W.C. Farnum, W.A. Hayward, C.E. Branshaw, T.M. Jervey, Lieuts. R.C. Wriston, J.L. Davidson - to Savanna, Ill.: Lts. F.E. Cheate, H.J. Flatequal - to Scott Field, Ill.: Capt. E.G. Harper, M.N. Stewart, A.W. Murriner; Lts. J.A. Bulger, L.R. Brownfield, C.G. Pearcey, R.O. Brownfield - To Chicago, Ill.: Capt. A.G. Hamilton, Lieuts. R.C. Wriston, A.J.K. Malone, C.D. Wheeler, D.M. Kilpatrick, J.F. Guillelt, R. Kyle, O.F. Carlson - to Springfield, Ill.: Capt. S.C. Skemp, Lt. F.E. Cheate - to Louisville, Ky.: Lieuts. C.G. Pearcey, F.E. Cheate - to Cleveland, Ohio: Lts. D.T. Mitchell, D.F. Meyer.

On Saturday evening, November 26th, the Noncommissioned Officers' Club of Chanute Field entertained at an invitational Hard Times Party, at which costumes of the season were worn. Approximately 100 couples attended the colorful affair, which was pronounced a brilliant success from all viewpoints.

Randolph Field, Texas, November 25th.

Col. David F. Wong, Chinese Air Force, was a recent visitor at the field and inspected the methods of flying training. He arrived in San Antonio on October 18th and, following his visit to Randolph Field, he proceeded to the Advanced Flying School at Kelly Field. Col. Wong has been traveling in the north and came to America recently on this trip from Nanking, China.

Sergeant Frank Brandstetter, Randolph Field soldier, was killed and three of his companions were injured, two seriously, as a result of an automobile accident at a railroad underpass near the field, October 31st. Two other companions of Brandstetter escaped injury. The automobile in which the six soldiers were riding overturned after it failed to negotiate a turn in the road and hurtled through a fence while traveling toward San Antonio. Pvt. Wyatt Bolin was the most seriously injured of the survivors. Another seriously injured was Sgt. Edward D. Coone, who is expected to recover. Pvt. Anthony F. Hampy was injured, but not seriously. Pvt. George F. Barko was scratched. All were members of the 67th Service Squadron. The sixth occu-

part of the automobile, Pvt. Charles E. Dean of the 53rd School Squadron, escaped injury. Sgt. Brandstetter, 42 years old, was almost instantly killed when he was pinned beneath the automobile. He sustained a fractured skull. He and Sgt. Coons were transferred recently to Randolph Field from Panama. He lived at 1014 Monroe Street, Chicago, Ill. His funeral was held on Nov. 4th at Porter-Loring Undertaking Establishment, San Antonio, and he was buried in the San Antonio National Cemetery.

Brig.-General Oscar Westover, Assistant to the Chief of the Air Corps, visited the field on October 31st, arriving in his own plane from March Field, Calif., and being accompanied by an enlisted mechanic. In addition to being an airplane pilot, General Westover is a balloon pilot. He piloted the U.S. Army balloon in the International Race at Geneva, Switzerland, in 1922, and had a fair chance of winning that race had not his balloon been pulled from the air by peasants at Cznotnek, near St. Gotthard, Hungary.

Recent visitors at Randolph Field were General B.D. Foulois and Capt. A.B. McDaniel from Washington, D.C.; Major Woolford and Lt. Corliss, M.C.; Lts. B.S. Kelsey, M.G. Lee, J.A. Allison from Barksdale Field, La.; Lt. J.A. Wheeler, Fort Crockett; Major J.T. McNarney and Lt. Charles H. Howard, March Field; Lts. Bryant L. Boatner and S.P. Wright, Selfridge Field; Major Eaton and Lt. Talbot, Salt Lake City, Utah; Lt. E.E. Wheeler, Mitchel Field; Lt. Roy W. Camblin, Hatbox Field, Muskogee, Okla.; Major A.N. Krogstad and Capt. E.J. House, Bolling Field, D.C.

March Field, Riverside, Calif., December 5th.

Commander Paolo Shernadori, Naval Air Attache of the Italian Embassy, Washington, and R. Dolla Rosa, Italian Vice-Consul at Los Angeles, were guests of the Commanding Officer of March Field on Nov. 18th. Arriving by plane from Los Angeles, the distinguished guests were met by Col. Arnold and his staff and conducted around the activities of the Field on a tour of inspection, returning the same day by air to Los Angeles. As a representative of Italy's extensive fighting forces, Commander Shernadori was much interested in March Field, and upon the conclusion of his visit he complimented Col. Arnold and his officers on the air base.

Capt. Vernon L. Burge, a recent arrival from the Philippines, was appointed Assistant Post Operations Officer.

Lieut. and Mrs. Joe L. Loutzenheiser are the proud parents of a son, born November 25th.

The latter part of November, 2nd Lieut. Wm. G. Ditzen, 11th Squadron, took the leap in the dark with Miss Ellen Kaestner of Hollywood, Calif. They will be at home at 3211 Main St., Riverside. Lieut. and Mrs. Ditzen were classmates at the University of Calif., Los Angeles.

Major C.L. Tinker, accompanied by 2nd Lieuts. D.D. Graves and E.W. Anderson, departed early in December for Rockwell Field, where they obtained three P-12's to be ferried to Panama. The three officers flew to San Antonio, where they joined the main flight commanded by Lieut.-Col. John H. Pirie, and which included Bombardment, Pursuit and Amphibian planes, also headed for Panama. The flight was to proceed through Mexico, the Bombers being led by Col. Pirie, and the Pursuit planes by Major Tinker. The officers are scheduled to return to their home stations by Army transports from Panama.

The Post Baseball Team played Hemet, Calif., here on the afternoon of Nov. 27th. Several more games are scheduled before the close of the season. There is considerable tennis activity at the post, both among the officers and ladies, and tournaments are in prospect.

Selfridge Field, Mt. Clemens, Mich., November 22nd.

A large proportion of officers at Selfridge Field listened to and obeyed the call of the wild this year. Duck hunting has had its devotees, several trips having been made in the last couple of weeks to places north of here on the shores of Lake Huron, where the duck hunting was reported good. Most of the Nimrods at Selfridge, however, spent their spare leave and cash on deer hunting expeditions. In fact, the day that the deer season opened, such a large number of well armed but roughly dressed characters were to be seen driving by automobile away from Selfridge toward the north country that one would be led to suppose that a bandit army had gone on the warpath.

But it wasn't a bandit army. It was just Major Gilkeson, Captain Hoyt, Lieuts. McCormick, McGuire, Maxwell, Lelay et al., out to fill the family larders with deer meat to tide over the long winter to come. To date, the only one of the expedition to return is Captain Hoyt, who is now regaling the stay-at-homes with tales to rival those of Paul Bunyan. It seems that the Captain had to use will power and self control to keep from completely wiping out the deer population of northern Michigan. He had some strange power which caused the deer to walk up to him and ask to be taken home to the ice box. He finally shot himself a beautiful eight point buck, and helped two others in his party to fill their quota. "The one that got away" was a ten point buck, according to the Captain's story. It is strongly suspected in these parts that the Captain returned before his comrades so that he could have the enjoyment of reciting his adventures without interruption from the other members of the expedition.

Wright Field, Dayton, Ohio., December 2nd.

Several plane loads of officer students of the Air Corps Engineering School flew to Cleveland recently to visit, in line with their courses, various manufacturing plants there.

Mr. R.K. Stout of the Equipment Branch was on ten days' temporary duty at Langley Field, installing Type A-11 compasses in airplanes at that station.

Major-General Blanton Winship, Judge Advocate General's Department, recently visited the field and was the guest of General Pratt.

Major E.B. Lyon, General Staff Corps, returned to Washington after spending several days at the Division studying the Air Corps Supply System as carried out by the Field Service Sec.

Captains D.L. Reeves and H.R. Wells attended the dedication of the Wright Memorial at Kitty Hawk, N.C.

Lieut. D.W. Watkins flew to Buffalo on Nov. 28th to inspect the cooling system of the Y1P-25 airplane at the plant of the Consolidated Company. He also visited the plant of the Curtiss Company to inspect the cooling system on the XP-6F plane. -- Lieut. F.D. Klein flew to Detroit, Boston, Hyde Park, Mass., and Newark, N.J., to inspect various types of air conditioning apparatus. -- Brig.-General H.C. Pratt attended the meeting of the N.A.C.A., held in Washington the latter part of October. -- Lieut. F.H. Vanderwerker, Judge Advocate General's Department, Washington, spent several days at the Materiel Division in conference with the Legal Section.

Nichols Field, Rizal, P.I., November 2nd.

Nichols Field is noted for its enthusiasm over athletic sports. Notwithstanding certain climatic disadvantages and the natural inclination of people who live in this country to enjoy their little "siesta" in the afternoons, the majority of our men prefer to get out in the open air for exercise and recreation. The fellow who cannot show a healthy "tan" is just out of luck. Of course, we have movies several times a week and other forms of amusement, but nothing seems to take the place of outdoor sports on this Field. Outside of football, we have every form of sport, and it is just up to the man as to what he wants to do to amuse himself.

At the present time plans are being perfected for the baseball season. The diamond is about ready, teams are organized and the opening game will be played within the next few days. A new swimming pool was built last year, and it has been highly appreciated by the entire personnel of the Field. With the completion of a new tennis court by the 2nd Observation Squadron, there is now a tennis court for the men of every organization. There has been renewed interest in golf. Last month over 600 rounds were played on our nine hole course. In this country, golf is not regarded as an "old man's" or "rich man's" game. The men play "rain or shine" and for some time they have played most of the time in the rain. Bowling is perhaps the most popular sport of all games and is one form of sport in which Nichols Field excels, as will be seen by the reports given below.

There is a great deal of genuine enthusiasm over the Department Athletic Meet to be held at Fort William McKinley during December. Last year we won the swimming meet, and we have a good team getting ready to win again. This team is being coached by Private Howard Stewart, 66th Service Squadron. Under his efficient leadership the men are improving their strokes and are full of confidence. The track and field teams are being trained by Lieut. August Kissner, remembered by his classmates at West Point for his records in the mile and two-mile events. Private Boudreaux, 66th Service Squadron, is handling the boxers, and reports the boys are working hard and that he has a "fine stable of fighters."

The Officers' Indoor Baseball team was recently organized and has played with a number of very strong teams, representing practically every post in the Islands. They have won more games than they have lost, and are growing stronger than ever. Not to be outdone by their husbands, the officers' wives organized a Volley Ball team and play twice a week. They are ready for competition, but up to the present time none has been offered.

Our Ten Pin Bowling Team just completed a very successful season. Not satisfied with winning the Department Championship, these "Pin Crashers" entered the Manila Bowling Association Tournament and thoroughly whipped the best teams, both Army and civilian, on the Island of Luzon. They won 34 of the 42 games played, scored 1051 as high team game and 2924 for high team set. Preston H. Kephart, John J. Stibal and Oscar E. Swanson led in high single averages with respective marks of 186.1, 185.8 and 183.3. Kephart and Swanson are members of the 66th Service Squadron and Stibal of the Hqs. Detachment. The Inter-Squadron Bowling Tournament was also held, the honors going to the 66th Service Squadron, after a final and desperate struggle with the 2nd Observation Squadron. The outstanding players on the 66th team were Swanson and Kephart, two of the best players on the Islands. The 66th won 19 and lost 5, for an average of .792; 2nd Obs. Sqn., won 9, lost 12, average .429; 28th Bomb. Sqn., won 8, lost 13, average .381; Hqs. Detachment, won 9, lost 15, average .375. Swanson scored high single game (247) and high set (635). The 66th Service Squadron scored high team single (971) and high team triple (2692).

Our Basketball Team was not so successful this year. In the opening games we succeeded in beating several very strong teams in the League, and had every reason to believe we would finish at the top. Under the capable coaching of Lieut. Dodson, the team worked well and faithfully. The loss of several good players, bad breaks and a combination of difficulties blasted our hopes, and for us the season ended in gloom. However, the men are not discouraged and simply say: "Watch our step next year." Everything considered, we have reasons for great pride in our record in the Field of Sports. While many of the old timers have returned to the states, new men are coming in to take their places and the good work will go on unchecked by these losses.

2nd Observation Squadron: The USAF REPUBLIC arrived in the Philippine Department on October 15th, bringing 1st Lieut. Joseph C. Denniston, 2nd Lieut. August W. Kissner, Master Sgts. Hugh Inman, James A. Lee, Staff Sgts. Reuben S. Beckham, Louis E. Gagnon and Sergeant James E. Ellis for assignment to this organization. Returning to the States on this Transport from the 2nd Sqn. were Master Sgt. Ward H. Rice, Staff Sgts. Ralph Colby, Edward J. Tuite. Sergeants Rice and Tuite were sick in hospital for some time and were returned to the Letterman General Hospital for treatment.

23th Bombardment Squadron: The following officers are assigned to this organization: Captain E.C. Black, Commanding Officer; Lieuts. L.L. Beery, Operations; J. Greer, Adjutant and Athletic Officer; E.S. Davis, Armament; O.L. Beal, Communications; A.F. Glenn, Assistant Adjutant; E.E. Engler, Engineering; R.D. Reeve, Assistant Armament; D.R. Gibbs, Supply and Mess; T.C. Odum, Assistant Operations. Attached to the organization for training are Majors J.B. Brooks, D.B. Netherwood, Captains J.C. Whitesides, E.P. Gaines, Lieuts. J.H. McCormick, W.T. Colman, A.K. Dodson and W.H. Agee.

Due to the fact that we have had a mild rainy season, we were able to continue our training program with very few interruptions by bad weather. Missions carried out in the past two months included interplane and ground telephone communications which were very successful, also routine formation of all types. Preliminary gunnery and bombing for all officers leaving on the December Transport was completed, and as the 2nd Obs. Squadron is using the gunnery range at present, we will not be able to continue until after the first of the year.

Gunnery on towed targets is carried out in Manila Bay, approximately 15 to 20 miles out, on account of the many fishing vessels. So far we have had no complaints about shooting, ruining the fishing or sinking any boats.

Camera obscura was started in preparation for the bombing season. This includes a minimum of four hours training for each pilot and Bomber. Inter phone communication between ships and ground is used, and results of each pass are phoned to the Bomber so that actually bombing may be simulated as nearly as possible. We have not had any gun camera missions lately, probably due to the fact that we cannot get the Pursuit to come close enough to shoot at. Camera gun missions in the past have shown 15 hits credited to the Bombers for every hit the Pursuit have made. We do not know whether it is poor shooting on their part or whether our radio antennae really do bother them, as they claim, which is their excuse for not coming closer. The

radio antennae are 150 feet long.

Lieut. Greer leaves on the December boat for the States, reporting for duty at Barksdale Field. "Jack" is worrying about the golf situation at Shreveport. Somebody told him they didn't have any golf course there, and he can't find anybody who has the right dope.

Lieuts. Beery and Glenn arrived on the October Transport and have been orienting themselves as far as our few landing fields are concerned. Lieut. Beery has been somewhat worried because the QMC forgot to load his personal belongings on the boat in New York City.

Captain Black, our popular Commanding Officer, has received an extension to the March boat, making three years' service in Manila. "Red" says he would like to stay until the Filipinos get their independence.

Sgt. Hagen was transferred to Clark Field to take over the Supply Sergeant's job. Staff Sgt. Kingman arrived from Chanute Field, Oct. 15th, to replace Staff Sgt. Bulloch.

Inter-Squadron baseball starts in a few days and, as usual, we expect to win the pennant.

6th Photo Section: The following photographic work was accomplished by this organization during the past few months: a. Reconnaissance strip of area near Fort Stotsenburg for Commanding General, Philippine Division; b. Mosaic of Fort Stotsenburg and vicinity for Commanding General, Fort Stotsenburg; c. Road strip from Olongapo to Dinalupihan for Commanding General, Harbor Defenses of Manila and Subic Bays, P.I.; d. Road strip from Bagbag to Reina Mercedes for Bureau of Public Works; e. 600 square miles Balor Bay for Department Engineers.

Clark Field, Pampanga, P.I., Sept. 21st.

The Third Pursuit Squadron expects replacements on the October boat for the three pilots who were lost to the organization - Lieuts. Harper and Hawkins who sailed for home last week, and Lieut. Sanborn who was killed in June. At the present time the dope is that Major Brower, Capt. Rivers and Lieut. Douthitt will arrive in our midst shortly. Major Brower will relieve Capt. Hewitt, who has been commanding for the past five months. Although he will no longer be commanding, Capt. Hewitt will be here for another nine months to see the outcome of all the excellent work he has initiated during his tour as Commanding Officer. Under his direction, the Squadron has made great progress, and we are glad he is able to see the Squadron put into operation the principles which he has laid down and drilled into us. Our new members will be very welcome and will undoubtedly add to the spirit of friendliness and co-operation that has so marked the Squadron.

The officers of this Squadron were challenged to an indoor baseball game with the 24th F.A. and 26th Cavalry. Regular and frequent practice is conducted with the hope of being in shape to bring home the honors with the same regularity as was shown throughout the bowling tournament.

The enlisted men's bowling team in the Dept. League lost two games to Nichols Field by close margins, putting them in second place. However, they are not the type that gives up and we still have confidence of their regaining first place. After battling for six weeks, the Inter-Squadron Bowling League came to a close Sept. 8th. The "Headpins" were honored with the victory and also with a chicken supper. Quite an interest was taken among the members of this Squadron, and the Tournament was successful in bringing to life several prospects for the regular team for the coming year. Each member of this League experienced a great handicap in overcoming the razzing by the spectators. The winning team was composed of Lt. Fisher, Sgts. Moran, Roberts, Privates Oesterreich and Cobb.

Indoor baseball (played outdoors) suddenly reached epidemic form at Clark Field. After our bowling tournaments and golf tournaments, we were just settling down to enjoy a period of regular siestas when baseball arrived. To date the team, which is composed of all of the officers on the field, has one victory over the 26th Cavalry, 3-2; one from the enlisted men's team, 20-16, when we quit counting, (and there were some reports the counting had gone faster than the baseball game), and one defeat at the hands of Nichols Field, 11-6. This last was quite a riot. The first four innings were all right, but then about an inch of rain fell. Nothing daunted, our heroes went back and finished the job, splashing around in several inches of water. We were sure the wet grounds caused our defeat. Nichols Field still can't see that, so next week we journey down to Manila to prove it. The line-up: Catcher, Henry (imported especially from the Cooks and Bakers' School); Pitcher, Goss; 1st Base, Sutton; 2nd Base, Taylor; 3rd Base, DuBose; R. Short Stop, Hewitt; L. Shortstop, Fisher; Left Field, Old; Center Field, Peak; Right Field, Springer.

66th Service Squadron, Nichols Field, P.I.: Capt. V.L. Burge departed October 12th for his new station, Wright Field, Dayton, Ohio. He will join his family, at present visiting China, and will board the Transport at Taku Bar, China, on or about October 28th.

Capt. John G. Whitesides assumed command of the 66th on October 12th. He is no stranger to the organization, having been Commanding Officer of the Philippine Air Depot some years ago.

Among the new arrivals on the USAT REPUBLIC to be assigned to this Squadron were 1st Lt. Wm. E. Baker; 1st Sgt. F.E. Hartman, Staff Sgts. Norris, Johnson, Quinn, Sgts. Glenn, Schwager, Fvts. Arthur, Bennett, DeVilbiss and Snyder. We are glad to welcome these newcomers into our midst, and trust their tour in the Islands will be a pleasant one.

Luke Field, T.H., November, 1932.

72nd Bombardment Squadron: Training of this organization for October consisted of camera obscura - 5,000 and 8,000 feet; aerial bombing, high altitude formation flying, day and night; employment and tactics; simulated bombing of objective; aviation (flight and individual). Radio communications were used on approximately 40% of the missions and no failures due to personnel or mechanical error.

Test or performance flights were made with B-5A's assigned to this Squadron as to their ability to maintain altitude with one engine. This test was made with planes equipped with two and three-blade propellers. On planes equipped with two-blade propellers, loss of altitude was from 200 to 300 feet per minute. Maneuverability was greatly reduced, but flying on a straight course was possible. These tests were made with one engine running at idling speed and the other engine at normal speed. Test made with planes equipped with three-blade propellers averaged about 50 feet less loss of altitude than two-blade propellers.

50th Observation Squadron: The Squadron spent most of the time completing the required instrument flying course. Each pilot is required to have a minimum of seven hours under the hood. -- Staff Sgts. Laird and Andresse left on the USAT "Grant" on Oct. 4th for their new stations, Kelly and March Fields, respectively.

11th Photo Section: Usual photographic work was carried out during October, making

record time on all photographic work undertaken.

In connection with a problem in camouflage on Oct. 28th, a special test was conducted to determine the time required to deliver a fully developed photograph for interpretation to the Group Operations Officer. On this particular problem, the total time between the arrival of the photo plane and the delivery of the photographs to Group Operations Office was less than 20 minutes.

Private Charles E. Hawkins, formerly of the U.S. Marine Corps, a graduate of the Photographic School at Chanute Field, Rantoul, Ill., is a new member of this organization, being attached awaiting assignment to organization when time permits. Private Hawkins came to this Section from Company "K," 35th Infantry, Schofield Barracks, T.H.

65th Service Squadron: On October 22nd, the 65th Squadron Sikorsky flew from Luke Field to Homestead Field, Molokai, and returned the same day. Lieut. Benj. T. Starkey of the Hawaiian Air Depot, was in charge of the flight. The passengers were Messrs. Charles Miller, of the Depot, and Manuel Serpa, contractor's representative. The flight was made in order to survey and definitely locate the boundaries of the Air Corps field on Molokai and to locate a source of supply for procuring sand and gravel to be used in construction work.

Patterson Field, Fairfield, Ohio, Dec. 19th.

In memory of her late husband, Captain Fred E. Woodward, Mrs. Woodward has donated to the Wilbur Wright Officers' Club a trophy, to be known as the "Woodward Trophy," and to be competed for annually under the rules promulgated by the Squash Committee of the Club. The Club has accepted this Trophy, and the Squash Committee is now formulating rules for this competition. This Trophy comes at a very opportune time, in that great interest is being shown in Squash, and there was no trophy to be competed for in the past.

At the annual election of officers for the Wilbur Wright Welfare Association, R.D. Penland was elected President; R.J. Schommer, Vice President, and Bruce T. Mace, Secretary-Treasurer. This Association has been very active during the past year and accomplished a great deal toward the social betterment of the civilian employees. Entertainments were given in the Post Gymnasium on Feb. 18th and March 10th; Hick and Hayseed Party on April 21st; Annual Picnic on June 25th, and a Halloween Party on October 27th. Arrangements are now being made for the annual Xmas Party which will be given in the Gymnasium on the evening of Dec. 22nd.

Supplies to various stations were ferried by personnel of this Depot, as follows: By Mr. Sergeant Cecil B. Guile to Chanute Field, Dec. 2nd; to Lunken Airport, Ohio, Dec. 3rd; to Selfridge Field, Mich., on Dec. 5th, 8th and 9th - By Lieut. G.V. McPike to Maxwell Field, Ala. on Dec. 15th.

Aviation training flights were made by Lieut. F.L. Zeigler to Selfridge Field, Mich., on December 2nd; by Lieut. P.W. Timberlake, accompanied by Corp. Houser, to Selfridge Field, on Dec. 14th; by Lieut. R.L. Williamson to Bolling Field, D.C., Dec. 8th, returning on the 15th; by Capt. H.W. Flickinger to Selfridge Field on December 8th.

During the past several months the activities of the local Post Exchange were considerably curtailed. Due to the recent Act of Congress and ruling of the War Department, there were great doubts as to whether the Exchange could continue to function under these regulations. Happily, it was found that after effecting all the economies possible in the operation, we will be able to continue this activity.

During November a total of 20 airplanes and 34 engines were given major overhauls, and 15 airplanes and 39 engines, minor overhauls.

Planes were ferried to the Depot for major overhaul during the past two weeks, as follows: From Selfridge Field, Lieut. Doubleday, a P-3E, Dec. 5th; Lieut. Dum, a P-16, Lieut. Warburton a P-16, Dec. 5th; Lieut. Schlanser a P-16, Dec. 8th; Lieut. Warburton, a P-16, Dec. 12th - From Chanute Field, Ill., Capt. Hamilton an O-25A from Chanute Field, Dec. 3rd; Lieut. Davidson a BT-2B, Dec. 8th - St. Paul, Minn., Capt. Palmer an O-38, Dec. 1st - Birmingham, Ala., Lieut. McNeil an O2-H, Dec. 1st - Maxwell Field, Ala., Lieut. Hansell a P-12C, Dec. 3rd - Detroit, Lieuts. Wilson and Katzman, two O-38's, Dec. 6th - Wright Field, Capt. Moffat an O-25C, Dec. 7th - Little Rock, Ark., Lieut. Horn an O2-H, Dec. 12th.

Following is the present status of work for buildings under Newport Contracting & Engineering Company, Inc.'s contract, as of Dec. 15th: Hangar "A" and Administration Bldg., each 70% complete; Hangar "B," 94% complete; Oil Reclamation Bldg., 95% complete; total contract, 82% complete.

San Antonio Air Depot, Duncan Field, Texas, Dec. 14th:

Lieut.-Cols. J.E. Chaney and J.H. Pirie, of the Office of the Chief of the Air Corps, now at Kelly Field in connection with the approaching flight of 17 planes being assembled at that station for ferrying to the Panama Canal Department on December 18th, have afforded their old friends at this Depot the pleasure of visits during the past few days. Col. Chaney was formerly in command of Kelly Field, and Col. Pirie commanded this Depot a few years ago. The Depot is busy making necessary inspections, engine changes, etc., on these planes (2 Bombers, 12 Pursuit, 1 Transport and 2 Observation planes) which will constitute the largest flight yet made to the Canal Zone, and will be commanded by Col. Pirie.

Among the officers attending the monthly Control Area Supply and Engineering conference and luncheon held at this Depot on Dec. 6th were Capts. E.M. Morris and Alfred Lindeburg from Fort Crockett, Capt. J.P. Temple and Lieut. D.N. Motherwell from Barksdale Field, La.

During November, the Engineering Dept. overhauled 33 airplanes and repaired 28 of all types (except Photo) and overhauled 55 engines and repaired 36 of various models.

77th Pursuit Sq., Barksdale Field, La.

O.K. America! This is the first official broadcast and bombast of the rumor chaser, scandal searcher, and fact compiler of the 77th Pursuit Squadron, Barksdale down in Dixie. No scandal, no rumors, and a few facts - that is our only offering. But be not discouraged - rumors will develop.

As our Bronx friends might remark: "Wot a joint - wot a joint!" Everything on the post is ultra modern, with facilities for every possible activity. The change has been somewhat of a shock - but something like the shock of falling heir to a million overnight. The men in the squadron feel the change very keenly. Anticipating the formation of a labor battalion to construct this field as they Reconstructed Mather, they were joyously disappointed. Barracks quarters leave nothing to be desired and the day room equipment, already ordered by Lieut. Hopkins, will make things complete. Even very swank poker tables are included.

New officers, recent graduates of The Advanced Flying School, reported for duty this month, and are now well in the swing of things. New regular officers assigned and attached to the 77th Squadron are Lieuts. Carlson, Kunish, Kerwin, and Moore. New reserve officers assigned and attached are Lieuts. Caldara, Darnell, Eisenmann, and Gebelin. Squadron duties have been assigned to each of these officers.

Operations Office is doing things. New blackboards, bulletin boards, and railing have been installed, not to mention a very neat time chart designed and executed by Lieut. Holtzen. Benches have been placed in the pilot's room - a few howls for upholstery have been heard but after all, a straight chair makes for a straight back(!)

General Foulis paid the post a brief visit recently and evinced his interest in group flights. Hence a group flight to Fort Crockett the 26th of November. Hope the mosquitoes down there aren't so ardent as they were last summer.

The 77th Squadron celebrated its 2nd Birthday, November 15th. Necessary work prevented the usual celebration but the officers and men did enjoy dinner together. A few brief speeches, with a couple of quotations from the squadron history, completed the dinner, and the 77th began its third year as an organization. May the third year be as successful as the first and second.

55th Pursuit Squadron: The manifold difficulties involved in moving to and settling at a new station are slowly being surmounted. The squadron along with the rest of the 20th Pursuit Group is beginning to call Barksdale Field "Home".

Among the new Pilots from the October class of the Advanced Flying School assigned to the squadron are Lieuts. R.M. Lee, G.A. Blake, D.N. Motherwell, H.K. Mooney, and D.C. Strother. New Reserve Officers assigned are Lieuts. M.F. Cooper and R.F. Vavrina.

Our recent problem with the Attack Group from Fort Crockett has furnished fine material for many arguments. Both sides are confident that they can furnish the answer as to who "Won the War". Incidentally, there is no argument about the fine way that the officers of Ft. Crockett treated us during our stay there.

A month's flying training with our new pilot personnel shows the Squadron beginning to function as a unit. The Squadron organization includes: Lieutenant C.E. Crumrine, Squadron Commander and Group Operations Officer; Lieutenant J.A. Ellison, Squadron Operations; Lieutenant Sory Smith, Squadron Engineering Officer; and Lieutenant G.A. Blake, Squadron Adjutant and Supply Officer.

18th Pursuit Group, Wheeler Field, T.H.

6th Pursuit Squadron: The Sixth Squadron bade Aloha to Lieut. D.W. Armagost. We all hated to see him go and we wished him much luck at his new post. Lieut. Armagost transferred from Luke Field and took up Pursuit work in which he made an excellent showing. The news of his death at Crissy Field, Calif., came as a shock to his former Squadron mates.

This squadron participated in a Division Review held on Navy Day. We passed in review once by elements in single ship echelon. After passing in review the word "NAVY" was formed over the review field, the Sixth Squadron formed the "N" and "A" while the 19th constituted "V" and "Y".

We are in the middle of our record bombing and some excellent scores have been turned in. There are no scores below 190 and the high score is 231, made by Lieut. F.W. Smith, Air Res.

19th Pursuit Squadron: During the last month the 19th Pursuit Squadron engaged in Employment and Tactics Missions, completed aerial gunnery record courses, and participated in high altitude flights. In Employment and Tactics the 19th has successfully cooperated with the 6th Pursuit Squadron and the 26th Attack Squadron in Assembly Problems, combat missions, and defense patrols along the Coast of Oahu. The results obtained by the 19th on these missions have been gratifying to all concerned.

26th Attack Squadron: Two new members of the 26th are Second Lieutenants Robert L. Easton and Charles F. Densford, who arrived in the Hawaiian Department on board the November 4th transport; Lieutenant Easton comes to us from Chanute Field, where he had completed the Maintenance Engineering Course; Lieutenant Densford has just won his wings at Kelly Field. The Squadron bids them a hearty welcome and wishes them an enjoyable tour in the islands.

75th Service Squadron: On October 25th, 1932, the 75th Service Squadron moved into their barracks. The buildings have been under construction for the past year and are located about a quarter of a mile from the old barracks toward Schofield. The barracks building is three stories high, with offices, mess and supplies on the first floor and squadrons on the second and third floors.

Headquarters Fifth Composite Wing, Luke Field, T.H.:

Personnel: The command was strengthened during the month by the arrival of six Air Reserve officers, Second Lieutenants William L. Combest, George A. Doole, Jr., James B. Ducrest, Jephtha W. Fator, and Stuart E. Rutherford, recent graduates of the Advanced Flying School, and Second Lieutenant Herbert C. Chambers, Jr., Air Res., transferred from Wheeler Field.

Major Harlan J. Ballentine, our new Chaplain and First Lieutenant Junius P. Smith, Flight Surgeon, arrived on the "St. Mihiel" November 4th.

Of course, we must have a few losses in the course of time and we bade "Aloha" to Captain Joseph W. Benson, Air Corps, and Capt. Frank L. Miller, our Chaplain of the past year and Captain William H. Lawton, Medical Corps. This was Capt. Benson's second tour of duty here and we would not be surprised to see him returning again at the first opportunity. This land of sunshine is not so bad, eh, Captain?

Training and Operations: Our training was hampered to a certain extent during November due to heavy rains but by utilizing the afternoons of the remaining good days we were able to carry out quite an extensive program, though not quite the schedule we had planned. Training for the Bombardment Squadrons consisted of Formation, Avigation (flight and individual), Employment and Tactics, Aerial Gunnery and Bombing and Performance flights.

Training for Observation units consisted of Aerial Gunnery and Low Altitude Bombing, Photography, Infantry Missions (Simulated) Avigation (flight and individual), Formation, Reconnaissance (day and night), Combat Maneuvers and Night Avigation.

Five Inter-Island flights were made during the month, all for the purpose of inspection and repair of Air Corps equipment on the flying fields on Kauai, Molokai, and Hawaii. A detail of sixteen men with Lieutenant Harold W. Grant in charge, flew to Upolu Point, Hawaii, and spent ten days on detached service there, grading the flying field, painting the towers and installing new antenna and counterpoise system.

The Luke Field Post Schools got under way the first of the month with a total enrollment of one hundred and twenty-five students in all courses. Courses are offered in radio operation and maintenance, aircraft armament, Aviation engines and mechanics, typing and stenography and Primary and Advanced Education. The instructors of the vocational classes of last year are again on the job and in this we are very fortunate as all of these men have had years of experience in their respective work, and their record last year indicates that they not only have a keen knowledge of their subjects but they know how to impart it to others. The radio class has attained an average speed of approximately eleven words per minute.

Athletics: The Post Basket Ball Team under the able tutelage of Lieut. Don Z. Zimmerman, is working hard now and with practically all of last year's Department Champions again on the roster we are expecting to repeat this year. Only two games have been played so far, resulting in victories for Luke Field over the 11th Field Artillery of Schofield Barracks, and the Palama Athletic Club of Honolulu. We hope the boys get a trip to the mainland to tackle the strong service teams on the Coast this year. We believe they deserve it for they are certainly a hard working aggregation.

The 50th Squadron in the Senior Volley Ball League has practically clinched the bunting by defeating the 4th Squadron in two straight games, 15 to 8 and 15 to 4. The key man on the 50th Squadron team is Corporal "Hub" Farris, who is tall enough to reach from here to there and when he is around the net there is no fun in it for the other team. There "oughta" be a law about growing men like that.

The Staff team with a fast clever team is leading the Junior Circuit with no losses.

Wheeler Field defeated Luke Field in a Golf Tournament for the Air Corps Championship of Hawaii on the 25th. Sergeant Hunt's long driving and Sergeant Higbie's consistently good golf payed the way for Wheeler Field's victory. The final score was Wheeler Field 35, Luke Field 23.

The 4th Observation Squadron won the Basket Ball Championship by defeating a hard fighting 23rd Squadron team by the score of 35 to 21 on the 16th. The 4th functioned more smoothly as a unit in this game though Saddler and Johnson featured the play. For the 23rd, Searcy and Finkelstein played exceptionally well.

Fourth Observation Squadron: The Officer personnel of the squadron was increased during the month by the addition of Second Lieutenant J.W. Fator, and Stuart E. Rutherford, Air Res. Lieut. Fator was appointed assistant Communications Officer and Lieut. Rutherford was made assistant Operations Officer.

The Inter-Squadron Basket Ball season was climaxed by the 4th Squadron defeating the 23rd Squadron by the score of 35 to 21, making the 4th Squadron the Basket Ball Champions of Luke Field. The men worked hard and deserve unstinted praise for their efforts. The final game was marred by the injury of Private Saddler, star player of the 4th Squadron, in the last three minutes of play. He is now receiving treatment at the Tripler General Hospital and is expected to be returned to his organization within the next few days.

Fiftieth Observation Squadron: Second Lieut. George A. Doole, Jr., and William L. Combest, Air Res., arrived on the 4th of November and were assigned to the Squadron for duty. During the past fifteen days Lieut. H.W. Grant has been on Detached Service at Upolu Point, in charge of construction work.

First Sergeant Lee Arford left for March Field on the last Transport. Staff Sergeant S.D. Mullinix has been acting First Sergeant until the arrival of First Sergeant E.M. Tilton. Tech. Sergeant Elmer Dreier left for Randolph Field. His replacement has not yet arrived. Sergeant W. Schattel arrived on the 4th as replacement for Sergeant Corrigan who left for Brooks Field on the last Transport. Corporal E.E. Renfree, Privates H.J. Fritz, R.L. Breese, and P.D. Padget, left on the last Transport for discharge.

The Senior Volley Ball Team is undefeated this year, and we have been tipped off by Lieut. Borgers, coach, that he expects a championship. The Juniors have dropped two contests, but intend to complete the season with victories.

Seventy-Second Bombardment Squadron: Four planes of this organization joined a flight of five planes from the 23rd Bombardment Squadron in an Avigation and Communications mission to the Island of Hawaii on the fourth of the month. The Group Commander in an O-19C and the Douglas Amphibian from Wheeler Field and the Douglas from this Field accompanied the flight. The return flight was made on the same day.

Twenty-third Bombardment Squadron: Second Lieutenant Charles G. Williamson, Air Corps, Squadron Engineering Officer, while assisting in camouflaging 215, slipped from a ladder and broke his left arm. Latest reports indicate that he is doing very well at Tripler General Hospital and he is expected to be marked quarters in the near future.

Second Lieut. James R. Ducrest, Air Res., recently arrived for two years of active duty, has been given the arduous duties of assistant Armament Officer.

Cigars were put out on the sixteenth as a result of the promotion of Corporal Kermit I. "Lindy" Johnson, to Sergeant, and Private James R. Burruss to Corporal. Let's see with the new promotion regulations, they may retire as Staff Sergeant. Well, that is some consolation.

Eleventh Photo Section: Usual Photographic work was carried out during the month, making record time on all photographic work undertaken.

Pvt. Raymond E. Hessler, formerly of this organization left for the mainland on November 10, 1932, on the "USAT" St. Mihil, for Letterman General Hospital. All members of this Section wish "Kip" a speedy recovery.

Pvt. Clarence E. Hawkins was assigned to this section on November 10, 1932, taking the vacancy created by Pvt. Hessler. Pvt. Pennell and Rudisill, graduates of the Air Corps Tech-

nical School, Chanute Field, Illinois, are now attached to this organization, awaiting assignment.

Hawaiian Air Depot, Luke Field, T.H.: Depot operations for the past month consisted of routine overhaul, repair work for the Fifth Composite Group, and repairs to airplane and engine equipment accessories.

During the period October 21st to November 20th, incl., the Depot Engineering completed overhauls on six (6) airplanes, viz: three (3) O-19C's, one (1) P-12-E and two (2) P-12-C's. Repairs were completed on one (1) Y1C-21 and two (2) O-19B Airplanes.

Six engines were overhauled during the above period, including four (4) R-1340-C's and two (2) SR-1340-E's. Thirteen (13) engines were repaired, including three (3) R-1340-C's, four (4) R-975-E's, four (4) V-1150 and two (2) R-1750-B's.

The Depot Basketball Team, in its first year of competition, finished second in the Honolulu Junior Business Mens' League, being nosed out by the Liberty House with a score of 33 to 26 for their only defeat of the season. This game was the first one played on the schedule and it was the nearest the Liberty House came to defeat at any time, their record for the season being seven victories and no defeats.

Lieut.-Col. Jay L. Benedict, the Department Inspector, and his Assistant, Capt. Winfield S. Roberson, made their annual inspection of the Depot on November 9th and 10th, 1932. Lieut. Col. Gerald C. Brant, Department Air Officer, and his assistant Capt. B.T. Burt, made their periodical inspection of the Depot on November 26, 1932. The favorable comments on the condition and operation of the Depot expressed by both Col. Benedict and Col. Brant reflected great credit on the entire personnel of the Depot.

Bolling Field, Anacostia, D.C.

Under the skillful guidance of 1st Lieutenant C.W. Cousland, A.C., and the Bolling Field "Airmen", are ready to place one of the snappiest Basketball teams ever to represent this station, on the wooden court this year.

With the return of Quigley, Marcy, VanDevere, McKeown, Estell and Shields from last year's squad and the addition of Eckert, formerly of Maxwell Field, Ala., and Locke, one of the fastest stepping forwards in the Philippine Islands, there remains no question of doubt that Bolling will give all of their opponents the stiffest competition that they have ever encountered.

Entered in the Third Corps Area and Government League of Washington, D.C., Bolling will endeavor to win the coveted "Corps Title", and the trophy presented by the Federation of Federal Employees of Washington.

Meeting the strongest teams in their class last year, the "Airmen" came through with flying colors by winning 60 out of the 69 games played, losing one game to the Bureau of Investigation by the close score of 22 to 21, thereby gaining second place in the Government League.

So far this season Bolling has won 18 out of 20 games played:- losing to the A.C.O. team and the Bethesda Fire Department. Incidentally, Bolling defeated Bethesda in the first game of the season by the score of 57 to 13 and lost to them in the return game by the score of 41 to 37.

The Bolling Field Basketball team traveled to Clairton, Pa., on December 16th, to play a charity game with the Clairton High School Alumni.

The game was sponsored by the Lions Club of Clairton and the proceeds were distributed to increase the Christmas fund for the poor and needy of that city.

On Friday night Lieut. Cousland put his charges through a light workout and signal drill, after which the boys were tucked away to rest for the ensuing contest.

In the Clairton High School Gymnasium, on Saturday night, the two teams played one of the most exciting contests ever staged in Clairton before a crowd of 2000 thrilled spectators.

Leading at the end of the first half by the score of 10 to 7, the "Airmen" bowed to defeat in the final minutes of play. The game ending 27 to 23 in favor of the Clairton Alumni.

The Bolling Field team returned to Washington on Sunday afternoon, satisfied to the extent that they had lost a hard fought contest and while doing so had satisfied everyone and helped make the coming Christmas a merry one for the poor and needy of the City of Clairton, Pa.

PUBLICATIONS OF INFORMATION DIVISION, AIR CORPS

In the course of answering communications from those within the Air Corps, members of the services other than Air Corps, and civilians interested in Air Corps activities, the Information Division besides publishing this A.C. News Letter has also prepared several mimeographed pamphlets, technically known as U-Stencils, on various Air Corps subjects. These pamphlets are furnished free upon request therefor. There are so many questions asked on the subject, let us say, of what the Air Corps is and does, that all angles of such questions are handled in one or more of the U-Stencils listed below. If you want any, send direct for - U-804 Aerial Victories of Members of Air Service, A.E.F. World-War "Aces", and those credited with 4, 3, 2 and 1 enemy planes.

U-863 List of Decorations, - awarded members of Air Service, A.E.F.

U-819 Vision of the Flyer. Why and What of the Pilot's Eyes and His Eyesight.

U-823 Advance Performance of Military Airplanes - 1917 to present.

U-837 Atmosphere at High Altitudes.

U-820 Effect of Altitude Upon the Human Body.

U-852 Captain Gray's Last Flight. The High Altitude Balloon Flight of 1927.

U-935 Army's Part in Development of Aerial Transportation.

U-938 The Army Air Corps - What It Is, and What It Does. Facts & Figures. Personnel, stations, etc.

U-941 Young Man in the Army Air Corps. Flying Cadets, Student Officers, Recruits, the Courses at the Technical School. Pay scales, etc.

U-969 A.C. Insignia. What they are used for. What they denote.

U-978 Airplanes of the Army Air Corps. Performance data. What they look like, etc.

U-988 Aerial Photographic Activities of the Army Air Corps.

U-989 What the Air Corps Does Besides Fight. Cooperation with other Government Agencies.

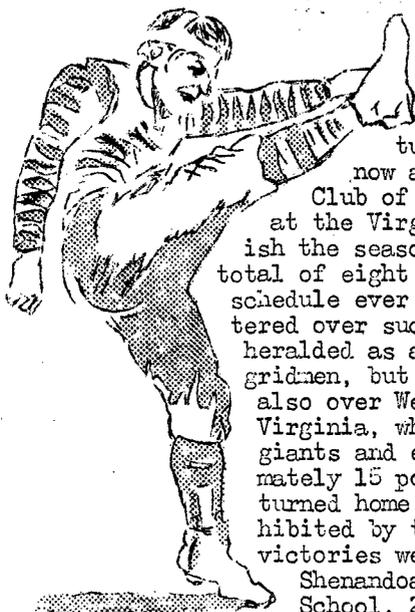
U-995 Chemistry in Military Aviation.

U-1005 The Air Corps. Similar to U-938 but prepared as a speech.

U-1034 The Air Corps as First Line of Defense. (The Air Force component of the Air Corps)

U-1045 Mission of Bombardment Aviation.

U-1046 The Military and Commercial Airplanes. How they differ.



A happy band of Gold and Blue football warriors of Langley Field, Va., returned to their home station after a hard-fought battle with the Medicos of Carlisle Barracks, Penna., from which they emerged victorious by a 6 to 0 count. With the cherished honor of the Third Corps Area Football Championship tucked away for the third consecutive football year, the Birdmen now await their final test of the year in meeting the strong Arrow Club of Richmond in the American Legion Charity Contest, to be played at the Virginia Capitol. The boys have settled down to hard work to finish the season in a blaze of glory, already having rolled up the impressive total of eight victories to compare with three defeats in the most ambitious schedule ever attempted by the local Army Air Corpsmen. Victories were registered over such formidable elevens as Loyola of Baltimore, who came here heralded as a great team expecting a good workout at the expense of the Army gridmen, but who had to be content with the short end of a 13 to 7 score; also over West Liberty and New River State Teachers' Colleges, both of West Virginia, who visited the local Airmen's football camp with a squad of giants and entered the contest with the huge weight advantage of approximately 15 pounds, to say nothing of about four inches in height. Both returned home with a defeat in the bag, after the most gallant stands ever exhibited by the fighting Army boys. Summarizing the season's work, Langley's victories were over Campbell College, 7-0; Guilford College, 14-0; Shenandoah College, 43-6; West Liberty State, 13-6; Naval Apprentice School, 20-6; Carlisle Barracks, 6-0; Loyola, 13-7. The three teams registering victories over Langley Field were Elon College, 7-6; Quantico Marines, 13-0; Appalachian College, 13-7.

Complaining that in the last issue of the News Letter there was no mention of Randolph Field on the sport pages, Mr. R. Larson, writing from that Field under date of December 8th, submits some news of the football tournament conducted in the 8th Corps Area, as follows:

"Randolph Field, by virtue of a scoreless tie with the 2nd Field Artillery Brigade, on Nov. 26th, entered the Corps Area Tournament, and has already won one game, beating the strong Fort Sill Artillerymen 20 to 6 at Tech Field, San Antonio, on Dec. 4th. The Airmen finished the season in the local area with a league standing of 2 games won, one tied and two lost. In addition, the Airmen won from Fort Crockett on Nov. 12th by a score of 12 to 0. Incidentally, Fort Crockett won from Fort Bliss in the first game of the Corps Area tournament. The two games lost by the Airmen were lost to the two strongest teams in the vicinity of San Antonio, the powerful 23rd Infantry Doughboys, defending Corps Area Champions, and the 9th Infantry Manchus, a much improved team over last years. Having reached the semi-finals in the tournament by winning from Fort Sill, the Airmen meet the bone-crushing 23rd Infantry Doughboys on Sunday, December 11th. The Airmen are a much improved team, according to the showing made against Fort Sill. They started the season rather raggedly, but through the help of some of West Point's graduate stars, they have shown some promise of going places and doing things, if not this year, then next year. These graduates of West Point have instilled some football sense into the men, by their coaching and working with them. Here's to a better team for Randolph Field."



The Hawaiian Air Depot Basketball Team got into action into the Honolulu Commercial League and, after losing a hard fought contest to the Liberty House by the score of 33 to 26, came right back and walloped the Honolulu Dairymen to the tune of 63 to 45. After witnessing the first two contests, the News Letter Correspondent predicts that the Hawaiian Air Depot team will be well up in the League standing at the close of the season.



The Squadron Basketball League, Luke Field, T.H., began the first week of October, and the fur has continued to fly ever since. The 4th Observation Squadron, by virtue of a very close win over the 23rd Bombardment, finished the first round with a clean slate. However, the 23rd Squadron is not yet out of the running, as they finished only four points behind in that hectic affair with the 4th Squadron, and were leading, with only two minutes left to play, but a spurt by the 4th Squadron netted them five points and the game. The 65th Service Squadron is proving the dark horse in the League, and is affording all teams worthy opposition. A big, husky center named Costello on this team looks very good. For the 4th Squadron, Sadler and Johnson have been doing the bulk of the fine work, but the other members do not seem to get lost on a basketball court either. The 23rd Squadron has a fast, well balanced organization, with no individual stars - Vickery, Finkelstein, Baddour and Searcy all playing splendid ball. A slight weakness at center cost them the game with the 4th Squadron. The 50th Squadron has a much stronger team than the previous year and are continually improving under the coaching of Lieut. Don Z. Zimmerman. If this improvement continues, some of the high ranking teams are going to get a swift kick. The 4th Observation Squadron is first in the League standing with a perfect record, having won all four contests played. The 23rd Bombardment won 3, lost 1; 65th Service won 2 and lost 2; 50th Observation, won 1, lost 3; 72nd Bombardment won 0, lost 4.

In order to furnish recreation to a greater number of men, a Squadron volley ball league was organized, with each squadron represented by a Senior and a Junior team. Only those men who are not participating in a major sport are eligible for these teams. The senior teams are composed of men with over 9 years' service, while the Junior Teams will include men who have served less than 9 years. Judging by the spirit shown by the "Old Timers," there will be a "hot time in the old town" when they swing into action.

Serial No. 325 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES

Nov. 4th to Dec. 29th Incl.

Available for loan to Air Corps Organizations only upon request to the Air Corps Library, Munitions Building, Washington, D. C.

DOCUMENTS

- A 10 US/40 America First, by Maj. Gen. Benj. D. Foulois, Air Corps, Washington, 10/14/32
- A 10.231/74 Graphical Solutions for Inviscid Flow, by H.F. Winny. London H.M. Stationery Office. 1932. Great Britain Aero. Research Committee Report & Memo. #1473
- A 10.231/75 Velocity Distribution in the Neighborhood of a Corrugated Sheet, by R. Houghton London H.M. Stationery Office, 1932. Great Britain. Aero. R.C. Report & Memo #1466
- C 50/4 The Air Corps' Reserve by Lt. Roland Birn, Air Corps, Washington 1930.
- D 00.12/103 NA-Y8C Carburetor, Fuel Feed in Maneuvers, by Navy Dept. Bu. of Aero. Washington No. 1-32 Navy Dept. Bu. of Aero. Tech. Order #1-32 Washington 10/25/32
- D 00.12/103 Model F4B-1 Airplane - change No. 28 & Model F4B-2 airplane - Change No. 13 - No. 2-32 Installation of Steerable Tail Wheel, by Navy Dept. Bu. of Aero. Tech. Order 2-32 Washington. 10/29/32.
- D 00.12/103 Overhaul of Floats and Hulls by Navy Dept. Bu. of Aero. Tech. Order 3-32. No. 3-32 Washington 10/29/32.
- D 00.12/103 Eclipse Series VI and Series XI Starters - Prevention of Failures by Navy No. 4-32 Dept. Bu. of Aero. Tech. Order 4-32 Washington 11/3/32
- D 00.12/103 Reconditioning of BG-4B-1 Spark Plugs, by Navy Dept. Bu. of Aero. Tech. Order 5-32 No. 5-32 Washington 11/11/32
- D 00.12/123 Preventing Corrosion of Valve Gear during Storage, Wright Aircraft Engines, by No. 126 Navy Dept. Bu. of Aero. Tech Note #126 Washington 10/21/32
- D 00.12/123 Protection of Windings of Magnetos, Generators, Starters and Coils against No. 2-32 Moisture Condensation by Navy Dept. Bu. of Aero. Tech. Note 2-32 Wash. 10/29/32
- D 00.12/123 Solenoid Switches on Eclipse Starting Motors, by Navy Dept. Bu. of Aero. Tech. No. 3-32 Note #3-32 Washington 11/8/32
- D 13.3/146 A Flight Path Recorder Suitable for Performance Testing, by R.P. Alston, D.A. Jones & E.T. Jones. London. H.M. Stationery Office. 1932. Great Britain. Aero. Research Committee Report & Memo. #1471
- D 52.1 Consolidated/14 Stock List Class 01-B Parts for Consolidated Airplanes. Compiled by Materiel Div. Field Service Sec. Wright Field, 3/1/32
- D 52.1 Consolidated/15 A Flight Investigation of the Spinning of the NY-1 Airplane with Varied Mass Distribution and other Modifications, and an Analysis Based on Wind-Tunnel Tests by Nathan F. Scudder. N.A.C.A. Report #441 Gov't Print. Off. 1932.
- D 52.1/Douglas 22 Stock List Class. 01-D Parts for Douglas Airplanes. Comp. by Mat. Div. Field Service Section. Wright Field, 4/1/32
- D 52.15/94 Air Force and Moment for Design No. 110 Airplane with N.A.C.A. 2412 and with NACA 2212 Wings by Aero. Lab., C. & R. Dept., Navy Yard, Washington, 9/26/32
- D 52.325/15 The Effect of Area and Aspect Ratio on the Yawing Moments of Rudders at Large Angles of Pitch on Three Fuselages by H.L. Dryden & E.H. Monish. N.A.C.A. Report #437 Washington Gov't Printing Office, 1932.
- D 52.33/225 Method of testing Strength and Stiffness of Large Wing by I.J. Gerard. Great Britain H.M. Stationery Office, Aero. Research Com. Report & Memo. #1462. 1932.
- D 52.33/356 Working Charts for the Determination of the Lift Distribution between Biplane Wings by Paul Kuhn. NACA Report #445. Wash. Gov't Printing Office. 1932.
- D 52.414/29 Design and Test Data for Aircraft Radiators, by C. Anderton Brown. London. H.M. Sta. Office 1932. Gt. Brit. Aero. Research Com. Report & Memo. #1461.
- D 52.71/Akron 3 Pressure-Distribution Measurements on the Hull and Fins of a 1/40-scale Model of the US Airship "Akron" by Hugh B. Freeman. NACA Report #443 Wash. 1932.
- BOOKS
- 629.13/Un3ac #172 The Messerschmidt M. 29 Touring Airplane (German); a two-seat cantilever monoplane by N.A.C.A. Nov. 1932 Aircraft Circular #172.
- 629.13/Un3ten #433 The Pressure Distribution over a Standard and Modified Navy Elliptical Wing Tip on a Biplane in Flight by R.V. Rhode. N.A.C.A. Tech. Note 433. Oct. 1932. Wash.
- 629.13/Un3ten #434 Influence of Several Factors on Ignition Lag in a Compression-Ignition Engine by H.C. Gerrish & Fred Voss. NACA Tech. Note 434 Washington. Nov. 1932.
- 629.13/Un3ten #435 The Effect of Clearance Distribution on the Performance of a Compression-Ignition Engine with a Precombustion Chamber, by C.S. Moore & J.H. Collins. N.A.C.A. Tech. Note #435 Washington Nov. 1932.
- 629.13/Un3tm #691 Some Ideas on Racing Seaplanes by Giovanni Pegna. NACA Tech. Memo. #691 Wash. Nov. 1932.
- 629.13/Un3tm #692 Method of Recording Rapid Wind Changes by A. Magnan. N.A.C.A. Tech. Memo. #692 Washington. Nov. 1932.
- 629.13/Un3tm #693 The Testing of Airplane Fabrics by Karl Schraivogel. NACA Tech. Memo. #693 Washington Nov. 1932.
- 629.13/Un3tm #694 Combustion of Gaseous Mixtures by R. Duchene. NACA Tech. Memo. #694 Washington. Nov. 1932.
- 629.13/Un3us #823 The World War and Now. Advance in Military Airplane Performance - 1917 to the Present, by Lieut. E.W. Dichman. Air Corps Stencil U-823, A.C. Washington Nov. 18, 1932.
- 629.13/Un3us #1049 Headquarters Selfridge Field, Mt. Clemens, Mich. by Information Div. Washington. Oct. 17, 1932. Stencil U-1049, A.C.
- 629.13/Un3us #1051 The Caterpillar Club, by A.C. Information Div. Washington Dec. 2, 1932. Stencil U-1051, A.C.

INSPECTION DIVISION NOTES

The following Technical Orders, Technical Letters, Air Corps Circulars and Air Corps Circular Letters have been distributed since the last issue of the Air Corps News Letter on November 30, 1932.

<u>Number & Date</u>	<u>Subject</u>	<u>Distribution</u>
TL 32-183 11/23/32	Installation of Sleeve, Auxiliary Gasoline Tank Gauge - Thomas-Morse, O-19B, O-19C, O-19D & O-19E Airplanes	Barksdale, Biggs, Boeing, Brooks, Chamute, Crissy, France, Hatbox, Hensley, Lawson, Long Beach, March, Maxwell, Pearson, Pope, Post, Salt Lake City, Scott, Selfridge, Wright, all depots. Chanute, Wright & all depots.
TL 32-185 11/25/32	Replacement of Pin, Universal Joint-Thomas-Morse O-19B, O-19C & O-19D Airplanes	
TL 32-187 11/22/32	Etching and Inspection of Certain Propeller Blades.	General
TO 06-1-1A 12/15/32	Fuels and Lubricants -General Detection and Removal of Water from Fuel Storage- Self ballasting Segregator Floats.	General
TO 01-200 10/12/32	Airplanes and Spare Parts - Assembly and Maintenance Instructions YIP-16.	General
TO 01-1-24 11/21/32	Airplanes and Spare Parts - General- Removal of Equipment before Transferring Airplanes (This TO replaces TO 01-1-24 dated 2/20/29.)	General
TO 01-1-41 11/21/32	Airplanes and Spare Parts - General- Repair and Clearance of Fuel and Oil Tanks. (This TO replaces TO 01-1-43 dated 9/24/32.)	General
TO 01-1-43 11/21/32	Airplanes and Spare Parts - General- Expansion Tank Overflow Pipe. (This TO replaces TO 01-1-43 dated 9/24/32)	General
TO 02-1-14	Engines and Spare Parts - General- Equipment to Be Included when Shipping Aircraft Engines. (This TO replaces TO 02-1-14 dated 2/15/28 and Technical Letters 32-56 & 32-103.)	General
TO 01-1-83 11/30/32	Airplanes and Spare Parts - General- Replacement of Springs in Oleo Units. (This TO replaces TO 01-1-83, dated 10/8/31.)	General

The following supplementary data to Technical Letter 32-100, dated May 18, 1932, Subject: "Operation Instructions", have been distributed since the last issue of the Air Corps News Letter on November 30, 1932.

<u>Date of Issue</u>	<u>Airplane</u>	<u>Distribution</u>
Nov. 11, 1932	C-14	Barksdale, Chanute, Crissy, Kelly, March, Maxwell, Selfridge Wright, Scott & all depots.

The following Air Corps Circular Letters have been distributed since Nov. 30, 1932, issue of the Air Corps News Letter.

<u>Number & Date</u>	<u>Subject</u>
W-2138, A.C. 11/28/32	Acrobatics in Formation

There has been no distribution of Air Corps Circulars.

The following form has been found useful by the 44th Division Aviation, New Jersey National Guard, for recording the arrival and departure of aircraft at that station. An interesting feature of the Form is the inclusion at the bottom thereof of information with reference to telephone numbers, bus schedules, etc. The form is perforated so that the pilot can detach this part and carry it with him. (Actual form is double space.)

44TH DIVISION AVIATION
New Jersey National Guard

Newark Airport
Newark, N.J.

(Date)

PILOT	ORGANIZATION	
PASSENGER		
HOME STATION		
ARRIVED (Time)	FROM (Last stop)	
NEXT STOP		
FINAL DESTINATION		
DESIRED DATE AND TIME OF DEPARTURE: DATE		HOUR
DO YOU INTEND TO USE YOUR SHIP BEFORE DEPARTING?		WHEN?
ADDRESS WHILE AT THIS STATION		TEL. NO.
SEND ARRIVAL NOTICES TO		
-SERVICE-		
SHIP NO.	TYPE	ENGINE
PILOT INDICATE BELOW		MECHANIC INITIAL BELOW
GAS		
OIL		
WATER		
OTHER WORK (in detail)		
		PILOT
		RANK
		HOME STATION

44TH DIVISION AVIATION (119th Observation Squadron) N.J.N.G., Newark Airport, N.J.
 WEATHER BUREAU (at airport) Market 3-2277
 HANGAR (24 hours) Mitchel 2-4874

BUS SCHEDULES - POSTED IN OPERATIONS OFFICE.
 PLEASE NOTIFY OPERATIONS CLERK OF ANY CHANGE IN TIME OF DEPARTURE.

