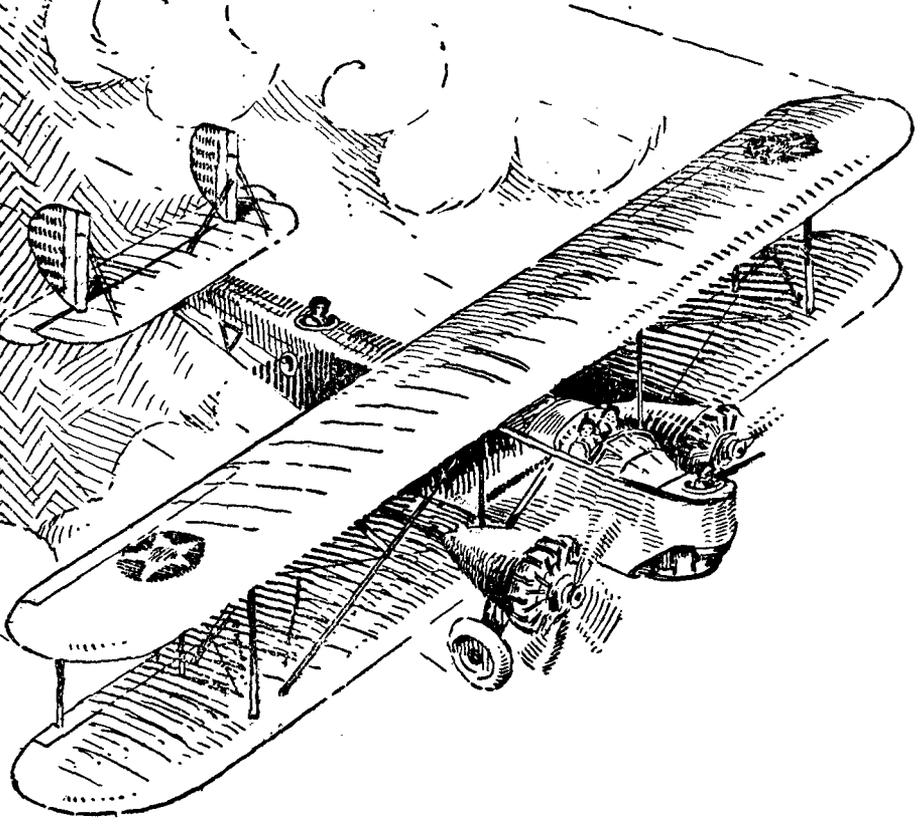


AIR CORPS
NEWS LETTER



— ISSUED BY —
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

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1931
July 21

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Information Division
Air Corps

July 21, 1931

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 in this publication.

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THE AIR DIVISION AND COAST DEFENSE

In the two preceding issues of the News Letter a resumé or report of the various activities of the First Provisional Air Division of 1931 was given. This report was more or less a chronological statement of facts and incidents which will be of historical value in the future. The colorful highlights of the Division's activities, the colorful personalities among the Division's personnel, the features of the Division's flights, were barely touched upon.

While the Air Corps staff was deep in the work of administering, supplying and operating the Division, the Army as a whole was looking at the Division as another one of its active and efficient agencies in the National Defense. While the Air Division was undergoing its two-week period of training as a highly mobile unit, General Douglas MacArthur, Chief of Staff of the Army, was considering the part the Division would play should an enemy approach our shores.

While he made certain assumptions favorable to the Division, such as assuming the preponderance of Bombardment and Pursuit which a war-time Division would have, he balanced this by assuming the declaration of war at the most unfavorable period for the Division, when it had just settled down in Chicago for its overnight stay there, when it was furthest away from the coast it was to defend, and when its component units were all at temporary bases scattered over a 50-mile front.

General MacArthur gave no sugar-coated odds to the Division, nor did he ask it to do the impossible. He set the situation and then threw in the Army's Air Division as the first line in the Coast Defense, which is properly the Army's mission. The best defense is a vigorous offense. The Division moved to attack.

At this time it might be well to bring out the general and special situation with which the United States was hypothetically concerned when "war was declared," as taken from the reports of the Division's Intelligence Section:

* * * * *

(1) General Situation:

- a. Maps (Those of the areas concerned were here mentioned in detail).
- b. War was suddenly declared on the United States by a coalition of foreign powers 20 May.
- c. The enemy has destroyed the Panama Canal by an aerial attack, and information has been received that an expedition consisting of a strong allied naval force convoying a large number of airplane carriers, troop transports and converted commercial vessels carrying an Air Force with supplies and ammunition for aerial operations is enroute to the North American continent.

Canada is neutral.

- d. At the time war was declared all of the United States Air Force in the continental limits of the country concentrated in the vicinity of Dayton, Ohio, and engaged in annual training exercises, had moved to Chicago, Ill., as part of its training program.

The United States ground forces were mobilizing as rapidly as their skeletonized condition would permit. The United States Atlantic Fleet has been dispersed, and the Battle Fleet was left in the Pacific by the destruction of the Panama Canal.

(2) Special Situation (United States).

On 22 May the entire United States Air Force, under direct control of the War Department, was brought across the Allegheny Mountains to existing airdromes on Long Island.

The Air Force continued intensified training in this area until 24 May while airdromes were being rapidly prepared along the Atlantic Seaboard from Maine to Hampton Roads. Continued reconnaissances to sea were maintained.

At 1:00 a.m. 24 May, the Commanding General, Air Force, received the follow-

ing letter of instruction by air from Washington:

"WAR DEPARTMENT,
Washington, D. C.

23 May 1:30 p.m.

Subject: Defense of New England.
To: Commanding General, Air Force.

1. Information indicates that the enemy expedition enroute to the North American continent is to be directed against the New England Area.

Our ground mobilization is proceeding slowly.

You will move the Air Force early on the morning of 24 May to the New England area.

The situation is grave. I am leaving for Boston by air on the morning of 24 May and will assume command of the defenses of New England with Headquarters at Boston, Mass.

It is desired that you be prepared to submit to me at my Headquarters at Boston your plan for the employment of the 1st Air Division (Prov.).

Douglas MacArthur,
General,
Chief of Staff."

Pursuant to instructions, the Air Force on 24 May moved to airdromes in the New England Area. By 4:00 p.m. 24 May, information from all sources indicated the hostile expedition at 3:00 p.m. about 150 miles southwest of Sable Island, steaming west southwest at about 12 knots.

* * * * *
Meanwhile, General MacArthur had flown to Boston from Washington to conduct personally the main problem of the defense of the New England coast. He made the 405-mile trip from Washington in two and one-half hours in an Army Fleetster. There he observed the exercises on the 25th, and returned the same day to Washington via Mitchel Field, Long Island.

What he then did gave a still bigger boost to the already top-notch morale of the Division. Just five words and a signature, but his telegram spoke volumes:

"WELL DONE FIRST AIR DIVISION
MAC ARTHUR."

To come back to the progress of the "War":

* * * * *
At 9:30 a.m. 25 May our observation reports the hostile expedition about 250 miles due east of Boston steaming southwest. At this hour the following telephone message was received from the Chief of Staff at Boston:

"The hostile expedition is about 250 miles east of Boston steaming southwest. You will attack at once. Continue reconnaissance of coast to Bangor, Maine."

At 12:30 p.m., information was received at advance headquarters at Boston, Mass., from our observation that the enemy expedition had turned due east and was headed for a heavy fog bank lying to the east. First Air Division (Prov.) enroute to attack was ordered by radio to abandon the attack and return to airdromes. Observation of the enemy to be continued.

At 1:00 p.m., due to fog conditions, our observation lost contact with the enemy and was not able to gain contact until 7:30 p.m. At this time the enemy force was located 190 miles east southeast of Nantucket Island headed due south at 12 knots. At 10:30 p.m. our observation reports enemy force still holding to its course.

At 11:30 p.m., the following message delivered by airplane courier from advance Headquarters was received by the Commanding General of the Air Force at his Headquarters at Springfield, Mass.:

"Advance Headquarters,
Boston, Mass.
25 May 10:30 p.m.

Enemy force continues course due south. Move to the Long Island area morning of 26 May. I am proceeding to Washington, D.C. Rep * to me at War Department after 1:00 a.m. 26 May.

Douglas MacArthur
General,
Chief of Staff

1:00 a.m., 26 May, weather again interrupted observation of the enemy and contact was lost. 1:00 a.m. reports received indicate no change in the enemy's speed or direction.

By 4:00 p.m. 26 May, all units of the Air Force were back at airdromes on Long Island which they had previously occupied on 23 May.

On 27 May, weather conditions improved and contact was regained at daylight. The main enemy expedition was located about 350 miles east of Atlantic City cruising slowly in a southerly direction.

At 9:00 a.m. our observation located 2 enemy carriers escorted by 6 cruisers and 20 destroyers about 200 miles due east of Atlantic City headed west at 20 knots.

At 9:25 a.m., the following telegram from the War Department was received at the Headquarters of the Air Force at Mitchel Field:

"War Department,
Washington, D.C.

27 May 9:20 a.m.

An enemy force of 2 carriers, 6 cruisers and 20 destroyers reported at 9:00 a.m. about 200 miles due east of Atlantic City headed west at 20 knots and apparently planning to launch an air raid. You will attack at once.

Douglas MacArthur,
General,
Chief of Staff."

There the problem ended.

It must be assumed that the willingness and the preparedness of the Air Force to carry the fight up and down the coast was enough for the enemy fleet.

The review of the Air Division over Washington on May 30th was personally led by General MacArthur in a Lockheed Sirius, piloted by Captain Eaker.

This interest of the Chief of Staff of the Army in the Exercises and the fact that he made available a very considerable amount of time for personal supervision and contact was, indeed, gratifying to the Air Corps, and gave assurance that our important current problems are appreciated. It stamped the activities of the Air Division as important in the defense of the coast, identifying the Division not as an "aerial circus" but as an important factor in the scheme of National Defense.

It is further most gratifying to the Air Corps personnel that General MacArthur led the review of the Air Division over Washington, and that he is the first Chief of Staff who has made an inspection of Air Corps units in the air.

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REAL TARGET PRACTICE FOR THE SECOND BOMBARDMENT GROUP ✓

The 2nd Bombardment Group, Langley Field, Va., under the command of Major Herbert A. Dargue, Air Corps, will be afforded an opportunity to indulge in some realistic bombing on August 11th next, off the Virginia Capes, their target being the steel cargo ship "Mt. Shasta," which was turned over to the Air Corps by the U.S. Shipping Board for target practice. This vessel, with two decks, 363 feet long and of 7,240 tons dead weight, was built during the War and has been moored on the James River since 1921. It has been dismantled and all the machinery removed therefrom. The Quartermaster's Department, U.S. Army, has made arrangements to tow this vessel to the scene of the bombing.

The "Mt. Shasta" will be bombarded with projectiles ranging from 25 to 600 pounds. Several Attack planes now at Langley Field will first fly over the vessel and drop the smaller sized bombs, and they will be followed by the Bombardment planes with the larger bombs. These "pellets" will be dropped from various altitudes, the purpose being bombing practice and to study the destructive effect of the various types of bombs rather than to sink the vessel in the shortest time possible. The floating target will be towed at the end of a 2,000-foot cable by an Army Mine Planter.

Weather permitting, several tugs with special observers aboard, will hover near the scene of the bombing in order to enable them to witness same from as close a range as is consistent with safety.

It has been some eight years since the Air Corps Bombardment personnel have had an opportunity to try their skill at a real target, such as a moving vessel at sea, and the outcome of this bombing test is awaited with interest by Air Corps personnel.

NEW CARTRIDGE TYPE ENGINE STARTER TESTED

By the News Letter Correspondent

The efficient starting of aircraft engines is a comparatively recent problem to be solved. It is not so long ago that the usual method of starting an engine was the swinging of the propeller by hand, and the picture of two mechanics with linked hands waiting for the word "contact" is clear in all our memories. The hand and electric inertia starters have been standard equipment for some time. The hand starter is usually employed with multi-motor systems or on planes where the electrical energy available is required for other purposes. The majority of single-motor airplanes carry electric inertia starters. The starting problem still remains far from the state of efficiency and simplicity where it ceases to be a problem, however, and any change either in the standard starter, or in the whole system of starting that promises improvement is of vital interest to the aeronautical engineer.

A new type of aircraft engine starter was recently tested at the Materiel Division of the Air Corps at Wright Field, Dayton, Ohio. This starter, which is of the cartridge type, is installed on the engine in the same location as the standard inertia starter. It is approximately 10½ inches long. An adapter with 12 teeth on one side and 3 on the other is bolted on the standard starter jaw for engaging with the starter. The starter is of the concentric type, consisting of a cylinder in which a piston is pushed forward by the expansion of gas from a slow burning powder, set off electrically from a 10-gauge shell. This shell is of paper construction with a brass collar. The shaft on which the starter jaw is attached moves forward and turns the engine crankshaft. The thrust being taken by a bearing in the starter, none is imposed on the engine. Rotation of the jaw is produced by the piston pushing together two shafts with right and left spiral threads, one inside the other. The outer shaft is also threaded with a spiral thread which takes the torque.

The starter weighs 19 pounds; the breech and piping 4 pounds. The cartridges run 22 to the pound. A total weight of 25 pounds would be equivalent to 44 starts of the engine. The exhaust passes out of the side of the fuselage through a tube, the valve being opened at the bottom of the piston stroke by the piston, and closed when the piston is returned to its normal position. This is accomplished through a coil spring.

The first tests, conducted on a "Wasp" 1340-A engine, gave satisfactory results. There was no shock when the starter was fired or when it picked up the engine load. There was a delay, however, of approximately one-half a second from the time the cartridge exploded until the engine started turning, due to the building up of pressure in the space between the breech and the piston, which are connected by a tube 30 inches long.

Later, tests were conducted in the Materiel Division cold chamber under temperatures as low as 20°C., to learn the reliability of operation under extreme weather conditions. This was a comparative test, the standard inertia starter being tested under the same conditions. A Pratt & Whitney GR-1680-B engine was used. The starter was installed and the temperature brought down to 5°C., and allowed to remain so all night in order to insure all parts of engine and starter having an even temperature. It was found that the cartridge type starter turned the engine over at higher r.p.m. than the inertia starter at all temperatures down to 15°C. At lower temperatures it was necessary to increase the fuel content of the shell in order to turn the engine at all. The turn was then accomplished at a higher r.p.m. than the inertia starter, but there were fewer revolutions.

Further tests will be made to determine the necessary increase of the fuel content of the shell for reliable operation under extreme temperatures.

An explosive mixture type of starter was tried early in the starter game and, although in the foreign field it acquired a somewhat extensive use, it was never popular in this country. A multiplicity of parts with attendant weight and difficulty of maintenance caused this type to be abandoned for more promising types. The new cartridge type, however, offers none of these disadvantages and may prove exceedingly useful equipment for military aircraft.

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A Board of officers met at Wright Field, Dayton, O., on June 15th to discuss the future Lighter-than-Air program. Those present were Lieut.-Col. J.H. Paegelow, Scott Field; Capt. Karl S. Axtater, Wright Field; Capt. Wm. J. Flood, Office of the Chief of the Air Corps; Lieuts. A.W. Martenstein, Wright Field; J.C. Whively, Langley Field, and Haynie McCormick, Fort Sill, Okla.

ADVANCED FLYING SCHOOL GRADUATES FLY IN AERIAL REVIEW

An air review, flown by 98 student officers and Flying Cadets, featured the graduation exercises of the Air Corps Advanced Flying School at Kelly Field, Texas, on the morning of June 26th.

Major-General Ewing E. Booth, commanding the First Cavalry Division, Fort Bliss, Texas, and corps area commander in the absence of Major General Edwin B. Winans, joined with Brigadier General Charles H. Danforth, commander of the Air Corps Training Center, in taking the review, which was attended by a group of city, county and Chamber of Commerce officials, including the Mayor of San Antonio. Music was furnished by the Training Center Band and the San Antonio Fire Department Band.

Three foreign officers, Capt. Gerd von Massow, German Army; Capt. Thomas M. Letona and Capt. Ricardo Rodas, Guatemalan Army, and three U.S. Army officers, Major Harold A. Strauss and Lieuts. Charles P. Cabell and Robert C. Oliver, received diplomas and wings at the War Department Theatre at the field following the review. Ninety-two Flying Cadets, in addition to the diplomas and wings, received commissions as second lieutenants in the Air Corps Reserve. The diplomas were presented by General Danforth, the commissions by Lieut.-Col. R.M. Pennell, of the Corps Area General Staff, while the wings were presented by Major Frederick L. Martin, Air Corps, Commandant of the Advanced Flying School. The Commandant of the Primary Flying School at Brooks Field, Lieut.-Col. Henry B. Clagett, delivered the graduation address.

The Flying Cadets graduating as airplane pilots are enumerated below, as follows:

Robert S. Angle	Los Angeles, Calif.	Arthur E. Livingston,	Russellville, Ark.
Wm. Beverley, Jr.	Dalhart, Texas	Earl F. McIntyre	West Hollywood, Calif.
Homer D. Bernard	Los Angeles, Calif.	William C. McDonald, Jr.	Birmingham, Ala.
John F. Biggerstaff	Wabash, Ind.	Ronald C. McLaughlin	Evanston, Ill.
Louis Russell Black	Chicago, Ill.	Alva V.R. Marsh	Baltimore, Md.
J. Francis Bledsoe	Overlea, Md.	Jack M. Malone	Durant, Okla.
E.H. Bobbitt, Jr.	Hot Springs, Va.	Donald E. Meade	Hayes, Kans.
Graeme S. Bond	Chicago, Ill.	Theron A. Milbanks	Greenville, Texas
Wayne Bone	Gatesville, Texas	Charles A. Miller	Kempner, Texas
Albert J. Boot	Denver, Colo.	Chester O. Miller	Connersville, Ind.
Joseph A. Brier	DeWitt, Neb.	Otis A. Miller	San Francisco, Calif.
Wm. R. Calligan	Ridley Park, Pa.	Hewitt F. Mitchell	Fresno, Calif.
Edgar Ross Camp	Perdido, Ala.	Thomas B. Mixon	Alexandria, La.
Herbert C. Chambers, Jr.	Tucson, Ariz.	Henry T. Myers	Tifton, Ga.
Evan W. Chatfield	Dunleary, Ky.	Laurence F. Motl	Marshall, Wis.
Robert W. Coons	Aberdeen, Wash.	Claude B. Northrup, Jr.	Dallas, Texas
Charles E. Coverley,	Los Angeles, Calif.	Frank Norwood	Pasadena, Calif.
John Thomas Cox	Dallas, Texas	John E. Nuhn	Pasadena, Calif.
Richard Crabbs	Orlando, Fla.	Arthur D. Parker, Jr.	New Orleans, La.
Troy W. Crawford	Mangham, La.	John Preston	Palo Alto, Calif.
Nelson B. Davis	Alhambra, Calif.	William M. Pryce, Jr.	Tucson, Ariz.
William F. Day, Jr.	Greenwich, Conn.	Charles H. Pursley	Fort Myers, Fla.
Albert L. Dubecker	Cottonwood, Calif.	Roy O. Ralston	Clarksville, Ark.
Robert V. Dunn	Marion, Ind.	Leslie Raybold	Los Angeles, Calif.
Cecil C. Foxworth	Charleston, S.C.	Robert B. Richard	Visalia, Calif.
Edgar B. Franklin	Richmond, Va.	Tim Roberson	Terrell, Texas
Lacey E. Gee	Anamosa, Iowa.	Herbert G. Robinson	Norfolk, Va.
Carl A. Gerlicher	Winona, Minn.	Wistar Rosenberg	Prineville, Ark.
Wm. D. Harrison	Braintree, Mass.	Wilfred Rotherham	Visalia, Calif.
Joseph H. Hart	Cincinnati, Ohio.	Clarence Sartain	San Antonio, Texas.
Frank J. Havelick, Jr.	Billings, Mont.	Thomas J. Searcy	Dallas, Texas
George A. Hersam, Jr.	Stoneham, Mass.	C. Wesley Schott	Providence, R.I.
Leroy Heston	Grants Pass, Ore.	Lawrence S. Semans	Uniontown, Pa.
Ben G. Holloway	San Antonio, Texas	Bertow S. Shaw	Sumter, S.C.
Richard C. Hughes	Washington, D.C.	George A. Smeltzer	Holly, Colo.
Aubrey S. Hurren	Lincoln, Neb.	Frank P. Smith	Clarksdale, Miss.
Ralph S. Johnson	Goodland, Ind.	Mell M. Stephenson, Jr.	Athens, Ga.
Edwin R. Jones	Childersburg, Ala.	Joe M. Sutherland	Anderson, S.C.
William H. Elvins	Tacoma, Wash.	Carl Swyter	Emery, S.D.
Carl Roy Kaye	Milwaukee, Wis.	George L. Thomson	Hood River, Ark.
William Lewis, Jr.	Glendale, Calif.	Ben F. Thompson	Houston, Texas

John G. Tilton	Canton, Ohio	Lee Williams	Denver, Colo.
Alfred F. Tucker	Cleveland, Ohio	Claude B. White	Norfolk, Va.
John W. Towler	Atascadero, Calif.	Frank E. Wittenberg	Tonopah, Nevada.
William E. Walters	Millen, Ga.	Walter McC. Wood	Draper, Va.
Edgar L. Walthall	Atlanta, Ga.	John O. Zahn	San Diego, Calif.

Staff Sgt. O.E. Henderson, Council Bluffs, Iowa.

Major H.A. Strauss, who has been in the lighter-than-air branch during his service in the Air Corps, graduated as a Bombardment pilot. In addition to his new rating as Airplane Pilot, he also holds the ratings of Airship Pilot, Balloon Observer and Aerial Observer. He has been ordered to duty at the Materiel Division, Wright Field, Dayton, Ohio. Lieut. Cabell was ordered to Panama and Lieut. Oliver to the Hawaiian Department.

Five Cadets have been assigned to Brooks Field for active duty under their Reserve commission. Fourteen will go to the Hawaiian Department, and the remainder were ordered to Dodd Field, Fort Sam Houston, pending the receipt of orders for their assignment to various Air Corps fields.

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CHANGES IN PERSONNEL AT THE MATERIEL DIVISION

The turn of the Fiscal Year sees many changes in Materiel Division official personnel. Majors William H. Crom, Adlai H. Gilkeson, Oliver P. Echols, Captain Robert Kauch and Lieut. Edwin R. McReynolds are slated for the Air Corps Tactical School at Maxwell Field, Montgomery, Ala.

Major Crom, Chief of the Industrial War Plans Section, will be replaced by Captain Romeyn B. Hough; Major Gilkeson, Chief of Equipment Branch, by Major F.H. Coleman, at present Chief of the Field Service Section; Major Coleman by Major Hugh J. Knerr, who comes from the Army War College; Major Echols, Chief of Procurement Section, by Major R.M. Jones, Chief of the Purchase Branch; Major Jones by Major H.A. Strauss, who comes from Kelly Field, Texas.

Major John D. Reardan goes to the Naval War College at Newport, R.I., and he will be succeeded as Commanding Officer of Wright Field by Major R.E.M. Goolrick, who comes from Marshall Field, Kansas. Captain Carl F. Greene, Lieuts. H.K. Baisley and F.E. Glantzberg leave for foreign service. Captain O.O. Niergarth goes to the Army Industrial College, Washington, D.C.; Lieut. Alfred A. Kessler, Jr. to the Massachusetts Institute of Technology, Cambridge, Mass.; Lieut. Charles A. Ross to the Middletown, Pa. Air Depot; Captain Michael E. McHugo to Scott Field, Belleville, Ill.; Captain Leland C. Hurd to Buffalo, N.Y.; Lieut. Russell L. Williamson to Wichita, Kansas; Lieut. Courtland Johnson to the Rockwell Air Depot, Coronado, Calif.

Eight of the sixteen officers graduating from the Air Corps Engineering School, Wright Field, this year, are to be assigned to the Materiel Division, viz: Lieut. Benjamin W. Chidlaw to the Airplane Branch; Lieut. Alden R. Crawford to the Airplane Branch; Lieuts. John L. Davidson and Clarence S. Thorpe to the Armament Branch; Lieut. Edmund C. Langmead to the Field Service Section; Lieut. R.J. Minty to the Equipment Branch; Lieut. Edward M. Powers to the Power Plant Branch and Lieut. Kenneth B. Wolfe to the Inspection Branch.

Five officers on duty at the Materiel Division have been assigned to the Air Corps Engineering School as students - Lieuts. Wendell H. Brookley, Airplane Branch; Donald F. Stace, Supply Branch; Randolph P. Williams, Airplane Branch; Samuel R. Harris, Jr., Equipment Branch; Shelton E. Prudhomme, Field Service Section. Other officers who will make up the sixteen students composing next year's Engineering School are Captains M.G. Estabrook, Middletown Air Depot; F.D. Hackett, Langley Field, Va.; Lieuts. L.P. Holcomb, Scott Field; F.M. Hopkins, Fairfield Air Depot; J.T. Morris, Selfridge Field, Mich.; J.A. Austin, Fairfield Air Depot; L.F. Harman, Langley Field, Va.; Ernest K. Warburton, Selfridge Field; Raymond Morrison, Michigan National Guard; I.A. Woodring, Rockwell Field; and C.A. Bassett from March Field, Calif.

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Three planes from Wright Field participated in a demonstration at the Citizens Military Training Camp at Schoen Field, Indianapolis, Ind., on June 24th. They were piloted by Lieut. C.S. Thorpe, with Capts. D.W. Howard, T.T. Trappell and C.F. Wheeler as passengers; Lieut. R.J. Minty with Lieut. Park Holland, and Lieut. C.A. Caldwell with Capt. J.G. Whitesides. The first plane was a C-4A, the second an A-3 and the third an O-25.

ECHOES OF THE AIR CORPS MANEUVERS

Kelly Field

Kelly Field personnel returned from the Air Corps Maneuvers one hundred percent. Lieut. A.L. Jewett, flying a Fort Sill ship, was forced to land in the Hudson River when the motor of his plane stopped. The plane was wrecked as it was pulled from the water.

The total aircraft flying time for Kelly Field during the month of May was 9,477 hours. From all reports, the students held their own with the experienced pilots during the Air Corps Maneuvers and convinced the authorities that, in case of emergency, Kelly Field cadets could be sent to tactical organizations with very little extra training.

Boston Airport

Among the Reserves who were active in various capacities during the maneuvers at Boston were Majors Bartlett Beaman, of the 442nd Pursuit; Major Robert F. Raymond; Captain George Lusk; Captain Charles Clark; Lieuts. Walter Cleveland, C.J. Ahern, H.J. Jenkins, M.I. officer with the 442nd Pursuit Squadron of Reserves; Lieut. "Mike" Harlow, well known commercial flyer, and Lieut. C.M. Connell.

Selfridge Field

Now that the smoke is cleared away from the exploits of the pilots who took part in the recent Air Corps Maneuvers, we, of Selfridge Field, feel that the enlisted men should come in for their share of praise. As for maintenance in the First Pursuit Group during Maneuvers, the planes functioned almost 100%. As a matter of fact, the pilots did not stand up nearly so well, due to mumps, colds, and various ills of a like nature. Under adverse conditions the enlisted personnel of the Group were always on the job, did their work cheerfully and well, putting forth every effort to maintain the old Air Corps tradition - always ready.

WRIGHT FIELD

Tents have been folded, but not with the traditional silence of the Arabs, and 75 enlisted men stationed at the Materiel Division for the period of the Air Corps Maneuvers have gradually been returned to their home stations. Many pilots of the Division have put in flying hours at this work - and some not of the Division. Lieuts. T.S. Olds, H.J. Reid, R.J. Hixon and R.C. Rhudy arrived at the field on June 6th in four Fokker Transports, taking two loads of troops to Scott Field and two to Selfridge Field. Lieuts. A.A. Kessler and Levi L. Beery took a fifth and sixth transportful to Chanute Field the same day.

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DAYTON ATTORNEY DECORATED WITH D.S.C. AT WRIGHT FIELD

The award of the Distinguished Service Cross to Robert Higley, attorney and former member of the Marine Corps, was made at Wright Field on June 5th in the presence of officers, members of the American Legion, representatives of the Marine Corps, Higley's family and a group of personal friends.

For the first time the lawn about the flag staff before the Administration Building of the Materiel Division was used for such a ceremony, and it made a fitting stage for the occasion. Prior to the presentation, a Boy Scout band played patriotic music. Attention was sounded by the bugler with the drum corps. After the Star Spangled Banner was played, Hon. William G. Pickrel, Lieutenant-Governor of Ohio, spoke briefly, lauding the deed which had won for the recipient such well-deserved merit.

The citation was read describing Higley's bravery in going out to the front lines in the face of almost certain death to bring back a wounded officer, Lieut. Edwin Hope. When this had been accomplished, Higley placed 17 bandoliers of ammunition about his neck and again made his way to the front line to aid his fighting comrades. The award came just 13 years to the day after the accomplishment of the deed.

Brigadier-General H.C. Pratt pinned the decoration on Higley's breast. Congratulations from Marines, who had been with Higley at Chateau Thierry and were present for the occasion, from officers, from fellow reserve officers and friends followed, the brief but impressive ceremony breaking up to the music of the Boy Scout Band.

YOUNG AMERICA'S INTEREST IN AVIATION

There is no denying the fact that aviation has a particularly strong appeal for the average youngster. Most of the requests received by the Information Division for photographs of airplanes come from youngsters of tender age, who express in no mistakable terms their ambition to become fliers some day. Their hero worship has undergone a complete change. The cowboy, railroad engineer, conductor, etc., are heroes no more in their estimation. They are now either warming the bench or have been relegated to the bush leagues. The hero who now occupies the center of the diamond is the aviator.

One needs only to enter a movie theatre when an air picture is being shown to find concrete evidence of this fact. He will find a large percentage of the audience these youngsters who in the future will guide the destinies of this nation. He will hear applause which is absent in other types of photo plays.

Kelly Field recently received a letter from a youngster residing in Buffalo, N.Y., which it is believed will be of interest to readers of the News Letter. It is quoted below, as follows:

"Dear Sirs:

I have caught wind that you were going to have two seaters for the army. Well! I vote no. Here's my reason. When the machine gunner sees an enemy airplane coming he signals the pilot to get on the tail of the other ship as they usually do. What if the pilot does not get there in time and while trying to get there he gets shot at in the attempt. I think that you should have one seater pursuit planes. I saw this in the May or June Popular Mechanic for 1930. I saw all the pictures and everything. I am thinking of going to Brooks Field then to Kelly's Field myself. Do you have to be chosen by the Senator of the state to go there? I am waiting for an answer for that question. Also I think you should have lighter bombers for day attacks and bigger bombers for night attacks. Lighter bombers for days because if the planes are attacked by pursuit ships they may fight their way through. I am very interested in aviation. At least have about 900 or 1000 pound bombs on day bombers, and 2000 - 4000 pound bombs on night bombers. I got the May, June, and July Popular Mechanic for 1930 when I saw them advertisements you had in it. Oh! Boy, I hardly can wait till I am at least 17½ years old. I guess I can start then, can't I? I always get the Popular Mechanic Magazine. Remember what I told you about them airplanes previous in the letter. I also read the War Birds Magazine, Air Stories, and such airplane magazines. From these I got some information about airplanes. The weather down here is fine and hot. Too hot for comfort. How is it down there? The ceiling is high for flying. That's the way it is supposed to be I guess. I am 13 years old, I go to St. Francis Xavier's School, and I am in the 8th grade. I'm going to graduate this June. Please send me an answer. I am waiting. Please send me any kind of answer. My mother laughs every time I tell her I'm going to be an aviator. Well so long, supper's ready. Good-bye.

Your true friend,

P.S. Don't forget to send me an answer
what you're going to do.

(Watch what my Mother'll do when you send me a letter).

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RESERVE OFFICERS IN TRAINING AT SCOTT FIELD, ILL.

Seventy-one Reserve officers reported to Scott Field, Belleville, Ill., for the Reserve Officers Training Camp for two weeks' active duty beginning July 5th. Included in the number reporting are 60 officers of the heavier-than-air branch, 7 of the lighter-than-air branch, 2 photographic officers, one communications and one medical officer. Flying training was begun on the morning of July 7th, a total of 36 planes being available for that purpose. Two training type airships were available for the training of the lighter-than-air personnel, and spherical balloons will be sent out at intervals during the camp for balloon training.

The airplanes available for training are: 12 PT-1, 8 PT-3, 10 O-19B, 3 O-19C, and 3 O2-H. Of the above, 22 planes were sent to Scott Field from other Regular Army and Reserve Air Corps flying fields. Fields supplying planes are Selfridge, Duncan, Norton, Jones, Schoen and Lunken.

Reserve officers attending this camp are scheduled to be relieved from duty in time to return to their homes on July 18th.

HAWAIIAN AIR DEPOT A BUSY PLACE

The Station Repair Unit of the Hawaiian Air Depot, located at Luke Field, was the scene of greatly increased activity during the month of April. The arrival of twenty new P-12C airplanes and twelve new O-19C airplanes at the same time, together with the accomplishment of the annual overhaul schedule, has kept all departments operating at top speed. However, by hard work all along the line, the new planes are rapidly taking the air and at the same time the overhaul schedule of approximately eight airplanes per month is being maintained.

The present number of airplanes in the Hawaiian Department represent quite a change from a year ago, when Luke Field had difficulty in getting six planes in the air for an Aloha flight. Word was received that the Keystone B-5A Bombers are on the way to Hawaii and the arrival of these planes will further increase flying activities.

The Station Repair Unit at Luke Field is comparatively a young organization, having been organized in 1927. At that time, a few civilian employees were brought over from the States to act as key men. From this nucleus of ten men, a major repair depot was built up, and at present the personnel employed consists of ninety civilian employees and fifty-one enlisted men. Some of the early arrivals among the civilians were Messrs. John C. Vaughn, Richard T. Harrison, Walter Chandler, Albert W. Lorain, and Patrick Holohan, and each of these men assisted materially in the organization of the Depot.

Effective on May 1st, this year, Mr. Vaughn moves up from Foreman of the Machine Shop to the position of Shop Superintendent. Mr. Ansel Dekle is promoted to Foreman of the Engine Repair, vice Mr. Sgt. Harry Carmean, who becomes Assistant to the Chief Engineering Officer until his departure for the States in June.

Cruising around the shops, the News Letter reporter found every department functioning at top speed. The Final Assembly was, perhaps, the busiest spot and the place was almost filled with crates containing the new O-19C and P-12C airplanes. They report that during the month of April they delivered 34 airplanes of which 18 were minor overhauls, 5 were major overhauls, and 11 were assemblies of new airplanes. They have been assembling an average of $1\frac{1}{2}$ new O-19C airplanes per day. One of these new planes was assembled and equipped with full war equipment and placed on exhibition during Army Day, April 6th, at the big Army exhibit at Ft. Armstrong in Honolulu.

The Machine Shop, consisting of the Welding Department, Sheet Metal Department, Maintenance Department and Machine Shop proper, which employs a personnel of eleven enlisted men and sixteen civilians, just finished a very busy month, having completed approximately 80 work orders and 100 to 125 jobs on instruction slips. An impending shift in personnel which is scheduled to take effect on May 1st will make Sgt. Carl A. Nelson the foreman of the Machine Shop. The entire force of the Machine Shop wishes Mr. Vaughn luck on his new job as Shop Superintendent and hopes that Sgt. Nelson will be as good a foreman in the future as Mr. Vaughn has been in the past. The Welding Department, under Sgt. E.L. Kliforth, just completed building a new nose on LB-6 29-25, which was badly injured in a recent crash. This piece of work was considered a very difficult and exacting job, and Sgt. Kliforth and his men are to be highly commended on the creditable manner and efficiency with which it was finished.

On making his customary rounds of the various departments this morning, the writer beheld Mr. Groves busily engaged in what appeared to be the childish pastime of building sand castles and making mud pies. Highly intrigued by his maneuvers, we decided to stick around awhile and see what would happen. After a due amount of time and some questioning, it was discovered that Mr. Groves was making aluminum casts of spinners for the P-12 airplanes. In other words, we are able to cast our own parts and then go right through the various processes of turning out the finished article exactly as the manufacturer would do it, and still keep within the strict specifications of our Technical Orders. The distance between this depot and the various sources of supply makes every little accomplishment like this assume great importance.

Engine Repair also had rather a busy month completing six major overhauls on SR-1340C engines and three major overhauls on R-1340C engines. One V-1650 and one V-1150 also received minor overhauls.

Aero Repair report the completion of a new parachute department, one of the outstanding features being the storage vault for parachutes, so constructed that it is both vermin and thief-proof. An exhaust system for removing sawdust is

practically completed in the wood mill. In addition to the above construction projects, the Aero Repair turned over quite a number of airplanes to the Final Assembly.

All in all, it has been a busy month around the Station Repair Unit on Ford Island and the manner in which the work has been expedited all along the line reflects very favorably on the cooperation between the enlisted men and the civilians under the direction of Capt. Ralph B. Walker, the Chief Engineer.

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NO DULL MOMENTS FOR LIEUT. REED

Of late, Lieut. Minthorne W. Reed of the 17th Pursuit Squadron, found his service with the 1st Pursuit Group one round of excitement, this tending to prove that troubles never come singly. Recently and inadvertently he made a most distressing service test on the adaptability of a certain Amphibian as a purely sea-going vessel, and he reported the results a bit unsatisfactory.

Testing the Amphibian on Lake St. Clair, all went well for several water landings, with the spray flying merrily on each take-off and landing. Soon, however, the engine, a well-meaning inverted Liberty, became very damp, with the result that it wanted to quit. After the third landing, Lieut. Reed found his RPM had fallen off to where he could not get the venerable plane to leave the water.

In the meantime, a brisk wind had whipped the lake out of its usual placid mood, and there he was sloshing around eight miles up the lake from the field and two miles out from shore. The plane would taxi beautifully, but the wind had the situation too well in hand to permit directional headway. Fortunately, a Coast Guard boat soon appeared, before any of the Selfridge men had been appraised of the mishap, and towed the plane to the slip at the field. The trip consumed two hours, and by that time both personnel and materiel were very, very wet.

Sometime later, a Selfridge Field Pursuit plane figured in two aerial collisions of the same nature on two consecutive days, and came through both mishaps unscathed. Lieut. Reed was flying P-12C plane No. 163 on a night formation practice flight with five other members of his Squadron. The ships were flying in close formation and hit a sudden bump, or air disturbance, which caused the outer edge of the top wing of Lieut. Reed's ship to deflect downward, momentarily striking the tail section of Lieut. W.M. Morgan's plane and bending it badly. Lieut. Morgan was able to land his plane, however, without further damage. Upon examining Lieut. Reed's plane, not a scratch could be found on it.

The next day, while again flying formation, plane No. 163 figured in exactly the same sort of an accident, inflicting the same damage on another plane, but without injury to itself, and with another pilot at the controls. Here is certainly an item for the "Believe It or Not" column.

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FREE BALLOON FLIGHT AT SCOTT FIELD

The first free balloon flight of the present training season was successfully carried out just recently, when Capt. Douglas Johnston and Mr. Sgt. Olin Brown took off from Scott Field and landed near Nashville, Ill.

The flight was made in compliance with instructions from the Chief of the Air Corps, requiring each lighter-than-air pilot to make two free balloon flights each year. Other pilots on the Post will be scheduled for their flights as rapidly as the equipment and weather conditions permit.

Capt. Johnston and Sgt. Brown took to the air about 6:00 A.M., with their 35,000-foot bag filled with hydrogen. With a strong west wind at the lower altitudes and a still stronger northwest wind higher up, there was little choice in the direction of flight. By varying their flight level the two pilots were able to follow U.S. route #15, which made it easier for the pick-up truck to reach the landing place. Previous instructions had limited the flight to not over 40 miles and this approximate distance was reached about 8:15 A.M., and a landing made a few minutes later in a small circular field about 75 feet in diameter. The truck arrived about 10:00 o'clock and the deflated bag and pilots were returned to the field.

Free ballooning has caught the fancy of the 15th Observation Squadron officers, and the Operations Office has been flooded with requests for permission to participate in the future flights.

MATERIEL DIVISION ACTIVITIES

By A.M. Jacobs

New Ambulance Airplane - Y1C-15

A Fokker airplane, built especially for ambulance purposes, was tested recently at Wright Field, Dayton, Ohio, the tests being completed in time to put the plane in service for the Air Corps Maneuvers. The new Ambulance is powered with a single Wright "Cyclone" engine of 525 h.p. The color is white, with a large red cross on both sides of the fuselage. There are three litters for patients and three seats in addition to the cockpit. The seats are for doctors, attendants or other patients. The plane is equipped with oxygen apparatus for altitude flying and for treatment where necessary. A metal cabinet contains surgical instruments. It has a drinking fountain, a basin with running water, thermos bottle for hot water or coffee, crash tools, tow rope, and an emergency aid kit, including articles for the stoppage of hemorrhage, binding of wounds, etc. The top speed of this plane is between 125 and 130 miles per hour, and the cruising speed between 115 and 120 miles per hour.

Ford Bomber submitted for test

The Ford Motor Company has constructed its first Bomber, and it was flown to Wright Field for test on May 12th. The Bomber is of the usual Ford monoplane all-metal construction and is powered with three "Wasp" supercharged air-cooled engines. It is designed to fly with full load of bombs on any two of its three engines and to fulfill its mission over land or sea should one engine fail.

Ford engineers claim that on its maiden flight from the Ford Airport to Wright Field it outdistanced one of the latest Ford Transports, which speaks well for its speed. The supercharged engines will make it possible for the plane to attain unusual altitudes for a heavy Bombardment type of plane, thus, in case of emergency, putting it beyond the ranges of anti-aircraft machine guns. For protection against attacking enemy airplanes, aside from the high speed of the plane, there are several machine guns so arranged that protection in all directions is afforded. The plane will undergo complete flight and performance testing at the hands of the flight test pilots at Wright Field for the purpose of determining its suitability for military purposes.

Car adds to Airship efficiency

Among the developments of the Materiel Division on exhibition during the Air Corps Maneuvers was a new type of enclosed car for use with small non-rigid training airships. We are quite familiar with the types which hang beneath the envelope suspended by cables terminating in finger patches cemented to the outside of the bag.

The top of the new car is faired directly into the bottom of the envelope, so that the car and the envelope appear as a unit and no suspension is visible. This suspension, however, is the distinguishing feature of the new car. Cables extend through the bottom of the envelope into the interior and are secured to two fabric curtains, 80 feet long, especially designed to take the stresses imposed by the weight and drag of the car and the lifting gases, and which in turn are secured to the top of the envelope. The loading distribution on these curtains amounts to approximately 18 pounds per running foot, resulting in an exceedingly high factor of safety. Since wind tunnel tests on airship models have shown that the drag on the external rigging is about 15 percent of the total drag, the placing of the suspension rigging on the interior of the envelope will obviously reduce the drag and increase the efficiency of the airship.

The car is neat in appearance, being generally contoured on a streamline form. Good visibility obtains through celluloid windows extending about three sides. Two doors and two large windows provide parachute exits. Seating arrangements accommodate two pilots and two passengers. It is powered by two 60-70 horsepower air-cooled engines, mounted on outriggers extending out from each side. A novel feature consists of a hinged platform near each outrigger, which may be folded down from the car and upon which a mechanic may stand to perform any minor repairs to be made on the engine during flight. A landing wheel has been incorporated to the rear of the car. With this arrangement, it is

thought that loads in excess of those usually carried in small airships of this type can be handled, the dynamic lift being increased in the run across the ground in much the same manner as it is with an airplane.

Although no tests have yet been performed, it is estimated that a speed of 55 m.p.h. will be obtained, due to the internal rigging arrangements and the refinements of its design. Fully equipped with controls, instruments, accessories, and engines, the weight is approximately 1400 pounds.

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THE ROCKWELL AIR DEPOT ✓
By the News Letter Correspondent

"Without the benefit of banquet speeches, the industry of San Diego which during the past year has taken a longer hop, skip and jump than any, is the Depot Supply Department of the Rockwell Air Depot."

The above quotation from a recent issue of a San Diego newspaper briefly summarizes the greatly increased activity at the Rockwell Air Depot during the past year. As stated in the article above referred to, the title "Depot Supply" may sound deadly to romance, and yet this business institution has fingers reaching to seven Western States, Hawaii and the Philippines.

It has been stated that even Air Corps officers are not fully cognizant of the vast amount of the stock on hand and the many ramifications in the operation of the Depot. This is true, and to correct the situation and fully to inform commissioned personnel of this work, Lieut.-Colonel B.K. Yount, the Post Commander, recently ordered all officers of this command to spend a half day making a tour of inspection and study of the Engineering and Supply Departments of the Rockwell Air Depot. Captain C.P. Kane, the Depot Supply Officer, and Lieut. B.M. Giles, the Post Engineering Officer, were detailed to act as guides and to explain the workings of the various organizations. After the tour, many of the younger officers expressed amazement at the extent of the business handled.

There is a saying that anything connected with the Army must of necessity be bound up in "red tape;" yet many executives of large business organizations on this coast have purposely visited the Rockwell Air Depot in order to study the method and manner of doing business there. For example, approximately forty thousand items of property are stocked, valued at many millions of dollars. Nevertheless, in the past 18 months, the average time required to fill a requisition submitted to the Rockwell Air Depot has not exceeded a day and a half. In other words, from the receipt of the requisitions, which in many cases are large and contain thousands of items, until the goods are placed on the cars, a day and a half is the total elapsed time which is necessary for the work, which includes editing, preparation of shipping tickets, distribution of shipping tickets, issue of stock from the storerooms, packing and shipping.

From the foregoing it is readily apparent that the Air Corps supply system is functioning in an efficient manner and comparable to that of many of the large and well organized civilian industries of this country.

Military Attachés of foreign governments, engaged on a world wide inspection trip of supply and engineering organizations, who recently visited the Rockwell Air Depot, stated that this organization was the equal, if not the superior, of any like plant they had seen.

Higher military commanders are more and more realizing the importance of supply, and this is especially true in the Air Corps. The lack of a single small item can very easily keep an airplane on the ground, and this is particularly true during maneuvers. One does not have to look very far back to realize the great changes and improvements that have been effected within the Army Air Corps supply system and, when consideration is given to the huge and combined totals of business transacted throughout this service, it requires no stretch of the imagination to appreciate the fact that the Air Corps supply in itself really represents one of the big business enterprises of the country.

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A Board of Air Corps officers recently convened at Wright Field, Dayton, Ohio, to consider the future Pursuit program of the Air Corps. Officers making up the Board were Major Carl Spatz, Rockwell Field; Captain H.M. Elmendorf, Office of the Chief of the Air Corps; Major G.E. Brower and Lieut. J.S. Griffith, Selfridge Field; Capt. Frank O'D. Hunter, Rockwell Field; Capt. J.K. Cannon, Duncan Field, and Lieut. A.A. Kessler, Wright Field.

FLOATING HARDWARE SHOP DISCOVERED IN HAWAIIAN WATERS

By the News Letter Correspondent

The grey terror of Pearl Harbor is no more, his demise taking place on Kamehameha Day. Mothers may now let their babes paddle in the blue waters of the harbor without the ever present fear that they are to form a delectable tid-bit for a shark's lunch. Yachtsmen may sail their fragile craft blithely around Ford Island conscious of the fact that the lurking shadow which was wont to cast a hungry eye and lick his chops at a particularly toothsome morsel is no longer sliding under their gunwale or "gunnel"- or whatever they call it.

The tales of this man-eating tiger of the seas, who has for the past three months made his home in the deep channels and dark caves of Pearl Harbor, are almost beyond belief - how he has savagely attacked tug boats and launches, leaving deep gashed tooth marks on their steel sides; how he has leaped clear of the water after low-flying airplanes like a trout after a fly; how he took a two foot bite out of the steel anchor chain of the Army tug and chased two frightened Japanese fishermen clear into the Ewa Cane Fields. According to all reports, he was the most savage man-eater that these waters has ever known.

A party of intrepid fliers from Luke Field, however, proved more than a match for his ferocity and cunning. Armed with harpoons, steel cables, spears, machine guns, meat cleavers and pistols, the brave little band of hunters embarked on the "Ohoyo Maru," loaned to them by Mrs. E.M. Adams of Honolulu, for the chase. Near the Fort Weaver dock the terror made his appearance, circling the boat with a murderous leer on his cruel face. To a fusillade of shots and a shower of harpoons, he paid not the slightest attention, disappearing with a contemptuous flick of his tail. On his second appearance, however, a few minutes later and near the main channel, the aviators were more successful, as a harpoon, thrown from the upper deck of the sampan by Lieut. Williamson, struck the tiger in the back and held. With three men hauling on the harpoon line, out he came charging directly on the sampan with gnashing teeth. He was met with a shower of bullets and another harpoon cast by Lieut. Davies and, after a terrific struggle, he succumbed, but only after he had exhausted every effort to get at his pursuers. During the struggle he ferociously snapped at Lieut. Williamson who was handling a gaff, cutting off the two-inch oak pole of the gaff as though it were a straw and taking with it the end of one of Lieut. Williamson's fingers of his right hand, the only casualty sustained by the brave fliers. There is some talk of awarding the Lieutenant a wound stripe for bravery and for great presence of mind in jerking his hand away in time to save his entire arm.

On being towed to Luke Field, the terror was found to be of the tiger variety, about ten feet long, weighing in the neighborhood of 300 pounds. On being opened his stomach was found to contain the following varied articles of diet: one hind leg of a mule; two bathing suits, nearly digested; soldier's belt buckle and a pint of suspender and coat buttons; two horse shoes; one corner of a wooden soap box; one length of anchor chain (from Tug "Stanley Cochrane"); two small boat anchors; ten pounds of assorted bolts, nails and copper fittings, presumably from some wreck.

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ENGINEERING STUDENTS MAKE EXTENDED AIR TOUR

The last week in May and the first in June, students of the Air Corps Engineering School at Wright Field, Dayton, Ohio, spent their time in the Flying Branch for practical instructions in the flight testing of military airplanes, the theory and computations for which they had already worked out in class. Each student had assigned for his use an available airplane which he put through complete flight and performance tests, drawing up the necessary reports and performance charts for each stage of the operation.

On June 6th, the class took off in nine airplanes, under the direction of Capt. Grandison Gardner, Assistant Commandant of the School, and accompanied by A.J. Roche, airplane designer, for a tour of inspection and for the purpose of visiting various airplane, engine, and accessory manufacturing plants and observing the construction of airplanes from the ground up. The flying tour included Langley Field; Bolling Field; Baltimore; Edgewood Arsenal, Md.; Philadelphia; Bristol, Pa.; Hasbrouck Heights, N.J.; Mitchel Field, Hartford, Conn.; Schenectady, N.Y.; Rochester and Buffalo, N.Y.; Pittsburgh, Canton, Cleveland and Akron. The class is the largest in aeronautical engineering which was ever graduated by the School, consisting of sixteen students.

NEW OFFICERS' QUARTERS AT SELFRIDGE FIELD COMPLETED

Construction has been commenced at Selfridge Field, Mt. Clemens, Mich., on the new Headquarters Building, hangars, etc., and everyone on the post is eagerly looking forward to the not far distant future when the last of the old war time buildings will be no more. The new officers' quarters are already occupied, and work is going on apace in planting lawns, shrubbery, trees, etc., in an effort to beautify the surroundings.

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PURSUITERS IN HAWAII PARTICIPATE IN A TACTICAL EXERCISE

The 18th Pursuit Group, stationed at Wheeler Field, T.H., participated in a three-day tactical exercise, centering around Maui, on May 19th, 20th and 21st, which was directed by the Wing Commander, Lieut.-Colonel Gerald C. Brant. First Lieut. Rex K. Stoner led the flight from Wheeler Field. The first day an attack was made on Wailuku, Maui, where a base was established after the opposing forces had presumably been destroyed. The second day, the attack squadron attempted to slip through the pursuit patrols and attack and destroy Hilo, Hawaii. On the return trip the next day, an attempt was made to pass the observation patrols around the Island of Oahu and destroy Pearl Harbor. The officers and men engaged in these maneuvers report that the hospitality of Maui is unexcelled.

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FIRST PURSUIT GROUP STAGES DEMONSTRATION FOR C.M.T.C. CAMP

The First Pursuit Group, Selfridge Field, Mich., consisting of three squadrons, 12 planes each, and two Transports, carrying 16 enlisted men, made a tactical flight to Fort Benjamin Harrison, Indiana, on June 24th, for the purpose of flying a demonstration for the C.M.T.C. Camp being conducted at that post.

In the evening, the officers at Fort Benjamin Harrison and the Indianapolis Board of Commerce acted as joint hosts to the officers of the Group at a banquet, followed by a dance. A good time was had by all, and the Group returned to Selfridge Field the following day.

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SCOTT FIELD PIGEONS CARRY OFF HIGH HONORS

Homing pigeons from the Scott Field loft made a very good showing in the race from Chattanooga, Tenn., which was started July 18th. This race was approximately 349 miles, and nearly 3,000 birds were entered from various parts of the country, including about 60 from the St. Louis area. A St. Louis bird finished first in the district, averaging 656.94 yards per minute, being closely followed by four birds from the Scott Field loft which won second, third, fourth and fifth places in the district. While the showing of the Scott Field birds was comparatively good, the speed made was much below that made in the same race last year. This difference was due to bad storms over the course with a strong wind against the birds from this district.

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Camp Claudio Field, a stone's throw from Nichols Field, P.I., was the scene of an unusual and interesting occurrence recently, when Mr. R. Massier, civilian inspector of the Motor Overhaul Department of the Philippine Air Depot, made his first solo flight and the first flight of the ship built by himself and Corporal Slinkard of the 66th Service Squadron. The ship, built completely except for accessories by these two men, is a small high-wing monoplane, metal fuselage, powered with a 35 h.p. Anzani motor. It is very trim looking and has good performance.

Mr. Messier's training as a pilot consists of eight hours' dual instruction in 1927. He has made a total of four flights of about fifteen minutes each in his ship up to this writing. He was formerly a member of the 65th Squadron in Hawaii and later of the 66th Squadron at Nichols Field, where he purchased his discharge to become a civilian engine inspector.

THE HIGH GRIP WITH A TARGET PISTOL
By Lieut. J. L. Hitchings, Air Corps
(The 9th Article of this Series)

Again the reader is reminded of the fundamental tenet in the accepted doctrine of pistol shooting: THE HUMAN BODY MOST NEARLY APPROACHES A MACHINE REST WHEN THE BONES AND MUSCLES USED ARE LOCKED WITHOUT STRAIN. This principle, as we have seen, explains why experts believe that the wrist should be drooped until it comes to a natural stop.

Now if we are to droop the wrist without pointing the barrel down, we must place our hand high on the stock; and this position we find to have the further advantage that local unintentional pressures on various parts of the hand produce less deviation of the muzzle than would be caused with a lower grip. For these reasons it has become a firm tenet of the Springfield doctrine that THE HAND SHOULD BE PLACED AS HIGH ON THE PISTOL STOCK AS POSSIBLE.

Thus we have determined a definite limiting position for the hand, which may be defined as follows: WHEN THE PISTOL IS PLACED IN THE HAND IN LINE WITH THE ARM, THE PALM BEING HELD VERTICAL, THE HAND IS MOVED UP ON THE STOCK UNTIL, BY DROOPING THE WRIST, THE BARREL FALLS NATURALLY INTO A HORIZONTAL POSITION.

Now let us consider in detail the various parts of the hand and define limiting positions for them also. Just as the two feet form the fundamental bases on which the body is balanced, so the second finger forms the immediate support for the pistol on which it rests.

WHEN THE PISTOL IS PLACED AGAINST THE PALM, THE PALM BEING HELD VERTICAL AND AT THE CORRECT HEIGHT ON THE STOCK, ALLOW THE WEIGHT OF THE BARREL TO FALL NATURALLY ON THE SECOND FINGER.

The H. and R. single shot pistol is designed to make this position natural, having a block provided behind the trigger guard which rests naturally upon the second finger. The Stoeger 762 and most foreign target pistols have spurs on the trigger guard which serve the same purpose. The Colt Camp Perry, however, and both the Colt and the Smith and Wesson revolvers are recessed upward behind the trigger guard; blocks for them should be improvised of wood or plastic wood, to make the weight of the barrel fall naturally on the second finger.

The trigger finger should be slid forward against the right side of the trigger until it is slightly stretched. To accomplish this, HAVING SET THE PISTOL IN THE HAND BY THE FOREGOING RULES, RAISE THE MUZZLE; THEN SLIDE THE TRIGGER FINGER IN AS FAR AS IT WILL GO EASILY; IF ITS POSITION IS CORRECT, THE TRIGGER FINGER WILL, WHEN THE MUZZLE IS LOWERED TO THE HORIZONTAL, EXERT A PRESSURE TO THE LEFT ON THE TRIGGER AND WILL TAKE AN APPRECIABLE PART OF THE WEIGHT OF THE BARREL OFF THE SECOND FINGER. The amount of pressure to the left should be such that if the thumb and the lower fingers are allowed to swing free, the trigger finger, by its pressure to the left, will hold the stock lightly against the palm and prevent it from slipping out of the palm.

THE THUMB, CARRIED HIGH, SHOULD BE EXTENDED IN LINE WITH THE BARREL; IT SHOULD PRESS TO THE RIGHT WITH THE SAME PRESSURE EXERTED TO THE LEFT BY THE TRIGGER FINGER. In practice, the thumb is usually extended along the top of the frame, lightly touching the left side of the hammer.

The lower fingers should be wrapped loosely around the stock, their only function being, by a light inward pressure of the finger tips, to help keep the grip from slipping out of the palm. Unintentional tightening of the lower fingers, it may be added, invariably cause erratic shooting.

Lieut. Pickrell, of Canada, who in 1930 tied the American record of 530 out of 600 in Match I, shoots with his lower fingers completely free of the stock, to make sure that he does not unintentionally tighten them. It is, however, believed better practice to wrap them loosely around the stock.

In applying these rules, as in applying those of position, strive for uniformity. It has been erroneously inferred from the excellent spark photographs of Captain Quayle that tension of grip has little effect on the recoil of a pistol. That this inference is misleading should be apparent from the fact that a perceptible change in the upward kick of the muzzle, due to tightened grip, is present even in the photographs, and from the fact that an imperceptible change would make an enormous difference in the location of the shot. That any change in the position or tension of the various parts of the hand will affect the location of the shot, even with the same apparent aim, no one who has done target work will doubt.

In striving for uniformity, notice which parts of your hand the various

parts of the gun come in contact with. For example, note which part of your trigger finger the trigger strikes when the gun is gripped correctly. It doesn't matter in the least which part of your trigger finger it is that meets the trigger, as long as you follow the rules given in the preceding discussion; in fact, you will use different parts of your trigger finger later on different makes of pistols; but if you know which part it is for the gun you are working on, you will more readily obtain a uniform grip. Pressure exerted by various parts of the hand during the trigger squeeze will be discussed in the next article.

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AERIAL PHOTOGRAPHIC ACTIVITIES OF THE FIFTH PHOTO SECTION ✓

The 5th Photo Section, stationed at Scott Field, Ill., recently completed photographing an area of 240 square miles in the vicinity of Chicago, Ill.; Gary, Indiana, and territory contiguous thereto, known as the Calumet Area, for the District Engineer, 1st Chicago District, Chicago, Ill.

The prints were laid down in the form of a controlled mosaic, copied, and two prints of each copy delivered to the District Engineer. The Section is now at work completing two mosaics of this area, one mounted on vehisote board and one on beaver board.

In addition to the mosaics, oblique photographs were made of industries on the banks of the Little Calumet River, the Grand Calumet River and the Sag Canal, all of which overlap, giving a general idea of the possibility of desirable locations along these inland waterways. The 5th Photo Section also made a mosaic of Camp Williams, Wisconsin, this mosaic being laid by control for the U.S. Engineers, the Adjutant General of the State of Wisconsin and the Militia Bureau. This area, comprising 87.70 square miles, was copied and six prints of each copy were furnished the Adjutant General of the State of Wisconsin and two copies of mounted prints to the Militia Bureau, Washington, D.C. The controlled mosaic is now ready for delivery to the Adjutant General of the State of Wisconsin.

Lieut. Woolard and Master Sergeant Rhodes are now engaged in making a mosaic of territory surrounding and including Fort Leavenworth, Kansas.

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AERIAL GUNNERY IN NORTHERN MICHIGAN

Immediately upon returning from the Air Corps Maneuvers, the 1st Pursuit Group, Selfridge Field, Mich., established the yearly Aerial Gunnery Camp at Oscoda, Mich. According to the News Letter Correspondent, things are now working smoothly, and the boys are plunking the rounds into the bullseye - sometimes. Considerable bad weather has been experienced so far, and scores have not been as phenomenal as are hoped for later in the season.

The 15th Observation Squadron from Scott Field, Ill., has also been firing at Oscoda in conjunction with the Selfridge Field pilots.

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GENERAL MACARTHUR COMMENDS KELLY FIELD FLYERS

General Douglas MacArthur, Chief of Staff of the Army, has added his commendation to that of other high ranking Army officials to the Kelly Field organizations which took part in the recent Air Corps Maneuvers. In a letter received by Major Frederick L. Martin, Commandant of the Advanced Flying School, Kelly Field, General MacArthur states:

"I desire to especially commend you and all officers, cadets and enlisted men of your station who participated in the 1931 Air Corps exercises for the highly efficient manner in which they carried out all duties assigned to them.

The loyal and prompt cooperation of all members of the units from your station in the maintenance of ground and air discipline contributed greatly to the establishment of a record for safe operation of such a large number of aircraft which, I predict, will never be surpassed.

The efficient manner in which the organization from the Advanced Flying School conducted themselves and the high state of training and morale exhibited was gratifying and justifies the maintenance of the present standards at the Air Corps Training Center."

Letters, substantially as above, were sent by General MacArthur to all Air Corps organizations participating in the Maneuvers.

GRADUATION OF ENGINEERING SCHOOL STUDENTS

Commencement exercises for student officers of the Air Corps Engineering School, Wright Field, were held in the Auditorium at 11:30 a.m. on June 30th, with Wright Field officers, civilian employees, families of graduating officers and guests in attendance. On the platform, besides the student officers, were seated Brigadier-General H.C. Pratt, Chief of the Materiel Division and Commandant of the School; Major-General Dennis E. Nolan, Commanding General of the Fifth Corps Area; Major-General Frank Parker, Commanding General of the Sixth Corps Area; and members of the Academic Board, consisting of Majors C.W. Howard, Chief of Engineering; O. P. Echols, Chief of Procurement; F.H. Coleman, Chief of Field Service Section; and Captain Grandison Gardner, Assistant Commandant of the School.

General Pratt, who presided, made the opening address and thanked the students and all the Division for the success of the School. He introduced General Parker, who made the address of the day, speaking of the great need of cooperation between the different branches of the Army, such as the Infantry, Cavalry, Air Corps, etc., so that in time of emergency each might have a proper knowledge and respect for the duties of the others.

General Nolan presented the diplomas to the graduates. Luncheon was served after the close of the exercises for the graduates, their wives, the visiting generals and the Academic Board.

The graduating officers were Captains Leland C. Hurd, M.E. McHugo, O.O. Niergarth, Lieuts. H.K. Baisley, B.W. Chidlaw, A.R. Crawford, J.L. Davidson, Courtland Johnson, E.C. Langmead, R.J. Minty, E.M. Powers, C. S. Thorpe, R.L. Williamson, K.B. Wolfe, F.E. Glantzberg and C.A. Ross.

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LUKE FIELD PERSONNEL ENGAGE IN TACTICAL PROBLEMS

The Fifth Composite Group, stationed at Luke Field, T.H., recently sent a flight of eight Bombers, six O-19's and two Sikorsky amphibian planes to the Island of Kauai on a tactical training mission.

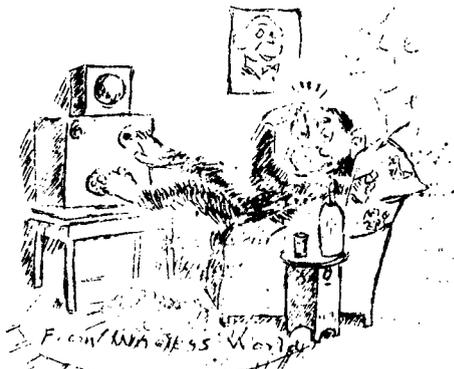
On the return of the above flight to Luke Field two days later, their problem was to attack the air forces at Wheeler Field. The remaining aircraft of the 4th, 50th and 72nd Squadrons at Luke Field formed an observation screen around the Island of Oahu, the problem being to intercept the enemy and give out their positions to Wheeler Field through the medium of radio. The weather favored the attacking forces and they approached the Island of Oahu unobserved, appearing suddenly from the clouds and staging a surprise attack against Wheeler Field. All the Wheeler Field planes were on the airdrome when the "enemy" appeared, but the 18th Pursuit Group were able to clear the airdrome and escape the bombardment, getting off in less than a minute and a half after the alarm was sounded. The 26th Attack Squadron, however, were not able to clear and would have incurred severe losses.

A similar problem was repeated nearly three weeks later, the enemy being represented by eighteen Pursuit, nine Attack, four LB-6 and four Observation planes. These planes simulated an attack on the Island of Oahu from the Island of Maui. This time the defense was more successful. The enemy was sighted before he reached the mid-channel, despite low visibility, and radio messages of the presence and position of the enemy were in Headquarters long before the attacking force reached the Island of Oahu.

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The Detroit Board of Commerce extended a welcome to the officers of the 1st Pursuit Group on the return from the Maneuvers by giving a banquet on Saturday, June 17th, at the Detroit Athletic Club, all officers of Selfridge Field attending. A new wrinkle, shown for the first time at a dinner of this sort and with very gratifying results, proceeded as follows: Every time a speaker would get up to make an oratorical effort, the entertainer seated close by for this particular purpose would burst forth with a blare of music, song and dance and drown out the would be speaker. This system worked out very satisfactorily - at any rate to all the listeners, and the News Letter Correspondent strongly recommends it for any future banquets to reduce the Hot Air Flow around, past and through long suffering Air Corps spare parts (pilots).

RADIO JOTTINGS.



During the month of June, Lieuts. Griffith and Jacobs, of the 1st Pursuit Group, Selfridge Field, Mich., spent a week at Camden, N.J., for the purpose of experimenting with various types of radio installation at the R.C.A. - Victor works. Much interest was shown by the engineers of the above organization in the problems surrounding the installation of radio in Pursuit planes. The set used was an ultra-short wave type ($4\frac{1}{2}$ to 7 meters), and experiments were made with

various types of antenna and locations for the set. The dream of all Pursuit pilots who are interested in radio is the millennium when a complete transmitting and broadcasting set will be built which can be fitted in the watch pocket and will always work. According to the lads who know, that time may not be so far off either.

Lieut. Lowry has just returned from the Communications School at Chanute Field and has taken over the duties of Group Communications Officer.

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Brigadier General Benjamin D. Foulois, Assistant Chief of the Air Corps, in a recent communication to Mr. Hiram Percy Maxim, President of the American Radio Relay League, expressed his appreciation of the assistance rendered by this organization in maintain communication while the 1st Provisional Air Division was in the New Wngland Area during the course of the Air Corps Maneuvers. In this communication, General Foulois quoted from a report made to him by the Division Signal Officer concerning the work of the members of the League, viz:

"Since the War Department system does not include radio stations at Hartford, Springfield, Boston and Albany, the Signal Officer of the 1st Corps Area arranged for a high frequency amateur radio net between these points. The personnel (members of the A.R.R.L.) at these places volunteered for this duty. They were on duty when the Division arrived and maintained a twenty-four hour schedule for the full period of the maneuvers in this Corps Area. The radio service was excellent thruout. They became a part of the Division Communications System and functioned perfectly from the time of the arrival of the Division. Particular notice should be taken of this factor. It shows that the A.R.R.L. forms a tremendous radio reserve for emergency use."

Mr. Maxim, in reply, stated that it was gratifying to know that the work of the League was of some help. "We amateurs," he stated, "delight in an opportunity to supply communication in emergencies, and the recent maneuvers partook of an emergency at least in so far as training is concerned."

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PLANE BURNS IN THE AIR

While stalled at the top of a loop, an O-25 airplane, piloted by Lieut. L.H. Douthit at Chamute Field, Rantoul, Ill., burst into flames when the engine back-fired thru the carburetor, blowing burning gasoline over the pilot, passenger and fuselage of the ship. Just as the occupants prepared to leap from the burning plane, the air blast from the propeller wash blew the fire out. Taking advantage of the unexpected change, Lieut. Douthit, although barely able to use his badly burned hands and feet, climbed back into the cockpit and piloted the plane back to Chamute Field, landing safely with his passenger, Private M.B. Sikes. They were immediately rushed to the Post Hospital where they were treated for ugly burns about the face, hands and feet.

Lieut. Douthit had been at Chamute Field only two days, having reported from Brooks Field as a student in the Maintenance Engineering Class at the Air Corps Technical School.

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All officers and enlisted men of the Air Corps in the Hawaiian Department are to undergo tests to ascertain their proficiency in swimming. Due to the fact that the majority of flying operations are conducted over water, station commanders have been instructed to require all flying personnel to be proficient in swimming. "This is no disparagement of our equipment which is good and dependable," says the News Letter Correspondent, "but merely an additional safety factor.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Air Corps Tactical School, Maxwell Field, Ala.: 1st Lieut. Caleb V. Haynes, Instr. Washington National Guard, Spokane, Wash.; Capt. Guy H. Gale, Mitchel Field; Capt. Edward W. Raley, Brooks Field; 1st Lieut. James E. Adams, Langley Field; 1st Lieut. George C. McDonald, Langley Field (for duty on Staff and Faculty).

To Air Corps Training Center, Duncan Field, Texas: Captain Thomas R. Voss, Chamute Field; 2nd Lieut. John G. Fowler, Scott Field; 1st Lieut. Paul H. Prentiss, 2nd Lieut. Mark K. Lewis, Jr., Mitchel Field; 2nd Lieuts. Herbert L. Grills, William L. Lee, William H. Maverick and Hugh A. Parker, Fort Crockett; Dudley D. Hale and Edwin L. Tucker, Langley Field; William M. Morgan, Ralph C. Rhudy and Edward H. Underhill, Selfridge Field.

To March Field, Calif.: 2nd Lieuts. Samuel R. Brentnall, John P. Kenny, Wm. H. Turner and Lloyd H. Watnee, Rockwell Field; Trenholm J. Meyer, Crissy Field.

To Langley Field, Va. Captain Lester T. Miller (Previous orders in his case revoked);

To Chamute Field, Ill.: 1st Lieut. Courtland M. Brown (orders assigning him to Scott Field revoked); 2nd Lieut. Morley F. Slaughter, Selfridge Field (for duty as student, Aircraft Armament Course at Technical School); 2nd Lieut. Arthur F. Merewether, Mitchel Field (for duty as student, Maintenance Engineering Course).

To Rockwell Field, Calif.: Captain H.M. McClelland, Office of the Chief of the Air Corps.

To Hawaiian Department, sailing about Oct. 14th: 1st Lieuts. Robert C. Oliver, Kelly Field; Charles G. Brenneman, March Field.

To Baltimore, Md.: Capt. Richard H. Ballard, from duty as student, Command and General Staff School, Ft. Leavenworth, as Air Officer, 3rd Corps Area.

To Fort Bragg, N.C.: 1st Lieut. John G. Salsman, Primary Flying School, March Field, to 2nd Balloon Company.

To Office of the Chief of the Air Corps: 1st Lieut. Edward E. Hildreth, University of Illinois, Urbana, Ill.

To Primary Flying School, Brooks Field, Tex.: Capt. Warner B. Gates, San Antonio Air Depot, for duty as student; Captain Wm. B. Mayer, Fort Sam Houston.

To Cambridge, Mass. for duty as students at Massachusetts Institute of Technology: 2nd Lieuts. Alfred A. Kessler, Jr., Wright Field; Carl F. Theisen, Selfridge Field.

To Primary Flying School, March Field, Calif.: 2nd Lieut. Tom W. Scott, Rockwell Field.

DETAILED TO THE AIR CORPS, and to Primary Flying School, Brooks Field, for training: Major Oscar W. Griswold, Infantry (General Staff).

RELIEVED FROM DETAIL TO THE AIR CORPS: 2nd Lieut. Robert H. Booth to Field Artillery, 2nd Div., Fort Sam Houston, Texas.

PROMOTIONS: To Major: Captain Charles T. Phillips, rank July 1, 1931; To Captain: 1st Lieuts. Merrill D. Mann, Albert C. Foulk, Edward V. Harbeck, Jr., rank from July 1, 1931; Edward E. Hildreth, rank from July 5, 1931; To 1st Lieut.: 2nd Lieuts. Milton M. Murphy, rank June 24th; James G. Pratt, June 21st; Lee Q. Wasser, June 28th; Otto Wienecke, June 30th; Benj. T. Starkey, July 1st; Frank G. Irvin, July 4th; George V. Holloman, July 5th.

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AIR CORPS ENLISTED MEN RECEIVE SOLDIER'S MEDAL

Privates John B. Smith and Herbert E. Thompson, members of the 90th Attack Squadron, Third Attack Group, Fort Crockett, Texas, were on July 1st presented with the Soldier's Medal by Major Davenport Johnson, while the entire Group, assembled on the parade ground for the occasion, stood at attention. After the presentation, the Group passed in review before Major Johnson; his aide, Lieut. D.W. Jenkins, and Privates Smith and Thompson.

The honors conferred on these men came as the result of their heroism on the morning of January 27, 1931, when they rescued Lieut. Charles W. Causey, Jr., from his burning airplane.

The details incident to the heroic conduct of these two enlisted men were published in a previous issue of the News Letter.

Lieut. Causey, pilot of the plane, suffered minor injuries. Lieut. Skeldon, passenger, was thrown some distance from the plane when it crashed, and suffered severe injuries. He is at present with his parents in Toledo, O., but is expected to return to the Fort Sam Houston Hospital for further observation and treatment.

GENERAL FOULOIS SELECTED AS NEXT AIR CORPS CHIEF

The recent announcement by the War Department of the appointment of Brigadier-General Benjamin D. Foulois as Chief of the Air Corps, with the rank of Major-General, to take effect December 20th next, upon the expiration of the four-year tenure of that office by Major-General James E. Fechet, was received with gratification by Air Corps personnel. It is fitting that this pioneer Army aviator should be honored with the highest office existent in the branch of the service with which he has been so long affiliated.

The distinguished service of General Foulois is well known to Air Corps personnel in general. Born at Washington Depot, Connecticut, on December 9, 1879, the Army's first aviator enlisted in the Volunteer forces and served as a noncommissioned officer in the Spanish-American War. He was Corporal and Sergeant of Company G, 1st U.S. Engineers, from July 7, 1898, to January 25, 1899, and served through all grades from Private to First Sergeant in Company G, 19th Infantry, from June 17, 1899, to July 8, 1901. While serving as a noncommissioned officer against the Filipinos, he was commissioned a 2nd Lieut. of Infantry, February 2, 1901.

After attendance at the Army Signal School at Fort Leavenworth in 1906, he served in Cuba with the Army of Pacification, and in connection with this duty completed an 1800-square-mile section of the Progressive Military Map of Cuba, which brought him the commendation of the War Department. Detailed in the Signal Corps April 30, 1908, General Foulois, in 1908, operated the first dirigible balloon purchased by the U.S. Government. The following year he was selected to take flying instruction from the Wright Brothers on the first plane owned by the U.S. Government. As Observer for Orville Wright, he participated in the first cross-country flight made in America. They traveled ten miles, averaging 42 miles an hour, and by flying at an altitude of 600 feet thereby established three world's records for distance, speed and altitude.

The year of 1910 was spent at San Antonio, where General Foulois, then a 1st Lieutenant, Signal Corps, flew Army Airplane No. 1 during the intervals when his eight enlisted men were not repairing it from its frequent crashes. During these experimental flights wheels came into use, replacing the skids and monorails, and the safety belt became standard equipment. The \$150. appropriated by the Government for the development of aviation was expended early in the year, but the flights were continued by General Foulois spending \$300 of his modest pay to meet the deficit.

Not only was General Foulois a pioneer in aviation, but also in radio in flight operations, for in 1911 he adopted radio to airplane uses, receiving messages up to 18 miles. While patrolling the Mexican Border, using a more modern plane, he made a record-breaking flight along the Rio Grande to Eagle Pass, Texas.

In the summer of 1912, he supplied the "eyes" of the "Red" Forces in the Connecticut National Guard Maneuvers of that year and turned the tide in the battle by a lucky reconnaissance. In 1915, the Aviation Section of the Signal Corps had grown to imposing proportions, and the General, commanding the First Aero Squadron, was coordinating artillery fire with airplane reconnaissance at Fort Sill, Oklahoma.

Airplanes were beginning to be taken seriously when General Foulois moved his command by air from Fort Sill to their new station at San Antonio. The eight airplanes covered 550 miles in five days without accident or delay. Still commanding the First Aero Squadron, he joined the Mexican Punitive Expedition with his organization in March, 1916, often serving as personal airplane courier for General John J. Pershing. In spite of unsuitable equipment, aviation proved its worth in actual field service, and General Pershing gave it a great impetus in military circles by remarking that during the operations in Mexico one airplane had been worth a regiment of Cavalry to him.

After drawing up the plans of organization for the Air Service at the beginning of the World War and drafting the first appropriation bills, he sailed for France as Chief of Air Service of the A.E.F. and with a small detachment of officers and enlisted men laid the ground-work for the A.E.F. Air Service. In 1918 he personally led the first all American Squadron of American planes and American pilots over the German lines.

In March, 1918, General Foulois became Chief of Air Service of the First Army, A.E.F., and was on duty at the Front. He served on numerous commissions, including the Supreme War Council. In addition to being cited for "Extraordi-

nary Meritorious and Conspicuous Service with the Air Service, A.E.F.," he was awarded the Distinguished Service Medal and was made Commander in the French Legion of Honor. His Distinguished Service Medal citation follows:

"As Chief of Air Service of the American Expeditionary Forces during the early organization period, he displayed great ability and untiring energy in order to place that service on a firm and efficient basis. He conducted intricate negotiations with the French for the procurement of aircraft material, of sites for Air Service installations and of schools of instruction for the Air Service personnel. Similar negotiations were made by him with the English for the assembly of night bombing planes for our Air Service and for instruction of our personnel in English shops and in English aerodromes. Later he rendered valuable assistance in connection with maintenance of Air Service squadrons at the front."

After the World War, General Foulois was Chief of the Liquidation Division of the Air Service and Director of Aircraft Production in the Office of the Chief of Air Service. He served as Air Attache to the American Embassy in Berlin from 1920 to 1924. On December 7, 1927, he was appointed Assistant Chief of the Air Corps with the rank of Brigadier General. From December, 1927, until July, 1929, he was in charge of the Training and Operations Division of the Office of the Chief of the Air Corps, War Department, Washington, D.C. From July, 1929, to July, 1930, he was Chief of the Materiel Division of the Air Corps, Wright Field, Dayton, Ohio, following which he returned to Washington for duty as Chief of the Plans Division, Office Chief of the Air Corps, his present position.

General Foulois is a graduate of the following Service Schools:

Infantry and Cavalry School, Fort Leavenworth, Kansas, 1906;

Army Signal School, Fort Leavenworth, Kansas, 1908;

Command and General Staff School, Fort Leavenworth, Kansas, 1925.

Last May, General Foulois commanded the First Provisional Air Division during the Maneuvers in the Middle West and the East Coast, these Maneuvers featuring the largest concentration of Airplanes in the air in the history of American aviation.

It goes without saying that the Air Corps personnel heartily congratulate General Foulois on his well merited promotion and wish him every success as their future "Boss."

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AIR DEMONSTRATION FOR C.M.T.C. ENCAMPMENT

On June 24th, Schoen Field was the scene of the first Air Demonstration for the benefit of the C.M.T.C. encampment at Fort Benjamin Harrison, Indiana, which comprises 1500 students formed into a regiment, plus one signal platoon.

Thirty-four P-12 airplanes, commanded by Major G.E. Brower, with 12 ships from the 17th Pursuit Squadron, commanded by Capt. Hoyt; 12 from the 27th Pursuit Squadron, commanded by Captain Blessley, and 9 from the 94th Pursuit Squadron, commanded by Lieut. Johnson, comprised the Selfridge Field representation, supplemented by two Transports from that field with 14 enlisted men, piloted by Lieuts. Griffith and McCormick.

Wright Field was represented by three planes, an A-3, piloted by Lieut. Minty, a Transport, piloted by Lieut. Thorpe, and an O-25 (name of pilot not given). Two airplanes (O2-H) from Lunken Field, Cincinnati, were flown to Schoen Field by Major Outcalt and Capt. Colgan, while Norton Field, Columbus, Ohio, was represented by Major H.C. Kress Muhlenberg, Lieuts. A.R. McConnell and Rummage, who piloted O2-H's. Captain Galloway came in from Bowman Field, Louisville, Ky. in an O2-H, while Major Taylor, Commanding Officer of the 113th Observation Squadron, Indiana National Guard, arrived in an O-17 to add to the assembly.

The Air Demonstration included formation flying, an attack problem, a grand review and close formation work by the Pursuiters.

Social activities included a dinner for the visiting pilots by the Chamber of Commerce and a Dance given by the Reserve Squadron from Schoen Field.

Colonel H.D. Selton, Commanding Officer, 11th Infantry, and Director of the C.M.T.C. Camp, expressed himself as extremely pleased with the training results obtained, and that he will recommend an air demonstration as a regular part of the C.M.T.C. Camp at Fort Benjamin Harrison in all future encampments.

NOTES FROM AIR CORPS FIELDS

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Hqrs. 18th Composite Wing, A.C., Hawaiian Dept., June 9th:

Under the Five-Year Program, the Pursuit Group at Wheeler Field will have two more Pursuit Squadrons, but it is not expected these will be added until next Spring when the new barracks are completed.

On Memorial Day, May 30th, a flight of three O-19 airplanes was furnished to fly over the War Memorial Natatorium for the purpose of dropping leis in memory of the war dead.

Authority was granted to conduct a tactical exercise in which three 2,000 lb. bombs and six 600 lb. bombs will be dropped. The purpose of this exercise will be to familiarize the Bombardment personnel of this department with the different types of Demolition Bombs and the effectiveness of same. These bombs will be dropped at a target so located as to enable all officers of the various services in the Hawaiian Department to witness the demonstration.

The cargo of the transport "Kenowis" which arrived in this department May 31st included four of the long-awaited B-5A Bombers. These airplanes are manufactured by the Keystone Aircraft Company for the Air Corps and are powered with two Wright "Cyclone" R-1750-E engines. Two more of the thirteen B-5A's scheduled to arrive shortly, will be assigned to Luke Field.

Luke Field, T.H.

Flying for the month consisted of liaison missions with the Hawaiian Division at Schofield Barracks; aerial gunnery, photography, blind flying, formation flying, cross-country flying and aerial navigation.

Lieut. D.D. Fitzgerald, who has been undergoing treatment at Tripler General Hospital, returned for duty and is on the road to full recovery.

Lieut. Coates was placed on Detached Service at Fort DeRussy to study the training and operations of the Coast Artillery, so as to ascertain just what is required from the Observer during aerial spotting of target practices and also how reports are used in range adjustment.

1st Lieut. Harold Lee George was relieved from assignment to the 5th Composite Group and duty as Post and Group Operations Officer, and assigned to duty with the Headquarters 18th Composite Wing, with station at Fort Shafter, T.H.

2nd Lieut. F. Edgar Cheatle was relieved from assignment to the 72nd Bombardment Squadron and assigned to duty with 5th Composite Group Headquarters as Post and Group Operations Officer and Information Officer.

Organization Day was celebrated on May 19th by the entire Group, and a holiday was declared for the Post. A "HOT" Field Meet and Baseball game took place in the morning. The Field Meet ended in the usual tie for first place. This year the tie ??? was between the 72nd and the 4th Squadrons. As usual, the Squadron Commanders were called upon to run a race to break the tie. Lieut. Ramsay, Squadron Commander of the 72nd, was favored to win before the race, but, with the crack of the pistol, Lieut. Gilbert, Squadron Commander of the 4th, took off like a D H with two motors, proving you can't tell how fast a Squadron Commander can run by looking at him. By virtue of his victory, the Gold G.I. Can, with the Group insignia, once more nestles on top of the piano in the 4th Squadron's Day Room for the second consecutive year. In the baseball game between the Post Team and a team made up of First Sergeants and the two senior NCO's of each Squadron, the NCO team won, with the help of the umpires - Major Kirby and Chaplain Rinard. Some of the decisions made did not seem to be in the rule-book, approved by John McGraw, but they put lots of pep in the game. The Post Team was saved from the worst defeat of the season by a bugler sounding recall, or was it "Fire Call"?

During the past month, the Photo Section was busy making prints and copies of photographs to be used in the histories of various Air Corps Units in the Hawaiian Department.

Lieut. Rawlings and Tech. Sgt. Stolte accompanied the 5th Composite Group with their photo ship on an Inter-Island flight to the Island of Kauai. New pictures of all landing fields on Kauai and Niihau, as well as harbor and light-house pictures, were obtained. Pvt. J. Goode took the Akeley camera in the nose of a bomber and was fortunate enough to get some good movies of the trip. These

have been forwarded to the Chief of the Air Corps.

Wheeler Field, T.H.:

On May 2nd - 4th, the 75th Squadron furnished a Sikorsky Amphibian as escort plane to Kauai, participating in tactical exercises with the Fifth Composite Group. Lieut. Loutzenheiser piloted the plane, with Pvts. Franks as Crew Chief, and Chilton as Radio Operator. As the motors of all the ships were performing in the manner guaranteed by the manufacturer, there was no opportunity for the crew to distinguish themselves by rescue work.

A Group Review held on May 14th in honor of Maj. C.H. Wash, the departing Group Commander, and was witnessed by Major-General B.H. Wells, Commanding Schofield Barracks, together with members of his Staff. Excellent formation acrobatics were performed by Lieuts. Vandenburg, Prindle and Grussendorf, 6th Squadron, while a PW was handled in an exceptionally graceful manner by Lieut. Bentley of the 19th Squadron. As a last gesture to Major Wash, an "Aloha" was flown at his departure on the Army transport "Cambrai". The Major carried with him as a departing gift the most beautiful set of gold irons ever seen in these parts, comfortably nestled in one of those golf bags which requires two caddies and a litter to tote around. It is hoped the new clubs will not add too many strokes to his game.

Station Repair Unit, Luke Field, T.H.: The Engine Repair Section overhauled a total of nine engines during the period from April 25th to May 25th.

Mr. Dekle, Civilian employee, the new Foreman of the Engine Repair Section, recently returned from a 30-day leave. Mr. and Mrs. Dekle are building a new home in Honolulu and Mr. Dekle spent most of his leave at the new "Homesite". He was appointed foreman, relieving Mr. Sgt. Harry P. Carmean, who returned to the mainland on June 9th transport. Best wishes and the "Aloha" of the entire Station Repair Unit goes to Sgt. Carmean.

The Aero Repair Section must not be overlooked. During the month of May, this Department completed major overhauls on five P-12B airplanes, and minor overhauls on two A-3B airplanes. They are also working hard to complete a major overhaul on an LB-6 Bomber which was damaged in a recent landing.

The woodworking Department is being kept pretty busy building an office for the Hawaiian Air Depot, which is moving to Luke Field. They also accomplished the building of a new propeller test room, the remodeling of the old seaplane hangar, and the building of engine stands for the storage of air and water-cooled motors.

The other shops, namely: Wire, propeller, wing, tire and landing gear, are being kept busy accomplishing the overhaul schedule every month.

During the month of May, the Final Assembly assembled and delivered twenty new airplanes, completed four major overhauls and 2 minor overhauls, making a total of 26 airplanes delivered during the month.

The 2 O-19C airplanes, assigned to the 18th Composite Wing Headquarters, which are being maintained by the Final Assembly, accompanied the Inter-Island flight to Maui. Lieut.-Col. Brant was the pilot of one and Lieut. McCoy piloted the other.

The personnel of the Machine Shop, under Sgt. Carl A. Nelson; the Sheet Metal Shop, under the supervision of Mr. Harris; and Welding Shop, under Sgt. Klifoth, have, in the past month, completed approximately 100 orders and about 200 small jobs on instruction slips. Efficiency plus.

There is now under construction in the Engine Storage Department, an overhead mono-rail system. This work is under the supervision of Mr. C. Ching, Civilian employee.

Third Attack Group, Ft. Crockett, Texas, July 7th:

After an absence of 17 yrs. Brig.-Gen. Benjamin D. Foullois, visited Ft. Crockett and the 3rd Attack Group, June 20th and 21st. His visit was an informal one and did not include any inspections.

The Group received four DH's for use in aerial gunnery in towing targets. They will be in use while the Coast Artillery Reserve officers are in training at Ft. Crockett.

Lieut.-Col. John H. Jouett, former Group Commander, arrived at Ft. Crockett for a fifteen-day tour of active duty with the Group. Many old friends are welcoming the Colonel to Galveston.

The standing of the teams in the second half of the Post Inter-Squadron Baseball League is as follows:

<u>Team</u>	<u>Won</u>	<u>Lost</u>	<u>Pcts.</u>
90th Squadron	3	1	.750
60th "	2	2	.500
13th "	2	2	.500
8th "	1	3	.250

In their last few games the 90th Squadron has shown more hitting power than they have all season. There are only ten more games to be played, and the 13th Squadron still has a chance to cop the second half and clinch the cup without any playoff series.

Bolling Field, D.C., July 10th:

The Bolling Field golf team, augmented by Capts. Adler and Elmendorf of the Office of the Chief of the Air Corps, journeyed up to Middletown during the last week of June and took the short end of an 18-hole match. The other members of the team were Maj. Davidson, Capt. Bayley and Lieut. Merrick of Bolling.

Major Houghton vs Maj. Davidson - Maj. Houghton won 6 up.

Lt. McGregor vs Capt. Elmendorf - Capt. Elmendorf won 3 up.

War. Off. Hewitt vs Capt. Bayley - War. Off. Hewitt won 7 up.

Capt. Eatabrook vs Capt. Adler - Capt. Adler won 2 up.

Dr. Blecher vs Lt. Merrick - Dr. Blecher won 4 up.

The Bolling team flew up in "Summer formation" ("Summer" here and "summer" there) to Middletown, were tendered a luncheon and spent a most enjoyable afternoon, although they did lose 3 to 2. Bolling expects to have the Middletown team down here during the week of July 13th and the match is scheduled to be played at the Army and Navy Country Club. We are looking forward to quite an interesting match, as the players of Bolling have been seen putting in quite a bit of needed practice here of late.

Lieuts. Stranathan and Giovannoli just returned from the West Coast, ferrying two BT-2B airplanes from Rockwell Field.

On July 9th, the famous Langley Field "rubber cow", TC-11, wandered across the fair pastures of Bolling Field, being piloted by Lieut. Schively, and arrived at 8:40 A.M. The purpose of the mission was to take pictures.

Nichols Field, Rizal, P.I., May 28th:

The 28th Bombardment Squadron and the 2nd Observation Squadron swapped hangar space this month with the idea of giving the Bombardment more room on the flying line. Considerable dissatisfaction was felt at first with the other fellow's house, but now everybody seems to be happy.

The old discrepancy between the number of airplanes and the number of pilots was reversed here lately. With officers on leave and on detached service during the hot season and new airplanes arriving at the rate of about eight a month, we have temporarily an almost unknown condition of more planes than pilots. When everybody comes back to work, however, all the planes will have plenty of customers. New equipment is a big incentive to work and all three units here now have it.

Two Sikorsky Amphibians made a trip to the Southern Islands, making eight stops on the way to Jolo and return. Plunder included vintas, mats, knives, head-axes, barongs, beetle nut boxes, gongs, and turtles (live). Only the carrying capacity of the planes prevented the transfer of all the souvenirs in the Southern Islands to Nichols Field.

The Air Corps Baseball Team has plugged up the bottom of the Philippine Baseball League since November. The season ends in May. This will be a relief to some of us. We apparently bit off too much of a mouthful.

Maj. Brooks relieved Major Harms as Commanding Officer of Nichols Field on May 15th. This leaves Capt. Hornsby in command of Clark Field. Maj. Harms expects to move the Air Office to Manila in the near future.

Ft. Sill, Okla., July 1st:

The 88th Observation Squadron was somewhat broken up this month with the loss of thirteen officers. Maj. L.H. Brereton, Commanding Officer, A.C. Troops, left for his new station in Panama on July 1st. Capt. B.E. O'Neill will be

the new Commanding Officer of Air Corps Troops. Capt. R.H. Pritchard, A.C. reported here for duty on June 19th and will be Commanding Officer, 88th Observation Squadron. The following 2nd Lieutenants, Air Corps, were transferred to Chanute Field: J.J. Keough, R.I. Dugan, C.K. Moore, D.E. Whitten, and R.E. Holmes. The following-named 2nd Lieutenants, Air-Reserve, reverted to inactive status on June 30th: G.E. Percefull, W.C. Bryan, Jr., J.H. Roe, G.L. Houle, J.G. Pitts, J.M. Joplin and Desmond Murphy.

Five officers were rushed through gunnery last week due to their leaving the latter part of the month. All qualified as follows: 2nd Lieut. R.I. Dugan, A.C., Expert; 2nd Lieut. J.H. Roe, Air-Res., Expert; 2nd Lieuts., Air-Res., G.L. Houle, W.C. Bryan, Jr. and J.M. Joplin qualified as Sharpshooters. Mr. Sgt. C.F. Colby also qualified as Expert.

1st Lieut. W.S. Hamlin returned from the Hospital about ten days ago where he underwent an operation.

On June 1st, 2nd Lieut. J.H. Roe, Air-Res., and Pvt. Adolph L. Hainlen made practice parachute jumps.

St. Sgt. Paul Grossman and Pvt. Forest G. Crom, while swimming in Lost Lake on June 2nd, were called upon to save the lives of three R.O.T.C. students. One student had become unconscious and the other two were almost exhausted when Sgt. Grossman and Pvt. Crom secured a boat and came to their rescue.

Fairfield, Ohio, Air Depot, July 8th:

Personnel of the Depot were saddened by the death of Mrs. Mildred Austin, wife of Lieut. John A. Austin, Air Corps. Mrs. Austin's death occurred July 6th at the Miami Valley Hospital, after an illness of two weeks. Services were held at the Depot and burial was at Arlington. The deepest sympathy is felt for Lieut. Austin in his bereavement.

Maj. A.L. Sneed, Lieuts. Melvin B. Asp and George V. McPike departed for Maxwell Field, Ala., to secure and ferry here three O-19's for overhaul.

Maj. A.L. Sneed ferried an airplane overhauled at this station to the Rockwell Air Depot, Coronado, Calif.

Lieut. Melvin B. Asp, A.C., and Lieut. C.O. Perry, Air-Res., made a cross-country trip to Columbus, Ga., July 3rd and returned July 5th.

Lieut. Frederick M. Hopkins, Jr., on June 17th flew to Marion, Ohio, where he picked up Senator Davis, who attended the dedication exercises of the Harding Memorial, flew to Pittsburgh, Pa., and returned to this station about 8:20 P.M.

Capt. Edward Laughlin, who was Chief, Engineering Officer at this Station for more than six and one-half years, departed June 27th for the Middletown Air Depot, his new station. Good wishes go with the Captain and his family from this Depot.

Capt. Harrison W. Flickinger reported June 29th and took over the duties formerly performed by Capt. Edward Laughlin. On July 1st Capt. Flickinger departed on a 30-day leave of absence.

Lieuts. Clarence S. Irvine and Francis M. Zeigler reported recently from Chanute Field for duty in the Engineering Department at this Station.

Lieut. Clarence S. Irvine departed July 1st on a one month's leave of absence, which he is spending in Indiana.

Lieut. Frederic E. Glantzberg reported recently for duty and was assigned to the Depot Supply Department.

Lieuts. Frederick M. Hopkins, Jr. and John A. Austin were transferred to Wright Field for duty as students at the Engineering School.

The Annual Picnic, sponsored by the Wilbur Wright Welfare Association, was held at Silver Lake, near New Carlisle, Ohio, on June 27th. Races, ball games and a bathing beauty contest were the principal events of the day.

A fireworks demonstration was conducted the night of July 4th by the Wilbur Wright Officers' Club in the open ground north of General Pratt's quarters. The adults as well as the children enjoyed the demonstration very much.

The activity reported of the Supply Department for the month of June shows: Incoming tonnage of freight, 506.8 tons; express, 2 tons; parcel post, 875 lbs.; Outgoing freight, 156.8 tons; express, 5.3 tons; parcel post, 1,750 lbs. Material received by other means 118,968 lbs.; shipped, 184,500 lbs.; incoming shipments 843; outgoing, 1,286; requisitions received, 342.

San Antonio Air Depot, Duncan Field, Texas, June 29th:

The Depot was pleased to welcome Brig.-Gen. Benjamin D. Foulois, Assistant Chief of the Air Corps, accompanied by Capt. A.B. McDaniel, of the O.C.A.C., on their recent visit to the A.C. Training Center. On the night of June 22nd they were entertained at dinner by Lieut.-Col. A.W. Robins, the Depot Commander.

Brig.-Gen. H.C. Pratt, Chief of the Materiel Division, inspected the Depot on June 25th, arriving in a BT-2 plane piloted by Capt. St. Clair Streett of Wright Field. During their stay they were the house guests of Lieut.-Col. Robins, and they departed on the 17th for Rockwell Field, Calif., via Ft. Bliss, Texas.

Officers arriving at this Depot to secure and ferry airplanes to their home stations were Lieuts. F.A. Johnson and J.A. Bulger, of Scott Field, piloting PT-3's; Lieut. Stanton T. Smith of Schoen Field, Indianapolis, Ind., piloting a PT-3A; Capt. John G. Colgan, Lunken Airport, Cincinnati, Ohio, piloting a PT-3A.

Lieut. Charles E. Thomas left June 24th, ferrying a PT-3A for delivery to Candler Field, Atlanta, Ga., and returning by rail.

Capt. Edmund C. Armes of the 31st Division Aviation, Alabama National Guard, Birmingham, paid a social visit here June 26th while in the vicinity.

We were glad to welcome Capt. C.E. Branshaw, who returned to duty June 27th from a spell of illness at the Station Hospital, Ft. Sam Houston, Texas, since April 17th.

Warrant Officer Leland D. Bradshaw of Mather Field, Calif., arrived here June 15th to pilot a P-12B plane to his home station.

Warrant Officer Charles Chester of this Depot is enjoying leave of absence visiting in Maryland.

The regular monthly conference on Air Corps supply and maintenance matters in this Depot's Area, and the luncheon following the conference at this Depot, on June 16th were attended by the following officers: Brig.-Gen. H.C. Pratt, Chief of the A.C. Materiel Division, and Capt. St. Clair Streett of Wright Field, then visiting this Depot; Capt. Morris Berman and Lieut. R.G. Harris, of Kelly Field; Capt. S.J. Idzorek and Lieut. J.F. Whiteley of Ft. Crockett; Lieuts. R.C. MacDonald and E.C. Robbins of Brooks Field; Lieuts. A.S. Albro and H.A. Bartron of Randolph Field; Lieuts. D.T. Mitchell and C.S. Tidwell of Post Field, Ft. Sill; Lieut. J.E. Adams of Langley Field (on temporary duty at Kelly Field); Lieut. E.T. Showalter of the 36th Division Aviation, Texas National Guard, Houston, and the officers of this depot. At the luncheon, the following also were guests:- Maj. F.L. Martin, Commandant of Kelly Field; Maj. H.H.C. Richards and Lieut. A.F. Glenn of Brooks Field, Maj. Van J. Weaver, Air-Res., and Lieut. Lamar G. Seeligson, Air-Res., both of San Antonio.

Lieut. and Mrs. B.S. Thompson and son, Donald, of Kelly Field, were the guests of Capt. Warner B. Gates and family, at this Depot, prior to departure for Washington, D.C., where Lieut. Thompson will enter the Walter Reed General Hospital for observation and treatment.

Lieuts. L.S. Webster and D.F. Fritch of this Depot made a cross-country trip to Little Rock, Ark., and return June 17th to 20th, for the purpose of transporting personnel and an engine for the repair of an LB-7 forced down at that place.

Middletown, Pa., Air Depot.

Middletown Again - and How! Golf this time - Yeah - Hot Stuff - Happened this-a-way -

Various ships undocking at either Middletown or Bolling and proceeding to the other place. Polite threats and challenges while there, i.e., "Bring your team up, you big such and such. We'll take you on". "Oh, yeah! You and what team can beat us catching birdies, you this and that!" And on and on and on.

However, believe it or not, a wire was received one day at Middletown, something to the effect that a five-man team of truck drivers was on the way with golf clubs. Imagine it?

Well, no use to fool around. Might just as well waste an afternoon putting them in their place. And did we? My Aunt Emma, dunt esk!

Dazzy Davidson, the big divot man from Denver, was teamed against Husky Houghton, the par shooter from Peoria. The result: go on, ask me the result! Middletown 6 and 5 with score 85 against 95.

Next, Warrant Officer Hewitt, the Huge Hungarian from Hackensack, pinched Jumping Joe Bayley on every green, making the poor boy from Bolling scream with rage through his heavy mustache. After the last putt had rimmed the cup, the scores were Hewitt 81, Bayley 95, with match play ending on the 12th - 7 up and 6 to go. Mercy, how terrible!

Battling Blecher next walloped El Maestro Merrick, terminating the brief but snappy engagement on the 15th with 5 up and 3 to play. Merrick was completely at the mercy of the skilled hands and wrists of the Pennsylvania Surgeon, whose inshoots and fast drop balls had him dizzy after the first inning. Merrick lost control and had his stick and rudder crossed, and was only feebly gunning the sinking craft when the match was over. Modal scores - Blecher 83, Merrick, 93.

Elbows Elmendorf and Mashie McGregor went round and round while birds fell by the score. Elbows (a ringer from the Chief's Office) played uniquely the last three holes, making 3 - 6 - 2, with par 4 - 4 - 3, beating Mashie by 2 up on the 18th green. Elbows' card was 41 - 39 - 80, while Mashie had the more prosaic 40 - 42 - 82.

The last match was a tussle between Esso Estabrook and a personage active in and about Washington known as Alias Adler. The foreigner started slowly but gained speed and in the clinches had all the best of it, using the kidney and rabbit punch with great effectiveness. Esso's seconds threw the sponge in during the 12th.

Coffee, sandwiches and soft drinks were used to refuel the main tanks after the match. A ragged formation took off for Bolling soon thereafter.

Advanced Flying School, Kelly Field, Texas, June 22nd:

1st Lieut. S.B. Thompson, who was injured when his plane crashed near La Pryor, Texas, last December, was ordered to Walter Reed General Hospital, Washington, D.C., for further treatment. The personnel of this command wish him a speedy and full recovery and hope to see him back here after his discharge from the hospital.

Ed. Note: Captain Thompson wishes to be remembered to the boys at Kelly Field.

1st Lieut. E.C. Kiel returned from Fairfield, Ohio, ferrying an O2-H plane back to Kelly Field.

1st Lieuts. D.V. Gaffney, G.H. Beverley, W.W. Welsh, L.J. Maitland and L.C. Mallory left the field June 18th, ferrying five PT-3 planes from the San Antonio Air Depot, Duncan Field, to Middletown, Pa. Lieuts. Gaffney and Beverley ferried an LB-7 back to San Antonio, while the other three officers returned by rail.

The Kelly Field Polo Team left for Colorado Springs to take part in the annual Broadmoor Tournament, the team being composed of Capt. Thomas W. Haste, Adjutant at Kelly Field; Capt. Harold K. Coulter, 23d Infantry (replacing Lieut. D.T. Crow who is now at New York with the Army Team); 1st Lieuts. Robert W. Douglass, Aide to the Commanding General of the Air Corps Training Center; and Oscar L. Beal, Ft. Crockett.

Capt. William B. Wright, Jr., and 1st Lieut. Graham St. John, both formerly stationed at Kelly Field, arrived here June 19th in training planes which they ferried from Santa Monica, Calif. Capt. Wright is now stationed at Kansas City on duty with the Organized Reserves and Lieut. St. John is in Minneapolis on the same duty.

Capt. J.K. Cannon, Senior Instructor in Pursuit, returned from Wright Field where he acted as member of a board of Air Corps officers convened to recommend types of Pursuit equipment for purchase by the Army.

Lieut. E.H. Lawson took off on June 19th in a Pursuit plane for Tulsa on a flight which will take him to Omaha, Chanute Field, Lexington, and Ft. Bragg, and back to San Antonio by way of Des Moines.

Scott Field, Belleville, Ill., June 24th:

The Commanding Officer, Lt.-Col. John A. Paegelow, A.C., made a trip to Wright Field, Dayton, Ohio, on June 15th, to serve on a Board of Officers appointed by the Chief of the Air Corps for the purpose of considering lighter-than-air projects for the Fiscal Year 1932 and to make recommendations for new lighter-than-air equipment for that period. Col. Paegelow returned to Scott Field, June 17th.

Four officers and one enlisted pilot from the 15th Observation Squadron left this week for aerial gunnery practice at Camp Skeel, Oscoda, Mich. 2nd Lieut. I.R. Selby piloted a plane, with Capt. H.W. Holden as passenger, to the camp, leaving Capt. Holden and returning to Scott Field. Later, two planes, with 2nd Lieut. T.W. Charles and Mr. Sgt. Davis as pilots and 2nd Lieuts. G.H. Stokes and I.R. Selby as observers, flew to Camp Skeel, to remain there until the completion of the firing of the required course. Another plane left this week for the same destination and purpose, carrying 2nd Lieuts. E.A. Sirmyer and C.E. Johnson. Other pilots and observers will be sent at later dates to take the places of those whose work will be completed.

In the Inter-company Baseball League this week, the Staff team defeated the team from the 24th Airship Service Company by a score of 16 to 3. Sgt. Jones pitched a very good game for the Staff. In the other game the 9th Airship Company defeated the 15th Observation Squadron, 17 to 14. The 15th Squadron team was somewhat handicapped through some of its players being on detail to Camp Skeel, Mich. The 9th Company team now leads the League with 2 games won and none lost.

Scott Field, Belleville, Ill., July 8th:

The final report on the homing pigeon race, which started from Chattanooga, Tennessee, a few weeks ago, shows that out of possibly 4,000 birds starting in the race, the leading bird from the Scott Field loft placed tenth in National standing. The birds entered were from all parts of Central and South Central United States. Birds from greater distances were also started.

A plane of the P-19 type, piloted by Major Willis Hale, with the United States Ambassador to Chile as passenger, arrived at this station from Wright Field July 3rd, leaving the next day for Topeka, Kansas.

Maj. Fred Coleman, Chief of the Field Service Section, Wright Field, Dayton, Ohio, is at this station at the present time on business pertaining to Air Corps supplies.

Brooks Field, San Antonio, Texas, July 1st:

On June 25th the San Antonio Army Baseball League's standing showed the Air Corps Primary Flying School at Brooks Field, Texas, and the 2nd Field Artillery Brigade Caissons of Ft. Sam Houston, Texas, deadlocked for first place honors, with exactly one-half of the games in the first half completed. Both the Aviators and the Caissons have won 7 of the nine games participated in, with the Ninth Infantry Manchus and the Twenty-third Infantry Gravel Agitators, both of Ft. Sam Houston, Texas, close on the heels of the leaders.

Not only are the Airmen from Brooks Field, tied for the leadership in the Army loop, but are carrying off the batting honors, swatting the pellet at the terrific clip of .320 as a team, which is some mighty tall batting. Pitching is well above par and the play afield can compare with the best.

The Aeronauts expect this to be a banner year, and prospects for a championship nine were never brighter. Heretofore, the Brooks Field Post team was always among the leaders and would have led the field, if the old stickwork had been there. The figure of .320 as a club batting average shows that the stickwork is there this year and now, that the most needed necessity has been accomplished, the Airmen are on their way to a championship.

The support given the Aeronauts this year has been more than gratifying, with the commissioned personnel turning out 100%, as well as the enlisted personnel. From time to time, an officer of the Brooks Field personnel offers some kind of a cash prize for the most hits, most runs batted in, etc., and the boys are taking their money and winning ball games at the same time.

The Brooks Field hurlers include this brilliant array of capable throwers; Sgt. Denver Wood, St. Sgt. John Tarpley, and Pvt. John McKenney, the aces, with Lieut. Cuzak, Flying Cadet Broiles and Cpl. Adams to help out.

The remainder of the lineup usually includes: Sgt. Bill Wood or Pvt. Bookil, catchers, St. Sgt. "Pop" Eanes, 1st Baseman; St. Sgt. Lage, 2nd baseman; Staff Sgt. Prince or Pvts. Kenar or Don Felton, shortstop; Sgt. Jerry Snyder, third baseman; with Cadet Broiles and Pvts. Rogers, Murphy and Edwards usually taking care of the outfield berths.

This team, compared with any of the remaining six Army entrants, is on an even basis if not better. Many of the sports scribes from Ft. Sam Houston, Texas,

favor the Aeronauts for the first time, and the boys from Brooks Field, Texas, have been playing some real baseball this season.

40th Divison Aviation, Los Angeles, Calif., July 13th:

Effective June 16th, 1st Lieut. Russell C. Larsen was assigned to the command of the 115th Photo Section. He just returned from the special course in photography at the Air Corps Technical School, Rantoul, Ill., and brought back many new ideas in methods and technic.

Capt. Earl Robinson is being congratulated upon his promotion to that grade effective June 16th. He was relieved from command of the Photo Section, and assigned to Operations.

Lieut. Clinton Burrows is away from the Squadron for a month on special State duty at Sacramento, doing forest patrol in the northern part of the State.

Congratulations are hereby extended to Lieut. Clifford R. Garb, whose marriage to Miss Albertine Ashworth, of Los Angeles, was recently announced. Inroads upon the bachelor ranks among the officers of this Squadron has progressed to such a dangerous point that the Second Lieutenants Protective Association is considering appropriate action.

This unit is very busy at the present time making final preparations for summer training camp. The last drill will be held Saturday, July 18th, after which the baggage and troops will be entrained for arrival at Camp San Luis Obispo on the following morning. Sunday, the 19th, all officer personnel will fly to San Luis to arrive there about noon. The advance detail will proceed to camp on Friday, the 17th, under the command of Lieut. Harry Gilmore.

This squadron welcomes its newest officer, 2nd Lieut. Richard O. Bullis, from civil life. Lieut. Bullis is a practicing physician in Los Angeles, and was this squadron's first Flight Surgeon in 1925, with the rank of Captain. We are very happy to welcome this officer back in our ranks.

Boston Airport, Mass., July 1st:

The public of Boston is still commenting on the precision with which the planes were landed and parked at the Airport during the Maneuvers. In less than five minutes the 9th Observation Group was "parked" on the field.

Lieuts. O.P. Pierson and W.O. Towner, A.C. Reserve, piloted two State Aeronautical Inspectors in Douglas BT-2B's as aerial patrol planes to keep an eye open for commercial ships which might disobey flying rules. One inspector went up minus a flying suit, and when he returned about an hour later, it is rumored that he had to be taken to the airport lunch to be thawed out.

It seems that some people can't be satisfied. Many protests were registered when the Maneuvers were first planned for the Charles River Basin site. The location was changed to South Boston, and then protests galore were registered by many who evidently didn't read the papers and who waited vainly at the Charles River Basin to see the aerial parade. When he learned of these protests, Brig.-Gen. Foulois ordered the demonstration planes to circle the Basin on their way to Springfield after the demonstration.

Those in the Headquarters received a scare when a report came in by police teletype that Army planes had crashed during the parade while over Newton. The following is the tale the tape told:

"Hello Newton, Have planes passed over your city yet?"

"They were passing over here and crashed and four men are in the Newton Hospital on the danger list."

"Were they cops?"

"No. Aviators."

"The planes can now be seen beyond the Charles River Basin."

"Go jump in the Basin."

"Shut off your motor."

"Shut your mouth."

"Go bag your head."

"What for?"

"To sell it for wood."

"Newton. This is Boston Police Headquarters. Is that correct about the crash of planes in Newton this P.M.? Please answer at once."

"This is Newton. We know nothing about the crash. Sgt. Meehan."

"Thank you very much, Sergeant. This is headquarters. We would like to

know where this message originated."

"We do not know. Boston papers asked us and were told we had not heard of it."

The foregoing sample of the brand of humor shown by some officers on police forces causes us to wonder how police examinations are being conducted.

Lt. Frank C. Crowley caused some excitement recently when he made a "blind" take-off in a PT-1 which Lieut. J.A. Wilson had fitted with hood for instrument flying practice. With Capt. Charles Clark in the front cockpit as safety pilot, Frank awaited word from Charlie that the coast was clear for a getaway. Pouring on the coal, the Puttering PT thundered down the runway, took off with very little unsteadiness, and was soon flying over the harbor at a good altitude. Frank declares he will fly that bus around the city and bring it back to the airport entirely by instrument. We await the test with interest. His only objection was that the instruments in the PT. are placed in a position which causes one to go around with head bowed in attitude of prayer for the several hours after the flight. They are close to the floor, and, according to Lt. Crowley, require neck gymnastics to read them carefully.

The enlisted men at the Boston Airport now boast their own "newspaper". It is similar in size to the NEWS LETTER, but beyond that the similarity is non-existent. Known as the "WEEKLY BLATT", with editors, Sgt. Robert Lauter and Sgt. Paul Frame, the paper contains breezy items concerning Reserve activities (supplied by the Reserve Officers) and activities of the detachment. It is full of good natured quips, and real news of the airport. May it continue to thrive. It didn't cost anything at first and costs twice as much now.

Close formation flying, formation take-offs and various formation maneuvers were practiced arduously recently by Lieut. O.P. Pierson, Capt. Geo. Lusk and Lieut. G. Warriner.

Wright Field, Dayton, Ohio, July 1st:

Lieut. Wendell recently flew to Duncan Field, Texas for a conference on the testing of primary airplanes. He ferried a BT-2B airplane back to Wright Field, making a one-day flight of it.

Secretary of War Patrick J. Hurley, landed at Wright Field on May 31st, making a stop between Bolling Field and Muskogee, Okla. He was piloted by Lieut. C.W. Cousland, flying a C-4 airplane.

Brig.-Gen. H.C. Pratt, Capt. E.R. Page, A.J. Lyon, K.S. Axtater and Lieut. A.C. Foulk, attended the meeting of the National Advisory Committee for Aeronautics held at Langley Field, Va., on May 27th and 28th.

Arturo B. Merino, Sub-Secretary of the Department of the Interior in Charge of Aviation, Chilean Government, was a recent visitor at the Field. Flight Captain Dario Mujica and Lieut. Filipe Latorre of Chile accompanied him, as did also Fowler W. Barker, Department of Commerce, Washington, D.C., and Lieut. C.W. Cousland, who piloted the party to Dayton from the Ford Airport, Dearborn, Mich., which they had also visited.

The Army-Navy conference recently held at the Naval Aircraft Factory, Philadelphia, Pa., was attended by L.V. Cook, B.F. Senart, J.A. Roche, P.N. Sutton, R.L. Shumaker, Opie Chenowith, J.B. Johnson, G.R. Marlay and J.A. Bishop, representing the Materiel Division.

Carlos Castillo Breton, head of the Military Aeronautical School at Mexico City, and Colonel Francisco J. Aguilan, Mexican Military Attach, Washington, D.C., were the guests of Brig.-Gen. H.C. Pratt on June 2nd. Capt. R.C. Moffatt and Lieut. H.P. Rush flew the visitors from Cincinnati to Dayton. On June 3rd they made a tour of inspection of the Materiel Division.

Lieut. G.F. Schulgen, Wichita, Kansas, ferried a YPT-9 to the plant of the Stearman Company.

Lieut. J.E. Parker left for Santa Monica, Calif., to ferry to Wright Field an O-25C airplane from the plant of the Douglas Company.

Capt. A.J. Lyon, Assistant to the Chief of Engineering, sailed on June 8th for a two-months' tour of Europe. He will go on duty at the American Embassy in London and from there to the Embassy in Berlin for a brief official glimpse of the aeronautical picture in the two capitals.

Capt. Carl Greene, Lieut. A.F. Hogenberger, J.A. Woodruff, H.P. Rush, D.W. Watkins and W.G. Smith recently inspected the mock-up of a new bombing airplane at the plant of the Glenn L. Martin Co., Baltimore, Md.

Lieut. S.R. Harris and Wilbur Harding, engineer, recently flew to Selfridge Field for conference on night lighting installations.

Capt. J.G. Taylor left for Astoria, New York, on June 8th to test pontoon equipment.

Capt. A.W. Vanaman visited Buffalo to interview the Thomas-Morse Aircraft Co. and the Curtiss Airplane and Motor Corp. regarding contracts.

Maj. A.H. Gilkeson, Lieuts. S.R. Harris and E.R. McReynolds ferried three O-19 airplanes to Maxwell Field on June 10th. Maj. F.H. Coleman and Capt. F.W. Wright flew to Akron to inspect the great dirigible under construction there.

Brig.-Gen. H.C. Pratt, piloted by Capt. St. Clair Streett, took off on June 11th for an extensive air journey for the purpose of inspecting maintenance and supply conditions at a number of Air Corps fields and stations. Their route includes Washington, D.C., where they will confer with the Chief of the Air Corps; Shreveport, La.; Duncan Field; Rockwell Field; Crissy Field and Mather Field, Mills, Calif.

Lieut. Wendell Brookley ferried a Primary Training airplane to the plant of the Consolidated Company, Buffalo, for installation of a Curtiss Cahallenger (R-600) instead of the R-540 which formerly powered it. This engine change will place the plane in the Basic Training type.

Maj. E.G. Reinartz and Lieut. Clements McMullen, pilot, returned June 15th from a flight to Rockwell Field and the west coast.

Lieut. Martinus Stenseth, Office Chief of Militia Bureau, flew in from Bolling Field on June 16th, and took off for Kansas City next morning.

Maj. Willis Hale arrived June 17th from Bolling Field, ferrying in a Northrop Cargo airplane for test.

Maj. M.G. Healy was temporarily transferred to Fairfield on June 22nd to replace Major Malcolm Grow, who left for Pittsburgh to conduct the semi-annual physical examination of Reserve officers.

Thirty student officers of the Technical School, Chanute Field, arrived at Wright Field on June 22nd, where, under the direction of Lieut. H.A. Anderson, formerly connected with the Armament Branch, they spent three days visiting the various activities of the Materiel Division and attended lectures on the different branches of experimental work.

Capt. R.C. Coupland, Office Chief of Ordnance, Washington, D.C., formerly assigned to the Armament Branch here, spent several days at the field recently conferring on Armament matters. He was flown back to Washington by Lieut. L.S. Stranathan, who stopped over at Wright Field on his way from Chanute Field to Bolling Field.

General Smedley Butler landed at Wright Field on June 18th, taking off the following morning for Quantico. He was piloted by Lieut. Geiger of the Marines in a VJ-6 Amphibion. General Butler gave a lecture in Dayton.

Capt. E.E. Adler arrived in a BT-2B airplane on June 18th for a conference with the Chief of Division.

Capt. Carl Greene and Lieut. P.H. Kemmer left by air for Washington, Baltimore, Philadelphia and Mitchel Field, for a conference with manufacturers on structural development work. Capt. Greene, who leaves in August for Hawaii, introduced Lieut. Kemmer to the various contractors interested in the special work of which he has been in charge and which Lieut. Kemmer will now handle.

Capt. F.M. Brady arrived at Wright Field on June 21st for a week's visit to the various technical departments of the field for the purpose of acquainting himself with the needs of the Division as served from the foreign diplomatic standpoint. Capt. Brady is under orders to proceed to Rome, Italy, where he will be assistant military attache at the American Embassy. He served in like capacity in Paris in 1926 and 1927.

Messrs. L.W. Armour and W.E. Huffman left for Washington to attend a meeting of the Automotive Commodity Committee.

Capt. A.W. Stevens left on June 25th for Rochester for a conference with manufacturers on photographic equipment.

Selfridge Field, Mt. Clemens, Mich., June 30th:

During the second week in June, Maj.-General Frank Parker, the Corps Area Commander, visited Selfridge Field for an informal inspection. The following day General Parker made a flight to Springfield, Mass., in the Fleetster, piloted by Major Brower, Group Commander.

17th Pursuit Squadron: Upon return from the 1931 Air Corps Exercises, Capt. Hoyt decided that two can live as cheaply as one, especially since the new married officers quarters are completed. He was married on June 8th, and this would-be bachelor organization is still going to the dogs very fast.

During the past month, Lieut. Coleman left the organization and is now en route to the Hawaiian Islands, accompanied by Mrs. Coleman, lately acquired. Lieuts. Slight and Reed have been ordered to Chanute Field, June 30th, for a course of instruction. Lieut. Slight returned on June 27th, from Kingston, Ontario, Canada, where he was confined with a case of mumps. He is now limping around the field with a cane. Lieuts. Norman and Estes completed their tour of active duty and left on June 30th for their respective homes.

Lieuts. Koons, formerly of this organization, completed his course at Chanute Field and was assigned to the 17th Squadron. We are very glad to have Lieut. Koons with us again and greet him with open arms. Lieut. Putt, also formerly of this organization, is attached for flying only.

Lieut. Heiman is still absent, being sick in Washington, D.C. We are looking forward to his speedy recovery and return to the organization.

On June 29th, the 17th Pursuit Squadron, plus one flight from the 94th Pursuit Squadron, departed for Langley Field, Va., to put on a Pursuit demonstration for West Point Cadets on temporary duty at that field.

On June 15th, Major Brower and Lieut. Griffith proceeded to Dayton for three days on temporary duty as members of a Pursuit Board convened at that station.

Serial No. 309. LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
July 1st to July 20th 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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The first part of the document discusses the general principles of the proposed system. It is intended to provide a comprehensive overview of the various aspects involved in the implementation of the new regulations. The following sections will detail the specific measures and procedures that will be put into effect.

The second part of the document outlines the administrative arrangements for the proposed system. This includes the establishment of a central authority to oversee the implementation and the appointment of local officials to manage the day-to-day operations. It also discusses the necessary infrastructure and resources required for the system to function effectively.

The third part of the document addresses the financial aspects of the proposed system. It details the estimated costs of implementation and the sources of funding. It also discusses the proposed methods for collecting and managing the funds, as well as the measures to be taken to ensure the financial stability and sustainability of the system.

The fourth part of the document discusses the legal and regulatory framework for the proposed system. It outlines the proposed changes to existing laws and regulations, as well as the new laws and regulations that will be introduced. It also discusses the measures to be taken to ensure the legal and regulatory framework is robust and effective.

The fifth part of the document discusses the social and economic implications of the proposed system. It outlines the expected benefits and challenges, as well as the measures to be taken to address these issues. It also discusses the proposed methods for monitoring and evaluating the system's performance, as well as the measures to be taken to improve it.

The sixth part of the document discusses the implementation timeline for the proposed system. It outlines the key milestones and the expected completion dates for each stage of the implementation process. It also discusses the measures to be taken to ensure the implementation process is timely and efficient.

The seventh part of the document discusses the conclusion of the proposed system. It outlines the expected long-term benefits and the measures to be taken to ensure the system's sustainability. It also discusses the proposed methods for monitoring and evaluating the system's performance, as well as the measures to be taken to improve it.

The eighth part of the document discusses the appendix. This includes the proposed forms and documents to be used in the implementation process, as well as the proposed methods for collecting and managing the data. It also discusses the proposed methods for training and educating the staff and the public.

The ninth part of the document discusses the index. This includes the proposed methods for organizing and indexing the documents, as well as the proposed methods for searching and retrieving the information. It also discusses the proposed methods for maintaining and updating the index.

The tenth part of the document discusses the glossary. This includes the proposed definitions for the key terms and concepts used in the document, as well as the proposed methods for maintaining and updating the glossary.

The eleventh part of the document discusses the bibliography. This includes the proposed list of references and sources used in the document, as well as the proposed methods for maintaining and updating the bibliography.

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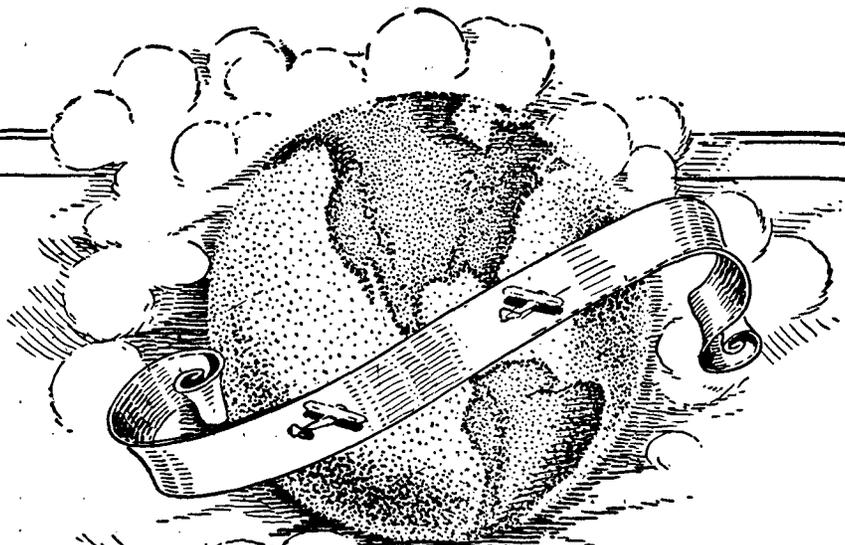
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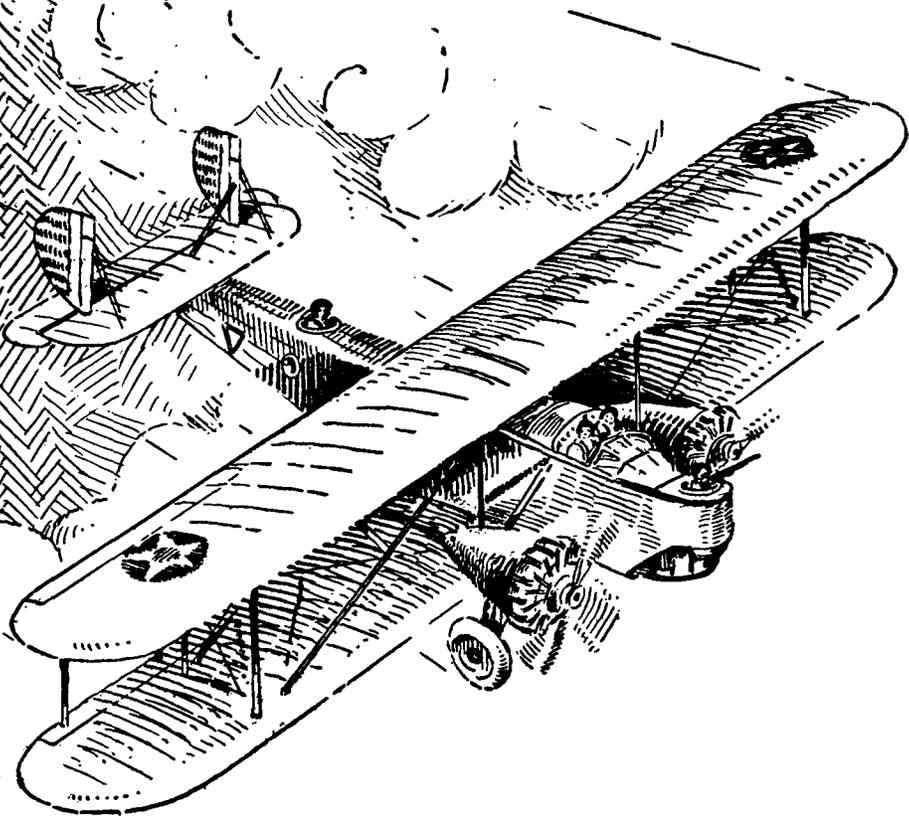
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1911

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AIR CORPS NEWS LETTER



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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 in this publication.

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U. S. ARMY NO. 1 BALLOON AND LIGHTNING
By Lieut. Howard H. Couch, Air Corps

To those who are laboring under the mistaken idea that free ballooning is not very sporting and that it has no thrills, an invitation is extended to dodge thunderstorms on a dark night over rough country. All of which is by way of introduction to the story of the last thirteen minutes of the four hour and nineteen minute flight of the U.S. Army Entry Number One in the National Elimination Balloon Races at Akron, Ohio, on July 19, 1931.

Like Circus Day and Fourth of July, July 19th dawned with a clear sky and auspicious omens for a race that would be marked by nothing more exciting than perhaps a long walk out of the New England woods on the 20th. Somehow or other, the weatherman slipped up and left the house with the thunderstorm tap running, for afternoon brought ominous looking cumulo-nimbus with an attendant electrical display. The spectators were given many a thrill by the time the first balloon, Army Entry Number Two, took off. The wind had increased in velocity until the big 80,000 cubic feet bags were blown clear to the ground like a child's toy.

At 6:09, Army Entry Number One, the last balloon to get away, took off just ahead of a violent and extensive thunderstorm, through which lightning was playing continuously. Ahead and on both sides, other storms reared their towering columns of wind-tossed clouds. A bit of luck and some jockeying kept us clear of these surrounding storms. We passed the place where Army Number Two had landed, the Del-Mar-Va Entry and the W.J.R., and were rapidly overhauling a fourth balloon when darkness covered the earth.

Against the brilliant background of the lightning-lit storm behind us, we watched W.J.R. for an hour before he disappeared, shortly after Del-Mar-Va had been forced down in a drenching rain. The balloon ahead of us, of course, had disappeared and we had that lonely feeling which can be experienced only in the wicker basket of a balloon on a night as dark as pitch, hanging somewhere above the ground.

At 10:10, such was our ignorance and conceit, that we congratulated each other on having won the race. The old story of counting the chickens; for we felt sure that with our good luck so far we would last until at least the morning of July 20th.

At 10:15 the balloon started to rise gradually from 2,500 feet. We decided to let it rise past its equilibrium point, and by judicious use of ballast level off at about 3,000 feet. At 5,000 feet, we entered a light, wispy cloud, and at 5,500 feet, as we had predicted, the balloon stopped its ascent momentarily and then the fun began!

From zero vertical rate, it jumped up to a rate of 800 feet per minute ascent. Every foot of the way the lightning became more brilliant and the wind whistling through the rigging and the clattering of the fabric and the equipment that was hung on the outside became more pronounced. The flashes of lightning through the clouds became more blinding and the oscillations more violent until at 8,000 feet we were hanging onto the suspension ropes to keep our balance. It looked like a good time to trust to Major Hoffman's new parachute. We agreed that, as far as we were concerned, it looked very much as if the race was over.

Just under 10,000 feet, the balloon stopped its wild upward rush as though it had hit a ceiling. The needle of our rate of climb indicator dropped with incredible rapidity to a 1200 feet per minute descent. While these speeds were not alarming, they were sufficiently great to destroy our judgment in the static condition of the balloon. We reserved our ballast, however, until we had dropped out of the clouds and then we poured all but one bag. And still we dropped! Then miscellaneous equipment started to go over with a silent prayer that all Pennsylvania farmers were living someplace else than immediately

under us. At 2,000 feet, old Number 295 stopped and started up again. This would never do! We had no desire to be wafted to great heights through an active and vicious thunderstorm without ballast. We reached for the valve to dispose of some more gas, but it proved unnecessary.

Again we started on a downward plunge, cut the drag rope, threw over the last bag of sand, barged through several hundred yards of trees and sat down in a small wheat field, crawled out of the basket and began to wonder what it was all about.

Things happened so rapidly that we could not believe we were definitely out of the race. But there lay the old balloon, draped over a four-foot stump and flat as a pancake. It certainly was one of those cases where it could be said that it was a good flight, because we got up and WALKED to the nearest town.

Ed. Note: In the National Elimination Balloon Race, which started from Akron, Ohio, July 19th, the Army Air Corps was represented by two teams - Entry No. 1 being piloted by Captain Karl S. Axtater, with Lieut. Howard H. Couch, Aide, both stationed at Wright Field, Dayton, Ohio, and Entry No. 2 by Lieut. Edgar M. Fogelsonger, of Pope Field, Fort Bragg, N.C., with Lieut. John A. Tarro, of Fort Sill, Okla., as Aide. Lieut. Haynie McCormick, of Fort Sill, served as Operations Officer, and Captain William J. Flood, of the Office of the Chief of the Air Corps, as Liaison Officer.

The Race was won by the Navy Team of Lieut. Thomas G.W. Settle, pilot, with Lieut. Wilfred Bushnell as Aide. Their balloon landed at Marilla, a New York village, 15 miles east of Buffalo, and 215 miles from the starting point. The Navy balloonists were forced to descend in the face of a severe electrical storm after a night of lightning and wind.

One of the two entries representing Akron, Ohio, took second place, the Goodyear-Zeppelin VIII, piloted by Frank A. Trotter, with Roland J. Blair, Aide, covering 190 miles and landing at Stevensville, a Canadian village near the Welland Canal, after crossing Lake Erie in rough weather. This team won the National Elimination Balloon Race last year, which started from Houston, Texas, July 4th, by covering 768 miles.

Third place was taken by the team of Eddie J. Hill and Arthur J. Schlosser, both of Detroit, who landed at Wesleyville, near Erie, Pa., after covering 110 miles. The Army team of Captain Axtater and Lieut. Couch, who descended at Custards, Pa., 80 miles east of Akron, took fourth place, while Messrs. L.P. Furculow and John Pieker, who maneuvered the Del-Mar-Va Civic Association's bag, landed at Ravenna, covered 20 miles, and finished fifth. The weather was extremely unkind to the Army team of Lieuts. Fogelsonger and Tarro, for they were forced to land some 12 miles from the starting point.

As a result of this year's National Elimination Balloon Race, America will be represented in the Gordon-Bennett International Balloon Race by the Navy team, the Akron team and by Ward T. Van Orman, who won this lighter-than-air classic both in 1929 and 1930.

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CRISSY FIELD'S SPEED BOAT

"As a matter of information that has not been given the publicity it deserved," says the Crissy Field Correspondent, "Crissy Field has a speed boat. According to reports from the custodians of our boat, our friends from the North Point Station of the Coast Guard, it is not just another speed boat but the fastest boat on San Francisco's most beautiful bay. With the efficiency of our Coast Guard friends and such a boat, visiting firemen will encounter strenuous competition in trying to accomplish a successful 'drowning act.' Lieut. Hurst, of Mather Field, tried his best to mar our reputation by setting a DH down in our sun-kist bay at five o'clock in the afternoon without success. Before he had a chance to take on any water he was hauled into Crissy Field's speed boat by a very efficient Coast Guard crew and then taken to the hospital. There was no injury to personnel; in fact, it is rumored that Lieut. Hurst's clothes were barely wet. We term that Efficiency Personified."

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Lieut.-Col. James A. Mars, recently in command of France Field, Panama Canal Zone, was assigned as Commanding Officer of Chamute Field, Rantoul, Ill., relieving Capt. Samuel C. Skeemp, who was in temporary command following the departure of Lieut.-Col. Jacob W.S. Wuest for Germany for duty as Air Attache.

SUCCESSFUL RESERVE OFFICERS' TRAINING CAMP AT SCOTT FIELD

The 14-day training camp for Air Corps Reserve Officers, conducted at Scott Field, Belleville, Ill., from July 5th to 18th, inclusive, had a much larger attendance than any camp previously held at that field, 71 Reserve Officers from various parts of the Sixth Corps Area answering roll call. This total included both heavier-than-air and lighter-than-air officers and one Medical Reserve Officer assigned to an Air Corps Reserve Unit.

The camp was very successful in the number of hours flown, the total hours for heavier-than-air officers being approximately 569, and that for lighter-than-air officers approximately 127. As far as possible, all officers were given an approximately equal amount of time on various missions, such as local flights and landing practice, formation flying, cross-country, etc. Planes were sent out in groups for cross-country flights and landed, refueled and returned from designated fields.

The training camp was also very successful in another way, no accidents of even a minor nature occurring during the entire period, which is considered exceptional in view of the advanced nature of many of the flying missions performed. All heavier-than-air officers desiring to fly in airships were given that opportunity during the two-weeks period, several of the flights being performed at night and especially enjoyed, as the visibility was excellent and the weather very good at all times.

The airplanes, which were obtained from various stations for use of the Reserve officers, were ferried to their home stations by pilots from those fields.

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NEW STATION FOR FLIGHT "B", 16th OBS. SQUADRON

Flight "B" of the 16th Observation Squadron came into being as a separate organization when it was sent to Fort Benning, Ga., from Fort Riley, Kansas, to be a part of the Infantry School Detachment. The personnel include five officers and 27 enlisted men, the officers being 1st Lieut. Lloyd Barnett (commanding), 1st Lieut. Charles T. Skow, 2nd Lieuts. Leon R. Brownfield, Charles H. Leitner, Jr. (Res.) and Glenn A. Holland (Res.). With the exception of Lieut. Leitner, transferred from Maxwell Field, Ala., all of these officers came from Fort Riley, Kansas.

Three O-25 airplanes are assigned to this Flight.

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INSTRUMENT FLYING BY PILOTS IN HAWAIIAN DEPT.

All pilots of the 18th Composite Wing in Hawaii have been directed to undergo tests in instrument flying. Hoods have been provided for the O-19 and A-3 types of planes, and several qualified instructors are on hand. Among them is Master Sergeant John L. Waugh, who assisted Major William C. Ocker in his instrument flying experiments at Kelly Field, Texas. "While low flying fogs are rare in these waters," says the News Letter Correspondent, "we do have rains which reduce visibility to zero, especially when flying over water and out of sight of land."

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A ROUSING WELCOME FOR NEW GROUP COMMANDER

On the occasion of the arrival in Hawaii recently of Major Ernest Clark, Air Corps, to assume command of the 18th Pursuit Group at Wheeler Field, this organization turned out full strength to fly an Aloha in his honor. Major Clark arrived on June 23rd on the Transport CHATEAU THIERRY. In addition to other evolutions, the formation spelled successively the letters C-I-A-R-K, so that there was little doubt (provided the observer used his imagination slightly) for whom the Aloha was intended. "We feel that Major Clark comes to the command of a live and smooth functioning unit," says the News Letter Correspondent, "and have no doubt that under his direction the Group will be kept at its present high standard of morale."

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Piloted by Capt. Vincent J. Meloy, the Chief of the Militia Bureau, General William G. Everson, left August 5th on an extended trip, involving approximately 6,345 miles, to inspect various National Guard encampments throughout the country.

WEST POINT GRADUATES DETAILED TO THE AIR CORPS

A total of 89 newly commissioned second lieutenants, who graduated from the United States Military Academy last June, or 30 percent of the entire graduating class of 296, have been detailed to the Army Air Corps for the purpose of undergoing flying training. Upon the expiration of their graduation leave on September 11th next, these officers are under orders to report to the Commanding General of the new Air Corps Training Center at Randolph Field, near San Antonio, Texas, for duty as students.

These 89 students received commissions in the various branches of the Army, except the Air Corps, as follows: Corps of Engineers, 3; Cavalry, 10; Field Artillery, 21; Coast Artillery, 17; Infantry, 38. Under the policy of the War Department, based upon the provisions of the Air Corps Act, approved July 2, 1926, 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 who have chosen to cast their lot with the aviation branch of the Army, i.e., an eight months' primary course at Randolph Field and a four months' course at the Advanced Flying School at Kelly Field, Texas.

Scanning over the list of these young officers who aspire to become Air Corps pilots, the reader who is interested in football may note such familiar names as Carl W. Carlmark, End of the West Point team for the last three seasons; Wendell W. Bowman, veteran quarterback; Charles I. Humber, Jr., Capt. of the 1930 team; Paul G. Miller, Center; John C. Gordon and Wm. L. Parham, substitute Guards; and George E. Fletcher, substitute End. The names of those who have distinguished themselves in other lines of sports may also be noted, as follows: Royden E. Beebe, Polo; Charles E. Hoy, Baseball; Dean C. Strother, James C. Blanning, Basketball; Donald N. Yates, Gymnasium; John T. Helms and Arthur J. Kerwin, Jr., Tennis; Richard S. Carter, Hockey; Andrew J. Adams, Donald C. Little, William R. Woodward and Harry G. Roller, Boxing; Edward J. Timberlake, Jr., Swimming; Jacob E. Smart, Fencing; Cornelius A. Lichirie, Ernest Moore and Maynard N. Levenick, Track; Charles F. Densford, Pistol; Frederick T. Berg and Robert F. Fulton, Rifle.

It is now ten years since the policy was inaugurated of detailing West Point Graduates to the Air Corps for flying training. During this decade a total of 580 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.

The West Point graduates who will form a respectable percentage of the new class scheduled to start flying training at the new Air Corps Training Center this Fall are enumerated below, as follows:

<u>Rank</u>	<u>Name</u>	<u>Rank</u>	<u>Name</u>
	<u>Corps of Engineers</u>		<u>Cavalry</u>
10	Marvyn Lyle Thomas	37	Cornelius Ardalion Lichirie
12	Gunnard William Carlson	85	Donald Norton Yates
13	Stephen Read Hammer	89	James Bertram Corbett
	<u>Field Artillery</u>	108	James C. Blanning
24	John Phillips Daley	113	Royden Eugene Beebe, Jr.
34	Daniel Francis Callahan, Jr.	120	Earle William Hockenberry
52	Donald Cubbison Little	128	Louis Augustine Guenther
67	A. J. McVea	131	Milton Wylie Arnold
92	Hoyt Daniel Williams	146	Harry Keppler Mooney
107	William John Bell	150	Robert Merrill Lee
125	John Edwin Barr		<u>Coast Artillery</u>
140	William Harris Isbell, Jr.	39	Marcellus Duffy
171	Carl Wilbert Carlmark	45	Robert Alan Stunkard
172	Robert Leander Cardell	55	Gordon Aylesworth Blake
183	Jacob Edward Smart	56	Joseph Francis Carroll
186	Irving William Jackson	64	Phillip Bessom Stiness
187	Robert Quinney Brown	71	Gaspere Frank Blunda
194	John W.M. Read	78	Frederick Theodore Berg
199	Wendell Washington Bowman	91	Elmo Clark Mitchell
209	Richard Spencer Carter	101	Charles Robert Bard
211	Elmer Lee Thompson	102	Paul Gordon Miller
219	Edwin Anderson Walker	111	Ernest Moore
234	Terrence R.J. Hickey	114	Chester Joseph Diestel

<u>Rank</u>	<u>Name</u>
<u>Coast Artillery (Cont'd)</u>	
117	William Lamar Parham
134	David Northrup Motherwell
138	Millard Chester Young
149	William Ayres Hampton
151	Robert Freeman Fulton

<u>Rank</u>	<u>Name</u>
<u>Infantry</u>	
158	Donald Rosser Patterson
162	Dean Coldwell Strother
168	George Frederick Hartman
174	Richard Hungerford Wise
176	John Robert Skeldon
181	Maynard Norwood Levenick
184	George Edward Fletcher
195	Lester Leroy H. Kunish
196	Robert Edward Lee Eaton
198	Carl Fillmore Damberg
208	Howard Harrison Dudley
210	Hilbert Fred Muentner
213	John Autrey Feagin
215	Richard Klemm Boyd
222	Raymond Taylor Lester
223	Charles Edward Hoy
235	Earl Bradford Leeper
238	John Clarence Gordon

<u>Rank</u>	<u>Name</u>
<u>Infantry (Cont'd)</u>	
240	Arthur Raphael Kerwin, Jr.
244	Harold Robert Uhlman
246	Andrew Joseph Adams
247	Victor James MacLaughlin
248	Charles Bowman Dougher
249	William Rogers Woodward
251	Charles Ingram Humber, Jr.
252	David William Hutchison
253	Charles Elder Frederick
264	Harry George Roller
268	Van Hugo Bond
271	Gerald Evan Williams
272	Clarence David McGowen
279	James Thomas McClellan
283	William James Mahoney
285	James Henry Carlisle
286	Edward Julius Timberlake, Jr.
287	John Tazewell Helms
289	Theodor Jacob Beck
296	Russell Hunter Griffith
<u>Field Artillery (added)</u>	
175	Charles Francis Densford
177	Leo Wilbur Cather

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CRISSY FIELD PERSONNEL COVER MANY MILES

The personnel of the 91st Observation Squadron, stationed at Crissy Field, Presidio of San Francisco, Calif., who participated in the Air Corps Exercises, returned to their home station after covering approximately 10,000 miles. The personnel of this flight consisted of Major L.W. McIntosh, Captains John C. Kennedy, John E. Upston, 1st Lieut. Richard H. Dean, 2nd Lieuts. Percy O. Brewer, Byron S. Cooper, Trenholm J. Meyer, John K. Poole, Myron E. Lackey, Laddie J. Miller, Harlow B. Grow, Ted A. Smith, Adrian F. Wilkinson and Byron Q. Van Cott, with Sergeants Lessels, Parrett, Craig, Lutes, Murphy, Summers, Ethridge, Blankenship, Bleeck, Evans, Corporals Hambel and Miller, and Private 1st Cl. Drinkwine, Mechanics.

The entire trip was made on schedule and without injury to personnel or equipment.

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RUNWAY MARKER LIGHTS

Sometime ago the need became apparent for a type of airrome light which would outline runways and indicate dangerous ground areas but which would not form an obstacle to airplanes taxiing or landing over them. Three commercial types of floodlights were tested at Wright Field, Dayton, Ohio. These consisted of an incandescent lamp placed at the focal point of a parabolic reflector and housed in a water-tight casting fitted with a heavy glass door. These units were installed with the lens level with the ground, and tests showed that the light distribution, the beam being vertically upward, was not satisfactory. One had to fly fairly high above the lights before they became apparent. To a pilot flying low over the field and approaching from a side angle, they were scarcely apparent.

The Air Corps designed and tested a unit called a runway marker light. This consists of an incandescent lamp placed in a glass cylinder which is installed in a water-tight, protective, metal casting. The cylinder is five inches in diameter, the whole casting 12 inches in diameter, and it extends four inches above the ground level. The metal cap which tops the glass cylinder and the fact that the cylinder is four feet above the ground level causes a diffusion of the light beam sideways across the level of the field and upwards to an angle of 40 degrees. A white light is used to denote runways and a red for ground obstacle marking. This type of light has proved to be the most satisfactory yet tried out for this purpose.

NOVEL METHOD OF PURIFYING GASOLINE

Once more it appears that the Army Air Corps may take credit for providing a solution to a problem connected with the operation of aircraft which should prove of benefit to aviation and aircraft operators generally.

Old man "Water-in-the-Gas" and his companion "Dirt" are two insidious stow-aways who have often not only been the cause of mental anguish on the part of pilot and passengers, but not infrequently were the indirect cause of disastrous forced landings. There are few pilots of long standing who cannot recall instances when they were compelled to gaze helplessly through surrounding mists at inhospitable ridges of the Alleghenies, the reaching branches of southern pines, or dark canyons and arid wastes of western States, while their motor coughed a wildly syncopated rythm bordering on complete stoppage, all because a thimble-full of water, or a small quantity of dirt had found its way into the delicate jet system of the carburetor.

Formerly it was the almost universal custom to filter gasoline fuel through chamois strainers held in a fueling funnel. While this means is effective, it is tediously slow; so much so, that the patience of normally trustworthy mechanics was too often tried to the breaking point, for the chamois had a tendency to develop mysterious holes, the presence of which often meant the difference between getting to "chow" on time or being forced to take the "leavings." In addition to this tendency to deteriorate, chamois filters are subject to another undesirable condition, the liability to develop a static charge if the funnel is not carefully grounded. Occasionally this will discharge in the form of a spark at an inopportune time. Resulting fires and explosions were costly in cash as well as in singed eyebrows.

The troubles resulting from impure gasoline and the necessity for guarding against it have at last been eliminated, thanks to the inventive genius of Master Sergeant David Samiran, Air Corps, whose gasoline-water "Segregator" was recently adopted as standard equipment by the Air Corps in connection with aircraft refueling.

Sergeant Samiran conceived the idea for his device while on duty at France Field, Panama Canal Zone, in 1924. The problem of water in gasoline was at that time one of considerable local importance due to the humidity of the climate, the location of France Field at sea level and the nature of existing gasoline storage facilities. A series of forced landings, culminating in the fatal crash of a Bomber because of water in the fuel, directed the attention of local authorities toward finding a solution for this problem. Sergeant Samiran, accordingly, received official encouragement and was granted the use of local machine shop facilities for working out his ideas.

After several months of intensive effort, often working long after dark, he succeeded in producing a practical example of his device, which was promptly installed in one of the local gasoline servicing trucks. This installation was carefully tested for a period of months. An official report by the officer in charge contains the following paragraph:

"During this four months' period, several thousand gallons of gasoline were pumped through the Isolator (Segregator) some of which contained rather a high percentage of water, and it was found to function satisfactorily at all times, as it absolutely removed all water and allowed only pure gasoline to reach our planes, while other squadrons using the same kind of gasoline but not using the Fluid Isolator (Segregator) were having frequent engine trouble."

Upon the termination of his period of duty in Panama, Sergeant Samiran was transferred to Langley Field, Va., where he continued his experiments through another year, during which time he applied for and obtained a government Patent on his device.

At length, satisfied that his Segregator was approaching perfection, he obtained War Department orders to proceed to the Materiel Division of the Air Corps at Wright Field, Dayton, Ohio, in order to demonstrate the various examples of the Segregator to the engineers of the Experimental Engineering Section. These demonstrations proved so convincing that Sergeant Samiran was retained at Wright Field for the purpose of supervising the design and manufacture of a series of Segregators of varying types for installation on gasoline service trucks, gasoline storage and distribution systems, hand refueling pumps, and in the fuel systems of aircraft. An example of the latter type was fabricated to the special order of

the Navy Department.

Subsequent to this development, a number of Segregators were distributed for extended service tests to Air Corps stations where gasoline is consumed in large quantities. The reports rendered at the conclusion of the prescribed period indicate unqualified approval, an extract from one of them reading as follows:

"1. Fluid Segregator and valve assembly referred to in basic communication were installed on the heavy duty refueling unit at this station, and have now been in service three months. This equipment has proven entirely satisfactory.

"2. It is recommended that this type equipment be adopted as standard for all refueling units."

A similar report was rendered by one of the fields in California. Since this report refers to sediment, it is of interest to note the following paragraphs:

"1. Since the installation of the Fluid Segregator and valve assembly on the heavy duty refueling unit at this station practically no sediment has been found in the strainers or tank drain-cocks. There has been no trouble due to water in the fuel systems of aircraft serviced by the heavy duty refueling unit. The Fluid Segregator is believed to be more efficient than the gasoline filter.

"2. Recommend that this fluid segregator be adopted as standard equipment for all Air Corps refueling units."

The Materiel Division of the Air Corps recently procured a large number of Segregators which are being distributed to the various Air Corps posts and depots for installation as part of their permanent gasoline storage systems.

The development by the Air Corps of Master Sergeant Samiran's invention is an excellent example of the benevolent attitude assumed by the Government toward individuals in the services in order to encourage inventive effort which might contribute to the public welfare. While, under existing law, the Government assumes unrestricted right to the use of inventions produced by personnel in the Government service, it stands ready to provide patent protection for the inventor on novel devices having military value. It further stands ready to protect its interests with those of the inventor in the event that the validity of the patents should be challenged.

If the invention requires development to bring it to a state of usefulness, the work is conducted at Government expense in Government laboratories under the supervision of skilled Government engineers. In view of the fact that, in the majority of cases, the inventor is financially incapable of developing his invention alone, this Governmental assistance is of the greatest advantage to him. He retains at all times full civil rights to his patents and, providing it is not of a secret military nature, is permitted to dispose of these rights at his discretion.

Successful inventors are rare birds. It is therefore interesting to delve somewhat into the personal history of the man responsible for the invention described in this article. Master Sergeant Samiran is a native of the Island of Cyprus. His inventive talent asserted itself at an early age and, finding little opportunity to exercise it within the narrow limits of his homeland, he decided to come to the United States. The year 1911 found him in New York, with no knowledge of the English language, practically no money, and but one or two friends acquired during the voyage. He was fortunate in obtaining work, with the aid of one of these friends, as an oiler in the engine room of the old Waldorf-Astoria Hotel. During the six years he remained there, he succeeded in making himself so useful that he eventually became assistant to the Chief Engineer and had supervision of the extensive elevator system. At this time he devised new methods for the repair and replacement of elevator cables which resulted in a considerable saving in time and money to his employers.

Upon the entrance of the United States into the World War, Sergeant Samiran volunteered for service in the Aviation Section of the Signal Corps. After a brief period of service at Kelly Field, Texas, he was transferred to duty overseas. For a time he served with the 1099th Aero Repair Squadron attached to the British Independent Air Force in France. Later he was transferred to the American Air Service and stationed at Colombey-les-Belles in the Zone of Advance, where he remained until the Armistice.

At about this time there was organized the American-Polish Typhus Relief Expedition, under the command of Colonel Gilchrist, Medical Corps, to assist the

Poles, with much needed medical supplies and equipment, in their desperate fight against the Bolsheviki. Feeling an urge for further adventure, Samiran responded to a call for volunteers. He found himself second senior noncommissioned officer of the expedition, which consisted of some 500 officers and men. One of the principal items of equipment taken by the expedition was 800 Ford ambulances and touring cars, which were used in transporting the other supplies. The expedition reached Warsaw, Poland, at that time the objective of a Bolshevik advance, and established its headquarters at Fort Zegerze on the outskirts of the city.

As the relief equipment was being turned over to the hard pressed Poles, it was discovered that no descriptive matter was available in any language which could be used in instructing them in the operation and maintenance of the Fords. Sergeant Samiran, who is an expert draughtsman, accordingly undertook to make a series of full scale sectional drawings, including one of a complete Ford chassis. The work was performed on a wooden mess table largely by candle light and under severe winter conditions. The necessary data was obtained by measurement of the individual parts from a chassis which was stripped for the purpose. Only the crudest drawing instruments were available.

A few months following his arrival at Wright Field, Sergeant Samiran, who had preserved this valuable drawing, duly attested by the signature of Colonel Gilchrist and other officers of the Relief Expedition, took it to Detroit and presented it to Mr. Henry Ford in the course of a personal interview in the latter's offices at Dearborn. Mr. Ford expressed the keenest satisfaction at receiving the drawing, which he stated would be placed in his museum among other souvenirs of the famous Model "T." He examined the drawing carefully, getting down on his hands and knees to do so. Before Sergeant Samiran left, Mr. Ford presented him his personal card and autograph - a procedure which is said to be very rare.

Asked recently to describe the operation of his device, the Sergeant explained that the operating principle takes advantage of the natural tendency of water and gasoline to separate, due to difference in specific gravity. This separation is facilitated by the special design of the interior of the fluid chamber which directs the liquid flow so that the water is delivered to the bottom with a minimum of turbulence, while the gasoline is drawn off through an outlet at the top after passing through an efficient sediment screen. The accumulated water is discharged automatically by the operation of a simple float valve mechanism operating on the principle of "differential buoyancy." Only one moving part is employed. The resulting simplicity permits interchangeability of many parts of the various models. The size of the segregator required for any specific purpose is determined from the volume and rate of liquid flow called for.

"The design of the various types of Segregator we have so far produced," Sergeant Samiran stated, "were not solely the result of theory or laboratory tests, but are the result of weeks and months of actual cut-and-try experiments to produce a simple mechanism which would be reliable in operation and cheap to manufacture. So far we have produced models for installation on gasoline delivery tank-trucks, in refueling pit systems for airports, filling station installations, storage systems and fuel systems of aircraft and motor boats. We have also road-tested with highly satisfactory results a model suitable for installation on automobiles. There is no practical limitation to the size the Segregator can be built. I have one which can be readily placed in the pocket. Models having an hourly capacity of thousands of gallons, for use at bulk loading points, are contemplated. There seems every reason to believe that the Segregator will be equally useful for the separation of water and sediment from fuel and lubricating oils of the lighter grades. I believe it to have possibilities as a milk and cream separator. Other uses have been suggested which appear practicable but which require investigation."

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A tactical exercise was recently conducted by Lieut.-Col. G. C. Brant, Commanding Officer of the 18th Composite Wing, Hawaii, which included a total of 56 ships - 8 Bombers, 16 O-19's and one Sikorsky from Luke Field, and 21 Pursuit, 9 Attack and one Sikorsky from Wheeler Field. The exercise was a simulated attack by the entire Wing on the Island of Maui. Some valuable experience in coordination was gained and the exercise was successful, although delayed several hours by bad weather and high winds. The return flight of the Wing was made in less than 40 minutes, riding the crest of a 60-mile gale.

AIR CORPS OFFICERS CONDUCT GLIDER EXPERIMENTS

Three Air Corps officers from Wheeler Field, T.H., William A. Cocke, Jr., William J. Scott and John C. Crain, made their first test flight in their sailplane or glider. The glider, weighed down by a landing gear which will be removed later, did not remain in the air long. But the builders took several short flights after being towed across Wheeler Field behind an automobile, in order to determine if there are corrections to be made before using the plane in a mountain air current.

The plane was handled without difficulty by the officers, who worked on its construction for nearly a year. Towed at the end of 1000 feet of wire cable, Lieut. Crane was able to get the glider up to about 300 feet on the last test flight of the afternoon. He made a circle, followed by a letter "S", before landing. Several shorter flights were made by the three officers from a towline 700 feet long. No effort was made to stay up long, the purpose of the initial tests being to determine whether there are errors in construction to be remedied. Apparently the flyers found none.

A feature of the tests was the use of a telephone line between the tow car and the glider. The line was designed by Edward Sorensen of the 19th Pursuit Squadron. The telephone wire was run along the tow cable and the driver of the tow car and pilot of the glider wore head phones. This enabled them to converse freely during the tow. The connection was broken when the pilot released the tow cable, however.

The glider is a sailplane in type. It was designed by Lieut. Cocke, who states that he followed roughly the lines of the Bowlus glider. This is the type of plane recently used by Jack Barstow of Point Loma, Calif., when he set an American unofficial record of 15 hours and 13 minutes. The glider weighs 300 pounds and has a wing spread of 60 feet 7 inches.

This is the third glider built and flown at Wheeler Field. Fred and William Bushnell, brothers, built and flew one with small success a year or more ago while, in 1924, one was constructed and flown by Lieut. Sheridan.

Fuselage and wing are of wood construction, mostly spruce. Metal fittings are also used. Lieut. Cocke designed a wing of extra strength because of the "bumpy" wind encountered here, he said. The ship has an altimeter and airspeed indicator in addition to the usual controls. The cockpit is inclosed.

Light showers at Wheeler Field made flying difficult, because the earth was cool and there were no rising air currents, the flyers reported. Rough terrain or a hot, sandy soil is considered better for gliding, they said, because they create rising currents.

While the flyers have no plans beyond enjoying the new sport in their spare time, the belief is that, if their ship is a success, they will enter the proposed international gliding contests in September.

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FORT SILL FLYERS SHINE IN GUNNERY AND BOMBING PRACTICE

The month of July found the 88th Observation Squadron, Fort Sill, Oklahoma, in the throes of their Annual Gunnery and Bombing Record practice, delayed by Air Corps and Field Artillery School Maneuvers. Denied the Fort Crockett range, they found themselves facing the necessity of arising cheerfully each morning at 4:15 to fire at daybreak, atmospheric conditions at Fort Sill being such as to render firing after 7:45 a.m. practically impossible. According to the News Letter correspondent, residents of Fort Sill and vicinity are seriously considering signing a petition to abolish the Air Corps.

In spite of a limited range and time, the Squadron acquitted itself remarkably well. Of 16 pilots who completed the course, 10 became Expert and 6 Sharpshooters. Of the 10 Experts, the following pilots cracked the 900 mark: Lieuts. Mitchell, Dugan, Fleming, Ross and Ritchie, Lieut. Mitchell leading with a 967. With only 6 pilots left to fire, the Squadron expects to complete a very satisfactory season.

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A 9-ship formation flew to Chickasha, Okla., on July 9th on the occasion of the arrival of Post and Gatty, round-the-world flyers. This formation, led by Captain Frank H. Pritchard, Commanding Officer of the 88th Observation Squadron, took off from Fort Sill, Okla., and returned thereto without making a landing at Chickasha.

CONSTRUCTION WORK AT SELFRIDGE FIELD WELL UNDER WAY

It is a great satisfaction to the members of Selfridge Field, Mich., to see the new construction well under way. Foundations have been laid for the four new hangars, and some of the steel work has already been put in place. The headquarters building has been completed to the first floor and the work is progressing very rapidly. The old buildings on the post which were in the way of the new construction are rapidly being torn down and should be entirely cleared within the next few weeks. New construction necessitated the moving of the Post Exchange, and it is now in the building formerly occupied as an officers' club. This location is much more convenient for the Post Exchange, as it is much closer to the barracks and much more accessible to all concerned.

It is expected that work will shortly commence on the new water system which will give Selfridge Field an excellent supply of water from the City of Mt. Clemens. This work should be completed in approximately one month.

Construction on the new officers' quarters and noncommissioned officers' quarters is progressing very satisfactorily and should, without doubt, be completed before cold weather sets in. The work on the sea wall is moving as rapidly as can be expected, and the fill is being slowly but surely completed. As soon as it is properly settled, it is anticipated that it will be leveled out, when some work can be started on beautification.

Proposals for the road work throughout the entire post will be opened shortly, and by the time the snow flies there should be an excellent system of roads throughout the entire post which will be of great benefit during the winter months. Beautification throughout the officers' area is progressing very well and it is hoped to have a good stand of grass and lots of trees growing by the Spring of '32.

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THE PILOT'S NAVIGATION HANDBOOK

The Weems System of Navigation, 122 West Third Street, Los Angeles, Calif., through the Pilot's Handbook Publishing Co., 323 Henne Building, Los Angeles, have just published the Pilot's Navigation Handbook, designed to teach the cross country pilot navigation in its various phases, and to deter the tyro in aerial navigation from attempting flights beyond his skill and experience.

An interesting review of the above mentioned Handbook was submitted by Major Follett Bradley, Air Corps, stationed at Langley Field, Va. It is regretted that lack of space prevents the publication of the review in its entirety. Excerpts from same are quoted below, as follows:

"Around the world in less than nine days! How millions of men, women and youths all over the world have thrilled at the nerve and precision with which Wiley Post and Harold Gatty scorned the demons of the unknown to shatter another record! Psychologists tell us that the fear of the unknown brings terror to man more quickly than any other fear. Certain it is that the pilot who does not know where he is, and cannot quickly determine his position by recognizing landmarks or 'shooting a railroad station' to read its name, is most uncomfortable. If in addition, a threatening storm or darkness be approaching, or if his fuel be running low, he will require an iron control of his emotions to prevent stark terror - panic from engulfing him.

The answer is obvious. The pilot of an aircraft must not be lost. He must always know just where he is. If it is only by such knowledge that he can safely complete his journey as planned, or, if faced with a situation which prevents completion, can make an intelligent decision of what is best to do. Sometimes he should turn back, or alter course to an airport whose location he knows. Sometimes he should land where he is. Sometimes he should push on - at least part way. Always he must know where he is in order to decide quickly and correctly which course of action he will adopt.

'No longer is the great problem facing aviation that of getting an aircraft into the air and keeping it there. * * * The remaining problems for successful scheduled flights are principally those of safe and accurate navigation, including navigation in conditions of low visibility.'

Although we find in this handbook such terms as declination, right ascension, dead reckoning, azimuth, etc., (if the author did not use them he would have to invent new and probably even more confusing terms), we are assured that it 'dispenses entirely with higher mathematics, trigonometry and logarithms. It pre-

sents the entire science of navigation in a non-technical, easily comprehensible manner, and will prove of inestimable value to student and pilot alike.' The reviewer agrees with these statements and believes the author has not overstated the facts when he says that 'any person of normal intelligence who has completed a grammar school course is fitted to accomplish all the operations required for practical air navigation.' The handbook has well accomplished its mission of assisting the aerial navigator to master the art of practical 'flying from where you are to where you want to go.'

The Pilot's Navigation Handbook is divided into seven parts. It has in addition a complete set of maps of the United States on the Mercator Projection.

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The reviewer is tremendously impressed with this book and believes it an invaluable contribution to aviation. Imperfections in the first edition of a work of this nature are bound to occur, and the remarkable thing about this text is that it is so good in its first edition. It deserves a place in every flying office and in the private library of every pilot desirous of perfecting himself in cross-country flying."

Lieut.-Commander Philip Van Horn Weems, United States Navy, principal author and editor of the Pilot's Navigation Handbook, and originator of the Weems System of Navigation, taught aerial navigation to Colonel Charles A. Lindbergh, Harold Gatty and others. Harold Gatty, already an experienced marine navigator, first learned the Weems System from Commander Weems and later collaborated with him in the development of that system.

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KNOCKS AND BOOSTS

The Army Air Corps continually receives communications from various interested individuals, some of them couched in flattering language and others, to use the stereotyped expression of the business man these days, "not so good." Just recently, Flight "B" of the 16th Observation Squadron, was attached to the Infantry School, Fort Benning, Ga., for station. The flight is under the command of 1st Lieut. Lloyd Barnett, Air Corps, who, in his first news contribution to the News Letter, states that his little outfit has made quite a reputation for itself, as evidenced by the large amount of correspondence which pours into his basket daily from "would be heroes" who want to get a chance to fly one of "them thar airy-planes." "A fair sample," Lieut. Barnett says, "appears below (this letter loses most of its forcefulness when taken out of its original penciled form):"

"Thomasville, Ga.
July 4 /31.

Dear Sir:-

I Received a Little Infromation Last Night From 2 Boys on a Motor-Cycle About Your Flying I AM 18 yrs Old Weigh 1.20 LBS I AM Crazy about Flying And if Thure Be any Possible Chance of Me Getting in Flying in The Army I Sure Would Appreciate all You Could Do For Me. Please Write and Tell Me All The Information You Can ABOUT The Army Air Corps.

Resp Yours

(Mr) -----

This letter Was Wrote Between Lunches

Thes 2 Boys on The Motorcycle Was Army Boys Going to Jacksonville Fla."

Submitting a newspaper clipping describing the unfortunate airplane accident at Brooks Field, Texas, on July 16th, when a collision in the air resulted in the death of Major Charles V. Hart, Medical Corps, Flight Surgeon; Captain Carlos J. Chamberlain, New York National Guard; 2nd Lieut. K. Austin Rogers, Air Corps, Flying Instructor, and Flying Cadet Endicott Longacre, Air Corps, a gentleman from Lynchburg, Va., addressed the following communication to the Secretary of War:

"Hurrah for War Department. You spend of the peoples money many thousands of dollars in education of Army officers & then spend many thousands more for airplanes, then thru idiotic stupidity send them up in the air - bump them head on & destroy both precious and valuable lives & likewise the planes.

Apparently we are governed by the ~~-----~~ bunch of nuts on earth.

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SERGEANT NICHOLS GOES TO THE GREAT BEYOND

"It is appointed unto man once to die." And through life he goes, playing the part that fate deals. Perhaps he is successful in attaining the goal that he feels himself best fitted for, maybe not, but in the end, regardless of material success, he is allotted his six feet of sod, there to wait the day of Final Reckoning.

We feel that former Master Sergeant Nichols, to whom this article is dedicated, was a man who played the game of life well and succeeded to the extent that he was considered master of his chosen work, that of parachute technician. His work in this phase of aviation had gained for him nation wide fame, along with a host of friends among both the officers and enlisted men who had taken their course in parachutes under his supervision.

Sergeant Erwin H. Nichols was born in the town of Lorain, Ohio, December 31, 1878, where he completed high school and went to work as an apprentice in a machine shop where he learned to be an expert machinist. Early in the history of the automobile he became interested in that phase of mechanics, and at the beginning of the war we find him operating a successful automobile business of his own. But at the call of his country, during the early months of the war he enlisted January 5, 1918, at Brooks Field, Texas, where he served until the cessation of hostilities, and was discharged as Master Electrician. These few months of army life had revealed to him the vast possibilities offered by the Army to men who would devote their time to them, and it was then that he determined that the rest of his life would be spent as that of a soldier.

Just after the war, experiments were being made with the free releasing parachute, one that could be used to escape from a falling plane, and there were many of them in those days. Sgt. Nichols, then on his second enlistment, realized the tremendous need of such a safety device, and began conducting experiments of his own, and records show that he was the fifth man to make a jump from a plane. Continuing his experiments and demonstrations, he was able to improve on the parachute, so much so that it became an army regulation that all personnel engaged in aerial work would each wear a 'chute. How well he did his work, and the new improvements he devised are now part of his service record. Nor is that the only place we find them, for the vast number of men who learned of the parachute under his instruction are carrying on where their Master left them. Always conscientious, exacting, a hard worker and a true Soldier, he had the confidence and respect of all who knew him, and the assurance that Sergeant Nichols had supervised the packing of their 'chute relieved the mind of the most skeptical.

To the bereaved wife and relatives, we offer the sympathy of the entire Air Corps whose ranks received the news of his passing with heavy hearts and not a few with tear-dimmed eyes. His work is finished. He is sleeping the sleep we too will soon enter. With the sounding of Taps at his grave in the town of his birth, the final chapter of the life of a Man and a Soldier will be closed; but the memory of him and his achievements will long linger with those who knew and loved him.

-- PROP WASH, Chamute Field, Ill.

Heart trouble and the heat of Tuesday morning, July 14th, caused the sudden death of Master Sergeant Nichols at Chamute Field, Ill., just as he was preparing his last graduating parachute class of five members to make their jumps.

Sergeant Nichols held patents on several different types of parachutes. He had completed 13 years of service in the Army, most of it spent in parachute training. He was the first parachute instructor in the Air Corps, and was known as the "daddy" of 'chute instructors, since all instructors in parachutes in the United States Army were either his pupils or pupils of some of his pupils. He was in charge of parachute training at the Air Corps Training Center for a number of years and served a tour of duty in the Philippines, where he carried on his parachute training work in his customary vigorous manner.

On the evening of July 15th, the entire Mechanics Section of the Air Corps Technical School escorted the body of Sergeant Nichols to the train which was to carry it to its final resting place at Lorain, Ohio. Deep was the sorrow of each and every man in the procession. As the train was leaving the station, taps were sounded, while high overhead four planes, flying in "V" formation, with the place of the fifth ship vacant, droned a farewell to the man who labored unceasingly to promote greater safety in flying.

THE FAIRFIELD AIR DEPOT

Several years ago the people of Dayton made a notable gift of 4,549 $\frac{1}{2}$ acres of land, approximately seven square miles, to the Government for the purpose of establishing at the home city of the Wright Brothers an army air base that would stand as a permanent memorial to them and their flying achievement. A tract known to all as Wilbur Wright Field, which had served as a flight training field during the war, was included in the gift. The whole reservation, it was decided at the time, would be known as Wright Field in honor of both Wilbur and Orville Wright and it was so dedicated in 1927. Personnel and equipment of the Materiel Division, McCook Field, moved into new buildings prepared to receive them. The Materiel Division and its new flying field occupied 747 acres at the extreme western point of Wright Field. What of the rest of the tract? What of the old Wilbur Wright flying field which had lain at the eastern point? What of the portion called "Fairfield" where one knew that people continued to work and flying still took place? What relation did these bear to the Materiel Division which occupied the new buildings and just what did the Materiel Division include and signify? There were but vague answers for these questions in the minds of most people and they still remain vague even to many of those who travel daily to and from the big Government reservation in pursuit of their occupations. An interesting story lies in the answers, especially when it is realized that at present the reservation is the home of two large and distinctive organizations, the lesser known of the two, Fairfield Air Depot, though technically operating under the direction of the Materiel Division, being of sufficient size, importance and independence to claim enormous prestige of its own were it situated 500 miles away - that is, were it not placed so directly in the overshadowing importance of its parent, the Materiel Division.

As to size, it suffers nothing by comparison. We have stated that of the 4,549 $\frac{1}{2}$ acres donated to the Government, 747 acres at the western end were allotted to the Materiel Division for her laboratories, test rigs, administration and other buildings, and a flying field. Fairfield Air Depot was allotted 910 acres lying at the extreme eastern end of the reservation. This included the old Wilbur Wright Flying Field. Also the 2,893 unassigned acres which place the two organizations 3 $\frac{1}{2}$ miles apart have since come under the jurisdiction of the Commanding Officer of the Fairfield Air Depot causing the bulk of its territory to loom large, indeed, as contrasted not only with that of the Materiel Division organization but with that of most Air Corps organizations throughout the country.

Besides having control of several thousand acres of ground, the Fairfield Air Depot has on this ground 121 buildings; 102 are temporary structures and 19 permanent. The permanent buildings include one warehouse with 233,992 sq.ft. of floor space, and other warehouses, hangars, transformer building, engineering factory, gasoline stations, gasoline control house, officers' quarters, etc. Gradually the temporary buildings are being replaced by permanent ones, the most up-to-date of their kind for efficient depot operations. In those buildings approximately 525 persons are employed, including twelve officers and twenty-three enlisted men. Major A.L. Sneed serves as Commanding Officer. Lt.-Col. L.E. Goodier is in charge of ordnance and chemical warfare and Major Malcolm Grow is Medical Officer. Captain Edward Laughlin is in charge of engineering, under which is included airplane and engine repair, machine shop work, final assembly, parachute issue and repair, and reclamation projects. Lieut. G.V. McPike looks after the warehouses, inspection of materials and local issue of supplies.

To make perfectly clear the standing and growth of this busily operating and little known depot takes a slight unfolding of history. Back in January, 1918, a small aircraft service section was established at Wilbur Wright Field, then busily engaged in teaching cadets to fly so that they might enter the War. Its name was "Wilbur Wright Air Service Depot". Although Wilbur Wright Field as a flight training base ceased to exist shortly after the close of the War, the work of disposing of excess war materials being taken over by this station - Wilbur Wright Air Service Depot lived on, its work of repairing and overhauling aircraft and equipment and supplying spare parts growing in magnitude and importance.

By January, 1920, this work had so increased that the Section needed its own post office address and the name was changed to "Air Service Supply and

Repair Depot", the name of the small town adjoining, "Fairfield, Ohio", being added. This title was but two days old, however, when an order was received revising it to "Aviation General Supply Depot, Fairfield, Ohio, (Wilbur Wright Field)", this seeming to indicate that in the minds of the authorities the lusty infant was not yet strong enough to be cut off completely from the parent stem.

In January, 1921, there was a further promotion. In order that the nation's various Air Corps flying fields and stations might keep not only properly supplied with necessary aircraft and equipment, but that both aircraft and equipment might be maintained in the best state of repair, the War Department undertook the zoning of the United States, establishing six main supply depots. The "Fairfield Air Intermediate Depot" became one of these. The other five were Middletown Air Depot at Middletown, Pa.; Rockwell Air Depot at Coronado, California; San Antonio Air Depot at San Antonio, Texas; Scott Field Air Depot at Belleville, Ill. and Little Rock Air Depot at Little Rock, Arkansas. Since then the Little Rock Air Depot has been discontinued, the Fairfield Air Depot acting as supply source to this zone, and Scott Field, which distributes only balloon and airship supplies, has been made an auxiliary depot to Fairfield. Hence by process of elimination we now have the fifty odd Air Corps fields and activities in the United States drawing for their aircraft and aircraft supplies on four great sources; Middletown Air Depot, San Antonio Air Depot, Rockwell Air Depot, and Fairfield Air Depot; and the vastest of these is Fairfield.

Middletown feeds New England, New York, Pennsylvania and Virginia; San Antonio feeds Texas, Oklahoma, Colorado, New Mexico, Arizona; Rockwell feeds California, Washington, Oregon, Nevada, Utah, Idaho, Montana and Wyoming; and Fairfield feeds Ohio, Kentucky, West Virginia, North Carolina, South Carolina, Tennessee, Georgia, Alabama, Florida, Louisiana, Mississippi, Arkansas, Missouri, Indiana, Illinois, Kansas, Nebraska, North Dakota, South Dakota, Minnesota, Iowa, Wisconsin and Michigan - a total of twenty-three out of our forty-eight states.

In this Fairfield area there are 25 stations to be served and more than 400 airplanes to be maintained. Of these stations, nine are regular Army stations, nine are National Guard and seven Air Corps Reserve Officers' fields. Engines for these planes must be systematically overhauled. Instruments must be repaired or replaced when damaged. Spare parts of all sorts, from tires and piston rings to ten-penny nails, must be supplied. These are but a few of the many functions which the Fairfield Air Depot performs for 25 activities scattered through 23 States. It is easy to believe with these figures in mind that, in the year 1930, 6021 tons of material passed in and out of this depot in shipments.

Let us return, however, to our history. It was not surprising, perhaps, that from 1921 on one heard less and less of Wilbur Wright Field, of which Fairfield Air Depot had once been a small section, nor that its identity should finally be lost in the merger with the larger Wright Field. It had served its purpose. The absorption of Fairfield by the great new field, however, was not such a simple proposition, even though, since Fairfield as well as the other three great supply depots form part of the Materiel Division organization, such an absorption was at first contemplated, and perhaps it is as well just here to get clear the relationship between the two organizations. The Materiel Division is that branch of the Army Air Corps which is concerned with everything "material", used by the Air Corps, as contrasted with the training, care and handling of personnel, or the working out of tactical operations of craft on the ground or in the air, the word, "Materiel" being borrowed from the French as being more broadly inclusive than our English equivalent. The Materiel Division is charged with the development, testing, perfecting, procurement in quantity for service use of all materials or articles for the Air Corps, whether they be hangars, gasoline, airplanes, parachute silk, or simple bolts. This work of experimentation, testing, and procurement is carried on at the Materiel Division Laboratories. The work of following the finished article or material out into the service, of keeping it in first-class condition, repairing it when necessary, maintaining it so that it may give the utmost in the way of safety, durability and efficiency until ready for the scrap heap, of keeping each station properly supplied with its operating needs, this work is also the function of the Materiel Division, but she gives it in charge to the four great supply depots established for the purpose, the nearest being Fairfield, 3½ miles distant, the farthest being Rockwell Air Depot, 2400 miles distant, each working independently under

the direction of its own Commanding Officer. Logically there seems no reason why Fairfield Air Depot should be absorbed by Wright Field any more than that Rockwell Air Depot should be so absorbed. Quite aside from logic, however, there were practical reasons for making such absorption impossible. To have attempted to route through a common receiving station known as "Wright Field", the vast amount of supplies and correspondence intended for and emanating from the Fairfield Air Depot would have resulted in confusion, loss of time and the utter defeat of efficiency. Gradually therefore, since 1927, instead of merging, the separate identities of the two organizations have shown a tendency to become more marked, until at present Wright Field is generally understood to refer to the 747 acres where the Materiel Division and its splendid flying field are located, while "Fairfield" refers to the 910 acres assigned to the Fairfield Air Depot as well as to the 2893 unassigned acres which lie adjacent to and for the most part on the same side of Springfield Pike as Fairfield, and which are for that reason placed under Fairfield jurisdiction. These unassigned acres, mostly marsh land, are cut by the 2-mile speed course used by the Wright Field test pilots in running speed tests on new airplanes - among the most picturesque of all flying tests. The whole great tract in fact offers splendid facilities for test flying.

During the calendar year of 1930, 168 airplanes, including bombardment, attack, observation, pursuit, transport and experimental types, and 511 aircraft engines were overhauled at Fairfield. The following statistics are for February 1931, and present a typical though only partial picture of one month's activities at the Depot. 21 airplanes received major overhaul, and 7, minor overhaul, involving a total of 20,736 $\frac{1}{2}$ man hours of labor.

59 engines received major overhaul and 36, minor overhaul, involving a total of 6,929 $\frac{1}{4}$ man hours of labor.

5029 spark plugs were dismantled and cleaned, 3,267 of them being found serviceable.

1,603 gallons of oil were reclaimed.

593,060 pounds of shipments were received.

312,371 pounds of shipments were sent out.

Property valued at \$28,640 was placed on survey.

Five temporary buildings were dismantled during the month.

The number of flying hours put in by the Depot officers in testing planes after overhaul, repair, or change of equipment and in ferrying them to the various fields and stations for delivery, is indicated by the fact that Major Sneed is asking for approximately 3000 flying hours for the year beginning July 1st in order that the Fairfield Air Depot requirements may be met.

To have made a place for two such organizations as the Materiel Division, the only one of its kind in the United States, and Fairfield Air Depot, one of the four great sources of Air Corps Supply, may well be a source of pride to any community and Dayton is entitled to such gratification.

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PRAISE FOR NATIONAL GUARD PHOTOGRAPHIC SECTION

In a recent communication to the Chief of the Militia Bureau, Mr. W.A. Taylor, Chief of the Bureau of Plant Industry, U.S. Dept. of Agriculture, states:

"Mr. S.N. Wycoff, field supervisor of the Western Office of our Division of Blister Rust Control, has brought to my attention the aerial photographs furnished him by the 116th Photo Section, 41st Division, Washington National Guard, stationed at Felts Field, Parkwater, Washington.

On February 14th, a flight was made under adverse conditions. Guided only by a small hand map, the flight officer flew to an area of white pine blister rust infection in Idaho and secured pictures which have been of great value to this Bureau. Other valuable pictures have also been furnished our Western Office of Blister Rust Control which could be secured only from the air.

Aerial photographs and mosaic maps have furnished us information which could otherwise have been secured only by a very expensive ground surveys. These maps and photographs are a valuable aid in furthering the progress of blister rust control work in the region.

I extend my most sincere thanks for the fine spirit of cooperation shown by Major C.V. Haynes, Commandant, and the entire personnel of the 116th Photo Section in aiding the Western Office of Blister Rust Control in their work."

THE TRIGGER ROLL IN PISTOL SHOOTING

By Lieut. J.L. Hitchings, A.C.
(The 10th article of this series.)

It was formerly believed that good form in pistol shooting consisted chiefly in the avoidance of flinching, and that the one fundamental rule of good pistol shooting was to squeeze the trigger so that you did not know when the gun was going off. In target work however, we avoid flinching by commencing our shooting with a .22 caliber weapon; and, by the time we are ready to progress to the big bores, we not only, in making our most accurate shots, know exactly when the gun is going off, but anticipate the explosion with pleasure instead of fear. And by that time our mind has become so occupied with the successful application of the rules of technique that switching to the larger calibres does not bother us. I make these statements with fear and trembling, lest I shall be misunderstood, and I hasten to add two provisos: First, in starting men out with the .45 automatic, no previous instruction with a .22 have been given, flinching is the outstanding difficulty, and can be best avoided by teaching them to squeeze the trigger so they do not know when the gun is going off; Second, perfect control of the timing of the let-off is the highest achievement in pistol shooting, and is not always obtainable by even the best shots. When an attempt is made to obtain it at a sacrifice of the correct, slow, even trigger squeeze, the result is invariably a wild shot.

To my mind, the most important factor in pistol shooting is getting a correct and uniform grip. If all parts of the hand are correctly placed on the pistol, if the tensions on them are correctly balanced, and if the same amount of tension is exerted for each shot, we find the trigger squeeze a very easy matter. If, however, we vary either the positions or the tension involved, in our grip, the trigger pull seems to vary in weight, and we freeze on certain shots, - that is, we have difficulty in getting our shots off. An incorrect or varied position of the body will also affect our total nervous tension, and thus the ease of let-off; but a good position is more readily attained than a good grip, and a properly coached beginner soon falls into the correct position automatically.

The more drooped the wrist, the more tense the wrist, and the more difficult the trigger pull. Thus, in shooting an automatic pistol with the straight wrist position required by its stock, we can cope without difficulty with a four-pound pull, which feels no heavier than the two-pound pull on a single shot target pistol. This is a decided advantage for the automatic, but does not, in the opinion of experts, compensate for the loss of the extremely accurate drooped-wrist position. In the drooped wrist position, it may be added, the trigger pull is not straight back, as with an automatic, and this increases the difficulty.

Due to the trigger pull not being straight back on a true target pistol, it is necessary to execute a maneuver known as the trigger roll. In this maneuver, the TRIGGER FINGER IS CONTRACTED, TENDING TO BRING IT UP AND BACK; BUT AT THE SAME TIME IT IS ROLLED DOWNWARD IN SUCH MANNER THAT THE POINT OF PRESSURE ON THE TRIGGER MOVES FROM THE MIDDLE DOWN TOWARD THE TIP. THIS INCREASES THE LEVERAGE AND LIGHTENS THE EFFECTIVE TRIGGER PULL.

Any discussion of the trigger squeeze must include a discussion of the pressures exerted by various parts of the hand up to the instant of let-off. For obviously, if only the pressure on the trigger were increased, the entire pistol would simply move backward. There are two methods in vogue of controlling pressure in the grip during the trigger squeeze; these will now be taken up in detail.

The first method is to squeeze the thumb and trigger finger together, at the same time executing the trigger roll, letting the other pressures in the hand take care of themselves. This is the simplest method to start on. The beginner will, however, soon progress to the more advanced method. When difficulty is experienced in getting off the shot, many authorities recommend firing the pistol with the thumb; that is, consciously increasing the forward pressure on the thumb, causing the pressure on the trigger finger to be increased subconsciously.

The second method is to SQUEEZE THE TRIGGER FINGER AND SECOND FINGER TOGETHER, AT THE SAME TIME EXECUTING THE TRIGGER ROLL. This sounds easy, but try it! Difficult as it is of execution, it embodies what is believed to be a

correct principle, namely, that the FINAL PRESSURE EXERTED ON THE TRIGGER SHOULD BE STRAIGHT TO THE REAR. For in the preceding method, excessive right pressure on the thumb will tend to make the shot go high-right, while excessive left pressure on the trigger will make the shot go low-left; and even with the greatest care, it is extremely difficult to keep the two pressures balanced. With the method under discussion, however, this difficulty is obviated, for although we start with balanced opposing pressures of thumb and trigger finger, we do not change these pressures during the squeeze. What makes this method so hard to achieve is that a little-used muscle between the trigger finger and second finger must be developed before it can be used successfully. In practice, this method is only partially attained, the entire gun being subjected to a slight set back, and the pressure of the palm thus slightly increased. This increase in palm pressure, however, does no harm as long as it follows the increase in pressure on the trigger finger. But if you throw your palm consciously into the squeeze, look for high-right "unaccountables". This method is believed the best.

Note that in both of these methods, a general tightening of the hand is not advocated. The old method of "closing your hand as though squeezing a lemon", is out and out to stay. Dr. Calkins, the eminent pistol expert, states that his grip is not completely relaxed, that he uses a certain amount of general pressure in his grip, but that he puts this pressure on at the outset, and does not increase it during the trigger squeeze.

In applying these rules, as in applying those of position and of grip, strive for uniformity and for relaxation. You will never attain complete relaxation; but the more you attain without sacrificing good form the higher will be your scores.

As may be guessed from the above discussion, the present technique of shooting a target pistol is far more intricate than that of shooting an automatic. This may serve to explain to the reader why a target shot can always pick up an automatic and make scores with it that are creditable for an automatic, while a man trained only with automatics can not at first hit anything with a target pistol. Fencers tell us that to learn to use the saber, one should first learn to use the foil. Similarly, to become a really good military pistol shot, one should first learn to shoot the .22 single shot target pistol. And many a mediocre military shot, who has apparently reached an unsatisfactory peak in shooting the service automatic, could become a really excellent shot with it if he would buy a .22 single-shot target pistol and learn how to shoot.

The subject of the trigger squeeze will be discussed further in the next article.

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RAPID FLIGHT BY AMBULANCE AIRPLANE

An hour and a half after word was recently received at Brooks Field, Texas, that Henry Clagett, 7-year old son of Lieut.-Col. and Mrs. Clagett, was suffering from acute appendicitis at a boy's camp near Hunt, Texas, the boy was on the operating table at the station hospital at Fort Sam Houston, Texas. The Kelly Field ambulance plane landed at Dodd Field an hour and 20 minutes after taking off, and when the youngster was taken to the hospital everything was in readiness for the operation. It was reported that the operation was performed successfully but that the patient was threatened with pneumonia.

It is sincerely hoped that the young man is now well on the road to complete recovery.

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A FAST ONE THAT NEVER REACHED THE HOME PLATE

Captain Frank H. Pritchard, the new skipper of the 88th Observation Squadron at Fort Sill, Oklahoma, shortly following his arrival, donned his trusty flying suit and repaired to the parachute room to draw a chute and perform a little plain and fancy flying. Imagine his embarrassment when the Private on duty as over lord of the parachute room, not to be fooled by these F.A. officers mooching rides, slowed him up with the following: "Never mind drawing a chute, Sir, your pilot will take care of you when you report to the ship." The Private is expected to recover.

PHOTOMETRIC TUNNEL COMPLETED

By A. M. Jacobs

A 260-foot tunnel for the testing of various types of aircraft lights, including beacons, floodlights, landing lights and airdrome marker and boundary lights was recently set up in the basement of the main laboratory at Wright Field, Dayton, Ohio. Constructed of galvanized sheet metal, painted black on the inner side, this tunnel when all lights are turned off is darker than any night. At one end is a platform, eight feet in diameter, upon which the light to be tested is mounted, which revolves, and which may be raised or lowered any amount desired to bring the light beam in a direct line with a photometer, the instrument used for measuring the light intensity. The photometer is mounted on a truck which moves on rails and may be brought as close as four feet or as far distant as 250 feet down the tunnel from the light. Black screens, with center circular cut-outs decreasing in diameter are placed at regular intervals down the length of the tunnel. These screens are for the purpose of shutting away from the photometer the diffused rays of light and focusing upon it the direct beam. Since the platform revolves, the light may be tested from all sides and it can be so mounted as to be tilted to any angle.

The routine testing of various kinds of lights in use by the whole Air Corps is carried on in this tunnel. But routine testing is exceeded in amount by the testing of new and experimental types of lights. Formerly the proper mounting of these lights and the obtaining of satisfactory test data concerning them was a long-drawn-out business. In the photometric two men can do the work in two or three hours which formerly required eight to ten hours to complete. Five times the accuracy over old methods of testing is obtained with 30 percent of the labor. The present type of photometer achieves accuracy within a margin of two percent. A new type of photometer is being installed, however, which will test within an accuracy of one percent and cut the time of testing again in half. This applies equally to two-million candlepower beacons, red or green navigation lights, and low power boundary lights.

On the beacon at present installed on the platform, an experimental type, four separate tests are being run; one with beam spread vertically, one with split beam, one without lens, and one with a new type of pressed glass lens. Recently a new type of airplane landing light was received in the tunnel for testing which, consuming but one-fifth of the energy of the two-million candlepower beacon, gave one-half the light intensity. It is upon the report of these tests that decisions as to the adoption of lights for standard Air Corps use largely depend.

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A SIMPLE MATTER OF A LITTLE TIME

Lieut. Isaac J. Williams, Air Corps, recently demonstrated just how this matter of time conservation should be carried out. He and Lieut. A.L. Smith, both stationed at Crissy Field, Presidio of San Francisco, Calif., received orders to proceed to Rockwell Field, Coronado, Calif., and ferry to their home station two O-25A planes. Inexperienced in the tricks of the trade, Lieut. Smith immediately started telephoning for tickets, reservation, etc., and, finally, barely made the 6:45 train for San Diego, being scheduled to arrive there at 12:15 the next day. On the other hand, no one could tell from observation that Lieut. Williams was even contemplating a trip. Bright and early the next morning, however, he sauntered down to the Oakland Airport, leisurely seated himself in a Ford tri-motor, and took off, arriving in San Diego in time to have lunch and then meet Lieut. Smith at the train. "That's what we call modern travel," says the News Letter Correspondent. "They returned together, arriving at Crissy in time for dinner. We feel justified in quoting at this time 'There ain't no flies on Ike.'"

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FIRST FATAL ACCIDENT FOR THE 15TH OBSERVATION SQUADRON

The record of the 15th Observation Squadron, Scott Field, Ill., for having no serious injuries in airplane crashes was ended on the morning of August 3rd, when one of its planes crashed at Camp Skeel, Mich. Second Lieut. Harold W. Grant, the pilot, was seriously injured, and Corporal John W. Gibson, 27th

Pursuit Squadron, Selfridge Field, who was riding as a passenger, died a few minutes after the crash. This is the first airplane crash resulting in casualties to personnel which occurred in the 15th Squadron since its reconstitution in May, 1928.

Lieut. Grant had flown from Scott Field to Camp Skeel, Oscoda, Mich., the previous day for the purpose of taking aerial gunnery training. He was in his first series of practice runs and was attempting an attack with a 180-degree turn when the accident occurred. In making this turn he lost too much speed and the plane went into a spin. He was ferried to Selfridge Field in a transport plane immediately following the accident.

Lieut. Grant joined the Squadron over two years ago, and completed the Communications course at Chanute Field in June.

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CRISSEY FIELD PILOTS COMPLETE AERIAL GUNNERY PRACTICE

The annual aerial gunnery firing was recently completed by the pilots stationed at Crissy Field, Presidio of San Francisco, Calif. Both front and rear guns were fired, and a good showing was made by a high percentage of the qualified gunners. On the pilots' course, Captain Kennedy, Lieuts. Bobzien, Lackey and Van Cott made Expert; Captains Prosser, Upston, Lieuts. Brown and Cooper, Sharpshooter, and Captain Kraus, Lieuts. Miller, Poole, Jenkins, Wallace and Clinch, Marksman. The ground courses were fired at Mather Field and the air courses were accomplished over the Pacific, while dodging fishing boats and fog. In the Observers' Course, Captain Upston, Lieuts. Poole, Grow, Wilkinson and Van Cott qualified as Experts; Lieuts. Bobzien and Miller as Sharpshooters, and Captain Kraus, Lieuts. Brown and Clinch as Marksmen.

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PURSUITERS INSPECT GIANT AIRSHIP

The First Pursuit Group, Selfridge Field, Mich., consisting of two Squadrons of 12 planes each, and accompanied by Major George H. Brett, Post Commander, recently paid a visit to Akron, Ohio, for the dual purpose of inspecting the new Navy dirigible, the U.S.S. AKRON, and to welcome the Ford Reliability Tour and accompany them on their last lap from Akron to the Ford Airport at Dearborn, Mich.

While at Akron the personnel of the Group and the members of the Ford Reliability Tour were guests at a luncheon given by the Akron Chamber of Commerce at the Airport. On the return trip the Group flew over the Airport at Mansfield, Ohio, during the dedication of a new airport at that place. After landing at the Ford Airport, the Group proceeded to Flint, Mich., putting on a short demonstration over that city in connection with ceremonies being held at the airport. The new Westinghouse Command radio sets were used during this flight for the purpose of Group radio control and they worked out satisfactorily.

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RESERVE OFFICERS TRAINING CAMP AT SELFRIDGE FIELD, MICH.

The first of the Fifth Corps Area Reserve Officers Training Camps commenced at Selfridge Field on August 2nd, a total of 50 Reservists reporting for the annual two weeks' training. In spite of the obstacles placed in its way, the Reserve camp is conducting itself in an excellent manner and has accomplished a lot of good energetic work. Flying had to be done on the west end of the field, a considerable distance from the new construction, and it has been carried through in an efficient manner.

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PURSUIT GROUP RADIO BUGS EXTEND GLAD HAND TO LIEUT. LOWRY

Lieut. Lowry, Group Communications Officer at Selfridge Field, Mich., recently spent a week at the radio frequency laboratory located at Boonton, N.J., testing various radio and antenna installations for P-12 airplanes. Lieut. Lowry returned full of information regarding the latest discoveries in the field of airplane radio and was greeted enthusiastically by all of the radio bugs on the post.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Chapman Field, Miami, Fla.: Captain Earl S. Hoag, Brooks Field.

To Maxwell Field, Ala.: Captain Floyd E. Galloway, from Bowman Field, Ky.; 1st Lieut. Lloyd C. Blackburn, Langley Field.

To Randolph Field, Texas: 1st Lieut. Reuben D. Biggs from Panama; 1st Lt. Townsend Griffiss, March Field.

To March Field, Calif.: 1st Lieut. John G. Moore, Panama; 1st Lieut. Stewart W. Towle, Hawaii.

To Hawaiian Department: (Sailing about Nov. 27th) 1st Lieut. Otto P. Weyland, Kelly Field; 2nd Lieut. Guy F. Hicks, Dodd Field. (Sailing Dec. 1st) 1st Lieuts. Courtland M. Brown, Chamute Field; Fred A. Ingalls, Scott Field; 2nd Lieut. John M. Sterling, Selfridge Field. (Sailing Dec. 23rd) 2nd Lieut. Walter S. Lee, Fort Crockett, Texas.

To Panama Canal Dept.: (Sailing Dec. 11th) 1st Lieut. James G. Pratt, Langley Field; 2nd Lieut. Charles B. Overacker, Chamute Field.

To Chamute Field, Ill.: 2nd Lieut. Carl R. Storrie, Fort Sam Houston, Texas., as student Maintenance Engineering Course; 2nd Lieut. George R. Bienfang, Scott Field, as student Aircraft Armament Course, A.C. Technical School.

To Mather Field, Calif.: Captain Horace N. Heisen, Hawaiian Dept.

To Fort Bragg, N.C.: 2nd Lieut. Robert W. Stewart, Chamute Field.

To March Field, Calif.: 1st Lieuts. John H. Dulligan, Joe L. Loutzenheiser, Edgar T. Noyes, 2nd Lieut. James F. Walsh, from Hawaiian Department.

To Materiel Division, Wright Field, O.: 1st Lieut. John F. Whiteley, from Fort Crockett, Texas.

To Brooks Field, Texas: Capt. Wm. B. Mayer, from Fort Sam Houston, Texas

To Fort Leavenworth, Kansas: Capt. Wm. E. Farthing, Office Chief of the Air Corps, for duty as Instructor; Captain Wm. E. Lynd, Mather Field, for duty as student, 1931-33 Course.

To Bowman Field, Louisville, Ky.: 1st Lieut. Wm. W. Welsh, Kelly Field.

To Scott Field, Ill.: Major Norman W. Peek, Hqrs. 3rd C.A., Baltimore, Md.

To Paris, France: Lieut.-Col. Frank P. Lahm, Hqrs. 9th Corps Area, for duty as Assistant Military Attache for Air.

To Fitzsimmons General Hospital, Denver, Colo. Capt. Captain Charles B.B. Bubb, Ft. Leavenworth, Kansas.

DETAILED TO THE AIR CORPS, and to Air Corps Training Center, Randolph Field, Texas, for flying training: (Oct. 15th) 1st Lieut. John H. Hinds, Field Artillery; 1st Lieut. Harold J. Conway, Ordnance Dept.; 2nd Lieut. Charles T. Arnett, Infantry; 2nd Lieut. Mershon L. Skinner, Infantry.

TRANSFERRED TO THE AIR CORPS: 1st Lieut. Robert C. Oliver, Field Artillery, July 11th, rank May 18, 1928; 1st Lieut. Charles P. Cabell, Field Artillery, July 11th, rank from November 1, 1930.

PROMOTIONS: To Lieut.-Colonel: Major John D. Reardan, rank August 1, 1931; to Major - Captain Hubert V. Hopkins, rank July 18, 1931; To Captain - 1st Lts. Samuel G. Frierson, rank July 15th; Phillips Melville, rank July 18th; John G. Williams, William C. Morris and Albert B. Pitts, rank August 1st.

Orders assigning Major George E. Lovell, Jr., Langley Field, to Air Corps Tactical School, Maxwell Field, Ala., revoked.

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On July 30th, a squadron of the 1st Pursuit Group, Selfridge Field, led by Major Gerald E. Brower, put on a demonstration formation over the home of Major General George Squier, U.S.A. Retired, near Dryden, Mich., the General having just returned from a tour of Europe.

Construction work on nine new buildings for Wright Field was started on July 1st. These include a torque stand, oil storage building, aerial way enclosure, dynamometer storage, ammunition magazine building, short wave beacon building, tool and process building, repair construction for generator power house, and Maintenance Building No. 2. It is expected these buildings will be completed by the first of the year.

NOTES FROM AIR CORPS FIELDS

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San Antonio Air Depot, Duncan Field, Texas, July 14th:

The following officers were visitors on July 7th, attending the regular monthly conference at this Depot on Air Corps supply and engineering matters in the Depot's Area:- Captain Morris Berman and Lieut. R.G. Harris from Kelly Field; Captains C.E. Giffin and G.W. Polk, Jr., from Brooks Field; Captain S.J. Idzorek and Lieut. T.H. Landon from Ft. Crockett, Texas; Lieuts. A.S. Albro and H.A. Bartron from Randolph Field; Lieuts. LeRoy Hudson and J.P. Newberry from Ft. Sam Houston (Dodd Field), and Lieut. Earle T. Showalter, 36th Division Aviation, Texas National Guard, Houston. Following the conference, luncheon was given at the Depot for the visitors, at which Brigadier-General Charles H. Danforth, Commanding General of the Air Corps Training Center, was also a guest.

Congratulations are extended to Capt. Edward V. Harbeck, Jr., A.C., of this Depot, on his promotion to that rank on July 6th.

Capt. Warner B. Gates, A.C., was relieved on July 7th from assignment and duty at this Depot and assigned to the A.C. Primary Flying School at Brooks Field for duty as student. Capt. Gates was on duty at this Depot as Adjutant, since Feb. 26, 1930. The personnel of the Depot sincerely regret losing Capt. and Mrs. Gates and their small daughter, Patricia Ann, and wish them every success in their new activity.

Maj. Fred H. Coleman, Chief, Field Service Section, A.C. Materiel Division, Wright Field, Ohio, favored this Depot with a visit in the course of his three-day inspection of the Fields in the vicinity, July 9th to 11th.

Lieut. Charles E. Thomas, Jr., Depot Supply Officer, left July 14th on cross-country to Wright Field, Ohio, to confer with personnel of the A.C. Materiel Division regarding the contemplated consolidation of the Station Supply and Depot Supply Departments of this Depot.

Lieut. John W. Dean, A.C. Res., of San Antonio, and of the Civil Service at this Depot, began a 14-day tour of active duty at the Depot on July 6th.

During the month of June, the Engineering Department of the San Antonio Air Depot overhauled and repaired the following airplanes and engines:-

Airplanes overhauled - 1 A-3B, 1 O-2H, 2 O-17, 1 O-19B, 1 P-1E, 1 P-12B, 1 PW-9D, 1 BT-1, 1 BT-2, 8 PT-3, 3 PT-3A; total, 26.

Airplanes repaired - 3 A-3B, 3 B-3, 1 LB-6, 1 LB-7, 1 Y1C-14, 5 DH-4M1, 4 O-2H, 2 O-19B, 1 O-25A, 1 P-1C, 1 BT-1, 3 BT-2B, 1 PT-3, 4 YPT-6, 1 YF-1, 1 NR, total, 33.

Engines overhauled - 12 Curtiss D-12, 25 Wright J-5, 7 Wright J-6, 7 Wasp, 2 Kimmer; total, 53.

Engines repaired - 13 Liberty, 5 Curtiss D-12, 2 Wasp, 2 Wright J-5; total, 22.

Pope Field, Fort Bragg, N.C., July 27th:

Lieut. Edward Hillery was placed on Detached Service as an Instructor with the Reserve Officers Training Camp, held at Candler Field, Atlanta, Ga. He will continue on this status until the end of the camp in August.

Lieuts. Peter Skanse and L.A. Duncan took part in cooperative missions with the Coast Artillery at Ft. Barrancas, Fla. Lieut. Skanse remained at the Fort from July 1st to the 14th, being occupied with tow target missions. Lieut. Duncan, accompanied by Lieut. William Turnbull, remained from the 2nd of July until the 5th, the specific mission being spotting for the Artillery and night-flying for the anti-aircraft.

Several radio contact missions were flown in preparation for the Reserve Officer Training at Fort Bragg, beginning July 26th. Successful missions were carried out with two-way radio, one-way radio and panels, and drop and pick-up messages.

Routine night flying missions were flown, in preparation for night patrols, and night radio work.

Fairfield Air Depot, Fairfield, Ohio, July 27th:

Maj. A.L. Sneed returned July 18th from Crissy Field, where he delivered an airplane overhauled at this Station.

Lieut. Donald R. Goodrich, who reported July 17th for duty, was assigned as Post Adjutant.

Lieut. F.M. Zeigler returned from Bolling Field, July 14th, ferrying an airplane to this station for overhaul.

Lieut. F.E. Glantzberg ferried an O-25A airplane from Ft. Benning, Ga., to this station for overhaul.

Capt. John L. Corbett, Q.M.C., returned July 26th after spending a ten-day leave of absence in Washington, D.C.

Capt. Richard M. Harnett, Air-Res., reported July 20th for a period of two-weeks' active duty training.

All offices in Headquarters Building were newly painted, and the floor of the Main Office covered with new linoleum.

Among those visiting this station during the past two weeks, the following were noted:

Capt. King, Lieuts. Persons and Tyndall, Roberts Field, Birmingham, Ala., July 12th, for the purpose of securing and ferrying to their home station O-11 airplanes which had been given major overhauls at this station; Lieuts. Johnson, Lowry and Coolidge, Selfridge Field, July 15th, to ferry back three P-120's which had undergone major overhauls at this station; Maj. H.C. Kress Muhlenberg, Air Officer, 5th Corps Area, July 15th, on a cross-country mission; Capt. E.L. Eubank, Langley Field, Va., on cross-country flight on July 20th; Lieuts. Lidster and Sailor, Scott Field, and Lieuts. Shepherd and Tally, Chanute Field, July 22nd, ferrying airplanes to this station for major overhauls.

Scott Field, Belleville, Ill., July 22nd:

Several additional officers departed recently for the gunnery training at Camp Skeel, Oscoda, Mich., replacing those pilots and observers who completed the firing of the prescribed course. Several more weeks will be required to give all officers of this station the opportunity of firing the course at the camp.

The schedule of the Post Intercompany Baseball League was interrupted by the duties attendant on the Reserve Officers Training Camp.

The 9th Airship Co. is in the lead, having won the three games it has played thus far. The 15th Obs. Sqdn. and Staff teams are tied with two victories and two defeats each. The 24th Airship Service Co. trails with three defeats.

The following Air Corps Reserve Officers, having completed their tours of extended active duty, departed recently from this station: 2nd Lieuts. William J.H. Broderick, Olin L. Day, Eugene M. Kruse, Eric K. Shilling, Will C. Sievert, and Sheldon B. Yoder.

Scott Field, Belleville, Ill., July 29th:

Maj. Norman W. Peek, relieved from duty at the Headquarters of the 2nd Corps Area, Baltimore, Md., is due to report to this station for duty, about Sept. 12th, following his leave of absence.

Capt. Philip Schneeberger, a recent graduate of the Army Industrial College, Washington, D.C., reported to this station for duty on July 26th.

A free balloon, with Capt. Schneeberger and War. Officer Lassiter as pilots, and three enlisted men as passengers, made a training flight on the morning of July 29th. The flight was made under the provisions of Circular 50-2, O.C.A.C., for maintenance of proficiency of pilots. The balloon landed at Pierron, Ill., and was returned to the field by truck. Several other balloons will be sent out for the same purpose in the near future.

Airships at this station were flown on several cross-country flights during the month for training of Reserve officers and for practice for pilots regularly stationed at the field. The TC-10-253 has made the following flights. July 1st Mt. Carmel, Ill., Capt. Koenig and Schofield, pilots.

July 2nd, Newton, Ill., Lieut. Cressy and Sgt. Rumpel, pilots.

July 3rd, Virginia, Ill., Capt. Bushey and Schofield, pilots.

July 6th, Fayville, Ill., Capt. Bowling and War. Officer Lassiter, pilots.

July 7th, Salem, Ill., Lieuts. Ingalls and Finley, pilots.

July 9th, Springfield, Ill., Lieuts. Ingalls and Yotz, pilots.

July 9th, (night cross-country) Sgt. Brown and Lieut. Cannon, pilots.

July 10th, Springfield, Ill., Capt. Bowling and Lieut. Cannon, pilots.
July 13th, Carbondale, Ill., Lieuts. Cressy and Finley, pilots.
July 14th, Effingham, Ill., Capt. Schofield and War. Officer Lassiter, pilots.
July 16th, Mt. Vernon, Ill., Capt. Koenig and Lieut. Edwards, pilots.
July 16th, (night cross-country) Sgt. Brown and Lieut. Yotz, pilots.
July 17th, Springfield, Ill., War. Officer Lassiter and Lieut. Cannon, pilots.
July 24th, Vandalia, Ill., Capt. Johnston and War. Officer Lassiter, pilots.
July 27th, Springfield, Ill., Lieuts. Cressy and Ingalls, pilots.

The TC-6-241 has made the following cross-country flights during the month, in addition to flights made for bombing practice:

July 7th, Vandalia, Ill., Lieuts. Cressey and Yotz, pilots.
July 10th, Jacksonville, Ill., Capt. Bushey and Lieut. Finley, pilots.
July 14th, Marion, Ill., Capt. Bushey and Lieut. Yotz, pilots.

Lieut. Selzer with Lieut. Chotlain as passengers, left July 24th for Camp Skeel, Oscoda, Mich., flying an O-19 plane. It is expected that when Lieut. Selzer returns he will bring with him Capt. Holden, who for the past month has been at Camp Skeel directing the firing of the course in Aerial Gunnery by pilots and observers from this station.

Two games were played in the Inter-company Baseball League this week, the 15th Squadron defeating the 9th Airship Co., 15 to 10., and the Staff defeating the 24th Airship Service Co., 13 to 6.

Previous to their defeat this week by the 15th Obs. Sqdn. team, the 9th Airship Co. team had not lost a game this season. The standing of the two leading teams is now as follows: 9th Ash. Co. won 3, lost 1; 15th Obs. Sqdn., won 3, lost 2.

Lawson Field, Ft. Benning, Ga., July 20th:

The end of May saw "Flight 'B' of the 16th", pretty well through the throes of organization and occupancy, and we now boast a smooth running organization under the guidance of Lieut. Barnett.

At present we are somewhat handicapped in our training schedule by a shortage of ships - two of them being at Dayton for overhaul. They will soon be back, however, and we can continue our "dah-dit-dah" along with our other missions.

During the month of June we were honored by visits from Brig.-Gen. Benjamin D. Foullois, Asst. Chief of the Air Corps; Maj.-Gen. Steven O. Fuqua, Chief of Infantry and the Hon. Patrick J. Hurley, Secretary of War. Brig.-Gen. Campbell King, Commandant of the Infantry School, also paid us several visits. These officers appeared favorably impressed with our organization and work.

To date no W.D. orders have been received designating "Lawson Field" as the official name of our station, but communications from the office of the Adjutant General have shown the approval given that recommendation.

Our men have been busy in their spare time beautifying the surroundings. Walks have been built around the various buildings, and shrubbery planted. Also flower beds have been constructed, and soon we will be surrounded by flowers.

Maj. Ira A. Rader, A.C., instructor in the Infantry School, recently made an extended cross-country trip to Washington, D.C. He reports a very nice trip, and that a "good time was had by all".

2nd Lieuts. C.H. Leitner, Jr., and Glenn A. Holland, A.C. Res., reported to the Commandant of the Infantry School for a six months' extension of active duty on June 25th and July 2nd respectively.

On July 9th, Lieut. Barnett returned from Dayton, ferrying back the first of our overhauled O-25's.

Crissy Field, Presidio of San Francisco, Calif., July 6th:

Lieut. H.R. Wallace, Washington National Guard, returned from a photographic mission in Montana for the Coast and Geodetic Survey on June 23d. Lieut. John K. Poole, A.C., returned as relief pilot to complete the mission and, from all reports, is at present having a wonderful time at Billings, Mont.

2nd Lieut. H.B. Fisher, Air-Res., formerly a member of the 91st, was a cross-country visitor from Dodd Field, Texas, during the past week.

2nd Lieut. Trenholm J. Meyer, departed for his new station at March Field, Calif., where he will be on duty as instructor in the Primary Flying School. All of the personnel of Crissy Field wish him the best of luck in teaching the Cadets slow-rolls.

The commissioned personnel was greatly reduced by the loss of a number of Reserve Officers, just finishing their tour of extended active duty. The officers leaving the service at this time are: Lieuts. B.S. Cooper, M.E. Lackey, Percy C. Brewer, Allen Chapman, Nelson D. Jenkins, Arthur K. Morrison, Douglas F. Wolley, E.A. Strand and Hillford F. Wallace (Washington National Guard). A good time was had by all was the report after the party given in their honor at San Francisco's newest Night Club. No "flat spins" were reported during the "Soiree"! Therefore, we feel that we may put it down as a successful mission. We have already felt the loss of these officers, and wish them only the best of luck and continued Happy Landings.

As a matter of announcement, any visiting firemen wishing to witness a first-class crack-up, may obtain a list of DH's due to arrive at Crissy, from the Operations Officer.

Now that the biggest little city in the world is getting bigger and better, all of the cross-country flights leaving Crissy are routed by way of Reno. The new route to Los Angeles is via Reno, with an overnight stop in that fair city. Lieuts. Poole and Miller report that it is even worth a seven-hour automobile drive in order to spend a week-end in that "bit of the old west". Nothing but favorable reports have been received at this office from the lucky visitors to the city where they chase people with empty guns and get away with it.

Lieuts. T.A. Smith and A.L. Smith, better known as the "Smith Bros., Trade and Mark", left for temporary detail at Ft. Worden, Wash. Upon checking in their arrival, they announced that "Trade" had given a demonstration of how to wash out a landing gear under adverse conditions. We haven't heard the alibi as yet, but if he even mentions "left rudder" we are all going over the Hill.

A tactical inspection was recently made by the Commanding General. The administrative inspection was followed by a tactical problem, which included reconnaissance, communication, photographic and ground attack missions.

Nichols Field, P.I., July 2nd:

Bombing and gunnery results for the last training year resulted in everybody making some qualification. Thirty-four experts out of forty-eight attempts isn't bad.

Transport week, June 18th to 23rd, saw many heart-breaking farewells and back thumping welcomes. One non-Com., who extended over this boat, appeared on the line the day after it sailed with two left shoes on.

Bombardment is going in for the training of non-commissioned officers as bombers and gunners. Bet you \$1.80 the scores go up.

June 9th, the 28th Bombardment Squadron celebrated organization day at the Calamba Sugar Estate. A sweet time was had. Calamities included ball games, swimming, kangaroo courts, etc.

Rockwell Air Depot, Calif., July 16th:

During the month of June, the Rockwell Air Depot completed major overhaul on 24 airplanes and 40 engines. Twenty-five airplanes and 56 engines were received at the Depot during the month for overhaul.

A total of 6,652½ man hours was expended in the Engineering Shops of the Depot for the manufacture and repair of Air Corps equipment other than airplanes and engines.

The Depot Supply shipped 543,917 pounds of freight and express during June, and incoming shipments totaled 563,813 pounds. Incoming parcel post shipments amounted to 531 pounds, and outgoing shipments 799 pounds.

O-38 airplanes on contract from the Douglas Company, Santa Monica, have been coming through the Depot for mechanical check-up en route to Eastern Stations.

The extension to the Boiler House of the Engineering Department is expected to be completed shortly.

Pursuant to instructions contained in letter from the Materiel Division, dated June 19th, Subject: "Consolidation of Depot and Station Supply", steps were immediately taken to consolidate the Station Supply of the Depot with the Depot Supply. Property accountability will not be fully consolidated until new stock record cards are received.

Brig.-General Henry C. Pratt, Chief of the Materiel Division, accompanied

by Capt. St. Clair Streett arrived at the Rockwell Air Depot on June 18th, to confer with the Commanding Officer of the Depot on maintenance and supplies. While here the General made an inspection of the Engineering and Depot Supply activities.

Brig.-Gen. Charles H. Danforth, Commanding General of the Air Corps Training Center, Texas, paid an informal visit to the Depot on June 10th.

Rear Admiral Harry E. Yarnell, who recently assumed command of the Aircraft Squadrons, Battle Force, West Expeditionary Forces, U.S. Navy, paid an official call to the Commanding Officer on July 3rd.

Capt. Evan K. Meredith, 9th Corps Area Athletic Officer, visited the Post on July 8th, for purpose of interviewing and selecting candidates for the 1931 West Coast Army Football Team.

Maj. A.L. Sneed, A.C., Commanding Officer of the Fairfield Air Depot, arrived on July 11th, to discuss Depot activities and operations with the Commanding Officer and Department Heads.

Lieut.-Col. B.K. Yount, A.C., Commanding Officer, accompanied by Lieut. B.M. Gilew, A.C., Chief Engineer Officer, made an inspection trip, via air, from July 9th to 11th, to Crissy and Mather Fields, for purpose of conference with the Commanding Officers of the above named stations regarding the maintenance of Air Corps equipment and supplies.

Third Attack Group, Fort Crockett, Texas, Aug. 4th:

The 13th Squadron won the baseball championship of the Post by defeating the 90th Squadron in a series which brought together the winners of each half. The Ghost men overwhelmed their opponents, champions in 1930, and won two straight games 11 to 2 and 16 to 9.

A few days later the Champs held a banquet in the squadron mess hall to celebrate the winning of the Post baseball and basketball championships for 1931. The dinner was a huge success from all angles. There was fried chicken to spare, even after several of the plates of the ravenous ones had been emptied of bones. The manner of preparation was what is known as Southern Style in every part of the country except the South. In order that everyone could enjoy the meal to the fullest extent, no speeches were made.

Now that baseball is over, there is nothing to do until football season, which opens sometime in September. Although several men expressed their willingness to participate in a wrestling tournament, there are not enough as yet to go ahead with the present plans.

Major Davenport Johnson and Capt. Lotha A. Smith proceeded to Wright Field to examine the two new Attack planes which have been undergoing tests at that field.

The officers and men of the 60th Service Squadron entertained with a dinner recently in honor of 1st Lieut. John F. Whitely, who was ordered to Wright Field for a tour of duty. Capt. Edward M. Morris is the new commanding officer of the Squadron.

Capt. Gerd Von Massow, German Army, who is taking a course in Bombardment at Kelly Field, Texas, is spending a few days with the Third Attack Group in order to study Attack Aviation.

Fort Sill, Okla., July 31st:

Capt. L.P. Hickey left Ft. Sill on July 15th for two months' leave in New Orleans, La., before reporting to his new station at Maxwell Field.

2nd Lieut. J.L. Jackson reported to this station on July 21st, following his completion of the course in Maintenance Engineering at Chanute Field.

Cross-countries have been rather limited this month due to Gunnery Practice. Five ships were ferried to the San Antonio Air Depot by 1st Lieut. C.E. Shankle, 2nd Lieuts. D.T. Mitchell, C.H. Miller, C.T. McKinnie and Mr. Sgt. Chester Colby. Capt. R.E. O'Neill, Sgt. E.N. Dugay and Pvt. John Carrara went along as passengers.

2nd Lieut. C. Stroh flew to Denver, Colo., on July 23d, taking Sgt. F.R. Welch as far as Pueblo, Colo. Lieut. Stroh also flew Brig.-General Roy Hoffman, (Res.) to Oklahoma City on July 7th. On July 13th, 2nd Lieut. Chas. Tidwell, Air-Res., flew U.S. Senator Thomas to Oklahoma City.

Brooks Field, San Antonio, Texas, July 13th:

Capt. C.E. Giffin, transferred from the 22d Observation Squadron to Post Headquarters, was detailed as Supply Officer, Engineer Property Officer, Lubricating Officer, Auditor, Q.M.C. Form #9, and Civilian Procurement Officer, relieving 1st Lieut. James Flannery.

The following-named officers were detailed to squadrons at the field, as follows: 1st Lieut. P.H. Prentiss to the 51st School Sq.; 2nd Lieuts. W.L. Lee to 58th Service Sq.; H.L. Grills to 46th School Sq.; M.K. Lewis and J.G. Fowler to 52d School Sq.; W.H. Maverick to 51st School Sq.; H.A. Parker to 62d School Sq.

The following 2nd Lieutenants, Air Corps Reserve, were assigned to the 22d Observation Squadron: William Beverly, Jr.; Wayne Bone; R.O. Ralston; M.M. Stephenson, Jr. and I.W. Ott.

Maj. John Beeson, Medical Corps, is attached to Brooks Field for flying.

Failure to give Cadet Parks any support in the field cost the Brooks Field Aeronauts a game which meant much to the winner, and the 2d Field Artillery Brigade Caissons took advantage of all the breaks to pile up a 15 to 6 score. In the game with the 2d Medical Regiment, Brooks Field blanked their opponents and scored three runs, thereby going into a three-way tie for the baseball supremacy in the San Antonio Army Loop. McKenney, the airmen's speed ball merchant, was too much for the Pillrollers. The game was played in the fast time of an hour and a half and was featured by four double plays, three of which were executed by the Medicos.

58th Service Squadron: Pvts. Baldrige, Russell, Reed, Pharr, Hunt, Daniels, Coplan and Buck were promoted Privates, 1st Class. The rating of Specialist, 6th Class, was awarded Pvts. Donovan and King.

Sgt. John Noe, Jr., formerly of this organization, writes from his new station that Panama looks pretty good to him.

Pvt. 1st Cl. Calfee, on detached service at Matagorda Island for the past month, acting in the capacity of Chief Chef, returned to the organization and is performing duties in the Parachute Department.

Staff Sgts. Mackay and Anderson were added to the personnel of the Aero Repair.

46th School Squadron: Those two members of the 46th personnel who might have been seen jumping madly up and down and giving excellent examples of Apache war cries were not essentially subjects for the State Hospital. It transpired that Pvts. Wiley and Bonnell were called to the Cadet Detachment to begin that eagerly awaited flying training. We wish the boys all good fortune and success.

Lieut. H.L. Grills was recently assigned to the 46th. The personnel are delighted to have him in the squadron.

51st School Squadron: We regret losing our old friend, Tech. Sgt. Russell Philapy, who was transferred to duty in Panama. Another old friend of ours, Tech. Sgt. J.S. (Jake) Dombeck is expected to transfer back to the old outfit to replace Philapy.

Since the 51st won the baseball championship (three cheers and a tiger) each and every player is to be presented with a framed photo of the prize money awarded - to place on the mantel for future reference.

The regular schedule for student training commenced Wednesday, July 8th. Staff Sgt. Davidson was busy coaching the wrecking crew in the performance of their respective duties and was trying to evolve some kind of a plan to avoid crack-ups during the week-ends.

Hqrs. 18th Composite Group, Hawaiian Department:

On July 1st, the Army Polo Squad (less the ponies) was transported to the Island of Maui to participate in the annual polo tournament. The entire squad was much pleased with the trip and they all admit that, next to riding a horse, flying is not so bad.

On July 4th, a party consisting of Col. Brant, Wing Commander; Lieuts. Crain and Boyd, A.C.; Col. Fair, Chief of Staff; Col. Harvey, Department Quartermaster; Capt. Riley, Assistant G-3; and Lieut. Syme, Aide to Department Commander, flew to Maui to see the Army vs. Maui polo game. The Army was decisively defeated by the Maui team - principally due to the hard riding and flawless teamwork of the island players. The undefeated Maui team is an interesting one,

its members being Frank Baldwin and his three sons, which accounts in part for the teamwork.

Luke Field, T.H.- Maj. Maxwell Kirby, Commanding: Flying training for the month consisted of aerial gunnery, aerial bombing, cross-country, formation and night flying, communications radio, aerial navigation and cooperative missions with the Hawaiian Department.

Between the hours of 10:30 A.M. and Noon, June 15th, the barracks building of the 23d Bombardment Squadron was destroyed by fire. The fire was first noticed by baseball players who were changing their clothing in preparation for the morning practice. At this time, the smoke and flames were licking down through the ventilation holes in the ceiling. The fire gained such headway in the attic of the six-year old frame structure, that the combined efforts of the Army and Navy fire fighters were barely enough to protect the buildings nearby. Most of the men suffered considerable loss in tailored uniforms and civilian clothing, since those few present had time for just one trip to the second floor for personal property. All hands were busy working against the fire and moving property from the supply, orderly and day rooms.

The loss of these barracks leaves the entire Air Force of the Hawaiian Department housed in tents and hangars. The completion in 1932, at Wheeler Field, of barracks and quarters will relieve the situation as far as the 18th Pursuit Group is concerned, and it is hoped that it will not be long before permanent shelter can be provided for the other two Groups, either at Luke Field or at some other tract. While tent life in this climate is not so bad as in other places, it still leaves much to be desired.

1st Lieut. and Mrs. Sidney A. Ofsthun were recent arrivals at this station aboard the USAT "Somme". Lieut. Ofsthun was assigned to the 4th Observation Sq.

2nd Lieut. Donald W. Titus, who with Mrs. Titus arrived aboard the USAT "Chateau Thierry" on June 23d, was assigned to the 4th Observation Sq.

2nd Lieut. Ezekiel W. Napier, another arrival aboard the "Chateau Thierry", signed to the 50th Observation Sq.

1st Lieut. and Mrs. Thomas L. Gilbert and Chaplain and Mrs. Herbert A. Rinard departed for the mainland aboard the USAT "Chateau Thierry" on June 27th. Lieut. Gilbert was assigned to the A.C. Training Center, Duncan Field, Texas, and Chaplain Rinard to Ft. Slocum, N.Y.

The area along the waterfront, northeast of the boathouse, is occupied by the tents of the 23d Squadron until quarters are erected on the old site.

Recent service tests were completed on a cockpit hood on an O-19 airplane. Lieuts. Rouse, Gilbert, Thompson and Rawlings, designated as test pilots, found this hood successful, except for a few minor changes, which were recommended.

The 4th Observation Squadron said Aloha to their Commanding Officer, Lieut. Gilbert and family. Lieut. Gilbert served with the Squadron, the past two years in the capacity of Engineering Officer, Operations Officer and Squadron Commander. The entire Squadron extend good luck to him at his new station. Lieut. Fitzgerald assumed command of the 4th Observation Squadron.

On July 1st, Lieut. Don Z. Zimmerman and Staff Sgt. George M. Richards, while flying on a training mission, crashed in their O-19 near Waimanalo. Both were painfully bruised and Sgt. Richards suffered a broken right arm. They have fully recovered and are back on the job.

A communication was received from Maj.-Gen. Lassiter, Department Commander, commending the Group on its excellent record of personal health and hygiene.

Routine flying for June consisted in the main of Squadron and Group formations and preliminary work incident to the opening of the range season. Considerable flying was done in the way of practicing approaches to towed targets, in order to familiarize officers with this type of flying before actual firing begins. On the ground, Squadron Armament Officers were rushing to completion bomb racks and machine gun installations.

Six embryo flying cadets - James M. Davenport, Charles B. Leslie, Lester Krug, Paul McCormick, III, Allie H. Romaine, Jr., and Lewis Horvath, returned to the mainland on the USAT "Somme" under orders directing them to report to the Commandant, Air Corps Primary Flying School, March Field, Calif., for flying instruction. All have fine records with the Group, and it is hoped that they are successful in their work at the Flying School.

At the Annual Schofield Barracks Horse Show held on June 5th and 6th, other forms of transportation were represented, the Air Corps exhibit including the new airplane servicing truck of the 26th Attack Squadron, 2 Pursuit and 1 Attack

airplanes. Through the courtesy of the Division Commander, these planes were permitted to land on the golf course, adjacent to the horse show area, so that they were easily taxied into position. The Group donated a very handsome cup as a prize in one of the Horse Show events.

The Baseball Team representing the 18th Pursuit Group under the able coaching of Lieut. Stribling, is making a very satisfactory showing. After winning their first four games, it looked like they were going to sweep the League. Unfortunately, a short losing streak brought them down in percentage. With six weeks to go, we believe they will finish well up towards the top of the League.

Lieut. Bassett has been playing golf close to par to win two very handsome cups in the Schofield Barracks competition. It is rumored his handicap is to be slightly reduced in the near future, but it is not believed that this will seriously interfere with his success in competition, as he seems able to hit them in the pinches. As a matter of fact, he shot the last five holes two under par the other day, to take two golf balls from your humble correspondent.

Lieut. J.M. Holmes (Ros.) reported for 14 days active duty on June 19th.

Teams of officers representing the various squadrons have been playing a short series of playground ball game. So far, the 19th Pursuit Squadron has had a slight edge in the competition, due in no small part to the masterful playing of Joe ("Ginch") Loutzenheiser and "pep" talks between innings of the coach, Capt. Strickland. These games offer a good deal of entertainment to the enlisted personnel of the command.

Lieuts. Bentley and Fink recently entertained their friends of this Group, Schofield Barracks and Luke Field, at a beach party on the north shore. The supper menu was built around the "Piece de Resistance" of chicken curry with rice and was both bountiful and delicious. The night happened to be particularly soft and balmy with nearly a full moon and the varied activities after dinner including swimming and singing were greatly enjoyed by the guests.

Hawaiian Air Depot, Capt. B.T. Burt, Commanding: The move of the Hawaiian Air Depot to Luke Field, its new home, is just about completed. The Station Repair Section and the Air Corps Station Supply have also consolidated with the Air Depot, the following personnel being on duty thereat:

Capt. B.T. Burt, -Supply officer, Contracting and Purchasing Officer and Inspector, in addition to his duties as Commanding Officer. Capt. Ralph B. Walker, -Engineering Officer and Reclamation Officer and Operations Officer. Lieut. Joseph B. Stanley, -Assistant Engineering Officer and Assistant Depot Operations Officer. Lieut. Pearl H. Robey, -Assistant Depot Supply Officer, Adjutant and Officer in Charge of Oil Reclamation.

The Engine Repair Section overhauled a total of seven (7) engines during the period, May 26, 1931 to June 25, 1931, as given below:

Class I repairs - 1 R-1340-C. Class III Repairs - 6. (3 RS 1340-C, 1 V-1150, 2 R-1750-B.)

At the present writing the Engine Repair Section is just completing the overhaul of a marine engine from one of the speed boats in use at Luke Field.

The personnel of the Final Assembly was increased by the employment of Messrs. Paul Walker and Roy Warren.

Four new B-5-A Bombers arrived at the Depot for assembly.

The Dope and Fabric Department have their hands full resurfacing and doping all fabric parts of airplanes: removing paint on metal fuselages and plane surfaces and brightening them with new paint and dope. These are two of the Air Repair Depot's busiest departments.

The personnel of the machine shop and the sub-departments - Welding and Sheet Metal, consists of 11 enlisted men and 15 civilians. The Sheet Metal Department is at present using 2 men from the Engine Repair Section, owing to the large amount of work before them.

The entire Machine Shop this month completed about 125 work orders and 100 jobs on instruction slips.

A requisition for new machinery will be submitted in the near future in order to take care of the large amount of work required of this department. Much of the present machinery is old, obsolete and incapable of doing the work with the speed and precision necessary.

The crew of the Reclamation Department, besides functioning in the capacity the name indicates, also operates the Crash Truck. This crew, under supervision of Sgt. Asherowsky, made an enviable record in responding to Crash alarms. The speed and businesslike manner in which crashed airplanes, which can be repaired, are handled without further damage due to picking up and hauling over uneven terrain and difficult mountain roads, proves this an efficient and well-trained crew.

Selfridge Field, Mt. Clemens, Mich., Aug. 4th:

27th Pursuit Sq.: Coming as a sort of aftermath to what might be termed the maneuver months, in which May was spent in preparing for the maneuvers and June in recovering from them, July seemed a little like an anti-climax although there was plenty of activity.

Squadron flying was considerably disrupted by the sending of officers and planes to the 1st Pursuit aerial gunnery camp at Oscoda, Mich., for gunnery and bombing, and good scores were being reported, although few of the squadron officers had completed their courses.

The Squadron's activity at the gunnery camp this year was marred by two crashes.

Lieut. Roger M. Ramey suffered a severe eye injury July 15th, when the motor of his P-12 cut out just after the take-off. He managed to bring the ship back into the field, but it fell off on one wing just before the landing and rolled up in a ball. One of Lieut. Ramey's eyes suffered a severe abrasion with the possibility of a deeper cut. He is now at the Walter Reed Hospital, where an examination is being made for the presence of glass in the eyeball.

There were the usual flights on July 4th in connection with patriotic celebrations, and the 27th sent six ships to Caro, Mich., and six to Harbor Grace, Mich. The pilots reported the usual entertainment and good time.

The 27th also participated in a composite group flight on July 25th, in which a squadron composed of 27th, 94th and 17th squadron pilots, led by Major Gerald Brower, Group Commander, and a headquarters element lead by Major George H. Brett, Post Commander, visited Akron, Ohio, in connection with the termination of the National Reliability Tour and on the way home demonstrated over Mansfield, Ohio; Dearborn, Ohio; Dearborn, Mich. and Flint, Mich. The trip entailed about 4½ hrs. of flying. The Squadron's officer personnel was reduced by the termination of the extended active duty of Lieut. E.C. Davis, but will be increased by a new consignment of Kelly Field graduates.

94th Pursuit Squadron: Four new additions to the squadron occurred this month. Lieut. Flint Garrison, Jr., returned from Chanute Field, following his completion of the Engineering Maintenance course. Lieuts. William Clifford McDonald, Jr., and George Alexander Hersam, Jr., Res., reported for active duty, and Staff Sgt. John Walker reported from France Field, Canal Zone.

This squadron conducted a service test on electrically heated goggles and mittens, during the past two weeks. After a series of tests the goggles did not fog up with temperature twenty degrees below zero, Fahrenheit. The electrically heated mittens were really too hot, but colder weather is desired.

The Skipper, Lieut. H.A. Johnson, reports the hunting fine at the Aerial Gunnery Camp at Oscoda. The methods used in hunting fox was of the type used in the old days. Modern equipment was used, however, when the "baby" fox was snared in a tow target. The fearless hunting party was composed of Lieuts. Johnson, Miller and Hodgson.

Staff Sgt. Thomas A. Jones evidently did not believe the old adage of "Commend marriage, but keep thyself a bachelor". We extend our congratulations and best wishes.

Staff Sgt. Elbert Dossott is back to the squadron for duty, after being absent on recruiting service for five years.

Lieuts. Garrison and Crabb returned from a smoke screen mission at several of the National Guard and Reserve Camps in Michigan and Wisconsin. The pilots flew P-1-C's equipped with the regular smoke screen apparatus, which is carried in place of the auxiliary tanks. Several screens were laid and as a whole they were very satisfactory, although some trouble with equipment caused one complete failure.

The gunnery season at Oscoda finds the usual number of experts from the squadron. Pilots who have finished their gunnery this season are 1st Lieut. H.A. Johnson, and 2nd Lieuts. Harbold, O'Donnell, Bolen Auton, Crabb, Mosher Baker and Sansbury. All of these officers came back to Selfridge bragging more about their prowess as fishermen and swimmers rather than as aerial gunners. However, we don't want to be designated as a target for their guns.

Officers and men in the squadron regret the departure of Lieuts. Paul Hinds A.T. Johnson, and W.W. McConnell, Reserve officers on extended active duty for the past 15 months. We are hoping to see them back in the service again.

17th Pursuit Squadron: Exhibition flights, demonstrations and aerial gunnery varied the schedule of the 17th during July. Capt. Hoyt, leading a formation

tion including Lieuts. Koons, Hixson, Merrill, Hodgson and Maschmeyer, visited Traverse City, Mich., July 16th and 17th, giving an exhibition flight over the Captain's home town in celebration of the National Cherry Festival. A composite squadron, flying to Toledo for the reception of Post and Gatty, included Lieuts. Burns, Van Auken and Heiman. Combining other activities with flying was the mission of Lieut. Ryan, assisted by Sgt. Carnes and Cpl. Forcier in connection with smoke screen demonstrations with Y1C-14 at Camp McCoy, Wisc., and Ft. Sheridan, Ill., with other stops at Graysburg, Battle Creek and Camp Custer, Mich., and Chicago, Ill. Sgt. Carnes and Cpl. Forcier combined the duties of two branches of the service, having charge of the preparation and operation of the apparatus involved.

Capt. Hoyt, Lieuts. Theisen and Merrill are completing a tour at Aerial Gunnery Camp, Oscoda. Lieuts. Sterling, Hodgson, and Coolidge recently returned from their two weeks' range work.

Lieut. Norman reverted to inactive status July 1st. Lieut. Heiman returned to active duty, July 22nd, following a period in Walter Reed Hospital. Recent additions to the squadron are Lieuts. Bledsoe, Crabbs, Jones, Robinson and Sutherland, graduates from the Advanced Flying School last month. Lieuts. Gbolidge and Strunk were absent on leave and Lieut. Butt made an extended cross-country flight to March Field, Calif., during the month.

San Antonio Air Depot, Duncan Field, Texas, July 30th:

The sad accident at Brooks Field, Texas, the airplane collision on July 16th which resulted in the death of Major Charles V. Hart, M.C., Capt. Carlos J. Chamberlain, Med-Res., Lieut. K. Austin Rogers and Flying Cadet Endicott Longacre, A.C., was brought home with especial poignancy to this Depot, through the fact that Cadet Longacre was the only son of Capt. Clarence Longacre, Quartermaster at this Depot. The hearts of all at this station go out to Capt. and Mrs. Longacre in their sad bereavement.

Lieut. Wm.N. Amis, of the Materiel Div., Wright Field, Ohio, arrived at this Depot by air on July 16th for a conference regarding maintenance of Air Corps equipment and supplies, leaving on the 18th for the Rockwell Air Depot, Coronado, Calif., on the same mission.

Work is well under way on the new Oil Reclamation Building here, which will be a decided factor in giving the Depot an up-to-date appearance and improving its operation. Work is also expected to begin in the near future on the projected modern Shops Building, approximately 500' x 600' for the Engineering Department of the Depot. The Constructing Quartermaster at Ft. Sam Houston, Texas, is in charge of this construction.

Crissy Field, Presidio of San Francisco, Calif., July 30th:

As the summer progresses and various training camps spring up, Crissy Field takes on the appearance of "Ye ould deserted village". Due to the large territory covered and the number of camps we work with, pilots and airplanes are extremely scarce at Crissy Field. However, it does have its advantages, such as viewing sunny California and the Pacific Coast from the air. Nothing but favorable reports were received from officers returning from various co-operative missions.

Lieuts. Van Cott and Grow were fortunate enough to spend an enjoyable detail in their old boyhood stamping grounds, Salt Lake. Needless to say, their report was favorable. Upon returning from Salt Lake, they picked up Lt. Smith, of the famous Smith Brothers Act, and proceeded to Portland, Oreg.

Lieuts. Miller and Wilkinson report a most enjoyable detail at Long Beach, Calif., where they are doing cooperative work with the Org. Reserves, and incidentally getting a wonderful coat of tan from one of California's beautiful beaches.

Lieut. Brown swooped down on Crissy Field with a seven-ship formation of air-devils, (D.H.'s and YPT-6's) from the Reserve Camp at Mather Field, where he is detailed at the present time.

The few left at Crissy find it easy to keep busy preparing for our going into the field on Aug. 17th. Incidentally, there seems to be some question as to just how a squadron should act when moving completely into the field. Our camp will be near Salinas, Calif. At present, the dear old horses are holding forth at the Salinas Rodeo, on the same field we will occupy. You can't beat the West for versatility.

We are happy to welcome here five recent graduates from Kelly Field, viz. 2nd Lieuts. Rosenburgh, Towler, Thomson, Bernard and Coverley, Reserves. We are happy to have these officers in the 91st.

Among other missions accomplished by the 91st was the photographing of Mt. Lassen during a synthetic eruption, put on in connection with a local celebration. Lieuts. Williams and Ball were the honored pilots.

Wright Field, Dayton, Ohio, Aug. 8th:

A Board of Air Corps officers convened at Wright Field on July 27th for the purpose of studying and testing a new Observation airplane and making recommendations as to its suitability for Air Corps use. Officers composing the Board were: Capt. D.B. Howard, Wright Field; Capt. A.B. McDaniel, O.C.A.C.; Capt. H.W. Holden, Scott Field; Capt. J.G. Taylor, Wright Field; Lt. C.T. Skow, Ft. Benning, Ga.; Lieut. W.D. Old, Kelly Field; Lieut. O.P. Weyland, Kelly Field.

A second Board of officers which convened at Wright Field on July 27th had as its objective the consideration of several types of basic training planes as suitable Air Corps equipment. Officers composing this Board were: Capt. A.B. McDaniel, O.C.A.C.; Capt. J.G. Taylor, Wright Field; Lieut. C.W. Sullivan, O.C.A.C.; Lieut. A.E. Waller, Brooks Field, San Antonio, Texas; Lieut. J.R. Morgan, Brooks Field; Lieut. B.D. Chidlaw, Wright Field.

A third Board to convene at the Materiel Division was the Bombardment Board which met on July 30th for the purpose of making recommendations regarding new types of Bombardment airplanes. Officers composing this Board were: Major Willis Hale, O.C.A.C.; Capt. J.G. Taylor, Wright Field; Capt. E.L. Eubank, Langley Field; Lieut. J.M. Gillespie, Langley Field; Lieut. H.P. Rush, Wright Field; Lieut. R.A. Snavely, Rockwell Field, Coronado, Calif.

A Board of officers convened at Wright Field on Aug. 4th, to consider the suitability of two types of new Attack airplanes, built by the Fokker and Curtiss Companies, for Air Corps use. Officers on the Board were: Major Davenport Johnson, Ft. Crockett; Capt. A.B. McDaniel, O.C.A.C.; Capt. J.I. Moore, Ft. Leavenworth; Capt. L.A. Smith, Ft. Crockett; Capt. J.G. Taylor, Wright Field, and Lieut. L.J. Carr, Kelly Field.

Lt.-Col. H.H. Arnold and Major O.P. Echols left on July 20th for a flight which included Baltimore, Bristol, Pa., Hartford and Buffalo for the purpose of studying the production facilities of certain manufacturing plants located in these cities.

Brig.-Gen. H.C. Pratt left on July 24th for Washington for a conference with the Chief of the Air Corps regarding procurement matters.

Lt.-Col. F.P. Lahm piloted by Capt. Duncan flew in from Chicago on July 7th, taking off shortly after for Bolling Field. Both are stationed at the Presidio, their final destination being Mitchel Field.

Lieut. D.W. Watkins and Lieut. B.W. Chidlaw left on July 20th for Buffalo to ferry two new basic training planes to Dayton. Lieut. C.A. Caldwell went to Astoria to ferry a BT-2B airplane from the plant of the Edo Aircraft Corp., to Wright Field.

Capt. John Beveridge, Jr., flew in from Bolling Field on July 28th. Major A.H. Gilkeson of Wright Field flew to Muskogon, Mich., returning by night and testing out radio equipment. Lt. C.D. McAllister flew Major Victor Bertrandias, Air Reserve, to Glendale, W. Va., returning solo that night.

Lieut. W.W. Amis left on July 14th flying to Kansas City, Dallas, San Antonio and Rockwell Field to confer with the Commanding Officers of flying fields and depots regarding supplies and equipment.

Brig.-Gen. H.C. Pratt and Capt. St. Clair Streett, pilot, flew to Shreveport, La., remaining there for several days, and returning to Wright Field on July 15th.

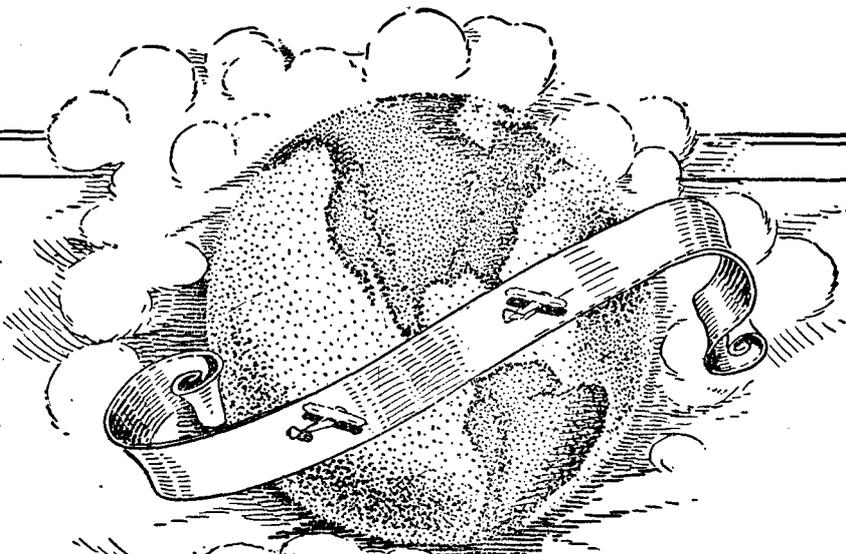
Lieut. O.F. Carlson landed at Wright Field on July 16th on his way from Glendale, W. Va., to Rockwell Field. He was an overnight guest. He ferried a new airplane (Y1C-14) from the Fokker plant to Rockwell Field.

Capt. D.M. Reeves left for Washington on July 21st for a conference with the Chief of the Information Division.

Lieut. B.W. Chidlaw spent several days at Glendale, W. Va., in July for the purpose of testing a Y1C-14 airplane at the plant of the Fokker company.

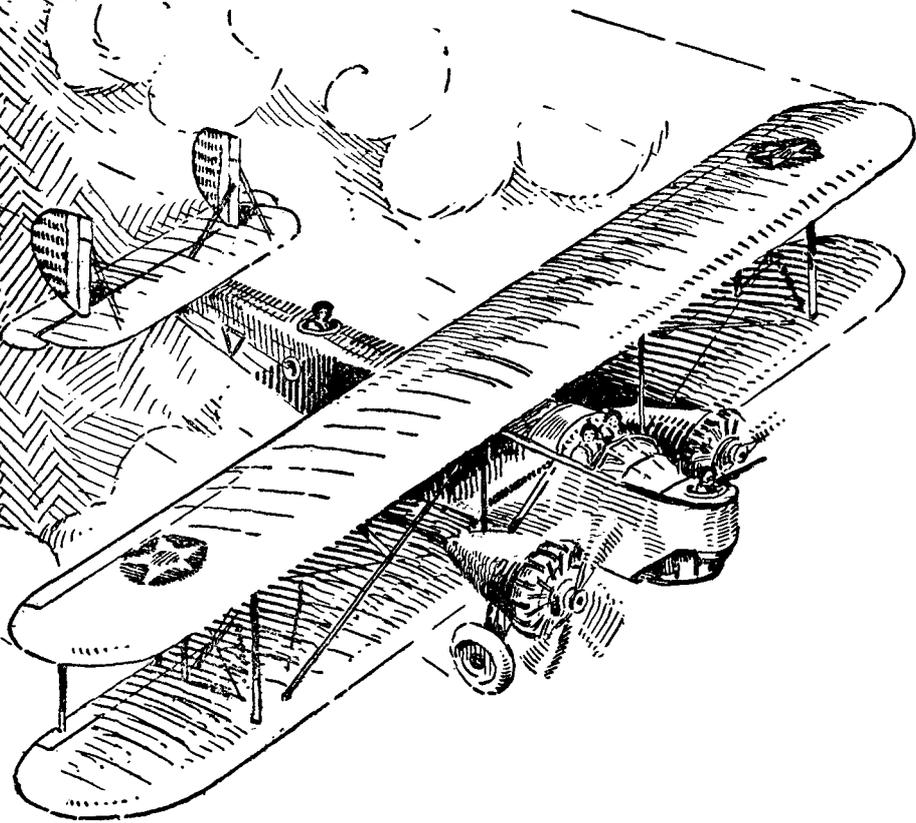
Lieut. W.G. Smith, Capt. J.G. Taylor and Capt. D.B. Howard flew to Buffalo on July 29th to inspect the mockup of a new Observation plane set up at the plant of the Consolidated Company.





AIR CORPS

NEWS LETTER



— ISSUED BY —
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

F.C. Sawyer

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Information Division
Air Corps

September 18, 1931.

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 in this publication.

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THE AIR CORPS AT THE NATIONAL AIR RACES ✓

This year, 1931, the 11th Annual National Air Races were held at the Cleveland Airport from August 29th to September 7th, inclusive. These Races are sponsored by the National Air Races of Cleveland, a body incorporated for that purpose, and are sanctioned by the National Aeronautic Association. They are operated under the rules of the Federation Aeronautique Internationale. In 1929, the Races were held at Cleveland, the following year at Chicago, and now, in 1931, they were again held at Cleveland, where they will continue to be held for at least the next four years.

Mr. L.W. Greve is the President of the National Air Races, Inc.; Cliff Henderson, the Managing Director, and E.W. "Pop" Cleveland, the Contest Chairman.

At the request of these officials, the Air Corps sent a unit to represent it at the Races. The unit designated for this honor was the First Pursuit Group stationed at Selfridge Field, Mt. Clemens, Mich. The Group sent two provisional 18-plane squadrons to demonstrate military tactical flying to the audiences at the Races. In addition, the Materiel Division, Wright Field, Dayton, Ohio, sent the "Flying Comet" plane as a spectacular entry to act as the evening finale for each day's event.

Other services represented were a Navy 12-plane squadron (Fighting Squadron No. 3 from the aircraft carrier "Langley") and a 12-plane squadron from the East Coast Expeditionary Force of the Marines from Quantico, Va. During the week, a squadron of flying patrol boats of the Navy flew to the Races and anchored inside the Cleveland breakwater, and the famous Siskin Flight of the Royal Canadian Air Force came over the border and performed their bag of tricks.

The personnel of the Army representation were as follows:

From Selfridge Field

Commanding Officer of Air Corps Troops -	Major George H. Brett
Executive - - - - -	Major Gerald E. Brower
Liaison and Operations - - - - -	Lieut. John S. Griffith
Engineering Officer - - - - -	Lieut. Harlan T. McCormick
Adjutant - - - - -	Lieut. A. B. Ballard

Red Squadron

Black Squadron

Formed by pilots and planes from the

27th and 94th Squadrons

17th and 36th Squadrons

Major Gerald E. Brower) Alternate Squadron	(Lieut. John S. Griffith
Lieut. Harry A. Johnson) Commanders	(Lieut. John M. Sterling
Lieut. Cecil E. Henry	Lieut. Thayer S. Olds
Lieut. Kenneth W. Mosher (Res.)	Lieut. Hanlon H. Van Auken
Lieut. Carl R. Feldmann	Lieut. Robert W. Burns
Lieut. Theodore M. Bolen	Lieut. Robert J. Hixson (Res.)
Lieut. Flint Garrison, Jr.	Lieut. Llewellyn O. Ryan
Lieut. Norris B. Harbold - - Flight Leader - -	Lieut. Donald L. Putt
Lieut. Jarred V. Crabb	Lieut. Arthur R. Strunk (Res.)
Lieut. Hugh O. Coleman (Res.)	Lieut. John M. Hodgson (Res.)
Lieut. Wm. R. Swain (Res.)	Lieut. Claude L. Brignall (Res.)
Lieut. Raymond P. Todd (Res.)	Lieut. Walter N. Pharr (Res.)
Lieut. Roger M. Ramey - - Flight Leader - -	Lieut. Eldred L. Gann (Res.)
Lieut. Robert W. Humphries (Res.)	Lieut. Wm. B. Poe (Res.)
Lieut. George F. McGuire	Lieut. Emmett F. Yost
Lieut. Francis H. Griswold	Lieut. Norman D. Sillin
Lieut. Wm. B. Clements (Res.)	Lieut. Curtis E. Smith (Res.)
Lieut. Wm. R. Allemang (Res.)	Lieut. Felix Waitkus (Res.)

Several substitutions among the above pilots were made during the course of the Races, but the above names are those of the original participants.

Pilots of "Flying Comet" from Wright Field, Ohio.

Captain St. Clair Streett)
Lieut. John H. Corkille) Each pilot flew the "Comet" two or three
Lieut. James E. Parker) successive nights.
Lieut. Clements McMullen)
Lieut. Harrison G. Crocker)

Air Corps Representatives from Washington, D.C.

Captain A. B. McDaniels, Liaison between Air Corps participants and Chief of the Air Corps.

Lieut. Roland Birn, Press Relations, Broadcasts and Announcements.

Lieut. J. S. Edgerton, Assistant Press Relations.

Mr. J. L. Albright, Photography.

Several distinguished visitors from the Air Corps were present for varying lengths of time at the races, among them being the Hon. F. Trubee Davison, Assistant Secretary of War for Aeronautics; Brigadier Generals H. Conger Pratt and Charles H. Danforth, Assistant Chiefs of the Air Corps; Colonel Frank P. Lahm and Lieut.-Colonel Henry H. Arnold, who were introduced over the public address system to the audience.

In a way, the Army opened and closed the Show. On the evening before the opening day, Captain Streett took the "Comet" aloft and, flying over the waterfront, ignited the bundles of magnesium flares beneath the lower wings of his little Curtiss P-1, and with the Prestone-cooled D-12 engine going full throttle described one fiery loop after another to announce to Clevelanders that there soon would be a big event in their midst.

The Show began on Saturday, August 29th. The Army put on its usual 30-minute routine that day and on successive days, as follows:

Aug. 29th - Saturday - Routine; night flying of the "Comet."
Aug. 30th - Sunday - Except for flying of "Comet," there was no Army participation, due to regulations prohibiting Sunday participation in such events.
Aug. 31st - Monday - Routine; night flying of the "Comet."
Sept. 1st - Tuesday - (Army Day) Routine, with entire First Pursuit Group from Selfridge Field. Rain interrupted Show after the routine flight.
Sept. 2nd - Wednesday - Rain, no Show.
Sept. 3rd - Thursday - (Navy Day). Except for night flying of "Comet," the Army did not participate on Navy Day. Reciprocal agreement between Army and Navy.
Sept. 4th - Friday - Routine - Three Turtles - Night flying of "Comet."
Sept. 5th - Saturday - Same as Friday.
Sept. 6th - Sunday - Same as for August 30th. Night flying of "Comet."
Sept. 7th - Monday (Labor Day) Routine. Night flying of "Comet."

A typical example of the routine follows. Led by their designated leaders on alternate days - Take-off by Squadrons -

1. Pass in Review past grandstands, N. to S.
2. Red Squadron - Column of elements in line (3 planes in each element abreast of each other) S. to N.
Black Squadron - Column of flights in line (6 planes in each flight abreast of each other) S. to N.
3. Red Squadron, N. to S. form letter "A".
Black Squadron, N. to S. form letters "A. C."
4. On special days, such as "Engineers Day," "Early Birds' Day," "Cleveland Day," and the like, appropriate letters were formed by the two Squadrons, flying in formation from S. to N.
5. Red Squadron - Forming a solid wedge formation, N. to S., then an arrow formation S. to N. As the formation flew past the spectators, the changing perspective made it appear as though the pilots were moving from the solid wedge to a closely massed line formation.
Black Squadron - While the Red Squadron was thus engaged, the Blacks strung out and climbed in a "Rat Race," a follow-the-leader movement of twisting and turning, meantime climbing for altitude where they reformed into a standard squadron formation, as the Red Squadron was passing in its arrow formation.
6. Black Squadron - from squadron formation to 180 deg. turning dives by elements, reforming at lower altitude to squadron formation.

- Red Squadron - from arrow to squadron formation, climbing, then making 180 degree turning dives as one squadron, all in close formation.
7. Red Squadron - stringing out in column after squadron-turning-dive and in lufberry circles at low altitude (500 feet).
Black Squadron - elements in echelon.
 8. Red Squadron) Pass in review in group formation and land.
Black Squadron)

The roaring of the airplanes as they dove from the heights, the beautiful precision evident from the close formation flying, the spectacle of the squadron disintegrating in the sky as its elements tumbled down - all in perfect synchronization - to a lower altitude, "took" with the audience at the Airport.

During the few lulls in the fast and furious program, the Army Air Corps announcer described the planes, the personalities among the participating pilots, the meaning of the various formations, and the high lights of Army flying.

" * * * * * These planes are Boeing P-12-D Pursuit planes from the 1st Pursuit Group at Selfridge Field, Mich., with Pratt-Whitney 'Wasp' radial air-cooled engines, these engines being equipped with superchargers for high-altitude performance."

" * * * * * Except for the Major and one or two first lieutenants, the rest of the 36 pilots are but junior officers, some only a few months out of the Flying School at Kelly Field - a demonstration of the high state of proficiency of our Army trained pilots."

"Second Lieut. Sterling, but sixteen months out of the flying school, leading the Black Squadron in the precision evolutions you are about to witness."

"Major Brower, a graduate in civil and aeronautical engineering, forming his squadron into a huge 'E' in honor of the Engineers here today."

"Lieut. Harry Johnson, war-time pilot, leading his composite Red Squadron, formed from the 94th Squadron, the old outfit of Eddie Rickenbacker, and the 27th Squadron, in which Frank Luke performed his gallant exploits over war-torn France."

"And now the Black Squadron roars past the grandstand, led by the intrepid Lieut. "Jack" Griffith, a British 'Ace,' a veteran of the campaign in Russia, and now in the active service of Uncle Sam's Army Air Corps."

Undeniably, the crowd was thrilled, but the climax of appreciation came when the "Three Turtles", whose act had been delayed on Tuesday (Army Day) by a rain squall, put on their three-plane show on Friday afternoon. It was a striking demonstration of close order flying, vertical banks and loops, with the three planes acting as one, followed by their finale, twice executed. This was the element flying in a close 'V,' the element ~~barrel~~-rolling as a single unit, the leader slow-rolling and forming the axis for the flank men who turned cork-screwrolls about him, all three working simultaneously to make the element-roll a marvel of smoothness in motion.

The "Three Turtles" - the name is made striking by its incongruity - were -

Leader - Lieut. John S. Griffith

Lieut. R. W. Burns

Lieut. H. H. Van Auken

On Tuesday, "Army Day," the Army participants took off from the Airport and flew out over the Lake front to meet an additional body of planes and pilots arriving from Selfridge Field, the P-6 planes of the 36th Squadron which had heretofore not made their appearance at these Races. Promptly on schedule, the whole Pursuit Group appeared on the scene, this time going through their paces as a group of four 12-plane squadrons, led by Major Brower in a command plane.

There was a blank file in one of the squadrons. Lieut. Thayer S. Olds, piloting an XP-12, while his squadron was on the lake front awaiting the arrival of the P-6's, suddenly felt his ship vibrate in an unusual manner, the vibrations increasing to such an extent that the instrument board of the plane shattered, and the vibrations were visible to his formation-mates. Fearing this condition would grow worse, Lieut. Olds jumped while he still had sufficient altitude. His airplane landed in a vacant field, and he landed, via parachute, in the lake, being rescued and found to be in much better condition than his airplane, although vibrating himself from the cold water ducking. The outfit carried on, however, and Olds' dropping out caused no delay in the subsequent scheduled program.

Several times during the course of the Races, the Army planes went aloft on night maneuvers and staged a somewhat subdued program, their navigation lights

giving the impression of a flying Christmas tree being carted about the skies. This demonstration served as a forerunner for the nocturnal climax of the "Flying Comet," previously described.

If the non-pilots in the audience could not always appreciate the precision and faultless movements of the Army flyers, they could and did respond to the spectacular part of their tactical maneuvers, the lufberry circles, diving turns, sudden changes in formations and the like. A motion picture of the crowd in the grandstands, taken by an amateur photographer, shows a whole sea of craning necks, of eyes aloft watching the show in the sky. It was taken during the Army's part on the program!

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HAWAIIAN AIR DEPOT A BUSY PLACE

The Engine Repair Section of the Hawaiian Air Depot completed some 450 Work Orders during the past Fiscal Year, which included the overhaul of two marine engines and other work ranging from the nickel plating of fire bells to the routine repair of aircraft equipment required of the Depot to give service to the line. The receipt of new equipment and an increased number of aircraft engines for the Hawaiian Department necessitated a large expansion program, which is nearly completed. It was found necessary to add several new departments - the installation of equipment necessary for cadmium plating, sand blasting, spark plug cleaning and overhaul; a baking oven; enlarging of the cleaning department; installation of a new steam heating plant and a new air compressor system which is now in operation; remodeling of test blocks to accommodate the new type engines; and roviding of more room for the storage of engines.

Since the Depot Supply Department was moved from Honolulu to Luke Field, a marked improvement was noted in the time required to obtain supplies for the Aero Repair Department of the Depot.

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NEW INSIGNIA FOR FOURTH OBSERVATION SQDN. ✓

The War Department has approved a new distinctive insignia for the 4th Observation Squadron. The design was developed from an idea which consists of a "Cross estoilee divided per saltire and per cross or/and azure." The half gold and half blue represent day and night observation, while the four-point figure represents the number of the squadron.

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LIGHTER-THAN-AIR PILOTS SHOW CLASS IN BOMBING ✓

Lighter-than-air pilots of Scott Field, Belleville, Ill., completed their record bombing recently with a record of 100 percent experts. The average of the ten pilots in the bombing at intermediate altitude, 3,000 feet, was 96.93%. The qualification necessary for "Expert" rating is 85%.

First Lieut. Fred A. Ingalls topped the list with 99.3%, making six bulls-eyes on the 200-foot circle, and only missing by a few feet with his other two bombs. Close behind Lieut. Ingalls were Captain Douglas Johnston and Master Sergeant Olin Brown, with 99%. The complete scores were:

1st Lieut. Fred A. Ingalls - - - - -	99.3%	Captain Elmer J. Bowling - - -	97.1%
Captain Douglas Johnston - - - - -	99.0%	1st Lieut. George G. Cressey -	96.8%
Master Sgt. Olin Brown - - - - -	99.0%	Captain Ira R. Koenig - - -	96.5%
Master Sgt. Joseph H. Bishop - - - -	98.3%	Captain Orin J. Bushey - - -	95.2%
Captain Roger S. McCullough - - - -	97.5%	Warrant Officer R.E. Lassiter	91.6%

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The 95th Pursuit Squadron at Rockwell Field, Coronado Calif., recently engaged in a short session of ground gunnery, using fifty caliber guns. Six ships fired each day, and the results were very interesting. Lieut. A.F. Solter, Armament Officer of the Squadron, made preliminary tests with these guns and discovered that it was necessary to extend the blast tube past the front of the ring cowl in order to prevent the cowl from being blown off. Once installed with this extension, the guns functioned perfectly and the gunnery practice was run off in quick time.

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DUSTING FOR MOSQUITOES IN PANAMA
By the News Letter Correspondent



ADJACENT to the historical spot where Pirate Sir Henry Morgan waged war and finally destroyed the city of Old Panama, the Air Corps in co-operation with the Health Department of The Panama Canal is at present waging war on larvae of malarial mosquitoes which are breeding in the large marsh in the vicinity of France Field. Contrary to the report that has been circulated, this is the first time dusting by airplane for the purpose of killing mosquito larvae has been attempted in Panama or the Canal Zone.

The warfare to exterminate the larvae of the mosquitoes, which are carriers of malaria, is being waged by dusting the breeding area, about four square miles, with a mixture of Paris Green made by mixing one part Paris Green by weight with four parts by weight of dust obtained from local clay.

For the purpose of carrying the Paris Green mixture in the airplane and securing as even a distribution as possible, a hopper 37" x 28", with a tapered bottom connected to a tube 8" x 10" x 15" in length on the lower end of which was fastened a venturi tube, was constructed. The front opening of the venturi tube is 14" x 14", the overall length 27" and the rear opening 26" x 17". The material used was 16 gauge galvanized iron. The quantity of dust to be released was controlled by means of a flap valve placed with its operating axis in a fore and aft position in the tube connecting the hopper with the venturi tube and attached to a rod extending up through the hopper. To the upper end of this rod, at an angle of 90°, a second rod was attached so that the operator could regulate the opening of the flap valve by depressing the rod which extended about two feet over the side of the hopper. Experience, however, showed that the above method of controlling the quantity of dust was not entirely satisfactory, because the weight of the mixture in the hopper had a tendency to force the flap valve to open too wide, and the mixture fed faster on the left side of the flap valve than on the right side, thereby producing an uneven distribution. This defect was remedied by placing a flap valve with its axis in a lateral position and extending the shaft so that it is now operated by means of a bell-crank and lever mounted on a quadrant which holds the lever in position when the proper quantity of dust is being released.

Some trouble was experienced by the mixture in the hopper packing, but this was overcome by the operator either tapping the tube between the hopper and the venturi or moving the operating handle slightly. To overcome this difficulty in future dustings, it is proposed to install a wind-driven agitator in the tube just above the flap valve. The agitator will be a shaft with two or three bow-shaped pieces of wire soldered to it so that its maximum diameter will be about four inches.

The equipment described above was installed in a B3A Bomber of the 25th Bombardment Squadron, France Field, Canal Zone, by making a floor to replace the regular floor of the bomb-bay and simply cutting a hole 24" x 28" through it to allow the lower section of the hopper, the connecting tube and the venturi to project two feet below. This provided a clearance of about two feet between the lower rear edge of the venturi and the ground.

The first dusting of the breeding area was made July 20th; the second July 27th and the third August 4th. On each occasion two flights were made with approximately 600 pounds of the dusting mixture each trip. The dusting material was loaded into the plane at the Panama National Airport, Paitilla Point, which is about two miles air-line from Old Panama. Consequently, the time required for each flight was only 15 to 20 minutes, the actual dusting operations requiring about 10 to 12 minutes of that time. The altitude of the plane during dusting was from 20 to 40 feet. A bombing plane was selected because it could carry a greater weight and the equipment could be installed without modifying the plane in any way. The complete apparatus can be installed or removed in 15 minutes.

The success of these dusting operations is evidenced by the fact that practically all the larvae were killed and those which remained alive were in the first larval stage and were too small to ingest any of the particles of the poison mixture.

It is necessary to repeat the dusting at intervals of seven days in order to destroy all larvae before they can develop into the mosquito. It is believed, however, that seven to ten dustings during the malaria season will kill practically all of the larvae of the malaria (*Anopheles*) variety. This method is en-

tirely practicable over much larger areas than that covered in the present dusting operations and will in all probability be extended to other and larger areas in the future.

Unfortunately, however, dusting with the Paris Green mixture kills only the malaria carrier variety of mosquito larvae and does not kill the other varieties which, although not really dangerous, are a pest nevertheless. It is accordingly planned to experiment with spraying oil from an airplane in order to secure a film of oil on the collections of water where they breed. It is believed that the application of oil will not only be more effective but also cheaper, due to its lower cost and the fact that a fewer number of applications would be required.

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SOWING SEEDS IN HAWAII VIA THE AIRPLANE ✓

It seems that of late Army Air Corps personnel stationed outside of the continental limits of the United States have been using their planes in purely peaceful pursuits. Shortly following the receipt of the preceding article touching on the mosquito dusting in Panama, a contribution was received from the 18th Composite Wing, Air Corps, Fort Shafter, T.H., stating that, at the request of the Forestry Division of the Hawaiian Sugar Planters' Association and the Territorial Board of Agriculture and Forestry, bombing airplanes have been utilized in planting seed over the mountain area of Oahu.

Several flights are made each year over areas difficult to plant by ground methods. Formerly the Army Fokker plane, "Bird of Paradise," famous for the flight from Oakland, Calif., to Honolulu, Hawaii, in 1927, by Lieuts. Maitland and Hegenberger, was used for the seeding, and as much as a ton of seed was sown at one time. Now smaller quantities are scattered from the rear cockpit of bombing airplanes.

The definition of a Bombing plane appears to be due for a revision - hurling bombs, dusting mosquitoes, sowing seed - what next?

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A SHARK SCARE THAT WAS A FALSE ALARM ✓

"Although besieged by rain and a group of twenty Reserve officers on a two weeks' tour of active duty," says the News Letter Correspondent, "Mitchel Field pilots have had the hum-drum routine of daily life broken by several startling incidents. The first, and undoubtedly the most remarkable, was the discovery by Lieut. Thomas Steed, Air Corps, of a school of man-eating sharks cavorting playfully off these shores.

Our sharp eyed observer, while returning from Langley Field, noted a strange movement in the water a few miles north of Atlantic City. Circling down he discovered a school of about one hundred sharks headed south. Their average length was somewhere between twenty and thirty feet. This to most people would be sufficient cause to believe them man-eaters. Feeling the urge to practice some 'drop messages,' Lieut. Steed wrote out several 'estimates of the situation' which he dropped on the crowded beaches. A rapid evacuation of the water was quickly effected and our pilot continued on his flight.

The story was related in the post operations office at Mitchel Field, and through irregular channels reached the New York Police Department in a rather irregular form. Newspapers spread the story that great schools of sharks were off Sandy Hook and headed for Coney Island. Warnings were posted and beaches deserted everywhere. The 'pride of New York' valiantly stepped into the breach and, armed with machine guns and tear bombs, set sail to stem the tide. Before they could get in any gunnery practice, however, word came from Atlantic City that the scare had been caused by a playful school of porpoises."

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The 17th Pursuit Squadron, 1st Pursuit Group, Selfridge Field, Mich., sent a flight of airplanes with one blank file to fly over the funeral ceremonies of the late Lieut. Robert D. Moor at Toledo, Ohio, on August 25th. Lieut. Moor was a war-time pilot, and was recently transferred from Selfridge Field to Detroit, Mich., as Instructor of the National Guard unit there until his fatal accident on August 23rd.

PARACHUTE JUMPER PHOTOGRAPHS HIMSELF DURING HIS FALL

By Corporal Garland E. Cain, Air Corps Technical School Detachment
(As told to Captain Samuel C. Skemp).

EVERYBODY asks how one feels when jumping from a plane high in the air. The man who does seldom can describe his sensations after his parachute has brought him down safely. The strain of the descent immediately is gone. The look of concern which he wore when 'bailing out' changes to a broad grin of satisfaction the instant contact is made with Mother Earth.

It seemed worth while to try to take some pictures of myself in the act of making a parachute drop. If successful, the photos would be a permanent record of facial expressions on the way down.

How to do it was the problem. The parachute drop itself would be easy. I had already made six. Another would be just one more. But how was one to get a camera compact and light enough to be carried, and capable of focusing sharply out at arm's length? The answer was so easy as to be startling.

"A Brownie box camera taking vest-pocket size pictures would do. If by chance it became lost or broken, the cost would be just a dollar and a half. The only adaptations that were required were the soldering of an extension piece on the finger lever for easier snapping, and the riveting of a ring for a lanyard to lessen the risk of losing the camera. Two of these cameras were fitted up, one being marked with white chalk so that they could be distinguished.

Permission was had to make a jump at Chanute Field on August 3rd. At two-thirty the sky was cloudless, and the wind not over seven miles an hour at any altitude up to 4,500 feet. I took position on the right wing of the only Keystone Bomber at the Air Corps Technical School, leaning back against the rear outer bay strut. Technical Sergeant Douglas M. Swisher, 2nd Lieut., Air Reserve, flew the Bomber up to four thousand feet over the airdrome. A cameraman in the rear cockpit snapped a picture showing me in the act of jumping clear of the broad aileron, and just starting to pull the rip cord.

It took about eight hundred feet before I was ready to begin taking pictures of myself. By that time the training chute had already filled with air and the first camera had been brought into position for the first snap shot. There was plenty of time. The only difficulty was that the chute had to be turned so that the sun would not shine on the lens of the camera.

There were eight shots in each camera. Snaps were taken from arm's length from as many different angles as possible, with the idea of getting the face in each picture. Some of the pictures were good, for others the camera was not pointed just right, and a few were badly fogged by the brilliant reflected light from the white silk of the chute above. As the ground came up to meet me, two shots were taken with the camera pointed down to show how the approaching earth looked.

Letting the two cameras hang by their lanyards, I had both hands free to manage the chute for the landing. Neither camera was injured in the least in the final tumble.

The surprising thing about these pictures was that all of them showed exactly the same expression - an easy confidence in the outcome."

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BLUE RIBBONS FOR SCOTT FIELD HOMING PIGEONS

Scott Field homing pigeons carried away a fine lot of ribbons in their first indoor showing of the season at the Illinois State Fair at Springfield, Ill., on August 24th. Staff Sergeant Max Bronkhurst took twenty of the government birds to this show, and every bird except one was in the prize money. The loss of a prize by this one bird was due to the loss of many feathers while being shipped.

In the class for 100-mile record birds, one of the toughest in the show, the Scott Field loft carried away first and second honors in both the hen and cock classes with the four birds entered. Two fine birds, entered in the 300-mile class, took the two first ribbons, and another fine cock landed the blue ribbon in the 400-mile class. Three cocks all landed first place honors in the young bird classes and three hens all placed.

In addition to the homers, Sergeant Bronkhurst took four pouter pignies to the show. These birds, which belong to Mrs. John A. Paegelow, wife of the post commander, brought home a first, second, third and fourth place ribbon.

The total prizes awarded the Scott Field birds were: nine firsts, seven seconds, three thirds, three fourths and one fifth.

THE PROCESS OF SIGHTING, HOLDING, AND FIRING A TARGET PISTOL

By Lieut. J. L. Hitchings, Air Corps.

(The 11th Article of this Series).

We have now progressed far enough in our discussion of the technique of pistol shooting to take up the sequence of events in firing a shot and to add the final steps in that process. It is assumed in this article that Patridge type sights, which are now standard for American target pistols, are used.

First, we get the correct position of our feet. Then, taking the pistol in our left hand, we adjust the palm, the second finger, and the trigger finger of the right hand to it as explained in a previous article. This is done at the position of "Raise Pistol." For subsequent shots, it is not necessary to return to this position. The grip on the pistol being retained, the arm, after reloading, may be extended to the old duelling position of "Ready" - that is, pointed to the front and down, at an angle of 45 degrees with the horizontal, - and then brought up to the firing position.

As we extend our arm, we get the correct position of our right shoulder, drop both shoulders, place our left hand in our pocket, and slump down a little with our whole body, to secure relaxation. At the same time, beginning with the instant when we begin to extend our arm, we commence another process, - that of taking up the slack.

The amount of time available for the trigger squeeze on a shot is limited by the length of time we can hold our breath without strain. This will be, on the average, from ten to fifteen seconds. Therefore, THE MORE PRELIMINARY PRESSURE WE CAN EXERT ON THE TRIGGER BEFORE WE START TO HOLD OUR BREATH, THE MORE SLOW AND EVEN WE CAN MAKE THE FINAL TRIGGER SQUEEZE. The process of exerting this preliminary pressure is known as "taking up the slack." We must do it consciously, judging the last ounce of preliminary pressure we can put on the trigger and still be sure the pistol will not go off. Just as we finish extending our arm and commence the alignment of our sights, we take a deep breath, let out part, and hold it.

Before attempting to align the sights with the bullseye, we must align them accurately with each other. The front sight should be centered in the opening of the rear sight for deflection, and the top of the front sight brought exactly level with the top of the rear sight. Even if you have fixed sights and your group is not centered, do not correct for this by taking your sights differently.

NEVER TAKE A FINE OR A COARSE SIGHT; ALWAYS TAKE YOUR SIGHTS IN EXACTLY THE SAME WAY, AND TO CHANGE YOUR AIM EITHER ADJUST YOUR SIGHTS (IF ADJUSTABLE), OR CHANGE YOUR AIMING POINT.

Next we must align the sights with the target. The present method is to SET THE TOP OF THE FRONT SIGHT TANGENT TO THE BULLSEYE, LEAVING NO WHITE LINE BETWEEN THEM. In using the former method of leaving a white line, it was found that this line, always inexact, varied appreciably in actual thickness with varieties in the light.

The correct focus of the eyes has been the subject of some discussion. Much trouble has been caused by attempted application to pistol shooting of the old rifleman's rule, "take your last glance at the target." The correct principle for sighting any kind of firearm is believed to be, "THE LAST GLANCE MUST ALWAYS BE AT THE MOST UNSTEADY ALIGNMENT." With the rifle, this is the sight-target alignment; with the pistol, it is the alignment of the front and rear sights. Thus we derive the following rule for pistol shooting: THE LAST GLANCE MUST ALWAYS BE AT YOUR SIGHTS. This is an extremely important rule, and one frequently violated unconsciously. Just as you must follow through with your eye in golf, so you must follow through with your eye in shooting, keeping your sights aligned to the very instant of the explosion. Whenever you cannot call your shot, you may be sure that you are violating this rule.

We now come to the trigger-squeeze. Many instructors content themselves with saying that an increase of pressure should be exerted on the trigger each time the sights approach the aiming point. This is not the whole story, however. For the best accuracy, the barrel must be absolutely stationary at the instant of let-off. To secure this condition, WE PUT THE NEXT TO THE LAST OUNCE OF PRESSURE ON THE TRIGGER DURING THE APPROACH, AND THEN WAIT FOR THE GUN TO COME TO REST ON THE AIMING POINT, WHEN WE APPLY THE FINAL SQUEEZE. The latter process is known as holding. After about a second it occasions enormous strain; if, therefore, you do not succeed in getting your shot off at once, relax your arm, retaining the pressure on the trigger, then bring your sights back on the aiming point and try

it again. After three or four unsuccessful attempts, your arm will be so tired that you should lower it and take a brief rest. It is said, "Anyone can set a pistol off, but it takes a good shot to know when to set his pistol down." It is obvious that to put this system into application, you must be able to gauge accurately the pressure needed to set your gun off. To be able to gauge this pressure, you must, in turn, grip your pistol so correctly and so uniformly that it has always the same effective pull. A test of this is the feeling of the lateral balance in your hand when the pistol is properly gripped, and the consciousness that the pressure of your second finger is directly upward and not to either side. In squeezing the trigger, one of the two methods of controlling pressure in the hand should be used, preferably the second.

HOLDING IS ONLY POSSIBLE WHEN THE SIGHTS COME NATURALLY TO A REST ON THE AIMING POINT. If your arm feels strained and wants to move in a definite direction, up, down, or to one side, bring it down and correct your position by twisting or bending at the waist, or by moving your feet. Whenever your sights tend to swing back and forth or up and down, get a position in which the relaxed end of your swing brings the sights on to the aiming point. Thus you will be able to HOLD AND LET OFF AT THE RELAXED END OF YOUR SWING.

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FIRST PURSUIT GROUP PAYS A VISIT TO CANADIAN COUSINS

A squadron of 18 P-12 Pursuit planes, led by Major George Brett, Commanding Officer of Selfridge Field, flew to Montreal, Canada, at the invitation of the Montreal Light Airplane Club, to take part in the Canadian National Air Pageant, held at the Municipal Airport at Montreal on August 15th and 16th.

The Squadron stopped off in Buffalo, N.Y., for refueling. The Curtiss-Wright Corporation was host to members of the flight for luncheon during the refueling.

Arriving in Montreal about 4:30 p.m., after a delightful flight around the southern edge of Lake Ontario and up the broad St. Lawrence, the personnel, after staking down the airplanes, were quickly transported into Montreal, the officers being installed in the Mount Royal Hotel, and the eight enlisted men accompanying the flight in the Ford Hotel.

The first day's program commenced at 1:00 p.m. on Saturday, and everything went off with clock-like precision. The Squadron's part in the demonstration consisted of a 30-minute squadron demonstration of various types of formation flying, both tactical and drill, and ending up with a 10 minute 3-plane acrobatic element. Captain Ross G. Hoyt, Commanding Officer of the 17th Squadron, led the Squadron on the demonstration slight, and the acrobatic element was composed of Lieuts. Griffith, Theisen and Van Auken.

On Saturday evening, all persons taking part in the Show were guests at a dinner at the Mount Royal Hotel, given by the Montreal Light Airplane Club. Among those present was Captain Frank Hawks, who had flown his famous Travelaire Mystery Ship, the Texaco 13, to Montreal that day.

Saturday's show was repeated on Sunday before a crowd of people estimated at 50,000. On Monday morning the squadron returned to Selfridge Field by way of Toronto, Ontario, the stop being made there for refueling.

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PHOTOGRAPHIC WORK FOR CORPS OF ENGINEERS

During the month of July, Lieut. H.F. Woolard, Commanding Officer of the 5th Photo Section, stationed at Scott Field, Belleville, Ill., accompanied by Master Sergeant W.R. Rhodes, accomplished two aerial photographic projects for the U.S. Engineers with the T-2-A multiple lens camera. The first, Fort Riley, Kansas, and vicinity, containing 236 square miles, was photographed in exactly 43 minutes after an altitude of 12,000 feet had been reached. The second project, Fort Des Moines, Iowa, and vicinity, was photographed in 31 minutes after the required altitude had been reached. This area included 116 square miles.

As a result of these two flights it was found that, even with the long flights necessary to reach the scene of operations, the T-2-A multiple lens camera is most economical for this type of work.

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The First Pursuit Group sent two Squadrons to the National Air Races at Cleveland, Ohio, August 29th to September 7th. These two organizations practiced each morning in order that their demonstrations may bring credit to the Air Corps.

AND THE WAR GOES MERRILY ON.

"We notice in the June 5th issue of the Air Corps News Letter," says the Correspondent of the 28th Bombardment Squadron at Nichols Field, P.I., "that the 72nd Bombardment Squadron is still complaining about being the best squadron. We think, like Shakespeare, that the woman protesteth too much. However, if they can show something tangible, such as flying hours; all officers qualified in aerial gunnery; 84% of men qualified in small arms; all ships in commission 98% of the time; a rating of excellent by the inspector; courts-martials of less than one-half of one percent per year; no desertions; no A.W.O.I's; no men in confinement; no forced landings; no planes damaged one cent's worth from any cause whatsoever, we will take issue with them. However, we do not protest our excellence, believing it more fitting and proper for outside observers to make such comment as conditions warrant. The 72nd may be a good outfit - we hope it is - as no other kind is of any value to the service, but they should not be like the little boy whistling as he passed the graveyard to keep up his courage."

The 72nd Squadron is stationed at Luke Field, Hawaii - quite a journey over the Pacific to the Philippines. Since short wave radio communication has reached such a high state of efficiency, it may not be such a bad idea for these two organizations to go on the air in order to settle their differences.

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50TH OBSERVATION SQUADRON GOES INTO CAMP

The 50th Observation Squadron, stationed at Luke Field, T.H., recently moved to the Air Corps Waimanalo Reservation for a two weeks' period of training. All ships and personnel operated from the field adjoining the camp, emphasizing gunnery and low altitude bombing for squadron training and carrying out tow-target missions for the anti-aircraft batteries at Forts Kamehameha and DeRussy.

The planes were staked down at night immediately behind the sand dunes, which partially protected them from the wind and periodic rain squalls. A tent was set up "on the line" for Engineering, supplies and parachutes, and the crews worked hard to prevent exposure to rain and sand. Towards the end of the training period, the camp was visited by Major-General William Lassiter, Commanding General of the Hawaiian Department. The General was pleased with the appearance and conduct of the camp, and before he left the reservation witnessed the simulated aerial attack on an assumed target on the beach, in which the entire 18th Composite Wing participated.

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RESERVE SQUADRON GOES INTO TRAINING

The 514th Observation Squadron, Reserve, under the command of 1st Lieut. Ray H. Clark, Air Corps, participated in some concentrated training in preparation for their two weeks' summer camp at Long Beach, Calif., which started on August 2nd. This Rockwell Field Reserve organization has 33 active pilots, all but two of whom hold AP ratings. Five of these 33 pilots hold the rank of Major, six are Captains, ten First Lieutenants and 14 Second Lieutenants.

The flying equipment now available for this organization consists of three DH4's, one YPT-6, one PT-3A and one BT-2A. The flying time allotted for each month is eagerly used up long before the last day of the month, and the personnel are earnestly hoping to have this allotment increased.

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ENGINES FOR SALE AT THE ROCKWELL AIR DEPOT, CALIF.

The Rockwell Air Depot, Rockwell Field, Calif., recently issued Circular Proposals for the sale of a total of 742 aviation engines, government-owned, on hand, as follows:

200	Liberty Engines,	V-1650,	"B" condition.
467	"	"	V-1650-A, "A" condition.
25	"	"	V-1650-A (Navy Packards), "A" condition.
41	Wright	V-720-E engines,	"A" condition.
3	"	V-720-E2 engines,	"A" condition.
6	"	V-720-#4 engines,	"A" condition.

-324-

V-6179, A.C.

DURATION RECORD FOR GLIDERS ESTABLISHED IN HAWAII

Taking off from a pineapple field near Kaneohe Bay at 2:35 p.m., Saturday, July 25th, 2nd Lieut. John C. Crain, Air Corps Reserve, a member of Wheeler Field, Honolulu, T.H., established an unofficial world's glider record for sustained flight, landing at 7:12 a.m. Sunday, July 26th, after 16 hours and 38 minutes in the air.

The sailplane was constructed and designed by 2nd Lieut. William Cocke, Air Corps Reserve, of Wheeler Field. The glider was returned to Wheeler Field immediately after landing, where it is undergoing thorough inspection and overhaul prior to the International Glider Contest to be held on the Island of Oahu during the month of October. It will be entered in this contest in an attempt to break the official glider record.

The reason Lieut. Crain did not remain aloft a longer time was that he was tired out. During the period from 3:30 p.m. Saturday and 5:00 a.m. Sunday, he flew through several rain storms, which added much to his exhausted condition and discomfort. He maintained an average altitude of 3,000 feet during the entire flight.

Searchlights from the Coast Artillery Corps were used to illuminate the cliffs of the Nuuanu Pali to prevent an accident to pilot or glider when changing his course. The cooperation of the 64th Regiment of the Coast Artillery (A.A.) which furnished a battery of searchlights, under the efficient command of Captain Robert E. DeMerritt, was much appreciated by the Air Corps. Without these lights, the flight, under the existing weather conditions, would have been impossible.

Chocolate bars, a canteen of cold coffee and a canteen of water were the only provisions carried by Lieut. Crain during the flight. Lieuts. William A. Cocke, Jr., and Wm. J. Scott were, with Lieut. Crain, the instigators and prime factors in this record flight, and their perseverance in the face of many difficulties and discouragements is a credit to the entire Air Corps.

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15th OBS. SQUADRON PILOTS COMPLETE AERIAL GUNNERY

Aerial gunnery practice for pilots and observers of the 15th Observation Squadron, Scott Field, Belleville, Ill., was completed at Camp Skeel, Oscoda, Mich., on August 15th. Very creditable scores were hung up by a majority of the pilots and observers, even though it was necessary to rush most of them through the course because of the need for officers for other duties.

Immediately following the completion of the shooting, 1st Lieut. Frederick A. Johnson and 2nd Lieut. Irving R. Selby were selected to represent the Squadron at the Annual Matches at Langley Field, Va. Lieut. Johnson shot an exceptionally high score with the flexible guns, due principally to his remarkable work on ground targets. Lieut. Selby topped the pilots by a small margin over 2nd Lieut. Herman F. Woolard, 5th Photo Section, who is attached to the 15th Squadron for training purposes. Lieuts. Johnson and Selby left for the Matches at Langley Field on August 25th.

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AN AERIAL REVIEW FOR MAJOR GENERAL LASSITER

Approximately 75 airplanes of various types participated in an Aerial Review at Wheeler Field, T.H., recently, for Major-General William Lassiter, who is to go on the retired list in the very near future. General Lassiter, Commanding the Hawaiian Department, together with Lieut.-Colonel Gerald C. Brant, Commanding the 18th Composite Wing, Air Corps, first inspected the ships on the line, together with flying equipment and personnel, after which the aerial review was held, with Col. Brant leading the Wing Headquarters flight. General Briant H. Wells, Commanding the Hawaiian Division, and General W.E. Cole, Commanding the Coast Artillery Brigade, were also present at the review.

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Captain G.O. Strom, of the Swedish Royal Air Force, was a visitor at Wheeler Field recently while enroute to Japan. Upon his arrival he was met by Lieut. L.H. Tull, Air Corps, and conducted on a tour of inspection of all aeronautical activities in the Hawaiian Department. During his visit the usual courtesies by the Department Commander and the Wing Commander were extended him.

LANGLEY FIELD PILOTS PARTICIPATE IN CHEMICAL WARFARE DEMONSTRATION

Lieuts. Thomas L. Taylor and Ellis D. Shannon, 49th Bombardment Squadron, Langley Field, Va., flew two A-3 planes to Edgewood Arsenal, Md., to aid in a Chemical Warfare demonstration. A 3-ship formation, led by Lieut. Reuben Hood, with Lieuts. Taylor and Shannon on the wing positions, laid the smoke and gas attack on the ground forces. This was accomplished by having smoke in one wing tank and assimilated gas of red dye in the other, thereby allowing the ships to lay their own smoke screen and drop the gas at the same time.

A column of Infantry on the march, represented by officers of the Chemical Warfare School, was surprised, and, before they could deploy sufficiently, were sprayed with the red dyes. After a check on the members having "red dye" on their "white shirts," it was found that the Air Corps had effected 80% casualties on the column.

The officers of the Chemical Warfare Service expressed much praise and admiration for the work done, saying that this was the most successful demonstration ever staged.

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LONG-RANGE AERIAL PHOTOGRAPHS TAKEN IN HAWAII

During the course of a flight by Lieut. E.W. Rawlings, accompanied by Tech. Sgt. Arthur Stolte, 11th Photo Section, to the Island of Maui in connection with the recent maneuvers of the 18th Composite Wing, Air Corps, many scenes were taken with the new K-10 camera which the Section had just received. A picture was taken of Maalaea Airport, showing the 56 planes of the Composite Wing on the ground, the largest number ever assembled in one group in the Hawaiian Islands. A picture was also obtained of the Islands of Molokai, Maui and Lanai. Others were taken of the Mauna Kea and Mauna Loa mountain ranges from an altitude of 11,000 feet. The distance of the plane to Mauna Kea at the time the pictures were taken was about 200 miles, which the News Letter Correspondent believes is a record with standard equipment.

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FIRST MAJOR CRASH FOR 50TH OBSERVATION SQDN.

The 50th Observation Squadron stationed in Hawaii had their first major airplane crash since their organization in November, 1930. Lieut. Don Z. Zimmerman, with Staff Sgt. George M. Richard as passenger, crashed into the sand dunes at the low altitude bombing range bordering the Waimanalo Flying Field. The pilot received minor cuts and a sprained ankle, while Sgt. Richards received bruises and a broken arm. The ship was completely demolished. The fact that both men escaped with their lives is a tribute to the sturdy metal construction of the O-19 Observation plane.

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A NEW TYPE OF SQUADRON MASCOT

Shortly before the Annual Maneuvers, the 11th Bomb. Squadron acquired a mascot in the form of a toy fox terrier. It was promptly dubbed "Condor" after the huge Curtiss "Condor" Bombers with which the Squadron is equipped. "Condor" accompanied the organization on the Maneuvers and was probably the most photographed attendant thereat outside of the General Staff.

"Condor" made the trip in the nose of No. 8, and his kennel was a small soap box. His attention to his duties as mascot was efficient to such a degree that at times, even though there were several hundred other planes at an airdrome taking off and landing, his delicately trained ear could distinguish the difference when GV 15705 started to sing their song prior to taking off, and telling him to climb aboard. "Condor" arrived home with a record of some 110 hours in the air and one forced landing, all duly authenticated in his personal Pilots' Book by Lieut. W.L. Scott, Jr., the Squadron Operations Officer.

The Curtiss Co., through Mr. Harvey Ogden, recently ordered for "Condor" a set of the finest harness and a special blanket. The Paramount Sound News recently sent their equipment to Rockwell Field to record the official presentation of the new set of equipment to the Squadron Mascot, which included besides the blanket with name embroidered in gold the Squadron insignia, a special parachute, Serial No. K-9-11. The speech of presentation and commendation was made by Lt. Charles H. Howard, Squadron Commander, ably assisted by Lieut. Scott.

88th SQUADRON PILOTS SHOW UP WELL AS AERIAL GUNNERS

The completion of the aerial gunnery season by the 88th Observation Squadron at Fort Sill, Oklahoma, was marked by a qualification of 91% of the pilots participating therein. Out of 22 officers and one noncommissioned officer who fired, 12 qualified as Expert Aerial Gunners, 8 as Aerial Sharpshooters and one as Aerial Marksman, viz:

<u>Expert Aerial Gunners:</u>	<u>Score</u>	<u>Aerial Sharpshooters:</u>	<u>Score</u>
2nd Lt. D. T. Mitchell	959	2nd Lt. J. M. Joplin	740
2nd Lt. H. B. Fleming	925	2nd Lt. W. C. Bryan	736
2nd Lt. R. I. Dugan	919	2nd Lt. D. M. Kesler	726
2nd Lt. S. O. Ross	906	2nd Lt. F. A. Creech	716
1st Lt. W. T. Ritchie	897	2nd Lt. G. L. Houle	693
2nd Lt. C. S. Tidwell	890	1st Lt. G. E. Rice	667
2nd Lt. C. H. Miller	860	Capt. F. H. Pritchard	662
2nd Lt. J. L. Jackson	855	1st Lt. C. E. Shankle	652
Master Sgt. C. L. Colby	846		
2nd Lt. J. H. Roe	828	<u>Aerial Marksman:</u>	
Capt. L. P. Hickey	807		
2nd Lt. C. Stroh	797	2nd Lt. C.T. McKinnie	485

Much difficulty was encountered with the gunnery this season, due to farmers in this section having contracts with the Quartermaster to cut and bale the hay on the reservation. This made it necessary for the Squadron to turn out and start flying at 5:00 a.m., and finish firing at 8:00 a.m., so that the haymakers could have the freedom of the reservation to cut the hay. Needless to say, no one was very sore when it was all over and the personnel could sleep a few hours longer.

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MANEUVERS IN THE PANAMA CANAL ZONE

The first complete concentration of Atlantic side troops at France Field, Panama Canal Zone, occurred recently, when Department Headquarters announced the Field to be in danger of an attack by an imaginary enemy. The alert call sounded at 2:00 a.m., and in a surprisingly short time the drone of motors was heard in the inky blackness above the hangars as Observation, Pursuit and Bombing planes circled the Field in readiness for any emergency that might occur. In a short time the hum of motors was broken by the tramp, tramp of hundreds of feet and the barking commands of Company Commanders. The Coast Artillery, Field Artillery and Infantry had arrived with full packs and fixed bayonets. These troops were followed by the Coast Artillery troops from Fort Sherman who arrived by water route.

The two-starred O-19-D of Major-General Preston Brown, piloted by 2nd Lt. John W. Sessums, Jr., D.O.L., landed at France Field, with the aid of a drop flare, at 4:00 a.m. Division and Brigade Headquarters were established a few minutes later, and General Brown commended the leadership and cooperation that carried out the maneuver with precision. No warning of the alert call had been given, and the problem had been completed without a hitch.

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BOMBERS IN PHILIPPINES ARE WARMING UP

"During the past month we have been specializing in formation flying," writes the Correspondent of the 28th Bombardment Squadron at Nichols Field, P.I. Announcing that at the present writing the Squadron has ten B-3A Bombers assembled and operating and that the remaining two are shortly expected, he goes on to say that "With 12 new Bombers, things are not so bad. More than half of our pilots have never flown Bombardment formations, and the new ones, we believe, are now convinced that it takes more skill, patience, practice, hard work, and air discipline to fly good Bombardment formations than any of the other types. If you don't believe it, just try it. Our critiques after each formation are worthy of note. They used to sound like a ladies' bargain sale, but as yet no blood has been drawn. However, considering the time and lack of Bombardment experience of some of our pilots, our formations are getting quite 'hot' and our critiques are getting 'cooler.'"



"Our language is certainly composed of infinite possibilities," is a statement in the Chamute Field PROP WASH, coming from the Communications Section of the Air Corps Technical School. And further - "Not long ago we christened a female canine 'grid leak,' and it is now rumored that several small 'resistances' are now connected in series with her.

Rather a remarkable incident in connection with the crash of the airplane from which Lieut. Harry A. Johnson, Air Corps, of Selfridge Field, Mich., jumped on August 6th last, was the condition of the radio installed in the ship. Although the airplane was a total wreck, with practically nothing left of it which could be salvaged, the radio set with which it was equipped survived the crash. It was well shaken up when the plane hit the ground, but not even one tube was broken and, following some minor repairs, the radio set was serviceable again.

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Lieut. Otto Wienecke, Assistant Operations Officer at Nichols Field, P.I., is pretty good at solving puzzles. The following radio was received from Lieut. Uzal G. Ent, Observer in Airplane No. 2, which was part of a formation flight which took off from Nichols Field not long ago:

"9:03 WYR V DT2 BT SEND MOUNTED WHEEL AND EGESS ARYEYES AR YTOOLS TO MOUNT TOSTARST TUFE IMMEDIAEL YARK DT2 V WYR IMI."

Lieut. Wienecke immediately dispatched a wheel and tire to Santa Fe to repair No. 1 airplane which had blown a tire in landing at that place. Santa Fe is about 65 miles from Nichols Field in the heart of the Zambales Mountains. Slightly over three hours from the time the radio was received the airplane was back home O.K.

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A NEW RADIO SET FOR SCOTT FIELD OFFICERS' CLUB

Air Corps Reserve officers of the Sixth Corps Area have again shown their appreciation of the treatment accorded them while on two weeks' active duty at Scott Field, Belleville, Ill. Evidently, during their tour of duty they noted the absence of a radio set at the Officers' Club, for a few days ago, Lieut.-Col. John A. Paegelow received a letter stating that a radio set was on the way. The following day the set was received and installed in the club building. This set will fill the void experienced at the club since the theft of the club radio last winter.

The letter of presentation from the Air Corps Officers' Association of the Sixth Corps Area is as follows:

"Dear Col. Paegelow:

The reserve officers who received their active duty training at Scott Field in the period from July 4 to July 18, 1931, take great pleasure in presenting a Majestic Radio Set to the Officers' Club of your post. We take this means of showing our appreciation for the very wonderful and conscientious aid given by you, personally, and the officers and men of your command in making this camp one of the most successful we have ever attended.

The radio has been forwarded to the Officers' Club directly and I hope it will have reached its destination in good condition at the time this letter is received.

Again extending the appreciation of the reserve officers for the wonderful hospitality of your officers directly in charge of our activities, I am

Very respectfully yours,

John J. McLaughlin,

Lt., A.C. Reserve,

Chairman of Special Committee.

From the expression of appreciation by the Scott Field officers, this gift is most appropriate and will further cement the bond of cooperation and friendship which exists between the Air Corps Regular and Reserve officers of this Corps Area.

Engineering News

MATERIEL DIVISION DEVELOPMENTS

ENGINEERING SECTION

Conversion of Primary Training Types to Basic Training Types

The Stearman YPT-9 and Consolidated Y1PT-11 Primary Training airplanes were tested with Wright J-6 and Pratt-Whitney Wasp Junior engines to determine their suitability for Basic Training types.

AIRPLANE BRANCH

All-Metal Skin-Stressed Wing

The conventional type of all-metal wing consists of an internal structure and a covering, the internal structure being designed to take the entire load. The covering of the wing is so much dead weight, therefore, as far as the strength of the wing is concerned. This covering is in an ideal position to contribute to this strength, inasmuch as it is at the farthest point from the centerline or neutral axis, but it has not been utilized for this purpose because of the difficulty of calculating the exact amount that it may be depended on to contribute. As the result of a number of years of research, under the direction of Captain Carl F. Greene, a 55-foot all-metal wing has been designed and built, in which the covering of the wing is so disposed as to contribute a large share of the resistance to bending. This wing is considerably stronger for its weight than the usual cantilever wing.

Study of Propellers for 1000 h.p. engine

A study of two, three and four-blade propellers of wood, dural, hollow steel, and magnesium for 1000-h.p. engine with propeller speed of 1650 r.p.m., gear ratio of 3 : 2 was made. A study is also being made of the possible suitability of other gear ratios.

The Air Corps Controllable Pitch Propeller

This propeller has completed about 400 hours of flight testing on the Liberty-engined O-2H. By allowing the most efficient engine speed at climbing and cruising speeds as well as high speed, this propeller results in improved performance and fuel economy.

POWER PLANT BRANCH.

Romec Fuel Pump

This pump, of the sliding vane type, has satisfactorily completed 3566 hours of endurance testing.

EQUIPMENT BRANCH

Radio Compass

The Kreusi Radio Compass has been tested at the Division. Tuning in on a local broadcasting station at about 100 miles distance and following the indicator, the airplane was brought directly over the transmitter.

The Triangle Parachute

The first outstanding improvement on the present standard pack-type parachute, which was developed at the Division directly following the war, is the triangle parachute, likewise evolved under the direction of Major E.L. Hoffman. One corner of the triangle is left open in the form of a vent through which the air escapes from the parachute. The escaping stream of air serves to propel the parachute through the air at an appreciable horizontal velocity, which allows the wearer some control over his place of landing. The triangle parachute has a lower rate of descent than any other 'chute, and it is practically free from the usual swinging motion.

ARMAMENT BRANCH

Summary of Recent Developments

Up to 1925, the armament in use by the Air Corps was a heritage of the War. It became evident, with the increasing performance of military airplanes, that improved armament would be necessary if the increased performance was to be useful. The old Nelson synchronizing gear which functioned adequately on the Liberty engine failed to operate on the newer high-speed engines; the old type Scarff ring mount was inoperative at the higher air speeds of the newer airplanes. Gun sights and bomb sights had to be compensated for higher speeds and altitudes, and the time lag in the mechanically operated bomb rack had to be eliminated. At the present time synchronizer gears are available which operate satisfactorily up to the highest diving engine speeds; flexible gun mounts have been developed so that the gunner can sit at his work, and gun sights are compensated for air speed. The electrically operated bomb rack eliminates the time lag of the old mechanically operated rack and allows selective or salvo control at will. Fully compensated bomb sights which are operable at altitudes beyond the effective range of anti-aircraft fire, and enclosed bomb racks for fast bombers are now available.

LIGHTER-THAN-AIR BRANCH

Hydraulic Balloon Winch

The type A-6 balloon winch, which uses a hydraulic infinitely variable transmission in place of the older gear transmission, has been tested and has resulted in much greater flexibility and ease of control than were possible with the gear transmission. The engine is set to operate at a constant speed, the speed of the winch being controlled entirely by variation in the ratio of the transmission. The transmission consists of a hydraulic pump and a hydraulic motor. The pump is driven from the engine, and by varying its displacement it is possible to vary the speed ratio.

TECHNICAL DATA BRANCH.

The Air Corps Museum

At the present time the Air Corps Museum at the Materiel Division is being extended and improved. Larger quarters have been obtained, and the old exhibits are being renovated and rearranged. A very comprehensive exhibit of war-time and post-war airplanes and engines is on hand, and it is planned to have exhibits which will mark the progress of all kinds of aeronautical development. A study is being made of the management and arrangement of industrial and technical museums throughout the country so that the Air Corps Museum will be amongst the best of its kind. The engineer will be able to go there to see the actual state of his art at different times during the past, and to get a graphic illustration of developments of the past, both successful and unsuccessful.

SERVICE DEVELOPMENTS

Blind Flying and Its Developments.

(Abstract of a paper by Major Wm. C. Ocker, Kelly Field, and Lt. Carl J. O'Wane, Brooks Field, read before the American Society of Mechanical Engineers).

Major William C. Ocker, one of the old timers of the Air Corps, is the pioneer investigator of blind flying. It was he who first analyzed the impossibility of flying by "feel" without visual reference, and who set about proving it to the Air Corps, using a revolving chair with a hood over it, having instruments in the hood.

In this paper he explains the action of the seat of the sense of balance and direction in the membranous labyrinth of the inner ear, and how, if one is turning in a certain direction without visual reference, a diminution of rate of turn will give the illusion of having stopped or begun to turn in the opposite direction. He gives numerous examples of the inability of skilled pilots to fly straight while flying blind, due to this phenomenon. A new instrument is described, called the "Flight Integrator," which is intended to supply the normal type of visual reference while flying blind. It consists of a small endless screen with scenery painted on it, and with a small image of an airplane mounted in front of it after the manner of the artificial horizon. The screen is connected to a small motor, which is actuated by a turn indicator so that the scenery moves by in a realistic manner when the aircraft turns, thus giving the pilot a normal sensation of turn. The image of the airplane is act-

uated by a normal artificial horizon mechanism. Air speed and altitude meters are mounted with the instrument, giving the pilot all the essential information at one glance. The great reduction in fatigue that results from the substitution of normal reflex stimuli in place of the unnatural instrument flying can be appreciated. The authors describe an experiment which has been conducted, in which two student pilots have been instructed to fly without ever having seen out of an airplane, doing all their flying by instruments. They emphasize the necessity for the blind flying training regardless of the skill and experience of the pilot.

COMMERCIAL DEVELOPMENTS

The Autogiro

While not adapted to combat purposes, the autogiro has attracted a great deal of attention in this country recently, and it promises to have a great future commercially and for private use. It is the invention of Juan de la Cierva, who has been working on its development since 1920. It became a practical flying machine at the time when the articulated rotor was first applied to it, and the American contribution of a starting gear, so that the rotation of the rotor can be started by the engine of the machine has removed the most serious objection that applied to its widespread use. As is well known, the rotor is not driven by the engine except when the starter is being used, rotation being automatically maintained so long as the rotor is supporting the weight of the machine. The rotor blades are not fixed to the hub, but are articulated so that they are free to fold up like an umbrella. When in flight they assume at all times an angle which is the resultant between the centrifugal and lift forces. It is therefore impossible for the blade to transmit a sudden increase of lift without flapping upward, or to decrease its lift suddenly without flapping downward. Thus the difference in lift between the blade which is advancing into the relative wind and that which is traveling rearward, is precisely compensated by the resultant flapping which takes place. It is equally impossible to transmit sudden high accelerations to the body of the machine through the rotor, the automatic increase in coning angle under increased lift acting as a shock absorber. For the avoidance of gyroscopic effect the blades are articulated so that they are free to move back and forth a limited amount in the plane of rotation. The limitation of this movement is effected by cables which connect the four blades, and which are attached to the blades by common hydraulic shock absorbers such as are used on automobiles.

The autogiro is capable of almost vertical descent, but not of vertical ascent. It is capable of taking off in a very small distance, however, and of climbing at a very low forward speed along a much steeper path than the usual airplane. It is also capable of turns of very short radius; in fact it can be practically stopped in midair, turned through any desired angle almost on the spot, and started again in the new direction. It cannot spin or stall, and is inherently stable under all conditions of flight. The performance is considerably less than that of an airplane of comparable weight and power.

The Northrup "Beta"

A smaller companion to the well-known "Alpha," this airplane is one of the most advanced in design of the recent productions. It is a low-wing cantilever monoplane of all-metal construction covered with smooth Alclad. It has two open cockpits, and a streamlined landing gear. With the Menasco air-cooled inverted 6-cylinder engine of 165 h.p., it is reported to have a speed range of 48-175 miles per hour.

FOREIGN DEVELOPMENTS

FRANCE

Long-Range Airplanes

Probably the most interesting aircraft that have been produced recently in France have been the series of machines built to attack the records for duration and distance. They are all monoplanes powered with the Hispano-Suiza engine, and they represent the highest mark of weight-carrying ability combined with performance that has yet been achieved. They have already broken the records for duration without refueling, for duration and distance over a closed course with loads of 500, 1000, and 2000 kilograms, and they are to be used in an attempt to break the records for duration and distance in a straight line, records now held for France by the Breguet 19, "Question Mark."

The Eleriot 110

This is an all-wood high wing monoplane, with a wire-braced wing and a mono-

coque fuselage of elliptical form. It is equipped with a 600-h.p. Hispano engine, ungeared metal propeller, and normal landing carriage and tail surfaces. In this machine was established a record of 75 hr. 22 min. duration, which stood until the recent 84-hr. flight of Messrs. Lees and Brossy in a Packard-Diesel-engined Bellanca. The Bleriot 110 has a span of 86 feet, a total weight of 16,000 lbs., of which 10,000 is useful load, has a maximum speed of 132 m.p.h., and carries 1820 gallons of fuel. Its theoretical maximum range in still air is said to be 7500 miles, and its ceiling with full load is 6500 feet.

The Dewoitine D-33

An all-metal, low-wing cantilever monoplane, this machine is entirely different from the Bleriot described above. It has a 650 h.p. Hispano engine driving an ungeared metal propeller. Its total weight at the take-off for its record flight was 20,000 lbs., of which 13,200 lbs. was the disposal load. It carries 2100 gallons of fuel; 795 gallons of fuel were sealed off to make a load of 2000 kg. (4410 lbs.) with which load the airplane remained in the air for 32 hours and 17 minutes.

The Dewoitine D-33 is particularly interesting from a structural standpoint, having a tapered, unbraced, all-metal wing of 91-foot span with an aspect ratio of almost 10, having only a moderately thick section. The wing has a single spar, and it is said that its construction was made possible only after an exhaustive study of torsional characteristics. The fuselage is of semi-monocoque construction, likewise all-metal, and it has an enclosed cabin. It is of very clean design, with rather small cross section, and it looks distinctly small in comparison with the gigantic wing. The undercarriage and tail are normal. The performance has not been announced, but it is believed to be unusually good.

The Bernard 80-GR

This airplane is an unbraced, middle-wing monoplane, of very clean design, having the Hispano 650 h.p. engine. The construction is of wood, and the wing and fuselage are covered with plywood. The landing gear is highly streamlined, and of very wide track. The machine has the same empty weight as the Dewoitine D-33, but it carries somewhat less load, and with a slightly smaller wing area it has a higher speed. The span is 80 feet, the wing area 750 sq. ft., the weight empty 6800 lbs., loaded 18,800 lbs. It has a high speed of 153 m.p.h., which is most remarkable for the weight and power of the machine. It was used to break the record for distance over a closed course, covering 5560 miles in 59 hours and 14 minutes, thus breaking the record set by the longer flying, but slower, Bleriot 110. It was forced down with 5 hours of fuel left in the tanks, due to evaporation of the cooling water. The fuel capacity is 1980 gallons.

(Note: It is reported that the Dewoitine D-33 has since broken this distance record by traveling 6510 miles over a closed course in 71 hours, 13 minutes.)

GREAT BRITAIN.

The Parnall Parasol Research Monoplane

One of the most vexing problems of aerodynamic research is the presence of "scale effect," which is a difference of more or less indeterminate magnitude which exists between small-model wind tunnel tests and the full-sized article. Many means of offsetting this effect have been used, notably the full-sized tunnel and the high-pressure (variable density) tunnel of the N.A.C.A. There have also been numerous attempts at towing full-sized airfoils under an airplane, and measuring the force reactions directly. The Parnall Parasol research monoplane is a straightforward attempt at a solution of this problem, consisting of a normal airplane fuselage, power plant, and tail, upon which is mounted a single wing, the mounting being so constructed that the forces of lift and drag can be measured in flight. The complete wing structure has a small amount of freedom which is normally restrained by a dynamometer, which measures the resultant wing force. In addition to allowing certain scale-effect comparisons, this machine can also be used to coordinate wing characteristics that are difficult to determine in wind tunnel tests. It will undoubtedly be an economical mode of research, since its first cost and upkeep will be much less than those of a wind tunnel.

The airplane is normal in all respects, being a two-seater with a supercharged Armstrong-Siddely "Lynx" engine of 220 h.p. It weighs 2900 lbs. loaded, and has a speed range of 50 to 120 miles per hour.

The Pobjoy "E" Engine

This is a very small 7-cylinder air-cooled radial engine with spur reduction gearing. The bore and stroke are 3 and 3-3/8 inches, giving a displacement

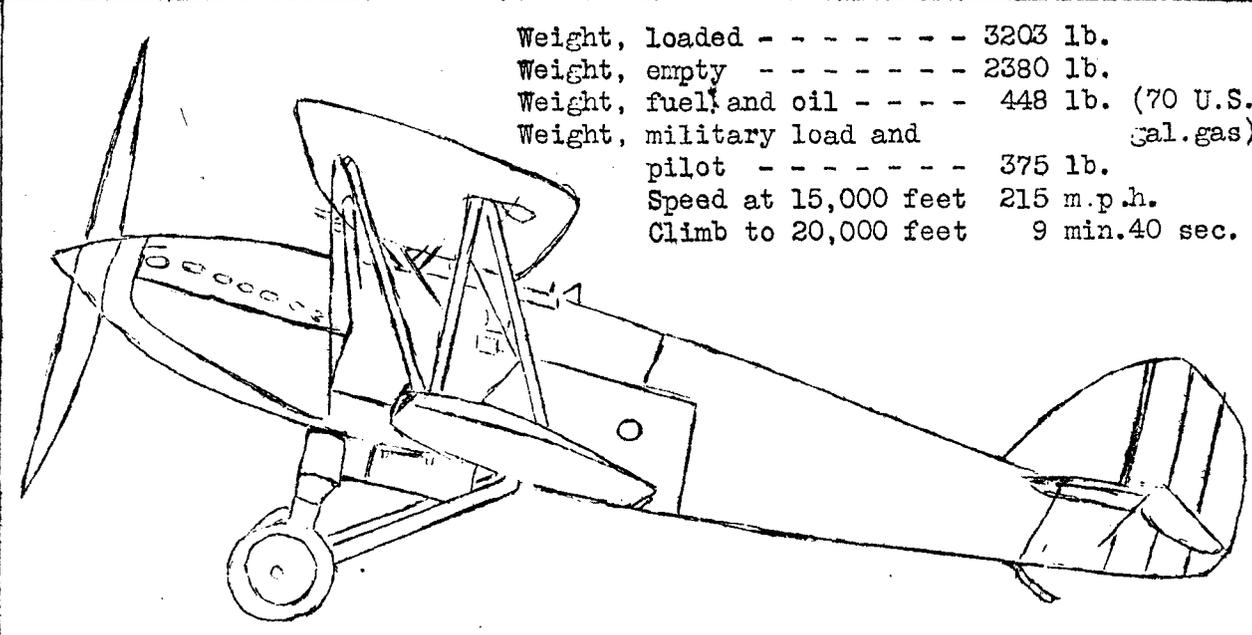
of 174 cubic inches. It develops 75 h.p. at 3000 r.p.m. (1400 r.p.m. of the propeller) and 85 h.p. at 3500 r.p.m. (1540 r.p.m. of the propeller) for a weight of only 130 lbs. and an overall diameter of 25½ inches.

The R-101 Report ✓

The unanimous decision of the Board of Inquiry, headed by Sir John Simon, was that the loss of the R-101 was the result of a sudden loss of gas from a forward container. Elaborate theoretical analyses were made using the data gathered from wind tunnel tests and what few full-size tests that had been conducted, and the probable flight path of the ship just before it struck the ground was calculated, using the assumptions set forth in the report, with very good agreement with the observed facts. It is believed that a sudden ripping of a forward gas bag was superimposed on a serious loss of gas that occurred during the flight because of the chafing of the gas bags against the structure, and the opening of the valves as the ship rolled, etc.

The R-101 was a very heavy ship, the structure, although sound, was considerably over weight, and the Diesel engines weighed almost ten pounds per horsepower. The engines were planned with aluminum crankcases, but technical difficulties made it impossible to produce them in time, so that cast steel was used, resulting in a great increase of weight. Torsional vibration made it impossible to run the engines at the speed planned. Just before the flight to India, on which the crash took place, the ship was lengthened by the addition of a new bay in the center, and the gas bags were all somewhat enlarged, which resulted in their chafing against the structure. Inadequate flight tests were conducted after the enlargement of the ship, and the flight to India was undertaken for political reasons, against the judgment of the inspectors and the technical men. It has been pointed out that a heavy airship, being flown nose up to compensate for the loss of static lift by an increase in dynamic lift, very suddenly reached a point where the dynamic lift ceases to increase with increase in the angle of attack, and the ship dives much after the manner of an airplane stalling.

Dr. Eckener, famous pilot of the Graf Zeppelin, pointed out that a change of watch took place just before the wreck and that the new coxswain did not realize how close the ship was to the limit of dynamic lift.

	Weight, loaded - - - - -	3203 lb.
	Weight, empty - - - - -	2380 lb.
	Weight, fuel and oil - - - -	448 lb. (70 U.S. gal. gas)
	Weight, military load and pilot - - - - -	375 lb.
	Speed at 15,000 feet	215 m.p.h.
	Climb to 20,000 feet	9 min.40 sec.

The Hawker "Fury"

The official figures on this aircraft have just been released for publication by the British Air Ministry. They are as recorded above.

On the basis of these figures, the British claim to have the highest performance service military airplane in the world.

Accident Statistics in the R.A.F. ✓

From the 1st of January to the 19th of May, there were 45 deaths and 39 injuries in the R.A.F. alone.

WAR DEPARTMENT ORDERS EFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Rockwell Field, Calif.: Captain Harold M. McClellan and 1st Lieut. Harold Brand, Office Chief of the Air Corps.

To Langley Field, Va.: Captain Harvey H. Holland, 1st Lieut. Wm. B. Clarke, 2nd Lieuts. Budd J. Peaslee, Hoyt L. Prindle and Edgar R. Todd, from Hawaiian Department; Captain Harold H. George and 1st Lieut. A. Y. Smith from Panama Canal Dept.

To San Antonio Air Depot: 1st Lieut. David J. Ellinger, from Panama; Capt. Warner B. Gates from Primary Flying School, Brooks Field.

To Aberdeen Proving Ground, Md.: 2nd Lieut. Hugh F. McCaffery, Mitchel Fld.

To Fort Leavenworth, Kansas: 2nd Lt. James L. Jackson, from Fort Sill, for duty with Air Corps Detachment.

To Mather Field, Calif.: 2nd Lt. Mark D. S. Steenson, from Hawaii.

To Fort Sill, Okla.: Major John N. Reynolds, from Aberdeen Proving Ground, Md., for duty as Instructor at Field Artillery School.

To Boston, Mass.: 1st Lt. Bennett E. Meyers, Wright Field, to Babson Institute for duty as student.

To Long Beach, Calif.: 1st Lt. John K. Nissley, for duty with Organized Reserves, 9th Corps Area. (From Rockwell Field).

To Maxwell Field, Ala.: Major George E. Lovell, Jr., Langley Field, for duty as student at Air Corps Tactical School.

To Wright Field, Dayton, Ohio: 1st Lieut. Fred E. Woodward, from Hawaiian Department.

To Fairfield Air Depot, Ohio: 1st Lt. Patrick W. Timberlake, from Panama.

To Panama Canal Dept: (Sailing Jan. 7, 1932): 1st Lieut. Cecil E. Henry, from Selfridge Field; (Sailing Jan. 16, 1932) 1st Lieuts. Cornelius E. O'Connor, March Field; George E. Rice, Post Field; Wm. L. Scott, Jr., Rockwell Field.

To Hawaiian Department: 1st Lt. Fred C. Fishback, Chanute Field; 2nd Lt. Emmett F. Yost, Selfridge Field; 1st Lieuts. Wm. O. Eareckson and Luther S. Smith, Kelly Field; 1st Lts. John V. Hart and Donald G. Stitt, March Field; 2d Lieut. Charles H. Earnest, Brooks Field.

To Philippines: Capt. James F. Doherty, Fort Crockett, sailing 11-4-31.

To Air Corps Training Center: Captain Arthur E. Easterbrook, from Philippines.

RELIEVED FROM DETAIL TO THE AIR CORPS: 2nd Lieuts. John L. Pauley, Jr., to 3rd Cavalry, Fort Snelling, Minn.; Edward L. Rhodes to Cavalry School, Ft. Riley, Kansas; John W. Joyes, Jr., to 25th Infantry, Fort Huachuca, Arizona; John F. Greco, to Field Artillery, 2nd Div., Ft. Sam Houston, Texas; O'Neill K. Kane to 12th Cavalry, Fort Ringgold, Texas; ^{Barney A. Daugherty to 38th Inf.,} Fort Sill, Okla.

DETAILED TO THE AIR CORPS: 2nd Lt. Ashton M. Haynes, Field Artillery, and to Air Corps Training Center, Randolph Field, for flying training.

PROMOTIONS: To Captain, rank from Sept. 1, 1931 - 1st Lieuts. James T. Curry, Jr., Wm. B. Souza, Alfred Lindeburg, Joseph A. Wilson, Clements McMullen, Ames S. Albro; rank from Sept. 3d, 1st Lt. Milo McCune; rank from Sept. 8th, 1st Lt. Charles Mck. Robinson.

Orders assigning 2nd Lt. Merrill D. Burnside, Langley Field, to Chanute Field, revoked.

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DEATH OF LIEUT. EUGENE C. BATTEN

The death of 1st Lieut. Eugene C. Batten, Air Corps, at Walter Reed General Hospital on September 12th, removed from the ranks of the Air Corps one of its veteran pilots, who entered the service during the World War. Lieut. Batten was born on June 6, 1897, in New York City, and was commissioned in the Aviation Section, Signal Corps, on May 11, 1918, as a 2nd Lieutenant.

An excellent flyer, Lieut. Batten served for several years as a test pilot at the Engineering Division, McCook Field, Ohio. He waged a plucky but losing fight for his life against an affliction which brought him to the Walter Reed General Hospital on several occasions. Each time he was discharged from the hospital, apparently cured through Radium treatment, until his last visit.

The death of Lieut. Batten is a distinct loss to the Air Corps, as well as the entire Army. The News Letter sends its deep sympathy to his sorrowing family and many friends.

MAJOR ROYCE PRESENTED WITH MACKAY TROPHY ✓ X

The presentation of the Mackay Trophy to Major Ralph Royce, Air Corps, for his leadership in connection with the most outstanding and meritorious flight achievement by the Army Air Corps during the year 1930, took place on the morning of September 17th in the Office of the Hon. F. Trubee Davison, Assistant Secretary of War for Aeronautics.

In January, 1930, the First Pursuit Group at Selfridge Field, Mt. Clemens, Mich., under the command of Major Royce, was subjected to a most severe test during a most strenuous long-distance flight from its home station to Spokane, Wash., and return. The flight was made in the dead of winter, and was marked frequently by snowstorms and other bad flying conditions. Its successful conclusion furnished the Army Air Corps with valuable information as to the ability of the piloting personnel to withstand rigorous winter conditions during long-distance cross-country flights and very useful data on the behavior of flying equipment under such handicaps.

Operating under zero weather conditions, the work of the First Pursuit Group was most meritorious, and the leadership of Major Royce served as an inspiration to Air Corps personnel who might in the future be called upon to fly under the adverse conditions such as were encountered by members of this so-called "Arctic Patrol Flight."

The Mackay Trophy is awarded annually to the officer or officers of the United States Army who have made the most meritorious flight of the year. The Trophy is now of 18 years standing, being presented by Mr. Clarence Mackay in 1912 to the Aero Club of America. It is now in the custody of the National Aeronautic Association, successor to the Aero Club of America. The first award of the Trophy, made in 1912, went to Lieut. (now Lieut.-Colonel) Henry H. Arnold, Air Corps. It was last awarded to Captain Albert W. Stevens, Air Corps, for his outstanding accomplishments in altitude and long-range aerial photography.

Major Royce is at present serving as a member of the War Department General Staff in Washington.

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GOOD SCORES MADE IN AERIAL GUNNERY AND BOMBING MATCHES ✓

A total of 25 teams from the various Air Corps organizations stationed within the continental limits of the United States and from the Panama Canal Zone recently completed the annual test in firing machine guns and dropping bombs at Langley Field, Va.

To the bombing team of Lieut. Robert T. Cronau (pilot) and Lieut. Merrill D. Burnside (Observer), Air Corps, belongs a new record in bombing competition. Dropping bombs from altitudes of 5,000 and 8,000 feet, this team secured 1894 points out of a possible score of 2,000 in the Aerial Gunnery and Bombing Matches. These Matches have been held at Langley Field since 1925, and the score credited to Lieuts. Cronau and Burnside is the highest ever made in the Bombardment Match.

Lieut. David D. Graves, 95th Pursuit Sqdn., Rockwell Field, Calif., was the winner of the Pursuit Match. Firing fixed guns at both ground and tow targets and dropping bombs from low altitudes, he scored $755\frac{1}{2}$ points out of a maximum score of 1550.

In the competition for Observation and Attack pilots, constituting the firing of fixed guns at both ground and tow targets and bombing from low altitudes, Lieut. Irving R. Selby, of Scott Field, Ill., was high gun with a score of 656 out of a possible mark of 1350.

Lieut. John K. Poole, of Crissy Field, Calif., won the Observers' Match with a score of $657\frac{1}{2}$. This event calls for a maximum score of 1350, the Observer firing flexible guns at both ground and tow targets.

Even though the scores made in the events for Pursuit Pilots, Observation and Attack Pilots, and Observers, appear to be well below the maximum attainable, they are in reality excellent scores and well above the average. The maneuvering of aircraft at varying speeds, the uncertainty of atmospheric conditions, and other factors entering into aerial gunnery work constitute handicaps and hazards which tend to make the scoring of high marks practically impossible.

NOTES FROM AIR CORPS FIELDS

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7th Bombardment Group, Rockwell Field, Calif., Aug. 18th:

Rockwell Field was relatively inactive since the return of the 7th Bombardment Group from the Annual Air Corps Maneuvers. Motors and ships were thoroughly checked and overhauled, and scheduled flying was reduced to a minimum.

The personnel of the post took advantage of this short let-up by taking leaves and furloughs. However, there are still enough of the home guard on hand to extend a cordial welcome to any visiting pilots who drop in.

Lieut. R.K. LeBrou recently ferried a Sikorsky Amphibian from Mitchel Field to this station. The Sikorsky was designated as the Alert ship for the 7th Bombardment Group; being always in readiness to render aid to any ship which may be forced down in the ocean in this vicinity.

All pilots are being checked out as rapidly as possible and it will not be long before we can enter competition with our Naval neighbors.

Miss Etta Eleanor Buchanan, daughter of Mr. and Mrs. David Buchanan, of San Diego, and Lieut. Harold W. Bowman, A.C., were united in marriage at the First Baptist Church of San Diego on July eleventh.

The ceremony was marked by its simplicity and impressiveness. Miss Buchanan was attended by her sister while Lieut. Erhart C. Koepfer acted as best man. A small reception for the bridal party and the immediate families was held at the home of the bride's parents following the wedding. Immediately thereafter the bride and groom left for a month's honeymoon in the Pacific Northwest.

Lieut. Bowman is a member of the 11th Bombardment Squadron, having served with that organization for the past two years. We welcome Mrs. Bowman to our midst and join in wishing them both all the happiness in the world.

Rockwell Field is extremely proud of the records made by members of its personnel in the Army Tennis Championships, as well as the Annual Leech Cup Matches which were recently brought to a conclusion in the east.

Lieut. S.K. Robinson, a member of the Ninety-Fifth Pursuit Squadron, played brilliant tennis to defeat Lieut. D.D. Hedekin of the Infantry for the Army Singles Championship. Lieut. J.N. Stone, also of the Ninety-fifth, paired with Lieut. Robinson to win the Army Doubles Championship; defeating Majors J.H. Hills and Leland Hobbs.

In the Leech Cup Matches, Pvt. Dolf E. Muehleisen of Hqrs. 7th Bombardment Group, played No. 1 man for the Army and won his match in decisive style from the Navy's top player. Lieut. Robinson and Pvt. Muehleisen teamed to make the first doubles team for the Army and, as a result of playing superb tennis, they are the present doubles champions of the service world.

During the past month promotions among the personnel on the field of the first three grades were as follows: Tech. Sgt. Andrew May, 95th Pursuit Sq., was promoted to the grade of Master Sergeant and transferred to the 11th Bomb. Sq. to fill the vacancy of the late Master Sergeant Joseph Huf who passed away the 24th of May. Tech. Sgt. John Chowaniec, 95th Pursuit Sq. was promoted to the grade of Master Sgt.

Staff Sgts. Peder Berg, Victor Waytulonis and Thomas J. Baldwin, 11th Bomb. Sq., were promoted to Tech. Sgts. and transferred to the 95th Pursuit Sq.

Sgts. Dooley, McPheter, Merrick and Kerr, 11th Bomb. Sq. moved to Staff Sgt. to fill vacancies created by transfer of personnel to the new organizations being formed at March Field.

Among those taking up new residence at March Field were Tech. Sgt. Don Hanford and Staff Sgt. Epley, 11th Bomb. Sq.; Staff Sgts. White, Capps and Akins, 95th Pursuit Sq., also Master Sgt. Deckman and Tech Sgt. Arnold of the same organization. Sgts. Ladd and Adams, 95th and Sgts. Birk and Glover, 76th Service Sq., were also promoted to the grade of Staff Sgt.

The 7th Bomb. Group baseball team, under the able direction of Lieut. Mills, Post Athletic Officer, and Sgt. Silva of the 11th Bomb. Sq., enjoyed marked success in their games with San Diego and Coronado teams.

They proved themselves gluttons for punishment in their last two games, 13 and 15-inning contests, respectively. They dropped the 13-inning contest to the U.S. Navy Destroyer Base by the close score of 3 to 2.

On Aug. 14th, they defeated the U.S.S. Holland team in a torrid 15-inning contest in which they snatched victory at the last moment by scoring 2 runs in

the 15th inning.

The team is a member of the San Diego Summer League and has been playing some great ball, although they have been getting tough breaks right along. They have met and defeated some of the best of the Navy teams about San Diego, and will try conclusions with the strong March Field team in the very near future.

Flight "B", 16th Obs. Sq., Lawson Field, Ft. Benning, Ga., Aug. 17th:

Flight "B" returned to normalcy last week with the return of our last overhauled O-25A. The training program under Lieut. Skew, Operations Officer, is going forward with much gusto.

On Aug. 8th, Lieut. Leitner returned from Dayton, ferrying an O-25A. On Aug. 13th, Lieut. Holland ferried the remaining O-25A.

Orders were received here relieving Lieut. C.H. Leitner, Air-Res., from extended active duty, effective October 23, 1931.

The work beautifying our surroundings continues, the most noteworthy addition being the building of a very artistic fountain and goldfish pond.

Golf continues to be the most popular summer diversion, closely seconded by swimming. Ft. Benning boasts very good facilities for both, and the officers of Flight "B" are not slow to take advantage of them.

Major Ira A. Rader (A.C. Instructor at the Infantry School) along with his family, is spending the summer at Tybee Beach, on Academic leave.

San Antonio Air Depot, Duncan Field, Texas, Aug. 15th:

En route by airplane from the West Coast to Washington, D.C., Brig.-Gen. Benjamin D. Foulis, Asst. Chief of the Air Corps, accompanied by Maj. W.G. Kilner, of the Office of the Asst. Secretary of War, arrived at Kelly Field Aug. 2d, for a three-day visit to local Air Corps activities. General Foulis paid a visit to this Depot on Aug. 4th, and was a guest at the luncheon given in connection with the regular monthly conference of station representatives held at the Depot on that date on supply and maintenance in the Depot's Area. During his stay, Major Kilner was the house guest of Lieut.-Col. Robins, Commanding Officer of the Depot.

Lieut.-Cols. C.L. Eastman, of the Office of the Chief Signal Officer, Washington, D.C., and W.E. Prosser, Signal Officer of the Eighth Corps Area, recently made an informal call on the Commanding Officer of this Depot and while here were interested in looking over our Depot Supply activities.

Traveling in a BT-2B plane, Capt. Hugh A. Bivins of the Fairfield Ohio Air Depot, accompanied by Mr. C.W. Rawlings of the Engineering Department of that Depot, were visitors here on temporary duty for the purpose of observing our shop methods and systems, arriving on Aug. 10th and departing on the 13th for Maxwell Field, Ala.

Lieut. C.E. Thomas, Jr., Supply Officer, and Warrant Officer A.R. Trabold, of this Depot, made a trip to the A.C. Materiel Division, Wright Field, Ohio, to attend the conference held there, regarding the procedure for the consolidation of the Air Corps Station Supply and the Depot Supply Departments of this Depot.

Capt. Wm. F. LeBaron and 2nd Lieutts. Arthur S. Graham and John F. Hardie, A.C. Res., all business men of San Antonio, Texas, availed themselves of 14-days' active duty training at this Depot during the first part of August.

The Engineering Department of this Depot overhauled and repaired the following airplanes and engines during the month of July, 1931:-

Airplanes overhauled: 1 A-3, 2 A-3B, 1 O-2H, 2 O-19B, 1 P-1D, 1 PW-9D, 5 BT-1, 5 PT-3A, 2 PT-3. Total 20.

Airplanes repaired: 1 A-3B, 1 LB-6, 2 LB-7, 4 O-2H, 3 O-19B, 2 O-19C, 2 O-38, 1 DH-4M-2T, 1 BT-2B, 2 PT-3, 1 C-9. Total 20.

Engines overhauled: 20 Curtiss D-12, 26 Wright J-5, 7 Wright J-6, 19 Wasp. Total 72.

Engines repaired: 8 Liberty, 4 Curtiss D-12, 1 Wright J-5. Total 13.

San Antonio Air Depot, Duncan Field, Texas, Aug. 31st:

Maj. J.H. Pirie of the Office of the Chief of the Air Corps, while in this vicinity, visited this Depot on Aug. 31st and conferred with the Commanding

Officer on various matters. Maj. Pirie was formerly in command of this Depot, and greeted old friends here while on this visit.

Capt. Charles E. Branshaw, was transferred from this Depot to Chanute Field, Rantoul, Ill., for duty, on Aug. 19th, and departed on a three months' leave of absence before proceeding to his new assignment. Capt. Branshaw was on duty here from Jan. 13, 1929, as Chief Engineer Officer, and also had a previous tour of duty at the Depot for a number of years. The Depot will miss Capt. and Mrs. Branshaw and their son and daughter, and extends to them heartiest wishes for happiness at their new station.

Lieut. D.H. Dunton, of the Office of the Chief of the Air Corps, on a tour of technical inspection of various Air Corps activities in this vicinity, visited this Depot on Aug. 24th and 25th in this connection.

Lieut. James L. Jackson of the 88th Observation Sq., Ft. Sill, Okla., was a visitor at the Depot on Aug. 15th, ferrying an O-19B airplane back to his home station.

France Field, Panama Canal Zone, Aug. 19th:

With the departure of Lieut.-Col. James A. Mars for duty as Commanding Officer of the A.C. Technical School at Chanute Field, Rantoul, Ill., Major L.G. Heffernan, formerly in command of the Panama Air Depot, assumed command of France Field. Major Lewis H. Brereton took over the command of the Panama Air Depot, and 1st Lieut. David J. Ellinger, former Personnel Adjutant, assumed the Adjutant's duties, relieving Maj. E.B. Lyon who recently completed his tour of foreign service.

Although the field continues at full strength, the number of old faces is rapidly diminishing both among the commissioned and enlisted personnel. Not only are new men arriving in large numbers, but transfers from other branches of the service are being made in an unusually large number of cases.

Carrying a determined and optimistic complement of officers, three O-19C's and a P-12 took off for Langley Field, Va., to attend the annual Gunnery Matches. Chosen from various organizations, they are representative of the highest scores in gunnery practice made at France Field, viz: 2nd Lieut. C.A. Harrington, 24th Pursuit Sq.; 1st Lieut. S.M. Bevans and Staff Sgt. P.D. Reilly, (Mechanic) 44th Obs. Sq.; 1st Lieut. R.D. Biggs, 63d Service Sq.; 1st Lieut. R.E. Nugent and 2nd Lieut. D.W. Buckman, 25th Bomb. Sq.; and 2nd Lieut. J.W. Sessums, Jr., D.O.L., Quarry Heights, C.Z.

An experiment conducted by the Health Department of the Canal Zone, with the cooperation of France Field, has proven that in the future Bombers may play an important part in the extermination of mosquito larvae in the department.

In conducting the experiment, three dozen pans containing the larvae of infectious mosquitoes were set out in the swamps. The experiment plot covered two square miles and two flights were necessary to complete the test. A solution of pulverized dried clay and Paris Green was placed in vats and loaded in a B-3A. A special funnel was constructed to be used in the "dusting" process. After covering the experimental plot with the Paris Green mixture, it was found that 86 percent of the infectious larvae had been killed. The new plan has worked out so successfully that the Health Department may adopt this method of keeping down mosquitoes, especially in the districts where it is almost impossible to spread oil.

The close of the basketball season found France Field nosed out of first place by one game in the Atlantic Side Army-Navy League. Ft. Randolph captured the Gold Coast title, due to the defeat of the airmen by Ft. Davis.

Despite the fact that France Field held the All-Isthmus title last year, the two-year bill so depleted the ranks of experienced cagers that this year's defeat for the title may to some extent be laid to that trouble. However, the material now on hand should develop into an excellent team by next year.

The Inter-squadron basketball title went to the 63d Service Squadron, with the Observation boys from the 7th a close second.

The leather-pushers from all squadrons are now out in force and faithfully training for the elimination contests which will result in the selection of the Post Boxing Team. Some good prospects in all weights are going through the daily grind, and the entire Post is awaiting the first of the arguments that will determine the worth of the various "local favorites".

44th and 7th. Observation Squadrons: Although the 44th Observation Sq., one of the Field's "youngster" Squadrons, is still attached to the 7th for barracks, rations and aircraft operation, they are functioning separately in the athletic line.

With the close of the Inter-Post Basketball season, preparations are being rapidly carried forward toward getting the cauliflower and baseball squad in shape for the coming inter-squadron tournament and season. This will be the first time the 44th has operated as an individual unit and, without appearing boastful, it is expected that the other organizations here will be painfully aware of the 44th on the athletic field.

24th and 78th Pursuit Squadrons: As a farewell to their fellow officer and former Commander of the 24th Pursuit Squadron, the Commissioned personnel of the 24th and 78th Pursuit Squadrons gave a dinner to Capt. Albert M. Guidera who left August 19th for his new station at Indianapolis, Ind. The dinner was held at the Carlton Hotel, Colon, R. de P. The hosts included Majors L.G. Hefernan, E.A. Lohman, Capt. A.C. Kincaid, Lieuts. P.W. Timberlake, J.G. Moore, G.A. Harrington, N.B. Forrest, R.J. Brown, T.L. Bryan, F.H. Smith, J.J. O'Hara, D.B. Schannep, V.L. Brown, O.J. Studeman, C.R. Disher and F.T. Sterling.

The Squadron's farewell to Capt. Guidera was a dinner held at the Squadron Mess Hall on Aug. 16th.

Capt. Alvan C. Kincaid who arrived in the Department on July 17th, assumed command of the 24th upon the departure of Capt. Guidera.

Lieuts. F.H. Smith, Louis E. Hobbs, F.T. Sterling and O.J. Studeman enjoyed a cross-country flight into the interior of Panama during the week-end of Aug. 8th and 9th. They spent their time between the swimming hole at Rio Hata and an active participation in the activities of Agua Dulce. Saturday night was spent as guests at a native dance where Lieut. Smith further strengthened the Pan-American bonds of friendship by dancing the "Tamborito" with one of the dusky daughters of the interior.

The 24th Pursuit Squadron is now engaged in aerial gunnery and bombing practice.

Fort Sill, Okla., Aug. 31st:

Lieut. L.E. Hunt who toured Ohio on an extended cross-country trip, returned Aug. 17th from Cincinnati, Ohio.

Lieuts. S.O. Ross and C.S. Tidwell returned Aug. 20th from an extended cross-country flight through Georgia and North Carolina.

Lieuts. Haynie McCormick and J.A. Tarro were on temporary duty at Akron, Ohio, from July 16th to July 22nd, during the Balloon Races.

On Aug. 6th, Lieut. C.E. Shankle, pilot and Capt. R.E. O'Neill, radio operator, flew to El Paso, Texas, keeping in communication with Fort Sill by radio over 375 miles.

Capt. Neal Creighton, 1st Lieuts. G.E. Rice, W.L. Ritchie and 2nd Lieut. Mitchell left Aug. 15th on a ten-day fishing trip in Colorado.

Lieut. John A. Tarro joined the ranks in matrimony on Aug. 15th when he marched to the altar and made the vows with Miss Vera Dark. Lieut. and Mrs. Tarro were escorted to the station in true Fort Sill style (on a caisson), where they departed for Roundup, Mont., on their honeymoon.

2nd Lieuts. H.B. Fleming and C.H. Miller departed Aug. 29th on an extended cross-country trip to Cleveland, Ohio via Scott Field, Ill. and Louisville, Ky.

Brooks Field, San Antonio, Texas, July 28th:

22nd Observation Sq.: "He was a mighty fine boy." That, in short, expresses the opinion of the personnel of the 22nd Observation Sq. for 2nd Lieut. Benjamin F. Lowery, Air-Res., formerly an enlisted man of this Organization while at Maxwell Field, Ala. News of his recent death made us all feel that the Air Corps had lost a fine man and a splendid officer. Our heartfelt sympathies are extended to his people in their sorrow.

Sgt. Pike re-enlisted to fill his own vacancy in the Squadron. He is, by now, back in Montgomery arranging for his better half to return to San Antonio with him.

The following-named Reserve officers were assigned to this organization: 2nd Lieuts. William Beverly, Jr.; Wayne Bone; Benjamin G. Halloway, Roy O. Ralston and Mell M. Stephenson, Jr.

Lieut. Phillip D. Coates, assigned to this Squadron, will join the organization upon the expiration of his 30-day sick leave. The Squadron is not new to him, as he was a member of it at Maxwell Field, Ala., prior to going to Chanute Field to pursue the Photographic course.

58th Service Squadron: Sgt. Luther S. Rose just returned from the Air Corps Technical School at Chanute Field, Ill., where he successfully completed the courses of Engine Mechanic and Parachute Rigger.

New men assigned to the 58th last week were Pvts. Crist, Wood, Raley, Smith, Ibison, Hightower, Napper, Matoska, Jacobs, Gillis, McFadden, Kaddatz and Neal. More are on the way.

J.E. Clarkson gave up his sergeancy in the Coast Artillery branch of the service to enlist in the Air Corps, and is another addition to the squadron.

Pvt. 1st Cl. S.W. Baker, now on detached service at Randolph Field, is expected to be transferred to that field.

Pvt. Ernest C. Beaver left for the Philippines, also Sgt. Jacob Mangelson, who was discharged for the purpose of re-enlisting for service in the Islands.

2nd Lieut. W.L. Lee was assigned to the Squadron as Adjutant and Supply Officer.

Sgt. Luther S. Whitley was discharged during the past week and said-"Put me down for three more years".

46th School Squadron: Lieut. H.L. Grills, formerly of Ft. Crockett, arrived recently and assumed the duties of Asst. Engineer Officer and Adjutant of the Squadron.

Sgt. Steve Nagy, Mess Sgt., upon his discharge, immediately left for the west coast to embark on a tour of foreign duty in the Philippines.

The Squadron lost through discharge Sgt. Riley H. May and Pvt. 1st Cl. Claude O. Bradley.

Enlisted men returning from furlough to duty were Pvts. Bob Van Deventer, Frank Paul, Roscoe A. Dunahoo, Zhorchkey, Sgt. Webb and Cpl. Lineberger.

Cpl. Ranck, 22nd Obs. Sq., attached to the 46th for duty, returned from an extended cross-country trip in the East. He reported a very delightful trip and is eager to do it all over again.

Pvt. Harrell returned from the Base Hospital at Ft. Sam Houston.

Pvt. 1st Cl. Gene B. Porter was called to his home due to the serious illness of his father.

51st School Squadron: Losses in enlisted personnel were, according to general concensus, practically nill. Pvt. 1st Cl. B.R. Neill, our unofficial broadcaster, was honorably discharged during the week. As for gains, enlisted-four new recruits, Pvts. Boatright, Harper, Stearman and O.L. Smith. We don't know about these fellows yet, but -

Sgt. Gerald R. Snyder, upon completion of his furlough, will leave for a tour of duty in Hawaii.

Practically all the members of this organization are making the necessary preparations for change of station to Randolph Field. This move is anticipated during September.

Two planes, one a YPT-9 (Stearman) and a YPT-10 (Verville) were returned to the factory last week.

Tech. Sgt. J.C. Dombeck transferred to the 51st from the 58th Service Sq. His transfer takes care of replacement for Tech. Sgt. R.L. Philapy who left for duty in Panama.

11th School Group Hdqrs.: Recruits joining the organization recently were Pvts. James F. Holmes, William Vierieck, Edgar S. Birkman, Bartow J. Morris, Henry H. Richey and Wiley P. Talley.

Staff Sgt. Ernesti, Sgts. Becker, Stutts, Ziegler, Pvts. Young and Owens returned from furlough.

Flying Cadet Detachment: With the last day of flying last week (Thursday) came one of the most absolutely unavoidable tragedies that has come to our attention in several years. With the beginning of the flying day, about 6:30 AM, every ship on the line took off to enable the students to get in a few hours of some of the best flying we had seen for several days. There was a cloud bank in the sky, but it was fairly high for that time of morning, and the day was marred only by a little layer of fleece at about 400 feet. However, at 7:30 there was a different tale to be told. At that time, clouds had closed in from the south and east until there was a scant 200 feet altitude. For anyone who had been doing work that required altitude of a thousand feet or more there was little warning as to what was happening a few hundred feet below. Consequently,

when coming into the lower altitude preparatory to coming back to the field, there was a surprise that was anything but pleasant awaiting one at 400 feet. On "B" stage, Lieut. Rogers was giving an instruction ride to Cadet Longacre. From the hangar line, Major East and Capt. Chamberlain had taken off to get in some flying time. These two ships met in the air just south and east of Brooks Field, and there ensued one of our most regrettable tragedies.

Both ships fell out of control and crashed. The four occupants of the ships were all wiped out and without a chance to protect themselves. To say that the whole Field, as well as the whole Army, mourned their passing is putting it a bit mildly. All of these men had close friends in the service, and it is with the deepest sorrow and regret that we note their absence.

Scott Field, Belleville, Ill., September 2d:

With the completion of the summer training period, the planes of the 15th Observation Squadron are slowly being returned to Scott Field and before the middle of September it is expected the entire squadron will be together again.

The three planes which were on tow target duty with the 61st Anti-aircraft Battalion at Ft. Sheridan, returned on Aug. 29th. The following day a plane, which was partly wrecked at Asheville, N.C., during the middle of August, was flown back to the field together with two planes which carried the repair crew.

Two planes are now absent at the annual gunnery matches at Langley Field but with their return the Squadron's complement of planes will be complete except for one plane which was completely washed out during gunnery practice at Camp Skeel, Mich.

Young pigeons from the Scott Field loft were given their first competition on Aug. 30th in a 125-mile race conducted by the St. Louis Pigeon Club. About 150 birds were released from Dixon, Mo., and three of the youngsters entered by Staff Sgt. Bronkhurst, pigeonier, finished in sixth, seventh and eighth places. An unavoidable delay of about three minutes in the stamping of the bands after the Scott Field birds had entered the trap dropped the standing of the birds several places. The average speed attained by the Army pigeons was about 1275 yards per minute.

More changes in the officer personnel of Scott Field will result from orders recently issued. Maj. Norman W. Peek will report for duty about the middle of September, having been relieved from duty at 2nd Corps Area Headquarters. Lieut. Fred A. Ingalls received orders for duty in Hawaii and sails in December while Lieut. George R. Bienfang was ordered to take the next armament course at Chanute Field, starting Oct. 1st.

One of the 15th Squadron airplanes was recently put out of commission temporarily when 2nd Lieut. Herman F. Woolard, 5th Photo Section, taxied into a concealed ditch at Fletcher, N.C., Lieut. Woolard had ferried Maj.-General Frank Parker, Corps Area Commander, to that point the previous day and was preparing to return solo when the mishap occurred. One lower wing, the landing gear and the propeller were damaged. The plane will be stored at Fletcher, until the replacement parts arrive and will then be flown to this station.

Play in the baseball series for the Scott Field Championship was completed except for the final crucial game. At present the 9th Airship Company tops the League with seven wins and a single loss, but they must defeat the 15th Observation Sq. in the final game to clinch the title. The Observers won six and lost two and, should they take the final game, a tie will result and make a playoff necessary. The Staff team will finish in third place with the 24th Airship Serv. Co., in the cellar.

The first call for football practice was issued and a big squad is expected to report shortly to 2nd Lieut. Allen W. Reed, who will coach the line. He will have plenty of assistance in the coaching work, for 1st Lieut. F.A. Johnson and 2nd Lieut. George N. Stokes will assist with the backfield and 2nd Lieut. Thomas N. Charles will have charge of the ends. Prospects for a good team are far more encouraging than a year ago, as nearly all the 1930 players are available and several fine prospects arrived at the post since last fall.

Nichols Field, P.I., Aug. 7th:

2d Observation Sq.: Lieut. Everett S. Davis, with Staff Sgt. Roby C. Davis, made a flight from Zamboanga to Nichols Field on July 24th and 25th, stopping at Camp Kiethley, Malabang and Tacloban, en route. Lieut. Davis is on D.S., at Zam-

boanga, and charged with the duty of preparing landing fields on the Island of Mindanao. He reports that the work is rapidly nearing completion.

We have the following officers assigned and attached with whom we expect to build an excellent flying organization: Assigned: Capt. Black, Commanding Officer, Lieuts. Greer, White, Malone, Wolfenbarger. Attached: Major Brooks, Capts. Nelson, Gaines, Lieuts. Phillips, Stowell, McCormick, Huggins, Zettel and Colman, who just arrived on the last boat.

4th Composite Group Headquarters: The basketball team representing this organization gave a good account of themselves during the inter-squadron tournament, finishing in 2nd place. Three members of the team were selected for the Post Team.

The Bowling team representing this organization won the inter-squadron tournament. This is the second cup won by this organization this year in bowling, the first being the tournament in Duck-pins during the first few months of the year. Maj. Brooks led the team with high average, high single and high triple in the Ten-pin tournament just finished. Four men of the latter team were selected to play on the Post team in the Department Inter-Post tournament.

66th Service Squadron: The basketball and volleyball teams representing this organization, brought home the bacon in the recently completed inter-squadron tournaments.

Selfridge Field, Mt. Clemens, Mich., Aug. 25th:

Selfridge Field was well represented at the annual Machine Gun and Bombing Matches held at Langley Field, Va., starting Aug. 28th. The following officers who shot the high scores in their respective squadrons were the representatives thereof at the Matches: 2nd Lieuts. Curtis E. LeMay, 27th; Jesse Auton, 94th; Robert C. Merrill (Reserve) 17th, and Monty J. Tennes, Jr. (Reserve) 36th Pursuit Squadron.

The Women's Aeronautical Association of Detroit sponsored a garden party for the benefit of the Selfridge Field Hospital at the home of Mr. and Mrs. Bruce Wark, 17580 Fairway Drive, on Aug. 25th. Maj. and Mrs. Brett, and a large number of the officers and ladies of the post attended and had an enjoyable afternoon.

The Police Dept. of Detroit, Mich., held its Annual Field Day on Saturday, Aug. 15th. The 94th Squadron, 1st Pursuit Group, sent a six-plane flight to put on a demonstration in connection with the exercises. This Field Day is quite an event. Members of the police forces of all of the large cities of the United States and Canada being among the contestants.

Reserve officers attending the training camp here completed their tours of active duty and returned to their home stations. The airplanes used will soon be ferried back home to await the Reserve training of next year.

The Reserve officers attending camp at this station presented the officers' club with a beautiful Grandfather Clock. The clock keeps good time and has very pleasant chimes.

Majors Brett and Brower with 37 officer pilots of the 1st Pursuit Group attended the National Air Races at Cleveland. With an interesting schedule before them, it is believed the people attending the Air Races should be very favorably impressed by the flying the Army is doing. Two transports, carrying a number of enlisted mechanics, were also flown to the Races.

The machine gun firing and target practice at Oscoda, Mich., is nearing completion. Due to the Races at Cleveland, there was no firing at Oscoda during that time, and a shortage of transports caused great hardship among the personnel at Oscoda. They were reported as having no cereal and resorted to eating pine needles. Their spirits were revived when a transport brought them ham and eggs.

Following his return from Montreal, Capt. Ross G. Hoyt was confined to his quarters through illness. He was recently sent to Walter Reed Hospital. The boys hope the Captain will speedily recover and return to Selfridge at an early date.

The 36th Squadron furnished all airplanes used at Oscoda for the past two weeks. The pilots have made good scores.

The airplanes of the 36th Squadron, with pilots from all squadrons who have been left home from the Races, have been flying on various short missions, such as over the Harmsworth Trophy Races held in Detroit, and on occasions connected with the opening of bridges, airports, etc.

The 57th Squadron has been working hard getting the airplanes used by the

Reserve officers in readiness for their return to their home stations. The main trouble has been with broken wings and landing gears. With these repairs and numerous other adjustments which have been made, the ships are now in good condition for their homeward flight.

The 1st Pursuit Group sent a formation of three airplanes to Lowell, Mich., on Aug. 6th in connection with a local celebration at that town. On Aug. 8th, two squadrons of the 1st Pursuit Group, consisting of thirty Pursuit planes went to Akron, Ohio, to put on a demonstration incident to the ceremony dedicating the new Navy dirigible, the U.S.S. "Akron". The formation landed at Akron at 11:15 and, after having luncheon as guests of the Akron Chamber of Commerce, one squadron led by Maj. Brower, Group Commander, put on a thirty-minute tactical demonstration and then returned to Selfridge Field. The remaining squadron, under the command of 1st Lieut. Harry A. Johnson, put on another demonstration at 4:00 P.M., returning immediately thereafter to Selfridge Field.

Mitchel Field, L.I., N.Y., Aug. 20th:

During the time most of the officers and their ladies were enjoying themselves on the beach of Mrs. H.P. Davison's estate, an embryo civilian pilot happened on the scene. Deciding that the Assistant Secretary of War for Aviation and all Army flyers in general needed a few lessons in the gentle art of flitting through the air, he cut his motor, pulled his flying boat into a vertical bank at about one hundred feet over the gaping onlookers and did a very pretty spin into the water about 100 yards off shore. Ever efficient, the Flight Surgeon was in a speed boat and to the wreck almost before it had hit the briny deep. The flying boat was the only casualty, however, so the party went gayly on.

The latest and most trivial distraction happened when a Reserve officer, here on two weeks' active duty, took off with a Regular to be instructed and checked before being allowed to solo. He had not been in a ship for a year, but was anxious to show how little he had forgotten. After a chandelle off the ground in an Ol-E, he climbed rapidly to the 800 ft. ceiling and cut the gun. Turning around to the instructor he queried: "Which is the best way to snap-roll these crates, right or left?"

The work performed by Mitchel Field pilots at Ft. Tilden, in operation with the Coast Artillery, was so commendable that a letter of appreciation was forthcoming from the Commanding Officer at Ft. Tilden. In it he lauded the pilots for their efficiency and cheerful execution of their various missions, and the squadron commanders concerned for their willingness to cooperate.

Targets were towed for machine gun fire in the morning, each ship carrying as many as seven targets; smaller targets were towed for the anti-aircraft batteries in the afternoon; and ships flew for the searchlight batteries at night.

Lieut. F.L. Smith represented the Air Corps on the ground at Ft. Tilden as an air-ground liaison officer and ship director. According to Lieut. Smith, one of their chief worries was keeping fishing smacks out of the range of fire. Despite the efforts of the Coast Guard, they invariably moved into the line of fire sometime during the day and exposed themselves to falling cases and shrapnel fragments.

Lieuts. Williamson, Haynes, Carlson, McLeod, Matheson, Covington, Smith, and Holbrook were responsible for the execution of most of the missions. Williamson and Haynes have become such seasoned veterans in towing that they are now entitled to a full professorship in that tricky art.

Capt. Guy Gale, late of Skowhegan, Maine, took over the officers' ward in the hospital where he has been undergoing observation and treatment. The extraction of several teeth brightened his outlook on life, and the development of several mosaics taken of his anatomy show that he will soon be fit again.

Fairfield, Ohio, Air Depot, Aug. 12th:

Tonnage of incoming freight for the month of July amounted to 373.2 tons; express, .9 ton; outgoing - freight, 352.3 tons; express, 9.5 tons; incoming parcel post, 640 pounds; outgoing, 2,477 pounds; material received by other means 116,975 pounds; shipped, 173,200 pounds; shipments received, 784; shipments made, 1,379; requisitions received, 200.

Lieut. Donald R. Goodrich made a cross-country flight to Marshall, Mich.

Maj. A.L. Sneed, Commanding Officer, departed on a month's leave of absence in the east. Capt. Harrison W. Flickinger, who returned from leave July 31st, assumed temporary command.

Officers departing from this station to secure and ferry to the Depot planes for major overhaul were: Lieut. Melvin B. Asp to Maxwell Field, Ala., a P-12; Lieut. Clarence S. Irvine to Chicago, Ill.; Lieut. Francis M. Zeigler to Ft. Leavenworth, Kans.

Lieut.-Col. Wm.C. McChord ferried to Little Rock, Ark. an O2-H overhauled at this station.

Lieut. F.M. Zeigler and Mr. Paul Taggart proceeded to Columbia, S.C., ferrying supplies and making necessary repairs to an airplane forced down at that place.

Lieuts. Frank H. Clewers, Stanley R. Carpenter and Charles L. Word, Air Corps Reserve, reported here Aug. 3d for active duty training.

Three Selfridge Field officers, Lieuts. Van Auken, Clements and Schott, relieved this Depot of three P-12's which received major overhauls.

Capt. Edward Laughlin, formerly stationed here, was a visitor on Aug. 7th.

A number of pilots stopped at this station Aug. 8th, while on cross-country en route to Akron, Ohio, for the christening exercises of the "Akron", the large Navy dirigible.

A number of Supply Officers and Chief Clerks from other depots, in conference at Wright Field during the week of Aug. 3d, visited this station to inspect the supply system.

Several Reserve officers on active duty at Candler Field, Ga., among whom was William L. Stribling, noted heavy-weight boxer, visited this station recently.

Rockwell Air Depot, Rockwell Field, Calif., Aug. 4th:

Brig.-General B.D. Foulois, Asst. Chief of the Air Corps, solo, and Major W.G. Kilner, with passenger, in two BT-2B planes arrived here to confer with the Commanding Officer on Air Corps matters. General Foulois was tendered an Aerial Review by the 7th Bombardment Group. He and Maj. Kilner inspected the activities of the Rockwell Air Depot, and were the house guests of Lieut.-Col. and Mrs. B.K. Yount. They departed July 31st, en route to Kelly Field.

Brig.-Gen. Charles H. Danforth, Commanding General of the Air Corps Training Center, accompanied by Lieut. R.W. Douglas, arrived on Aug. 3d, for purpose of discussing Air Corps matters.

Col. G.I. Jones, Medical Corps, Office of the Chief of the Air Corps, accompanied by Capt. H.M. McClelland, arrived July 25th to confer with the Commanding Officer and Post Surgeon. Col. Jones was the house guest of Major and Mrs. W.S. Woolford during his stay.

Lieut. W.N. Amis of the Materiel Division arrived at the Depot on July 19th for purpose of conferring with the Commanding Officer regarding the maintenance of Air Corps equipment and supplies at this Depot.

Reporting at the Rockwell Air Depot for two weeks' active duty were 2nd Lieuts. Linwood L. Clark, Donald C. Spencer, Norman H. Adams and Edwin W. Barbee, Air Res.

Capt. C.P. Kane, Depot Supply Officer, accompanied by Principal Clerk C.W. Knight attended the conference at the Materiel Division of Depot Supply Officers and civilian clerks regarding the procedure for consolidation of the Station and Depot Supply Departments.

Lieut. Ray H. Clark, Test Pilot of the Depot and Assistant Engineering Officer, was ordered to Municipal Airport, Long Beach, Calif., on temporary duty as Instructor of the Organized Reserve Camp.

During July major overhauls were completed on 21 airplanes and 40 engines. Fourteen planes and 57 engines were received during the month at the Depot for overhaul. In process of overhaul at end of month were 25 airplanes and 24 engines.

A total of 7,365 man hours were expended in the Engineering Shops of the Rockwell Air Depot for the manufacture and repair of Air Corps equipment other than airplanes and engines.

The Depot Supply activities consisted of the following during the month of July:

Incoming freight and express	592,752 lbs.
Outgoing " " "	407,090 "
Incoming parcel post	396 "
Outgoing " "	466 "
Amount of material shipped by plane	206 "
Shipment received	338
Shipments made	330
Number of requisitions received during month	34

40th Division Aviation, Los Angeles, Calif., Aug. 12th:

This unit returned to its home station Aug. 2d, completing two weeks active duty with the Division at Camp San Luis Obispo, Calif. 18 officers and 80 enlisted men with 9 planes were on duty through this 15-day period, during which 385 aircraft hours were flown, with 57 observer hours. Flying equipment used comprised 5 Douglas 8-38's, 1 Douglas O-2H, 1 Douglas BT-1 and 2 Consolidated O-17's.

Many interesting missions were carried out with the cooperation of the other branches, in addition to a heavy schedule of squadron training. The various sections functioned well, particularly Engineering and Communications. The enlisted personnel carried on in an efficient manner.

The entire official personnel of this squadron while at Camp was entertained over night on July 29th by the Hancock School of Aviation at Santa Maria, Calif. Through Maj. Ross McBride, Executive Officer, the School extended the hospitality of quarters and meals to some 15 officers who were interested spectators of the advanced methods of instruction, administration and discipline of this unique aviation school. The squadron flew down in 3 flights, demonstrated modern aerial bombing methods on the Hancock Field, and after dark flew a night formation for the residents of Santa Maria.

Col. Isaac H. Jones, Med.-Res., was the guest of the squadron at Camp, July 29th. Col. Jones was one of the first Flight Surgeons, Aviation Section Signal Corps, and was in charge of the development and training in Aviation Medicine during 1917. At the close of the war, he represented Aviation Medicine for the Army at the Peace Conference at Paris, and at present is Flight Surgeon in Los Angeles for the Aeronautics Branch, Department of Commerce.

During Governor's Day at camp, this unit participated in the demonstration of field action by the Infantry and engineers. The aviation flew contact, liaison and command missions, also an attack formation and observation via radio communication with the ground. Aerial photos of the action were taken, developed, printed and delivered to the Governor in a short time. After the demonstration, 3 formations flew in review before the Governor's stand.

Congratulations are extended to 1st Lieut. John V. Wallen upon his promotion to that grade, effective July 12th.

Lieuts. Harry Claiborne and Frank Miller are on one week's extended duty on tow-target and spotting work with the Coast Artillery at Ft. McArthur, San Pedro, Calif.

Langley Field, Va., Aug. 24th:

49th Bombardment Squadron: Three recent graduates from the Advanced Flying School, Kelly Field, Texas, reported to this Squadron for duty, viz: 2nd Lieuts. William D. Harrison, Cecil C. Foxworth and Richard C. Hughes.

20th Bombardment Squadron: This squadron welcomes four new officers from the July class of Kelly Field, Graeme S. Bond, Robert V. Dunn, Troy V. Crawford and John E. Biggerstaff. Lieut. William B. Offutt, a graduate of the Maintenance and Engineering Course, Chanute Field also reported. Glad to see you men, Happy Landings!

The Squadron completed record bombing except for the Panama skippers, Lieuts. Delma T. Spivey and Joseph J. Ladd. We are now concentrating on aerial gunnery. The new officers are being checked on the bombers. With three teams practicing for the Mount Shasta bombing the operations office was rather busy, but with everybody happy.

96th Bombardment Squadron: 14 Reserve officers reported to the 96th Squadron for two weeks' training. The training schedule went off very smoothly. Everyone checked out on PT-1's, PT-3's and service ships with no accidents. The only comment to make was the lack of service type ships for their training.

Three were available the last week.

After a week's interval, during which the Squadron participated in record bombing, the second group of Reserve officers reported for two weeks' training. Operations were conducted without accident or damage to planes. The same criticism is due here, in that there was a lack of service type airplanes for their use. One A-3 during the last week was all that could be obtained. This should be remedied in the future, for the continual flying of PT's is not conducive to a well-rounded training program.

19th Airship Company: During July, the principal operations of the Company were confined to the Aerial Survey of Washington, D.C., made by Captain A.W. Stevens. The TC-11 - 271 made flights totaling 56 hours and 30 minutes and, with one flight in August, it is believed that the city was sufficiently photographed to consider this project ended. This ship is a standard TC envelope with experimental enclosed car of steel and fabric, which makes it admirably suited to missions of this type.

The drawings and some of the parts have arrived for the reconditioning and recommissioning of the TE-2, and it is hoped we will have another ship in operation in a short time. The new power installation will consist of a pair of Lambert 5-cylinder air-cooled engines, replacing the two L-4 engines formerly used on this type ship. Certain changes to the car and outrigger, together with additional nose-strengthening, will be necessary before the ship is again placed in service. With the arrival of the remaining parts, the erection of the ship should require but a short time.

On Aug. 11th the TC-11 started out on a Photographic Mission in conjunction with the bombing of the "Mount Shasta". Taking off at 8:35 A.M., the ship first sighted the "Shasta" at 10:05 dead on, arriving over it at 10:30. The TC returned to the field at 2:45 P.M. after a flight of 6 hours and 10 minutes.

On Aug. 14th the TC-11 again took off for the "Mount Shasta" on the same type mission. After leaving the coast, it became necessary to change the course of the ship on three occasions to avoid squalls. On this flight the "Shasta" was picked up at 11:15 A.M. directly on the course of the airship. The flight terminated at 3:00 P.M. after 6 hours and 15 minutes.

The navigation on both flights was accomplished without the use of smoke candles and without positive knowledge of the wind direction, after changing course, except that gained through a study of surface indications on the sea. The lay brethren consider the flight of Aug. 14th an unusually fine bit of navigation.

Well!- The 19th had a baseball team this summer. Of course, at times things looked pretty gloomy for the spectators, but at the play-off for the title the 19th was present and participating, defeating the 49th Bombardment Squadron team for the Inter-Squadron Cup. Then, having gotten under way, the Company put a boxing team into the ring and carried away the boxing trophy. Next, just to show the world that it wasn't just plain luck, the track team stepped out and annexed the Track and Field cup by a comfortable margin.

And now that the season of snows, sneezes and sniffles is closing in on us, our thoughts again turn to football. Last season several members of the organization earned places on the first string and, unless they are string-halted, ham-strung, muscle-bound or otherwise incapacitated, they will be there again this season. And, if a prophecy is in order, the 3d Corps flag will still be at Langley after another season has gone. A beautiful background for the President's Cup.

Maj. Francis T. Armstrong, F.A., and Capt. Robert V. Ignico, A.C., both departed from Langley Field for Washington, D.C., where they will be entered as students in Army Industrial College for the 1931-32 Course.

Capt. Theodore J. Koenig and 1st Lieut. James E. Adams were transferred to Maxwell Field where they will pursue the 1931-32 course in the Air Corps Tactical School. Our best wishes accompany these officers.

18th Composite Wing, Ft. Shafter, T.H., Aug. 13th:

The Annual Gunnery and Bombing practice of all units was started at Waimanalo on July 15th. Each unit, of which the 50th Observation Squadron was the first designated for training, remain in summer camp for a period of two weeks. Other units, which follow the 50th at intervals of two weeks each, are the 4th Observation, the 72nd and 23d Bombardment, the 26th Attack and the 6th and 19th Pursuit Squadrons.

Permanent quarters, following Hawaiian architectural lines, were built under the direction of Lieut. P.H. Robey, Luke Field. The buildings include a mess hall and kitchen, recreation room, shower rooms and latrines, and officers' quarters accommodating sixteen (16) persons. The tents, housing the enlisted personnel have wooden frames and floors. Lieut. Robey and his men did a good job, and the camp is considered a model as far as living accommodations go.

Arrangements are under way to organize the annual football teams within the Wing. If satisfactory arrangements can be made, Wheeler and Luke Fields will line up with the several branches in the department when the season begins.

Members of the Territorial Aeronautical Commission recently flew over Kalapapa in two Army airplanes to study, from the air, proposed landing fields which may be developed for the use of the board of hospitals and settlement. The flight was made in the two Army Sikorsky transport planes. The planes flew low over the recreation field at the settlement and the area near the lighthouse to determine which offered better landing facilities from the standpoint of wind conditions and adjoining terrain. A landing was made at Hoolehua, where the commission planned minor improvements, such as the clearing of brush near the runway, and the building of a macadam loading strip. Members of the commission, who made the trip, were Messrs. Cyril Damon, George Brown, H.E. Wooldridge and E.L. Peacock.

Luke Field, T.H.:

Flying training for the month consisted of aerial gunnery, bombing, cross-country, formation and night flying, communications radio, aerial navigation, tactical exercises and cooperations with other branches of the service.

A flight of 9 Bombers and 12 O-19's was sent to Wheeler Field July 18th to participate in an inspection of aircraft and personnel and a Wing Review conducted by the Commanding Officer, 18th Composite Wing.

Air Corps Reserve officers recently arriving at this station were 2nd Lieuts. Donald E. Meade, Otis A. Miller, Claude B. Northrup and Wm.M. Pryce, Jr.

Two of our O-19's participated in tactical exercises conducted by the 35th Infantry July 22nd. Lieuts. Ofsthun, pilot, and Titus, observer, were flying the enemy (Red) forces plane, and Lieuts. Peterson, pilot, and Choate, observer, were their opponents. Both planes very satisfactorily performed the problems assigned.

The 4th Observation Squadron recently celebrated a belated Organization Day at Nanakuli Beach. Baseball games, swimming and horse-shoe pitching were the events of the day, and a most appetizing lunch was served. Everyone enjoyed a most delightful day.

Lieut. Rawlings with Mr. W. Robert Moore, Staff Representative of the National Geographic Magazine, flew about the Island to obtain color views. Despite the fact that Mr. Moore's camera was not made for aerial work, some excellent shots were taken.

Capt. and Mrs. James F. Powell, of Luke Field, escaped serious injury recently when their small fishing boat was overturned by a heavy sea outside the reef at Ft. Weaver, near the channel entrance to Peral Harbor. Clinging to the craft, they worked their way ashore at Ft. Weaver. Mrs. Powell suffered a few bruises, but nei her was seriously injured. Lieut. D.D. FitzGerald brought them back to Ford Island, towing their wrecked craft.

Lieut. and Mrs. Harold George and Lieut. John A. Laird, Jr., sailed for the mainland July 25th. Lieut. George was assigned to Maxwell Field, Ala., and Lieut. Laird to the Air Corps Training Center. Everyone was sorry to see them leave the Department, and an "Aloha" flight was flown by pilots from Luke and Wheeler Fields.

Steps were taken by Wing Hdqrs. to have transferred to War Department control a strip of territorial land, adjoining the Molokai Airport, to be utilized as a site for underground gas and oil storage, radio installation and shelter, in accordance with the progressive program of establishing operating bases on each island of the Hawaiian Group.

The death by drowning of Pvt. 1st Cl. Richard W. Shutts was a shock to the 23d Bomb. Sq. He was serving as life guard to the children of Lieut. Warren, Squadron Commander, at the Officers' Club swimming area, when he became a victim of the tragedy. No definite information as to the exact details could be obtained, as the children are quite young. No other persons were near the scene, as all were watching the diving exhibition given by the Olympic divers who were

in Honolulu for the National Championship events and who were guests of Luke Field at the time.

The 24d Bomb. Sq. volleyball team, champions of last year, is getting away to another fast start this year. The five practice games with teams of the Inter-Squadron League were won by a large margin.

Wheeler Field, T.H.:

During July, the 18th Pursuit Group participated in two Wing Maneuvers. The first, on July 10th, consisted of a combined Wing attack on an "ammunition dump", on the beach between Makapu Head and Koko Crater. This Group furnished special support to the 5th Composite Group from Luke Field during the entire mission. In the Second Maneuver, a Wing attack on an "enemy supply dump", near the Waimanalo plantation, the entire 18th Composite Wing participated. This Group furnished special support to the 5th Composite Group with 21 Pursuit and 9 Attack planes.

The 18th Composite Wing held its first Wing inspection and review at this field on July 17th, 52 planes from Wheeler and Luke Fields being lined up for inspection. Following the inspection by Lieut.-Col. Gerald C. Brant, the entire Wing took off and passed in review before him.

Of the new arrivals aboard the Transport "Cambrai" 2nd Lieuts. Frank Coleman, from Selfridge Field; Lacy Gee, Frank J. Havelick, Jr., Carl Swyter and Jack M. Malone, Reserve, from Kelly Field, were assigned to the 6th Pursuit Sq. 2nd Lieuts. Herbert C. Chambers, Thomas Searcy and Charles A. Miller, Res., were assigned to the 19th Pursuit Squadron; and 1st Lieut. Leonard H. Rodieck from Brooks Field, and 2nd Lieuts. N.B. David, J.E. Nuhn and W. Rotherham (Res.) were assigned to the 26th Attack Squadron.

The arrival of these officers was celebrated in true Hawaiian style by a luau on the beach near Koko Head. The festivities included much music, hula dancers and what not. A beautiful Hawaiian moon shown down upon the assemblage and joy was unconfined.

The 6th Pursuit Squadron now has ten P-120's and 2 PW-90's and has been conducting low altitude bombing and firing on sleeve targets. On July 31st, the Squadron participated in a Wing Maneuver, utilizing 9 P-120's and 2 P-12B's, and furnishing the necessary pilots acting as a Reserve flight.

The 19th Pursuit Squadron participating in a Wing rendezvous, July 10th. The total time expended in this mission was 16 hours, 10 minutes, with 12 flights. All missions were successful.

Mr. Sgt. Paul W. Parker from Brooks Field and Staff Sgt. Saltzgeber from Mitchel Field, were assigned to the 26th Attack Squadron. This is Sgt. Parker's second tour of duty in this Department.

The officers of the 26th completed their low altitude bombing tests prior to going in the field at Waimanalo for record. This Squadron flew several target missions during July in cooperation with Artillery and Infantry during anti-aircraft training.

Two A3B planes were equipped with new type smoke screen apparatus which functions very satisfactorily. Several successful curtains were laid down by the 26th to screen movements of Infantry and Artillery engaged in Division Maneuvers.

During July, the following flights were made: 2nd Lieut. John C. Crain, Res., piloted the Sikorsky to Wailuku, Maui.

During July flights in the Sikorsky plane were made to Wailuku, Island of Maui; and to the John Rodgers Airport by Lieut. John C. Crain. An aerial reconnaissance mission around the Island of Oahu was made by 1st Lieut. Joe L. Loutzenheiser.

Lieut. Harold H. Bassett, 75th Service Sq., won the Mason Cup for low score in the qualifying round of the Hall Trophy Golf Tournament at Schofield Barracks and in the finals of the Tournament defeated Capt. Wakeman, M.C., six to five, to gain possession of the Trophy for one year.

Hawaiian Air Depot:

The Supply Section was successfully moved from down town Honolulu to Luke Field and consolidated with the Engineering Department. This necessitated a complete reorganization and expansion of the Air Depot and has made for better efficiency in the time necessary for the Engineering Department to draw its

supplies. Supplies moved by truck and carried by barge to Luke Field in a period of six weeks amounted to 350 tons.

The Engine Repair Section overhauled eleven engines, from June 26th to July 31st. From June 25th to July 25th, the Final Assembly repaired and assembled the following planes: Major overhaul - 1 O-19B, 2 P-12B; minor repair - 2 O-19C, 1 C-6A, 1 P-12B, 1 A-3B; major assemblies, 5 B-5A. From Aug. 1st, 1930 to June 30, 1931, the Engine Repair Section overhauled a total of 136 engines.

During the Fiscal Year 1931, the Aero Repair Department completed approximately 700 work orders, from the ordinary routine shop work to manufacturing special machinery and instruments. The most noteworthy accomplishments were the building of a paint mixing machine for the paint shop and an instrument testing machine and bake oven for the Engine Repair. Construction work included the new cleaning department for the Engine Repair Section, which is all-steel and concrete construction. A boiler room was also built and two boilers put in operation. One large boiler is for general use and a smaller one for emergency use.

At present most of the machine shop personnel are busy complying with the provisions of the new technical changes on the B-5A's. This work is progressing very favorably.

The Drafting Section has been busy the past month making copies of all technical change drawings and printing same. The Engineer Officers at Luke Field and Wheeler Field are supplied with copies of these drawings.

The drawing of plans, preparing specifications of materials, and requisitioning same for use in the construction of new Headquarters and Depot Supply Offices, has been assigned to, and accomplished very satisfactorily by this department. Through the arduous labors and persistent endeavors of the blue print file clerk, order was brought out of what seemed a hopeless chaos in the filing of blue prints.

LANGLEY FIELD FOOTBALL SCHEDULE
1931

<u>Date</u>	<u>Opponents</u>	<u>Playing Field</u>
September 19th (Saturday)	William and Mary College (Williamsburg, Va.)	Williamsburg, Va.
September 26th (Saturday)	Campbell College (Euie's Creek, N.C.)	Langley Field
October 4th (Sunday)	U.S. Coast Guard (New London, Conn.)	Langley Field
October 11th (Sunday)	Quantico Marines (Quantico, Va.)	Langley Field
October 17th (Saturday)	Gallaudet College (Washington, D.C.)	Langley Field
October 24th (Saturday)	Atlantic University (Virginia Beach, Va.)	Langley Field
October 31st (Saturday)	Appalachian State Teachers College (Boone, N.C.)	Langley Field
November 7th (Saturday)	Potomac State College (Keyser, W. Va.)	Langley Field
November 14th (Saturday)	Guilford College (Guilford, N.C.)	Langley Field
November 21st (Saturday)	Apprentice School (Newport News, Va.)	Langley Field
November 28th (Saturday)	High Point College (High Point, N.C.)	Langley Field
December 5th (Saturday)	Winner Southern District vs Winner Northern District	Northern District

Serial No. 310. LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
July 21st to Sept. 14th Incl.

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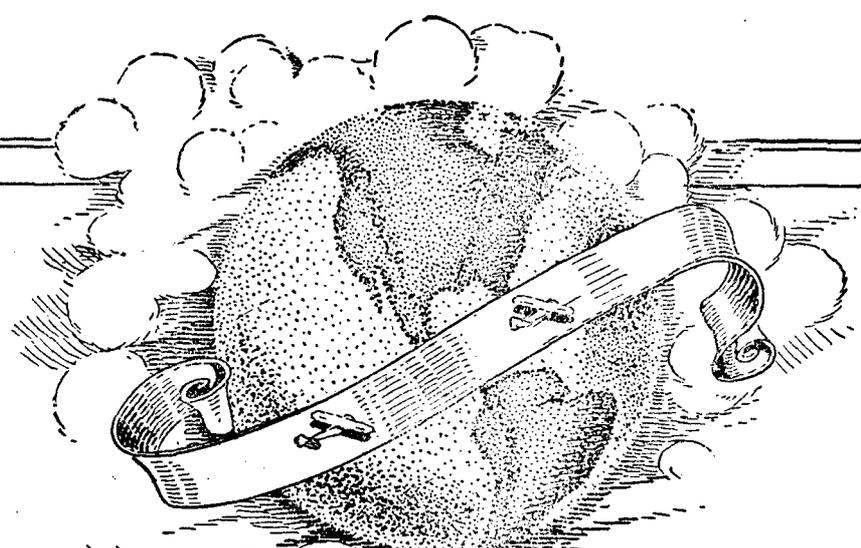
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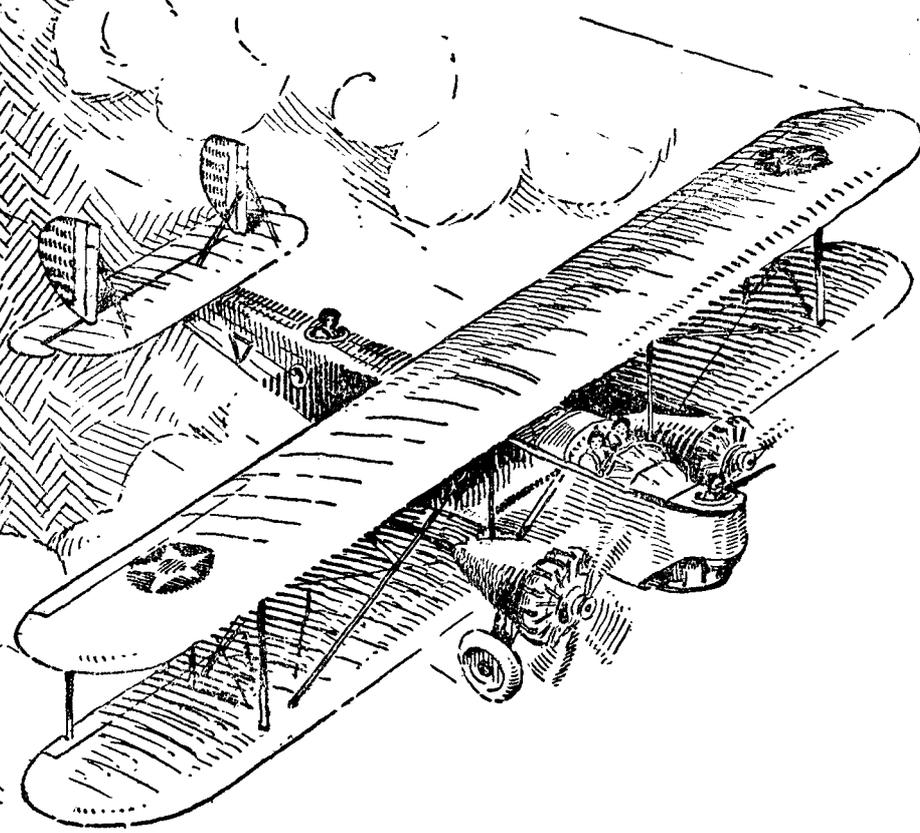
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AIR CORPS NEWS LETTER



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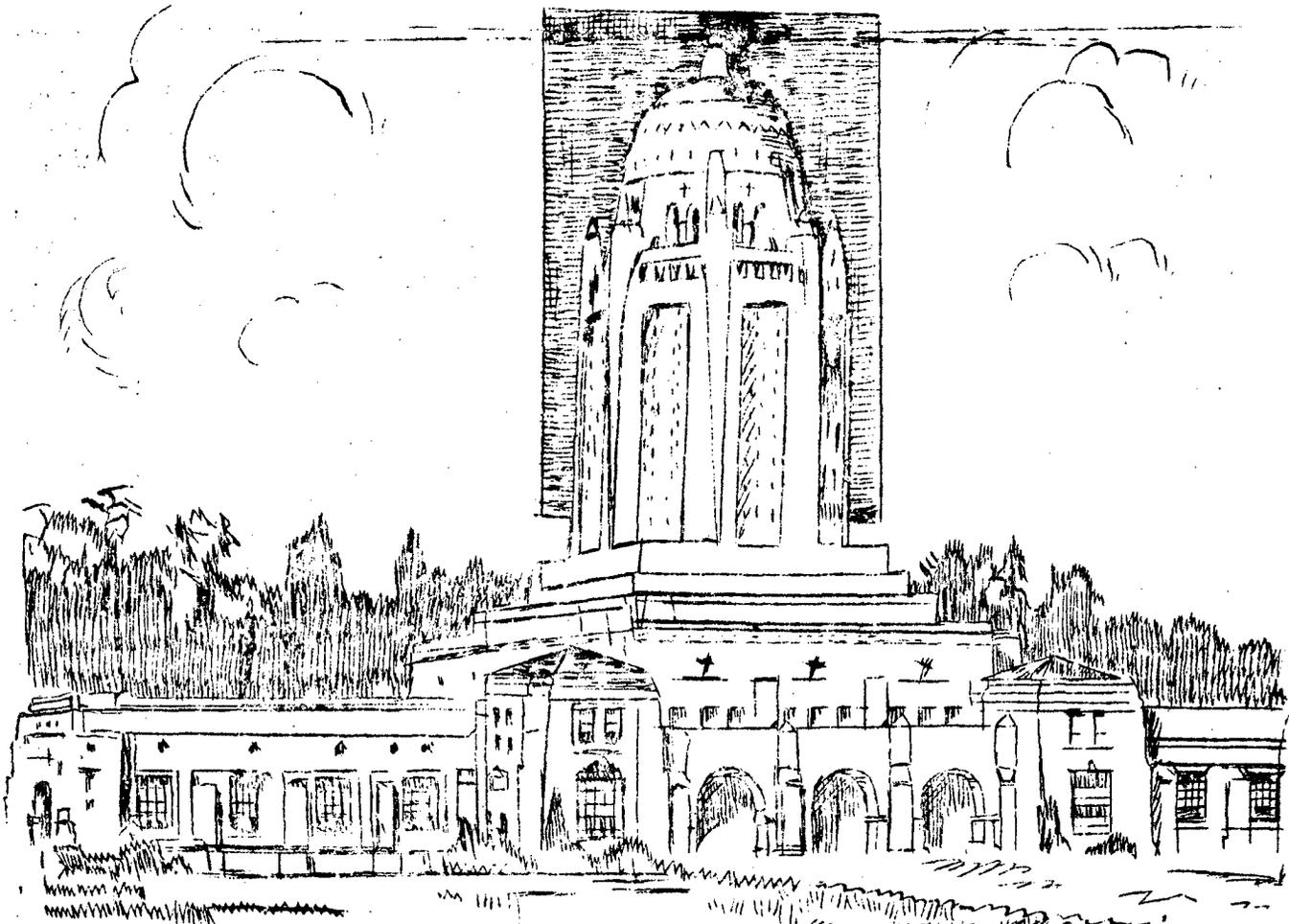
F. C. BERRY

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ADMINISTRATION BUILDING
RANDOLPH FIELD

F.C. Barry

VOL. XV

AIR CORPS NEWS

NO. 12

Information Division
Air Corps

October 17, 1931

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.

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RANDOLPH FIELD

As if the Genii of the mythical days of the Caliphs of the ancient City of Baghdad has performed one of his miracles, a beautiful little city has sprung up in a comparatively brief space of time on a stretch of level prairie country on which not so long ago Texas farmers labored earnestly with sundry agricultural implements in order to gain a livelihood from cotton



OFFICERS MESS

and corn crops. These particular farm lands are no more. An entirely different class of laboring men had been working on this soil for the past two years, using such tools or implements as steam shovels,

V-6193, A.C.

cranes, concrete mixers, steam rollers, etc., with the result that the fruits of their efforts constitute what will hereafter be known as the Mecca of Army flyers.

A tall beautiful structure, in Spanish mission style of architecture, serving as the Administration Building; modern airplane hangars; large, roomy and up-to-date barracks for Flying Cadets and enlisted men, mess halls, machine shops, repair shops, and other technical buildings; paved roads and walks, and an expansive smooth and level flying field greet the eye as one leaves San Antonio, Texas, and rides for about half an hour on the road towards Seguin.

This new city is devoted to a special purpose - the training of young American manhood in the art and science of military aviation. Known far and wide by such names as "The Flying City," the "West Point of the Air" or the "Army Aeronautical Academy," its proper name is Randolph Field. It is the site of the Air Corps Training Center and the home of the Air Corps Primary Flying School.

Situated at Randolph Field is also the School of Aviation Medicine, or "Flight Surgeons' School," as it is sometimes known.

The property occupied by Randolph Field is about 2300 acres in extent. It was acquired by the citizens of San Antonio and donated to the War Department when the site of a new field was being investigated. The field was named in memory of Captain William M. Randolph, Air Corps, U.S. Army, a native Texan, who, while Adjutant of Kelly Field, was killed in an airplane crash at Gorman, Texas, on February 17, 1928.

November 2, 1931, marks the beginning of flying training at this School, when the first class of 200 students begin their ground school studies and flying practice there. Primary flying training was previously carried on at Brooks Field, San Antonio, Texas, and March Field, Riverside, Calif., but the school organization and equipment at these two schools was moved to the one larger, central establishment. Brooks Field is now occupied by the 12th Observation Group and March Field by the 17th Pursuit Group. Advanced Flying training is still carried on at Kelly Field, on the other side of San Antonio from Randolph Field.

The head of the Army's flying training system is Brigadier-General Charles H. Danforth, Assistant Chief of the Air Corps, who will make his headquarters at Randolph and from there direct the training policies of the Air Corps. The Commanding Officer of Randolph Field is Major Frederick L. Martin, who previously commanded Kelly Field. The Constructing Quartermaster who was responsible for building operations at the new "city" is Captain Arthur W. Parker, Quartermaster Corps. Major Benjamin B. Warriner, Medical Corps, is Commandant of the School of Aviation Medicine.

While the total area of the post is almost four square miles, only one-fourth of this space is occupied by buildings. The building area of 600 acres is in the center of this reservation, while around it on four sides is the landing field area. Two opposite sides can always be used for flying training at the same time, according to the direction of the wind. Across one side only is the entrance road to the post.

Another innovation in flying fields is the absence of obstructing towers, masts and the like, which not only form an actual hazard to even experienced flyers but an acute mental hazard to the fledgling pilot intent on keeping his nose on the horizon and his wings reasonably level. The single tower is that of the Headquarters and Administration building, depicted on the preceding page, which contains the water tank of the post's water supply and the office and laboratory of the meteorological section of the field's weather bureau. An elevator operates inside the tower, while crowning the tower is the revolving beacon which guides the night flying pilot.

In front of the tower the words "RANDOLPH FIELD", visible from the ground or air, introduces the field to the flyer or groundling who might have been unaware of its identity. The center of the hub of the building area is the Officers' Mess. There are nine hangars each on two sides of the field, a total of 18 hangars for the 275 airplanes which will be on the field, also two large airplane assembly hangars and large shop and repair hangars. All hangars bordering the field have their roofs painted a startling black and chrome yellow checkerboard pattern.

The architecture of the other buildings is the Spanish Mission type, and the construction is of stucco over hollow building tile, with red and vari-colored tile roofs. Some quarters are bungalows, other two-storied buildings. Around the buildings and quarters are planted native shrubs and trees. There are close to 300 hangars, quarters, barracks, shops and other accessory buildings. The

quarters for personnel consist of -

- 21 Field Officers' quarters
- 153 Married company officers' quarters
- 2 Bachelor officers' buildings, each having provision for 40 officers, total 80 bachelor officers.
- 53 Married noncommissioned officers' buildings - two-family houses - with total accommodation for 136 noncommissioned officers.
- 2 Bachelor noncommissioned officers' buildings, each accommodating 25 noncommissioned officers of the grade of Master, Technical or Staff Sergeant, or a total of 50 noncommissioned bachelor noncommissioned officers.

Company officers' quarters have a living room, dining room, kitchen, three bedrooms, two baths, and a maid's room. Flying Cadet barracks follow the custom at West Point and have two cadets to a room.

The total post population will be 1700 military personnel - officers, students and enlisted men, and about 3,500 when one includes civilian employees and members of officers and noncommissioned officers' families. For their amusement there is a theatre in the Administration Building having a seating capacity of 1,000. This theatre is equipped for sound movies, instruction lectures, plays, etc., and has also a pipe organ which a patriotic society had donated during the war to another army post, and which was moved to Randolph Field when the war-time cantonment was abandoned. Athletic fields are on the post for those in good health, and the last word in military hospitals for those who need hospitalization.

About \$10,000,000. has been spent on buildings and in ground improvement. The aeronautical equipment to be used on this field (planes, shop equipment, machinery and tools) will amount to about \$3,500,000. The shop equipment cost \$70,000; fire-fighting equipment, \$15,000; lawn mowers and grass-cutting machinery, ranging from hand mowers to the power-driven ones used on the flying field, \$10,000. Several miles of garden hose will be needed to wet down the lawns about buildings and quarters. The concessionaire at the post restaurant has spent \$8,000 on fitting up his dining room. The roads about the post are concrete, paved aprons being installed around the hangars where the airplane engines are warmed up. Being sown to Bermuda grass, that plague of most flying fields, dust, is fortunately absent from Randolph Field.

The airplanes used in training at the field are the Primary and the Basic Training types. These will be refueled from sunken fueling pits, automatically operated.

Organizations at Randolph Field (or soon to be moved there) are -

- Headquarters Squadron, Air Corps Primary Flying School.
- 46th School Squadron
- 47th School Squadron
- 52nd School Squadron
- 53rd School Squadron
- 67th Service Squadron
- 20th Photo Section

The last outfit to be moved into Randolph Field will be the Headquarters, Air Corps Training Center, to be organized at Kelly Field, and then moved to its permanent home on February 15, 1932.

Aside from the training of Army Medical officers in the duties of Flight Surgeons at the School of Aviation Medicine, the main purpose of Randolph Field is to train pilots for the Army Air Corps. Students are selected from several sources, the majority of them being Flying Cadets appointed from civil life or from the enlisted men of the Army, the latter receiving priority in appointment. They are either college graduates, or have to their credit at least two years of college work. In lieu of the required scholastic requirements, candidates for appointment as Flying Cadet must pass a rigid mental examination. They must be citizens of the United States, unmarried, and of age not below 20 nor above 27. The mental requirements are high because Flying Cadets are not trained to be pilots along, but also to be officers of the Army in general and the Air Corps in particular.

A Flying Cadet is paid \$75.00 per month during his training year and given his uniforms free and a mess allowance of \$1.00 per day. He wears a distinctive slate-blue uniform. Noncommissioned officers of the higher grades who qualify for flying training retain their noncommissioned rating and salary while they are undergoing flying training.

In the Fall of each year, the previous June class of West Point graduates sends a goodly number of young second lieutenants, who prefer a military career in the Air Corps, to the Primary Flying School. Upon graduating from the Military Academy, these young officers are commissioned in branches of the Army other than the Air Corps. They can only be detailed to the Air Corps in order to fulfill their desire for flying training, but must pass the rigid physical examination in order to be eligible for such training. This physical examination must be passed by all candidates applying for flying training. A small number of older officers of other branches of the Army also elect to take this training.

During the period of flying training, should a student fail in the flying course or in his ground studies, he is returned to his original branch of the service if a student officer; to his noncommissioned rating if a noncommissioned student, or to civil life if a Flying Cadet.

The duration of the course at the Primary School (Randolph Field) is eight months. An additional course of four months' training is taken at the Advanced Flying School at Kelly Field, making the total flying training period one year. The flying course at Randolph Field covers over 150 hours of flying, of which at least 60 hours are spent in training type and 90 hours in service type airplanes. In the training type planes, the student is taught straight flying, climbs, climbing turns, gentle turns, eights, spirals, chandelles, glides, taxiing, take-offs and landings, forced landings, stalls, spins, side-slips, rolls, half rolls, vertical renversements, 180-degree and 360-degree turns for landings, cross-wind take-offs and landings, accuracy, cross-country flying, formation flying, night flying and blind flying. On service type airplanes, the same maneuvers listed above are also carried out, but to a greater extent.

The ground subjects are Theory of Flight, Aerial Gunnery, Airplane Rigging, Engine Repairing and Trouble Shooting, Meteorology, Radio and Aerial Navigation. Flying Cadets with no previous military experience are also taught the basic military subjects, such as Military Law, Military Hygiene, Customs of the Service, and Drills.

The policy governing the elimination of inapt students is so rigidly followed that very few of those students who ~~undergo~~ the primary flying course are eliminated after they succeed in graduating from the Primary Flying School and are transferred to the Advanced Flying School. Upon graduation from the latter school, students are given their "Wings." The student officers are permanently commissioned in the Air Corps and the Flying Cadets and noncommissioned officers are commissioned 2nd Lieutenants in the Air Corps Reserve and placed on extended active duty. After a tour of duty with a tactical squadron, some of the former students at Randolph Field will return there and, after a course of instruction in the Instructors' School, will guide young fledglings in the ways of correct flying.

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LIEUT. ADAMS LOSES LIFE IN AIRPLANE ACCIDENT

News of the death of Lieut. James E. Adams, as the result of an airplane crash at Maxwell Field, Ala., on October 5th last, was received with genuine regret in Air Corps circles. Lieut. Adams was an extremely popular officer, possessing a pleasing personality which won for him many friends. Time and again he received praise from his superior officers for the intelligent performance of his duties, his loyalty, initiative, energy, skill, etc. He was considered an excellent pilot as well as observer, and was one of the Air Corps pioneers in radio.

Lieut. Adams was born at Hackensack, N.J., Nov. 21, 1923. After finishing high school, he was engaged in railroad work. During the World War he enlisted in the Aviation Section, Signal Corps, receiving ground school instruction at Cornell University, Ithaca, N.Y., and his flying training at Gerstner Field, Lake Charles, La. He was commissioned a 2nd Lieutenant on May 6, 1918.

During his career as an Air Corps officer, Lieut. Adams served at various flying fields and stations, his longest periods of duty being spent in the Hawaiian Department and with the 2nd Bombardment Group at Langley Field, Va. He was detailed to duty as student at the Air Corps Tactical School, Maxwell Field, Ala., for the 1931-32 course and, while flying with Private Fred Applewhite, of Bolton, Miss., struck a high tension wire near the field, causing the plane to crash and catch fire. Both occupants of the plane were instantly killed.

Funeral services for Lieut. Adams were held on October 10th at the Arlington National Cemetery. His untimely death deprived the military service of an exceptional officer. His many friends mourn his passing for, as the saying goes, "He was one of the boys."

The News Letter sends its sincere condolence to his bereaved family.

MATHER FIELD BOYS AVERAGE HIGH IN SHOOTING

is much elated over

Mather Field the scores achieved by the pilots of its two combat squadrons in the gunnery season just completed. The 55th Pursuit is particularly proud of the fact that six of its pilots made scores of 1000 or better. Three members of the 77th broke into the same select company.

The final scores made by pilots on the record course follows:

55th Squadron			77th Squadron		
Pilot		Score	Pilot		Score
Lt. Kroeger	Expert	1089	Major Tinker	Marksman	531
Coutlee	"	1078	Capt. Clark	Expert	941
Stainback	"	1024	Lt. Hopkins	"	1033
Berger	"	1013	Phillips	"	1033
Hunter	"	1009	Wittkop	"	1011
Harris	"	1000	Losey	"	985
Carter	"	980	Rasmussen	"	943
Wasser	"	939	Shroyer	"	943
Williams, M.C.	"	936	Baumiester	"	981
Crumrine	"	904	Whatley	"	956
Roth	"	902	Reed	"	915
Rodieck	"	874	Williams, L.M.	"	886
Morrill	"	866	Saville	"	835
Britton	"	845	Mechem	"	876
Ellison	"	840	Doubleday	"	856
Kruse	"	835	Kelsey	"	853
Kingham	"	869	Kraft	Sharpshooter	694
Staff Sgt. Dorsett	Sharpshooter	780	Richards	"	619
Lt. McCarty	"	707			

Average 920.5

Average 885.2

A suitable wind-up for the season was a week of actual firing upon airplane targets, using for the purpose the last of the station's veteran DH-4's which were condemned some months ago and preserved for just such use. Each run of this phase was made from a different type of attack, using both 30 and 50 calibre guns, for the benefit of the tactical training of the pilots, and much of value was learned from the week's work.

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HIGH SCORES IN FLEXIBLE GUNNERY

The flexible gunnery season of the 88th Observation Squadron terminated September 29th, with the entire Squadron qualifying as "Expert." "Due to an error in the previous contribution to the News Letter," says the Post Field Correspondent, "we were credited with qualifying 91 2/3 of the Squadron on fixed guns, but we actually qualified 100%. Thirteen were 'Experts,' eight were 'Sharpshooters' and one qualified as 'Marksman' out of twenty-two pilots."

The scores made on flexible guns were as follows:

2nd Lieut. D.T. Mitchell	1221	Capt. R.E. O'Neill	915
2nd Lieut. C.H. Miller	1132	1st Lieut. W.S. Hamlin	903
2nd Lieut. D.M. Kesler	1088	1st Lieut. G.E. Rice	873
2nd Lieut. L.E. Hunt	1069	2nd Lieut. H.B. Fleming	839
1st Lieut. W.L. Ritchie	1015	2nd Lieut. C.T. McKinnie	838
2nd Lieut. F.A. Creech	1044	2nd Lieut. C.S. Tidwell	743
2nd Lieut. C. Stroh	1015		

Captain Neal Creighton and the men of the 1st Balloon Company at Post Field are utilizing an empty building for a shooting gallery. Both rifles and pistols are being used to shoot at stationary and moving targets. There are chairs and benches in the building for the convenience of the spectators, and as Captain Creighton is only charging enough to clear expenses, it will no doubt prove to be a wonderful recreation hall for the officers and men during the winter months. It should also greatly increase the number of "Experts" on the post.

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A flight of 9 planes from Selfridge Field, Mich., conducted a tactical flight over Pershing High School in Detroit on September 23rd on the occasion of the dedication ceremonies of this new school.

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THE ANNUAL MACHINE GUN AND BOMBING MATCHES

Contestants arrived at Langley Field, Va., on August 27th from various Air Corps stations within the continental limits of the United States and also from Panama to participate in the Annual Machine Gun and Bombing Matches.

Contestants and High Altitude Bombing Teams were composed of the following Air Corps officers:

Third Attack Group, Fort Crockett, Texas: Captain Virgil Hine, 2nd Lieuts. Truman S. Landon, Carl E. Rechnagel (Res.), Ralph J. Gibbons (Res.), Robert K. Taylor and Maurice M. Beach (Res.).

11th Bombardment Squadron, Rockwell Field, Calif.: 2nd Lieuts. Howard G. Bunker, James A. Ronin, D.D. Graves.

1st Pursuit Group, Selfridge Field, Mich.: 2nd Lieuts. Robert C. Merrill, Curtis E. LeMay, Jesse Auton and Monty Tenness (Res.).

20th Pursuit Group, Mather Field, Calif.: 2nd Lieuts. L. H. Phillips and Robert P. Harris, Jr., Air Corps Reserve.

6th Composite Group, France Field, Panama Canal Zone: 1st Lieuts. James M. Bevans, Reuben E. Biggs, Richard E. Nugent, 2nd Lieuts. Donald W. Buckman, and Chas. A. Harrington; also 2nd Lieut. John W. Sessums, Flight Eng. Office.

9th Observation Group, Mitchel Field, N.Y.: 2nd Lieuts. C.G. Goodrich, R.J. Dyer and George F. Kehoe, Air Corps, and 2nd Lieuts. Frank T. Bostrom, Francis X. Kelly and Christy Mathewson, Jr., Air Corps Reserve.

15th Observation Squadron, Scott Field, Ill.: 1st Lieut. Frederick A. Johnson, 2nd Lieut. Irving R. Selby.

12th Observation Squadron, Fort Sam Houston, Texas: 1st Lieut. Joseph H. Hicks, 2nd Lieut. Eugene H. Rice.

91st Observation Squadron, Crissy Field, Calif.: 1st Lieut. Edwin B. Bobzien, 2nd Lieut. John K. Poole.

2nd Bombardment Group, Langley Field, Va.: 1st Lieut. Robert T. Cronau, 2nd Lieuts. Merrill D. Burnside, Richard P. O'Keefe, Laurence S. Kuter, Maurice C. Bisson, Clifton D. Wright (Res.). 2nd Lieut. Ralph O. Brownfield, Flight A, 16th Obs. Squadron.

The Matches were held during the period September 1 to September 6, 1931, inclusive. The weather was exceptionally favorable during the entire period and it is worthy of mention to note that the lowest score made in high altitude bombing this year was higher than the highest score for the same event last year, this being a commendable improvement. However, the scores in the Machine Gun Matches were not a perceptible improvement over those attained last year, the latter averaging about the same. Also, for the first time during a Machine Gun and Bombing Match, radio was successfully used in transmitting messages between the range on Plum Tree Point and Match Headquarters on the field.

The Staff Officers for the Matches are immediately shown, with the duties performed preceding their respective names: Executive Officer, Captain Eugene L. Eubank; Adjutant, 2nd Lieut. Thomas R. Lynch; Statistical Officer, Captain Lawrence A. Lawson; Ordnance Officer, Capt. Willis R. Slaughter, Ordnance Department; Operations Officer, 1st Lieut. James M. Gillespie; Supply Officer, 1st Lieut. William J. Hanlon; Engineering Officer, 1st Lieut. Milo McCune; Armament Officer, 1st Lieut. Lionel H. Dunlap; Range Officer, 1st Lieut. Robert T. Cronau; Communications Officer, 2nd Lieut. Guy B. Henderson; Officer in Charge Bombing Range, 2nd Lieut. Merrill D. Burnside; Officer in Charge Machine Gun Range, 2nd Lieut. G.S. Bond, Reserve.

Due credit should be given the above staff for the efficiency in which their duties were performed, for only through their cooperation and coordination could the matches have been run off with such precision and success in the short period of time in which they were completed.

The following are the winning teams, first, second and third positions in order in the various matches:

MATCH I.	
PURSUIT PILOTS' MATCH	
	Score
2nd Lieut. D. D. Graves	749.5
2nd Lieut. Charles A. Harrington	705.5
2nd Lieut. Jesse Auton	684.8

MATCH II.

ATTACK AND OBSERVATION PILOTS' MATCH

	<u>Score</u>
2nd Lieut. Irving R. Selby	671.8
2nd Lieut. Francis X. Kelly	670.5
2nd Lieut. Ralph O. Brownfield	640.

MATCH III.

OBSERVERS' MATCH

2nd Lieut. John K. Poole	657.5
2nd Lieut. M. M. Beach	640.
1st Lieut. Fredk. A. Johnson	622.5

MATCH IV.

BOMBARDMENT MATCH

2nd Lieut. Merrill D. Burnside	1894
1st Lieut. Robert T. Cronau (Pilot)	
2nd Lieut. Lawrence S. Kuter	1867
2nd Lieut. Richard P. O'Keefe (Pilot)	
2nd Lieut. Clifton D. Wright	1847
2nd Lieut. Maurice C. Bisson (Pilot)	
2nd Lieut. Donald W. Buckman	1847
1st Lieut. Richard E. Nugent (Pilot)	

Only one accident marred the entire matches, this being the crash of a P-12 plane piloted by 2nd Lieut. Robert P. Harris, Jr., member of a competing team from Mather Field, Calif. The ship crashed on Sept. 2, 1931, off Plum Tree Island, Lieut. Harris receiving series injuries as a result of the crash and being taken to the Fortress Monroe Hospital where, as this is written, he is rapidly recovering.

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OPENING OF TRAINING SEASON AT ROCKWELL FIELD

September 3rd saw the opening of the training season at Rockwell Field, and for the next few months more airplanes than usual will dot San Diego skies. Plans at this date call for a program of bombing and machine gun practice, much more strenuous than usual, with no lull in sight until after the 1932 Maneuvers. In the 11th Bombardment Squadron, 18 officers are taking the bombing course as prescribed in T.R. 440-40, and bombs are dropped at the rate of 120 a day from altitudes of 5000 and 8000 feet. Every bomber carries radio and maintains contact with "F-9", the Group ground station, at all times. Shortage of radio personnel has necessitated the training of Crew Chiefs as radio operators, and this move has met with considerable success so far. A remote control station has been installed next to the office of Major Spatz, the Group Commander, and Group operators are on constant duty at this station during flying hours to guard frequencies of bombing and pursuit planes. Replies are all made on one frequency from the ground station.

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TWO-PLACE GLIDER BEING CONSTRUCTED AT HAWAIIAN DEPOT

A interesting piece of work now in progress in the machine shop and its sub-departments, Hawaiian Air Depot, is the building of a two-place glider by Lieuts. Stanley, Thompson and Boyd, of Luke Field. When Lieut. Crain and his confreres from Wheeler Field broke the world's unofficial record for sustained flight a few months ago, they said that at the location from which they were flying, the length of time a glider could stay aloft was limited only by the endurance of the pilot. It is the writer's "big idea" that when Lieut. Stanley and his brother officers complete their gravity-conjurer and take-off, the timers had better be there equipped with calendars as well as stop watches, as there is no telling when they are liable to come down. The construction of this glider which, by the way, was designed, as well as being built by these officers, is well under way at the present time, and it is expected that it will be completed in the very near future.

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NONCOMMISSIONED OFFICER COMMENDED FOR INVENTIVE ABILITY

Staff Sergeant Chester McPheter of the 11th Bombardment Squadron, Rockwell Field, Calif., was recently the recipient of a letter of commendation from the Chief of the Air Corps in recognition of his valuable work in designing and constructing a removable Case Ejection Container for the Browning Flexible Machine Gun. In firing this machine gun from the nose of the Curtiss B-2 Bombers, it has been found practically impossible to remove empty cases from the present type containers while in flight. Such attempts have resulted in damaged propellers, torn fuselages and constituted a dangerous hazard to the eyes and face of the pilot. In view of the above, only one hundred rounds can be fired from the nose of the Bomber per flight, it being necessary to land each time to empty the shell container. Staff Sergeant McPheter's improved container can be safely removed from the gun and emptied on the floor of the plane while in flight.

The letter of commendation addressed to Staff Sergeant McPheter by Major-General James E. Fechet, Chief of the Air Corps, is as follows:

"1. Information has recently been brought to my attention that you have designed and constructed a removable case ejection container for the Browning Flexible Machine Gun, which is a decided improvement over the present type. I am further informed that the Materiel Division is preparing drawings of a container along the general lines of the one designed by you and that this new container will be designated as Type A-2.

2. It is indeed gratifying to me to have such evidence of the attention to duty, interest in their work, and the ability of the men of the Air Corps as exemplified by this instance, and I take pleasure in commending you for your work in the development of this case ejection container.

3. A copy of this letter will be placed on file with your records.

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NO MITCHELL TROPHY RACE THIS YEAR ✓

Unless some means are devised whereby judges may be mounted on stationary pylons some seven or eight thousand feet above the earth's surface, the First Pursuit Group of the Army Air Corps will not hold the John L. Mitchell Trophy Race this year. This Trophy was donated by former Brigadier-General William Mitchell, in honor of his brother who was killed in action in France.

Except for a small number of low altitude Pursuit airplanes, the stock airplane of the First Pursuit Group at Selfridge Field, Mich., is the Boeing P-12, which is a high altitude Pursuit type. The "Wasp" air-cooled engine of these little single-seaters are equipped with superchargers which pump air into the carburetor, thus maintaining sea level efficiency when flying in the rarified atmosphere at high altitudes, where airplane and engine alike are designed for flight. In the denser air at sea level, however, the engines must not be run at full speed, as this would impose too great a strain upon them. It is not until an altitude of about 7,500 feet is reached that the engines may be run wide open with impunity.

Obviously, no closed course can be run at this altitude and judged accurately from the ground, nor could pilots turn corners closely when those corners are indicated a mile and a half below them. Even if captive balloons were available - which they are not - they could not be maintained at constant distances from each other.

It is expected that next year a considerable number of low altitude Pursuit airplanes will be on hand at Selfridge Field, these planes being particularly designed for combat work against low flying enemy aircraft, and hence for high performance at sea level, in which event the Mitchell Trophy Race will be resumed.

The first contest for the John L. Mitchell Trophy was held in 1922, and it has been an annual event since that time, being a feature of the National Air Races with the exception of last year, when the contest was held at Selfridge Field, at which time only P-6 and P-1 types of planes were utilized. Other planes powered with high compression engines were barred, because of the limitation on flying them full throttle at sea level.

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Seven Curtiss Condor Bombers of the 11th Squadron, Rockwell Field, and 12 Boeing P-12's rendezvoused over Seal Beach, just south of Long Beach, and proceeded to Long Beach, where they staged a lengthy program of formation drills for the benefit of members of the California State American Legion, assembled in convention at Long Beach on September 1st.

AN "ALOHA" FLIGHT FOR GENERAL LASSITER ✓

On the occasion of the retirement of Major-General Wm. Lassiter, Sept. 15th, there was accorded him an "Aloha" flight wherein the entire 18th Composite Wing participated. Shortly after the "St. Mihiel" cleared the harbor, approximately 70 planes escorted the transport out to sea and then dipped a farewell "Aloha" to the departing General. "It seems only proper that we say a few words about General Lassiter upon his departure from his last command, the Hawaiian Department," says the News Letter Correspondent. "His staunch and loyal support of all aeronautical activities under his command, both on the mainland and here in Hawaii, was characteristic of his attitude towards the Air Corps. General Lassiter leaves behind him an enviable record of service and accomplishment. He has the essential qualities and foresight that go into the making of a great soldier. He commanded the respect and admiration of all with whom he came in contact. The officers and men of the 18th Composite Wing wish him prosperity and contentment in his retirement.

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MITCHEL FIELD OFFICERS PAY HOMAGE TO DISTINGUISHED FLYER

The list of those present at a recent presentation ceremony at Mitchel Field, N.Y., was very impressive. Many of the most famous and accomplished 2nd Lieutenants of the phenomenal 9th Group stood around discussing the hazardous events of the day. Suddenly, a hush fell over the room as their hero entered. Always punctual, always smiling, he strode across the room, nodding first to one group and then to another. They returned his salutations with awe and just a tinge of reverence showed in their faces, for who among the distinguished group did not recognize him as their master and teacher? They were all present to do homage when the Distinguished Order of the "Flying Dumb-bell" was presented to 2nd Lieut. W. R. Calligan, Jr., for his remarkable demonstration of ground flying at the Springfield Airport recently. ✓

A flight of nine planes had gone to Springfield to assist in the opening of the Eastern States Exhibition by giving a demonstration of formation flying. Lieut. Calligan's ground demonstration which won for him high recognition was his "stunt" of taxiing his plane into one of the high steel fences.

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HAWAIIAN AIRMEN WELCOME SIAM'S KING AND QUEEN

The largest aerial event in Hawaii for some time took place on the occasion of the arrival in Honolulu of the King and Queen of Siam, approximately 107 airplanes participating in an "Aloha" flight in their honor. Comprising this aerial armada were 80 airplanes (Bombers and Pursuit planes) of the 18th Composite Wing, commanded by Lieut.-Col. Gerald C. Brant, augmented by two Navy air squadrons, consisting of 24 planes. Behind the order issued for the largest "Aloha" flight ever made in Hawaii lies a story of an unexpected military courtesy extended by the rulers of Siam in 1924. It will be remembered that the Army Air Corps was the first to make an around-the-world flight. It was led by Captain Lowell H. Smith who was formerly stationed in Hawaii. Speaking of their arrival in Siam in the book, "The First World Flight," Captain Smith tells of their surprise in seeing a squadron of planes of the Royal Air Force of Siam flying toward them in formation. The planes were flying above Captain Smith's flight and dipped in salute as they roared overhead. Neither Captain Smith nor the other members of his flight were even aware that Siam had an Air Corps. This "Aloha" flight of the 18th Composite Wing, therefore, had a double significance, in that it served as a return courtesy.

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Five planes, fully equipped for observation missions, recently left Crissy Field, Calif., for Fort Lewis, Wash., to participate in a four-day war. The squadron spent the first morning checking radio equipment, getting acquainted with the terrain over which it was to operate, and in general preparing itself so as to be the most use to the ground forces during the field maneuvers to come. Ships were assigned each force and a great many successful radio, dropped message and reconnaissance missions were carried out for both the Red and Blue forces.

General Castner, the Division Commander, was extremely interested in the missions performed by the Air Corps, and at the critiques he complimented the 91st on its cooperation with the ground forces during the maneuver.

AIR CORPS HELPS AT ORDNANCE DEMONSTRATION ✓

The 13th Annual Meeting of the Army Ordnance Association took place on Thursday, October 8th, at Aberdeen Proving Ground, Md. Before a crowd of several thousand spectators, the Ordnance Department of the Army demonstrated throughout the day the latest developments in its materiel and the use thereof. Small Arms, Artillery and its Ammunition, Ballistic Range, Automotive Equipment, Seacoast Artillery, day and night flying of Anti-Aircraft materiel, and Pyrotechnics were demonstrated for the edification of an interested public, in addition to the most interesting - from an aviation enthusiast's point of view - demonstrations of Attack aviation, acrobatic flying and dog-fighting, anti-aircraft bombing, heavy aerial bombardment, smoke screens, target towing for anti-aircraft, exhibitions of various types of commercial and military aircraft and a tandem parachute jump.

Phillips Field at the Proving Ground was crowded with the airplanes of visiting Army flyers, with a goodly number of Navy and civilian flyers in addition. The Air Corps first put in its official appearance at 10:45 a.m., when two Observation planes simulated an aerial reconnaissance of enemy territory prior to the advance of armored cars and the mechanized ground forces. Later, at 1:50 p.m., the main Air Corps portion of the program began. Under the command of Captain Lotha A. Smith, three A-3B Attack planes from the Third Attack Group, Fort Crockett, Galveston, Texas, staged a demonstration of ground-strafting tactics, the target being cardboard silhouettes placed in a field. In order not to carry a load of bombs above the spectators' heads, they reversed the usual procedure in such tactics and first released their load of fragmentation bombs; then, after a wide and low turn, came across the targets from another point and straffed them with all four pilot-operated guns of each plane.

The Attack demonstration was followed by one of aerial acrobatics by two Bolling Field pilots, Lieuts. Stanley U. Umstead in a Curtiss P-1, and Rob't K. Giovannoli in a Boeing P-12, who performed a thrilling series of rolls, loops, spins and inverted flying. Then followed the most interesting phase of the aviation section of the demonstration, when one plane, taking the part of a pursuit plane hovering above and out of gun-fire range of a lower enemy plane (simulated by a fabric sleeve target in tow of another low-flying plane) released three bombs directed against the lower flying "enemy." These were 50-pound practice bombs loaded with black powder charges and equipped with time fuses which were set to explode after a time interval which would allow a fall of 1,000 feet. This was, in effect, a demonstration of a safe and cautious, yet readily effective, attack on formations of enemy airplanes which would be defended by the guns wielded by the aerial gunners in their crew. The three bombs, dropped in a salvo, burst all about the towed target.

The tow-target plane was operated by Lieut. McCaffery, of Aberdeen, and the pilot-bomber of the other plane was Sergeant Smink, also of Aberdeen Proving Ground. Meanwhile, six Bombers - Keystone B-3's, B-4's and B-5's, of the 49th Squadron at Langley Field, Va., and under the command of Lieut. Kuter, had taken off from Phillips Field and were bucking a stiff wind, climbing for altitude on the way to the bombing range. At the first pass over the range, the two leading planes each released a 2,000-pound bomb, the bombs exploding with a thump and a roar. At the second pass, each of the four other planes dropped two 600 pounders in salvo.

The next demonstration was that of smoke screen laying by a 3-plane formation led by Lieut. Reuben C. Hood, A.C., from Edgewood Arsenal, the other two pilots being from the Third Attack Group. These three planes laid their smoke screens of titanium-tetrachloride across the range and departed. As the crowd of spectators left the Main Front for the shuttle trains that were to take them to the Seacoast and Anti-Aircraft Range, the smoke drifted in among them and effectively demonstrated how thick and persistent such a smoke screen could be.

At the Anti-Aircraft Range, one of the two Mitchel Field o-1E's, piloted by Lieut. Cork, towed a target back and forth across the range, while the battery of 3-inch anti-aircraft guns barked at it and spattered the sky with white clouds as the shots burst, the last one tearing the end out of the fabric sleeve. The pilot then came lower and the .30 calibre anti-aircraft machine guns hammered at it, the tracer bullets showing the trajectory of the fire directed against the sleeve target. A bit later, when the crowd had departed for the flying field and had looked over the set-up of bombs and bomb racks there, an interesting demonstration of the Pitcairn-Cierva autogiro was staged by a representative of the commercial

(Continued on page 368)

SHOOTING THE SERVICE AUTOMATIC PISTOL

By Lieut. J.L. Hitchings, Air Corps
(The 12th article of this series).



The principles and application of position, and breathing when shooting the service automatic are identically those already given for shooting the target pistol.

The basic principles of grip and trigger squeeze also remain unchanged, but their application is much simpler. Let us take the grip first. There is no doubt as to how

high a grip you can get; you simply slide your palm up as high as it will go. The best way of getting the grip is in four distinct steps, as follows:

1. SET THE AUTOMATIC PISTOL IN THE FORK OF YOUR HAND, KEEPING THE PALM EXACTLY VERTICAL IN SUCH MANNER THAT THE BARREL IS EXACTLY IN LINE WITH YOUR ARM, SLIDING THE PALM AS HIGH ON THE GRIP AS POSSIBLE. The position of the palm on the stock will not feel natural; it will feel as though the pistol will surely slide out of your palm; and you will have a strong tendency to bend your hand to the left at the wrist and slide the palm around to the right stock. Resist that impulse!

2. WRAP THE LOWER FINGERS LOOSELY AROUND THE STOCK, EXERTING JUST ENOUGH PRESSURE INWARD WITH THE FINGER TIPS TO KEEP THE PISTOL FROM SLIPPING OUT OF THE PALM. Note that any backward pressure of the lower fingers, caused by wrapping them too tightly around the stocks, will tend to force the pistol out of the palm, and will thus defeat the only purpose which the lower fingers serve.

3. CARRYING THE THUMB HIGH AND IN LINE WITH THE BARREL, GET A FIRM PINCH GRIP BETWEEN THE THUMB AND THE TRIGGER FINGER. This steadies the gun for deflection; the first step causes it to rest naturally on the second finger, which supports it and steadies it for elevation.

4. TAKE UP THE SLACK, PRESSING STRAIGHT TO THE REAR ON THE TRIGGER. This rule is included as a step in getting the grip for a good reason. Failure to take up the slack is one of the most common faults in shooting the automatic; and its importance in getting good scores cannot be overestimated. Whenever a man makes better scores on rapid fire than on slow, you know he is slipping up on this point.

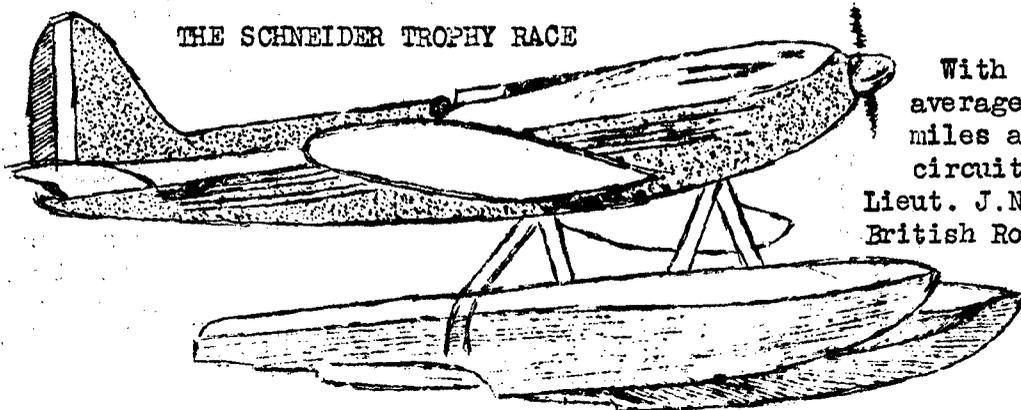
THE TRIGGER SQUEEZE WITH ANY AUTOMATIC PISTOL MUST BE EXACTLY TO THE REAR. Pressure to the left causes the shot to go to the left; hooking the trigger to the right, or excessive pressure on the thumb, causes the shot to go to the right. Pressure down on the trigger pulls the shot down. A slight up pressure, however, is not harmful, and may be used to correct jerking. Increasing the pressure on the trigger increases the pressure of the palm, which does no harm so long as the increase in palm pressure follows the increase in trigger pressure. But as with the target pistol, throwing the palm into the trigger squeeze results in wild shots, high and to the right. The trigger squeeze must be as smooth and even as the bowing of a violin.

The principles of sighting are identical with those previously given. The sights on most service automatics, however, require an aiming point one ring below the black at 15 yards, and two rings below it at 25 yards, on the "I" target. The sequence of firing a shot follows that given for a target pistol with the modifications noted above, and with the further change that Army Regulations prescribe the position of raise pistol as the standard position of rest; and the pistol should therefore be brought back to it instead of to the dueling position of ready, between shots.

It appears from the above discussion that the automatic is easier to shoot than the target pistol. That is true; it is easier to shoot with moderate accuracy; but it is impossible to make target pistol scores, slow fire, with an automatic, when firing on the exacting standard American target. That this is due to the very principles of construction which make it easy to use became apparent when the Smith and Wesson Co. designed their Straight Line .22 single shot target pistol. They built it along the lines of an automatic pistol, giving it the straight-wrist grip and the straight trigger pull of an automatic. The pistol proved a failure, and is not in general use by good shots.

It may be thought that shooting the more difficult target pistol is not necessary or valuable practice for securing proficiency with the automatic. This is not the case, however. Only by shooting the target pistol, a process in which every fault becomes magnified, do you get the fundamental principles of pistol shooting ground into you, and learn to understand them.

THE SCHNEIDER TROPHY RACE



With a record-breaking average speed of 340.08 miles an hour over a closed circuit, achieved by Flight-Lieut. J.N. Boothman of the British Royal Air Force, the last Schneider Trophy contest passed into history, for it marked the third consecutive time

that Great Britain won this speed classic for seaplanes. The Schneider Trophy has now come into the permanent possession of the Royal Aero Club of the United Kingdom. The withdrawal from the contest of Italy and France naturally robbed it of a good deal of its interest, since the competitive aspect was removed. Great Britain, therefore, had the field all to herself. A contributor to the British aeronautical publication FLIGHT, far from regretting the fact that the Schneider contest will be no more, makes the following comment:

"The purpose for which M. Jacques Schneider gave the Trophy in the first place was to encourage research in, and the betterment of, high-speed aircraft. That purpose has been fulfilled in a manner which must be beyond M. Schneider's wildest dreams, for this, the eleventh contest, has raised the speed at which the course has been flown from 45.75 m.p.h. in 1913 to 340.08 m.p.h. in 1931. To him, therefore, we owe a debt of gratitude, inasmuch as he has given us the incentive through which our knowledge of aeronautical science has enabled us to claim the supremacy we now have. To Lady Houston we owe an even greater debt, for it is her munificence which has made possible the final winning and ultimate retention of the Schneider Trophy by Great Britain. Had she not come forward with her magnificent offer, it is possible that we should not have been able to put a team of aircraft in the field, with the result that Italy would have most likely won the Trophy through our default, and thus kept the contest alive for a further indefinite period. Whether or not this would have been a desirable thing is very debatable, but the general consensus of opinion is undoubtedly that the cost of preparations for proper participation in the contest was becoming so large that even governments thought more than the proverbial twice before committing themselves to the expense. It seems, therefore, that for everybody the best ends have been served by the present turn of Fate. As it is now, all designers will be free to devote themselves to the development of their own aircraft and engines along their own lines, without the hampering feeling that they must conform to a definite set of rules in order to gain a certain definite object."

It is stated that following Great Britain's victory in the Schneider contest of 1929, announcement was made that the British Government would not support the building of new machines to defend the Trophy, nor would service pilots be made available to fly any new machines that might be produced. Sometime subsequent to this announcement, Lady Houston came forward with a magnificent offer of £100,000 towards the expense of building new machines and engines and, in view of this very sporting and patriotic action, the government decided to sanction service participation.

Two new machines were built for the 1931 contest by the Supermarine Aviation Works, and were identified as S. 1595 and S. 1596. One of the two machines built expressly for the 1929 Schneider contest, the Supermarine Rolls-Royce S6A, N. 248, was available for the 1931 event. Its sister ship, the S6A, N. 247, in which Flying Officer Waghorn won the 1929 Trophy with an average speed of 323.63 miles per hour, was wrecked during a practice flight a short time ago, resulting in the death of Lieut. G.L. Brinton, R.N.

The British Schneider Team was composed of Squadron Leader A.E. Orlebar (Captain of Team), Flight-Lieuts. F.L. Long, J.N. Boothman, G.H. Stainforth and Flying Officer L.S. Snaith. Flight-Lieut. Boothman was chosen to fly around the Schneider course. FLIGHT made the following editorial comment in this regard:

"We understand that orders were given to the selected pilot, first, to make sure of winning the contest by completing the course; secondly, to beat, if possible, the records for the course and for the 100-kilometers; and, thirdly, so long as those objects were achieved, to run no risks whatever. It seems that his speed was restricted by his water temperature, but it is possible that one of the other machines might have been able to make a higher speed. We cannot help supposing that if a foreign machine had also been flying the course our man,

or men, would have banked closer round the pylons. In fact, we do not accept the speed which was returned as the best which we could have accomplished if we had had any definite reason to try to do better.

It appears that FLIGHT was correct in its assumption that the new seaplanes built for the 1931 Schneider contest were capable of making a better speed record, for Flight-Lieut. Stainforth, flying a 3-kilometer straightaway course shortly following Lieut. Boothman's flight, averaged a speed of 379.05 miles per hour - over six miles a minute!

Flight-Lieut. Boothman's speed over the Schneider course, seven laps of 50 kilometers each, total 350 kilometers, or 217.48 land miles (188.86 sea miles) was as follows:

<u>First Lap</u>	<u>Second Lap</u>	<u>Third Lap</u>	<u>Fourth Lap</u>	<u>Fifth Lap</u>	<u>Sixth Lap</u>	<u>Seventh Lap</u>
343.1	342.7	340.	338.5	339.6	339.4	337.7

Average for seven laps, 340.08 miles per hour.

In gaining the distinction of traveling at the fastest rate of speed ever achieved by mortal man, Flight-Lieut. Stainforth, on the 3-kilometer straightaway course, piloted the S.6B, S. 1596, powered with the racing Rolls-Royce engine. Under the rules he was allowed to dive from a height of 1,300 feet, and had to fly the course at a height of not less than 50 meters (164 feet). Stainforth made five runs, two with the wind and three against it. One of his runs against the wind was not figured in the average. His dives were obviously made so as to obtain the very utmost speed when entering the course and, with this end in view, he pulled out so slowly that it was impossible to say when he started to do so. The smoothness with which he decreased his altitude from some 1200 feet to about 150 feet was phenomenal to watch.

Above him there was the official "Atlas," carrying the sealed barograph and an observer. This machine flew at the prescribed height of 400 meters and witnessed the fact that Stainforth did not start his dive above them. This was an innovation, for it was found that the acceleration of the S6B was far too great to allow a barograph to function satisfactorily when carried in it.

Accurate timing, with speed records constantly mounting, has become correspondingly more difficult, and it may be of interest to quote from an article in FLIGHT giving a description of the timing apparatus:

"The timing apparatus is of the photographic type, and now that these have been developed, it is possible to issue fully authenticated figures, namely, 379.05 m.p.h. (610.01 k.p.h.). The figure first published for Flight-Lieut. Stainforth's record flight was 385.1 m.p.h. This has since been found to be an error. This first figure was found by stop-watch timing and, when a machine is traveling in the region of 390 m.p.h., an error of even only three-fifths of a second will make a difference of some 15 m.p.h., and the most expert timekeepers are seldom proof against an error of this size. The corrected figures were obtained by means of the photographic method, wherein two cinema cameras are used. These cameras not only record the passage of the aircraft at either end of the course by a continuous series of photographs, but also record the time at which each exposure is made in terms of vibrations of a tuning fork, which is in electrical connection with counters in both cameras. Even this method will shortly be inadequate, but for speeds up to about 400 m.p.h. there cannot be an error greater than one-twentieth of a second."

In four runs over the 3-kilometer course, Flight-Lieut. Stainforth piloted his craft at the following speeds: First Run, 373.85 m.p.h.; Second Run, 388.67 m.p.h.; Third Run, 369.87 m.p.h.; Fourth Run, 383.81 m.p.h.; average, 379.05 m.p.h. This speed record exceeded by 23.25 m.p.h. the one established by Squadron Leader Orlebar in 1929. A few days following the Schneider contest in that year, he covered the 3-kilometer course, twice in each direction, at an average speed of 355.8 m.p.h. Not satisfied that this record was the best the Supermarine Rolls-Royce S.6 was capable of making, he made another attempt over the straight-line course sometime later, and succeeded in raising his average speed to 357.7 m.p.h. It was predicted that this record would be eclipsed by one of the 1931 Supermarine Rolls-Royce S.6B machines after the Schneider Contest and, in the light of subsequent events, it appears that this prediction was verified.

It was rumored that a special engine would be put in the ship piloted by Flight-Lieut. Stainforth and that a further attempt would be made to boost the straightaway 3-kilometer speed record. This attempt was made on September 29th at Calshot and, according to an Associated Press dispatch, Flight-Lieut. Stainforth established a new speed record of 408.8 miles an hour. Following a prolonged examination and comparison of the judges' checks, the speeds for the

four successive laps were given as follows: 415.2, 405.1, 409.5 and 405.4 miles per hour.

Truly remarkable strides have been made in aircraft performance since the first Schneider Trophy contest in 1913. In that year the winner of the trophy averaged a speed of 45.75 miles per hour. In a span of 18 years this speed record multiplied itself seven-fold. More remarkable still is the progress which has been made since the Schneider Trophy Race in 1925, when Lieut. James H. Doolittle (now a Major in the Air Corps Reserve) the winning pilot, averaged 232.57 miles per hour. At that time this speed record was considered a remarkable achievement. In a period of but six years, aircraft speed performance was increased to the extent of 108 miles per hour.

And now that, through the genius of aeronautical engineers, a plane with a power plant has been designed which demonstrated that it can travel at the unprecedented speed of 408.8 miles an hour, or 6-4/5 miles per minute, it is interesting to indulge in a little fanciful figuring for the benefit of the man who is in a hurry to get to places. At that rate of speed, one could make the journey of 225 miles from Washington to New York in about 35 minutes. One could take off from New York after luncheon, say one o'clock, for a journey across the American continent involving some 2500 miles, and find himself in San Francisco shortly after seven o'clock, Eastern Standard Time, or four o'clock Pacific Time. He would be faced with the inconvenience of a belated dinner. If he were sportingly inclined and desirous of witnessing a big football game on the Pacific Coast, the New Yorker could take off several hours earlier, say ten o'clock, and arrive at the Golden Gate City in time to see the opening play.

It would be interesting to know what speed could be attained by the seaplane piloted by Flight-Lieut. Stainforth if it were converted into a land plane with the added feature of a retractable landing gear.

In the light of the many outstanding flying achievements during 1931, one wonders what aviation holds in store for us in the future.

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SCOTT FIELD AIRMEN ATTEND AIRPORT DEDICATION AT INDIANAPOLIS

Fourteen planes from Scott Field, Belleville, Ill., were flown to Indianapolis, Ind., in connection with the dedication exercises at the new Municipal Airport in that city on September 26th and 27th. The 15th Observation Squadron sent a formation of 12 planes, headed by Captain Wolcott P. Hayes, while two free lance planes carried Major John P. Duckworth, Flight Surgeon, and a photographer. It was the first formation flying for the Squadron since the annual maneuvers in the Spring, and the performance during the flight and at the dedication exercises were very pleasing. Returning pilots were very free in their praise of the new airport.

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ERRANDS OF MERCY BY ARMY PLANES DURING THE BELIZE DISASTER

The Belize, British Honduras, tidal disaster was brought close to home on September 16th, when what was at first thought to be an Army Sikorsky crashed in flames at David, Republic of Panama. Two O-19s and a Bomber left France Field, Panama Canal Zone, immediately for the scene, and shortly after their departure it was learned that the ill-fated ship was a Naval Sikorsky loaded with 600 pounds of bandages and medical supplies for the stricken Honduras section.

The trip, some 300 air miles, was made in three hours by the Army planes, carrying a doctor and medical supplies. The Naval authorities were profuse in their commendations for the speed and efficiency in which the Army ships were dispatched to the scene of the crash.

The Naval plane, carrying a pilot, Lieut. C.K. Langford, and a crew of three, crashed shortly after taking off from the Pan-American Airways Field at David. The pilot, co-pilot and mechanic were killed, and the radio operator was fatally injured, dying a short time later. A Naval Board of Investigation found the cause of the crash to be "Undetermined."

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Group Captain L.J. Fiennes, Air Attache to the British Embassy, and Squadron Leader A. Ferrier, of the Royal Canadian Air Force, recently visited Selfridge Field, Mich., and expressed themselves as being very much interested in the maneuvers and formations as demonstrated by the First Pursuit Group.

AERIAL SURVEY OF PAN-AMERICAN HIGHWAY ROUTE

A flight of two O-19C airplanes, flown by 1st Lieut. A.Y. Smith and 2nd Lieut. J.W. McCoy, Air Corps, with Staff Sergeant H.L. Hackwith, photographer, and Staff Sgt. J.J. Leachey, mechanic, left France Field recently for San Jose, Costa Rica. This flight was for the purpose of photographing the proposed route of the Pan-American Highway from the northern boundary of Panama to the boundary of Nicaragua near Lake Nicaragua. The original plans called for a K-3 mosaic of a strip 10 miles wide, but due to the cost, over one-half of the area through the less difficult part of the country was eliminated and later plans were made to cover the eliminated sections with a single strip of either K-3 or T-2 pictures, depending on how well defined the route was.

On arriving in San Jose, the flight reported to Mr. D. Tucker Brown, the Bureau of Roads Engineer, who was in charge of the survey and who had traveled over the route on foot and horseback. He was most anxious to obtain photographs of the mountainous sections, so work was started along the continental divide south of San Jose. Due to the prevalence of cumulus clouds after the ground had become heated by the sun, it was necessary to take all photographs as early in the morning as possible. That, together with the impossibility of predicting the weather, made it necessary for the personnel to go out to the flying field at five o'clock each morning. This enabled the photographic plane to be over the desired area at 15,000 feet altitude by 6:45, by which time it was light enough to start taking pictures, except where the mountain shadows were very heavy. It was seldom possible to do any photographic work after 9:00 a.m., due to the formation of low clouds.

Between July 16th and August 17th, several successful flights were made, during which time between eight and nine rolls of film were exposed. The work was then suspended until the next dry season and the flight returned to France Field. The areas photographed extended from Esparta to San Ramon, and from the San Jose Valley between San Jose and Cartago, along the continental divide to the Parrita River and thence along the west slope of the divide to the El General Valley.

The 12th Photo Section is now laying the mosaics of the above areas and making extra prints which will be used with a stereoscope in checking the route of the highway. Last January, a mosaic was made of the northern section of the Panama Division of the highway and, as soon as the weather is more favorable, an effort will be made to join it with the Costa Rican Section.

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DEATH OF LIEUTENANT CLEMENTS

The fatal accident on September 23rd, which resulted in the death of 2nd Lieut., William B. Clements, Air Corps Reserve, was a source of great sorrow to his many friends in the First Pursuit Group. Lieut. Clements was a member of the flight which was on detached service at Bolling Field, cooperating with anti-aircraft searchlights. He was ferrying an airplane to Middletown, Pa., on the afternoon of September 23rd, when he crashed at Dickerson, Md.

Lieut. Clements graduated from the Air Corps Advanced Flying School at Kelly Field, Texas, June 23, 1930, and was on extended active duty with the First Pursuit Group at Selfridge Field since that time. He was a promising and personable young officer, and his loss to the service by his untimely death is severely felt.

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Lieut.-General Gustav Dreszer, Polish Army; his aide-de-camp, Lieut.-Col. Ladislav Ryschadek; and the Polish Consul for Detroit, Mr. Jan Lech Byszewski, visited Selfridge Field Sept. 30th, and were entertained by Major George H. Brett, Commanding Officer of the field. They were then shown about the post by Major Brett and entertained by a demonstration given by a flight of the 94th Pursuit Squadron. This flight, led by Lieut. Harry A. Johnson, demonstrated tactical position and maneuvers, which proved very interesting to General Dreszer.

On the following morning a composite squadron of 18 planes conducted their morning training in the vicinity of the Detroit Yacht Club on Belle Isle, where General Dreszer and his party were to be at that time. The flying included tactical formation disposition and maneuvers as undertaken by a complete squadron.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Rockwell Field, Calif.: Major Thomas DeW. Milling, Instr., Colo. Natl. Guard, Denver, for duty at Rockwell Air Depot; 1st Lt. Carlyle H. Ridenour, Wright Field, for duty as representative of Inspection Division, O.C.A.C., in Rockwell Air Depot Control Area.

To March Field, Calif.: 2nd Lt. Forrest L. Neville, Brooks Field; Texas.

To Crissy Field, Calif.: 2nd Lt. Donald W. Titus from Hawaiian Department.

To Bolling Field, D.C.: 2nd Lt. Elvin F. Maughan from Fort Sill, Okla.

To Fort Bragg, N.C.: 1st Lieut. Sheldon B. Edwards from Brooks Field.

To Aberdeen Proving Ground, Md.: 1st Lt. Leslie A. Skinner, from Philippines. Detailed to the Ordnance Department.

To Randolph Field, Texas: Major Laurence F. Stone from Duncan Field; 1st Lt. Benjamin T. Starkey and 2nd Lt. Ralph P. Swofford, Jr., from Advanced Flying School, Kelly Field.

To Maxwell Field, Ala.: 1st Lt. Wendell B. McCoy from Hawaiian Dept.; 1st Lt. Sigmund F. Landers from Brooks Field

To Technical School, Chanute Field, Ill.: 1st Lt. James W. Spry, Chanute Field, for duty as student, Maintenance Engineering Course.

To Panama Canal Dept.: 2nd Lt. Neal E. Ausman, from Advanced Flying School, Kelly Field, Texas.

To Brooks Field, Texas: 2nd Lt. Carl A. Brandt from Adv. Flying School. 22.

To Wright Field, Ohio: 1st Lt. Wm. J. Hanlon, Langley Field, effective 3-15-

To Langley Field, Va.: 1st Lt. George F. Schulgen. Previous orders revoked.

ORDERS REVOKED: Assignment of 2nd Lt. David R. Gibbs, Advanced Flying School, Kelly Field, to Mather Field; assignment 1st Lt. James G. Pratt, Langley Field, to Panama.

RELIEVED FROM DETAIL TO THE AIR CORPS: Major Oscar W. Griswold to the 24th Infantry, Fort Benning, Ga.; 2nd Lt. Charles E. Beauchamp to 2nd Inf., Fort Wayne, Mich.; 2nd Lt. Morton E. Towner to Inf., 2nd Division, Fort Sam Houston, Texas; 2nd Lt. Thomas Kent to 2nd Division with station at Fort Francis E. Warren Wyo.; 2nd Lt. Lee B. Washbourne to 13th Engineers, Fort Humphries, Va.

DETAILED TO THE AIR CORPS, and to Randolph Field, Texas, for flying training: 2nd Lieut. Frank Kawalski, Jr. Quartermaster's Department.

PROMOTIONS: Lieut.-Col. Frank P. Lahm to Colonel, rank from October 1, 1931; Captain Donald P. Muse to Major, rank from October 1, 1931; 1st Lieut. Benjamin B. Cassidy to Captain, rank from Sept. 15, 1931; 1st Lieuts. Charles Y. Banfil, Myron R. Wood, Robert T. Cronau, Isaac J. Williams, Clarence E. Shankle, Donald L. Bruner, Lloyd C. Blackburn, Audrey B. Ballard, Samuel W. VanMeter to Captain, rank from October 1, 1931; 2nd Lt. Turner A. Sims, Jr. to 1st Lieut., rank from Sept. 1, 1931; 2nd Lt. Alfred H. Johnson to 1st Lieut., rank from Oct. 2, 1931.

RETIREMENTS: 1st Lieut. James Flannery, Brooks Field, to proceed to his home; 1st Lieut. Maxwell W. Balfour, Mitchel Field, to retired list with rank of Capt., October 31, 1931.

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SELFRIDGE FIELD FLYERS RETURN FROM NATIONAL AIR RACES

The 1st Pursuit Group, Selfridge Field, Mich., returned to their home station Sept. 7th, after having spent ten days at the National Air Races at Cleveland, Ohio, between August 29th and Sept. 7th. Major George H. Brett was in command, and Major Gerald E. Brower commanded and led the Group. Two composite squadrons of 18 P-12's each, and known respectively as the Red and Black Squadrons, put on a 30-minute tactical demonstration on each day of the Races.

Tuesday, Sept. 1st, was known as "Army Day," and was marred by one accident. Lieut. Thayer S. Olds, of the 36th Pursuit Squadron, was forced to "bail out" when his XP-12 plane started to shake to pieces, due to structural failure. Lt. Olds landed safely in his parachute in Lake Erie, about fifty feet from the shore. The only inconvenience he suffered was a slight wetting.

On Saturday, Sept. 5th, the Selfridge Field Trio, known as the "Three Turtles," and composed of Lieuts. John S. Griffith, H.H. VanAuken and Robert W. Burns, put on a 20-minute demonstration of precision flying. All Selfridge Field personnel were delighted when Major James H. Doolittle, former Army pilot, broke the transcontinental record, and were strongly pulling for him to win the Thompson Trophy Race.

PURSUITERS MAKE PREPARATIONS FOR SEARCH MISSIONS.

The annual season at Selfridge Field, Mt. Clemens, Mich., for the search for missing boats has finally commenced. Ever since the Army flyers have been stationed on the shores of Lake St. Clair, the period between September and November, at which time the Lake freezes, has been noted for the amount of calls which are made on the flying personnel to search for missing boats. These calls are generally one or two a week. They are always cheerfully complied with, although in most cases, about fifteen minutes after the search flight takes off, a phone call will be received in the Operations Office stating that the missing boat has been found. The First Pursuit Group, however, is always glad to cooperate in relief missions of this character.

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FOURTH OBSERVATION SQUADRON SCORES HIGH IN FLYING TIME

As the month of August came to a close, the 4th Observation Squadron established a new high flying record of 289 aircraft hours, which were flown with an average of six ships in commission during the month. The Squadron performed various tactical training missions, including several Wing maneuvers and reviews. Approximately 103 hours were spent in cooperative missions with the 64th Coast Artillery (Anti-Aircraft) and Hawaiian Division, which included day and night flying in towing targets for the practice of Anti-Aircraft batteries. In missions performed for the Hawaiian Division, the planes were assigned to Observation and reconnaissance work, involving the use of signaling devices and radio. All cooperative missions were very successful.

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INACTIVE RESERVES RESUME FLYING TRAINING AT SELFRIDGE FIELD

The Air Corps Reserve Unit near Detroit, the 107th Observation Squadron, resumed their weekly training at Selfridge Field, Mich., on September 13th. Permanent personnel of the post are very proud of this organization, due to the fact that every Sunday and Wednesday throughout the year, weather conditions permitting, they report to the field for flying training. This organization numbers among its personnel some very expert pilots, men who flew during the War, and, although now engaged in other occupations, still desire - at great inconvenience to themselves - to retain their flying ability so as to be of service to their country in any future emergency.

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NIGHT FLYING BY CALIFORNIA NATIONAL GUARD AIRMEN

The new Douglas O-38 Observation planes of the 40th Division Aviation, California National Guard, are fully equipped for night flying. This is the first time in the history of the California National Guard that this Squadron has had five service type planes with equipment for night work. The training this year requires that each officer complete a 10-hour course of flying instruction for night reconnaissance. The course includes the following:

1. Check hop, one hour. Includes flying and landing with an instructor in at least three fields.
2. Cross-country, solo, 5 hours. Each pilot to follow Department of Commerce airway, make a landing in a designated emergency field, and return to home station.
3. Formation, 2 hours, 3-ship formation, using flash light signals.
4. Communication, 2 hours, using radio and pyrotechnics.

This instruction is carried on under the close supervision of the operations officer. Each pilot completing the course is fully qualified to perform night missions, which should greatly increase the efficiency and effectiveness of the squadron in event of an emergency. With this new and up-to-date equipment, the squadron will be prepared to send a mission any place, night or day, equipped with a full military load of machine guns, bombs and radio.

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Rockwell Field sent 7 Bombers and 13 Pursuit planes to Los Angeles on Sept. 12th. These ships were flown in drills and maneuvers over Mines Field as the Air Corps contribution to the "La Fiesta" festival then in full swing at Los Angeles.

Engineering News

MATERIEL DIVISION ACTIVITIES

Fuel Specifications

One of the important reasons for the recent improvements in the performance of military aircraft has been the increase in engine power permitted by the improvement in fuel specifications. American engines built for commercial operation are very conservatively rated because of the very poor anti-knock characteristics of some of the aviation fuel available in this country. The latter, while constituting only a small proportion of the fuel generally supplied, has anti-knock characteristics which are even inferior to those of good regular automobile fuel. The recent Army specifications call for an anti-knock rating of 87-octane which is the equivalent rating of a mixture of 87 per cent octane and 13 per cent heptane -- the former being a very good anti-knock, and the latter a poor one. This has permitted a distinct increase in compression ratio and supercharging pressure, resulting in much improved power without sacrifice in reliability in commercial types of engines.

It has been stated that the Wright J-6 air-cooled radial engine of 975 cubic inches rated at 300 hp for commercial use, may be rated at 400 hp, without sacrifice of reliability, by increasing the compression ratio and supercharger speed and using fuel of suitable knock rating. In the recent Cleveland Air Races several examples of this engine and the Pratt-Whitney "Wasp Junior" engine of 985 cubic inches were in use which were stated to develop over 500 hp at increased revolutions.

The Army also specifies a maximum vapor pressure for service fuel in order to eliminate "vapor lock." This effect is manifested in fuel lines which are subject to reduced pressures due to the lifting of fuel from a tank into a fuel pump, and is caused by the fuel vaporizing in the line, thus causing the pump to stop lifting fuel.

The General Streamline Tire

As the result of experiments conducted by the General Rubber Company and Wright Field, a low-pressure tire of improved aerodynamic characteristics has been developed. The tire is of roughly triangular cross section when deflated, the rim being the base of the triangle and the tread, the point. When inflated the triangle rounds out somewhat, but at no point is the tire wider than its rim. The wheel is faired in with the tire, making a very smooth assembly. Aerodynamically it compares very favorably with the conventional type of wheel and tire fitted with streamline "spats." It also eliminates the weight and maintenance difficulties of the "spats."

The Kellet K-2 Autogiro

A Kellet K-2 Autogiro, fitted with the 7-cylinder 160-hp Continental radial air-cooled engine has been at Wright Field and has been undergoing inspection and performance testing.

The Boeing XB-901

This bombardment airplane, having two Pratt-Whitney "Hornet" engines of 575 hp each, was recently tested at Wright Field and showed a very satisfactory improvement in performance over standard. It is an all-metal, low-wing cantilever monoplane having a monocoque fuselage and retractable landing chassis. The engine nacelles are very carefully streamlined into the wings and the engines have anti-drag cowlings. Several examples of this airplane with various types of engines have been ordered for service test.

The World's Distance Record

By flying from New York to Istanbul, Turkey, a distance of 5,000 miles, in 49 hours, Mr. John Polando and Mr. Russel Boardman set a new world's distance record, beating the former record of 4912 miles set by MM. Ciste and Bellonte. They flew a Bellanca airplane with a 300-hp Wright engine. Their flight was a masterpiece of careful planning and navigation, and is a great credit to their plane and engine. It is quite noteworthy that this was a practically standard commercial airplane and engine, and a radial air-cooled engine of only 300 h.p. at that, whereas the French record was made with a special airplane with a 600 h.p. water-cooled engine.

The Sikorsky S-40 Amphibian

The world's largest amphibian airplane was flown recently by the Sikorsky Company. It weighs 34,000 pounds, has a span of 115 feet, a useful load of 12,000 pounds, and a speed of 130 m.p.h. It is powered by four 375 h.p. Pratt-Whitney "Hornet" engines. It has a carrying capacity for 40 persons.

The National Air Races

There were numerous developments of technical interest shown at the races this year. Major Doolittle's winning of the Bendix Trophy and breaking of the transcontinental record was noteworthy. He averaged 250 m.p.h. from Santa Monica, Calif., to New York, and then hopped back to Cleveland, rather convincingly demonstrating the reliability of his high-speed airplane and engine. The plane was a Laird "Solution" biplane, with thin, wire-braced wings, fitted with a 500 h.p. "Wasp Junior" direct-drive engine. He fitted a geared engine for the Thompson Trophy race, but failed to complete the course.

The fastest time of the races was made by Mr. Lowell Beyles in a Gee-Bee sportster with a Wasp Junior engine, which averaged 267 m.p.h. on the straight-away for a new American record. This is a low-wing monoplane with thin wire-braced wings. It won the Thompson race at 236 m.p.h. Another noteworthy accomplishment was the speed of 167 m.p.h. made by John Livingston in a Monocoupe with a Warner engine of 110 nominal h.p. This is a truly remarkable achievement for a two-seat cabin airplane with a radial air-cooled engine of this size.

Amongst the members of the International Team, the Polish PZL-6 pursuit airplane was of particular interest. This is a gull-wing, strut-braced monoplane, very carefully streamlined, of all-metal construction. It has a Bristol-Jupiter engine, of British make, of about 450 h.p. It has a very good high speed, and demonstrated its maneuverability very convincingly.

Note: Foreign Aviation Developments will appear in the next issue.

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Ordnance manufacturer of these machines, this including the usual hair-raising vertical descent landings which are quite the ordinary thing for the autogiro.

(From Page 359) The climax of the flying show came when four parachute jumpers taken aloft in a Ford Transport, piloted by Capt. Eugene Eubank of Langley Field, leaped out of the ship and made synthetic caterpillars of themselves. These aerial dare-devils were Privates M. Kump, H.J. O'Donnell and B.D. Dunlap of Langley Field, and W.A. Milligan of Phillips Field. All of them landed safely.

After the flying exhibitions, the spectators were given an opportunity to inspect the many types of aircraft which visiting pilots had brought in to the field. Major H.C. Minton, Ordnance Department, made the announcements of events over the public address system.

Air Corps pilots participating in the various events were as follows:

From Edgewood Arsenal: Lieut. Reuben C. Hood.

From Bolling Field: Lieuts. Stanley M. Umstead and Robt. K. Giovannoli.

From Mitchell Field: Lieuts. R. O. Cork and Francis X. Kelly (Reserve).

From Phillips Field: Captain Chas. B. DeShields, Lieut. H.F. McCaffery and Sergeant Smink.

From Fort Crockett: Captain Lotha A. Smith, Lieuts. Wm. C. Mills, K.R. Crosher, L.J. Fairbanks (Res.) and E.V. Robnett (Res). Lieuts. Mills and Crosher were the smoke screen pilots.

From Langley Field: Captain Eugene Eubank, Lieuts. L.S. Kuter, R.P. O'Keefe, and Roland O.S. Akre, Air Corps, Lieut. Wm. D. Harrison, Air Corps, and Lieuts. H.W. Regan, E.D. Shannon, C.C. Foxworth, F.A. Wil us, S.S. Tatum, T.L. Taylor, R.P. Doolittle and R.C. Hughes, Air Corps Reserve.



The Langley Field football squad opened its 1931 schedule at Williamsburg, Va., on Sept. 19th, holding William and Mary to a 6 to 6 tie. One week later, Campbell College lost to the local squad by a score of 20 to 0. The press accounts of these games follow:

Langley Field Aviators held John Kellison's William and Mary Indians, the team that tied Harvard last season 13 - 13, to a 6 - 6 tie here today in a hard fought battle. During the first quarter William and Mary Varsity had a slight edge. Langley Field staged a comeback and outplayed the Indians for the balance of the game.

Midway the first quarter, Happy Halligan, star Indian end, rushed in to block a Langley punt on his own 40-yard line and recovered the ball to race across the line for the first score. Red Maxey missed the placement kick by inches. William and Mary's aerial attack functioned twice late in the first quarter to leave the ball on Langley's 20-yard line at the whistle. During the second quarter the Aviators, under the guidance of Quarterback Smith, began ripping in around and through the Indian line to hold them at a standstill.

Langley Field opened the third period with a bang and within three minutes of play had pushed a touchdown across by virtue of a blocked punt, Jeannette's lightning recovery and a 10-yard dash. The Aviators also missed their try for an extra point. The very next play, Halligan's punt was again blocked across their goal line. The ball was recovered by Maxey and Langley had missed another score by inches.

After an exchange of punts and return by Cornwall to the 7-yard line and caught from behind by Maxey, Langley lacked the punch to put it over. Again an intercepted pass by Smith came within a few yards of scoring.

Quarterback Smith played an outstanding game for Langley and figured largely in nearly every play. The Langley line handled the heavy Indian front wall with ease and broke through often to smear Red Maxey in his tracks. Halligan's work, before leaving the game on account of injuries, stood out for William and Mary. The demon Maxey, individual high point scorer of the South, All-American Mention, found little chance to get going this afternoon, the line breaking through repeatedly and throwing Maxey for losses. He had to satisfy himself with several nice gains.

Line-up - Langley: RE, Koveliski; RT, Holmes; RG, Jeannette; C, Retter; LG, Fozze; LT, Piper; LE, Donn; QB, Kerr; RH, Howard; LH, Worthington; FB, Collins. William and Mary: RE, Johnson; RT, Syer; RG, Quirk; C, Ayers; LG, Douglas; LT, Meade; LE, Halligan; QB, Tutthill; RH, Maxey; LH, Lacroix; F.B., Constantine.

The Campbell College football team, which held Langley Field to a 6 - 0 score last year, failed to create much of an impression upon the Langley Field Aviators on Saturday, Sept. 26th, and went down to defeat by a score of 20 - 0. The visitors had a heavy and rugged team but lacked the experience and skill of Captain Usher's flying aggregation. The Aviators were not obliged to extend themselves, sewing up the game in the opening quarter when two touchdowns were scored.

The contest got under way at 2:30 o'clock under torrid weather conditions. After several minutes of play, Kerr, on a prettily executed reverse triple pass, raced 30 yards to a touchdown. Hetrick failed to kick the goal. Later in the quarter, Smith, on an end run, tallied Langley's second touchdown. Hetrick kicked the goal. There was no scoring in the second and third quarters. Langley worked the ball near the end of the third quarter to the 7-yard line, but lost it on downs. In the closing quarter and with only two minutes to play, Kerr ran back a kick from midfield and Worthington carried the ball over from the 10-yard line. Hetrick added the extra point, raising the score to 20 for Langley Field.

The visitors played well on the defensive but could do little when they had the ball in their possession.

NOTES FROM AIR CORPS FIELDS

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Nichols Field, P.I., Aug. 31st:

Jupiter Pluvius spent the months of June and July in "travel outside the department", judging by the feeble output from his minions. When he returned on Aug. 1st, he bucked his outfit up in no uncertain terms and produced 36 inches of rain in a week. Boots and bancas by the right flank!

Two Amphibians went south on July 31st to speed up General Parker's survey. They finished their work in about 3 days, and came home two weeks later with long tales about too much ice and snow to fish, broken anchor ropes, Amphibians on the rocks, all night taxi rides, etc.

Major John B. Brooks, commanding this station, made a formal inspection of all transportation on August 29th. With the big Liberty trucks on the right, all 28 vehicles were aligned, graduated in size down to the passenger cars and motorcycles. One hour before the time scheduled for inspection, Sgt. Bert O. Craft, our truckmaster, suffered a fractured collar bone when thrown from his motorcycle in an attempt to avoid a civilian automobile. His duties of last minute preparations were competently filled by his assistant, Cpl. Harold J. Halterman of the 2nd Observation Squadron.

Promptly at 11 o'clock, the Commanding Officer put in his appearance and a minute and detailed inspection of each vehicle and its operator ensued. Maj. Brooks, after completing his 45 minutes inspection, called all the transportation personnel together and expressed his satisfaction in results obtained and the manifestation of thorough cooperation between drivers, mechanics and officers in charge.

Hawaiian Air Depot, Luke Field, T.H., Sept. 5th:

On Aug. 12th, Maj.-Gen. Wm. Lassiter inspected the Hawaiian Air Depot and was well pleased with the operation of all of its activities. The inspection was followed by a systematic fire drill, with efficient results.

On July 30th, Capt. Byron T. Burt and Lieut. F.H. Robey flew to the Island of Hawaii in connection with the installation of the new fueling facilities at Upolu Point landing field. Work on this project is progressing rapidly, and when completed it will be a great asset to the Air Corps in these islands.

The Supply Section of the Hawaiian Air Depot is still in the process of consolidation. Vast improvement has been shown in the warehouse in particular, where things now present a systematic appearance. Two A-3 B airplanes were received from the mainland Aug. 25th.

The Engine Repair Section overhauled a total of seven engines during August, viz: 6 V-1150 and one R-1750-B.

The Aero Repair accomplished major overhaul for August on 2 A-3 B and 2 O-19 B planes.

During August, the Final Assembly Department completed and delivered nineteen airplanes in the following classifications: 12 minor overhauls, 2 major overhauls, 5 major assemblies of the new Keystone B-5A type Bombers.

Although the number of engines overhauled for the past month is below the average, the Engine Repair Section was not on "furlough", for during this period this Section spent much time in general maintenance and shop maintenance. In addition to this, 5000 aircraft spark plugs were overhauled, and a gasoline storage shed was constructed for use of the Engine Repair Section.

Fifth Composite Group, Luke Field, T.H.:

Flying training for the month of August consisted of aerial gunnery, bombing, aerial photography, aerial reconnaissance, cross-country formation and night flying, communications flights, aerial navigation, instrument flying, tactical exercises and cooperation with other branches of the service.

On Aug. 7th, this group sent a flight of 12 bombers and 12 O-19's to Wheeler Field for the purpose of participating in an inspection of aircraft and personnel and a Wing Review conducted by the Commanding General, Hawaiian Department, and the Commanding Officer, 18th Composite Wing.

On Aug. 21st, this group consisting of 9 Bombers and 13 O-19's, participated in a Wing Tactical Exercise, led by the Wing Commander, for the purpose of securing training in coordinated action and defense against attack by Pursuit aviation. Upon completion of the exercise all planes effected a landing at Wheeler Field for a critique by the Wing Commander before returning to Luke Field.

On Aug. 10th, two caterpillars were introduced into our midst when the Bomber in which 2nd Lieut. Donald E. Meade, Air Res., pilot, and Pvt. James D. Koons, 72nd Bombardment Squadron, mechanic, were flying in a formation of four Bombers crashed into Opaucula Gulch on the Koolau mountain range. Aside from receiving minor scratches from the well known guava bushes, neither Lieut. Meade nor Pvt. Koons suffered any ill effects from their experience.

2nd Lieut. and Mrs. Fay O. Dice, A.C., were recent arrivals at this station aboard the U.S.A.T. "Somme". Lieut. Dice was assigned to the 4th Observation Squadron.

1st Lieut. and Mrs. Harold F. Rouse, A.C., departed for the mainland, aboard the U.S.A.T. "Somme", on Aug. 19th. Lieut. Rouse was assigned to duty at March Field, Riverside, Calif.

During August the 4th Observation Squadron was busy painting and varnishing also decorating ships with the new insignia, the results which can readily be seen in the appearance of the O-19's.

The 50th Squadron was kept busy flying tow target missions for the Coast Artillery, for their Anti-aircraft in connection with their firing practice.

Instrument flying has taken prominence this month with all pilots trying their hands at it. New equipment is being tried out and appears satisfactory for this work except for a few minor changes.

On Aug. 10th one of our ships was flown on a reconnaissance mission by a pilot of another squadron to locate a crashed bomber and was landed in a plowed field. Due to heavy rains, the field became muggy and the plane hit a telephone pole on the take-off, crashing the two right wings. The pilot and mechanic suffered no injuries but the plane had to be dismantled and brought back to Luke Field by the Repair truck.

For the second consecutive year, the 23d Squadron took the Inter-squadron volleyball league championship, losing only one contest. Supremacy was shown in this sport from the start as the team flashed across the line with such scores as 15 to 3, and 15 to 5. The squad was made up of the following, who are all stellar players: Lieut. Pryce, Sgt. Vickery, Cpls. Cox and Johnson, Pvts. 1st Cl. Lasswell and Finklestein and Pvts. Searcy, Romoska and King.

18th Pursuit Group, Wheeler Field, T.H.:

This group again participated in a Wing tactical exercise on Aug. 21st. During this exercise the 6th Pursuit Squadron represented enemy Pursuit and the 19th and 26th Squadrons furnished special support to the 5th Composite Group. Several attacks were made by the "enemy" Pursuit. The exercise afforded an opportunity for valuable training in the coordination of a large formation.

During the month of August, this squadron flew 176 hours.

On Aug. 15th, the 26th Attack Squadron moved into the field, at the Air Corps gunnery camp at Waimanalo, for aerial gunnery on ground targets. The quaint practice of firing on the wrong target and failing to close shutters has kept the ice box well filled with pop. The squadron expects to return to Wheeler Field on Aug. 26th.

The 19th Pursuit Squadron completed 15 days of field duty at Waimanalo, Aug. 15th. During this period, fifteen pilots of this organization completed their firing for record on ground targets. The scores were very satisfactory, 2nd Lieut. James J. Walsh being high on ground targets with a score of 762.

Free lance gunnery by Dan Cupid resulted in two direct hits on the bachelors of the group. On Aug. 15th, the marriage of Lieut. Joe L. Loutzenheiser and Miss Eleanor Cook Meridith was announced; then on the 21st of August, the marriage of Lieut. William A. Cocke, Jr., Air Res., and Miss Frances Findeisen took another of our officers from the ranks of the bachelors.

On Aug. 4th, the 26th Attack Squadron flew a mission in cooperation with the 22nd Infantry Brigade. The 27th and 35th Infantry regiments were to simulate an offensive drive upon an enemy on a line one-half mile distant, and drive it into the hills. This squadron, led by Lieut. Nathan F. Twining, made an

attack on the 27th Infantry, and another on the 35th Infantry, during the time both regiments were on the march. Later, the flight attacked the brigade while moving against an imaginary enemy.

On Aug. 10th, Lieut. Weldon E. (Dusty) Rhoades, joined the Caterpillar Club when his PW-9 refused to respond to the controls and spun into the ground near Haleiwa. "Dusty" bailed out, then coolly waited for the sound of the ship's crashing before pulling his rip cord. It was his misfortune to strike a rock as he landed in a cane field, which caused a broken ankle that will confine him to the hospital for several weeks.

San Antonio Air Depot, Duncan Field, Texas, Sept. 15th:

Guests of the Depot on Sept. 8th, at the regular monthly conference, and the luncheon following same, held at the Depot for coordination of supply and engineering matters in this Area, were as follows: Brig.-General C.H. Danforth, Commanding General of Air Corps Training Center, and Aide, Lieut. R.W. Douglass, Jr.; Majors Glenn P. Anderson, 12th C.A.; Frank C. Venn, M.C.; Capt. S.J. Idzorek, and Lieuts. C.C. Chauncey, J.J. O'Connell and F.F. Everest, Jr., of Ft. Crockett, Texas; Maj. Frank D. Lackland, Commanding Officer of Dodd Field, Ft. Sam Houston and Lieuts. LeRoy Hudson and J.P. Newberry, of Dodd Field; Lieuts. A.L. Jewett and R.C. Harris, of Kelly Field; Capt. C.E. Giffin and Lieuts. R.C. MacDonald, of Brooks Field; Capt. A.S. Albro and Lieut. H.A. Bartron, of Randolph Field; and Lieut. C.S. Tidwell, Air-Res., of Post Field, Ft. Sill, Okla.

On Sept. 11th the Depot welcomed back into its midst Capt. Warner B. Gates and family, Capt. Gates having been reassigned to this Depot from a tour of duty at Brooks Field.

Lieut. Lucas V. Beau, Jr., A.C. Instructor with the Colorado National Guard at Denver, was a visitor at this Depot on Sept. 3d, to secure and ferry back an O-2H airplane for the Colorado National Guard.

Capt. E.V. Harbeck, Jr., and Lieut. Donald F. Fritch, of this Depot, made a trip to the Rockwell Air Depot, Rockwell Field, Calif., to ferry two O-2H planes to Kelly Field, Sept. 8th to 13th.

Lieuts. T.H. Chapman and C.E. Thomas, Jr., of this Depot, left on Sept. 13th for Wright Field, Ohio, to attend a meeting of a Board of Officers convened at the Air Corps Materiel Division in regard to plans for the new Alameda Air Depot in California.

During the month of August, 1931, the Engineering Department overhauled and repaired the following airplanes and engines: Airplanes overhauled - 2 A-3, 4 A-3B, 2 O-2H, 3 O-19B, 1 P-1E, 6 BT-1, 2 BT-2B, 4 PT-3A. Total, 24.

Airplanes Repaired - 4 A-3B, 1 LB-7, 1 O-2H, 2 O-19C, 1 O-38, 1 PW-9C, 3 BT-2B, 2 C-7, 1 Y1C-22, 1 YF-1. Total, 17.

Engines overhauled - 6 R-975, 7 R-790, 21 V-1150, 17 R-1340, 1 R-1690. Total, 52. Engines repaired - 4 V-1150, 1 R-790, 11 V-1650. Total, 16.

Lawson Field, Ft. Benning, Ga., Sept. 15th:

During the past 30 days our training schedule has gone forward steadily. We have indulged in radio, blind flying, navigation, and formation to the full 15 hour limit.

Major Ira A. Rader, A.C. Instructor in the Infantry School, recently returned from Tybee Island, where he spent his academic leave.

On Sept. 10th, Lieut. Barnett led a three-ship formation to Anniston, Ala., on a navigation flight.

Lieut. John Sessums, A.C., was a recent visitor to Lawson Field. Lieut. Sessums is taking a rest from his duties as Aide to Gen. Preston Brown in Panama.

Boston Airport, Mass., Oct. 1st:

The officers in the A.C. Reserve who are flying from the Boston Airport are rejoicing over the types of planes now located here for their use. Several O-1E and O-1B types are now available, also two Douglas BT-2B's and two PT-3 training ships.

Unfortunately, the allotment of flying hours was seriously curtailed. We say seriously due to the fact that the number of Reserves, flying from this station has increased considerably. The result has been a limitation of flying

time for each man which impairs the efficiency. Some view the cut in time as a potential danger due to the fact that the men get so little time for flying service type ships, time which is below the minimum for safety. Capt. Joseph A. Wilson and Lieut. Glenn Salisbury are working with the Reserves to ascertain what steps may be taken to increase the hours allotted and thereby maintain the splendid efficiency of the local Reserve flyers.

Recent formation flights by the 442d and 443d Pursuit Squadron, Reserves, with Majors Bartlett Beaman, R.F. Raymond (D.S.C.), Capts. Charles Clark, George Lusk; Lieuts. Parker, Pierson, Towner, H.N. White, C.J. A'Hearn and other pilots of the group, included flights over Amesbury, Providence, and Dedham. At Dedham, Mass., the pilots helped to give a fellow aeronaut, R.S. Maughan, Jr., a send-off on his flight with the former Miss Olivia Matthews (also a pilot) into the realms of married life.

At a recent meeting of the A.C. Reserve Officers Association, the group succeeded in pulling a fast one on Capt. J.A. Wilson, Commanding Officer of the Boston Airport Detachment. They notified "Smoky Joe", as he is affectionately called due to his past fire-fighting activities at Mitchel Field, that they wished him to speak at the meeting on recent A.C. activities.

Capt. Wilson prepared a fine address, spending hours in securing data for presentation to the flyers, only to be surprised when he arrived at the meeting to find it was a meeting to congratulate him on his promotion to Captaincy and to present him with a wardrobe trunk for his coming trip to Europe. "Joe" was sent into a flat spin when he realized that the meeting was in his honor. The group certainly wishes him a wonderful trip.

Capt. Wilson and Lieut. Salisbury see to it that the Saturday afternoon flying, when most of the local Reserves appear at the field, is of real benefit. Various maneuvers are planned and executed, resulting in much valuable training being obtained. The pilots are enthusiastic over the plan, as it increases the interest in Air Corps activities.

Patterson Field, Fairfield, Ohio, Sept. 11th:

On July 6, 1931, the military reservation on which the Fairfield Air Depot is located received a new name, that of "Patterson Field", in honor of First Lieut. Frank S. Patterson, who was killed in an airplane accident June 19, 1918, at Dayton, Ohio. The Depot, however, will retain its present designation and will function as one of the activities of Patterson Field. This change in name gives the public a more definite distinction between Wright Field and Fairfield.

Maj. A.L. Sneed returned to duty Aug. 30th, after spending a very pleasant vacation on Nantucket island.

Lieut-Col. L.E. Goodier, Jr., departed September 8th on a leave of absence until about the end of the month.

Maj. A.L. Sneed, Capt. H.W. Flickinger, Lieuts. D.R. Goodrich and F.M. Zeigler participated in night flying on Sept. 8th.

Capt. H.A. Bivins and Mr. Paul H. Taggart, civilian mechanic, departed Sept. 5th and returned Sept. 7th from Lambert Field, St. Louis, Mo., after making necessary repairs to an airplane at that station.

Capt. John L. Corbett, Q.M.C., departed for Wisconsin Aug. 20th on sick leave. It is not expected he will be able to return to this station until some time in October, due to a severe case of hay fever and asthma.

Lieuts. M.B. Asp and C.S. Irvine departed Sept. 10th for Candler Field, Atlanta, Ga., to secure and ferry airplanes to this station for overhaul.

1st Lieut. Robert H. Pinkerton, Dent-Res., reported Aug. 16th for a period of two weeks' active duty training.

Sgt. John Bolt, Q.M.C., departed September 10th in compliance with orders directing him to report to the Motor Transport School, Camp Holabird, Baltimore, Md., for a course of instruction beginning Sept. 14th.

Pvt. 1st Cl. Joseph E. Szymkiewicz, 18th Signal Service Co., departed Sept. 8th for the Signal School at Ft. Monmouth, N.J., for a course of instruction.

Capt. H.W. Flickinger attended the Harmsworth Trophy Race in Detroit on Labor Day.

Lieut. F.M. Zeigler made a cross-country flight to Allentown, Pa., and returned via Cleveland, where he attended the Air Races.

Lieuts. C.S. Irvine and F.E. Glantzberg attended the Air Races at Cleveland.

Lieut. Molvin B. Asp flew from Maxwell Field, Montgomery, Ala., in 4 hrs.

10 mins. with tail winds and bad weather all the day. (Will Rogers, please note.)

Following is a list of winners in the Robins Cup Golf Tournament recently held at this station.

Robins Cup for Officers:

Winner of Tournament - Lieut. C.D. McAllister.
Runner up in Tournament - Lieut. D.F. Stace.
Winner of Consolation - Lieut. M.B. Asp.
Runner up on Consolation - Capt. D.B. Howard.
Low Score Qualifying Round - Lieut. D.F. Stace.

Robins Cup for Ladies:

Winner of Tournament - Mrs. O.R. Cook.
Runner up in Tournament - Mrs. O.P. Echols.
Winner of Consolation - Mrs. B.W. Chidlaw.
Runner up on Consolation - Mrs. C.H. Ridenour.
Low Score Qualifying Round - Mrs. O.R. Cook.

The Cup was presented to the Wilbur Wright Officers' Club by Lieut. Col. and Mrs. A.W. Robins while the Colonel was in command at this station. Each year a Tournament is held for the pleasure of the officers and ladies of the Club.

The Fall Handicap Golf Tournament for men and women began Aug. 29th, 1931.

Two old temporary buildings, formerly the Engineering Office building and the Field Service Section building, were destroyed by fire recently in order that the new permanent buildings may be erected on those sites.

The paving of the apron in front of Bldg. No. 1, was recently completed.

Following is a brief activity report of the Engineering Department for the month of August:

Man hours expended on - Airplanes - 22,935; engines - 7,806; repairs - 5,921; manufactures - 2,257; Overhead - 12,088.

Airplanes given major overhauls: 2 A-3, 4 O-2H, 4 O-19, 6 C-25, 2 P-12, 1 PT-1. Minor overhauls - 1 C-3, 1 BT, 3 C-2H, 1 O-11, 1 C-38, 1 PT-1 and 1 PT-3. A total of 19 major overhauls and 9 minor overhauls.

Engines given major overhauls: 7 R-790, 8 R-1340, 12 SR-1340, 11 V-720, 1 V-1570, 4 GLV-1570. Minor Overhauls - 2 R-1340, 3 SR-1340, 1 V-720, 2 V-1150, 2 GLV-1570, 10 V-1650 and 2 GR-1750. A total of 43 major overhauls and 22 minor overhauls.

The activity report for the Depot Supply Department for the month of August is as follows:

Tonnage of incoming freight - 152.8 tons, express - 2.1 tons; tonnage of outgoing freight - 117.9 tons, express - 8 tons; pounds of incoming parcel post 435 lbs., outgoing - 2,621 lbs.; amount of material received by other means - 114,885 lbs., shipped 170,300 lbs.; total number of shipments received 598, made - 1,517; number of requisitions received - 357.

Rockwell Field, Coronado, Calif., Sept. 12th:

On Sept. 1st, Lieut. John K. Nissley, Commanding the 76th Service Squadron, was transferred to a Post with the Organized Reserves at Long Beach, Calif. Lieut. Claude E. Duncan succeeds Lieut. Nissley as Commanding Officer of the 76th.

Among the recent arrivals at the field is 1st Lieut. Courtland S. Johnson recently ordered here from Wright Field. Upon arrival, he assumed the duties of Assistant Post Engineering Officer and Shop Superintendent of the Rockwell Air Depot. Experience gained as a student at both the Army Industrial College and the Air Corps Engineering School qualify Lieut. Johnson for his duties at the RAD.

A pall of gloom was cast over the 76th Service Squadron as an aftermath of the Labor Day holidays. Pvt. Allen Johnson was fatally injured in an automobile accident just south of San Diego on Sunday afternoon, Sept. 7th. Pvt. Johnson was riding as passenger with Pvt. Nolan Thibadeaux, 34th Pursuit Squadron, March Field, at the time of the accident, which was unavoidable. Arrangements were made to escort the body to Johnson's home in Jersey City, N.Y.

Among the most recent additions to the ranks of the benedicts is 2nd Lieut. J.W. Brown, Jr., of the 95th Pursuit Squadron. Announcement was made recently of the marriage of Lieut. Brown to Miss Ethel Gorton Payne, daughter of Lieut.-Commander and Mrs. Frederick R. Payne of San Diego.

The 7th Bombardment Group baseball team, representing Rockwell Field, continues to enjoy marked success in its competition with service and independent teams. Its recent victory over the strong U.S. Navy Destroyer Base team, by a score of 12 to 5, more than atoned for the 13 inning decision lost to the sailors earlier in the year. The majority of the team's recent games were with the representatives of the Naval vessels based at San Diego, and to date the credit balance is overwhelmingly in favor of the Army team. Sgt. "Soup" Silva and his cohorts invaded March Field on Sept. 10th and, finding the guns of the Flying School a little too heavy, returned to San Diego with the short end of a 7 to 1 score.

Lieuts. R.S. Israel, A.R. Maxwell, J.W. Brown, Jr., J.S. Mills, L. R. Parker, A.S. Straubel and R.W. Goetz, reported at this field upon their recent completion of training at Chanute Field. Lieuts. Israel, Maxwell and Brown were assigned to the 95th Pursuit; Parker and Mills to the 11th Bombardment; Goetz to the 76th Service Squadron and Straubel to the Depot Supply.

Our Commanding Officer, Lieut.-Col. Barton K. Yount, took advantage of the lull preceding the intensive training season to spend a short leave in Northern California.

Maj. John M. Stanley, M.C., the Junior Flight Surgeon, was detailed to a tour of duty in the Panama Canal Department. Maj. Levy S. Johnson, M.C., was transferred to this station from Marshall Field, Ft. Riley, Kans., to fill the vacancy created by the transfer of Major Stanley.

Rockwell Field's representatives at the Annual Bombing and Gunnery Matches at Langley Field departed on Aug. 21st with high hopes of bringing a share of the honors of the meet back to Rockwell. 2nd Lieut. D.D. Graves, 95th Pursuit Squadron, was chosen to represent the Field in Aerial Gunnery. Curtiss Condor 29-34 carried the following personnel of the 11th Bombardment Squadron in quest of honors; 2nd Lieuts. A.J. Ronin (Pilot), H.G. Bunker (Bomber), Staff Sgt. H.V. Puzenski (Crew Chief), Cpl. A.M. 1cl A.E. Drury (Ass't Crew Chief), and Cpl. A.M. 1cl T.M. Herchmer (Armament).

Rockwell Field officers were recently the recipients of some very black cigars. Occasion - Lieut. and Mrs. A.F. Solter announced the arrival of an eight-pound baby daughter, Shirley Ann Solter.

The eight new officers who recently reported at Rockwell Field from the Advanced Flying School, Lieuts. J.O. Zahn, J.A. Brier, C.M. Sartain, A.S. Hurren Lee Williams, Tim Roberson, A.E. Livingston and F.E. Wittenberg were all assigned to the 95th Pursuit Squadron. This brings the 95th officer roster to a total of 31 assigned and 2 attached.

The start of the annual training program at Rockwell Field was the signal for the 95th Pursuit Squadron to start gunnery training. The squadron was grouped into three gunnery flights of ten men each. Ground gunnery is being conducted on the range at the South end of the field and the aerial courses are being fired over the Pacific ocean. Gunnery this season will be more or less rushed due to the extensive training to be accomplished by the units of the 7th Bombardment Group. However, all personnel concerned are working untiringly and, as a result, some very creditable scores are being recorded.

California National Guard, Los Angeles, Calif., Sept. 10th:

Capt. Robinson, Lieuts. Claiborne, Whittier and Wallen recently completed trips to the Dry Lakes for the purpose of cross-country training, and practice in machine gunnery at ground targets.

A number of officers of this unit spent Labor Day week end on Lieut. Whittier's power yacht, the "Pagan", making the cruise to Santa Cruz Island, off the coast from Santa Barbara, and return to San Pedro Harbor.

Lieut. Gard recently completed an aerial reconnaissance to Big Bear Lake and return to Griffith Park Airport, for the purpose of determining the condition of the landing field at Big Bear for emergency and cross-country landings. Report and sketch show a medium water level in the Lake for this period of the year, and the field in good condition, with ample markings, wind sock and service facilities.

Recent night flights: Capt. Borrie - Marysville to Los Angeles, San Luis Obispo to Los Angeles, the latter an emergency trip; Capt. Robinson, Crissy Field, San Francisco and return; Lieut. Sewall - Oakland to Los Angeles; Lieuts. Miller and Claiborne just completed special night flying, towing targets for

the Coast Artillery at Ft. MacArthur, San Pedro, Calif., and have become quite proficient in this work. Capts. Sherwood and Barrie, and Lieut. Noe have all flown night air mail for Western Air Express.

France Field, Panama Canal Zone, Sept. 7th:

With Jupiter Pluvius a damp substitute for Old Sol and the daily rainfall average mounting rapidly, activities here were somewhat retarded during the past few weeks. Training schedules were hampered, although the machine gun problems of the 7th Observation Squadron have been going through as originally outlined.

Due to the reduction of flying time for the entire field, a marked decline is noticeable in the number of cross-country flights. A few of note have been made recently. However, during the latter part of August, the field was visited by Mr. Lawrence Richey, Secretary to President Hoover, accompanied by a party including Messrs. Roy T. Davis, U.S. Minister to Panama; Robert Wilcox and Paul West. The party flew to the San Blas Islands in a Sikorsky Amphibian, with 1st Lieut. H.D. Smith, 25th Bombardment Squadron, as pilot.

On Aug. 22d, the Ford Transport carrying Lieuts. N.B. Forrest, R.J. Browne, F.H. Smith, J.J. O'Hara, L.E. Hobbs, and O.J. Studeman, landed at David, R. of P., for a two-day visit with Senor Salvador Junado at the Senor's Rancho. As a loyal Air Corps supporter, Senor Junado staged a barbeque for the boys at which none of the "old Spanish customs and trimmings" were missing. According to the stories of those who made the trip, one of the outstanding features was the plentiful supply of ducks which could be acquired in large numbers by the clever manipulation of the club, bolo, rake or whatever was handy.

An accident and a sudden fit of insanity lessened the enlisted ranks here by three lives last month.

On the night of Aug. 6th, during a friendly conversation in the 24th Pursuit Squadron barracks, Cpl. Alvin C. Angwin, acting Supply Sergeant, suddenly whipped out a Service automatic and, after shooting and fatally wounding one man and shooting a second man in the leg, put the gun to his own head and committed suicide. The man killed was Pvt. 1st Cl. Earl Stacks, while Pvt. Carl M. Lockwood is in the hospital recovering from a bullet wound in the leg below the knee. A Board of Investigation announced the shooting to be the result of temporary insanity.

As the result of burns he received on Aug. 13th when a gasoline heater exploded, Pvt. Jack Buck, 44th Observation Squadron, died two days later in Colon Hospital where he was taken following the accident. Pvt. 1st Cl. J.B. Pinkham and Pvt. J.P. Olchoskey were operating the heater in preparation to heating pushrods. The two men had just left the vicinity of the heater when it exploded, covering Buck, a disinterested onlooker, with its flaming contents. Olchoskey received burns on his hands while Pinkham was unhurt. Buck, a mass of flame, ran several hundred feet before he could be stopped and the fire extinguished.

7th Observation Squadron: The past few weeks of rain and smooth air found the 7th Squadron out bright and early every morning riddling the bull's eye with machine gun bullets. Front gunnery was completed and rear gunnery is now in full swing. The scores turned in to date are exceptionally gratifying and the competition has been unusually keen.

We sent machine gun ambassadors, 1st Lieuts. R.D. Eiggs and J.M. Bevans to the Annual Matches at Langley with confidence that a wholesome respect for France Field will be established by their scores. It is interesting to note that on their flight to the States for the Matches they landed at Brownsville at noon of the third day. We hope our friends from Langley can appreciate the dispatch with which a flight through Central America can be accomplished.

Our Skipper, Capt. H.H. George, recently returned to us from a thirty-day tour of the Cooks' and Bakers' School at Corozal. 1st Lieut. E.W. Barnes was at the helm during the absence of Capt. George.

For the past month the activities of the 7th Squadron were almost entirely confined to training for aerial gunnery. Scores continue to improve, so that the conversation around the Operations Office is composed of much boasting and bragging with the usual run of alibis and hard luck stories.

Cooperating with the Coast Artillery Corps, Lieut. E.E. Partridge, attached to the 7th Squadron, spent several days in succession in a Sikorsky on

photographic missions. Pictures were obtained of Coast Artillery radio stations which are spread throughout the Isthmus.

44th Observation Squadron: Lieut. J.M. Bevans, our Squadron Commander, is now on detached service at Langley Field for the Annual Matches. The Squadron feels confident that he will walk away with all honors by showing them how they shoot in the Tropics. During his absence, 2nd Lieut. Thomas L. Bryan is at the helm.

2nd Lieut. J.G. O'Neal is still on detached service but on a different status. He was relieved from duty with the Motor Transport Pool and is now learning the lore of pots and pans by taking a course at the Cooks' and Bakers' School.

Sgt. Erikson recently arrived in this Department from Selfridge and is now on duty at Group Headquarters. Sgts. Garner, Ranglo and Trimble arrived last month as replacements for Sgts. Abrahams, Gose and Milbourne, who, having tired of the Tropics, sought colder climates in the North. Mr. Sgt. Bruss arrived from Chanute Field to fill a vacancy created by an increase of grades in the organization. St. Sgt. E.B.G. Taylor arrived as a replacement for St. Sgt. Musiquo, who has been gone for some time. Several recruits were also assigned, causing housing conditions to take on a serious aspect, as no quarters are available. It appears now that these men will do quite a bit of their foreign service tour in tents.

Inasmuch as the throttle is wide open on the rainy season, there were practically no sports of any kind during the past few weeks.

6th Composite Group Band, A.C.: The 6th Composite Group Band (France Field Band) rendered a program at the Cristobal Army and Navy Y.M.C.A. on the night of Sept. 6th. The concert was attended by a large crowd and the band was enthusiastically applauded after the rendition of each number.

Due to expiration of foreign service tours and the iron-clad two year tour policy of the Panama Canal Department there was an almost complete turnover of the Band in one year. Only five men remain who were here a year ago. The Band consists of 42 pieces, and is under the supervision of Warrant Officer Kenneth Hebert, Bandmaster.

Rockwell Air Depot, Calif., Sept. 15th:

During the month of August the Rockwell Air Depot completed major overhaul on 17 airplanes and 40 engines. There were received for overhaul during the month 16 airplanes and 71 engines.

The Aero Repair of the Engineering Department manufactured 210 miscellaneous items and 567 miscellaneous items were reconditioned or reworked, while the engine repair and machine shop of the Engineering Department manufactured 4662 items and 673 items were reconditioned or reworked.

A total of 6,257 man-hours were expended in the Engineering Shops for the manufacture and repair of Air Corps equipment other than airplanes and engines.

The Depot Supply activities consisted of the following:

Poundage of incoming freight and express	441,211
" " outgoing " " "	345,900
Pounds of incoming parcel post	846
" " outgoing " "	647
Shipments received	341
" made	277
Number of requisitions received during month	29

The extension to the Engineering Office of the Depot is now completed. The addition to the Engine Repair, which will be used for cleaning purposes, is approximately 60% complete.

An inspection trip was made during the month by the Engineering Officer, Lieut. Giles, accompanied by the Depot Supply Officer, Capt. Kane, to Mather and Crissy Fields, to check up on supply and engineering matters.

The Commanding Officer, Col. Yount and Engineering Officer, Lieut. Giles will leave shortly for an inspection trip to Salt Lake City, Spokane, Seattle, Vancouver, Mather and Crissy Fields for conference with the Commanding Officers regarding maintenance of Air Corps equipment and supplies.

Lieut. Austin A. Straubel reported at the Rockwell Air Depot on Sept. 7th and was appointed Assistant Depot Supply Officer.

Congressman Melvin J. Maas of Minnesota, arrived by plane on Sept. 5th, remaining here until Sept. 8th.

Col. Sebring C. Megill, S.C., arrived Sept. 1st to make an inspection of the Signal Corps installations and activities of the Post.

Maj. Raymond Starbuck Dickinson, Air-Res., reported for two weeks' active duty training on Aug. 16th. While here Maj. Dickinson was assigned to the Engineering Division.

Mather Field, Sacramento, Calif., Oct. 1st:

From Sept. 16th to 23d, the entire command here participated in a season of field maneuvers, utilizing 32 Pursuit airplanes and 3 transports. The first elements of the Group took off from Mather Field at 10:30 A.M., Sept. 16th, and all personnel and equipment were at the new base at Watsonville, on Monterey Bay, by 7:00 P.M. that day. Practically all supplies and equipment; bedding, tentage, food, field range and kitchen equipment, were moved by air. The Group had pitched camp and prepared meals for all personnel before the arrival of the Motor Transportation. Officers and enlisted men slept under shelter tents during the maneuver period.

Based at Watsonville Airport the Group successfully conducted a number of tactical problems of offense and defense along the California coast. The mimic warfare of the period was marked by two "casualties": One, a case of acute appendicitis; the other, the case of a crew chief who was accidentally shot while cleaning a small rifle. Both men recovered.

San Antonio Air Depot, Duncan Field, Sept. 30th:

Capt. Asa N. Duncan, Chief of the School Section of the Office of the Chief of the Air Corps, while on a recent visit of inspection of the Flying Schools at Brooks and Kelly Fields, called on Lieut.-Col. Robins, Commanding Officer of this Depot.

Capt. Lowell H. Smith, piloting a B-3A from Langley Field, Va., to March Field, Calif., was a visitor at this Depot Sept. 24-25, stopping over night for servicing of his plane.

1st Lieuts. R.D. Biggs, J.M. Bevans and R.E. Nugent, 2nd Lieuts. C.A. Harrington, D.W. Buckman, and J.W. Sessums, Jr., and Staff Sgt. P.D. Reilly of France Field, C.Z., en route by air in three O-19C's and one P-12, to France Field from the Air Corps Bombing Matches at Langley Field, Va., landed at this Depot Sept. 16th and 17th, for servicing and change of engines of their planes, and for temporary duty at the Headquarters of The Air Corps Training Center, until Sept. 24th, when they took off from this Field to resume their homeward journey.

Lieut. Lucas V. Beau, Jr., A.C. Instructor with the Colorado National Guard, Denver, visited this Depot on Sept. 16th, bringing in an O-2H plane, and ferrying back an O-2H to the Colorado National Guard.

Capt. Clarence Longacre, Quartermaster of this Depot, and Mrs. Longacre, left for a month's leave of absence, visiting in Washington, D.C.

Lieut. L.S. Webster of this Depot, made a cross-country tour Sept. 16th to 24th, visiting Ft. Sill, Okla.; Denver, Colo.; Muskogee, Okla. and Dallas, Texas, for conferences with the Regular Army and National Guard Air Corps activities at those stations regarding maintenance of Air Corps equipment and supplies.

Lieuts. T.H. Chapman and C.E. Thomas, Jr., of this Depot, returned Sept. 27th from Wright Field, Ohio, where they attended the meetings of a Board of Officers convened at the Air Corps Materiel Division to consider plans for the new Alameda, California Air Depot.

Mr. E.J. Briggs in charge of the Engine Repair Section of the Engineering Department of this Depot, left Sept. 18th for a tour of temporary duty at the factory of the Pratt & Whitney Aircraft Company, Hartford, Conn., to make a study of the maintenance of aeronautical engines manufactured at that plant.

Mr. C.D. Bohannon in charge of the Shipping Room in the Depot Supply Department of this Depot, was on temporary duty Sept. 18th to 28th, attending the school of instruction in scientific boxing and crating conducted by the U.S. Forest Service, Department of Agriculture, at the Forest Products Laboratory at Madison, Wis.

Fort Sill, Okla., Sept. 30th:

Lieuts. C.E. Shankle, C. Stroh, G.G. Johnston and D.M. Kosler were on leave most of the month in Ohio, Colorado, Georgia and North Dakota, respectively. Lieut. Shankle went to the National Air Races at Cleveland, where Mrs. Shankle was entered in the Women's Derby from Santa Monica to Cleveland, the Women's Closed Course Race, and several dead stick landing contests in which she finished "In the Money". Mrs. Shankle was 4th in the Closed Course race and 9th to finish in the Cross-country Derby. After the races, the Shankles spent about two weeks on their ranch in Arizona.

On Sept. 19th, the 88th Squadron flew a 12-ship demonstration formation at the Lawton County Fair.

Post Field, being one of the scheduled stops for extended Cross-countries from the Training Center, acted as Host every few days for the various sections of Student officers and Cadets from Kelly Field.

The 88th Squadron was ordered to report to Brooks Field, San Antonio, Texas, on Nov. 5th. All the Squadron fund property is being crated and the personnel will probably move down Nov. 4th. A detachment of 5 officers will remain, as Flight "E", of the 15th Observation Squadron and 25 enlisted men will be sent here from Ft. Riley, Kans. These officers are Capt. Frank H. Pritchard, 1st Lieuts. C.H. Rice, W.L. Ritchie, 2nd Lieuts. C. Stroh and D.T. Mitchell.

Pvt. C.C. Rogers, 88th Squadron, was ordered to report to Randolph Field, Texas, to start training with the next primary flying class.

Scott Field, Belleville, Ill., Sept. 30th:

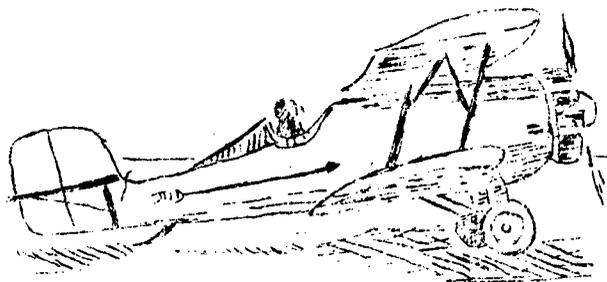
Only one Scott Field pigeon was successful in making the flight from Lafayette, Ind., in the National Futurity race on Sept. 27th. This bird, which was named Lafayette Queen following the flight, was the first bird reported home by any of the lofts which competed from the St. Louis district.

Originally over 120 bands were sold in this district for the race but, due to excessive losses earlier in the season in training and racing flight, the number of young birds finally shipped from St. Louis was about 25. Lieut.-Col. John A. Paegelow, commanding Scott Field, had purchased 12 bands for the race, but only five were finally used. Of the birds entered from St. Louis, only one other bird was reported in on the night of the 27th and the speed reported was less than that of Lafayette Queen. Provided no later reports show a bird with better speed than that of the Scott Field youngster, Col. Paegelow will receive the Titgemeier Cup, which was offered by Mr. Titgemeier of Buffalo, N.Y., for the best record made by a bird from the St. Louis district.

Staff Sgt. Max Bronkhurst, pigeonier, attributed the poor showing of the birds from this district to the fact that, of about 6000 birds entered in this race, approximately 5800 were from the east. Upon liberation, the large number of eastern birds would dominate the flight and, as young birds dislike to leave the flock, it is likely the western birds would fly a considerable distance toward the east before branching off and returning in the direction of their home lofts.

Two losses were recorded by the Scott Field football team in the first games of its fall campaign. On Sept. 18th the team opened its season with a night game at Lebanon, Ill. against McKendree College and were defeated 18 to 0. The team had been practicing for only eight days and lack of condition was the biggest factor in the defeat. A week later the team stacked up against the strong Carbondale Teachers College at Carbondale and, while they played very much better football, were defeated 19 to 0. The big improvement shown in this game was encouraging to the coaches as the team is largely made up of players with little previous experience. Lieut. Stuart G. McLennan, Recreation officer, has scheduled five more games for the team and has prospects of two more. The team will be pointed for the annual games with Chanute Field and success in these games will mean a successful season. Lieuts. F.A. Johnson, Allen W. Reed, George N. Stokes and Thomas H. Charles are handling the coaching of the team.

Lieut. Walter A. Fernander reported to Scott Field and was assigned to command the 21st Photographic Section. He recently graduated from the Photographic course, Chanute Field. He relieves 2nd Lieut. H.F. Woolard, who commanded both the 5th and 21st Photo Sections for the past several months.



CALLED before the Faculty Board of the Primary Flying School at Brooks Field, San Antonio, Texas, Texas, Major Oscar W. Griswold, Inf., who, prior to his detail to the Air Corps for flying training was a member of the War Department General Staff, G-2, made the following statement:

"I have no witnesses to call or questions to ask, but would like to make a statement. I want to say that I think I have been accorded every consideration possible and I believe that due to inaptitude my elimination is justified. In that regard, I was told before I came here by other officers of other branches that I might find it hard to get thru here due to my rank. I want to state officially that there was no such disposition shown * * * * . Both in my own case and in all cases of student officers eliminated to date, I have satisfied myself that there is no such feeling among the student officers of my class, and further that there is no basis in fact for such impression. It is my opinion that every officer, irrespective of rank or branch, if he can meet the flying standards he will be accepted by the Air Corps with open arms. I have been favorably impressed with the organization and conduct of the school and I think I have been a disinterested observer both on the flying line, behind the line, and in the ground school. Personally, I believe that the Infantry School has the best teaching methods of any service school in the Army.

It is my opinion that the ground school instructors in the presentation of their subjects compare very favorably with the standards of the Infantry School. Without exception, the work of the ground school instructors has been excellent. Naturally, I am very much disappointed at not finishing the course, but I feel that I have gained a great deal although I did not satisfactorily complete it. I think I have a realization of the work behind the line. As near as I can figure from my observations, it takes about one and one-half hours daily work behind the line on every airplane here to keep it in shape for the next day's flying, and that work is done on an average of about three-fourths of a man per plane. In future emergencies, if it should be my good fortune to serve with combined arms of which the Air Corps forms a part, I feel sure that what I have observed here will be of the greatest value to me. Finally, I would like to say that for many years I have had a very high regard for the Air Corps and its personnel and I have lost none of it by going thru this school."

In a letter, dated Sept. 19, 1931, addressed to Lieut.-Col. H.B. Clagett, Commandant of the Air Corps Primary Flying School, Brooks Field, Texas, Major Griswold stated as follows:

"1. On the occasion my leaving Brooks Field for other service, it is not only a duty but a pleasure to express to you personally and thru you to all the personnel of the Air Corps Primary Flying School, my very sincere appreciation of the consideration and interest which have been accorded me during my stay at this School.

2. I have been particularly impressed by the very obvious efforts of my flying instructor, 1st Lieut. L.C. Craigie, A.C., and of my flight commander, 1st Lieut. H.M. Turner, A.C., who helped me in every possible way to satisfactorily complete the course, as well as by the unusual privilege of having been instructed by the commandant in person.

3. I shall take pleasure in combating at every opportunity the prevalent opinion which exists in other services that the Air Corps does not permit high ranking officers from other services to pass the course. It is my belief that any officer, irrespective of rank, will receive honest and impartial consideration and that the question of his passing the course will depend alone upon his flying ability. Whether or not this idea has any basis in fact in the past I do not know, but I am convinced that at present no such feeling exists at Brooks Field on the part of the Air Corps.

4. I am leaving the School with the sincere conviction that it is soundly organized in all departments. I have no criticism, constructive or otherwise, to offer.

5. This letter has not been inspired in any way but it is an honest expression of opinion which I feel to be impartial and disinterested."

Mitchel Field, L.I., N.Y., Oct. 5th:

An air tragedy occurred over Troy yesterday - an Army plane lost its pants.

The plane, a new Curtiss-Falcon, arrived at the Troy Airport at 12:08 PM., after flying from Mitchel Field in 63½ minutes. Lieut. W.R. Calligan, Army flier, was at the controls on the navigation cruise planned to test the ship. After spending a half hour at the Troy field, Lieut. Calligan shot the ship down the runway and circled the port at 1,000 feet as a farewell signal. Then he headed for Danbury, Conn., his next stop.

When cast of Pawling Ave., near Spring Ave., the "pants" of the landing gear, dropped from the plane. Manager E.H. Buck of the Troy Airport witnessed the fall, recovered the pants and sent them to Mitchel Field. The flier was 5,000 feet up and probably was unaware of the loss until he reached Danbury flying field. A communication was sent ahead informing him that the shields were found and returned to Mitchel Field.

To "Ducky" Monroe, the cherub-checked boy with the Chaplinesque upper lip, we must give mention for the week's most extreme case of "fog-itis". With the wedding day set for October 10th, he contemplated a twenty-day leave, beginning on or about October 11th; a drive to Chicago, marriage, a short honeymoon and then return.

Arriving on the post the morning of Sept. 14th our man Monroe, found that three days of his projected leave had already expired. In a rage he stormed Headquarters only to be informed that he had put September instead of October on his request, thus having the choice of getting married a month earlier or making a new request. Needless to say he did the latter.

On Labor Day Lieuts. L.W. Johnson, Folmar, Calligan and Hart took off for Ft. Ethan Allen, Vt., for ten days. Their mission was to cooperate with other branches of the service in the Field Maneuvers being held there by the Second Corps Area.

During their stay in Vermont they were called for duty on three days, but they certainly distinguished themselves on those three days.

The first day's work consisted in using both planes for Air-Ground Liaison work as friendly observers during a mimic battle. Everything went smoothly and, of course, we won the battle for the blues.

The second day Hart and Calligan won praise from the Commanding General for the manner in which they carried out their mission of representing enemy attack aviation, the firing of Very Pistols, representing the dropping of fragmentation bombs. Calligan managed to drop a flaming ball in the center of a group of six officers in a conference before the 18th Brigade Command Post. It turned out later that this group consisted of two Generals, three Colonels and a Major, and that we had completely annihilated the 18th Brigade Command Post.

On the third day, Lieuts. Johnson and Folmar conducted a two-way Artillery Control Mission so successfully that their work was mentioned by General Connor in a special letter to Washington. All in all the trip to Vermont was extremely enjoyable and successful.

Lieut. Holbrook preceded the detail by nearly a week and arranged a great many pleasant social functions for their short stay. He makes an excellent advance guard and agent, and the members of the group were sorry to see him leave early. The regular officers of Ft. Ethan Allen didn't seem so sorry.

Langley Field, Va., Sept. 16th:

2nd Bombardment Group: The Group has been acting as an auxillary boat launcher in the past two weeks. A three-ship formation, led by Capt. Eubank, flew over the Army Base and circled the "City of Norfolk", a new transatlantic passenger and freight boat, on its maiden voyage. Two days later, a nine-ship formation flew over the Newport News Ship Building Corporation to commemorate the christening of the two largest ships ever built in the United States.

49th Bombardment Squadron: A very sad and unfortunate accident occurred to one of the members of this command on the second day of the machine gun and bombing matches. Sgt. Illick was starting a P-12-C by pulling through on the prop instead of using the hand inertia starter. His feet slipped, throwing him forward just as the motor caught and he was struck across the stomach and chest by the propeller. He was immediately carried to the post hospital where first aid was rendered and later removed to the base hospital at Ft. Monroe where

it was found he suffered several crushed ribs and a punctured lung. Although Sgt. Illick's condition is still very grave, the entire Squadron joins in wishing him a speedy recovery.

20th Bombardment Squadron: The National Matches have become history, with the 20th bearing up well under a couple of new medals. Lieut. Burnside as bomber and Lieut. Cronau as pilot was the winning combination. This makes the second year the 20th won the big honor, so we resent the work "lucky".

The ground gunnery didn't go so well because of lack of a range, and for two days the squadron helped by carrying sand for the bomb proof. Even at that, the range was barely ready for the matches, so the squadron is still worrying about ground gunnery. The best of squadrons can not fire without a range.

19th Airship Company: On Aug. 25th, the TC-11, in conjunction with Heavier-than-Air was called out on a mission to search for the bodies of four men drowned in the York River. Search was discontinued after flying all day without results.

On Sept. 1st, the TC-11 made a flight with Capt. Edwards, S.C., Ft. Eustis, for the purpose of testing an electric altimeter being developed by him. The tests conducted were satisfactory, but the details of the altimeter have not been published.

Mr. Sgt. Arvin E. Miller is under orders for Luke Field, Hawaii, sailing from New York on Nov. 4th. Sgt. Miller is one of the oldest of the Lighter-than-Air enlisted pilots, having been a Cadet in the Lighter-than-Air School before enlisting. He has been identified with every form of sport while here, particularly baseball and football, and has brought to each a form of sportsmanship worthy of comment. Sgt. Miller's departure is a decided loss to the organization and to the football rooting section.

Crissy Field, Presidio of San Francisco, Calif., Sept. 25th:

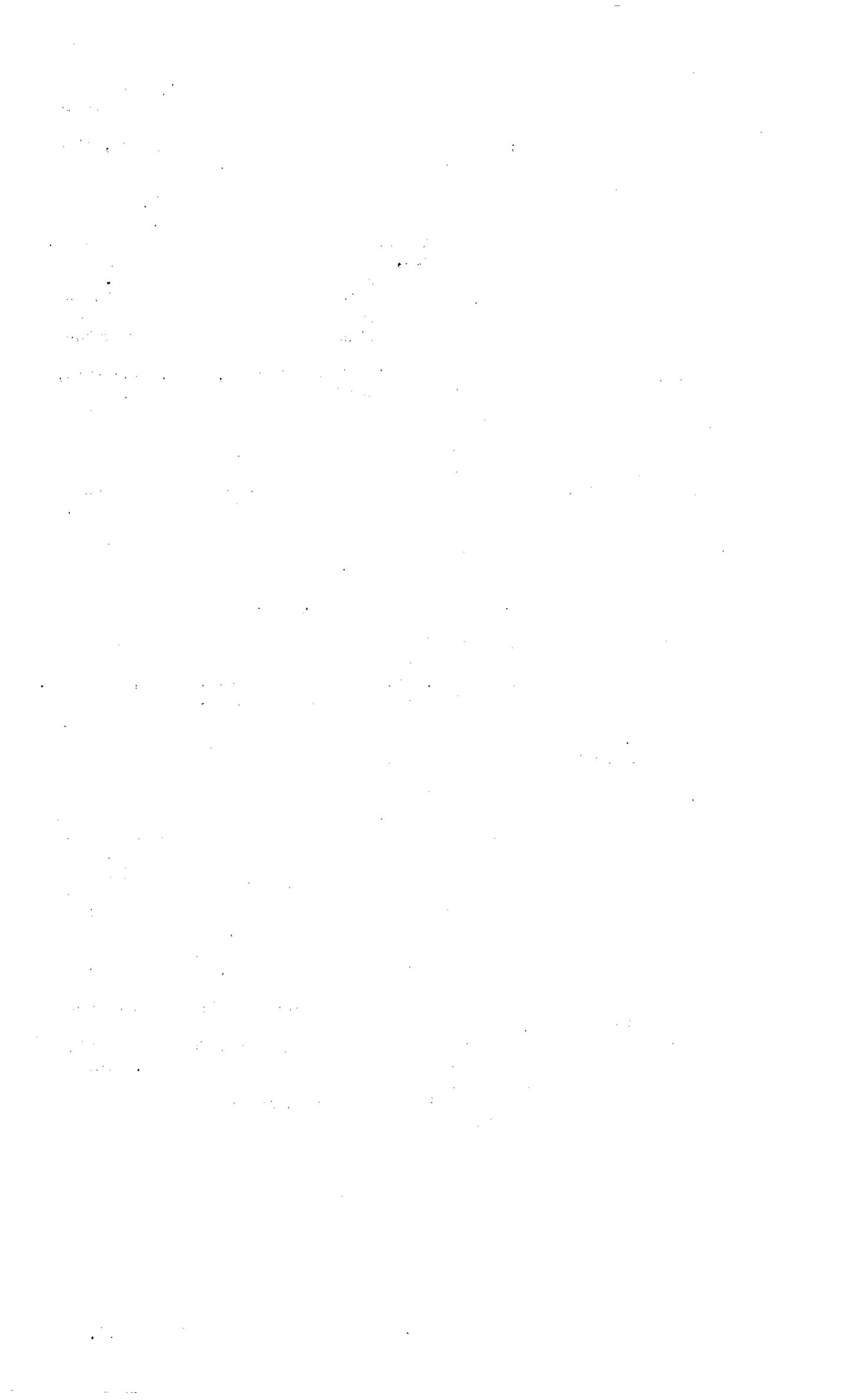
Our representatives to the Annual Bombing and Machine Gun Matches at Langley Field returned home after a most pleasant trip East. This observation team was composed of 1st Lieut. E.B. Bobzien, pilot, and 2nd Lt. J.P. Poole, observer. Lieut. Poole won first place in the flexible gun match and Lieut. Bobzien finished just short of placing in a field of seventeen competitors in the two-seater fixed gun match. The personnel of this Post welcome back the victorious team and we are all justly proud of the manner in which the 91st was represented at the Matches.

On Aug. 17th, 17 officers, 10 O-25A airplanes and one Y1-C transport of the 91st Observation Squadron in command of Capt. Kraus, departed from Crissy Field and proceeded to Salinas, Calif., to take part in the Field Exercises over the Gigling Reservation, with the ground troops from the Presidio of Monterey.

Prior to the actual commencement of the ground exercises, the Squadron engaged itself in practice through practically the entire range of observation missions and tactics. In this exercise with ground troops, all kinds of observation missions were performed; Infantry liaison and contact, visual and photographic reconnaissance, and cooperation with Artillery but no adjustment of fire; also many attack missions were executed by our Squadron, which was split up into a red and blue force.

The excellent work of the 15th Photo Section greatly facilitated the success of photographic missions.

The selection of the Rodeo Ground, near the flying field, for encampment, offered a touch of realism to the prosaic aspects of simulated warfare. Once resigned to flies, however, the Squadron established itself and endured quite happily the remaining days of the Exercises, which fortunately were terminated with no little commendatory comment.



Serial No. 311 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Sept. 15th to Oct. 13th Incl.

Available for loan to Air Corps Organizations only upon request to
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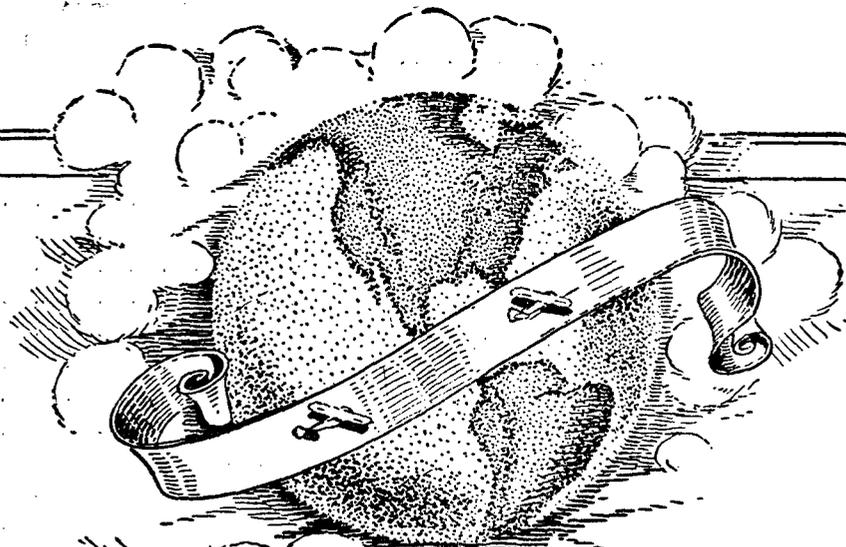
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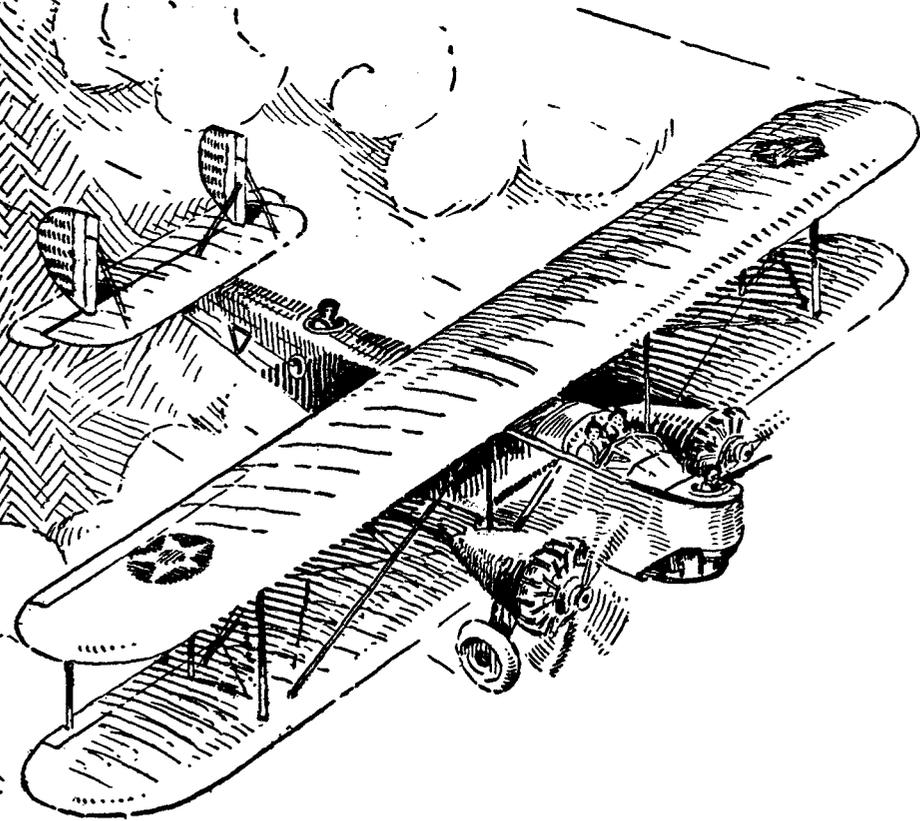
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Information Division
Air Corps

November 9, 1931

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.

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SUCCESSFUL MAPPING PROJECT IN NEW ENGLAND

Captain A.W. Stevens and Lieut. J.F. Phillips, Air Corps, of the Materiel Division, Wright Field, Dayton, Ohio, recently returned from New England following the successful conclusion of an experimental mapping project performed with the Air Corps five-lens camera. The mission was unusual in that it was performed entirely at high altitude, a total of fifteen hours being flown at 20,000 feet. Oxygen was used on all flights, the usual reactions of nausea and headache at high altitude being absent.

A total of 3600 square miles was covered in two flying days, which is half a year's work with usual equipment. The actual photography was accomplished in three hours, the maximum speed attained being at the rate of 1200 square miles every half hour, when flying with the high wind that prevails at great altitudes. At 20,000 feet, the camera covered an area twenty miles wide. The length of the strips averaged 75 miles. Strips were overlapped to some extent laterally and an overlap of 55% was made in the direction of flight. The total number of negatives was 800.

The work, which covered 12 quadrangles, was done for the Department of the Interior. The United States Geological Survey disburses government funds for mapping purposes, and meets in equal amounts appropriations made by individual States. Maine has furnished funds for this work for several years, and has a mapping program outlined for four years more. The recent work was done largely along the west boundary of Maine, next to New Hampshire. An area of 1200 square miles was covered north of Moosehead Lake.

The five-lens camera, designed at the Materiel Division, is an unusual instrument because of the tremendously wide angle that it embraces for photographing terrain beneath. It is used in connection with a laboratory instrument that rectifies the wing pictures, enlarging them and projecting them to the horizontal plane at the same time. Unusual care is exercised in its construction, and the camera is built to closer limits than any made heretofore. It is a matter of interest that the work recently done was accomplished at exactly one-thirtieth of the cost that is allowed for such projects.

A new type of film, especially sensitive to red and green, was furnished for this project. The new film permits exposures through the heaviest filters, and can be used even at sunrise and sunset, when the light from the sun is ordinarily too reddish to permit photography with ordinary emulsions.

On the same flights, use was made of an improved special film, furnished experimentally by the Research Laboratory of the Eastman Kodak Company, for the purpose of photographing by infra-red light. This film, twice as fast as any Kryptocyanine film previously made, was exposed through a filter that looks black. This filter, cutting off light that is visible to the eye, still permits the longer wave lengths to pass through the lens to the sensitive film. The longer waves pass through mist and haze more readily than short waves of light; the result is that pictures may be made farther than the eye can see.

At 20,000 feet, over the comparatively flat country of Maine, the average distance from which photographs were obtained was 70 miles, though in one photograph, made from near Rumford, Maine, islands over a hundred miles away, off the coast, may easily be seen. Rivers, bays, lakes and towns are readily plotted over distances from 20 to 70 miles.

Experiments are to be carried out by the Materiel Division with the idea of combining the desirable features of the two kinds of film. This work can be done only with the cooperation of the research laboratory of the commercial manufacturer, which furnishes the special emulsions needed for tests.

It may be noted that within the past year the process of color photography has been speeded up to such an extent that it is now possible to make successful color photographs from aircraft. No color apparatus was used on the Maine project, as this was carried out entirely for mapping purposes.

FIRST PURSUIT GROUP PARTICIPATES IN NEW YORK BENEFIT SHOW

By the News Letter Correspondent

The First Pursuit Group was again called upon for a demonstration of flying when orders were received at Selfridge Field for a squadron to proceed to Roosevelt Field, L.I., on Oct. 16th to participate in the Four Field Flying Show on October 17th and 18th.

The Four Field Flying Show, so named from the fact that at each of the four airports - Roosevelt Field, North Beach, Floyd Bennett and Valley Stream - a show was given on both afternoons of October 17th and 18th, was the Aviation Industry's part in aiding unemployment in and about New York City. The Committee, whose Chairman was Mr. Graham B. Grosvenor and Executive Mr. Ray Cooper, gathered together representatives of the Army, Navy and Marine Corps; notable civilian pilots, such as our good friend, "Jimmy" Doolittle; and various commercial stunt teams and exhibition pilots, and welded the whole into an orderly and coordinated program which was continually going on at each of the four fields.

The contingent from Selfridge Field consisted of a squadron of 18 Pursuit planes, led by Major G.E. Brower, the Group Commander; the Three Turtles, the First Pursuit Group's current aerial acrobatic team, led by Lieut. John S. Griffith; and a Ford Transport, piloted by Captain A.B. Ballard, carrying nine mechanics. The flight took off from Selfridge Field at 8:45 on the morning of October 16th and was accompanied as far as Buffalo by Major George H. Brett, Commanding Officer of Selfridge Field.

While the planes were being serviced and checked at the Buffalo Airport, pilots of the flight were guests of the Curtiss Aeroplane and Motor Corporation at luncheon at the Trap and Field Club, near the Airport. Aably supervised by Mr. P.A. Hewlett of the Curtiss Corporation, the luncheon was a most enjoyable affair, and was further made interesting by the presence of Messrs. Boardman and Polando, who recently made a flight to Istanbul and established a world's distance record. On the return to the Airport, the officers had the pleasure of meeting Mr. W.W. McConnell, who until recently had been on active duty at Selfridge Field as a member of the First Pursuit Group.

Leaving Major Brett to return to Selfridge Field, Major Brower took the flight off at 12:30, proceeded towards the Hudson River, edging as far south towards the higher hills as the low ceilings would permit. On passing over West Point, the squadron formed a large "A" to salute the United States Military Academy and the officers and cadets. At exactly 3:05 p.m., according to previous arrangements with Mitchel Field and instructions from the Chief of the Air Corps, the squadron passed Yonkers and was there met by a photographic plane from Mitchel Field. The squadron then proceeded as slowly as practicable down the river front over Manhattan, executing various formations, while the operator in the rear cockpit of the Mitchel Field plane took many movies of the squadron with the magnificent skyline of New York as a background. The "Three Turtles" dove and maneuvered in rear of the squadron during its passage down the river. Upon reaching the Battery, the squadron turned and, after attaining sufficient altitude, passed over Manhattan, forming the letters "N.Y."

Upon arrival at Roosevelt Field, the planes were housed in hangars for the night, and preliminary arrangements were made for servicing them in the morning. Taxicabs were at hand to transport the officers and men to their hotels, the officers being guests of the Roosevelt Hotel during their stay.

The First Pursuit Group's part of the show on Saturday was marked with success. At each of the four fields, Major Brower led the squadron through a well timed series of maneuvers, including close formation work, formation dives, Lufberry Circles and Rat Races, flying wedges and letters, such as "A" for Army; "AC" for Air Corps; and "N.Y." for New York. Closely following the squadron at each field came Lieut. Griffith, leading the "Three Turtles," gracefully diving, looping and rolling while maintaining perfect formation. In spite of the fact that some of the planes had to be refueled at one of the intermediate stops during the program, and that one plane broke a gasoline line while on the ground, the flight was entirely on schedule throughout the afternoon.

Due to a delay in obtaining fuel and oil, it was not until 12:40 the next day that the first plane cleared the ground for the return trip. After taking off from Roosevelt Field, the flight visited Valley Stream, Floyd Bennett and North Beach in turn, then flew over Manhattan, executing the letters "N.Y." The flight then proceeded direct to Buffalo. Due to the excellent cooperation of Mr. N.E. Duffy, Airport Manager at Buffalo, in servicing, and the ample provision

for lunch at the field again by the Curtiss Corporation, personally supervised by Mr. T. P. Wright, the squadron was able to take off within forty minutes after landing at Buffalo, and reached Selfridge Field before dark.

During the stop at Buffalo enroute to New York, Major Brower while leading the squadron directly over the city dispatched the "Three Turtles" to fly over the factory of the Curtiss Aeroplane and Motor Corporation. The following telegram from Mr. Harvey R. Ogden, of the Curtiss Corporation, addressed to Major Brett, expresses the appreciation for this gesture:

"On behalf of employees of the Curtiss Company who so seldom are able to witness flying of Curtiss airplanes at the Airport and who almost never enjoy a sight of formation flying I wish to thank you heartily for the exhibition which the First Pursuit Group gave to the Curtiss Company over the factory this morning. It is only regretted that all the employees could not have been outdoors to see the exhibition. The Three Turtles opened everybody's eyes and a great many mouths."

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A FISH STORY FROM HAWAII

"Varied and sundry fish stories are quite rife around these islands," says the News Letter Correspondent from Wheeler Field, T.H., "and hearers are reluctant to give most of them serious thought. This account, however, has been thoroughly corroborated and leaves nothing in dispute." Then the Correspondent goes on to say that on a recent week end Captain Asa J. Etheridge, Air Corps, in company with two civilian anglers from Honolulu, set forth in quest of excitement among the finny tribe. Excitement they were seeking and excitement they got. The big fish of the trip was a giant sword fish, which tipped the scales at 900 lbs. It took some three hours of hard labor and expert handling to land the "Big Boy." It was finally accomplished, however, which was quite a feat. Another sword fish was enticed onto a hook, and when landed it weighed some 240 pounds. Some other warriors of the deep which succumbed to the wiles of the ambitious crew were: Four 300-pound tuna fish; five 50-pound "small" tuna, along with several Ono and Mahimahi. Captain Etheridge was much elated and stated that Labor Day, being his birthday, was undoubtedly accountable for their good luck.

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PANAMA SCRAPS NAVY FOR AN AIR FORCE

The Navy of the Republic of Panama, which consisted of a single gunboat used for the enforcement of the revenue laws, is no more, said craft having been decommissioned and an air force established. Captain C.K. Travis, formerly a member of the 3rd Attack Group, Air Corps, and who has since been one of the "crack" pilots of the Pan-American Grace lines, has been engaged as Chief Pilot and was sent to the States to bring back the first of three planes purchased by the Republic of Panama from the Curtiss-Wright interests.

Conforming with the policy of the United States in assisting the Government of Panama whenever possible, permission was granted for the Air Corps to assist in the training of two pilots who are to fly in the recently organized air force of that country. Messrs. Rodolfo Estreapeaut and Eustacio Chichaco were designated as pilots for two new planes, and each is receiving ten hours' dual instruction in an O-19C Observation plane, with an Air Corps officer from France Field as instructor.

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GLIDERS CHRISTENED

Word was received from Hawaii to the effect that the two gliders, or sailplanes, entered in the Hawaiian Glider Meet from Wheeler Field, recently received their official christening. The glider, owned by Lieut. Wm. A. Cocke, Jr., Air Reserve, and which set the unofficial world's record of 16 hours and 38 minutes during July, was christened "Night Hawk" by Mrs. Cocke. The other glider, owned by Lieut. Wm. A. Scott, was christened "Albatross." After the christening, both gliders were given several flight tests, and final adjustments were made in preparation for an attempt to break the official world's glider record in the big competition.

GRADUATION OF STUDENTS FROM ADVANCED FLYING SCHOOL

To the accompaniment of applause from the more than 1,000 persons in the audience, diplomas and wings were awarded to the 106 graduates of the Air Corps Advanced Flying School, Kelly Field, Texas, at the graduation exercises held on Saturday morning, October 10th, in the Municipal Auditorium in San Antonio.

Both the army and civic organizations joined in honoring the big class. On the platform were four Brigadier-Generals, other high ranking officers of the Army and representatives of the city and county governments and the Chamber of Commerce. The exercises were the first to be held in the Municipal Auditorium. Previously they were held at Kelly Field. Preceding the ceremony, an aerial review was held at Kelly Field.

Music by the Air Corps Training Center Band preceded the ceremonies. At eleven o'clock the graduates filed in and took their places in three rows of seats at the front which had been reserved for them. A salute was played as Brig.-General Halstead Dorey and other officers took their places on the stage.

In a brief address to the graduates, Brig.-General Charles H. Danforth, Commanding the Air Corps Training Center, complimented them on having completed the prescribed course with good records and declared that "now your future in the Air Corps is up to you." Infrequent accidents occurring in the course of training in the Air Corps, General Danforth said, usually are caused by no fault in the planes. "Seldom does an airplane fail the man," he said. "More frequently it is the man failing the plane. Thus, knowing that our flying equipment is efficient, we concentrate on fitting the man to handle this equipment under all kinds of conditions."

County Judge W.A. Wurzbach said that he understood members of the class represented 41 states of the Union. For that reason he believed they would appreciate hearing something of the history of Texas and San Antonio, the scene of their months of training. He outlined the settling of Texas and the various historical events in connection with its long fight for independence.

Mayor C.M. Chambers, the next speaker, asserting that the City of San Antonio was proud to have the class graduate here, outlined noted military events in the nation's history with which the city was associated. "It was here," he said, "that Gen. U.S. Grant stopped before going into Mexico. It was here that Robert E. Lee made up his mind to lead the Confederate cause. Here, too, Theodore Roosevelt organized his Rough Riders, and it was from San Antonio that the President called General John J. Pershing to lead our troops in the World War. If I were asked to name the greatest asset San Antonio has, I would answer unhesitatingly 'the army.' A nation is just as strong as its army. I believe we should have a strong army, and we are glad that San Antonio is having a part in the training of the flower of American manhood for this great and honored profession."

Congressman Harry M. Wurzbach was invited to make a brief talk, General Danforth declaring that he "has been of great service to the army and to the Air Corps." "In these modern days of perverted pacifism, when too many Americans are willing to doze under the mottled flag of internationalism instead of being glad to fight and give their lives if necessary for the Stars and Stripes," Mr. Wurzbach said, "it is a heart-warming and most inspiring sight to see young Americans like these wrapped in the uniform of the United States Army. I have looked into your faces and seen resolve and love of country there, and I know that you are going to reflect credit on your profession and glory to the United States."

Diplomas were presented by General Danforth; the Wings by Major Thomas J. Hanley, Jr., Assistant Commandant of the Advanced Flying School, and Reserve Commissions by Major Frederick L. Martin, Commandant of the Advanced Flying School.

Invocation and benediction were delivered by Rev. E.M. Pennell, Jr.

Those on the platform were Brigadier-Generals Halstead Dorey, Frank S. Cocheu, Samuel D. Rockenbach and Charles H. Danforth; Lieut.-Colonels Henry B. Clagett and Arthur G. Fisher; Majors F.L. Martin, T. J. Hanley; Lieut. E.T. Glenn; Mayor Chambers; Judge Wurzbach; Representative Wurzbach; Rev. E.M. Pennell, Jr.; Mr. E.T. Laubscher, President of the Chamber of Commerce; Messrs. W.B. Tuttle, Jack Beretta, Porter A. Whatley and Ralph H. Durkee, members of the Military Affairs Committee of the Chamber of Commerce; County Commissioners A.G. Trawalter and Tom L. Abbott; four senior instructors of the Advanced Flying School and the Commandant of Cadets.

Below is given a list of the graduates and the Air Corps stations to which they have been assigned. Among these graduates are 41 members of the June, 1930, graduating class of West Point; 3 Air Corps officers, 3 officers of other branches of the Military service, and 61 Flying Cadets.

STUDENT OFFICERS FROM JUNE, 1930, CLASS, UNITED STATES MILITARY ACADEMY

- | | | | |
|-----------------------------------|---------------------|-----------------------------------|----------------------|
| <u>To Brooks Field, Texas:</u> | | <u>To Hawaiian Department:</u> | |
| Carl A. Brandt, F.A. | Ft. Benning, Ga. | Lauris Norstad, Cav. | Minneapolis, Minn. |
| <u>To Langley Field, Va.:</u> | | <u>To Selfridge Field, Mich.:</u> | |
| Troup Miller, Jr., Cav. | Washington, D.C. | Clark N. Piper, CAC | Paris, Ill. |
| R.S. Freeman, Inf. | Winamac, Ind. | Wm. D. Eckert, FA | Madison, Ind. |
| Richard J. O'Keefe, Inf. | Brooklyn, N.Y. | Henry A. Winters, Inf. | Gulfport, Miss. |
| D.M. Kilpatrick, Jr. FA | New Orleans, La. | <u>F.W. Castle, Engrs.</u> | Mountain Lakes, N.J. |
| R.C. Hutchinson, F.A. | Minneapolis, Minn. | Gerry L. Mason, Inf. | Buffalo, N.Y. |
| H.P. Dellinger, Inf. | Gastonia, N.C. | Howard M. McCoy, FA | Elmira, N.Y. |
| <u>To March Field, Calif.</u> | | Geo. F. Schlatter, Engrs. | Fostoria, Ohio |
| Aubrey K. Dodson, FA | Nashville, Ark. | Mark E. Bradley, Jr. FA | Clemson, S.C. |
| Millard Lewis, FA | Chicago, Ill. | Norman R. Burnett, Inf. | Graham, Texas |
| Anthony E. Curcio, Inf. | Brooklyn, N.Y. | <u>To Panama Canal Zone:</u> | |
| David H. Baker, CAC | Richmond Hill, N.Y. | Kurt M. Landon, Inf. | Carlinville, Ill. |
| Charles W. Haas, SC | Ellendale, N.D. | Neal Ausman, CAC | Cherokee, Iowa |
| Harold L. Smith, FA | Washington, Pa. | <u>To the Philippines:</u> | |
| Joseph A. Miller, Inf. | Mt. Vernon, S.D. | Elmer L. Meguire, SC | Portal, N.D. |
| Othel R. Deering, Inf. | Tolar, Texas | James S. Sutton, CAC | Findlay, Ohio |
| M. L. Harding, CAC | Pulaski, Va. | Thetus C. Odom, SC | Murfreesboro, Tenn. |
| Birrell Walsh, FA | Stoughton, Wis. | <u>To Mather Field, Calif.:</u> | |
| Daniel A. Cooper, Inf. | Brookline, Mass. | Norris J. Lee, Cav. | Poalo, Kans. |
| <u>To Randolph Field, Texas:</u> | | Ernest E. Holtzen, FA | Smithton, Mo. |
| R.P. Swofford, Jr. Eng. | Independence, Mo. | Edwin S. Perrin, CAC | Custer, S.D. |
| <u>To Selfridge Field, Mich.:</u> | | Sory Smith, Inf. | Clarksville, Tenn. |
| P.W. Blanchard, Jr. Inf. | Highland Pk, Ill. | John C. Kilborn, FA | Cisco, Texas |
| <u>To Philippines:</u> | | | |
| Wiley D. Ganey, FA | Andalusia, Ala. | | |

OTHER STUDENT OFFICERS GRADUATED

- 1st Lieut. Wm. O. Eareckson, Air Corps, to Hawaiian Department.
- 1st Lieut. Benjamin T. Starkey, Air Corps, to Randolph Field, Texas.
- 2nd Lieut. Harold Q. Huglin, Field Art., to Langley Field, Va.
- 2nd Lieut. Harry G. Montgomery, Jr., Infantry, to Langley Field, Va.
- 2nd Lieut. George L. Murray, Air Corps, to Mather Field, Calif.
- 2nd Lieut. David R. Gibbs, Cavalry, to Mather Field, Calif.

FLYING CADETS GRADUATED

Assigned to extended active duty.

- | | | | |
|-----------------------------------|---------------------|---------------------------------|-----------------------|
| <u>To Selfridge Field, Mich.:</u> | | <u>To March Field, Calif.:</u> | |
| John B. Adams | Stephens, Ark. | Stuart D. Baird | Upland, Calif. |
| Mayhew D. Blaine | Greensburg, Mo. | Thomas W. Davis, Jr. | Redlands, Calif. |
| Lawrance O. Brown | Clinton, Ind. | Richard W. French, Jr. | Long Beach, Calif. |
| Benton W. Davis | St. Charles, Ill. | Samuel J. Gormly, Jr. | Alhambra, Calif. |
| William H. Dum | Hoisington, Kans. | Burton H. Hall | Tucson, Ariz. |
| John P. Fraim, Jr. | Kokomo, Miss. | James R. McCleskey, Jr. | Glendale, Calif. |
| James O. Guthrie | Bismarck, N.D. | John R. Merritt | Ennis, Texas |
| Cecil M. Hefner | Bluefield, W. Va. | Daniel C. Pearson, Jr. | Roswell, N.M. |
| Lester C. Holtan | Washburn, N.D. | Henry G. Reynolds | Alhambra, Calif. |
| Dan Hughes, Jr. | Ponce de Leon, Fla. | Allen P. Shelly | Atchison, Kans. |
| Joseph D. Lee, Jr. | Pleasantville, N.Y. | Marvin F. Stalder | Riverside, Calif. |
| Phares McFerren | Baldwin City, Kans. | <u>To Crissy Field, Calif.:</u> | |
| Joseph A. Muffat | Detroit, Mich. | Philip B. Foote | Los Angeles, Calif. |
| Clyde A. Parlette | Lakewood, Ohio | Jefferson J. Davis | Woodlake, Calif. |
| John D. Pitman | Huntsville, Ala. | Robert W. Merrick | Portland, Ore. |
| Elbert H. Schlanser | Norwood, Ohio | Richard B. Robbins, San | Bernardino, Calif. |
| Robert H. Talbott | Liberty, Ind. | <u>To Scott Field, Ill.</u> | |
| Lee C. Weber | Davenport, Iowa | Vernet V. Poupitch | Chicago, Ill. |
| Charles M. Wilson | Ann Arbor, Mich. | <u>To Mather Field, Calif.</u> | |
| <u>To Langley Field, Va.:</u> | | Earl H. Jacobsen | Oakland, Calif. |
| Charles H. Biggs | Mt. Vernon, Ohio | John H. Kelly | Palo Alto, Calif. |
| Henry E. Vos, | Grand Rapids, Mich. | Alvin Schmidt | Oakland, Calif. |
| Robert L. Young | Ann Arbor, Mich. | M.B. Woodworth, Jr. | San Francisco, Calif. |

To Mitchel Field, N.Y.:

Norman E. Borden, Jr.	Woodstock, Vt.
James A. DeMarco	Washington, D.C.
Louis H. Gitzinger	Dayton, Ohio
John J. May	Port Chester, N.Y.
Daniel I. Moler	Bakerstown, W.Va.
Cecil W. Odell	Mt. Vernon, N.Y.
Henry E. Wheeler	Bel Air, Md.
Alfred G. Witter	Bellefonte, Pa.

To Brooks Field, Texas:

John R. Novake	Maxwell Field, Ala.
Henry S. Houghton	Cheraw, Colo.
Richard C. Nagle	Colorado Springs, Colo.
Harold L. Baird	Denver, Colo.
James E. Darby	Colfax, Ind.
James N. McCormick	Bay City, Mich.
Kenneth H. Groeson	Maryville, Mo.
Jay G. Brown	Troy, Mo.
Howard C. Denison	Randolph Field, Texas
Lewis V. Stanley	Salt Lake City, Utah

Not assigned:

Lester M. Marriner	Chicago, Ill.
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LOCATING GRAZING LAND BY AERIAL PHOTOGRAPHY ✓

Operating from Meekers Ranch, which is at an elevation of 9,000 feet above sea level, 1st Lieut. Ray Wilson of the 120th Observation Squadron, Colorado National Guard, has been photographing 700 square miles of mountain territory north of Gunnison, Colorado. The U.S. Forest Service is definitely locating new grazing lands from aerial photographs. Sergeant King, of the 120th Photo Section, has been operating the camera at an altitude of 23,500 feet and has been using oxygen.

According to the News Letter Correspondent, Lieut. Wilson made a landing in a sparsely settled spot in the hills and encountered an elderly man on whose farm he had landed. The farmer was quite deaf, and, when asked if there were any deer nearby, answered "How many bottles do you want?" Ray succeeded in getting a five point buck weighing over 250 pounds dressed. Many officers in the squadron will eat wild meat for a while.

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PURSUITERS PARTICIPATE IN BATTLE CREEK CENTENNIAL

Major Gerald E. Brower, Commanding Officer of the First Pursuit Group; Lieut. Harry A. Johnson, Commanding Officer of the 94th Pursuit Squadron, and Lieut. Paul W. Wolf, Operations Officer of Selfridge Field, represented the First Pursuit Group and Selfridge Field on the occasion of the Battle Creek, Mich., Centennial on October 3rd and 4th. They arrived at the Kellogg Airport at Battle Creek at 4:30 p.m. October 3rd, and landed between the events of a dead-stick landing contest. After a short time at the Airport, the pilots were taken to their hotel in town. In the evening they were guests, along with Major "Jimmy" Doolittle, at the Battle Creek Saddle and Hunt Club.

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AIR CORPS COOPERATION APPRECIATED ✓

Appreciating the cooperation of the Army Air Corps in the National Air Races held in Cleveland recently, the Contest Chairman of the Air Races, Mr. E.W. "Pop" Cleveland, addressed the following letter to Major George H. Brett, Commanding Officer of Selfridge Field, who was in charge of Air Corps Troops at the Races:

"Dear Major Brett:

On behalf of the Contest Committee of the National Air Races, wish to thank you for the cooperation and courtesies accorded this department during the 1931 National Air Races.

This letter is slightly delayed, however, I think you will agree with me when I mention the fact that it was delayed due to the writer taking a short vacation immediately after the Races, which was more or less needed.

I really believe that the cooperation from the Army this year was even better than in the previous years, and I sincerely hope we will be fortunate enough to have your branch of the service with us again next year, commanded by yourself and the assistants who were with you this year.

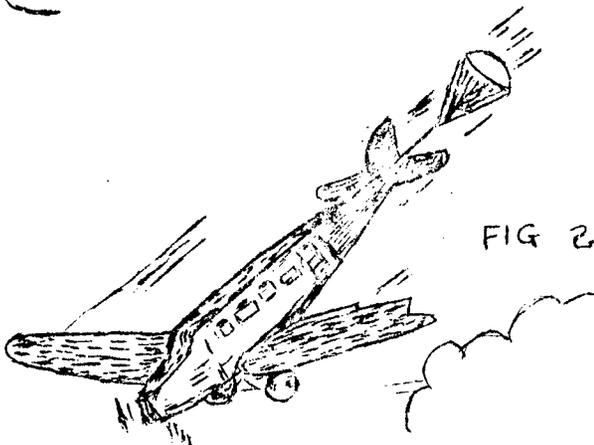
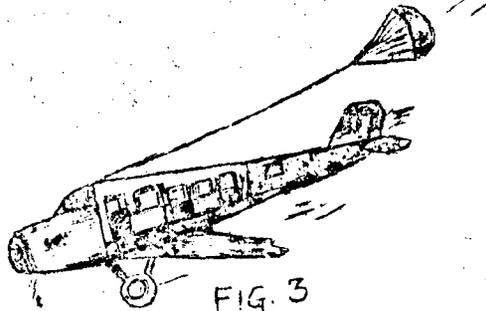
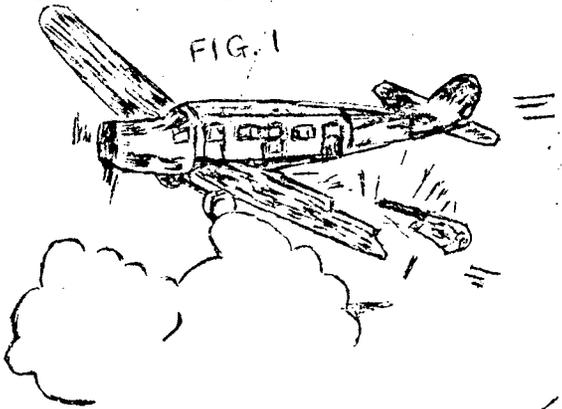
Kindly tender our sincere thanks and appreciation to Major Brower and Lieut. Griffith.

kindest personal regards,

(Sgnd) E. W. CLEVELAND."

PARACHUTE DESIGNED TO LOWER CABIN OF TRANSPORT PLANE

The question as to whether passengers on transport planes should wear the parachute is a much mooted one. There are two sides to practically every question, and the one under discussion is no exception to the rule. Some officials of air transport lines contend that to require passengers to wear the parachute is a deterrent influence in that it lowers their morale and instills doubts in their mind as to the safety of air travel. This contention is answered by advocates of the parachute, who point to the ocean liner as a safe and popular medium of transportation which, regardless of its safety, is required by law to be equipped with a sufficient number of life boats and life preservers and is still popular, although these safeguards are visible and their presence very apparent. They further contend that, while the airplane has been developed to



a high point of efficiency, the frailty of human nature is something that cannot be combatted successfully; that mistakes and errors in judgment are bound to happen just as surely as accidents cannot always be avoided, and that as an "Ace-in-the-hole" the parachute is a mighty handy thing to have at hand when human life is imperiled. It costs little compared to the value of a human life.

The man who has done so much to bring the parachute to its present

state of perfection - Major E.L. Hoffman, Air Corps, - is still at it, working away industriously in various parachute experiments to make the world safe for flying. He is determined to make bigger and better parachutes - parachutes large enough to lower passengers in air transports by the wholesale.

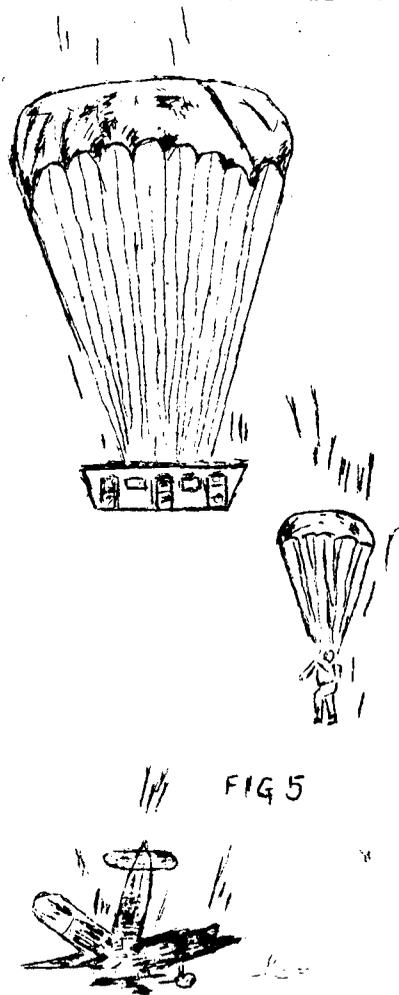
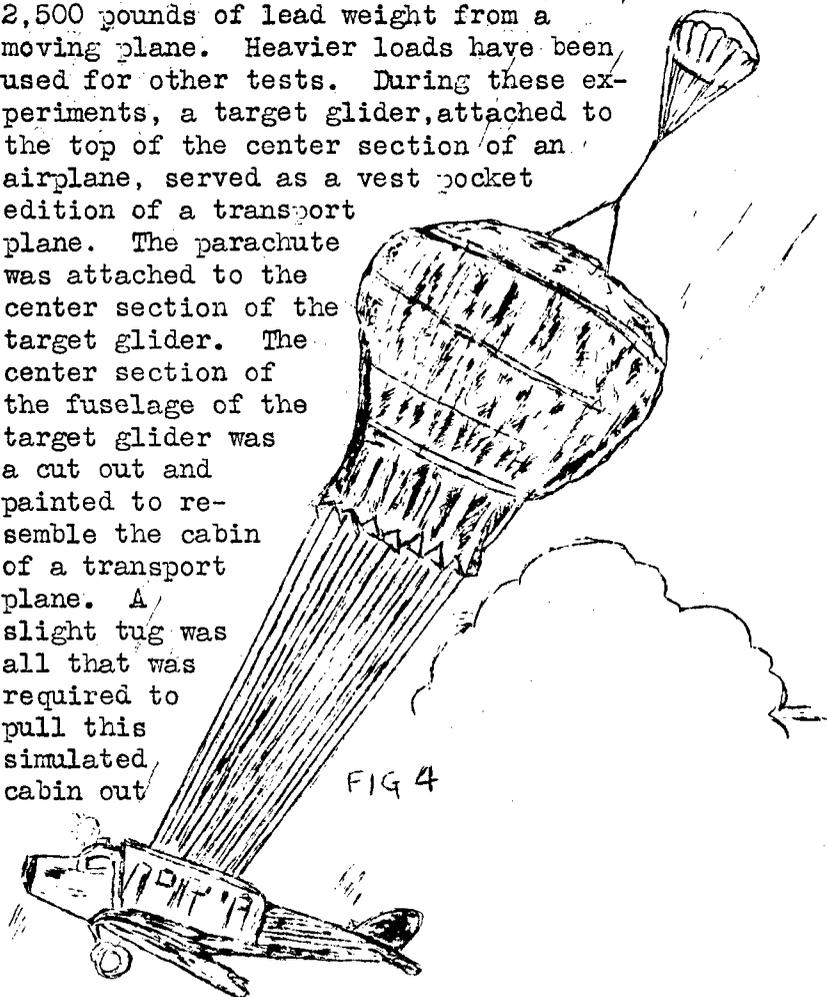
Experiments have been conducted by others in the attempt to perfect a parachute which will lower an entire airplane to the ground without serious damage, but at this stage of the game exhaustive tests thus far carried out appear to indicate that a single parachute by means of which a crippled airplane could be lowered to the ground has not reached the practical stage.

The failure thus far to devise a parachute capable of lowering an entire plane to the ground should not be viewed with alarm, nor should it prove a source of disappointment to enthusiastic advocates of this safety device. As a matter of fact, it may transpire that the lowering of an entire airplane to the ground may court disaster for the pilot and passengers. In the past there were a number of instances where planes caught fire in the air, due to overheating of the motor, breakage of the gasoline line, or other causes. The fire generally starts in proximity to the hot exhaust stacks of the engine and then proceeds to spread. To lower an entire airplane to the ground via parachute in such a contingency would prove anything but a safety measure for the occupants thereof. Fire is a terrifying menace, whether on land, on water or in the air, and any device calculated to facilitate the escape of passengers therefrom is certainly much to be desired. The proposition, therefore, of constructing transport planes with detachable cabins which a giant parachute could lift off into space in the event of an emergency has much to commend itself. The sketches on this page and the succeeding one may be described as follows:

Figure 1,- Plane wing breaks; Fig. 2,- Pilot's chute opens; Fig. 3,- It is

ready to pull open the main 'chute; Fig. 4,- Main 'chute lifts cabin from the plane; Fig. 5,- Cabin drifts down, as does pilot.

The Parachute Branch of the Materiel Division at Wright Field, Dayton, O., under the supervision of Major Hoffman, busied itself the past summer with experiments on a huge parachute, 80 feet in diameter, designed to lower to the ground in safety a detachable cabin of a passenger plane with its occupants. This parachute, the largest one thus far constructed, has been tested by dropping 2,500 pounds of lead weight from a moving plane. Heavier loads have been used for other tests. During these experiments, a target glider, attached to the top of the center section of an airplane, served as a vest pocket edition of a transport plane. The parachute was attached to the center section of the target glider. The center section of the fuselage of the target glider was a cut out and painted to resemble the cabin of a transport plane. A slight tug was all that was required to pull this simulated cabin out



and away from the target glider. The parachute was operated by means of a timing device. After the take-off of the airplane and when the time arrived for the parachute to "do its stuff," the little pilot chute unfurled itself to the breeze, pulled out the big chute which, in turn, yanked the imitation cabin out of the target glider.

In experimenting with the big 80-foot parachute, as much as 3,000 pounds of lead weight were taken aloft in a Bombing plane to determine how this load would be handled when dropped from the plane. The big Triangle chute appeared to handle the load easily, billowed out and floated gently to the ground. Motion pictures taken of the experiments showed that this big load reached terra firma in a slow, easy glide.

The 80-foot diameter Triangle parachute is designed to carry a normal load of 2,500 pounds, or the equivalent of a 12-passenger cabin of a transport plane. It is made of silk material and is designed to be housed in the top of the cabin. A pull of a lever by the pilot is all which is required to effect its release. The pilot chute, tucked away in the tail group of the airplane, is the first to obey the summons of the pulled lever. In the space of three seconds the big 'chute is open and, with a load of 2,500 pounds, its rate of descent to the ground is approximately 18 feet per second. Being the Triangle type and hence landing itself readily to steering, dangerous or undesirable landing places can be avoided by manipulating the shroud lines.

Those engaged in this experimental work have high hopes for this new type of parachute, asserting that it should be a simple engineering problem to so construct the cabin of a modern passenger plane that the mere pulling of a lever by the pilot, when an extreme emergency arises, would free it entirely from the rest of the plane and leave the big parachute to lift it from the danger zone and then proceed to lower it gently to terra firma.

What about the pilot? Of course, he will wear an individual parachute and when, like a true ship captain, he sees his passengers well on the road to safety, he will leave his ship, yank the rip cord and join the Catorpillar Club.

Interviewed by a representative of the Associated Press regarding the cabin parachute, Major Hoffman stated, in effect, as follows:

"The development, if it fulfills promise, will not be limited to use when something happens to an airplane in the air. Our glider experiments have shown that even when the cabin is detached the airplane will fly. Thus, with the cabin chute, a pilot may be sent with supplies, medicine, soldiers, or food to flood-ridden regions and drop a cabin to the needy, repeating the operation as often as is necessary.

The cabin chute, we have calculated, will not weigh more than 30 pounds per passenger seat, perhaps less. The individual parachute weighs 20-pounds per passenger. Besides the loss of life when a transport plane crashes, usually everyone aboard is killed and there is no way of determining what happened. By the cabin chute, we hope that not only lives will be saved but also that those aboard will be able to report exactly what happened so that the fault may be remedied.

The cabin chute, we believe, will have many advantages over the plane-parachute which has been given some tests. In the latter, the parachute must be exceedingly large, and there is no way for the passengers to get away if fire breaks out. For passenger planes we have figured out that it will cost 15 cents per day per passenger seat to equip them with the device."

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PURSUITERS STAGE DEMONSTRATION AT FORT SHERIDAN ✓

A squadron of 18 Pursuit planes, augmented by three staff planes, proceeded to the Curtiss-Reynolds Airport at Chicago, Ill., on the morning of September 26th for the annual tactical inspection of the Corps Area Commander, Major-General Frank Parker, and later to give a demonstration at Fort Sheridan. Major George H. Brett, Commanding Officer of Selfridge Field, led the flight. Major G.E. Brower, Commanding Officer of the First Pursuit Group, was accompanied by two members of his staff, Lieuts. John S. Griffith and Paul W. Wolf. Lieut. Harry A. Johnson led the Squadron of 18 planes, composed almost entirely of pilots of the 94th Pursuit Squadron. Lieut. Paul M. Jacobs, piloting a Ford Transport, carried 9 enlisted men to Curtiss-Reynolds Airport to aid in servicing.

Shortly following the take-off, members of the flight noticed that one side of the landing gear of the plane piloted by Lieut. Roland L. Sansbury had broken and was hanging down below normal position. Directed by his element leader to return to Selfridge Field, Lieut. Sansbury, after dropping notes to the ground for information, made a creditable landing on one wheel. He sustained no injury and his plane was only slightly damaged.

Immediately upon arrival of the planes at the airport, they were lined up in squadron front on the apron, and the pilots, after placing their parachutes on the left wings, took their places in front of their airplanes. The Squadron was then inspected by Major-General Parker and his staff. After the inspection, the pilots were taken by car to see the polo field at Fort Sheridan, where in the afternoon the tactical firing would take place and the demonstration would be given. Immediately after luncheon at the Officers' Club at Fort Sheridan, they returned to the airport.

A squadron of 18 planes, led by Lieut. Harry A. Johnson, took off at 3:00 o'clock and, after a few preliminary maneuvers, passed in review at the polo field at Fort Sheridan at 3:15, when the program was officially begun. Despite a very strong wind and extremely rough air, the squadron proceeded to execute elements in line, flights in line, the letters "A.C.," a Lufberry Circle, and a rat race, interspersed with close order drill and element dives. While the squadron was climbing in the Lufberry Circle, Major Brower and Lieut. Griffith staged a "dog fight" for a few minutes and then broke balloons sent up at intervals from the polo field. For the final maneuver, one flight of the squadron was detached and fired at targets laid out at one end of the polo field while in formation, demonstrating that even under difficult weather conditions effective fire can be delivered from airplanes flying in formation.

Following the demonstration, the Sixth Corps Area Polo team played a match with the Vermillion All Star team, composed of leading players in the Chicago area.

The following letter from General Parker, received by the Commanding Officer of Selfridge Field, expresses his opinion as to the result of the inspection and demonstration:

"1. I desire to express my gratification to you, Major Brower and the individual pilots of the 1st Pursuit Group who took part in the tactical inspection of this unit and air demonstration given at Fort Sheridan on September 26th. The maneuvers of the unit as a whole and as individual planes merit the highest commendation.

2. A copy of this letter will be attached to the efficiency report of all officers concerned."

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REPRESENTATIVE JAMES VISITS AIR CORPS FIELDS

Chanute Field, on October 9th, was host to the Hon. W. Frank James, Chairman of the Military Affairs Committee, House of Representatives, who arrived in a Ford C-4 Transport, accompanied by Lieut.-Col. Jacob E. Fickel, Chief of the Buildings and Grounds Division, Office of the Chief of the Air Corps. Lieut. L.S. Stranathan piloted the Transport. The party landed at 12:30 p.m., and was entertained at luncheon at the Officers' Mess by Lieut.-Col. and Mrs. James A. Mars and other officers and ladies.

After luncheon, Mr. James and Col. Fickel, escorted by the Commanding Officer and his staff, inspected barracks, quarters and other buildings and facilities at Chanute Field, departing at about 3:00 o'clock.

Mr. James is a frequent and welcome visitor to Air Corps stations. His history, as identified with the Air Corps, is unique. His arrival at Chanute Field marked 720 hours of flying with the Air Corps, and he expects, upon his present inspection tour, literally flying from daylight to dark, to complete 800 hours. He is primarily an enthusiastic friend of the Air Corps, and numbers many of its officers as personal friends of long standing.

Selfridge Field, Mich., was visited by Mr. James and Col. Fickel on October 6th. Mr. James expressed himself as pleased with the progress made in the construction now going on at that post, and with the cooperation between the Post Commander and contractors in connection with flying operations and other post activities. He was the guest of Major George H. Brett, the Post Commander, and on the morning of October 7th, after making an inspection of the post, the aerial visitors departed for Wright Field.

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AN ALOHA FLIGHT IN HONOR OF THE SECRETARY OF WAR

Upon the occasion of the visit of the Hon. Patrick J. Hurley, Secretary of War, to Hawaii on October 13th, an "Aloha" flight was staged in his honor. On the following day, an Aerial Review was flown for Mr. Hurley at Schofield Barracks, which was participated in by the entire 18th Composite Wing of the Hawaiian Department, composed of approximately 75 airplanes, including Bombers, Attack, Observation and Pursuit planes, commanded by Lieut.-Col. Gerald C. Brant. Participating in the "Aloha" Flight were three Navy Squadrons, consisting of 36 airplanes.

Two Sikorsky airplanes having been placed at his disposal, part of the itinerary of the Secretary of War consisted of a flight around the Island of Oahu, giving him and his party a wonderful view of all military and naval bases on the Island. Mr. Hurley departed on the evening of the 14th for the mainland as a passenger on the "President Hoover."

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SKY PILOTS MEET

Yes, Johnny, there are two kinds of Sky Pilots - those who fly airplanes and those who preach the gospel. There was a get-together meeting of both at Selfridge Field, Mt. Clemens, Mich. The News Letter Correspondent states that on October 1st, fifty carloads of Ministers of the Gospel and their families who were attending a Baptist Convention at Mt. Clemens, visited Selfridge Field. Officers acting as guides met the cars upon arrival and conducted the people over the Post, showing them the new construction and the present layout of the buildings.

The Caterpillar Club

Newspapers throughout the country, in referring to the Caterpillar Club, have generally characterized it as an exclusive organization, and rightly so, since membership therein is limited to persons traveling by air who, in the event of an extreme emergency, saved their lives through the use of the parachute. Of late the Caterpillar Club has assumed an even more exclusive aspect, inasmuch as it can now be said that one initiated therein has joined the "Four Hundred."

The roster of the Caterpillar Club at this writing shows 411 names, the latest member to be initiated being S.J. Jaros, Chief Airplane Pilot, U.S. Navy, who was forced to take to his chute when, during dive bombing practice, the fabric stripped off the wings.

In the last compilation of the roster of the Caterpillar Club, which appeared in the News Letter of June 30, 1931, the figures then given were 371 lives saved and 386 jumps, 15 being repeaters. As far as known, there have been no repeaters since that time, so that the standing of the new "Four Hundred" Society at present is 411 lives saved and 426 jumps made.

It is interesting to note that, while Caterpillar Club Common has enjoyed an uninterrupted rise from its very inception, the surge upward was not as sensational this year as was the case last year. There was a gratifying depression on the Caterpillar 'Change of 40 initiations this year during the period from January 1 to November 1, as compared with the same period last year. In other words, 114 emergency jumps were made in the first ten months of 1930 as against 74 for the same period of time this year. It may be pertinent to remark, however, that, so far as Caterpillar Club stock is concerned, short selling does not exist. The curve is always upward and, since accidents can be minimized but not always avoided, the aristocratic title now given the Caterpillar Club, viz: "The Four Hundred Society," may in the not distant future have to be discarded for one more appropriate.

Candidates who have been duly initiated into the exalted Order of Caterpillars since the last revision of the roster are listed below, as follows:

No.	Date	Name	Rank	Place of Jump
372	May 12	J.K. Carris	Civilian	Los Angeles, Calif.
373	May 26	William G. Swan	Civilian	Atlantic City, N.J.
374	June 6	Karl H. White	Civilian	Robertson, Mo.
375	June 19	Al Howe	Civilian	Near Leandro, Calif.
376	June 19	Irwin K. McWilliams	Civilian	Asheville, N.C.
166	June 23	James H. Doolittle	Major, Air Corps Res.	East St. Louis, Ill.
377	July 20	Francis X. Kelly	2nd Lt. Air Corps "	Newington, Conn.
378	July 20	David L. Spicer	Sergeant, Air Corps	Newington, Conn.
379	July 27	Fred J. O'Neil		Boston, Mass.
380	July 27	O. P. Pierson	2nd Lt. A.C. Reserve	Boston, Mass.
381	Aug. 2	Frederick Postal	Civilian	Imlay City, Mich.
382	Aug. 6	Harry A. Johnson	1st Lt. Air Corps	Selfridge Field, Mich.
383	Aug. 7	Kenneth W. Mosher	2nd Lt. A.C. Res.	Selfridge Field, Mich.
384	Aug. 7	Robert W. Burns	2nd Lt. A.C. Res.	Selfridge Field, Mich.
385	Aug. 10	Weldon E. Rhoades	2nd Lt. Air Corps	Waianae Mts., Hawaii.
386	Aug. 10	Roland E. Meade	2nd Lt. A.C. Res.	Waianae Mts. Hawaii.
387	Aug. 10	James D. Koons	Private, Air Corps	Waianae Mts. Hawaii.
388	Aug. 14	William DeBall	Civilian	Cortland Airport, N.Y.
389	Aug. 14	Stanley Vossler	Civilian	Cortland Airport, N.Y.
390	Aug. 17	William F. Day	2nd Lt. A.C. Res.	Selfridge Field, Mich.
391	Aug. 23	Joseph Walkos	Private, Air Corps	Wayne Co. Airport, Mich.
392	Aug. 27	Edward Winfield	Civilian	Exeter, Nebraska.
393	Aug. 31	L.H. Sanderson	Lt. U.S. Marines	Cleveland, Ohio.
394	Aug. 31	W. O. Brice	Lt. U.S. Marines	Cleveland, Ohio.
395	Sept. 1	Thayer S. Olds	2nd Lt. Air Corps	Lake Erie, Ohio.
396	Sept. 6	Walter Hunter	Civilian	Cleveland, Ohio.
397	Sept. 9	S. S. Miller	Lieut. U.S. Navy	Hampton Roads, Va.

398	Sept. 12	William Kelly	Sgt.Pa. Nat'l Guard	Philadelphia, Pa.
399	Sept. 12	Roscoe Brinton	Civilian	Springfield, Mass.
400	Sept. 18	A. D. Swick	Civilian	Flint, Mich.
401	Sept. 21	James G. Hall	Civilian	Staten Island, N.Y.
402	Sept. 25	Robert B. Richard	2nd Lt. A.C. Res.	Mendota, Calif.
403	Sept. 25	Ralph W. Fairrington	Private, Air Corps	Mendota, Calif.
404	Oct. 3	Donald Jenkins	Civilian	Cleveland, Ohio.
405	Oct. 5	Weston Adams	Civilian	Framingham, Mass.
406	Oct. 7	P. A. Tague	Lieut. U.S. Navy	Hampton Roads, Va.
407	Oct. 7	Whitman	C.A.P., U.S. Navy	Hampton Roads, Va.
408	Oct. 7	J.B. Moss	Lieut. U.S. Navy	San Diego, Calif.
409	Oct. 17	Jack Ayres	Civilian	Kansas City, Kansas.
410	Oct. 19	Harrison G. Crocker	1st Lieut. A.C.	Fairfield, Ohio.
411	Oct. 21	S. J. Jaros	C.A.P., U.S. Navy	San Diego, Calif.

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CRISSY FIELD PARTICIPATES IN TRAINING OF THE ORGANIZED RESERVES

In accordance with the policy of the War Department to make available for the training of the Organized Reserve Squadrons Regular Army equipment and personnel during certain summer periods, the 91st Observation Squadron, pursuant to orders from Ninth Corps Area Headquarters, furnished the following airplanes and personnel for the Reserve Officers' Camps indicated:

Camp	Period	91st Observation Squadron		
		Airplanes (O-25A)	Officers	Enlisted Men
329th Obs. Sqdn. and 329th Photo Section, Salt Lake City.	July 3 to July 19.	2	2	2
316th Observation Squadron, Mather Field, Calif.	July 17 to July 31.	*3	2	14
321st Observation Squadron, Pearson Field, Wash.	July 19 to July 31.	3	3	4
514th Observation Squadron, Long Beach, Calif.	August 2 to August 13.	2	2	2
367th Observation Squadron, Mather Field, Calif.	August 3 to August 14.	*3	2	14

*In addition to airplanes regularly assigned to Reserves at Crissy Field.

In every instance the Air Corps Unit Instructors in charge of the camp, as well as the Reserve Officers who attended, were apparently well satisfied with the cooperation rendered by the 91st Observation Squadron personnel and its contribution toward the success of the camp. This cooperation, incidentally, involved a fair amount of air travel - approximately 700 miles north to Pearson Field; 650 miles east to Salt Lake City; 400 miles south to Long Beach. Unfortunately, the Pacific Ocean prevents the establishment of a Reserve station some hundreds of miles to the west, the only direction in which the missions required of the 91st Squadron do not involve cross-country flights of about 500 miles or more.

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EFFECTIVENESS OF AERIAL GUNNERY AND BOMBING DEMONSTRATED

A demonstration of the comparative results of machine-gun fire and fragmentation bombing on ground targets was given Major-General Frank Parker, Commanding General of the Sixth Corps Area, at the Aerial Gunnery Camp at Oscoda, Mich. on October 2nd. General Parker, accompanied by Col. F.A. Ruggles, arrived from Bay City, Mich., by motor at about 11:00 o'clock. Capt. Carl W. Connell, the Sixth Corps Area Air Officer, arrived at an earlier hour by air. Major Gerald E. Brower was in command of the camp at the time and received the General and his party. Immediately after their arrival the demonstration was begun.

A flight of six airplanes of the 94th Pursuit Squadron, led by Lieut. Harry A. Johnson, took off for the first phase - the demonstration of the effect of machine gun fire on ground silhouettes. The targets were arranged as if a company of Infantry emerging from a woods had been surprised by an aerial attack. The leading elements had been able to disperse, spreading out in two fan-shaped areas to the right and the left, while the rear elements were still in section

columns along the road with the tail of the column still in the woods. Each plane carried two 30 calibre guns.

After the targets were scored and marked, the flight again took off, each plane loaded with five fragmentation bombs. The targets were then bombed, using the method of dive bombing, the planes of the flight in column. After their landing, the targets were again inspected and scored.

Upon the suggestion of General Parker, two other flights were made to determine the efficiency of other methods of bombing in covering wide areas. On one attack, the flight flying in formation made a diving attack on the target from above 5,000 feet and released all bombs while in formation above the altitude of 3,000 feet. The other attack was in flight formation flying flat at the altitude of 6,000 feet, all bombs being released on the signal of the leader.

Upon completion of the bombing, General Parker and his party were ferried to the Kellogg Airport at Battle Creek, Mich., in a Ford Transport piloted by Lieut. Paul W. Wolf.

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RADIO EQUIPMENT OF PURSUITERS CHECKED UP.

Lieut. W.G. Smith, of Wright Field, accompanied by Captain Tom C. Rives, Signal Corps, and Mr. Robe, Civilian Radio Mechanic of Wright Field, arrived at Selfridge Field, Mich., October 6th, to aid in checking up of radio equipment now installed in airplanes of the First Pursuit Group. Of special interest to these radio people, as well as to the First Pursuit Group, is the performance of the Western Electric Command Sets which are now being tested by the Group. Mr. Reynour, of the Western Electric Company, was sent to Selfridge Field to augment the force working on these sets, and each plane was tested and checked in turn. The C-9 Transport which Lieut. Smith brought up from Wright Field, is specially fitted for such a mission. In it are installed several types of receivers and transmitters, and it can be used as a receiving set from a command plane or a laboratory both in the air and on the ground. After determining the necessary work to be done on the equipment to insure better results, Lieut. Smith returned to Wright Field with his passengers.

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AIR CORPS PARTICIPATION IN EXHIBITIONS BANNED FOR FISCAL YEAR

Owing to the limited number of flying hours available to officers of the Army Air Corps for the remainder of the Fiscal Year 1932, and the necessity of using them in the required military training, the War Department announced that applications for the attendance of Army aircraft at celebrations, ceremonies of military or historical significance, and dedications of airports during that period will be disapproved.

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"W I N G S"

The air is filled with humming noise
As the planes pass over head,
They look to us like children's toys
And we see no cause for dread.
T'was man who built those mammoth wings
That hurtle through the blue,
Man has pulled the puppet strings
And wrought more than he knew.
They dip and dive and form like geese
A giant fleet of planes,
"God, . . . may they always fly in peace,
Those gallant army planes!"

- Margaret Nickerson Martin.

The above was inspired by the flight of a Squadron of the First Pursuit Group which visited Jackson several months ago, flying over the city enroute. A framed copy of the poem was presented to Major George H. Brett by the author at Jackson on October 22nd. It was a pleasure for Major Brett to receive in the name of Selfridge Field this gracious token of the conception of a citizen for military flying expressed in such appealing rhythm.

THE ROLL OF THE REVOLVER IN RAPID FIRE

By Lieut. J.L. Hitchings, Air Corps
(The 13th Article of this series).



Shortly after taking up the sport of target shooting with a pistol, I was told that the best revolver shots could attain a phenomenal combination of speed and accuracy in rapid fire. "But," I replied, "how in the world can they hit anything double action?" Many an equally ignorant beginner has asked an equally misinformed question. The answer is, of course, "They don't." A really good revolver shot can easily fire five aimed shots, single action,

in ten seconds. The best shots are said to be able to cut the time down to five seconds; and I have heard at least one of the old masters maintain that the revolver, fired single action by an expert, is a faster weapon than the automatic. As to accuracy, I saw Shepard, of Buffalo, shoot a five shot possible, rapid fire, on a Standard American target at fifty yards, with a .38 Smith and Wesson. His time, in Match C, had to be under fifteen seconds. This will explain why, as far as most of the experts are concerned, the double action mechanism of a revolver might as well not be there.

How do they do it? There are several methods in use, of which I will explain but one - the standard method of the U.S.R.A., - the roll. It has a distinct advantage over the others that since it does not require doubling of the thumb, it can be used in cold weather, when the fingers are stiff. This maneuver may best be learned in three distinct movements, from the firing position (hammer down), as follows:

1. Open your hand, removing the lower wingers from the stock, raising the thumb from the frame, and pressing forward with the second finger. This will cause the gun to pivot on the second finger. The stock will swing out of the palm; the barrel will swing about three inches up and to the right, until the hammer slides under the ball of the thumb. Catch the hammer with the thumb; you now have the first position.

2. Force the barrel straight down by squeezing the second finger and thumb together. The gun will cock itself as the barrel goes down. The barrel is still to the right of the firing position, the stock still out of the palm, and the thumb still on the hammer. That is the second position.

3. Swinging the barrel back to the left, resume the firing position. If at first your finger strikes higher on the trigger than it should, take it as you find it and take up your slack for the next shot. A block behind the trigger guard helps to prevent this occurrence.

These steps should at first be practiced by the numbers. In this practice it will be noticed that the end of the barrel describes a triangle. Gradually, as you become more proficient, practice all three steps in rapid succession, letting each movement melt into the succeeding one. You will now find the end of your barrel describing, not a triangle, but a circle; hence the name "the Roll."

A Note: In working for speed, do not let your thumb slide off the hammer until you feel the hammer go completely back and strike the frame.

It is a genuine pleasure to watch an expert do the roll. The gun fires; there is a little flick, so fast the eye cannot follow it clearly; and the shooter has, apparently without effort, and apparently instantaneously, cocked the revolver, and is aiming for his next shot. He has learned the final trick of the roll, - letting the recoil execute the first step for him.

One caution: IF YOU WISH TO BECOME A REALLY GOOD SHOT, LEARN TO SHOOT SLOW FIRE EXCELLENTLY (PREFERABLY WITH A SINGLE SHOT PISTOL) BEFORE YOU TACKLE RAPID FIRE. To break this rule is to form a bad habit of position, grip, hold and squeeze that will later be very hard to break. The U.S.R.A. rule is not to start rapid fire until you have won the entire slow fire series of rating medals up to and including the 95 percent medal.

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It will be appreciated if Correspondents will submit their material for the News Letter on the 1st and 15th of the month. How about you Correspondents from Fort Crockett, Maxwell, Kelly, Mather, Bolling, Randolph and Rockwell Fields?

HIGH ALTITUDE FLYING BY 94TH PURSUIT SQUADRON

The 94th Pursuit Squadron, Selfridge Field, Mt. Clemens, Mich., has recently been experimenting extensively with the new liquid oxygen equipment furnished for service test. This equipment is composed of thermos jugs installed in the fuselage of the little P-12's and filled with liquid oxygen. The equipment works automatically and the pilot does not have to worry regarding the pressure and personal equipment during the flight. Lieut. Harry A. Johnson, who has done extensive work in high altitude flying at Wright Field, is in charge of the Squadron and brings down some interesting data.

Most of the work consists of tactical maneuvers for the entire squadron at between 27,000 and 28,000 feet. Of course, the pilots were pretty well bundled in winter equipment and looked like comical monkeys in the peculiar oxygen masks which they wore. Each pilot was ordered to take specific readings on his instruments at various altitudes in order to keep accurate records regarding the service test. The low temperature encountered at 28,000 feet was 27 degrees below zero, centigrade.* This, however, was one of the warmer days of the fall, and later on temperatures at this altitude will likely drop to 40 degrees below.

About the only trouble encountered was the tendency of the goggles to fog at about 23,000 feet. Some of the pilots took their goggles off and flew without them. "At the end of the flight," says the News Letter Correspondent, "each pilot had an interesting tale to relate. No doubt it would be interesting for the readers of this article to listen in on one of the critiques following these flights. Since that chance is not offered, suffice it to say that the biggest liar does not have a chance, for Skipper Johnson is always there to check up on us with official dope."

* 17 deg. Fahrenheit, below zero.

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ENCOURAGING AVIATION IN A PRACTICAL WAY

The helping hand that makes this country a better place to fly in and the most practical subsidy that aviation could have is the "Service to Aviation" started by the National Exchange Clubs three years ago.

The following is a summary of their achievements thus far:

324 airports or emergency fields sponsored.

118 airports or emergency fields equipped.

673 air markers (roof, highway, signals) furnished.

1347 events staged to promote air-mindedness (Air Shows, Aviation Banquets, Public Assemblies, etc.)

671 Aviation projects planned or launched.

A list of these aids is published by the National Exchange Club, the headquarters of which are in Toledo, Ohio.

This organization is to be congratulated by any and all who venture away from home station by air, whether as pilot or passenger.

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WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To the Philippines: 2nd Lieuts. Aubrey K. Dodson from March Field; John W. Persons from Maxwell Field.

To Hawaiian Department: 2nd Lt. John C. Kilborn, Mather Field; 1st Lieut. B.T. Starkey, Kelly Field; 2nd Lt. Harold L. Smith, Kelly Field; Captain Raphael Baez, Jr., from Duncan Field; 2nd Lt. John A. Tarro, Fort Sill; 2nd Lieuts. Robt. W. Burns, Lawrence W. Koons from Selfridge Field; Harold W. Grant, Scott Field; Paul H. Johnston, Mitchel Field; 1st Lieut. James B. Carroll from duty as instructor, California National Guard.

To Panama Canal Zone: Captain Shiras A. Blair, March Field; 1st Lieut. Jas. G. Pratt, Langley Field.

To Brooks Field, Texas: 2nd Lieuts. Edwin W. Rawlings and James McK. Thompson, from Hawaiian Dept.

To Langley Field, Va.: 2nd Lieuts. Richard A. Grussendorf, Archibald J. Hanna and Oliver S. Picher, Hawaii; Berkeley E. Nelson from Panama.

To Wright Field, Dayton, Ohio: 1st Lieut. Ployer P. Hill, Philippines.

To Fort Crockett, Texas: 2nd Lieut. John H. Davies, Hawaiian Department.

To Mather Field, Calif.: 2nd Lieuts. Theodore B. Anderson, Hawaii; Donald W. Buckman from Panama.

To San Antonio Air Depot, Texas: Capt. Ralph B. Walker from Hawaii.

To March Field, Calif.: Lieut.-Col. Henry H. Arnold from Wright Field, O.

To Cleveland, Ohio: 1st Lieut. John A. Kase from Mitchel Field as Instructor, 37th Division Aviation, Ohio National Guard.

To Fort Sam Houston, Texas: Lieut.-Col. Ira Longanecker, from Office of the Chief of the Air Corps, as Air Officer, 8th Corps Area.

To San Antonio Air Depot: Lieut.-Col. Arthur G. Fisher from duty as Air Officer, 8th Corps Area, Ft. Sam Houston.

To Detroit, Mich.: 1st Lieut. Warren A. Maxwell from March Field to duty as Instructor, 32nd Division Aviation, Michigan National Guard.

To Biggs Field, Texas: 1st Lieut. Wm. L. Boyd from duty as Instructor of Colorado National Guard, Denver.

To Candler Field, Atlanta, Ga.: 1st Lieut. Edward A. Hillery from Pope Field.

RELIEVED FROM DETAIL TO THE AIR CORPS: 2nd Lieut. John H. Kochevar to the 52nd Coast Artillery, Fort Monroe, Va.

RESIGNATION: 2nd Lieut. Keene Watkins, October 25, 1931.

RETIREMENTS: Major-General James E. Fechet, Chief of the Air Corps, Dec. 31, 1931, after more than 33 years' service, with rank of Major-General.

Captain Harry C. Drayton from Walter Reed General Hospital to proceed to his home to await retirement.

2nd Lieut. Alfred L. Beattie retired October 31, 1931, for disability incident to the service.

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91st OBSERVATION SQUADRON PARTICIPATES IN MANEUVERS

By the News Letter Correspondent

Having assisted in the defeat of the enemy at Gigling Reservation, near Monterey, Calif., in August, the 91st Observation Squadron was called upon to perform a like service in September at Fort Lewis, Wash. Due to the distance of the new theatre of operations from our base at Crissy Field, and the lack of funds for motor vehicle or rail transportation, this move was made entirely by air, using the Y-10 Transport and five O-25A airplanes fully equipped for observation missions. The personnel included 11 officers and 6 enlisted men. This expedition left Crissy Field on Sept. 12th, arriving intact at Fort Lewis the next day. The maneuvers and field exercises involved the 5th Brigade, reinforced, of the 3rd Division. They were under the direction of Brig. General Paul A. Wolf on Sept. 15th and 16th, and under the 3rd Division Commander, Brig.-General Joseph C. Castner, during the last two days of the war, Sept. 17th and 18th. Again the successful accomplishment of missions assigned to the 91st Observation Squadron elicited most favorable comment from the commander of the ground troops to whom the squadron was attached, i. e., the Commanding General of the Third Division.

In the conduct of these maneuvers, one innovation was the assignment by Ninth Corps Area Hqrs. of an Air Corps officer to act as Air Officer on the staff of the Division Commander. This had not been done heretofore in similar field exercises. Capt. W.F. Kraus drew the assignment as Air Officer while Capt. H.W. Prosser commanded the participating flight of the 91st Observation Squadron.

The work of the Air Corps enlisted men during this mission is worthy of comment. They maintained our 6 airplanes without any of the facilities available at an established airdrome and, in addition, maintained in excellent condition the radio and photographic equipment so essential to the performance of our missions. The numerous photographs taken were promptly developed and printed by Staff Sgt. Carlow, 15th Photo Section, one of the detachment of six men. Pvt. Schmidt, qualified both as radio mechanic and operator and as airplane crew chief, functioned effectively in both capacities. Necessity has taught us the value of having one or two airplane mechanics qualified as radio repair men and likewise of having a few photographic men qualified to maintain airplanes. Staff Sgt. Lutes and the five men of his detachment deserve a large share of the credit for defeating the enemy opposing the northern components of the Third Division.

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The Sikorsky airplane from Luke Field, with 2nd Lt. Robert E.L. Choate as pilot, Sgt. Henry Tamosan as crew chief and Staff Sgt. Henry Kannolt as radio operator, performed recently an inter-island tactical training flight to Hilo, Hawaii, and returned the same day, transporting Mr. Allan Hoover and party to the Rodgers Airport.

FOREIGN DEVELOPMENTS

GREAT BRITAIN

The Fairey "Firefly" and "Fox" Airplanes

The Belgian Government has contracted for a number of Fairey "Firefly" pursuit airplanes and Fairey "Fox" observation and day bombardment airplanes. Equipped with the 500-650-hp Rolls-Royce "Kestrel," geared and supercharged engine, these aircraft are among the fastest in the world of their types. The "Firefly" has a high speed of 223 m p h at 13,000 feet, and climbs to 19,700 feet in 11-1/2 minutes. The "Fox" has a high speed of 190 m p h.

The Schneider Trophy Race

This race was run as a fly-off by Great Britain, which gives this country permanent possession of the coveted trophy, after the withdrawal of France and Italy. The racing planes used by Great Britain are modifications of the Supermarine S-6 used in 1929, which won the race at 328 m p h and made a straightaway speed of 357 m p h.

The 1931 airplanes were called the S-6B type, while the 1929 airplanes were similarly modified and were known as the S-6A's. Both of the latter were wrecked in preparation for the race, however.

In 1929 the Rolls-Royce "R" engine of 1900 hp was not run at full power because of inadequate cooling facilities. So one of the modifications of the 1931 type was to press into service the whole surface of the floats as water-cooling surface. The engine power was increased to an estimated level of 2400 hp. As the new rules for 1931 required that the race be run following the seaworthiness tests without intermediate refueling, the amount of fuel to be carried was somewhat increased over 1929. This required larger floats and increased wing area.

The S-6 airplanes are of all-metal construction, low-wing monoplanes with thin, wire-braced wings. The whole surface, upper and lower, of the wing and the surfaces of the floats are utilized as cooling surface for engine cooling water, while the sides of the fuselage and the fin are used as oil cooling surface. The oil tank is in the fin itself. It has been estimated that the heat radiated from the cooling surfaces of the airplane is 40,000 B T U per minute.

The Rolls-Royce engine is a water-cooled V type 12-cylinder of 6 by 6.6 inches bore and stroke, and 2200 cubic inches displacement. It weighs 1530 pounds. It runs at a speed of about 3000 r p m and the propeller is geared down through spur gears approximately 2 : 1. The engine has a two-stage centrifugal-gear-driven supercharger and a very high compression ratio. A considerable gain in intake pressure is afforded by the air intake, which faces the wind, and is in the form of a narrow slot, which expands gradually as it approaches the supercharger, thus to transform the velocity of the incoming air into pressure.

The propeller is of very large diameter, has blades over a foot in width, and has a very great pitch. It is a one-piece duralumin forging of fixed pitch.

The new type floats are larger than the old ones, but have improved aerodynamic characteristics. The fuel is stored in the floats, with a considerably larger quantity in one float in order to help counteract the great torque of the large, low-speed propeller.

The average speed of the S-6B in the run-off was 343 m p h over the course, and the plane was timed at over 400 m p h on the straightaways.

Some characteristics of the 1929 S-6 may be of interest.

Loaded weight ..	5200 lb.	Weight per sq.ft. ..	36 lb.
Weight of fuel ..	960 lb.	Weight per hp	2.76 lb.
Weight of oil ..	110 lb.	Wing span	36 ft.

The minimum flying speed, from the wing loading given, cannot be less than 140 m p h, while the actual speeds of landing and take-off are probably even greater than this.

Great Britain also had available two Napier-engined Gloster VI airplanes of 1929, two 1927 Supermarine S-5's and one 1927 Gloster IV biplane, both with Napier engines.

France was building, but did not complete in time, two types of airplane for the 1931 race. No details are available, beyond the fact that they are low-wing monoplanes of the usual type. The Dewoitine machine was to have been equipped with the Lorraine "Radium" engine, and the Bernard machine with the Renault engine. Both engines were developed especially for the race. The Lorraine is an inverted 12-cylinder vee, prestone-cooled, reported to develop 2400 hp at 4000 r p m and to weigh but 1180 pounds. The Renault is an upright 12-cylinder vee, also prestone-cooled, of 2400 hp weighing in the region of 1400 pounds. The development of these engines had not been completed in time for the race.

France also had available two of the 1929 Nieuport machines with the 1900-hp Hispano 18-cylinder engine.

Little is known of the Italian entries. They were reported to have two propellers in the nose of the airplane, one directly behind, and concentric with, the other. Each propeller is driven by a separate 1500-hp engine through gears, and they rotate in opposite directions to neutralize the torque reaction. One of them was reported to have made 450 m p h but it was wrecked, and the pilot killed, upon landing.

✓ FRANCE

The Amiot 140 M Multi-Place Fighter

This is a high-wing cantilever monoplane with two 700-800 hp Lorraine "Orion" 18-cylinder engines streamlined into the wing. It is of all-metal construction, and its most remarkable feature is a nacelle slung under the body, which has gunners' stations firing both fore and aft. It may also be used as a bombing station if the airplane is used as a bomber. The airplane is reported to have a speed of 150 m p h.

Record Attempts

Two ill-fated attempts at the world's distance record of 5,000 miles now held for the United States by Messrs. Folando and Boardman, have been attempted with the Dewoitine D-33, recently described in these columns. Flown by M M. Le Brix and Dorot, both ships came down in Russia because of engine failure, the second time with consequences fatal to M. Le Brix and their mechanic.

Another attempt to break the distance record of 6500 miles, set by the D-33 will be made by the Bernard 80 CR, also recently described here.

Variable Wing Area Monoplane

✓ The Bernard Company has built a monoplane with a 430-hp Lorraine engine which has telescoping wings. The span can be increased from 42 to 68 feet. The airplane was designed by M. Makonine, a Russian, and the French Air Ministry is reported to be interested in its development. It is reported that the speed is increased from 155 to 185 m p h by decreasing the wing area.

Stratosphere Airplane

✓ The Farman Company is reported to have flight-tested a high-altitude airplane with a highly supercharged engine, having a 17-foot variable-pitch propeller, and a hermetically sealed, supercharged cabin. It is expected to develop a very high cruising speed of about 300 m p h at an altitude of 50,000 feet.

GERMANY

The Zeppelin LZ-129

The new Zeppelin Airship will be inflated with helium and will have heavy-oil engines. Its length will be over 800 feet, and it will displace over 7,000,000 cubic feet, so that it will surpass the "Akron" in size.

The construction of a 5,500,000 cubic foot ship with hydrogen inflation was stopped with the R-101 was wrecked, and the use of helium was then decided on.

The Do-X 2

This ship has been completed for the Italian government. It has twelve 600 h.p. Fiat engines and larger wings than the Do-X 1. It crossed the Alps into Italy without difficulty.

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PURSUITERS ATTEND AIRPORT DEDICATION AT INDIANAPOLIS

The First Pursuit Group sent a composite squadron, under the command of Captain R.C.W. Blessley, to Indianapolis, Ind., recently to dedicate the new Municipal Airport. The Squadron took off shortly after 9:00 a.m. in the face of a 35-mile head wind at 1500 feet, and arrived at Indianapolis about two hours later.

Squadron formation was flown over the city for about ten minutes and then the 18 planes landed by flights at the new Municipal Airport. After registration all pilots were taken to the Indianapolis Athletic Club, where they obtained rooms and lunch. Complimentary cards to most of the theaters and golf clubs also were presented to the pilots.

The Army's first part in the afternoon's program was an acrobatic element, composed of 2nd Lieuts. Griswold, McGuire and Humphreys of the 27th Pursuit Squadron. This element performed acrobatics and maneuvers, while keeping in perfect formation. Shortly after this flight the entire squadron took the air.

The Squadron flight consisted of the usual diving turns, reviews, flights in line, etc., and in addition the letters "A," "AC," and "H" were formed by the 18 planes. After its individual show the Squadron waited in the air about ten minutes and then made attacks on an Observation Squadron flying over the airport as a target. All pilots were taken to town shortly after landing, where a dinner dance was held at the Athletic Club in the pilots' honor. All planes returned to Selfridge Field the next afternoon.

The following letter was received by the Commanding Officer of Selfridge Field, Major George H. Brett, from Col. Russell C. Langdon, U.S. Infantry:

"Yesterday afternoon at the Indianapolis Municipal Airport I enjoyed more than I can ever tell you the splendid and unusual exhibition put up by the air force from your command under Captain Blessley.

Never before had I beheld such close formations, nor had I ever seen letters made by formations of airplanes. First came the letter "A," for the Army, then the letters "AC" for the Air Corps. Accompanying me were my wife and some civilian friends from Indianapolis. They were delighted beyond measure, and tried to wave to the fliers in token of their enthusiasm.

Permit me to ask that you please express to Captain Blessley and his officers that both my individual pleasure and my pride as an officer of the Army were intense.

With all good wishes for future triumphs of your command, I remain, Major,
Very cordially yours, &c."

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EXTENSION COURSES FOR AIR CORPS OFFICERS ✓

The new Training Directive provides that "All Air Corps officers on duty with tactical units of the Regular Army below the grade of Lieutenant-Colonel, who are not graduates of the Army War College, the Command and General Staff School or the Air Corps Tactical School, will pursue the Air Corps Extension courses. Air Corps officers at exempted stations may, at their own request, pursue these courses.

Second Lieutenants will start with 20-1.

First Lieutenants, with less than 10 years' service, will normally start with 20-12.

Officers, with over 10 years' commissioned service in the Air Corps, may start with 30-8. The average officer of this category should start at 20-12, the decision to rest with the officer concerned.

A minimum of 100 hours will be set aside for these courses. The assignments of study periods for individual officers will be made after a careful consideration of his assigned duties, and time given for completion of the work during regular hours of duty.

For the information of all officers, a list of the Air Corps Extension Courses referred to is given below. The school year starts October 1, 1931. The courses marked with an asterisk are those specifically mentioned in the Training Directive.

10-1	Military Discipline, courtesies, and Customs of the Service	6 hrs.	*20-12	Air Combat Orders	8 hrs.
10-2	Military Law - The Law of Military Offenses	15 "	20-13	Employment of Balloon and Airship Units	20 "
10-3	Theory of Flight, Heavier-than-Air	10 "	30-1	Pursuit, Bombardment and Attack Aviation	42 "
10-4	Theory of Flight, Lighter-than-Air	10 "	30-2	Supply and Mess Management	16 "
10-5	Meteorology	30 "	30-3	Property, Emergency Procurement, and Funds	12 "
10-6	Aerial Navigation	20 "	30-4	Mobilization	8 "
10-7	Map and Aerial Photograph Reading	20 "	30-5	Military Law-Courts Martial	18 "
10-8	Military Sanitation and First Aid	10 "	30-6	Engineering	12 "
10-9	Administration	10 "	30-7	Defense against Chemical Warfare	12 "
20-1*	Organization of the Army	7 "	*30-8	Organization of the Infantry Division	6 "
20-2	Organization of Air Corps	3 "	30-9	Staff Duties	12 "
20-3	Employment of the Air Corps	10 "	30-10	Air Corps Supply System	23 "
20-4	Signal Communication for all Arms and Services	9 "	30-11	Combat Orders and the Solution of Problems	24 "
20-5	Air Corps Communications	5 "	40-1	Tactics and Technique of the Separate Arms	73 "
20-6	Aerial Photography and Interpretation of aerial photographs	15 "	40-2	Anti-Aircraft Defense	10 "
20-7	Observation Aviation, Heavier-than-Air	22 "	40-3	Supply	13 "
20-8	Observation Aviation, Lighter-than-Air	11 "	40-4	Air Operations	50 "
20-9	Camouflage	20 "	40-5	The Air Force	44 "
20-10	Air Intelligence	20 "	40-6	Aerodynamics	30 "
20-11	Theory of Bombing	10 "	40-7	Industrial Mobilization	20 "
			40-8	Commercial Law-Contracts	22 "
			40-9	Staff and Logistics for the Division	34 "

50-1, 50-2, 50-3, 50-4, Command, Staff and Logistics - I (covered by Subcourse 1, 2, 3 and 4 of the Command and General Staff Extension Course).

50-5, 50-6, 50-7, Staff and Logistics (covered by the Special Staff and Logistics Extension Course).

60-1, 60-2, Command, Staff and Logistics - II (covered by subcourses 5 and 6 of the Command and General Staff Extension Course).

Although 100 duty hours are set aside for this work, what the individual officer does during the hours assigned is his own business, provided at least 100 hours of work have been accomplished at the end of the school year.

These courses (lessons and text) are supplied and graded by the various Corps Areas. Information concerning these courses should be requested from your Commanding Officer, and not from the Office of the Chief of the Air Corps.

In addition, a certain number of technical subjects peculiar to the Air Corps will continue, as heretofore, to be taught at the garrison schools at Air Corps Stations.

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BIG GAME HUNTERS IN PANAMA

Their curiosity aroused by the tales brought back by commissioned personnel of France Field, Panama Canal Zone, Lieuts. P.W. "Pat" Timberlake and J.G. "Dinty" Moore "girded up their loins" so to speak, and departed for Boquete, R. de P. to see what they could find in the way of big game. They were accompanied by two automatic shot guns and a retinue of Staff Sergeants. After several days of patience they were rewarded by killing their deer. Pat claims that it was the biggest deer he had ever seen, while Dinty says that if it hadn't been for the horns he would have mistaken it for a dog. However, it didn't take the entire safari of Staffs to bring it in.

NOTES FROM AIR CORPS FIELDS

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Langley Field, Hampton, Va., Oct. 6th, 1931:

Second Bombardment Group:

96th Bombardment Squadron: The 96th Bombardment Squadron started its training on Sept. 14th. It is now very well on its way with its practice bombing. Both bombing on the range and camera obscura are being conducted every day the weather permitting.

The third group of Reserve Officers recently finished two weeks training which consisted mostly of PT flying and lectures every morning from 11 to 12, although two service type ships were used as much as possible. On a cross-country to Richmond, Va., Captain Weaver overshot Byrd Field and flew into a radio tower. The PT was a complete wreck and Capt. Weaver was in the hospital for about a week.

The first of the B-3's transferred to the west coast left here Sept. 13th ferried by Capt. Lowell Smith, the round-the-world flyer.

Lieut. James M. Gillespie was on detached service at Bolling Field, working with Ft. Humphries testing new searchlights and Mechanical ears.

Lieut. Roy G. Cuno was on detached service at Yorktown drawing up traffic regulations and laying out roads in preparation for the Yorktown Sesqui-Centennial which took place Oct. 18 - 19.

Three ships from the Group went to Pittsburgh, on Sept. 11 - 13, to participate in the dedication of the new Allegheny Airport. Lieuts. C.D. Wright and S.J. Young with Sgts. Dively and Duffy went from the 96th. The men reported, "Its a very fine field and a good town with plenty of hospitality".

The Langley Football team is rapidly getting into shape. Lieut. Frank P. Smith of the 96th, one-time All-Southern halfback from Kentucky, was the mainstay. Lieut. Hugh C. Worthington also made a good showing. Other men from the 96th who are doing themselves proud on the gridiron are Sgt. Holmes, Pvts. Jenette, Reiter and Fry.

49th Bombardment Squadron: This squadron finished the record pistol firing course and remarkable results were obtained in increasing the efficiency of the squadron. The number of experts showed over a 200% increase over last year's firing. Lieut. Roland O.S. Akre, who was in charge, and Lieut. Sterling G. Tatum, his able assistant, deserve all the credit for this improvement due to their untiring efforts and the change they made in the firing procedure. Instead of having a certain group of men fire the entire course in one day, they rotated the orders so that no one man shot more than two or three phases a day. This complicated the firing order somewhat, but the results obtained seemed to justify all the added work.

Capt. Eugene L. Eubank returned from Bristol with the latest acquisition to the squadron, a B-6A, which has many improvements over its predecessors.

The Group School program started this week with this squadron attending lectures on radio given by Lieut. Akre.

20th Bombardment Squadron: In accordance with the Training Program, Second Bombardment Group, Air Corps, the 20th Squadron began its regular winter training schedule on September 14th. All the officers were qualified in ground instructions and carried out missions in Camera Obscura, Performance Flights and Aerial Gunnery on Ground targets.

Lieut. Robert T. Cronau, Commanding Officer of the 20th Squadron, was promoted to Captain on October 4th. On that date he departed for a few days "at sea" with the Navy, observing some "quiet" bombing.

The Squadron received commendation from the Group Commander at the October 3rd inspection and tent pitching practice. None of the squadrons were any too good on this tent pitching business, as they were all out of practice, so the 20th's being the "best" Squadron did not necessarily mean they were unusually "hot".

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The Governor of Colorado ordered Lieut. Wm. E. Hunter, 120th Obs. Squadron, to Del Norte, located over the Divide, to deliver serum which arrived in time to save a patient's life. It would have taken over ten hours to reach Del Norte from Denver by train or automobile, and Lieut. Hunter completed the trip in less than two hours.

40th Division Aviation, Calif. Nat'l Guard, Los Angeles, Oct. 10th.

During the celebration of the recent festival, La Fiesta de Los Angeles, this Squadron was able to render useful and spectacular service to the City in the way of several flying missions. On Sept. 11th, a three-ship formation, flying at night, thrilled the 100,000 spectators in the Olympic Stadium with formation dives and maneuvers, closing with a lighted formation over the Los Angeles area, Santa Monica Bay district and outlying towns. On the following day, a similar formation was flown at the Air Show at the Municipal Airport. On the 13th, four ships entered the National Guard Race at the Air Show, all qualifying for prizes. This was followed by a bombing and machine gun demonstration on a simulated French village erected on the Airport.

Capt. Joe Bailey, our new Regular Army Instructor, recently reported for duty and has already proved himself a helpful influence and a popular officer.

Lieut. Harry Claiborne recently completed a night cross-country flight from Crissy Field, San Francisco, to Griffith Park Airport, Los Angeles. This is part of the regular night flying training required of the officers of this unit.

120th Obs. Sqdn., Colorado National Guard, October 29th.

Major-General Everson arrived October 3rd for a two-day visit. He will soon retire from service and has accepted the pastorate of the First Baptist Church of Denver. We expect to see much of him in the future. The First Baptist Church is one of the largest in the middle west.

First Lieut. Danny Kearns, Engineering Officer, mounted a camera gun as a fixed gun on an O2-H, and training has been progressing at a rapid rate. Snapping pictures through a revolving steel propeller was thought to be difficult, but this was overcome by painting the back of the propeller black. A cord running from the trigger to the left side of the cockpit near the throttle was devised in place of attaching the Bowden Control. The small tail wheels, recently mounted on our Douglas O2-H's, have proved a failure owing to the natural tendency of the wind to deposit sand in buffalo grass bunches, causing mounds. Invariably, the members in the rear station are disrupted, and usually the tail skid post bearings are broken. The tail skid cuts through these sand mounds and prairie dog holes, and have proven to be successful. The larger air type tail wheels will probably serve the purpose better than the small ones now being used.

A new projection printer has been installed by the 120th Photo Section. New enlarged vats will double the output of the Section.

The Squadron is conserving on gasoline. Each flying officer is allowed eight hours flying per month. Cross countries have been curtailed.

First Lieut. Cecil Braddick completed photographing 120 sq. miles of the San Luis Valley, north of Alamosa, for the State of Colorado. Master Sgt. J.C. Cann operated the camera. The pictures were shot at an altitude of 14,500 feet, which is the service ceiling of the O2-H. The purpose of the mosaic is for the formation of a tri-state pact to allocate waters originating at the head of the Rio Grande River which flows through Colorado, New Mexico and Texas.

First Lieut. Charles La Gue, Radio Officer, has been qualifying all pilots in ship-to-ship and three-way radio communications. Many of us find ourselves a little rusty in sending and receiving as well as in tuning in the sets near two powerful commercial broadcasting stations.

Lieut.-Col. McChord arrived in an O-25 from the Service School, Fort Leavenworth, on the 10th, and departed the next day. We hope to see him again very soon.

First Lieut. William Boyd was recently assigned to the Squadron as Assistant Instructor. Bill has been exceptionally busy rating three pilots and getting many new correspondence courses started.

Virgil W. Vaughan, recently on active duty as a Reserve Lieutenant with the Regular Army, was commissioned a 2nd Lieut. in the Squadron. He was formerly an enlisted man in the organization.

Captain Virgil D. Stone, pilot for the Empire Refining Co., flew from Bartelsville, Okla., to attend Sunday drill.

A complete program of training has been outlined by Major Carlos Reavis, Commanding Officer, and Capt. Charles France, Operations Officer. Things have already started to buzz with efficiency. Every enlisted man and officer is co-operating with these officers to the end that the program will be completed in the time allotted. Lieut. Daniel Kearns, Engineering Officer, has our airplanes

and equipment in exceptional shape, notwithstanding the fact that there has been more flying recently than in the past.

First Lieut. Aubrey Keif, formerly airplane sales manager of the Rocky Mountain States for Curtiss Wright, was transferred to Oklahoma City as manager of the Curtiss Wright Service.

First Lieuts. LaGue, Braddick and Wilson took off on the 10th for a mission over the Continental Divide and encountered the usual fall storms. The weather man has been good to us this year, especially over the mountains. It is to be remembered that we take off and land one mile above sea level, and at best our flying is done under difficulties with O2-H's and O-17's.

During the summer months over 75 hours of night flying was completed in formations and tactical missions.

Crissy Field, Presidio of San Francisco, Calif., Oct. 28th.

The 91st Observation Squadron and 15th Photo Section proceeded by air and motor convoy to Salinas, Calif., for the dual purpose of operating in the field for two weeks and of participating in a four-day period of field maneuvers and exercises with the 6th Brigade of the 3rd Division. The latter maneuvers were held at the Gigling Military Reservation, a tract near the Presidio of Monterey well suited to that purpose but very likely useless for any other. The airplanes utilized in the movement comprised one Y-1C (Transport) airplane and ten O-25A (Observation) airplanes.

The motor convoy consisted of 7 trucks, cargo (assorted; some of these were borrowed for the occasion; all were apparently of the vintage of 1917); 2 Trailers, cargo; 1 Trailer, kitchen; 3 Tankers; 1 Trailer, tank; 1 Car, passenger, medium (comprising the Crissy Field passenger transportation, a Dodge touring car, ancient); 1 Truck, photographic; 1 Truck, radio operating; 1 Truck, machine shop; 1 Ambulance.

Both the airdrome, American Legion Airport at Salinas, and the camp site, at the municipally owned rodeo grounds about $\frac{1}{4}$ mile from the airdrome, were placed at the disposal of the Squadron without expense to the Government by the City of Salinas. The selection of the Rodeo Ground, near the flying field, for encampment offered a touch of realism to the prosaic aspects of simulated warfare. Once resigned to flies, however, the Squadron established itself and endured quite happily the remaining days of the exercises. The City of Salinas authorities showed every courtesy to the visiting Crissy Field personnel and, upon termination of the exercises, extended a cordial invitation to the 91st Observation Squadron and 15th Photo Section to use Salinas as a base for future periods of field duty.

The period August 17-24 was devoted to unit training by the Squadron and Photo Section in the field, including airdrome discipline and training in practically the entire range of Observation missions and tactics, employing radio communication, photography, drop and pick-up messages, panels, etc. Particular emphasis was placed upon the prompt, accurate and complete rendition of reports by the pilot-observer teams and upon the functioning of the operations section and its intelligence branch. On two days during this period assumed situations were presented to the Squadron in the form of a Division Air Officer's field orders, which formed the basis of flight schedules and operations for these days.

In short, every effort was made to train the personnel to function smoothly as an organization by August 25th, the beginning of the four-day period of field exercises and maneuvers, in which the participating units, in addition to the 91st Observation Squadron and 15th Photo Section, were: Headquarters, 6th Brigade; Headquarters, 38th Infantry; Communications Platoon, 38th Infantry; 11th Cavalry, 30th Infantry; Medical and Veterinary Detachments (from Presidio of Monterey).

The prompt and successful execution of all missions assigned the Air Corps, including simulated attack as well as Observation Missions, was commented on in most complimentary terms by Brig.-Gen. Robert McCleave, who directed the maneuvers, at the final critique held on the termination of the "war" on August 28th. The evacuation of the camp and airdrome at Salinas was completed, and all "hands" with all equipment returned to Crissy Field Aug. 31st, thoroughly gratified at the success of the field duty period and happy in anticipation of "pay day."

During our stay at Salinas, the Squadron was visited and informally inspected twice by Major McIntosh, whose duties as Air Officer, 9th Corps Area, prevented his active participation in the field duty, and by Major Davis, whose arrival at Crissy Field was too recent to make it possible for him to take the organization to the field. The Squadron and field camp were commanded by Capt. W.F. Kraus,

who was most ably assisted by Capt. J.C. Kennedy as Adjutant, J.E. Upston as Operations Officer, I.J. Williams as Engineer Officer and 1st Lieut. P.C. Wilkins as Supply Officer.

Hqrs. 18th Composite Wing, Fort Shafter, T.H., Oct. 13th.

The Sikorsky airplane from Luke Field, with 2d Lieut. F.E. Cheatle as pilot, Sgt. Henry Tamosan as crew chief, and Staff Sgt. Holland as radio operator, performed an inter-island tactical training flight to the Island of Hawaii on Sept. 13th, and returned the following day, transporting Governor Lawrence M. Judd and party to John Rodgers Airport.

On Sept. 28th, the Luke Field Sikorsky plane left John Rodgers Airport en route to the Island of Maui, carrying as passengers Major-General B.H. Wells, Dept. Commander; Lieut.-Col. Sherman Miles, G-3; Major M.S. Eddy, Assist. G-3; and Lieut. R.B. Hutchins, Aide-de-Camp. The trip was made for the purpose of inspecting the Maui National Guard. Return to Honolulu was made the same day.

On Sept. 25th an Inter-Island flight was made by Lieut.-Col. G.C. Brant, Capt. B.T. Burt, Lieuts. P.H. Robey and K.P. McNaughton to the Island of Molokai in order to locate gas and oil storage tanks and other Air Corps installations at Homestead Field.

War Department orders were received relieving Lieuts. F.E. Woodward and W.B. McCoy, and assigning them to duty at Wright Field and Maxwell Field, respectively. During their service in the Hawaiian Department, Lieut. Woodward's duties were those of Assistant Air Officer, Adjutant, Supply Officer and Detachment Commander of the Wing, while Lieut. McCoy's were those of Assistant Air Officer and Operations Officer of the Wing. Their pleasing personalities during their duty with the Wing made these officers most popular. We wish them success and "Aloha" at their new stations.

On the night of Oct. 12th there was conducted by the combined arms of the Hawaiian Dept. an illumination test, involving the use of Mine-Layers (representing enemy Transports) and friendly aircraft and submarines. This headquarters, assisted by Observation planes from Luke Field, participated in the exercises, which were held primarily to test the ability of hostile transports to approach the coast line of the Island or launch small boats for the purpose of landing troops. The night reconnaissance at sea was made by Observation planes and submarines, assisted by searchlights from Hqrs. Separate Coast Art. Brigade.

Hawaiian Air Depot, Luke Field, T.H.

The Aero Repair Section completed major overhaul of two A-3B and two O-19B planes, in addition to minor overhaul of one of the new B-5A planes.

During September, the Final Assembly accomplished 11 minor overhauls and 7 major assemblies, of which latter two were A-3B's which were given major overhaul at Fairfield Air Depot and then transferred to the Hawaiian Department.

From Sept. 1st to 25th, the machine shop and sub-department completed 61 jobs on Work Orders and 107 jobs on Instruction Slips. At present there are 80 Work Orders awaiting completion, and everyone at top speed to catch up.

The Engine Repair Section overhauled a total of 14 engines from August 26th to September 24th. In addition, complete overhaul was made of a Dodge automobile motor which was installed in a crash boat for the Waimanalo Flying Field.

Capt. Carl F. Greene arrived on the U.S.A.T. CAMBRAI Sept. 25th and was attached to the Hawaiian Air Depot.

Mr. and Mrs. Harry F. Williams returned from their vacation at Hilo. They report a very nice time while on the big island, and tell of seeing many interesting things, the most striking of which was the volcano crater - "Kilauea."

Wheeler Field, T.H.

Second Lieut. William A. Cocke, Jr., Air Res., a member of this command, completed all necessary arrangements for an attempt to set an official world's record for gliders.

On Sept. 27th, a no-host chicken barbecue was held on the beach at Kawailoa. The barbecued chicken was delicious, and the officers and ladies of the Group spent a very enjoyable afternoon and evening.

September 15th was Organization Day of the 75th Service Squadron. The organization was one year old on that date. The Group Commander allowed the organization a holiday to celebrate the occasion. A field meet was held during the forenoon with appropriate prizes for each event. The meet was very successful

and developed some excellent appetites for the excellent dinner was prepared under the expert direction of Mess Sgt. Booth.

The 6th Pursuit Squadron flew 240 hrs. during September, which included preliminary and record firing of aerial gunnery on tow targets, Aloha flights, squadron formation flying, individual combat and aerobatics.

There is much interest among the men of the group concerning the modern conveniences to be found in the new barracks now under construction; such as - electric "spud" peelers, dough mixers, bread and meat slicers, steam dish washers and cafeteria dining rooms. Some say "Yes", others, "No". Those eligible for irksome kitchen police have strong arguments for such installations.

The 19th Pursuit Squadron completed aerial gunnery and low altitude bombing courses on September 19th. All pilots qualified as experts. Second Lieut. Lane W. Sharman, Air-Res., led with the highest score, as follows: Ground targets - 758; low altitude bombing - 219; tow targets - 282 - total 1,259.

During September, the 26th Attack Squadron was camped at Waimanalo for bombing and ground target firing. All officers regularly assigned or attached to the Squadron completed their record firing on these two ranges. Individual scores compiled showed a very satisfactory squadron average. In addition, several of the officers fired the flexible gun course.

This Squadron is glad to welcome back to duty, 2nd Lieut. Weldon E. Rhoades, Air-Res., who sustained a broken ankle following a forced jump from a spinning PW-9.

Luke Field, T.H.

Flying training for September consisted of formation night and cross-country flying, aerial photography, communications flights, aerial gunnery, aerial bombing, camera obscura, aerial reconnaissance, aerial navigation, instrument flying and cooperative missions with other branches of the service.

On Sept. 17th and 18th, all available airplanes, numbering 24, participated in "Aloha" flights in honor of their Majesties, the King and Queen of Siam, who were returning to their native land as passengers aboard the S.S. "Empress of Canada". The 18th Composite Wing, of which this group performed as a unit, presented one of the most impressive aerial formations ever witnessed in the Hawaiian Islands.

The Post Gymnasium was remodeled to such an extent that showers and dressing rooms have been installed; thus, affording excellent accommodations for men who are actively engaged in working out for boxing, basketball and volleyball. This is considered one of the best and most up-to-date gymnasiums in the Hawaiian Department, this being based on the fact that during the past boxing season, pugilists from all Sector Posts, engaged in Sector-Navy Smokers, were on Detached Service at this station for training.

The Post Volleyball team was organized under the supervision of 2nd Lieut. William M. Pryce, Jr., Air Res., and daily practice is being conducted preparatory to the Section League Series. The first game of the series was played on Oct. 10th, opponent team being the Coast Defenses of Honolulu.

The Post Basketball Team is at present engaged in bi-weekly workouts, under the leadership of 2nd Lieut. Don Z. Zimmerman, A.C., and from all appearances it should forge well to the front in the Sector-Navy Series.

Boxing, under the supervision of 2nd Lieut. James McK. Thompson, is at present being organized at this station. Excellent pugilistic prospects are reporting daily from the various Squadrons for work-outs.

During September, the 50th Observation Squadron was called upon to perform 58 hours of machine gun tow target missions for the 64th Coast Artillery and Ft. Kamehameha Batteries, the targets being dropped at the batteries after firing each course.

Due to the great amount of flying during July and August, and the recent limitations of flying time, this squadron has been cut down to very few hours other than scheduled training. The course in Instrument Flying was completed by all but two officers and the "Hood" has been turned over to the 4th Squadron, so they can try their luck at it.

Lieut. Coates, who was operated on for appendicitis, has been doing nicely. He was released from Tripler General Hospital and returned to duty on Oct. 1st.

During September, the 4th Observation Squadron fulfilled a heavy assignment of towing targets for the practice and record machine gun firing of both the 64th Coast Artillery and the Harbor Defenses of Honolulu. Except for a few minor

material difficulties, which were corrected speedily, these missions were performed to the satisfaction of the Coast Artillery. In the Regimental and Brigade Maneuvers of the Hawaiian Division, Schofield Barracks, the airplanes conducted liaison and contact missions for the ever-fighting "Red" and "Blues". The work with the 22d Infantry Brigade was not only instructive, but also very successful.

On Oct. 1st, this squadron moved to Waimanalo Military Reservation for two weeks of field training, during which time they concentrated on aerial gunnery and bombing.

With the close of the baseball season and the opening of basketball practice, this squadron lost no time in seeking competition in their practice games that will prepare them for the Inter-Squadron Championship. In the four games with snappy teams from Schofield Barracks and Honolulu, the tossers piled up a total of over 200 points. Three stars of last year's team are assurance of success:- "Sad" Sam Helms, "Johnny" Johnson, and "Ted" Sadler, this year's captain. Lieut. Davies, who was recently assigned to the squadron, is well known as a center. His basketball experience qualifies him as an excellent coach.

2nd Lieut. and Mrs. Kenneth P. McNaughton, were recent arrivals at this station, aboard the U.S.A.T. "St. Mihiel", on Sept. 9th. Lieut. McNaughton was assigned to the 11th Photo Section and attached to the 50th Observation Squadron for training and operations.

Lawson Field, Ft. Benning, Ga., Nov. 3d:

During Oct. Flight "B", 16th Observation Squadron, carried its training schedule to the limit of its allotment of flying hours.

Missions flown included: Radio flights, camera gunnery, drop and pick-up messages, blind flying, bombing, formations, cross-country, navigation, reconnaissance flights.

Cooperative missions with the Infantry School were flown as follows:

Oct. 2d:- Lieut. Holland piloted Maj. A.F. Kingman, C.O. of 1st Tank Regiment, on a mission to test tank concealment.

Oct. 16th:- Lieut. Barnett flew a simulated attack mission, upon a Battalion in movement.

Oct. 23d:- Lieut. Brownfield flew a smoke screen, screening a Battalion in attack.

Oct. 23d:- A three-plane formation participated in a Review of all the combat troops of Ft. Benning. The Reviewing Officers included Maj.-General E.L. King, Assistant Chief of Staff, the Commandant of Ft. Benning, and his Staff.

Oct. 26th:- A three-plane formation again participated in a Review of the combat troops. Upon the same date a three-plane formation flew a simulated attack mission upon a Battalion in movement.

Oct. 28th:- Lieut. Brownfield flew a smoke screen mission, screening a Battalion in attack. Aided by damp weather, which results in better vaporization of the F.M. used, it was an excellent demonstration for the assembled student officers of the Infantry School.

On Oct. 27, 29 and 30, Maj. Ira A. Rader, A.C. Instructor at the Infantry School, flew cooperative missions for that School.

On Oct. 23d, 2nd Lieut. Chas. H. Leitner, Air-Res., was relieved from further active duty with this organization.

During October the student officers of the A.C.T.S. Maxwell Field, flew to Lawson Field for their aerial gunnery and bombing. These student officers were also official observers of maneuvers held at the Infantry School during the month. Capt. Lloyd C. Blackburn, Photographic Officer, was detailed to make aerial photos of these maneuvers.

The following personnel arrived at this station by air during October upon official visits of inspection: Congressman James and Hill; Major-Gen. E.L. King, Asst. Chief of Staff; Brig.-Gen. B.D. Foulouis, Asst. Chief of the Air Corps; Lieut.-Col. Jacob E. Fickel, Maj. Ralph Royce and W.H. Hale, Office of the Chief of the Air Corps.

Arriving by air during the month upon official visits, temporary duty and cross-country flights were Maj. J.F. Curry, Commandant; Hume Peabody, Asst. Commandant, B.D. Netherwood, R.C. Candee and Capt. Lloyd C. Blackburn, A.C. Tactical School, Maxwell Field; Lieuts. W.R. Peck, K.N. Walker, D.D. Watson, J.D. Barker, Hansell, Persons, Tyndall and Vance, Maxwell Field; Maj. F.L. Pratt and Lieut. Stranathan, Bolling Field and Capt. Clark, Barksdale Field.

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A BUCK PRIVATE'S DREAM

The bugle sounded Taps and out went every light,
So I hit the hay in my two by six to sleep through the night,
When suddenly a Heavenly voice the night time stillness rent;
'Twas good St. Peter's call for me, and Heavenward I went.

It took me just one hundred years, I didn't travel fast,
But rather like an Erie freight or a troop train going past.
I wondered why we made no stops till I heard St. Peter say:
"Side-track all of the Officers, there's a Private on the way."

Finally we arrived at the Pearly Gates; in awe I looked around,
For there were forty Majors all policing up the ground;
And in dismay stood a Colonel from early morn to late;
He'd overstayed his one-day pass and couldn't get by the gate.

St. Peter came, as I looked on, and held within his hand,
My Army service record wrapped in a red-taped band.
He struggled and sweated and swore a little too,
For he saw the record I had and the red-tape I had gone through.

He looked it over carefully, then shouted through the open door,
"You've earned your place in Heaven Lad, in the Army Air Corps,
I know you tried to go to to France and write on History's page;
It's not your fault you had to wait till death came from old age."

He led me gently by the arm, through the Pearly Gates ajar,
To Pilsner beer and Haig & Haig served freely from the bar;
Of cocktails, high balls and so forth, he let me have my pick,
And not a drink was Volsteadized; each had the same old time kick.

The barracks were of marble made, inside were easy chairs,
The Captains fanned my fevered brow while the Corporals swept the stairs.
The mess hall was all pink and gold with table cloths of white,
Butter three times a day, and chicken every night.

The mess sergeant sat upon the stove where I could plainly see
Him eating the Army stew and beans that he used to feed to me.
Sergeants, there as Porters, were well supplied with mops,
And all First Lieutenants were St. Peter's Kitchen Cops.

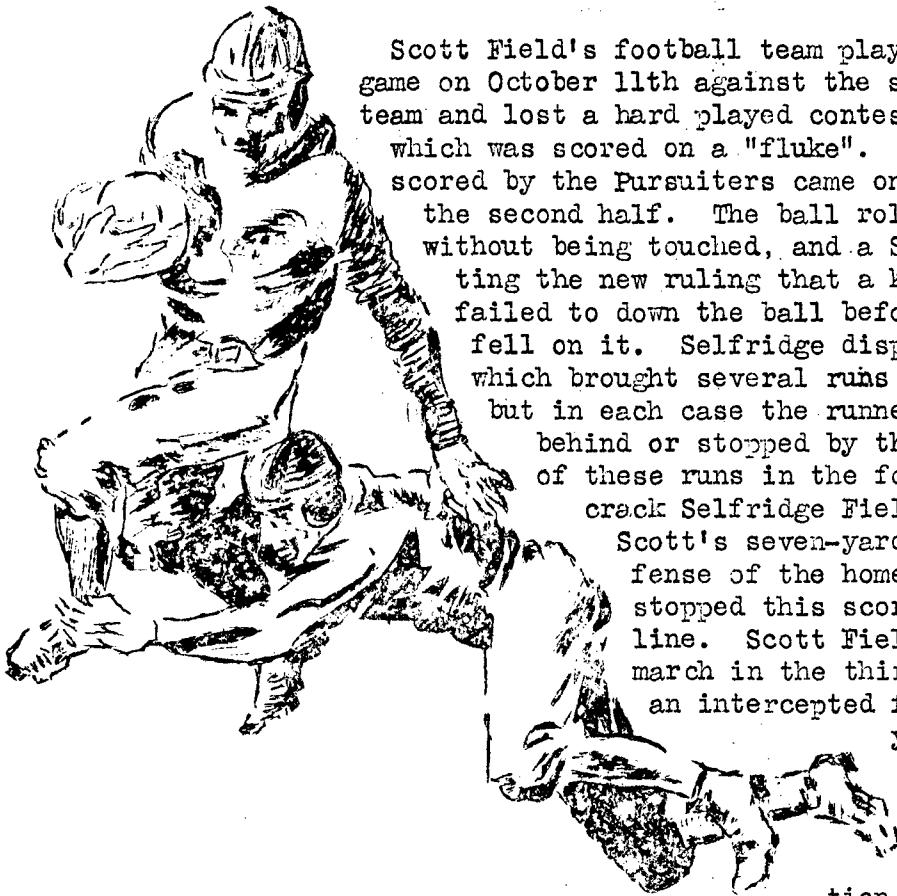
No golden harp did I receive - like the story pictures show -
But only a little whistle like the "Top Kick" used to blow.
I blew it loudly once, and there upon the scene
Lieutenants, in blue denims came to sweep and dust and clean.

I had them searching for cigarettes, cigars and matches too;
Then made them carry three inch shells until the day was through.
And when, for lack of daylight, they came for their toils,
They stayed in camp and scrubbed the floors while I got all the "Goils."

I could dress in any style I chose, with any girlie speak,
And all three day passes I could get, just took them twice a week.
I drew my pay just when I pleased, no payroll did I sign;
And fare was just one cent a mile on Heaven's Railway line.

When I tired of all my wanderings, in a feather bed I lay,
Having no thought of Reveille, but to sleep till noon next day.
Suddenly I felt a jar, a gruff voice in my ear spoke,
"It's four A.M., third relief outside" -- And, Oh, Hell, I woke.

I grabbed my old Automatic and in the morning air,
I guarded ammunition for the boys "Way over there."
I walked my post in earnest till my feet were sore,
And proud to be with Uncle Sam, a Private - Nothing more.



Scott Field's football team played its first service game on October 11th against the strong Selfridge Field team and lost a hard played contest by a single touchdown which was scored on a "fluke". The lone six points scored by the Pursuiters came on the kick off to start the second half. The ball rolled over the goal line without being touched, and a Scott Field back, forgetting the new ruling that a kick off is a free ball, failed to down the ball before a Selfridge player fell on it. Selfridge displayed a deceptive attack which brought several runs of considerable distance, but in each case the runner was hauled down from behind or stopped by the safety man. On one of these runs in the fourth quarter, Saums, the crack Selfridge Field halfback, reached Scott's seven-yard line, but the strong defense of the home team's forward wall stopped this scoring threat on the one-yard line. Scott Field made one determined march in the third quarter which ended with an intercepted forward pass inside the 10-yard stripe.

The loss of the game was felt rather keenly by the home players, but they had some consolation in remembering that a year

ago Selfridge ran wild and won by a margin of seven touchdowns.

Saums and Tatham featured the offensive play of Selfridge with Kling and Moore showing strength in the line, while for Scott Guy made several pretty runs and collaborated with Bahorich, Curtis and Dixon in stopping the opposing plays.

With the coaching staff augmented by the addition of two able coaches, Its., Griswold (Ohio State) and Baker (California), and the squad increased by several players who have been absent on school duty, Selfridge fans may well expect the continuation of a successful start. The weather has been favorable to the early development and training of a team, and the coaches have not been idle. The first game of the season was played on Sunday, October 3rd, with Marine City, a professional team. The game was marked by able execution of deceptive plays from a double wing back formation by the Selfridge Field team. Final score, Selfridge Field 12, Marine City 6.

The program for the remainder of the season includes some seven games with various professional and Army teams.

Scott Field captured its first football victory of the season on Oct. 18th by defeating the "Trojans" of St. Louis, 32 to 6. It was a great second half spurt by the Scott Field team which accounted for the victory, as the two teams had staged a hard 6 to 6 tie for the first two periods.

The constant drilling by four coaches showed its effect on the home team's play, and its offense looked much smoother than in any previous game. Several new plays were largely responsible for the scoring punch shown in this game.

Scott scored early in the first quarter when Shanks hurled a long pass to Harting in the end zone. Kick for extra point missed. With a large majority of second string players in the Scott Field lineup, the St. Louis team uncorked a strong drive late in the second quarter and tied the score.

Starting the second half with a display of speed and drive which carried the visitors off their feet, the Airmen soon scored two touchdowns, and later added another when Shanks intercepted an enemy pass at midfield and dodged his way to the goal line. The final touchdown came in the fourth quarter after Lewis had again captured a Trojan pass. Osborn and Guy dashed thru and around the opposing line in a sustained drive of 40 yards to make the score.

Lewis at tackle, Dixon at center, and Shanks, Osborn and Guy in the back-field all contributed fine plays. The improvement of the play of the team has greatly increased outside interest in the home games, and the crowd of about 2500 was the biggest turnout at Scott Field for an athletic event in several years.

Scott Field, Belleville, Ill., October 21st.

Official notification was received at Scott Field that "Lafayette Queen," one of the young homing pigeons raised this season, is the St. Louis district winner of the National Futurity Race. This race was flown from Lafayette, Ind., on Sept. 27th, with about 6,000 birds competing. As a result of this win, Lieut.-Col. John A. Paegelow will receive the Titgemeier Cup, which was donated for the competition of birds from St. Louis and vicinity. "Lafayette Queen" was just under four and one-half months old when this race was flown and had previously made an excellent showing in training flights.

There were five Scott Field birds entered in this race and four were successful in completing the flight which was an exceptional percentage compared with most of the other competing lofts. Staff Sgt. Max Bronkurst, pigeonier, is scheduled to take this youngster to the convention of the American Racing Pigeon Union at Toledo, Ohio, Oct. 22-25, where the cup will be presented. The bird will be entered in the convention show for futurity winners.

During the World Series games at St. Louis, Lieut.-Col. John A. Paegelow and three officers of his staff provided a daily escort to Judge Kenesaw Mountain Landis, high commissioner of baseball. Judge Landis has made this invitation a regular affair ever since the first World Series game in 1926, in St. Louis.

In addition to Col. Paegelow, the following officers attended the games as guests of Judge Landis: Majors John P. Duckworth, Walter D. Love, Captains W.P. Hayes, Roger S. McCullough, Philip Schmeberger, Ira R. Koenig, Harlan W. Holden and 1st Lieut. Edgar T. Selzer.

Lieut.-Col. John A. Paegelow has ten more blue ribbons to add to his fine collection of pigeon trophies won by birds of the Scott Field loft. He entered ten birds in the pigeon show in connection with the St. Louis Dairy Show and came out with a 100% record, as each bird captured first honors in its class. In addition to these awards, the championship homer ribbon was captured by "Chattanooga Boy," one of the best racing and show birds under the care of Staff Sgt. Max Bronkurst, pigeonier. This pigeon is the son of "Mocker," one of the famous war birds, and won championship honors last year at the Asheville and Memphis shows.

The next showing of the Scott Field birds will be from Nov. 5th to 8th at the Ninth Annual Show of the St. Clair Pigeon Club in Belleville, Ill. The star show bird of the loft, "Col. John A. Paegelow," will be entered in an attempt to capture the cup permanently for the Champion Most Likely Racing Homer. This bird has two legs on the cup and needs but one more win to make it a permanent part of the pigeon trophy exhibit.

Lieuts. Selzer and Bulger took two planes of the 15th Squadron to Chicago on October 11th for ten days of duty towing targets at Fort Sheridan for anti-aircraft target practice.

Selfridge Field, Mt. Clemens, Mich., October 15th.

During the annual convention of the American Legion in Detroit, when over 100,000 of Uncle Sam's war time soldiers and sailors descended upon the city, an 18-plane flight of Selfridge Field pilots flew a demonstration formation along the Detroit River front in their honor. On the same evening, Monday, Sept. 21st, a 6-plane formation of Boeing Fighters put on an illuminated night flight over Belle Isle and the water front area of the Detroit business section. Downtown Detroit presented a vivid spectacle with searchlights flashing and the streets filled with a milling mass of Legionnaires in their gaily colored uniforms. On Sept. 22nd, the whole First Pursuit Group acted as an aerial escort for the monster American Legion parade. This parade was probably the longest and biggest in the history of the American Legion Conventions, and it was fitting, indeed, that the First Pursuit Group should have the honor of acting as an aerial convoy, due to the Group's war time history.

By request of the American Legion Post in Mt. Clemens, the Drum and Bugle Corps of this station was granted permission to march in the Big Parade of the American Legion Convention with the Legionnaires of Mt. Clemens.

Major General Frank R. McCoy, Hqs. 4th Corps Area, Atlanta, Ga., visited this station on Sept. 20th, being accompanied by Lieuts. Brown and Hillery. The General flew in here from Ft. McPherson, Ga., to spend the week end in Detroit, as he planned to attend the reunion of his old Division, the 32nd, and also remain in Detroit for the American Legion Convention.

On Sept. 24th, a group of about 100 members of the Pontiac, Mich. Y.M.C.A. visited Selfridge Field for the purpose of observing at first hand the work of the Army Air Corps. Several officers were detailed as guides for the party and, after showing them over the Field, explaining to them the intricacies of the tactical flying that was going on in the sky overhead, the party left the Field for the return trip to Pontiac about 4:00 o'clock, having expressed themselves as very pleased with their visit to the Field.

A flight of 9 planes from this station conducted a tactical flight over Pershing High School in Detroit on Sept. 23rd, on the occasion of the dedication ceremonies of this new school.

Lieut. Robert J. Hixson, recently a member of the First Pursuit Group, is now taking a course in business administration at Cambridge, Mass. Lieut. Hixson was on active duty at Selfridge Field from June 24, 1930, to Sept. 15, 1931.

A flight of six P-12 airplanes flown by pilots from the four tactical squadrons of the First Pursuit Group and led by Captain Ennis C. Whitehead, departed for Bolling Field via Middletown on Sept. 20th, for cooperation with searchlights in defensive pursuit work at Fort Humphreys, Va. The flight arrived at Bolling Field at 11:45 a.m. Sept. 21st and participated in cooperative missions with the searchlight batteries on the nights of Sept. 21st and 22nd. In addition to Pursuit missions, 4 Pursuit planes were used on the night of the 22nd to simulate high-speed Bombardment in one attack on the defended zone. The flight returned to Selfridge Field Sept. 24th.

Delegates to the annual convention of the Allied Theatre Owners of Michigan, with the officers and directors of the National Board of Allied Theatres, visited Selfridge Field on the morning of October 7th and watched the routine flying of the Pursuit Group as led by Major Brower. All squadrons took part in the formation. Approximately 500 representatives of theatres throughout Michigan attended the convention.

Major George H. Brett, Commanding Officer of Selfridge Field, gave a lecture to Reserve officers in the vicinity of Detroit on the evening of October 9th at the Field. The meeting was one of the regular squadron assemblies of the 310th and 419th Observation Squadrons, and Major Brett gave the Reserve officers the benefit of his knowledge and experience relative to Air Corps organization and training. A series of these meetings are planned by Captain D.B. Rogers, the unit inspector for the Air Corps Reserve Officers in this community.

Lieut.-Col. J.J. Grace, Signal Corps, 6th Corps Area Headquarters, visited the Field October 6th and 7th. He was especially interested in Signal Corps projects in connection with the new construction now going on at this station. A thorough inspection of all Signal Corps activities on the post was made by Col. Grace with a view to coordinating and making recommendations relative to these activities during the construction period.

Following the visit to Selfridge Field on Sept. 30th of Lieut.-General Gustav Dreszer, Polish Army, and the demonstration flight the following day by a squadron of 18 planes in the vicinity of the Detroit Yacht Club on Belle Isle, where General Dreszer and his party were staying, the Consul of Poland, Mr. Jan Lech Byszewski, addressed the following letter to Major Brett:

"General Gustav Orlicz-Dreszer when leaving Detroit yesterday asked me to convey to you his sincerest thanks for the courtesy extended to him in showing him around Selfridge Field. It was with the greatest interest that he viewed the air field with its various buildings. He also asked me to inform you that he was very much impressed by the feats performed above the Detroit Yacht Club on Belle Isle by the airplanes sent by you.

On my part I may assure you, Dear Sir, that General Orlicz-Dreszer immensely enjoyed his visit to Selfridge Field, as well as the feats displayed by your splendid pilots above Belle Isle.

Thanking you for the honors accorded to General Gustav Orlicz-Dreszer, I wish to remain, &c."

Patterson Field, Fairfield, Ohio, Oct. 15th:

Following is a report of the activity of the Depot Supply Department for the month of September:

Tonnage of incoming freight - 401.1 tons, express - 1.2 tons.
Tonnage of outgoing freight - 106.3 tons, express - 4.7 tons.
Incoming parcel post - 580 lbs., outgoing - 1,701 lbs. Amount of material received by other means - 115,986 lbs.; shipped - 166,450 lbs.
Total number of shipments received - 648; Made - 1,212.
Number of requisitions received - 357.

The following major and minor overhauls of airplanes and engines were accomplished in the Engineering Department during September:

Airplanes: Major overhauls - 1 BT2B, 1 Curtiss O-1G, 1 Douglas O-2H, 1 Curtiss O-11, 2 Thomas-Morse O-19B, 6 Douglas O-25, 1 Curtiss P1C, 1 Consolidated PT-1 and 6 Boeing P-12C. Minor overhauls - 1 RA-2 (Navy plane), 5 Curtiss A-3, 1 Keystone B-3A, 3 BT-1, 4 BT-2B, 4 O-2H, 3 O-1, 2 O-17, 2 O-19, 2 O-38, 1 P-1B and 1 Y1C14, a total of 20 major and 29 minor overhauls.

Engines: Major overhauls - 2 R-790, 1 R-975, 6 R-1340, 8 SR-1340, 4 V-720, 4 V-1150, 5 V-1570, 5 GLV-1570. Minor overhauls - 1 SR-1340, 2 GR-1750, 1 V-720, 2 V-1150, 2 V-1650, a total of 35 major and 8 minor overhauls.

2nd Lieuts. Gilbert H. Cox and Harvey C. Eads, A.C.Res., reported for a two weeks' tour of active duty training.

In the Annual Fifth Corps Area Golf Tournament held at this station, Sept. 14th and 15th, 86 entrants participated. Twenty-four prizes were distributed. First prize (the Barksdale Trophy and a golf bag) was awarded Lieut. B.W. Chidlaw, A.C., Wright Field; 2nd prize (a tile top table) to Maj. Thomas L. Spoon, Dental Corps, Ft. Benjamin Harrison, Ind.; 3rd prize (an electric clock) to Lt.-Col. H.H. Arnold, A.C., Wright Field; 4th prize (a Dimple Bottle) to Maj. G.E. Wolfe, C.A.C., University of Cincinnati. Capt. L.R.P. Reese won the prize for the worst hole, playing a score of 14. On the afternoon of Sept. 14th, a Blind Bogy Tournament was held. First prize was awarded Maj. A.L. Sneed; second prize to Maj. W.E. Wilmerding and third prize to Capt. R.C. Throckmorton.

The following visitors attended the Tournament: Lt. R.P. Eaton, Inf.; Maj. R.M. Winfield, Inf., Columbus, Ohio; Lt.-Col. Jason M. Walling, Inf., Toledo, Ohio; Capt. Bert S. Wampler, Inf. (DOL), Capt. Bert Cordle, Inf., Capt. M.F. Scully, Inf., Indianapolis; Major F.D. Applin, S.C., Columbus, Ohio; Maj. W.H. Hamrick, Q.M.C., Capt. R.C. Sweeney, S.C., Res., Capt. S.M. Frazier, Dent-Res., Toledo, O.; Lieut. C.E. Berg, F.A., Capt. R.C. Throckmorton, Inf., Culver, Ind.; Lt.-Col. Chalmers R. Wilson, Inf., Columbus, Ohio; Capt. P.D. Strong, 11th Inf., W.O.F.A. Bowen, 11th Inf., Ft. Benjamin Harrison, Ind.; Maj. R.E. O'Brien, 10th Inf., Col. F.W. Clark, G.S., Ft. Hayes, Ohio; Maj. G.E. Wolfe, C.A.C., University of Cincinnati; Lt. H.C. Johnson, Inf., University of Dayton; Capt. J. Johnson, Ord-Res., LaCarne, Ohio; Lt.-Col. L.P. Henry, Inf.-Res., Toledo, Ohio; Lt. Stanton Smith, A.C., Capt. R.E. Chambers, Med.-Res., Maj. Thomas L. Spoon, Dent. Corps, Ft. Benjamin Harrison, Ind.; Maj. A.G. Guyer, C.E., Maj. C.A. Bagby, Inf., Capt. F.A. Allen, Jr., C.A.C., Ft. Hayes, Ohio; Col. L.L. Deitrick, Q.M.C., Columbus, Ohio; Major R.O. Probst, Eng.-ORC., South Bend, Ind.; Col. B.F. Ristine, Inf., Dayton, Ohio; and Col. I.M. Madison, Inf., Indianapolis, Ind.

A Golf Tournament participated in by officers stationed at this Field and Wright Field and who were divided into two teams, the "FAD Team" and "Town Team", was held at the McGregor Golf Course near Dayton, Ohio, on Sept. 29th. The "Town Team" won the tournament, after which a cold dinner was served at the McGregor Club. The losers paid two-thirds and the winners paid one-third of the cost of the entertainment. Approximately 60 were present, of which number there were 48 golfers and 12 rooters. The tournament was enjoyed very much by all present.

Among those visiting this station during the past few weeks, the following were noted:

Group Capt. L.J. Fiennes, Air Attache of Great Britain at Washington, D.C., and Sq. Leader A. Ferrier, of the Royal Canadian Air Corps, on a tour of inspection.

Maj.-Gen. Frank McCoy, Commanding General of the Fourth Corps Area, Ft. McPherson, Ga., Lieuts. Brown, Hillery and Biddle, en route to the American Legion Convention at Detroit, Mich.

Lieut. H.P. Becker and Lieut. F.S. Dailey, U.S.M.C., ferrying a transport plane, stopped over en route Sept. 25th to Managua, Nicaragua.

San Antonio Air Depot, Duncan Field, Texas, Oct. 15th:

A beautiful military wedding which took place in the garden of the Duncan Field Officers' Club on Wednesday evening, Oct. 7th, was the marriage of Miss Helen Johnston, daughter of Maj. and Mrs. C.C. Johnston, Med. Corps, Kelly Field, to Lieut. William P. Connally, Jr., F.A., Ft. Sam Houston. The ceremony was performed by Chaplain (Major) Peter J. Kilkenny, of Ft. Sill.

The garden and club rooms were beautifully decorated with flowers and candles, and the nuptial music was furnished by the Kelly Field Orchestra. Fol-

lowing the ceremony an informal reception was held in the rooms of the Club, at which the bride's parents and the bridal party received, and Mrs. Charles H. Danforth presided at the tea table. Lieut. and Mrs. Connally left later in the evening for California, to sail from there for Hawaii.

On the day preceding the wedding, Mrs. Charles H. Danforth was hostess to an attractively appointed luncheon in her quarters at Duncan Field in honor of the bride-elect and her bridal party; and on Tuesday evening Lieut.-Col. and Mrs. A.W. Robins entertained with an informal buffet supper party, immediately following the wedding rehearsal, complimenting the bride-elect and her fiancé.

Chaplain Kilkenny was the house guest of Capt. and Mrs. E.V. Harbeck, Jr., at this station during his visit here for the wedding.

Out-of-town visitors Oct. 6th, for the regular monthly conference and luncheon at the Depot for coordination of Air Corps supply and engineering matters in this Area were Capts. S.J. Idzorek and E.M. Morris, of Ft. Crockett; 1st Lieuts. Roy W. Camblin, from Hatbox Field, Muskogee, Okla.; Thomas W. Blackburn, A.C. Instructor with the Texas National Guard, Houston, and Earle T. Showalter of the 36th Division Aviation, Houston.

1st Lieut. Charles H. Caldwell of the A.C. Materiel Division, Wright Field, Ohio, visited this Depot on Oct. 2nd and 3rd during an extended cross-country tour of various A.C. activities and commercial aeronautical plants of the West and Southwest for conferences on A.C. supplies and equipment and observation of repair shop methods.

During September the Engineering Department of the Depot overhauled and repaired the following airplanes and engines:

Airplanes overhauled - 5 A-3B, 3 O-2H, 1 O-2J, 5 O-19B, 1 O-19C, 3 P-1C, 1 P-1D, 3 P-1E, 1 BT-1, 1 PT-3A, 1 C-9. Total 25.

Airplanes repaired - 1 A-3B, 1 B-7, 1 B-3A, 3 O-2H, 4 O-19B, 4 O-19C, 1 O-38, 1 P-12B, 2 BT-2B, 1 Y1C-22, 1 NS. Total 20.

Engines overhauled - 34 V-1150, 22 R-1340, 5 R-790, 3 R-1690. Total 64.

Engines repaired - 2 V-1150, 2 R-1340, 8 V-1650. Total 12.

Rockwell Air Depot, Calif., Oct. 16th:

During the month of September the Rockwell Air Depot received 72 engines and 18 airplanes for overhaul, and completed major overhaul on 40 engines and 14 airplanes.

A total of 5,304½ man hours was expended in the shops of the Engineering Dept. for the manufacture and repair of Air Corps equipment other than airplanes and engines.

The Depot Supply Department received during the month 501,529 lbs. of freight and express and shipped 417,613 lbs. by freight and express. Incoming parcel post shipments amounted to 753 lbs. and outgoing to 574 lbs., while 860 lbs. of Air Corps material were shipped by airplane.

An addition was made to the Engine Repair which will be used for cleaning purposes.

During September quite a number of visitors passed through the Depot. Congressman Melvin J. Mans of Minnesota, arrived by plane on Sept. 5th, remaining here until Sept. 8th. Col. Sebring C. Megill, S.C., arrived Sept. 1st to make an inspection of Signal Corps installations and activities of the post.

Lieut. Charles H. Caldwell of the Materiel Division as pilot, accompanied by Maj. Thatcher, Ordnance Dept., arrived Sept. 26th to confer with the Commanding Officer regarding Air Corps supplies and equipment. Capt. Lowell H. Smith, former Chief Engineering Officer of the Rockwell Air Depot, accompanied by Maj. Gett, Air-Res., arrived Sept. 29th, in a B-3A from Langley Field. Brig.-Gen. Charles H. Danforth, accompanied by Lieut. R.W. Douglas, Jr., arrived Sept. 30th, to confer with the Commanding Officer regarding supplies and coordination training activities.

Col. F.M. Andrews, Capts. H.M. Elmendorf and A.B. McDaniels, ferrying P-12E planes from the Boeing factory to the East coast, passed through Rockwell on Oct. 12th, remaining here until the 14th.

Maj. O.W. Grauland, Finance Dept. arrived Oct. 2nd to make the annual audit of all property accounts at Rockwell Field.

Maj.-Gen. Edward L. King, Asst. Chief of Staff G-3, War Department General Staff, accompanied by Maj. Ralph Royce, A.C., arrived here Oct. 14th, via air in an O-38 plane, to observe training and instruction activities at this post.

Maj. Thomas DeW. Milling reported for duty with the Rockwell Air Depot on Oct. 15th.

Lieut. A.A. Straubel reported for duty with the Depot on Sept. 7th, and was appointed Asst. Depot Supply Officer.

Lieut.-Col. B.K. Yount, Commanding Officer of the Depot, accompanied by Lieut. B.M. Giles, Chief Engineering Officer, departed via air on Oct. 6th, for Salt Lake City; Spokane, Seattle, Vancouver; Mather and Crissy Fields, to confer with Commanding Officers of the Regular Army and National Guard activities regarding maintenance of Air Corps equipment and supplies.

Mr. Jacob M. Bailey, A.M.E., Supt. of the Engine Repair and Machine Shop of the Engineering Department, Rockwell Air Depot, departed on Sept. 16th, for the Pratt and Whitney Company, Hartford, Conn., for two weeks' instruction in the maintenance of aeronautical engines. Upon completion of his tour at Hartford, Mr. Bailey will proceed to the Middletown, Fairfield and San Antonio Air Depots, on temporary duty for purpose of observing shop methods used thereat.

Kelly Field, Texas, Nov. 1st:

Students in the new class at Kelly Field were scheduled to begin flying Monday Morning, Oct. 25th. The class is made up of 102 flying cadets, four officers of the Regular Army, headed by Maj. William E. Kepner, and one non-commissioned officer training in grade.

Sections will be conducted in the four branches of military aviation, Pursuit, Attack, Bombardment and Observation.

Instrument or blind-flying instruction of students will be under supervision of 1st Lieut. E.D. Perrin with students of the Observation Section taking the training first.

1st Lieut. D.V. Gaffney will be senior instructor in Pursuit, 1st Lieut. L.J. Maitland in Attack, 1st Lieut. J.W. Monahan in Bombardment and 1st Lieut. H.K. Ramey in Observation.

Brig.-Gen. Charles H. Danforth, commander of the Air Corps Training Center; his Aide, 1st Lieut. R.W. Douglass, and Lieut.-Col. H.B. Claggett, Commander of Kelly Field, flew to Brownsville, Oct. 23rd.

The trio was to attend dedication services at the new administration building at the municipal airport there.

Something new in military airplanes was on exhibit at Kelly Field, Oct. 25th, a dual motored, high wing Observation ship. This now odd appearing Army ship is designated as an XO-35, experimental plane, and is piloted by 1st Lieut. John F. Whiteley. The plane has a high wing known as a "gull" wing, and is powered with two Curtiss-Conder motors, capable of cruising at a speed of 150 miles an hour.

Lieut. Whiteley landed at Kelly Field on the afternoon of Oct. 25th from California, and left at 10 o'clock next morning for Dayton, Ohio. Army Flyers at Wright Field, Dayton, Ohio, will experiment with the ship to determine its practicability. Heretofore, the only one-wing planes used in military aviation in America is the large tri-motored transport ships.

**SUGGESTIONS FOR THE IMPROVEMENT OF AIRCRAFT MAINTENANCE
AND TECHNICAL RECORDS, REPORTS AND FILES.**

In the future, the last pages of the Air Corps News Letter will be utilized by the Chief of the Air Corps to bring to the attention of all Air Corps activities and personnel various suggestions for the improvement of aircraft maintenance and more accurate preparation and maintenance of technical records, reports and files. The last pages of the Air Corps News Letter are used for this purpose, so as to permit interested activities and personnel to detach these pages from the Air Corps News Letter and maintain them in a separate folder for their own information, reference and application, where desired.

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DISTRIBUTION OF TECHNICAL REGULATIONS

Technical inspections conducted by representatives from the Inspection Division, Office of the Chief of the Air Corps, have indicated that the distribution of technical instructions throughout the Air Corps generally has not been such as to result in activities deriving the maximum benefit therefrom. In checking the technical files of stations, groups and organizations, it has been noted that this pertains especially to the distribution of Air Corps Circulars, Technical Orders, Technical Letters, Technical Radiograms, Technical and Training Regulations, and Training Manuals affecting technical functions of the Air Corps. Many activities, especially organizations, have been in the habit of making verbal requests upon their immediate distributing agency for the technical instructions required to complete their files, and it is believed that this may be responsible to a great extent for the failure of organizations to receive sufficient copies. In all cases, requisitions for technical instructions should be made upon the distributing authority in writing.

A recent technical inspection of Langley Field brought to light the following system for the distribution of Technical Orders and Technical Letters at that station, which is considered excellent and is recommended for all stations:

"Technical Orders, Technical Letters and Technical Radiograms, when received by Post Headquarters, are forwarded direct to the Station Engineering Officer, who is charged by the Commanding Officer with the distribution of these instructions and maintenance of the necessary surplus copies. Upon receipt of these instructions the required number of copies of Technical Orders are then distributed by the Station Engineering Officer direct to organizations, and to technical departments affected who come directly under the jurisdiction of the station. The required number of copies for organization and departments within the group are forwarded by the Engineering Officer direct to Group Headquarters for the necessary distribution within the Group.

Technical Letters, with the exception of attached blue print, are retyped by the Station Engineering Office in sufficient quantities to permit distribution to all post and group activities concerned. Technical Letters are filed in numerical order and completely indexed. Each Technical Letter so distributed bears the designation of each organization to which distributed, the date it was distributed, and the initials of receiving personnel. The distribution of Technical Letters to the Group is made direct to the Group Engineering Officer, who is required to make distribution to all Group organizations concerned."

It is believed that the above system will adequately care for post distributions. In addition, however, group and organization distribution must be carefully supervised, if group and organization activities are to be furnished with the technical instructions required for the proper maintenance of their activity. Group distribution, in addition to that for squadrons, must carefully cover the needs of technical departments, such as Group Communications, Armament and Photographic Sections. Similarly, organization distribution must also be carefully supervised to insure the distribution of technical instructions affecting squadron armament, communication, and supply, direct to those activities for necessary action and maintenance of the proper files. In this connection, it is recommended that group and squadron engineering officers be designated as distributing agency for technical instructions pertaining to the group or squadron, as the case may be.

The distribution of technical regulations, training regulations and training manuals also should have careful supervision, in order to insure distribution of those regulations affecting armament, communications, parachutes, photographic,

etc., to the activity concerned. It is recommended that all technical and training regulations and training manuals received at station headquarters, which affect technical activities, be forwarded direct to the Station Engineering Officer for distribution, in accordance with the distribution which may be required for the needs of the station.

Past technical inspections have also indicated that handbooks and parts lists of aircraft engines and equipment are not being distributed so as serve best station requirements. These publications ordinarily are shipped direct to the Air Corps Station Supply Officer, and it is recommended that upon receipt of such publications, Air Corps Station Supply Officers furnish the Station Engineering Officer a list of such publications, and request the distribution required. Upon receipt of such a list, the Station Engineering Officer, who has direct knowledge of all types of aeronautical equipment at the station and in each organization, will furnish the Air Corps Station Supply Officer with the distribution desired for these publications.

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The following Technical Orders and Letters have been issued since October 1, 1931:

<u>Date</u>	<u>No.</u>	<u>Subject</u>	<u>Distribution</u>
10-8-31	TO-01-1-83	Replacement of Springs in Oleo Units of B-3A, B-4A, Y1B-4, P-5A, B-6A, Y1B-6, LB-6, LB-7, P-12 and P-12B Type Airplanes.	General
10-22-31 (This letter replaces Letter-4-11-31.)	TL-31-126	Change on Nose Shutter of O-38 and O-38A airplanes. Also O-38-B.	Wright and the four domestic depots.
10-6-31	TL-31-172	Modification of Rear Fuselage Turtle-Back on P-12B, P-12C and P-12D airplanes.	Bolling, Mather, Selfridge, Wright, and all depots. Maxwell, France, Luke, Rockwell.
10-5-31	TL-31-263	Modification of Mount for Coil and Vibrator Assemblies AV-1101 and AV-1001 in accordance with sketch SK-101-8 in order that either assembly may be used.	General
10-3-31	TL-31-264	Change in Mount Members, Center Engine-Ford C-4A airplanes, due to present members having a negative margin of safety.	M.A.D., F.A.D., S.A.A.D., R.A.D., and Wright.
10-12-31	TL-31-265	Replacement of tail skid on O-19B airplanes	Brooks, Chanute, Hawaiian AD, Luke, Post, Pope, Scott, Wright and FAD, MAD, RAD, and SAAD.
10-12-31	TL-31-266	Change on Bomb Rack Support Beams-Thomas Morse O-19B, O-19C, O-19D and O-19E.	Brooks, Chamute, Dodd, Langley, Kelly, Bragg, Sill, Scott, Wright and all depots.
10-12-31	TL-31-267	Change in method of sealing screwed joint at lower end of landing gear oleo cylinder, P-12, P-12B, P-12C, P-12D and P-12E airplanes.	Bolling, France, Hawaiian AD, Luke, Mather, Maxwell, Panama AD, Philippine AD, Rockwell, Selfridge, Wright and FAD, RAD, MAD and SAAD.
10-12-31	TL-31-268	Change on Main Gasoline Tank Cradle- O-19B, O-19C, O-19D and O-19E airplanes.	All depots and Wright Field.
10-15-31	TL-31-270	Reinforcement of aileron spar, P-12B, P-12C and P-12D airplanes.	Bolling, France, Hawaiian AD, Luke, Mather, Maxwell, Panama AD, Rockwell, Selfridge, Wright, FAD, MAD, RAD and SAAD
10-21-31	TL-31-275	Replacement of oil coolers, O-25A and O-25B airplanes.	MAD, FAD, RAD and SAAD, Wright.
10-1-31	TO-00-0-7	Monthly Index of Technical Instructions.	General.
10-27-31	TL-31-269	Tester, Spark Plug-Operation of	General
10-26-31	TL-31-276	Change in Oil Cooler Air Scoop Curtiss O-39 Airplanes.	Mitchel, Bolling, Wright and the four domestic depots.

10-21-31	TL-31-271	Installation of Caution Plate re Cabin Door-Curtiss O-39 airplanes	Bolling, Mitchel, MAD, FAD, SAAD, RAD, Wright.
10-21-31	TL-31-272	Replacement of Tie Rod Attachment Fittings, Upper Wing-Thomas Morse O-19B, O-19C and O-19D Airplanes.	Hawaiian, Panama AD, Philippine AD, MAD, FAD, SAAD, RAD, Wright.
10-21-31	TL-31-273	Replacement of Gasket, Carburetor Air Intake-Thomas Morse O-19C, O-19D and O-19E Airplanes.	Brooks, Chanute, Dodd, France, Hawaiian AD, Kelly, Langley, Luke, Panama AD, Philippine AD, Pope, Post, Scott, Selfridge, Wright and the four domestic depots.

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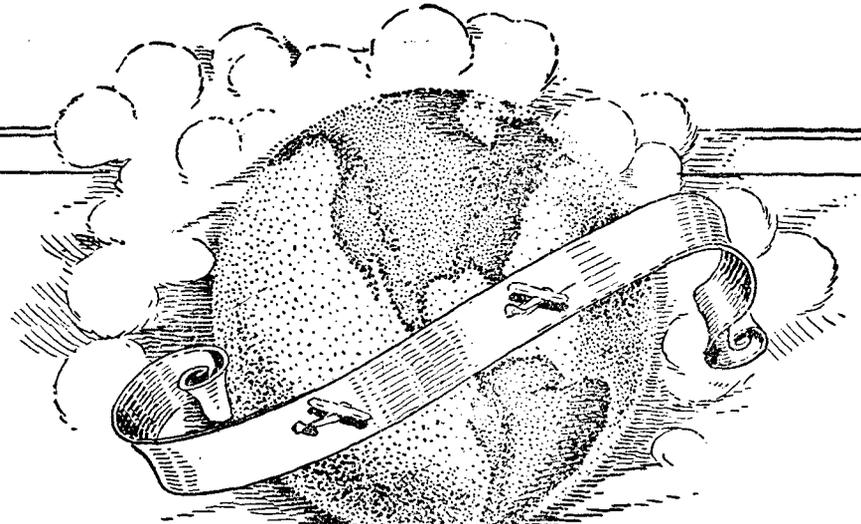
1. For the information of interested personnel and to assist Engineering Officers, the following feature originated by Captain Milo McCune at Langley Field, was submitted:

A record to keep more detailed information on the condition of storage batteries at Air Corps Stations and to furnish an accurate Maintenance check thereon:

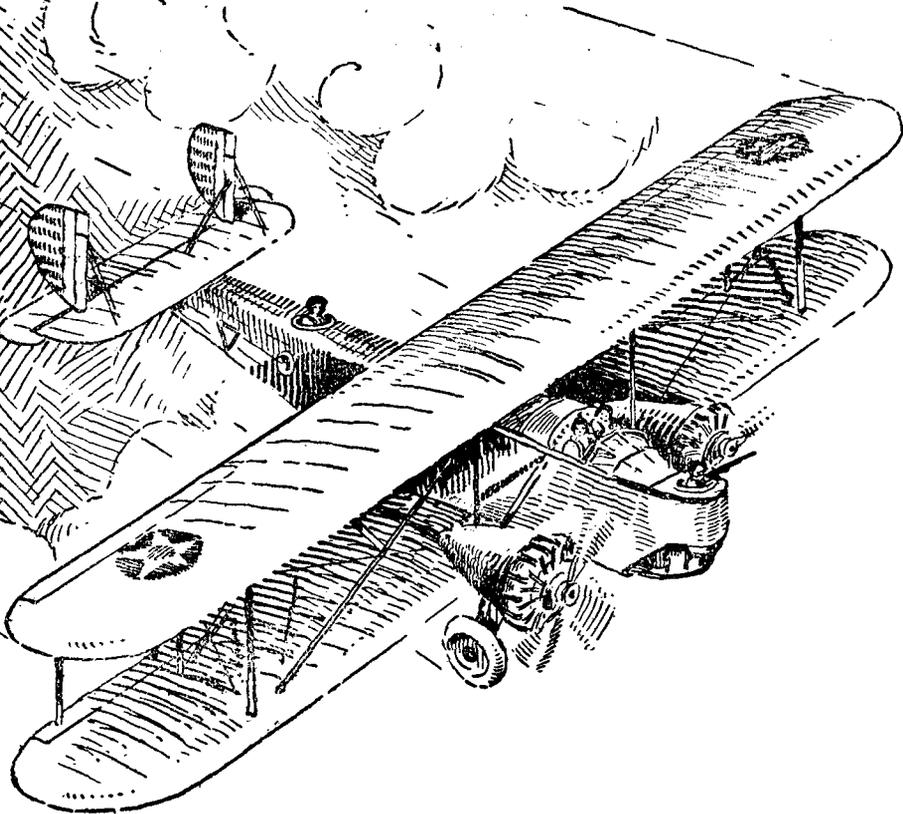
POST - STORAGE - BATTERY - RECORD							
NUMBER	TYPE	IN-COM.	OUT-COM.	DATE REC.	DATE ISSUED	SQDN	REMARKS

In order to keep an accurate check of all batteries at a station on the above chart, it is necessary that they be numbered in sequence.

2. Captain McCune stated that he found the record as outlined in the above chart very valuable in furnishing an accurate historical record of each battery, and in fixing definite responsibility in cases where neglect of maintenance was indicated. He further stated that by the operation of this chart he was able to effect a considerable reduction in battery maintenance.



AIR CORPS NEWS LETTER



— ISSUED BY —
OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT
WASHINGTON

F. C. Barry

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Information Division
Air Corps

December 4, 1931.

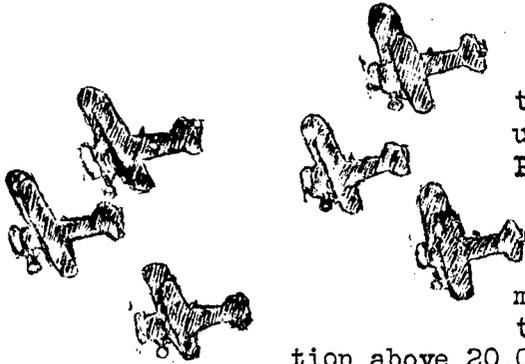
Munitions Building
Washington, D.C.

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 in this publication.

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HIGH ALTITUDE CROSS-COUNTRY FLYING



The first cross-country flight at an altitude of 20,000 feet, in which all the pilots used liquid oxygen, was completed by the 94th Pursuit Squadron on November 3rd, when twelve planes, under the command of Lieut. Harry A. Johnson, flew from Selfridge Field to Washington, D.C., in two hours and five minutes. At Selfridge Field two days prior to the flight, tests were run on gas consumption

above 20,000 feet, and it was discovered that an economical consumption could be obtained at a fairly high r.p.m. Tests had also been conducted in training the pilots in the handling and use of liquid oxygen.

The flight took off at 1:45 p.m., with a heavy cloud bank covering this section of the country. Five miles from the field, a break in the clouds was discovered and the flight spiralled upward for a period of thirty minutes until the altitude of 19,000 feet was obtained, when the pilots started on their course, still climbing. After breaking through the clouds it was impossible, of course, to check any land marks on the ground, and for about one hour there was nothing but a sea of white clouds below. As the Ohio River was crossed, a slight break showed the river and gave the Squadron Commander an opportunity to check the course. A short distance past Pittsburgh, Pa., the clouds broke, and from that time on the course was easy. The remarkable part of the flight was that after getting above the clouds a compass course plotted prior to the take-off, held directly on the course, and no change was needed when the clouds finally did break.

A short distance out of Washington, members of the flight noticed the plane piloted by Lieut. Hersam started cavorting crazily about the sky and then diving for the earth. Down he plunged out of sight of the remainder of the flight who, wondering, kept on towards Washington. They were delighted, indeed, to have him join the flight just before they landed. It was learned that Lieut. Hersam had accidentally detached the tube leading from his oxygen supply to his face mask while reaching for his map. He was soon unconscious, and his plane, out of control, dove towards the earth until at 7,000 feet the pilot recovered and righted his ship. He joined the flight over Washington, and the 12 planes landed as one unit at Bolling Field, Anacostia, D.C., the first one touching the ground at 3:50 p.m. A short time was lost spiralling down slowly so as not to make too rapid a change of altitude after a long stay at an altitude where the pressure density was much less than on the ground. The speed averaged 200 miles per hour and between 1900 and 1950 r.p.m. All the pilots made the flight to the place where they were ready to glide down and land on their auxiliary tanks of 55 gallons, with the exception of one.

Liquid oxygen was used on this trip, and it is a marked improvement over the gas oxygen carried in cylinders. The regulation of the amount necessary for the pilot is entirely automatic and cuts the number of gauges and instruments necessary to keep on a flight of that type. Face masks, in which a tube carried the oxygen to the nostrils, were used, and these proved superior to those which required the tube to be held in the mouth and, in addition, were much more comfortable on a long flight.

Most of the pilots encountered trouble through the fogging of the goggles, one pilot losing his goggles 15 minutes after taking off and flying the entire distance without them. The maximum temperature encountered was 20 degrees below zero centigrade, which seems to be the dead line on temperature where goggles either will or will not fog. At any temperature below that, all B-6 goggles will

fog until it is impossible to see through them.

As far as clothing was concerned, the flying suits (B-7) were apparently warm enough for the first hour. After that, all pilots began to chill and during the last hour hoped that Washington would show up soon. The opinion of the members of the flight upon landing was that the temperature of Washington was almost tropical.

On the following day the squadron returned to Selfridge Field by elements, for the purpose of navigation training. This trip required three hours and 40 minutes, and most of the pilots ran very close to the edge on gasoline prior to landing.

Lieuts. O'Donnell, Coleman and Hersam spent the greater part of the afternoon awing newspaper reporters with tales of the flight, having their pictures taken for future fan mail and basking in the lime light.

It can be seen from this flight that, should Washington be endangered by an attack, a squadron could take off from Selfridge Field, arrive at Washington, drop the auxiliary tanks, and have sufficient gasoline in the main tank to go right into combat at ceiling just two hours after leaving Selfridge Field.

Flying above 20,000 feet, and handling and using of liquid oxygen, constituted some of the activities of the 94th Pursuit Squadron during the month of October. A considerable number of tests at high altitudes were conducted during April, but these were discontinued because of the fact that only five liter containers for the liquid oxygen were available. These containers were too large for a Pursuit type plane, as no pilot on any flight needs that amount of oxygen, and there were no means of determining the amount of oxygen carried. Difficulty was also encountered in filling these containers.

During September, a supply of 2½-liter containers were obtained and installed in the planes in such manner as to permit them to be quickly removed for filling. Representatives of the Materiel Division, Wright Field, were present at the preliminary tests. In the method they employed, it required from seven to twelve minutes to fill each container. The new type of can they furnished for pouring the liquid oxygen from the 25-liter storage tanks into the container worked very satisfactorily and cut down the large evaporation losses encountered in pouring. Modifications have since been made of the equipment, and the containers can now be filled in about two minutes after they are removed from the plane.

Flights were made on October 12th by twelve planes in formation to indicated altitudes of 27,000 to 28,000 feet, and considerable maneuvering performed. The temperature at that altitude was 27 degrees below zero, centigrade. Great difficulty was experienced by the pilots staying in formation at that altitude, due to goggles fogging and then freezing. The average gasoline consumption for one hour's flight, including climb, was 30.5 gallons.

Another high altitude journey was made by two flights on October 13th, for the purpose of maneuvering fast at between 21,000 and 22,000 feet, it being desired to avoid an altitude where the goggles were likely to fog and freeze. The temperature encountered was 15 degrees below zero, centigrade. The planes maneuvered very well at that altitude, and the pilots encountered no difficulties.

On October 16th, flights were made to determine the length of time required for a formation to reach 20,000 feet, also the gasoline consumption at that altitude at 1800 r.p.m. For this flight, 25 gallons of gasoline were carried in the auxiliary tank. The weather was cloudy, and it was necessary to climb through a hole in the clouds. The time required for the climb to 20,000 feet was 19 to 20 minutes, the speed of the slowest plane being the determining factor. The gasoline consumption at that altitude varied from 17 to 25 gallons per hour. A check was made of all the spark plugs in the planes and new ones installed. Trouble was encountered by all the pilots, due to goggles fogging, and all complained of becoming cold.

On October 19th, another formation flight was made to 20,000 feet, and an objective of 100 miles away from the field was selected. The planes climbed to 20,000 feet over the field and then flew to the objective and returned at that altitude. The flight was made at 1800 r.p.m., and 25 gallons of gasoline were carried in the auxiliary tank. The time required for the climb to 20,000 feet was 21 minutes. At that altitude the gasoline consumption averaged 17 gallons per hour at 1800 r.p.m., and the temperature was 20 degrees below zero, centigrade. Some trouble was encountered, due to goggles fogging, and pilots complained of becoming chilled and of suffering much from cold hands.

Two days later, a flight was made to the same objective, the test being the same as that carried out on October 19th, save that the r.p.m. flown by the leader was 1950. The 25 minutes required to reach 20,000 feet was unnecessarily long, due to the leader falling out, making it necessary for the deputy leader to take the lead. The time required to fly the 100 miles to the objective was 50 minutes, making the speed 120 m.p.h. The time required for the return trip was 30 minutes, or at a speed of 200 m.p.h. The gasoline consumption varied considerably, but averaged 24.4 gallons per hour.

During these flights one pair of electrically heated goggles and mittens were used and, aside from a slight amount of moisture forming between the double lenses, no trouble was encountered with them. The electrically heated mittens were quite comfortable, but could stand a little more heat, and a heating element should be in the palm of the hand where it comes in contact with the stick.

The deductions which can be made from these flights above 20,000 feet are:

(a) Our planes and engines function satisfactorily at that altitude with a little training of personnel.

(b) Our personnel flying at that altitude lose some of their alertness, after staying there for over an hour, due to becoming chilled.

(c) That it is almost impossible for the pilot to operate at that altitude without electrically heated goggles and mittens.

(d) That liquid oxygen fed directly into a face mask is much more satisfactory than taking oxygen into the mouth through a tube.

(e) That when it is desired to operate at high altitudes, liquid oxygen is superior to gas oxygen carried in tanks, as normally the pilot is assured of sufficient oxygen to keep him aloft until his gasoline supply is exhausted.

(f) That for the amount of oxygen carried, the liquid oxygen gives a large saving in weight.

(g) Studies are also being made of the desirability of heating open cockpits for the comfort of the pilot, and of oxygen flasks which may be filled as quickly and easily as the airplane is refueled when it comes to earth.

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LANGLEY FIELD PILOTS FOILED BY OLD TIME NEMESIS

"Foggy days are here again" at Langley Field, Va., and the tactical training of the 2nd Bombardment Group has been seriously curtailed because of it. Old Dismal Swamp and its forest fires has always taken quite a toll of flying days from Langley during fall and spring. Due to a number of forest fires in the Carolinas, a pall of smoke and fog has clung to the ground in eastern Virginia for about two weeks, and the weather reports indicate no relief in the way of rain in sight.

Recently, some of the Group pilots defied the haze and carried out some machine gun missions in the vicinity of the Field. One of the pilots who was flying an innocent mission with a tow target plane in the haze came down at a place where he thought the Field should be, but instead of the Field a large steamer on a shoreless ocean loomed below. The pilot took the ship to be the "Aquitania" or "Belgenland," and he lost no time in setting a compass course back in the direction of the United States.

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AUTOMATIC PRESSURE CONTROL FOR AIRSHIPS

The problem of maintaining in non-rigid airships the proper air pressure at all times during flight has frequently proved a difficult one. Letting out or taking in the proper amount of air in the ballonet has up to the present time been a manual operation, with this great disadvantage. During rough weather the gas pressure is subject to more or less rapid fluctuations which cannot be readily adjusted by the pilot. In such instances, this pilot has realized that an air pressure control, automatically operated, would prove not only more efficient from the point of view of the airship and flight, but would relieve him of one more task in an unsteady airship car. Such an automatic air pressure control has been designed by the Materiel Division engineers, and is scheduled for immediate construction and testing. This device makes use of the fluctuating pressure within the airship envelope to regulate automatically the distributing of air to the ballonet.

LIEUT. MAYHUE WINS PATRICK TROPHY RACE

The fourth annual Major-General Mason M. Patrick Trophy Race was held at Fort Crockett, Galveston, Texas, on October 17th. It marked the second consecutive time this contest was held at that station. Unlike the previous year, when inclement weather threatened to spoil the whole affair and did limit the speed of the Attack planes, there was nothing to hinder any of the events scheduled for the afternoon.

A new speed mark was set by 1st Lieut. Don W. Mayhew, who won the race with an average speed of 142.59 M.P.H. The planes raced 80 miles over a 10-mile triangular course. The event was close from start to finish, there being only a few seconds difference in the elapsed time of the first three men. Until this year, Lieut. Ivan M. Palmer, winner of the event in 1929, had held the record with a speed of 140.2 miles per hour.

The first event on the program was a demonstration by Observation planes from Randolph Field. It could easily have been a flight of Attack planes, for the formation flown was that used by the Third Attack Group. No doubt the reason for this was the fact that most of the Observation pilots were former members of the Group at Fort Crockett.

Following closely on the Observation Show were the Bombing planes from Kelly Field. The big fellows barged around the sky for a brief but interesting demonstration. The spectators marvelled at the ease with which the large ships were landed. In 1930, the Observation planes took the honors with their perfect formation flying. The Pursuiters, who usually receive the largest amount of applause, were handicapped at that time by a low ceiling.

Conditions were reversed this year and, consequently, the Pursuit pilots from Kelly Field were able to make amends for what they were unable to do last year.

A flight of six Pursuit ships took off and, after diving at the airdrome a few times, separated. One element of three planes turned to the North and left a clear sky for the remaining element which gave a snappy exhibition of a dog fight. Lieuts. Eller, Harding and Rhudy were the three who thrilled the crowd in their attempts to "shoot" each other down. After several minutes of intensive maneuvering, they gave the aerial stage over to the second element, who in the meantime had flown to a high altitude and were at that moment roaring towards earth in a steep power dive.

Lieuts. George Price, "Nellie" Morgan and Frank Irvin gave an exhibition of formation acrobatics such as had never before been witnessed in Galveston. Even old time pilots of the Third Attack Group declared the fine maneuvering of the Pursuit pilots equal to that of the "Three Musketeers," or the Navy's "Nine High Hats." In tight V formation, the three planes went through rolls, loops, power dives, inverted recoveries, and most every other maneuver known to the Air Corps with the exception of the outside loop.

As the Pursuit demonstration closed, the Third Attack Group planes took off and thrilled the large crowd with their exhibitions of Attack formation flying. The 27-ship formation made the ground vibrate as they roared across it in typical Attack style.

When the time for the race approached, those who were to participate drew off and allowed the remaining planes to land and taxi off the field. Once the sky was clear, the ten entrants took their prescribed places in a Lufbery Circle. Maintaining a specified distance from the one in front, each plane dove at the first pylon and the race was on. A change in the course was made this year. No. 1 pylon was moved to the western edge of the flying field and in full view of the spectators, who were thus in a position to view the maneuvering on the turns as the planes raced around. The timers were located at the first pylon, and as each lap was completed they phoned information as to who was leading to the Operations Office, where the news was chalked up on a blackboard in full view of the crowd.

Lieut. Mayhew led from the first, but was closely followed by Lieut. Eric

Danielson and Lieut. Richard A. Morehouse, who finished in second and third places, respectively. Lieut. Danielson had an average speed of 141.25 m.p.h., and Lieut. Morehouse, 140.9 m.p.h.

As the race came to a close, an Attack plane swooped down on the field, dropping two parachutes in simulation of a parachute jump. As the dummies hit the ground, another Attack plane raced across the field laying a smoke screen through which it later dove in a demonstration of the use of smoke screens for Attack aviation. Thus the fourth annual Trophy Race came to a close. Ideal weather conditions and careful planning by those in charge enabled the citizens of Galveston and the surrounding towns to view the most instructive air meet ever held in this part of the southwest.

The ground exhibit was given again this year and duplicated its success of 1930 in creating interest among those unfamiliar with planes and motors and the equipment needed to keep a modern war plane in the air.

The awards for the winners of the first three places were presented the same evening at a dinner dance given by the officers of the Third Attack Group. To Lieut. Mayhew went the honor of having his name engraved on the bronze plaque which represents the Patrick Trophy. In addition, he received an award from the Houston Chamber of Commerce. Major Davenport Johnson, who made the award to Lieut. Mayhew, also presented honors from the Houston Chamber of Commerce to Lieut. Danielson, who took second place. The Galveston Cup, offered a year ago by the Galveston Chamber of Commerce, was awarded to 2nd Lieut. Robert K. Taylor, who was adjudged as being the officer of the Third Attack Group who had performed the most outstanding achievement of the year.

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INDIANA NATIONAL GUARD AIRMEN WELL ESTABLISHED.

The 113th Observation Squadron, Indiana National Guard, is now located in their new and modern quarters, including the fine brick hangar and two stucco buildings formerly owned by the Curtiss-Wright Co. Every section of the Squadron now has appropriate quarters in which to carry on their practical work each Monday night during the drill period, and on Sunday morning in connection with the regular military operations. The special sections include Flights A and B, Headquarters, Communications, Photographic, Engineers, Armament, Supply, Medical and Transportation.

Under the guidance and leadership of Major Richard F. Taylor, the Squadron now takes its place among the top notchers in Guard outfits in personnel, equipment and morale, and they stand in readiness at all times to back their city, State and Federal governments in any emergency which might arise.

The personnel is on active duty twice each week - in the regular drill on Monday nights and the Sunday morning missions. Each Sunday the Squadron receives practice in formation flying, bombing, camera gun, radio communication, panel reading, simulated artillery adjustment, and photoreplay. The Squadron is no longer handicapped by miscellaneous and commercial flying on the field, for with the opening of the new municipal airport several miles farther west, Stout Field now becomes a military field entirely, which greatly facilitates the training program.

An invitation is extended to all military flyers to visit the home of the 113th at Stout Field, for they are anxious to repay the splendid hospitality which they have received at other fields, and to become acquainted with all those whom they have never had the pleasure of meeting.

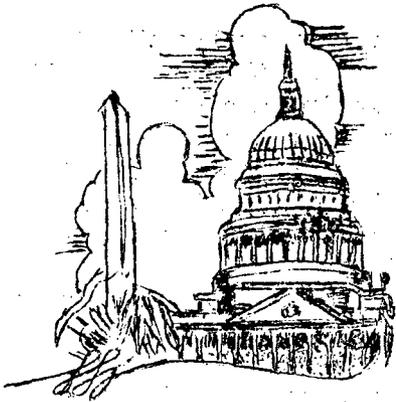
The newest equipment of the Squadron is the O-38 Douglas biplane, powered by a Pratt & Whitney air-cooled radial 525 h.p. motor. The cruising speed is about 115 miles per hour, and this type of plane has a very rapid climb.

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A MUDDY TIME WAS HAD BY ALL

Lieut. R.P. O'Keefe, of the 49th Bombardment Squadron, Langley Field, Va., led a three-ship formation into a nearby Department of Commerce Emergency Landing Field for practice in formation maneuvering in small and strange fields. Immediately after executing a successful landing, the formation learned that the Department of Commerce places a small red flag on the beacon tower when fields are muddy. The formation maneuvering proceeded - aided by interested and sympathetic farmers from the surrounding countryside, their tractors and teams. The formation returned to Langley Field in time for a bath and for supper.

THE WORK OF THE AIR CORPS DURING THE PAST YEAR



Extracts from the Annual Report of the Chief of the Air Corps (Major-General James E. Fechet) to the Secretary of War, for the Fiscal Year ending June 30, 1931.

PERSONNEL

Commissioned Personnel:

The commissioned strength of the Air Corps shows a net gain of thirty-three officers during the Fiscal Year 1931, as compared to the gain of one hundred twenty-three officers during the Fiscal Year 1930. This small increase in officer strength is due to the fact that none of the two hundred and three remaining vacancies, authorized by the Air Corps Act, were made available for the appointment of qualified candidates from civil life. The failure to provide these vacancies will preclude a satisfactory realization of the final increment of the Five-Year Program.

To understand fully the effect of this failure to the program, it is believed important at this time to review briefly the background connected with this phase. On June 30, 1926, just prior to the passage of the Air Corps Act on July 2, 1926, there were eight hundred eighty-four Regular Army officers commissioned in the Air Corps. There are now one thousand two hundred thirty-six Regular Army officers commissioned in the Air Corps. On June 30, 1926, the strength allotted the Air Corps by the War Department was one thousand two hundred forty-seven officers. The Act of July 2, 1926, increased the number of promotion list officers by four hundred and three second lieutenants, increasing the then allotted strength of the Air Corps by this number, distributed in grades from colonel to second lieutenant, inclusive, making the total authorized strength of the Air Corps at the end of the Five-Year Program one thousand six hundred and fifty officers.

The National Defense Act gives the Secretary of War authority to vary the allotment to any Arm by thirty percent of commissioned personnel. Since the passage of the Act of July 2, 1926, however, there have been restrictions in the appropriation acts with reference to the number of Regular officers that may be maintained in the Army; and the result of these restrictions has been that a limitation has been necessary on the number of officers who might be given original appointment in the Air Corps, in order that the limitation on the number of Regular officers in the Army might not be exceeded.

As a result of operations, under these provisions of law, three hundred seventy-eight were secured by original appointment (that is, not graduates of the United States Military Academy) and one hundred eighty-one by transfer (including graduates of West Point), from which must be subtracted two hundred and seven losses during the period, resulting in a net increase of three hundred fifty-two officers.

At the present time, the limitation on the number of officers who may be in the Regular Army, combined with the desirability of providing vacancies for all those graduating from the Military Academy, operate to prevent the Air Corps commissioning as second lieutenants in the Regular Army any cadets graduating from the Air Corps Training Center. Very few officers are offering to transfer from other arms to the Air Corps. Only eighty-seven graduates of the Military Academy, who were physically qualified, applied for flying training from the 1931 graduating class, and it is probable that not more than fifty of these will successfully complete their flying training.

It is becoming apparent that the Air Corps may expect, during the next five years, to increase the number of Regular Army officers commissioned in the Air Corps to only about one thousand four hundred and fifty officers. This expectation is based upon an estimate of losses not to exceed thirty per year, transfers from other Arms equalling twenty per year, and West Point graduates successfully completing the flying course in the number of about fifty per year.

Enlisted Pilots: ✓

A slight increase occurred in the number of enlisted pilots as compared to losses in prior years. This situation is no doubt due to the fact that no vacancies in the grade of second lieutenant were available in the Regular Army for graduates of the Advanced School, and also the existing business depression and lack of demand for pilots in civil life. At the present time there are a total of thirty-one enlisted pilots on duty at the various Air Corps activities. It is expected that this number will further increase in the fiscal year 1932.

Flying Cadets: ✓

The average number of flying cadets on duty during the fiscal year 1931 was three hundred thirty-five, whereas four hundred were authorized.

There was a decided decrease in the number of applications submitted and the number of examinations authorized during the year. A total of two thousand sixty-one applications were approved out of two thousand two hundred submitted. It is probable that the decrease was due to the uncertainty of early appointment, limited publicity because of a large qualified list, and suspension of examinations for appointment in the Regular Army.

Qualified candidates were assigned to school for training during the year as follows:

<u>Date of Class</u>	<u>Brooks Field</u>	<u>March Field</u>	<u>Total</u>
July 1, 1930	114	121	235
October 15, 1930	80	79	159
March 1, 1931	<u>120</u>	<u>124</u>	<u>244</u>
	314	324	638

Of the total number assigned to school, eighty-four were appointed from enlisted status, one hundred sixty-five were members of National Guard units, and the majority of those remaining, college graduates. For the first time in several years, it was possible to assign to the class commencing in March, 1931, candidates in low priority groups.

A total of one hundred ninety-five flying cadets completed training during the year, were commissioned in the Air Corps Reserve, and rated as Airplane Pilots.

There was no Lighter-than-Air training during the year and applications therefor could not be given consideration.

Reserve Personnel: ✓

The total number of Reserve officers showed an increase for the fiscal year, due to the large number of graduates from the Air Corps Training Center, and to the small number of vacancies authorized for the Regular Army.

These officers have demonstrated that they are, in practically all cases, most desirable material for commission in the Regular Army and it is regretted that sufficient vacancies are not available to bring the Air Corps commissioned personnel to the number contemplated at this phase of the Five-Year Program.

Airplane Ambulances and Evacuations by Air: ✓

During the fiscal year 1931 the use of airplanes in transporting patients was doubled as compared to 1930. The feasibility of this mode of transporting sick and injured is well established and for the simple and all-important fact alone that lives are saved in making it possible for a patient to receive in hours what formerly required days, the full benefit of specialists' advice and treatment, prompts the recommendation that action be taken to procure additional airplane ambulances.

One new airplane ambulance was procured by the Air Corps in 1931, which is useful from one regular airrome to another, but due to its long take-off and long landing qualities, it is not suitable for work out of emergency fields where most crashes occur.

Statistical studies of aircraft accidents and forced landings were continued and important data and comparative figures furnished during the year upon special request and at the close of each six months period. There has been a gratifying reduction in accident rates, both fatal and non-fatal, and in power plant failure rates. The distribution to every pilot of Air Corps Information Circular No. 652, "Statistical Studies of Aircraft Accidents and Forced Landings", at the beginning of the fiscal year undoubtedly was partly responsible for the considerable reduction in the fatal and non-fatal accidents during the fiscal year 1931. Studies of aircraft accidents and forced landings, both with respect to individual pilot proficiency and to the Air Corps as a whole, are being continued as a part of that function of the Inspection Division which is endeavoring to increase safety in the Air Corps without sacrificing tactical efficiency.

(See accompanying table)

Air Corps Procurement and Industrial Relations:

The outstanding accomplishment of the past year in procurement and industrial relations has been the speeding up of procurement programs so that the bulk of the new airplanes intended for the use of the Air Corps would be delivered within the fiscal year for which appropriations were made. Coincident with this work has been the work of coordination with the industry, particularly with a view to supporting it during the period of business depression.

1931 Air Corps Demonstrations and Command and Staff Exercises:

On May 15, 1931, the First Air Division (Provisional) was organized at Fairfield, Ohio. This Division was composed of 392 officers, 69 flying cadets, 643 enlisted men, 14 civilian mechanics, and 668 airplanes. All Regular Army and National Guard Air Corps Units, except one Observation squadron, were assembled in the Division. In addition there were eight squadrons composed of officers and cadets from the Advanced Flying School, Kelly Field, Texas.

The period May 15th to May 19th was devoted to Wing and Division practice formations. During the period May 20th to May 30th, Demonstrations and Division Reviews were held at Chicago and along the Atlantic Coast.

While these exercises did not involve any tactical problems, valuable information was obtained about the handling of large units both on the ground and in the air, about the supply and logistics of a large mobile air force, and about the staff requirements for an air division. In addition these exercises were of undoubted value by stimulating public interest in both commercial and military aviation and in the problems of National Defense.

Noteworthy features of these exercises were: During the mobilization, demobilization and operation of the First Air Division, each State in the Union was flown over; and there were no serious accidents nor casualties.

Aerial Photography:

During the Fiscal Year 1931, the Air Corps made vertical aerial photographs of approximately 19,400 square miles for the War Department and various Federal agencies. The photographs made for the Geological Survey were all used for topographic mapping purposes, while those made for other agencies were used for various purposes including flood control, beach erosion, building planning, etc.

The major portion of this work was accomplished for the following-named Government Departments and Bureaus:

War Department -	3,900 square miles.
Geological Survey -	14,449 square miles.
Coast & Geodetic Survey -	1,070 square miles.

In addition to the above the Air Corps has undertaken the making of aerial photographs of approximately 20,800 square miles for the Geological Survey during the calendar year 1931. These projects are located in Michigan, Maine, New Hampshire, Pennsylvania and Montana. Work has been begun on these projects and it is contemplated finishing practically all of them during the present calendar year.

During the Air Corps Field Exercises, held during May, 1931, a special photographic airplane was equipped as a flying laboratory, containing two dark rooms with the necessary utensils and equipment for developing negatives and making photographic prints in the air, also quick work equipment and facilities for laying down photographic mosaics. This airplane attracted a great deal of attention during the Exercises and elicited much favorable comment.

An improved aerial film has recently been developed, with which it is possible to take photographs at sunrise and sunset. This film, when used with heavy ray filters, is approximately three times as fast as the film previously used. The cost of this film is also less and its keeping qualities are better.

A new 5-lens camera, designated T-3A, which has been under development for some time, has recently been finished and tested. The oblique lenses of this camera are set at 140° total included angle, while the former multiple lens in use had an angle of 120° . From an altitude of 15,000 feet one exposure will cover a width of 15.3 miles and include 126.4 square miles. In conjunction with the aerocartograph, this camera has already been used successfully to produce contour maps.

National Guard:

The National Guard Aviation units made commendable progress in their training during the past year. The high degree of training of these units was fully demonstrated by their ability to effectively participate in the 1931 Air Corps Maneuvers. Due to the new principles to be followed in the assignment of Air Corps troops to higher tactical organizations, it is believed that the time has arrived to give serious consideration to the feasibility of converting some of the observation squadrons of the National Guard to Air force units. All present National Guard units are organized as observation squadrons. It is believed that in event of an emergency there will be a greater need of, and less time to train and equip Air Force Units, than Observation Units. Air Force units can be developed and trained under National Guard methods of training, whereas this is not practicable under Air Corps organized reserve training methods. The efficient training of Air Force units requires a system of regular and continuous unit flying training. This is necessary to develop coordination and team work, which are absolutely indispensable in the successful operations of Air Force units. Such a scheme of training, or a scheme anywhere approximating it, is impossible under present appropriations available for equipment, personnel, and flying hours for Air Corps Reserves.

Airplane Development and Research:

Refinement of the airplane structure and major parts has necessitated much study and test installation of wings, engine mounts, landing gears, brakes, wheels, cockpit arrangements, instrument boards and other equipment in an attempt to improve present designs and develop new.

Studies were made of the crash strength of airplane cockpits, the comparative merits of high and low wing monoplanes, and the alteration of cabin transports to handle the transportation of standard service engines as freight.

In aerodynamics a method was found for visualizing airflow over airplane models, the airflow being photographically recorded by slow motion pictures for future study and observation.

Propeller development, though handicapped by replacements in the only completed test rig and the construction of the two remaining test rigs for the propeller testing laboratory, brought about the establishment of a family or standardized detachable blade aluminum alloy propellers, some designs of which are ready for procurement.

Progress with magnesium propellers has been slow because of the inability of the material to withstand whirl tests.

Two types of hollow steel propellers have been evolved, the welded type and the pressed tubular type. The welded or Dicks blade has reached service test status, whereas development of the pressed tubular type is still experimental. When nitrided the steel blade has been found to be impervious to erosion in water spray.

The development of controllable propellers has been deterred by the slow progress made with magnesium and hollow steel blades. In designs where this type of propeller is needed, the use of aluminum alloy becomes prohibitive because of the excessive weight this material required to obtain sufficient strength. In this field several commercial concerns submitted controllable propellers, some of which employed either electrical or hydraulic means of controlling the blade angle. Development, however, is still highly experimental.

Two commercial designs of automatic propellers were also submitted for test. In one design which has passed 100 hours of flight testing by the manufacturer, the change of pitch of the blades is effected by the change of thrust, increasing thrust resulting in decreasing angles, and vice versa.

During the year, 97 static and dynamic tests were completed on various types of airplanes and structures. A total of 68 stress analyses were also required in connection with contract airplanes.

Structural research was devoted largely to problems of quantity production and to the development of structures immune to climatic conditions. In this connection there was developed and fabricated a single web shell type cantilever wing of spot-welded stainless steel construction. This type of construction can be easily fabricated and appears to merit further intensive development.

For determining actual stresses induced in complex structures under static and flight test conditions, electric telemeter strain gauges have been employed. These instruments proved of estimable value in checking theoretical computations and in exploring stresses in the metal skin of wing and fuselage structures.

Lighter-than-Air:

In this field of aeronautics, engineering development embraced three major projects: The alteration of the T-3 airship envelope to accommodate internal suspension of the enclosed car; the design of the C-4 observation balloon for increasing altitude and stability; and the service test of the A-6 hydraulic balloon winch which affords a practically unlimited range of speed and instantaneous change of direction in reeling the balloon cable.

In connection with balloon-to-ground communication, a special clamp has been designed which obviates the use of splices in the cable of observation balloons, carrying a telephone core.

Contrary to popular belief, the use of helium in balloons in place of hydrogen has been found, upon preliminary investigation, to be more economical. Further study contemplates the disuse of hydrogen altogether.

A scheme for solidification of helium has been presented to the Bureau of Mines for further investigation as to its application as a lifting medium.

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AND HIS WHISKERS ARE STILL GROWING

A representative of the Shell Oil Company in San Francisco, Calif., in a communication to the Information Division, states that a place of real interest out his way is at Grass Valley, up in the Sierra's, where there is an airport, the first one built in California way back in 1907. He goes on to say that Old Charlie Gilmore, who owns the place, designed and built two ships that same year, and also started a beard growing with the intention of shaving it off when the ships flew. Well, he still has it. Both ships have bat type wings.

Actually, though, his designs were quite advanced at the time. The large ship has a four-cylinder engine of that date and swings an 18-foot prop. The fuselage is rounded like a Lockheed and it is a closed cabin. In fact, it is very similar to a Lockheed, pilot and seats behind the engine, although very heavy built. There are also two landing gears, one being a small one in back in lieu of a tail skid. There are light struts from the wing to the fuselage on each side, reversed from general practice. "When I remarked about this," continues our Correspondent, "Gilmore said if he could get it in the air it would be fifty miles an hour faster than our Lockheed,- that's what I call plenty of faith. The fabric is the old original and slowly going to pieces.

The other job is a cabin also, the fuselage two place, very much like a Curtiss Robin, the wings bat type. At that time most designers were still putting the pilot out in the open on pusher biplanes. These are both tractor cabin monoplanes, which show considerable foresight. They ought to be in a museum, but he could not be persuaded to part with them. This airport is rarely visited, and very few can gain access to this antique hangar, and very little is known of them."

WRIGHT FIELD COLD TEST CHAMBER UNDERGOES ALTERATIONS

During the past summer months, long memorable for their heat, the difference in temperature between the laboratory and the cold-test chamber was sometimes as great as 125 degrees. Even to a stout-hearted and ambitious engineer, Wright Field physicians judged, such drastic and sudden change in body temperature offered decided elements of danger. As a result, an antechamber of plain boarding, to be covered with insulating material inside and out and fitted with refrigerator doors, with a floor space approximately 4 x 12 feet, is being erected leading into the cold chamber in which the engineer about to make a cold chamber test may cool his heels, so to speak, gradually, instead of entering directly from room temperature into below zero temperatures. No special arrangements will be needed to condition the temperature of this room. Merely the opening of the cold chamber door will establish a preliminary cold temperature sufficient to lessen the drastic body change otherwise experienced.

Cold-chamber tests have been discontinued until the completion of this anteroom.

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CLEVER WORK IN BALLOONING

A unique free balloon flight, in which the landing was made within 200 yards of the take-off, was made by Captains M.E. McHugo and Orin J. Bushey, Air Corps, at Scott Field, Ill., on November 6th. The take-off was made at about 7:30 a.m., with a light surface wind from the east. After traveling about 10 miles toward St. Louis, the pilots sent the balloon up to an altitude of about 4,000 feet, where a northwesterly wind took them to about 15 miles southeast of the field. Valving gas, the balloon was brought lower into a southeast wind, and this brought the 55,000 cubic foot bag back to the field. The time of the flight was exactly two hours, and the pilots were accompanied by Corporals Chapman and Fowler.

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PILOT LANDS BURNING AIRPLANE IN NOTHING FLAT

Lieut. E.H. Bobbitt, Air Corps Reserve, one of the newly arrived officers attached to the 36th Pursuit Squadron at Selfridge Field, Mich., brought his P-6 back into Selfridge Field recently with a great deal more haste than usually characterizes the landings of new graduates of the Air Corps Training Center. Shortly following his take off, and while attempting a slow roll at about 4,000 feet, his carburetor flooded and the side of the ship burst into flames.

Evidently, an initiation into the Caterpillar Club did not appeal to Lieut. Bobbitt, for he didn't jump. He did get his plane down before either of the wings had burnt off. According to observers on the ground and in the air, however, he really did not give the fire a chance, for the speed with which he got his fiery chariot back on terra firma was a revelation to all. Even the manufacturers might be interested in having the exact figures on the time it took him to descend from the aforesaid altitude and empty the pilot's cockpit.

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ELECTRICALLY HEATED GLOVES

The first pair of a new type of electrically heated gloves has recently been sent out by the Materiel Division, Wright Field, for service test. The glove is made on a thumb and one-finger pattern of green pool-table wool cloth, this material being selected because of its lightness in weight and fineness of texture. The cuff is of lamb's wool. The General Electric heating element used consists of a length of resistance wire vulcanized between two thin layers of rubber. Both ends of the wire extend from one end of the 12-inch rubber strip. Four of these heating elements are sewed between the lining and outer cover of the glove; one over the finger, one over the thumb, and two over the mitten part. A switch on a panel in the cockpit switches the heat on or off. The glove being extremely light and flexible, it is hoped that it may prove practicable and suitable for high altitude work. Especially will it prove valuable for photographic operations should its tests be favorable.

COACHING AND TRAINING FOR PISTOL COMPETITIONS

By Lieut. J. L. Hitchings, Air Corps
(The final article of this series)

YOUR FIRST DUTY AS A PISTOL COACH IS TO GET YOUR MEN INTERESTED IN SHOOTING. YOUR SECOND IS TO KEEP THEM INTERESTED. YOUR THIRD IS TO TEACH THEM TO SHOOT. The order in which these duties are listed is their order of importance, too; unless you achieve the first two, you will not be able to achieve the last. This applies equally to instructing enlisted men and officers with the service automatic, and to coaching the members of a club.

To become a good coach, it is preferable that you should be a good shot. But that is not essential. What is essential is that you should become familiar with the accepted doctrine of pistol shooting. If you are one of a group of uninitiates starting a new club, and if you are the most deeply interested member, and are elected Governor or Coach, you can learn as you go along. All you have to do to perform your duties well is to keep up interest, keep learning, and keep your members learning with you.

A prime requisite in coaching is tact. Don't force advice down the members' throats officiously. TRY TO MAKE THE MEMBERS WANT TO COME TO YOU FOR ADVICE AND TALK OVER THEIR FAULTS WITH YOU AFFABLY.

THE FIRST RULE OF TRAINING IN PISTOL WORK IS REGULARITY. Standardize everything. Teach your men the proper position, breathing, grip, sight-alignment, hold and squeeze, and advise them to execute each step in getting off a shot in exactly the same way. Then leave them alone for a while, and let them work out their own solution. To be sure, they will have to do a little experimenting to determine how to apply the principles; but teach them to work toward standardization. In that way only will they succeed in getting good groups which are nothing, when you come to think of it, but small collections of uniform, standardized shots. Encourage, especially before a match, regular habits and hours.

There is one glaring exception to this. I know that this is contrary to the old slogan - "Don't change your habits just before a match," but, nevertheless, I am firmly convinced that SMOKING JUST BEFORE OR DURING SHOOTING IS ALWAYS DETRIMENTAL TO THE SCORE. I have seen this dictum work out too often to doubt it.

Keep your outfit on the beaten track. DON'T ENCOURAGE MEN TO DEVELOP THEIR OWN IDEAS UNTIL THEY KNOW WHAT THEY ARE DOING. There will be plenty of time for that when they have learned the game. I'll never forget how I shoved up at Camp Perry with special stocks on two of my pistols, carved to fit every finger of my hand. I was going to startle the old masters, and teach them something. I doubt whether I taught them anything, except possibly the persistence of human error. But I certainly startled them; they nearly died laughing. Finally, Dr. Calkins informed me suavely that my idea was not entirely original, being a stage through which every beginner passes, and that they had all tried the same thing. Then Colonel Jones explained to me that it was hard enough to train the second finger, the trigger finger, the thumb and the palm to do their work correctly; but that with as many points of contact as I had with my fancy stocks, training the muscles of my hand would be the work of a lifetime. Then suddenly it occurred to me that perhaps the people who had been making the favorite target pistols for years knew more about stocks than I did.

Encourage competition; it is the life of any sport. Arrange shoulder to shoulder matches with any clubs nearby, and postal matches with other novice teams. Don't be afraid to risk your reputations until you get them. In a match it is often said both teams are the gainers. The winners gain the victory and the losers gain the experience. And match experience, I might add, is both exciting and valuable.

For preliminary training for the service automatic, the Bulls Eye Target Pistol obtainable for about \$3.00 from the Bulls Eye Target Pistol Co., Rawlins, Wyoming, is an excellent device. It has changed many a bolo to an expert in one season.

Physical condition is always important; and in match work, when you are shooting under pressure, it is especially important. In training for important matches, take plenty of exercise - but not just before the match. Cut down your smoking. And above all, make sure that your insides are functioning freely. This is a homely consideration, but is paramount for good scores.

If you are seriously interested in becoming a good shot, keep a diary of your progress. In it enter your scores for the day, your daily averages, if desired, and notes as to position, grip, etc. Such a record, I believe, is more

useful than the type of score book in which each shot is recorded on a miniature target.

Intelligent analysis of faults is absolutely necessary to the success of any target shot, and is the chief function of any coach. The shooter must learn to analyze and correct the faults shown by his own targets; the coach must learn the more difficult art of analyzing the targets of others. Many a target shot has reached a mediocre "peak" because he stopped analyzing. There is no such thing as a "peak" of ability; none of us ever develop ourselves to the limits of our inherent capacities.

To get an idea of the progress which may be expected, let us take the progress of four members of the Chanute Field Pistol Club, none of whom had done any previous pistol work other than firing the Army course. On an average, each fired about two afternoons or evenings a week on the indoor range. Scores given are for 25 shots, slow fire, on the Standard American 20-yard target at 20 yards. To compute the percentage of any score, multiply it by four-tenths.

Lieut. A is about an average novice. He started out quite well, with a 186, and has progressed evenly. In his fourth week, he jumped into the 200 class with a 206. In his seventh week, he progressed again to the 210 class with a 214. In his eleventh week he raised his high score another point to 215. It is now his sixteenth week; and he is about due for another jump.

Lieut. B started off with a 179. For several weeks he knocked off clips, and decorated the light-guard. In his fourth week he succeeded in getting up to a 181. Then he had a slump; and his high scores for the fifth and sixth weeks were, respectively, a 164 and a 177. In his seventh week, he jumped up to a 221! And in his twelfth week, he broke into the money with a 226.

Lieut. C started out with a 174, and never got above 178 during his first four weeks. In his fifth week, he made a 218 - another illustration of the fact that a man's first jump in score is often surprisingly large. In his eighth week he made a 223, and in his twelfth week he arrived with a 229.

Lieut. D is the best novice I have ever seen. Previous match experience with a rifle helped him; but his work is still exceptional. He made a 207 in his first week. In his second week he slumped to a high 201. In his third week he made 223, and in his fourth week, he slid over the 90 percent mark with a 226. Then followed eight weeks in the low 220's. He thought he had reached his peak. In his thirteenth week, he went down to a high 218. But in his fourteenth week he made a 231. If he keeps at it, he should have an excellent chance of representing us, some day, in the Internationals.

All four men, in fact, have excellent possibilities; and, as may be seen from the records of Lieuts. B and C, a poor start does not imply a poor finish.

This is the last article of this series. Anyone to whom they have been helpful, who wishes a copy of them printed in pamphlet form and illustrated by photographs, should write the Director of Armament, Air Corps Technical School, Chanute Field, Rantoul, Ill.

TO BECOME EITHER A GOOD SHOT OR A GOOD COACH, APPLY THE SPRINGFIELD DOCTRINE, STANDARDIZE AND ANALYZE.

- The End -

Ed. Note. - The News Letter is greatly indebted to Lieut. Hitchings for his series of interesting articles on pistol shooting. That these articles proved useful and interesting to readers of the News Letter is attested by a number of letters received, commendatory in nature, requesting previous issues to complete files. As Lieut. Hitchings suggests, those desiring to obtain to obtain these articles, in pamphlet form, should write to the Director of Armament, Chanute Field.

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RADIO AND NIGHT FLYING

The 49th Bombardment Squadron, Langley Field, Va., inaugurated a new system of control for night airdrome flying recently. The system of zone-lights formerly used on this field was an improvised portable outfit, consisting of four banks of lights which could be placed about 50 feet apart on the flying field and operated by a switchboard near the lights. The disadvantage of this old system was that the Operations Officer lost all control of the ships at all times except when they were directly over the field, in a position to see the lights.

The new system is the use of two-way radio communication. The Operations Officer, out on the landing field, through a remote controlled radio transmitter, talked directly to the pilot, and the pilot's reply was heard on a loud speaker, placed near the Operations Officer's control stand. Ordinary night practice in night landings was found to proceed three times as rapidly as when using the old system of lights.

ORGANIZATIONS OF THE ARMY AIR CORPS

The following is a list of Groups, Squadrons, Balloon Companies and Photo Sections of the Air Corps, with their commanding officers, according to the latest report received in the Information Division. A brief description of the squadron insignia is given where such has been approved. A number of these organizations are newly organized, and no insignia has been drawn up and approved by the War Department, as yet. No attempt has been made to describe Group coats-of-arms, owing to their intricacy and the difficulty of describing them in brief.

Some of the organizations, while on an "active status," have been organized so recently that they are hardly on an operating basis, but are more or less "paper" organizations until they receive personnel and airplanes with which to carry on.

GROUPS

<u>Designation</u>	<u>Field</u>	<u>Commanding Officer</u>
1st Pursuit	Selfridge Field, Mich.	Major G.E. Brower
2nd Bombardment	Langley Field, Va.	Major H.A. Dargue
3rd Attack	Fort Crockett, Texas.	Major Davenport Johnson
4th Composite	Nichols Field, P.I.	Major J. B. Brooks
5th Composite	Luke Field, T.H.	Major Maxwell Kirby
6th Composite	France Field, C.Z.	Major L.G. Heffernan
7th Bombardment	March Field, Calif.	Major J.T. McNarney
8th Pursuit (Hqrs. only)	Langley Field, Va.	Captain G.L. Usher
9th Observation	Mitchel Field, N.Y.	Lt.-Col. J.N. Howard
12th Observation	Brooks Field, Texas.	Major Frank D. Lackland
17th Pursuit	March Field, Calif.	Major Carl Spatz
18th Pursuit	Schofield Barracks, T.H.	Major Ernest Clark
20th Pursuit	Mather Field, Calif.	Major Clarence L. Tinker
21st Airship	Scott Field, Ill.	Lt.-Col. J.A. Paegelow

SQUADRONS

Observation

<u>No.</u>	<u>Station</u>	<u>Commanding Officer</u>	<u>Insignia</u>
1st	Mitchel Field, N.Y.	1st Lt. J.M. McCulloch	Cave Man
2nd	Nichols Field, P.I.	Capt. R.L. Maughan	Neptune on Horse
4th	Luke Field, T.H.	1st Lt. D.D. FitzGerald	Starred Cross
5th	Mitchel Field, N.Y.	1st Lt. E.J. Carpenter	Owl in the Moon
7th	France Field, C.Z.	Capt. H.H. George	Sword through Grid Gate
12th	Brooks Field, Texas.	Capt. W.S. Gravely	Eagle bearing Artillery Shell
15th	Scott Field, Ill.	Capt. W.P. Hayes	Pigeon on Telescope
16th	Broken into flights	(See below)	Binoculars
22nd	Brooks Field, Texas.	Capt. H.H. Young	Comet
44th	France Field, C.Z.	Capt. R. D. Knapp	Indian with War Bonnet
50th	Luke Field, T.H.	Capt. U.G. Jones	Square, diagonally divided
88th	Brooks Field, Texas.	Capt. C.E. Shankle	Cowboy on Bucking Broncho
91st	Crissy Field, Calif.	Major M.F. Davis	Knight chasing Devil
99th	Mitchel Field, N.Y.	Capt. F.W. Evans	Bison

Pursuit

3rd	Clark Field, P.I.	Capt. A. Hornsby	Dragon
6th	Wheeler Field, T.H.	1st Lt. S.W. Towle, Jr.	Skull in whirling propeller.
17th	Selfridge Field, Mich.	Capt. R.G. Hoyt	Arctic Owl
19th	Wheeler Field, T.H.	Capt. A.C. Strickland	Gamecock
24th	France Field, C.Z.	Capt. A.C. Kincaid	Leaping Tiger
27th	Selfridge Field	Capt. R.C.W. Elessley	Diving Hawk
34th	March Field, Calif.	Capt. C. Douglas	
36th	Selfridge Field	Capt. E.C. Whitehead	Flying Field
55th	Mather Field, Calif.	1st Lt. C.E. Crumrine	Swastika Cross
73rd	March Field, Calif.	1st Lt. E.C. Minter	
77th	Mather Field, Calif.	1st Lt. H.M. Wittkop	Four Sevens and Ace
78th	France Field, C.Z.	1st Lt. P.W. Timberlake	
94th	Selfridge Field, Mich.	1st Lt. H.A. Johnson	Indian head
95th	March Field, Calif.	1st Lt. C.E. Duncan	Kicking Mule

<u>No.</u>	<u>Station</u>	<u>Commanding Officer</u>	<u>Insignia</u>
<u>Attack</u>			
8th	Fort Crockett, Texas	Capt. L.A. Smith	Eagle and Liberty Bell
13th	Fort Crockett, Texas	1st Lt. H.F. Stearley	Skeleton with Scythe
26th	Schofield Bks., T.H.	1st Lt. N.F. Twining	A fist
90th	Fort Crockett, Texas	Capt. Virgil Hine	Red Dice
<u>Bombardment</u>			
9th	March Field, Calif.	1st Lt. Y.A. Pitts	Searchlight Beams.
11th	March Field, Calif.	1st Lt. C.H. Howard	Jiggs carrying bomb.
20th	Langley Field, Va.	1st Lt. R.T. Croneau	Joe Pineapple
23rd	Luke Field, T.H.	1st Lt. J.W. Warren	Volcano erupting bombs.
25th	France Field, C.Z.	Capt. R. N. Ott	Executioner
28th	Nichols Field, P.I.	Capt. E.C. Black	Whooping Indian
31st	March Field, Calif.	Capt. E.G. Harper	
49th	Langley Field, Va.	Capt. E.L. Eubank	Wolf's head
72nd	Luke Field, T.H.	1st Lt. D.M. Ramsay	Lightning in Clouds
96th	Langley Field, Va.	Capt. J.P. Richter	Devil thumbing nose
<u>Service</u>			
57th	Selfridge Field, Mich.	1st Lt. H.T. McCormick	
58th	Brooks Field, Texas	Capt. L.R. Knight	
59th	Langley Field, Va.	1st Lt. L.H. Dunlap	Beaver
60th	Fort Crockett, Texas	Capt. E.M. Morris	Tah gook in shield
61st	Mitchel Field, N.Y.	Capt. A.E. Simonin	Duck in swamp
62nd	Brooks Field, Texas	Capt. R. Baez, Jr.	
63rd	France Field, C.Z.	Capt. R.O. Carroll	Monkey with prop on palm tree
64th	March Field, Calif.	Capt. G.F. Collar	
65th	Luke Field, T.H.	Capt. J.F. Powell	
66th	Nichols Field, P.I.	Capt. V.L. Burge	Bank of gears
67th	Randolph Field, Texas	Major L.F. Stone	
68th	Kelly Field, Texas	Capt. C.C. Nutt	Winged gear
70th	March Field, Calif.	Capt. L.F. Post	
75th	Wheeler Field, T.H.	1st Lt. G.P. Tourtellot	
76th	Rockwell Field, Calif.	1st Lt. R.K. LeBrou	
80th	Mather Field, Calif.	Capt. T. Boland	
<u>School</u>			
39th	Kelly Field, Texas	Capt. P. Wainer	Crow with brick and telescope
40th	Kelly Field, Texas	Capt. T.S. Voss	Bomb-bodied bat on book
41st	Kelly Field, Texas	Capt. C.W. Ford	Indian with bow and arrow
42nd	Kelly Field, Texas	Capt. J.A. Healey	Panther crouching over torch
43rd	Kelly Field, Texas	Capt. L.N. Eller	Yellow Jacket
46th	Randolph Field, Texas	Capt. L.L. Koontz	
47th	Randolph Field, Texas	Capt. W. Miller	
51st	Maxwell Field, Ala.	Capt. F.E. Galloway	
52nd	Brooks Field, Texas	Capt. E.D. Jones	
53rd	Randolph Field, Texas	Capt. J.B. Patrick	
54th	Maxwell Field, Ala.	1st Lt. H.H. Mills	Lamp and Flame
<u>Airship Companies</u>			
9th	Scott Field, Ill.	1st Lt. E.J. Bowling	
19th	Langley Field, Va.	Capt. L.T. Miller	
24th	Service Co., Scott Fld.	Capt. D. Johnston	
<u>Balloon Companies</u>			
1st	Fort Sill, Okla.	Capt. N. Creighton	
2nd	Fort Bragg, N.C.	Capt. A.I. Puryear	
<u>Photo Sections</u>			
1st	Brooks Field, Texas	1st Lt. J.H. Hicks	
2nd	Langley Field, Va.	1st Lt. J.G. Pratt	Camera projected through magnifying glass.
4th	Maxwell Field, Ala.	Capt. D.S. Seaton	
5th	Scott Field, Ill.	2nd Lt. E.F. Woolard	Three stars on wedge
6th	Manila, P.I.	1st Lt. P. P. Hill	
8th	Mitchel Field, N.Y.	2nd Lt. P.T. Cullen	
11th	Luke Field, T.H.	2nd Lt. E.W. Rawlings	Diamond Head, T.H. silhouetted on camera lens.

Photo Sections (Continued)

<u>No.</u>	<u>Station</u>	<u>Commanding Officer</u>	<u>Insignia</u>
12th	France Field, C.Z.	1st Lt. A.Y. Smith	Rising sun on camera
14th	Mitchel Field, N.Y.	Capt. W.H. Taylor	Camera magazine on triangle
15th	Crissy Field, Calif.	1st Lt. E.B. Bobzien	Golden Gate in view finder
20th	Randolph Field, Texas	2nd Lt. G.W. Hansen	
21st	Scott Field, Ill.	2nd Lt. W.A. Fenander	Camera and Fleur-de-Lis on wedge.
22nd	Kelly Field, Texas	1st Lt. J.M. Fitzmaurice	
23rd	March Field, Calif.	1st Lt. D.G. Stitt	Indian head on tree

Flights - 16th Obs. Squadron

A	Langley Field, Va.	1st Lt. R.W.C. Wimsatt
B	Fort Benning, Ga.	1st Lt. L. Barnett
C	Fort Bragg, N.C.	1st Lt. P.E. Skanse
D	Fort Riley, Kans.	Capt. R.F. Cole
E	Fort Sill, Okla.	Capt. F.H. Pritchard

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MATHER FIELD PILOTS FLY HIGH ✓

The pilots at Mather Field, Mills, Calif., have decided that, while the quality of California sunshine may justify all the publicity accorded one of the most famous blessings of that State, the warmth that it should bring does not go far enough - up. This decision was reached after the tactical squadrons at that station made a series of high altitude flights for the testing of equipment and training of pilots. Equipped with oxygen apparatus and so many clothes that they had to be lifted into the cockpit of the plane by the post wrecking crane, the pilots nursed their P-12 Pursuit ships to altitudes of 25,000 feet and above, finding there temperatures of 35 degrees below zero and lower. To this date, the flights have been made by individual ships operating alone, but later on flight and squadron formations will practice unit tactics at high altitudes.

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"JIMMY" DOOLITTLE EXPRESSES THANKS

"Upon flying over the field at Fort Crockett, I observed the truck standing by with signs of intense activity around it. It made me feel so good to see my old Army friends waiting for me there that I darn near landed in spite of having plenty of gas to get to Corpus."

The above is a letter received by Major Davenport Johnson, commanding the Third Attack Group, from Major James H. Doolittle, who flew over Fort Crockett on his flight over three national capitals. Major Doolittle, a former member of the 90th Attack Squadron, expressed his thanks for the way the Group cooperated with him in having two gas trucks and a crew in readiness in case he landed at Galveston for gas.

The flight carried him over the capitals of three countries between dawn and dusk.

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INSPECTOR GENERAL VISITS RANDOLPH FIELD

Major-General Hugh A. Drum, Inspector General, U.S. Army, inspected Randolph Field on November 6th, and expressed himself as being well pleased with conditions he found. Prior to General Drum's arrival, he notified the Commanding Officer that all formalities in connection with his visit would be dispensed with. He was met at the entrance of the post by Brigadier-General Danforth, Commanding General of the Air Corps Training Center, and Major F.L. Martin, Commanding Officer of Randolph Field, who accompanied him throughout his inspection. His tour of inspection took in the flying cadet barracks, the enlisted men's barracks, the shops, NCO quarters, and each type of officers' quarters.

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At the request of the Navy, Selfridge Field sent a formation flight over Detroit on October 27th, in honor of Navy Day. Captain R.C.W. Blessley led a composite Pursuit Squadron in this flight.

PURSUITERS DEMONSTRATE TACTICS AT JACKSON, MICH.

By the News Letter Correspondent

Combining business with pleasure, the First Pursuit Group conducted a tactical problem on Oct. 22nd, so as to rendezvous and land at Jackson, Mich., about 9:00 a.m., and to be conducted through the Michigan State Prison, after which to have luncheon as guests of the Exchange Club of Jackson. The Exchange Club is not a new host to this Group. Several months ago, a squadron flew to Jackson to attend a flying show, which was being put on by the Aviation Committee of the Club, and the personnel on that trip tasted Jackson's hospitality and found it very pleasant. It was with anticipation that the tactical problem of the Group was so arranged that a landing could be made at Jackson, and it was reassuring to be met by Mr. P.J. Crandall, Chairman of the Aviation Committee of the Exchange Club, and our former host, for we knew then that the day's entertainment would be complete.

All the planes the Group could muster on that morning, 34 Pursuit and two Transports, took off by squadrons at about 8:00 o'clock. Major George H. Brett, Commanding Officer of Selfridge Field, accompanied the flight in his own plane, while Major G.E. Brower, Commanding Officer of the First Pursuit Group, controlled the Group from the Ford Transport, giving orders and otherwise exercising radio control along the course to Jackson. Upon landing, pilots were immediately taken by car to the Michigan State Prison and were shown through the grounds and buildings. This was a very enjoyable inspection, and the pilots were impressed with the immensity of the institution, the modern equipment and machinery, the cleanliness, orderliness and the high morale which was evident among the inmates. As further entertainment, three short boxing bouts were held, one of which was featured by a knockout.

After making a complete round of the prison and grounds, the cars were brought up and we were taken to the home of the Exchange Club in its building in the business section of Jackson, where we were the guests of the Club members at a very enjoyable luncheon, entirely informal and devoid of the usual flowery utterances which spoil the average affair of this nature. It was a pleasure to note the interest in aviation this Club is taking, and its special interest in the First Pursuit Group was complimentary.

The members of the flight were taken out to the Airport after the luncheon and a take-off was made soon thereafter. Major Brower paraded the Group in review, circling the prison in salute, and then dispatched each of the four squadrons by individual routes to the home airdrome.

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WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To March Field, Calif.: 2nd Lieut. Phineas K. Morrill, from Mather Field, Calif.

To Aberdeen Proving Ground, Md.: Captain Lynwood B. Jacobs, from Office of the Chief of the Air Corps, Washington, D.C.

PROMOTIONS: To Lieutenant-Colonel: Major Lawrence W. McIntosh, rank from Nov. 1, 1931. To Major: Captain Asa N. Duncan, rank from Nov. 1, 1931. To Captain: 1st Lieuts. John H. Gardner, Wm. C. Goldsborough, Walter R. Peck, rank from Nov. 1, 1931; Edward H. Wood, rank from Nov. 21, 1931. To 1st Lieut.: 2nd Lieut. Samuel R. Harris, Jr., rank from Nov. 5, 1931.

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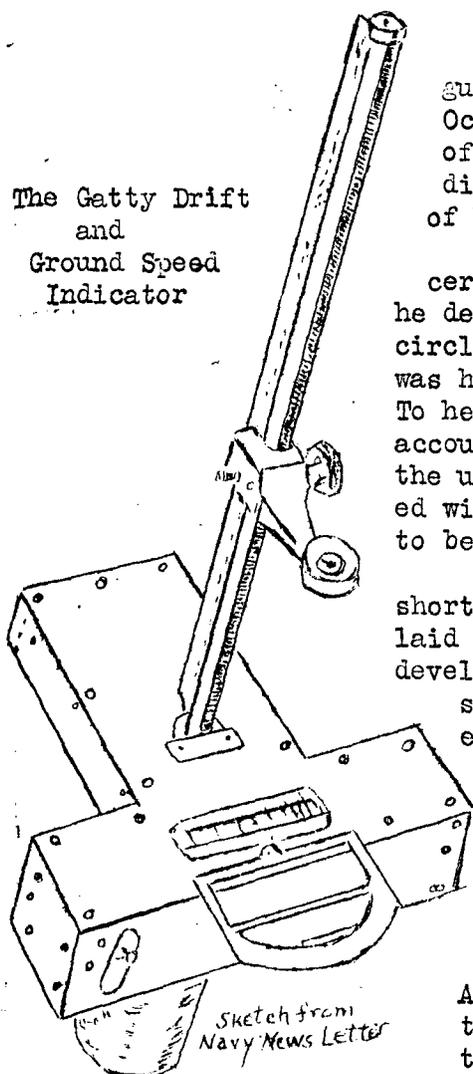
AN ADMIRABLE LANDING

On the occasion of the flight of the 94th Squadron to Chicago for a tactical inspection, Lieut. Sansbury managed to bring home the laurels for that event. The "Deacon," as he is called, was flying in the last element of the squadron and, shortly after the flight cleared for Chicago, the leader of his element noticed a dangling wheel on "Deacon's" plane. It seemed as if the spreader bar and the wheel were hanging in such a position as to wreck the plane immediately upon landing. After considerable signaling back and forth and wild gesticulations, "Deacon" turned back towards Selfridge Field.

He claims he threw his back and neck out of place in an effort to see the landing gear and determine just how badly it was damaged. Suffice it to say that he decided to land his ship, and that he performed a most creditable job of the whole affair. The plane was only slightly damaged, and the pilot was not injured in the least.

HAROLD GATTY LECTURES AT WRIGHT FIELD
By A.M. Jacobs

The Gatty Drift
and
Ground Speed
Indicator



Harold Gatty, Round the World flier, was a guest at the Materiel Division, Wright Field, from October 27th to 29th, to the special joy of the officers of the Equipment Branch, who found much to discuss with him regarding the navigational features of his great flight.

On October 28th, he gave a talk for the officers and civilian employees of the Division in which he described in detail his and Post's adventure of circling the globe. This truly remarkable feat was heralded through the world's press at the time. To hear the account from Mr. Gatty's own lips - an account in which the hazardous was understated with the utmost modesty and the problems and triumphs touched with the same modesty - was an experience not soon to be forgotten.

The success of the flight and the remarkably short time in which it was accomplished, Mr. Gatty laid entirely to the present high stage of aviation development which enabled them to fly so far and strenuously with no spare part equipment except an extra set of spark plugs. Eventually they had a new propeller to replace one which had been bent and which Post had knocked into shape again with a wrench, but that was only when they had returned to American soil, and the replacement was made without their direction.

One of the initial difficulties of the flight lay in finding suitable maps. Over the Atlantic, Gatty found direction charts most practical for celestial navigation. On four maps of the route from Moscow to Novo Sibirsk, the latitude and longitude varied fifty miles. He con-

structed one set of all maps made to scale on bristol board or good strong paper. He also constructed a drift and ground speed meter that proved most useful on the flight and which officers have declared a most ingenious instrument. In blind flying, the combination of aperiodic compass, directional gyro and artificial horizon served them well, and Post was quoted as having stated that though he had never been successful at flying blind with a bank and turn indicator, with this combination he steered a steadier course than if he could see the natural horizon, and after three hours of blind flying felt no strain.

"Between the times when the sun got too low and the stars were visible," said Gatty, "we used blind flying. Later on we got on top at 14,000 feet and everything was clear up above. There wasn't a cloud and the sky was very clear, and I used Lieutenant-Commander Weems' method of curves with the addition of transparent celluloid charts which I constructed myself. It saves a little calculation. By sliding a transfer chart over the curves it was possible to take the altitude of Polaris and Arcturus and we superimposed that chart over the course and jotted down the position of the ship. I laid down a course on this chart previously so I could see immediately whether I was off my course or not and how much I was off. I didn't have to measure it in terms of latitude and longitude. I could see which way I was off, right or left of my course, and could change the course."

Their reception in Russia he made sound most amusing, and one could easily picture the two sleepy Americans who were eating nothing seated at the lavish banquet which they were forced to attend, with eight wine glasses at each plate when all they craved was water, listening to elaborate speeches when all that possessed their minds were the miles of space still to be covered as soon as they could get free to be on their way.

No attempt has been made in this abbreviated account to give a resume of the address. Technical phases of the flight were covered with gratifying clearness. One felt that this pair had succeeded in their undertaking not through chance but because of a solid groundwork of intelligent preparation and knowledge of their

jobs. We have read many a good story of high adventure that held us less completely than this simply related personal experience. If the opportunity ever presents itself of hearing Harold Gatty, we'd advise considerable going out of one's way to take advantage of it.

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ACCURACY OF MAPPING FROM THE AIR

Recent activities of the 5th Photo Section, stationed at Scott Field, Belleville, Ill., included the making of a mosaic of the Calumet Area for the District Engineer of the 1st Chicago District. This area of 260 square miles was photographed by 2nd Lieut. H.F. Woolard, commanding the Section, and Master Sergeant Wilbur R. Rhodes, using an O-25A Observation plane and a K-3A camera. The flying time for the project was five hours.

That the mosaic turned over to the Engineers was very satisfactory was shown by the receipt of a letter from the 1st Chicago District Engineer's Office. Extracts from the letter, dated October 30th, are as follows:

"The mosaic pictures which you have made for us have been a great success. Not only have they expedited our work, but they have saved us much money in field work and reconnaissance. The pictures have been much admired and are a tribute to your good work.

I have had occasion to check some ground measurements against those on the photographs and have found them to check within 1%. I cannot look at the pictures without congratulating myself for having secured a very excellent job."

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SOME "DOPE" ON THE MISSOURI NATIONAL GUARD AIRMEN

The 35th Division Air Service, Missouri National Guard, consisting of the 110th Observation Squadron, 110th Photo Section and 110th Medical Detachment, is getting settled in its new \$100,000 home provided for it by the City of St. Louis at Lambert-St. Louis Field. The organization moved into its new hangar during the latter part of the summer and immediately went to work on the best possible outlay for a \$10,000 appropriation provided by the State of Missouri for improvements and additions to the hangar.

Most of this money has been spent in subdividing the spacious mezzanine floor of the hangar for the headquarters of the various sections. The Photo Section has already completed equipment of its spacious laboratory. Equally adequate quarters are provided for the Supply and Armament Sections on the mezzanine while Engineering, Operations and the Medical Section are quartered on the first floor. Two towers at the extremities of the hangar provide room for executive offices and an officers' club. The latter has been furnished in true club style through assessments on the organization's 18 officers.

The old headquarters building of the squadron, now used as a field restaurant at the Airport, is shortly to be returned to the outfit. It will be moved to the site of the hangar, completely refitted, and outfitted as an enlisted men's club.

While it is going ahead with the outfitting of its quarters, the Missouri flying outfit is also carrying out an intensive training program, comprising radio, sketching and photographic missions, puff target fire adjustment, cross-country day and night missions and other activities in the field of the Observation squadron. The 35th Division Air Service is under the command of Major Philip R. Love, veteran of the Air Mail Service, who graduated from Kelly Field in the same class with Col. Lindbergh, who was once a Captain in the National Guard outfit.

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NEW AIRCRAFT RUNNING LIGHTS

A new two-lamp running light has just been released by the Air Corps Materiel Division, Wright Field, for service test. Like the present standard A-5A, the new A-6 employs a glass lens but has improved streamlining qualities which lowers its resistance to air. Two 6-candlepower lamps provide 12 candlepower for each running light. The two-lamp installation in each light is a new safety feature, insuring a light even should one bulb burn out. The 12-candlepower lamps of the new A-6 lights provide better lighting qualities with their glass lenses than did the old A-4 through their celluloid lenses with 21 candlepower.

NOTES FROM AIR CORPS FIELDS

Selfridge Field, Mt. Clemens, Mich., Nov. 17th.

Capt. Gerd von Massow of the German Army, arrived at Selfridge Field recently for a short visit. He was met by Major George H. Brett, Commanding Officer, and shown around the Post. His entertainment was then put in the hands of Major Gerald E. Brower, in order that Captain von Massow might see the flying activities of the Post and the operations of the First Pursuit Group and its squadrons. He was then taken to Oscoda, Mich., by air, where he witnessed the demonstration of the gunnery and bombing, and then returned to Selfridge Field by way of Battle Creek, Mich., in a Ford Transport.

Following the participation of the 1st Pursuit Group in the demonstration for the Unemployment Relief Fund of New York City, October 17th and 18th, Major G.E. Brower received the following letter from Mr. Graham B. Grosvenor, Chairman of the Flying Show Committee:

"Dear Major Brower:

The Show Committee has asked me to express its thanks to you and the men of the Army's First Pursuit Group for your participation in the program given last week for the benefit of the Unemployment Relief Fund of New York.

We all appreciate your coming such a long distance to be with us and help to make the show itself and the drive for funds a success. Personally, we greatly enjoyed having you with us as individuals, and we were sorry to see you take off the last time.

The Committee feels that the effort made by all concerned was justified not only by the substantial cash donation that it is able to make to the Emergency Unemployment Relief Committee, but by the very helpful publicity given by the Show to its campaign for funds."

On the evening of October 29th, at Cleveland, Ohio, Major George H. Brett, Commanding Officer, addressed an assemblage of Regular, Reserve and National Guard officers stationed and living in and about that city. Major Brett chose as his subject the Air Division, and in his talk outlined the component parts of the air division and gave a conception of its use during major operations. The gathering, which was under the auspices of the 414th Pursuit Squadron, commanded by Lt.-Col. J.B. McCalley, was exceptionally large, due to the interest shown by the officers in the Cleveland area in Major Brett's talk. Approximately 150 Reserve officers of all arms attended the meeting.

An old fashioned Hallowe'en Dance opened the season of gayety at the home of the 1st Pursuit Group. The 94th Squadron, appointed to take charge of this affair, managed to locate a few pumpkins, a few shocks of corn, some cider and doughnuts, and proceeded to give the season an appropriate start. Prizes were offered for the best and most original costumes to be worn at the dance, and it was really a difficult job to decide just who should win the prizes. There was only one thought that came anywhere near marring the pleasure of the occasion, and that was the fact that, although this was the first dance of the season for us, it was also rather a farewell party for a number of the Reserve officers whose active duty tours had ended. Really, we gave them a good send-off.

Shortly after their return from the National Air Races, ten planes from the 94th Squadron were ordered over to Pittsburgh - more precisely to the Pittsburgh Allegheny County Airport. - This was, indeed, an experience for some of us, because there was no choice of landing places at the field. It was "land on hard surface or else." The entire field is hard surface and, of course, that is not always the ideal place to land a short plane with a tail skid. Everything went off smoothly, however, and all of the pilots enjoyed the trip.

Master Sgt. H.H. Hewitt, Post Sergeant Major, recently returned from a week's furlough spent at Headquarters, Sixth Corps Area, at Chicago, Ill. Upon his arrival, he was introduced to the chief clerk of each department by the Corps Area Adjutant. Some time was spent with each department, and a great deal of valuable information relative to handling of reports and correspondence was gained. This information will be used to rectify and smooth over any difficulties which have been encountered locally. Sgt. Hewitt not only enjoyed the furlough in a personal way, but officially gained much information and understanding. He brought back the impression that the methods of operations at this station are correct, and his visit will facilitate coordination with Corps Area.

The officers and their families, and the enlisted personnel of Selfridge Field had many occasions in the past few months to aid organizations which are combating the economic conditions now generally prevailing. Certain members of the garrison gave their personal services for work on committees to organize relief activities and aid those in need locally, while the remainder contributed liberally towards funds to be used by these agencies. Recent contributions were made by all personnel towards the local unemployment fund of Mt. Clemens, also a benefit show was given by the Exchange Club of Mt. Clemens to raise funds for the unemployed which was attended in force by officers and their families.

At present, Mrs. Harry A. Johnson is actively engaged in collecting money, clothing and food. As a result of her efforts, quite a sum of money and a large number of articles of clothing and food will be turned over to the Salvation Army for distribution to those in distress.

On the invitation of Mr. L.A. Moehring, Comptroller of the Chrysler Corporation, several officers of the field visited the engineering plant and the laboratories of that Corporation. After a most excellent lunch, the visitors were shown through the laboratories by Mr. Zeder, Vice President in charge of Engineering, and Mr. Lee, engineer in charge of research. Many interesting developments in the engineering line were viewed. The officers present were Majors Brett, Brower, Captains Blessley, Whitehead, 1st Lieuts. McCormick, Wolf, Culbertson and 2nd Lieut. G.F. Smith.

A total of 28 Air Corps and Air Corps Reserve officers, graduates of the last class at the Air Corps Advanced Flying School, recently reported to the field and were assigned, as follows:

To the 17th Pursuit Squadron: 2nd Lieuts. Frederick W. Castle, George F. Schlatter, Norman R. Burnett, Gerry L. Mason, Paul W. Blanchard, Air Corps; Dan J. Hughes and Charles M. Wilson, Air Corps Reserve.

To the 27th Pursuit Squadron: 2nd Lieuts. Clark N. Piper, Air Corps; Cecil Hefner, Lester C. Holtan and Robert H. Talbott, Air Corps Reserve.

To the 94th Pursuit Squadron: 2nd Lieuts. Howard M. McCoy, Air Corps; John B. Adams, Benton W. Davis, Joseph A. Muffat and Elbert H. Schlanser, A.C. Res.

To the 36th Pursuit Squadron: 2nd Lieuts. Mark E. Bradley, Wm. D. Eckert, Henry A. Winters, Air Corps; Mayhew D. Blaine, Lawrence O. Brown, William H. Dum, James C. Guthrie, Joseph D. Lee, Jr., Phares McFerrer, Clyde A. Parlette, John D. Pitman and Lee C. Weber, Air Corps Reserve.

Members of the Hi-Y Club of Ortonville, Mich., visited the post Nov. 16th and were shown the various points of interest. The boys were very much interested in the various types of airplanes we now have on the post.

Major Brett, Commanding Officer of the field, left Nov. 16th on a three weeks' leave of absence, proceeding to Palo Alto, Calif., via Chicago, Ill. He will terminate his leave at Santa Monica, Calif., about Dec. 1st, when he will secure an O-38B from the Douglas Aircraft Co. and ferry it to Detroit for assignment to the Michigan National Guard.

On October 2nd, the 36th Pursuit Squadron celebrated its first birthday. The organization was made active on October 2nd, 1930, and is the modern successor to the 36th Aero Squadron which went overseas with the American Expeditionary Forces in 1917. In observance of this occasion, a stag dinner was held in the organization's mess hall, which was attended by Major Brett and his entire staff. Following the dinner, a program of Field Day Exercises was held.

Eight pilots from the 17th Pursuit Squadron helped to make an 18-ship formation which was ordered to New York Oct. 16th to participate in New York's unemployment relief show.

While no direct word has come about Capt. Hoyt's return to duty from Walter Reed General Hospital, everyone in the 17th hopes the rumor that he would return to duty on December 1st is well founded.

Squadron flying in the 17th was somewhat hampered by the recent burning out of four motors, all within a week, providing worries for the Engineering Department and less airplanes to accompany our lessening flying hours.

The 17th will in the near future be a combination of a "flying outfit" and a fire department, due to the tearing down of the old wooden buildings to enable construction to proceed, and our being designated to house the fire department. They plan to board off one end of the hangar for the fire trucks and use what has been our Operations Office as sleeping quarters for the firemen, also their office. The danger of fire, of course, is considerably lessened now in the 17th, with all due respect to the fire department.

94th Pursuit Squadron: Of course, every officer knows how tough it is to lose some of our best friends. We of the 94th feel as though we had lost some good friends, indeed, when Lieuts. K.W. Mosher, F.I. Jacobs and Joe Anderson just somehow ran out of active duty. There are probably more broken hearts right now among the fairer sex in this vicinity than could ever have been found here before. All three of these boys were favorites wherever they wandered. Here's "How," and wishing them the best of luck. Let us hope a plan can be provided somehow for the Air Corps to retain such officers instead of having to let them go.

27th Pursuit Squadron: October was a month of quiet sadness. Cause: the universal ailment of the Air Corps - a lack of flying time. The only trip worthy of note by any number of 27th pilots was the one to New York for the Charity Show.

Another occasion for universal sadness came with the news that one of our most stalwart bachelors succumbed to the devastating attack of the feminine enemy. Weakened by association with several of the enemy's prisoners of war and lured by their tales of peace and contentment in the enemy camp, Lieut. Bryant L. Boatner gave up his freedom and took the oath to "Love, honor and keep ----- until Death do us part." Capt. R.C.W. Blessley, Lieuts. Meehan and Ramey represented the Squadron at the ceremony at New Orleans. After a short period of "Honeymooning," the couple returned to Selfridge Field.

Lieut. Robert W. Humphreys, having completed his tour of active duty, reverted to inactive status and is at his home in Keithsburg, Ill.

Capt. Blessley and family left for Chicago to spend a short leave with his relatives.

Fort Sill, Okla., October 31st.

A limited amount of flying was performed by the 88th Observation Squadron during the month, due to the preparations for the permanent change of station to Brooks Field, Texas. Eflight "E", 16th Obs. Squadron, will replace the 88th here.

This station was honored by a brief visit by the Secretary of War, Hon. Patrick J. Hurley, on Oct. 23rd. The Secretary and party arrived from Midland, Texas, at 5:45 p.m., aboard the good ship "Oklahoma." The Secretary was greeted by Brig. Gen. Wm. M. Cruikshank and taken to Fort Sill for a short visit, while Lieut. Cousland, pilot, supervised the servicing of the ship. The party left at 6:25 p.m. for Tulsa, Okla.

Congressman James, Chairman of the House Military Affairs Committee, accompanied by Lieut.-Col. Jacob E. Fickel, and piloted by Lieut. Stranathan, arrived here Oct. 27th, and after a brief visit departed for Hensley Field, Texas.

The officers and men of this station viewed with regret the departure of Lieuts. H.B. Fleming, C.H. Miller and L.E. Hunt, who reverted to inactive status on Oct. 23rd. During their tour of active duty, these three pilots so closely associated themselves with every form of Air Corps activity that their loss is keenly felt by their squadron and the station. We wish them every success in all their civilian undertakings.

The 1st Balloon Co. completed four successful free balloon flights during the month.

Mather Field, Mills, Calif., November 7th.

Mather seems to be a dangerous place for bachelor officers. An epidemic of marriage-itis, which started early in the summer, resulted in an average of about one casualty each month. Latest victims to succumb are Lieut. A.E. McCarty, who on July 11th married Miss Katherine Davison, of Riverside, Calif.; Lieut. Marshal Roth, who married Miss Martha Louise Rathje, of Chicago, on Sept. 19th; and Lieut. M.J. Coutlee, who is to marry Miss Jane Gordon of Sacramento on Nov. 18th.

Lieut. R.P. Harris, Air Reserve, quite recovered from injuries suffered when his P-12 crashed at the Langley Field gunnery matches on Sept. 2nd, returned to duty.

At the completion of their active duty, Lieuts. Carter, Rodieck, Kruse, Britton and Mechem left the service and reverted to inactive status Oct. 22nd.

Hq. France Field, Panama Canal Zone, Oct. 20th.

Since the adoption of the two-year foreign service policy, the powers that be have frowned on any attempt to secure leave of absence to be spent in the United States. The result has been that, with a few exceptions in the cases of officers on detached service in the States, the commissioned personnel has been

100 percent present for drill. However, a few have been lucky in the matter of leaves, and 2nd Lieuts. V.L. Brown, C.H. Goodwin and O.J. Studeman are now back home for a short stay. Second Lieut. C.R. Cabell, a new arrival from Kelly, was granted a 20-day leave to visit Maracaibo, Colombia, and departed on a Pan-American Airways Commodore.

What at first threatened to be a serious gasoline fire occurred on Sept. 30th at the Panama Air Depot gasoline station. But for the prompt work of the Post Fire Department, the blaze might have destroyed the Parachute Department, Post Theatre and Motor Overhaul building. A small motor-driven gasoline pump was being used in filling two 5-gal. gasoline cans for washing motors, when defective wiring caused a spark which ignited the gasoline in the cans. The flames spread to the large tank, destroying 200 gals. of fuel. The Post Fire Department did excellent work in confining the blaze to the one building.

Third Attack Group, Fort Crockett, Texas, November 2nd.

Three ships of the 13th Squadron have been giving residents of Galveston and the surrounding vicinity a thrill with their occasional flights at night with small lights assembled on the leading edge of the lower wing and on the fuselage and tail assembly, so that they outline the plane. Three colors - red, white and blue - are used, and the switches are so arranged that any combination of colors may be used on signal from the leader. The pilots of the three planes are 1st Lieut. Ralph F. Stearley, 2nd Lieuts. Robert K. Taylor and T.L. Mosely.

First Lieut. Oscar L. Beal was appointed Adjutant at Fort Crockett to succeed Capt. J.F. Doherty, who was assigned to the Philippine Department.

Major-General Edward L. King, Assistant Chief of Staff, War Department General Staff, inspected the training activities of the Group, Oct. 20th. Major Ralph Royce accompanied General King in the role of pilot, for the General was traveling by air. They departed the following morning for Barksdale Field at Shreveport, La., to inspect the progress being made on the new home of the Third Attack Group.

Lieuts. Truman H. Landon and Walter S. Lee departed Oct. 29th in two Attack planes for Fort Brown to participate in the maneuvers of the 12th Cavalry. The planes were equipped for laying smoke, and a radio set was installed in one of them for the purpose of ground contact.

At present the pilots of the 8th Attack Squadron are receiving instruction in instrument flying. An attack plane with a hood over the forward cockpit is used for the purpose. Lieut. Robert A. Bolyard has charge of the instruction for the 8th Squadron, and occupies the rear cockpit while flights are made.

18th Pursuit Group, Schofield Barracks, T.H., Nov. 4th.

Flying activity in this Group during October was somewhat limited, due to the restriction of flying hours by the War Department. Sufficient flying time remained, however, for a considerable amount of training of pilot personnel.

On October 2nd, the 39 planes of the Group participated in a Wing Review and tactical exercise, as ordered by the Wing Commander.

Major-General Albert R. Bowley, the new Commander of the Hawaiian Division, arrived aboard the S.S. PRESIDENT GRANT on Oct. 15th. Twenty-four Pursuit ships from the 6th and 19th Sqdns. flew an Aloha for the General as the Transport rounded Diamond Head, and in the afternoon the entire Group, consisting of 39 planes, passed in review with the Hawaiian Division in his honor.

Lieut. Robert C. Oliver arrived October 20th and was assigned to the 19th Squadron.

Lieuts. Stewart W. Towle, Joe L. Loutzenheiser and Lane W. Sharman (Reserve) departed for March Field aboard the USAT CHATEAU THIERRY, Oct. 24th, having completed their tour of foreign service. A formation of 12 planes bade them a last Aloha as the Transport departed.

The Transport GRANT departed Nov. 3rd, taking three more officers from this station back to the Mainland, - Capt. Horace Heisen to Mather Field, Lt. John H. Dulligan and Lt. James F. Walsh to March Field. These officers have also completed their tour of foreign service.

Night flying was again resumed by the Group. The field lighting was repaired under the direction of Lieut. Bentley, and is in excellent order again.

On the night of October 30th, Lieuts. Peaslee, Prindle and Bentley flew cooperative missions with the searchlight batteries of the Honolulu Harbor and Pearl Harbor defenses. Three very successful missions were carried out.

26th Attack Squadron: Flying was reduced to a minimum to conform with our time allotment of 200 hours per pilot per year. The armament section, under the

direction of Lt. Thos. B. MacDonald, was very busy installing four forward guns on each of nine ships, and each pilot has bore-sighted and tested the guns on his plane. This work has been in preparation for a problem in which the fire and bombing power of an attack squadron is to be tested upon silhouette targets. Dropping ten bombs single along a road within a bracket of 200 yards has been practiced and found practicable.

Organization Day came this year while the Squadron was in Gunnery Camp at Waimanalo. However, on Oct. 20th a holiday was declared, and the Squadron had a field day in the afternoon at Haleiwa and a wonderful dinner that evening at the Sea View Inn. Notable were the athletic prowess of Pvt. Gopcevic, and the music and hulas of the entertainers in the evening.

The 25th made an excellent showing on the Wheeler Field football team, 12 of our men being on the squad and ten, at least, play more or less regularly. Lieut. McCoy assisted materially in a coaching capacity.

Another officer went on commutation when 2nd Lt. John C. Horton was married to Miss Pauline Merrill of Honolulu. The Squadron wishes them many years of happiness.

19th Pursuit Squadron: Lieut. Henry W. Dorr and wife left for England Oct. 1st to attend Mrs. Dorr's father who is critically ill. Lieut. Dorr will report to his new station on the mainland at the expiration of a two months' leave.

On Oct. 15th, this squadron participated in a Group Aloha and in a Review of the Hawaiian Division in honor of Major General Albert J. Bowley.

6th Pursuit Squadron: Flying in this Squadron received a severe set-back when we were notified that several members exceeded their allotted training time in the air. This has cut out total squadron time to 152 hours for the current month. We were also handicapped by the loss by transfer of Lieut. Stewart W. Towle, Sqdn. Commander, and Lieut. John H. Dulligan, Sqdn. Engineering Officer. Lieut. Edward H. White assumed command, and business is picking up.

The morale of the Squadron remains high, despite the irregularity of this past month's flying, and we are all looking forward eagerly to the joint Army-Navy Maneuvers in February, when we hope to possess our allotment of 8 P-12E's. During the past month there was never more than one ship out of commission at any one time, and all ships in commission most of the time, which speaks volumes for the work of the engineering department of the 6th Pursuit.

75th Service Squadron: On Oct. 1st, the 75th Sikorsky, piloted by Lieut. Loutzenheiser, 19th Sqdn., flew to John Rodgers Airport, where Governor Judd, Major General Wells, Col. Dunham, Major Osman and Lieut. Hutchins were taken aboard and flown to Molokai. The return trip was made the same day.

On Oct. 14th, the Sikorsky, again piloted by Lieut. Loutzenheiser, made an "around-the-island" trip with the Secretary of War, Major General Wells, Colonel Brant and Major Osman.

A considerable quantity of new machinery was received last month, and the Squadron now has a machine shop on a par with any in the Army.

San Antonio Air Depot, Duncan Field, Texas, Nov. 21st.

Lieut.-Col. F.M. Andrews, Executive, Office Chief of the Air Corps, called on the Commanding Officer of this Depot Oct. 15th while on a visit to Randolph Field en route returning to Washington in a P-12 from the Boeing Factory, Seattle.

Major Ralph Royce, of the Office Chief of Staff, Washington, was the house guest of Lieut.-Col. and Mrs. A.W. Robins at this Depot Oct. 17th to 19th, in connection with his visit to Hqrs. 8th Corps Area, accompanying Major-General Edward L. King, Assistant Chief of Staff, on his recent air tour of various activities. On the continuation of the flight of General King and Major Royce, a new propeller for their O-38 was ferried to Shreveport, La., by Lieut. T.H. Chapman, this depot.

Commander H.R. Bogusch, U.S.N., enroute by air in a Navy T-61 torpedo land plane from Anacostia, D.C. to the Naval Air Station at San Diego, Calif., stopped over at this Depot Oct. 15th to 17th for emergency repairs to his plane.

Lieut.-Col. John H. Howard, Commanding Officer, Mitchel Field, N.Y., accompanied by Capt. A.E. Simonin of that field, en route returning to that station ferrying two O-25C airplanes from the Douglas Aircraft Co. factory, Santa Monica, Calif., landed at this Depot Oct. 21st for a check-up of their planes and continued their journey Oct. 23rd via Montgomery, Ala.

Congressman W. Frank James, Chairman of the House Military Affairs Committee, accompanied by Lieut.-Col. J.E. Mickel, of the Office Chief of the Air Corps, on a tour by air inspecting housing conditions and construction matters at Army stations in various parts of the country, visited this Depot. Oct. 28th, accompanied by Major-General Edwin B. Winans, Eighth Corps Area Commander, and his Aide.

Lieut.-Col. Arthur G. Fisher, our new Commanding Officer, joined and assumed

command on Nov. 3rd. This Depot is glad to receive Col. and Mrs. Fisher. They are not strangers at this station, as Col. Fisher was Air Officer at Hqrs. 8th Corps Area for some time prior to his assignment to this command. Col. Fisher is now on a ten-day period of detached service at Tucson, Arizona.

It is a matter of sincere regret to the personnel of the Depot to part with Lieut.-Col. and Mrs. A.W. Robins and their three young daughters, Misses Dorothy, Betty and Helen Robins. Col. Robins came to this Depot from Langley Field in July, 1929, and the Depot had hoped for a long period of his leadership. However, he was needed in the Office of the Chief of the Materiel Division at Wright Field, for which station Col. Robins and his family departed on Nov. 4th, followed by earnest wishes on the part of all for their future happiness. Prior to their departure, numerous functions were given in their honor, including a dinner dance by the officers and ladies of Duncan Field at the Gunter Hotel on the evening of Oct. 30th; a dinner at the Duncan Field Officers' Club by Capt. and Mrs. Clarence Longacre on Oct. 31st, and a club breakfast at the Golf Association at Duncan Field on Nov. 1st.

Cpts. Warner B. Gates and E.V. Harbeck, Jr., visited Houston, Fort Crockett and Dallas, Texas, Oct. 15th to 19th, to confer with Regular Army and National Guard organizations there regarding maintenance of Air Corps supplies and equipment.

Lieut. D.F. Fritch flew cross-country to Biggs Field, Fort Bliss, Texas, Oct. 29th to ferry a new engine for installation in the B-3A plane of Lieut. Y.A. Pitts, en route from March Field, Calif., to Langley Field, Va.

Visitors attending the regular monthly supply and engineering conference and luncheon at this Depot. Nov. 3rd were Cpts. S.J. Idzorek, E.M. Morris and Lt. G.W. Mandy from Fort Crockett, Texas, and Lieut. Roy W. Camblin from Hatbox Field, Muskogee, Okla.

Major Wm. O. Ryan and Lt. E.E. Harmon, of Mitchel Field, N.Y., enroute ferrying two O-25C planes from the Douglas Aircraft factory, Santa Monica, Calif., to their home station, stopped here Nov. 5th for servicing their craft, leaving the following day via Randolph Field.

Capt. H.L. Clark, on duty at Barksdale Field, Shreveport, La., paid an informal visit to this Depot. November 5th, while in this vicinity.

Lieut. Thomas L. Blackburn, Air Corps Instructor with the Texas National Guard, Houston, visited here Nov. 5th, ferrying back a BTL plane for the Guard.

Lieut. Lucas V. Beau, Jr., Air Corps Instructor with the Colorado National Guard, Denver, arrived here Nov. 5th to obtain and ferry back an O2-H airplane.

Mr. C.E. Hughes, Inspector in this district for the Aeronautics Branch, Department of Commerce, stopped at this Depot Nov. 4th for minor repairs to his Waco plane while on a cross-country tour of inspection.

Lieuts. Edward M. Powers and A.W. Martenstein, Air Corps Materiel Division, Wright Field, Ohio, on an air tour of various stations inspecting equipment and collecting data with reference to overhauled engines, arrived here Nov. 9th and left for the Rockwell Air Depot on the 12th. They stopped here on the return trip.

Mr. and Mrs. H.B. Gates, of Evanston, Ill., parents of Capt. Warner B. Gates of this Depot, are enjoying a visit with Captain Gates and family.

Lieut. Lucas V. Beau, A.C. Instructor with the 45th Division Aviation, Denver, was a visitor here Nov. 19th, to ferry back an O2-H to the Colo. Natl. Guard.

Mr. V.J. Myers, civilian Shop Sup't. of the Engineering Shops of this Depot, was on temporary duty for a few days at the Fairfield Air Depot observing engineering shop methods and systems in use there.

Mr. Eugene B. Luder, Chief Clerk of the Depot Supply Department of this Depot, left Nov. 18th for a short period of temporary duty at the Materiel Division in connection with supply matters.

The following airplanes and engines were overhauled and repaired in the Engineering Department of the San Antonio Air Depot during the month of October: Planes overhauled: 2 A-3, 5 A-3B, 1 LB-7, 3 O2-H, 4 O-19B, 1 O-19C, 1 P-1D, 1 P-1C, 1 P-1E, 3 P-1F, 5 BT-1, 1 BT-2B, 1 PT-3, 5 PT-3A; total, 34. Planes repaired: 1 A-3B, 1 LB-7, 2 O2-H, 1 O2-J, 2 O-19B, 1 O-19C, 1 O-25A, 2 O-25C, 4 O-38; 1 P-1D, 1 BT-1, 1 C-9; total 17. Engines overhauled: 22 R-1340, 9 R-1690, 30 V-1150, 10 R-790; total, 71. Engines repaired: 1 R-1340, 7 V-1650, 2 R-790, 5 V-1150, 4 R-975; total 19.

Mitchel Field, L.I., New York, Nov. 19th.

Life is beginning to brighten for the Fifth Observation Squadron here. After months and months of flying O1-E's and enviously watching the other Squadrons with their O-1G's, they are at last coming into their own and are to get all of the new O-25C's which have arrived from Santa Monica. Everybody's happy except, possibly, Lt. John T. Martha. After a most brilliant and successful trip across the continent without any untoward incidents, he had to go and spoil his record by nosing up his ship on the last landing of the trip here at Mitchel Field with most of his brother officers looking on.

Despite the lack of thrilling stories and harrowing experiences, the trip to California must have been quite an event for those privileged few who were selected to ferry home the Douglas planes. Judging from the time each took to make the trip, they must certainly have enjoyed it and were rather reluctant to return. We're somewhat at a loss to account for this, as no bad weather was reported. Perhaps they heard the slogan - "See America first."

For a while we feared that when we got all our new ships we wouldn't have enough pilots to fly them, but someone else seems to have thought about that too, and they have sent us eight new officers from the recently graduated class at Kelly Field. We are mighty glad to welcome them and hope they'll like their new station as much as the rest of us do. Mitchel Field is a great place, but one of the drawbacks for the younger officers seems to be that it's too far away from New York or, perhaps, it's too near.

One other drawback for bachelors is the "Haunted House," that well known adjunct to the bachelors' quarters. However, "Hope springs eternal in the human breast," and we note with pleasure that ground has at last been broken for the new bachelors' quarters. We might be moving into them by next winter if we should manage to survive this one. Of course, our proposed trek to Florida during January and February will be a respite, should it come off as planned. Let us repeat: "Hope springs eternal in the human breast."

Speaking of Florida; on Nov. 18th, Col. Charles A. Lindbergh unexpectedly arrived at Mitchel in a dense fog, or rather out of one, and requested one of the new O-25C's from the 5th Squadron for a trip to Florida. It seems he had to get there in a hurry to take the new Sikorsky 40-passenger amphibian on its first trip to South America, and he couldn't wait for one of those persistent Long Island fogs to lift. His request for an Army ship was made after he found that his Lockheed could not be equipped for night flying without considerable delay. It might be mentioned in passing that there were many longing glances cast at that rear cockpit as the mechanics placed sand bags in it.

The social life at this post has in a great measure made up for anything we "stay at homes" missed in California. A very brilliant and successful costume dance was given at the Salisbury Country Club on Hallowe'en. On Nov. 3rd an evening bridge party was organized at the Officers' Club, and on the 17th a stag party was held to raise funds to furnish the new club, when and if completed. Another dance is planned for November 27th, which is the eve of the Army-Notre Dame game. After the last dance, we are all looking forward to this next one.

Scott Field, Belleville, Ill., Nov. 18th.

Scott Field pigeon loft made its biggest cleanup of prizes at the St. Clair Pigeon Club Show in Belleville, Ill. Nov. 5th, 6th and 7th. Lt.-Col. John A. Paegelow, post commander, entered 30 homers in 41 classes in this Show and, when the final awards had been made, there were 41 blue ribbons, 15 seconds and 4 thirds credited to Scott Field birds. In the first prizes were all the specials in the homer classes, including best old cock, best old hen, best 1931 bird and best homer of the Show. This last award was captured for the third successive year by "Colonel John A. Paegelow," the champion bird of the loft. This win gives the trophy permanently to Scott Field. The award for the best display may also come to Scott Field when the final checking of the prizes has been made.

Five entries from Scott Field also made an excellent showing. Mrs. John A. Paegelow entered six pouter pouters which won four firsts and two seconds, including champion pouter of the Show. Miss Patsy Hayes, daughter of Capt. Wolcott P. Hayes, entered her two Birmingham Rollers and they won firsts in the young hen and cock classes.

Miss Jean B. Holden, daughter of Capt. H.W. Holden, entered two white fan-tails. One of these birds won the coveted prize as best fancy bird in the Show in addition to winning first in its class.

Staff Sgt. Max Bronkhurst, pigeonier of the Scott Field loft, who is a member of the St. Clair Pigeon Club, took an active part in the running of the Show which was voted a big success by the visiting fanciers. There were a total of about 1200 birds on display.

Col. Paegelow is considering entering birds in the big Chicago show early in December, and in the Cairo, Ill., Show about a week later, in preparation for the final showing of the season at the National Show in Louisville, Ky. in Jan.

Col. John A. Paegelow, Commanding Officer of Scott Field, was a guest of Col. Pegram Whitworth, Commanding Jefferson Barracks, at the 6th Infantry organization Day exercises on Nov. 4th. It had been intended that an airship from the Field would be present to follow the Infantry organizations past the reviewing stand, but unfavorable wind conditions made it necessary to cancel the flight.

Lieuts. Edgar T. Selzer and Joseph A. Bulger, 15th Observation Squadron, returned to Scott Field on the night of Nov. 2nd, after having been on a three weeks' mission with the 61st Anti-Aircraft Battalion at Fort Sheridan, Ill. The mission consisted of night flying for the purpose of giving the artillerymen practice in locating an airplane with sound and searchlight apparatus. On the return flight the officers took off from Chicago after dark and arrived at Scott Field at 11:45 p.m.

Changes in personnel at Scott Field recently saw the relief from active duty on Oct. 23rd of 2nd Lieuts. Claris E. Johnson, Harold A. Lidster, Cornelius K. Dunbar and Lloyd L. Sailor, all Air Corps Reserve.

Lieut. Edwin H. Leuth, Missouri Nat'l Guard, reported recently for a period of active duty extending until June 30, 1932. This is the first time a National Guard officer has been placed on active duty at this station.

Twelve of the best homers in the Scott Field loft were entered in the big Chicago Show to be held Dec. 1st to 6th. Among the birds entered are "General Frank Parker," one of the finest young pigeons ever raised at Scott Field, and "Colonel John A. Paerelow," the champion homer of the 1930 National Show and winner of many other coveted prizes. Headed by these two birds, Staff Sgt. Max Bronkmurst, Scott Field pigeonier, expects his entries to make a good showing and add to the already large collection of ribbons won in this season's shows.

First Sgt. Arthur Everdell, 24th Airship Service Co., who was retired on October 31st, was given a testimonial dinner by his former organization on Nov. 12th. Following the dinner, which was attended by the officers of the post, Sgt. Everdell was presented with a 21 jewel gold watch, the gift of the members of the 24th Company.

Capt. Douglas Johnston, commanding the organization, made the presentation, while Staff Sgt. Oluf Jensen was master of ceremonies. There were numerous short speeches and a variety of musical numbers.

Nichols Field, P.I., October 29th.

28th Bombardment Squadron: We note that our friends, the 72nd in Hawaii, are still talking about how good they are. We are afraid they flew Pursuit planes too long and are thereby corrupted. We have long maintained that units take on the characteristics of the planes they use, i.e., Pursuit, noisy and dizzy; Observation, studied, calm and exact; Attack, gay and debonaire; Bombardment, somber, sinister and menacing. There is hope, however, now that they have airplanes, that they may return to normal. We extend our best wishes to them.

Another boat has arrived and departed, and the new arrivals are getting squared away. Some of our best noncoms have returned home and will be on the list to return to the Philippines on the next boat. Service out here has its compensations, "Ask any Colonel." Old timers will recognize that quotation and those who don't never knew anything. Staff Sgt. Roy M. Medcalf returned for station at Rockwell, being replaced by Staff Sgt. Lee White. Medcalf will now work all day and flounder around in the sand up to his shoe tops doing it. At night he will sleep in a tent and there won't be any San Miguel to solace him. Sgt. Richards goes to Dodd Field at Ft. San Houston and Sgt. Miltz to Fort Crockett. Both these splendid noncoms will be missed by this unit.

On October 2nd, this Squadron, flying a 9-ship formation and led by Capt. Black, participated in a rendezvous problem in connection with meeting the Transport GRANT. We rendezvoused at Bantigui Point with the 2nd Observation Squadron and 3rd Pursuit Squadron from Clark Field, and then proceeded as a Group, led by Major Brooks, and passed in review over the Transport off Marinduque Island. The Point of Rendezvous was about 70 miles from Nichols Field and, considering the change in wind, the problem was very satisfactory, even though we were 2½ minutes early and the 2nd Observation 4 minutes late. The 3rd Pursuit Squadron was on time - surprise. Not so bad for a Pursuit unit. Incidentally, the Air Corps officers on the boat stated that the Bombardment as usual had the best formation by far. Not a surprise to us.

We only received one officer, 1st Lt. Howard E. Engler, but he looks good to us. He took over the duties of Sqdn. Engineering Officer, and we hope he will enjoy his work and play here as much as a good soldier should. Here's how, Lieut. Engler!

The rest of the month was hard on us for flying, already losing ten flying days due to rains and condition of the field. However, we make hay while the sun shines, and the rain has to let up some time.

6th Photo Section: On the arrival of the Transport GRANT, the Section acquired a new 1st Sgt.--Mr. Sgt. Charles C. Leiby, from Kelly Field, Texas.

Mr. Sgt. Wm. L. Klutz, the Section's former 1st Sgt., sailed for the States, and will report to Kelly Field for duty. He will be missed by his many friends.

The Section is busily engaged turning our photos of tactical areas to be used by the Philippine Division for their annual maneuvers.

2nd Observation Squadron: Much progress was made this month on training schedule, in spite of the number of days the field was one grand lake. We notice, however, the golfers don't mind a few additional hazards.-- This Squadron furnished planes to return to Clark Field Lt. Taylor and 5 men. After taking a ride in their transport, we think they enjoyed the return trip much better, since the transport squatted down like a tired hen upon its arrival at Nichols. - The tow target season is starting. We wonder why the O-2H crews look so glum? Maybe they don't like chasing targets.

4th Composite Group Hqrs.: Capt. Walter J. Reed, who arrived on the October Transport, assumed command of this organization, in addition to his duties as post Adjutant. - The baseball team is getting together, and it looks as if we have a better team than last year. - The athletes are in training for the Dept. Athletic Meet to be held at Fort McKinley. Corp. Gibson is in charge of the coaching.

REACTION OF THE PUBLIC TO LOW FLYING

The following article appeared in a recent issue of a Columbus, Ohio, newspaper:

"PLANE DIVES DANGEROUSLY OVER BEXLEY

Suburb Stirred by Perilous Stunting of Army Plane Over Residences

Complaints are Filed

Craft Roars Down Within 100 Feet of Ground, Then Zooms Up.

Complaints were on file Monday with three officials whose authority governs flying, after an army airplane dived low over Bexley shortly before 3 p.m. Sunday.

The plane, of the O-19 type, was placed in a power-dive directly over the suburb. The pilot pulled the ship out of the dive at an altitude of about 100 feet in the vicinity of E. Broad Street and Remington Road.

After coming out of the dive, the pilot pulled the ship up in an almost vertical climb. Persons connected with aviation pointed out that, had the motor failed, the plane would surely have crashed in the closely built-up section.

The maneuver was unnecessary and endangered the lives of many citizens, they said.

According to Lieutenant A.R. McConnell, commandant of Norton Field, the plane was flown by Lieut. *****. Lieut. McConnell said he witnessed the dive from the Army airport.

Bexley police received a score of calls from persons who complained that the ship flew dangerously near their homes. Several residents of the suburb, including a councilman, immediately made complaints.

Officials to whom complaints were made are: Maj. Gen. James E. Fechet, Chief of the Army Air Corps, Washington, D.C.; Colonel Clarence M. Young, Assistant Secretary of Commerce for Aeronautics; Captain Frank M. McKee, State Director of Aeronautics.

Regulations of the United States Department of Commerce provide that a plane shall not be stunted at any altitude over a city, town or village.

The regulations further provide that a plane shall not be flown over a city at an altitude less than that from which the pilot could glide safely outside the city in case of a forced landing. In no event shall a plane be flown over a city at less than 1000 feet, it is specified.

It was learned Monday that ***** dived in salute to a former classmate in the Army Flying School who now lives on Remington Road."

The following editorial also appeared in a Columbus paper:

"Lieutenant ***** an army aviator from ***** ***** ***** desired to salute a former classmate in the Army Flying School, who now lives on S. Remington Road, Bexley.

The lieutenant power-dived his airplane directly over Bexley Sunday afternoon, swooping to about 100 feet from the ground and then climbing almost vertically. Probably he considered this a dashing display of skill and courage. It was, in fact, a reckless display of disregard for the peace and safety of other people.

Department of Commerce regulations prohibit low flying and stunt flying over a city. There is a good reason for these regulations. A slight miscalculation on the part of Lieutenant ***** , or a slight mechanical failure on the part of his plane, undoubtedly would have resulted in his death. Had he crashed into a house or a street, he might have killed several other persons. As it was, he disturbed, frightened and angered hundreds of people.

It will be unfortunate if Lieutenant ***** faces discipline for what, no doubt, he intended as a gallant gesture. It will be more unfortunate if such exhibitions are not discouraged before they lead to tragedy."

In an official communication to the Chief of the Air Corps under date of November 27th, Major H.C. Kress Muhlenberg, Air Officer, Fifth Corps Area, Columbus, Ohio, states as follows:

"The disciplinary aspect of the incident mentioned below is being taken up officially, thru proper channels.

The object of this letter is to present the subject as a matter for publication in the Air Corps News Letter, to put it before all pilots of the Air Corps, under the title:

Reaction of the Public to Low Flying

It is highly probable that Air Corps officers who, for the past three or four years or more, have been on duty at Air Corps fields, out of touch with civilians, except on cross-country trips for exhibitions at neighboring towns, or

airport dedications - it is highly probable that such officers are not aware of the change that has taken place in public opinion regarding airplanes overhead.

The public is always anxious to have us on hand for their exhibitions, airport dedications, etc., because our presence is a definite asset to the community for that particular event; but, when the excitement of the exhibition or dedication is over, the farther the planes stay away from directly over Mr. Averageman's home, the better he likes it. This feeling, three or four years ago, was quite dormant; but as the number of planes has increased, with the consequent increase in forced landings, forced jumps, noise, and other dangers and annoyances, real and imaginary, to the man on the ground, this opposition to the overhead presence of the airplanes has increased. Today we find it manifesting itself in all sorts of unexpected ways. A Cleveland commercial airport was put out of business by the objection of a prominent neighboring property owner to planes taking off and landing over his place. Similar objections in Louisville threatened for a time to cause the removal of the municipal airport to another location. Oddly enough this objection was made by a man who had bought his property near the field after the installation of the airport. City dwellers, with street cars or railroads making more noise at the bedroom window than could be made by a squadron of bombers, will squawk long and loudly because of the lone air mail plane that has to fly a little closer to the house in bad weather.

However unreasonable and ridiculous these objections seem to us who are vitally interested in aviation, they exist, and are rapidly giving birth to that dread enemy of progress - prejudice - a deep seated prejudice against the airplanes. It ill behoves the individuals of the Regular Army Air Corps with its glorious record of assistance to all aviation, to countenance any indiscreet act which might assist in building up that prejudice and thereby cripple aviation.

And yet this is exactly what is being done, from time to time, when one of us, feeling full of vim, vigor and vitality, dives at a familiar house in front of which a familiar red dress is waving at us. The odd part of it is that we forget how utterly impossible it is to escape hundreds of hostile eyes watching from below, eyes that will dash madly for the nearest telephone and faithfully report episode, plane and pilot to our home field before we can fly there.

And after it's all over, we have violated Army Regulations and have helped build up that Chinese wall of prejudice against aviation - prejudice that we all know must be eliminated before the airplane can come into its own.

It is the object of this article to show by contemporaneous clippings from two local newspapers, the reaction of the public to a recent aerial indiscretion in Columbus, Ohio, and to show the utter impossibility of 'getting away with' such indiscretions, even though they don't happen to result in crackups."

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LIEUT. MCCORMICK LECTURES

Selfridge Field furnished a speaker in the person of Lieut. Harlan T. McCormick for the meeting of the University of Michigan Aeronautical Society held at Ann Arbor recently. The University of Michigan Aeronautical Society is a branch of the College of Engineering of that University. The Society has as its aim aiding to reduce the students' conception of aviation from that of a spectacular and hazardous industry to a common means of transportation, sport and military protection. They are also trying to spread interest in aviation through the Colleges of the University and develop general student interest.

Lieut. McCormick chose as his topic "Military Aviation's Relation to Commercial Aeronautics," and elaborated on the mutual dependency of commercial and military aviation as regards manufacturing, personnel, airport development and aviation legislation. Lieut. McCormick, who graduated from the Air Corps Engineering School, served as Air Corps Representative at the factory of the Curtiss Aeroplane and Motor Corporation, and who is now Post Engineering Officer of Selfridge Field, was especially fitted of the personnel now at Selfridge to give this talk. The members of the Society displayed great interest in the lecture and afterwards entered into a general discussion on aeronautical subjects and recent developments in aviation.

Lieut. McCormick flew to Ann Arbor in a Boeing Pursuit plane and returned to Selfridge Field that night after the lecture, demonstrating the ease and facility of air transportation both by day and by night.

Brooks Field, San Antonio, Texas, November 15th.

It is an interesting fact that many of the organizations comprising the 12th Observation Group at Brooks Field possess war history which is unexcelled by other organizations.

The 58th Service Squadron are loud in their praise of their mess and the Sergeant who presides over it, Sgt. Harry Christ. He is slated, however, to attend the School for Bakers and Crooks at Fort Sam Houston, and the "cast down" countenances of the members of the 58th are easily detected, although they do claim to see a rift in the clouds in the fact that Sgt. Nick Alexander is slated to succeed the near inimitable Mr. Christ. Since Sgt. Alexander's experience covers a period of ten years, the 58th feel they have the right to be avid in expectation.

The following comprised the Thanksgiving menu of the 62nd Service Squadron at Brooks: Oyster Stew, Oysterettes, Head Lettuce, Mixed Sweet Pickle, Mayonnaise Dressing, Fresh Celery, Mixed Olives, Sliced Tomatoes, Roast Turkey, Giblet Gravy, Cranberry Sauce, Roast Pork and Ham, Southern Baked Ham, Oyster Dressing, Escalloped Corn, French Peas, Candied Sweet Potatoes, Creamed Mashed Potatoes, Coconut Layer Cake, Fruit Cake, Hot Mince Pie, Pumpkin Pie, Apples, Oranges, Assorted Nuts, Mixed Candies, Bananas, Fruit Punch, Ice Cream, Coffee, Cigars and Cigarettes.

This menu was almost exactly duplicated in every other Squadron, including the 12th Observation, 12th Observation Group Hqs., 22nd and 88th Observation Squadrons, First Photo Section, and 58th Service Squadron, of which Brooks Field, as the 12th Observation Group, is now composed. Major Frank D. Lackland and his mother, Mrs. Katherine Lackland, were among the guests entertained by the 88th Observation Squadron on the auspicious day.

Capt. Fred T. Yount, recently promoted, genial Assistant Quartermaster of Brooks Field, has been propounding a statement in the nature of a conundrum, paradoxical in nature, when he states that "The Junior Captain on the Field is the Senior in point of service, including World War service. Captain Young has more than 25 years of service, including World War service. He is one of the best liked officers at Brooks, and numbers his friends in both Army and civilian life.

Lieut. Stoyte O. Ross, 12th Obs. Sqdn., is now in Jacksonville, Fla., where, presumably - and according to his request for one month's leave - he is "visiting." In reality, he went to Florida for the express purpose of taking unto himself a wife, his engagement to a Jacksonville girl being announced just before his departure.

Lieut. Charles H. Earnest, who filled the office of Adjutant of Brooks Field upon the departure of Lieut. L. A. Dayton for Kelly Field, and who is now the Adjutant of the 22nd Obs. Sqdn., obtained a month's leave and will visit in Mexico before returning to sail from San Francisco for a tour of duty in Hawaii.

Capt. W.S. Gravely, Operations Officer of Brooks Field, is now in Burbank, Calif., where he went for the purpose of inspecting Lockheed planes at the Lockheed Aircraft Corporation, with a view to the possible introduction of these monoplanes into Army training. If Captain Gravely places his approval on these planes for this purpose, Brooks Field will be one of the first Fields to use these Lockheed monoplanes.

Lieut. John W. Egan and Corp. Fred O. Tyler, 12th Obs. Sqdn., are at Rockwell Field, Calif., where they went by rail to procure a C-7A Transport.

Lieut. R. L. Needham, Air Res., completed one year's tour of duty with the 12th Observation Group, and after 14 days' additional duty, at his request, he reverted to civilian status and returned to his home at Lorena, Texas. He was a very popular and efficient officer, and took with him the best wishes of his organization and Brooks Field.

Capt. H.H. Young, Commanding the 22nd Obs. Sqdn., and Lieut. Carl Brandt, a member of this organization, returned from Buffalo, N.Y., where they went to procure two O-19E planes from the Thomas-Morse Aircraft Corporation for ferrying to Brooks Field.

The Officers' Club of Brooks Field, under the very capable direction of Capt. Louis R. Knight, President, and Lieut. Wm. Beverley, Jr., Sec.-Treasurer, entertained with two delightful informal suppers for the purpose of enabling the official personnel of the Field to become generally acquainted. Practically the entire membership was present at both.

Captain and Mrs. C.E. Giffin will introduce their debutante daughter to their friends of the Army and in civilian life at a tea, for which the Officers' Club of Brooks Field was chosen. Capt. Giffin was formerly the Supply Officer of Brooks Field.

Second Bombardment Group, Langley Field, Va., Nov. 12th.

The Second Bombardment Group has undertaken a course in strenuous physical exercises for its officers. Working upon the sound theory that flying officers, especially those of the 2nd Bombardment Group, should develop strong backs as well as quick and lofty minds, a series of athletic games, including hand ball

and volley ball, is being run off between the Squadrons. The organizations engaging in the contests are designated, for athletic purposes only, as follows:

- "The Twentieth Terrors"
- "The Fighting Forty-ninth"
- "The Naughty Ninety-Sixth"
- "The Fierce Fifty-ninth"
- "The Furious Photo Section."

Sometimes officers from the other organizations, those across the railroad tracks by the gas plant and machine shops, come down to the Group to play, but they usually get whipped off. The only objection raised over these athletic contests has come from certain officers who claim they are becoming too strong.

At the present stage of physical training, the Second Group could no doubt clean up on any other outfit of equal weight in a bare fist war.

In addition to the more strenuous forms of exercise, the Group also claims the horseshoe pitching championship of the Virginia Peninsula, lying between Buckroe Beach and Tabbs Corner. Lieuts. Wycliffe E. Steele and Jack W. Wood pitch a mighty pretty shoe, while Lieut. John (Rabbi) Ryan is no slough on the horseshoe lynx.

The Group has been taking every opportunity to run service tests on the new bomb sights furnished by the Materiel Division. Flights have been made on Sundays and Holidays in order to take advantage of clear weather. The Group is very anxious to get a good bomb sight. Some excellent results were obtained by the sights under test. The pilots are wondering, however, if the weight of 84 pounds of one of these sights cannot be cut down. About the only objection heard on this sight is its weight. Another idea which strikes the Group officers is what could be used for a bomb sight if a bullet should pass through the "innards" of one of these complicated sighting machines.

Several officers of the Group received letters of commendation recently for various activities. Lieut. L.S. Kuter and the personnel under his command received a glowing letter of thanks from the Ordnance Dept. for participation in the Ordnance Day Exercises at Aberdeen Proving Grounds. The letter was read in open officers' meeting, and Lieut. Kuter received the thanks of Major Dargue, the Group Commander. Lieut. Kuter made an interesting talk on the Ordnance activities at the same meeting.

Lieuts. M.L. Elliott and Roy G. Cuno received letters of commendation and thanks from Brig. General Embick, District Commander, for their participation in the Yorktown Sesquicentennial exhibition.

Lieut. Thomas L. Ferguson received a letter of thanks and commendation from the Army General Staff representative of the Yorktown Sesquicentennial Exhibition for his work in connection with the Social Bureau.

Another Group officer received a letter of commendation and thanks from the Army General Staff representative of the Yorktown Sesqui. Exhibition for Social Bureau work, also a letter from the Polish Embassy, expressing appreciation for acting as aide to a Polish Lieut.-General who attended the Yorktown Exhibition.

The 2nd Bombardment Group put the final touches on the Yorktown Sesquicentennial Exhibition by flying a low formation across the battlefield, while the President of the United States and other State guests were departing.

Enlisted members of the Group also took part in the pageant of the Battle of Yorktown. They represented wild and bloodthirsty Indians lurking in the woods for scalps. Some of the men have not been able to get all of the war paint from their faces and chests yet.

Lieut. James (Jimke) W. Hammond returned from a two months' leave of absence and the Group is now expected to go forward and reach new heights never before attained.

Lieut. and Mrs. Roy G. Cuno are spending two months' leave of absence in Europe. - Lieuts. Lionel H. Dunlap and James H. Hodges with their respective wives recently returned from three months' leave of absence in Europe. They visited so many countries and talked so many different languages that they now speak English with a distinct foreign accent.

The grass on the flying field caught fire on the afternoon of Nov. 10th, all the fire apparatus, sirens and bugles being employed to extinguish the flames.

49th Bombardment Squadron: This Squadron made a three-day trip to Aberdeen, Md., to participate in the Ordnance Day Demonstration. Our mission was to drop two 2,000-pound bombs in salvo and eight 600-pound bombs, also in salvo.

The Squadron was disappointed to have its Commanding Officer, Capt. Eugene L. Eubank, ordered away to observe some Navy bombing, two days before departure for Aberdeen. A flight of six Bombers, led by Lieut. D.S. Kuter, accomplished the mission. A great deal of interesting information was gained at the Ordnance Department's big show, and the handling and dropping of these big bombs was an instructive experience.

The twelve officers on the flight appreciated not only the information obtained but especially the hospitality and many kindnesses shown by the officers at Aberdeen Proving Ground.

Wright Field, Dayton, O., Nov. 10th.

Lieut.-Col. A.W. Robins reported at Wright Field Nov. 7th to assume his new duties as Executive of the Materiel Division. Previous to this detail, Col. Robins commanded the San Antonio Air Depot, Duncan Field. He replaces Lieut.-Col. H.H. Arnold, who was transferred to March Field, Calif.

Brig. Gen. H.C. Pratt attended a meeting of the National Advisory Committee for Aeronautics on Nov. 8th. Majors Hugh Knerr, R.M. Jones and Capt. A.W. Vanaman left on the same train for Washington for a conference with the Chief of the Air Corps regarding 1933 estimates.

Captain Clements McMullen, Lieut. H.H. Couch, Messrs. D.A. Dickey and A.W. Hamm, propeller engineers, flew to Pittsburgh Nov. 10th for conference with the Pittsburgh Screw and Bolt Corporation regarding propellers.

Lieut. H.H. Carr flew to Selfridge Field Nov. 9th to run tests on the power plant equipment in the P-12B airplane.

Capt. A.W. Stevens, piloted by Lieut. J.D. Corkille, flew to Bolling Field on October 27th on a photographic mission.

Major Hugh Knerr left October 28th for Washington, Middletown, Pa., and Langley Field for conferences at these stations regarding supplies and equipment.

Major H.A. Straus ferried an O2-H to Kelly Field October 28th, and then proceeded by rail to Santa Monica, ferrying back to Wright Field an O-25A.

Lieut. K.B. Wolfe flew to Buffalo Oct. 29th for consultation with Air Corps representatives on duty at plants of various aircraft manufacturers in that city.

Three YPT-9C's were ferried from Wichita, Kansas, to Wright Field by Lieuts. D.G. Lingle, E.C. Langmead and Capt. A.C. Foulk.

Lieuts. H.C. Downey and J.J. Morrow were recent visitors at Wright Field, stopping over on their way from Santa Monica to Mitchel Field. They were ferrying two Observation planes from the plant of the Douglas Company.

Brig. Gen. H.C. Pratt delivered an address at Grand Rapids, Mich., on Oct. 29th, his subject being "The Materiel Division of the Army Air Corps." On Nov. 12th, he addressed the Lawyers Club in Dayton on the same subject.

Lieuts. E.M. Powers and A.W. Martenstein left Nov. 5th for Middletown, Pa.; San Antonio, Rockwell Field and Santa Monica to inspect equipment with a view to preparing a set of instructions covering engine overhaul.

Lieut. C.S. Thorpe piloted Major J.L. Hatcher to Bolling Field and Dahlgren, Va., for conferences on development of bomb sights. Dr. S.M. Burka, bomb sight engineer, left for Rockwell Field Nov. 10th for a series of tests on bomb sights.

Randolph Field, Texas, November 19th.

On Nov. 1st, a reception was held at the Randolph Field Officers' Club for the purpose of affording all officers of the post an opportunity to become acquainted and to take the place of the first call of incoming officers and the return of this call. General and Mrs. Danforth, Major Martin, Col. and Mrs. Taulbee, and Major and Mrs. Harwood headed the receiving line, and as the officers and their ladies came down the receiving line they became a part of the line. Punch and cake were served. The Club was decorated with flowers and pot plants furnished by the green house at Randolph Field.

Baron von Bechtolsheim, Captain, German Army, and a member of their General Staff, visited Randolph Field on Nov. 7th. The Baron is now undergoing a course of instruction at The School of Fire, Artillery School, Fort Sill, Okla., and is studying the United States method of conducting artillery fire.

He was commissioned in the German Army before the World War, and served thru the hostilities with the Field Artillery. He has been in the United States since last September, and expects to be here for a period of one year. Captain Baier, also of the German Army, now a student undergoing flying instruction at Randolph Field, is a personal friend of the Baron, having served with him in the German Army. Captain Baier entertained him while he was at the field.

On Nov. 15th, General Danforth took the polo team, consisting of Capt. Thomas W. Hastey, 1st Lieuts. David M. Schlatter and Clyde K. Rich from Randolph Field, and 1st Lieuts. G.H. Beverley and F.G. Irvin from Kelly Field, to Tucson, Ariz., to play the University of Arizona's polo team, and then to Roswell, N.M., to play the polo team at the New Mexico Military Institute. Although the University of Arizona defeated the Training Center team by a score of 10 to 6, and the New Mexico Military Institute took the big end of a 7 to 4 score, the flyers stated that they had been entertained in due and ancient form and that they had a great time on the trip.

The Randolph Field Officers' Club was organized on October 27th, with Capt. John B. Patrick as President; Capt. Clyde D. Finter, Vice President, Lieut. James D. Givens, Secretary-Treasurer, and Major F.L. Martin, Captains J.K. Cannon, E.D. Jones, 1st Lieuts. Townsend Griffiss and John P. Kirkendall, Board of Governors.

The Constitution and By Laws were formulated and accepted by the Club.

FOOTBALL NOTES

Scott Field won its most important football game of the season on November 1st by defeating Chamute Field 7 to 0 in a charity game played in Belleville, Ill. While the game was important, the biggest feature of the contest was that there was not a single item of expense connected therewith, and every cent taken in will be turned over to charity. The attendance was about 2,000.

When information was received during the middle of October that it was the wish of the War Department that Army posts cooperate with local communities in relief work, Lieut.-Col. John A. Pageelow immediately offered to play the important Chamute Field game in Belleville. The Junior Chamber of Commerce of Belleville jumped to the front with an immediate acceptance, and their hearty cooperation with the Scott Field officers put the project over very successfully.

At first it was thought there would be some expenses connected with the running of the game, but as each point was reached someone was found to donate the services required. The playing field for the game was donated by the Belleville High School, together with its gymnasium facilities for dressing rooms. The officials worked gratis, and the football, tickets, advertising and other necessary services were all provided by people interested in the success of the project.

The proceeds of the game are to be equally divided between the local Red Cross Chapter; the Elks' Milk Fund; the George E. Hilgard Post, American Legion; and the St. Vincent de Paul Society. The American Legion Band donated its services, and its playing added greatly to the "atmosphere" of the game.

The winning of the game was not accomplished until the last two minutes of play. The first quarter was a kicking duel with little advantage to either team. Scott had an edge on the play in the second quarter, but Chamute stopped two serious marches towards its goal before real danger impended. In the third quarter, Chamute came back strong and had the ball in Scott's territory most of the time. Just before the quarter ended, Chamute marched to the 17-yard line. The Scott line held firmly starting the fourth quarter and Chamute tried a drop kick which failed.

Following a penalty which put Scott Field back on its own two-yard line, Guy took the ball out of danger on a 15-yard end run following a fake kick. The march was continued to Chamute's 35-yard line, where the ball was lost on downs. Then came Chamute's biggest scoring chance, when it recovered the ball on a fumble on Scott's 11-yard line. The next three plays, however, netted but six yards, and a sweeping end run resulted in a 20-yard loss. Taking the ball on downs, Scott Field started a drive which resulted in the only score of the game. A line plunge, two long forward passes and two more line plunges placed the ball over the line. The kick for the extra point was good.

Scott Field line-up: Bahorich, le; Lewis, lt; Szumski, lg; Sixon, c; Keene, rg; Reed, rt; Haywood, re; Shanks qb; Guy, lhb; Osborn, rhb; Sievertsen, fb.
Chamute Field line-up: Leonard, le; Thompson, lt; Hoffman, lg; Jurnig, c; Coleman, rg; Stinchcomb, rt; Ferguson, re; Christmas, qb; Ehevins, lhb; Oliver, rhb; Lester, fb.

Scott Field scoring: Touchdown, Skarda, substitute for Shanks; point after touchdown, Guy.

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The football season at Selfridge Field this year proved very successful thus far. Under the coaching of Lieut. Harbold, assisted by Lieuts. Meehan, Griswold and Baker, the team has been working hard, with gratifying results. The season opened October 4th with a practice game with the Marine City Merchants. The game was slow and substitutions were numerous. Selfridge won 12 to 6.

On October 10th, Scott Field was invaded and defeated 6 to 0. The details of this game were covered in the last issue of the News Letter.

On October 17th, Selfridge Field, much weakened by injuries of its players in the game the previous week, was defeated by the University of Detroit Freshmen by the score of 12 to 0. The game scheduled for Oct. 25th with Chamute Field was cancelled due to lack of transportation for the Chamute team.

At Port Huron on Nov. 1st, Selfridge defeated the Port Huron Merchants 32-20. The Selfridge team played a much improved game and gave promise of a successful completion of the season. Games are scheduled with Chamute Field at Rantoul, the Fenton Athletic Club, and with Scott Field (a return contest) to be played at Selfridge Field.

The Fort Crockett football team had a very successful season to date, winning three games and losing one. The first game of the season was with the Rice University "E" squad. Considering the calibre of their opponents, the Flyers didn't feel a bit downhearted over the 41 to 0 score the Rice team ran up. Although the squad at first lacked the spirit and team play that coaches Lieuts. Tut Imley, Ten Landon and Walter Kent had hoped for, it wasn't long before the lacking essentials had made their appearance. Since that time the Flyers played the following teams, with resulting scores as listed: Fort Crockett 6, Houston Sports 0; Fort Crockett 7, Hughes Tool Co. 6; Fort Crockett 14, Randolph Field 7.

Each year the Brooks Field squad and Fort Crockett have scheduled a game with each other. This year, due to the removal of several Brooks Field units to Randolph Field, the Fort Crockett Flyers engaged the latter in Galveston on October 22nd. It was the second game in four days for the Crockett team, but this did not stop them from giving Randolph a fast game. Much interest was centered in this match, as it was generally felt that the winner would be a strong contender for the Corps Area Championship this year. The fact that 2nd Lieut. George Kinzie was coaching the visitors was enough to assure all concerned of a good game and convince the local squad that their opponents would be hard to beat.

Winning the toss, Fort Crockett elected to kick. Unable to gain, Randolph soon lost the ball to the Flyers. Powerful line plays were used to make big gains through the visitors' forward wall. Tilton, Crockett fullback, plunged over the line for the score within the first five minutes of play. Bentley kicked goal from placement. Late in the second quarter, a 38-yard run by Huff placed the ball deep into Randolph's territory. A few plays later, Perkins scored the second Flyer touchdown. Bentley made another perfect kick from placement.

Probably the most sensational play of the game followed the Golden Tide's second touchdown, throwing a bad scare into the Crockett squad who were beginning to feel certain of victory. Raley, receiving Landon's kick-off on his own 15-yard line, charged behind perfect interference through the center of the Crockett team for a touchdown. Morgan made the extra point good. The score was 14 to 7, in favor of Fort Crockett, and it remained that way to the end of the game.

In a night game with the freshmen team of Southern Louisiana Institute at Lafayette, La., on Nov. 6th, Fort Crockett lost by a score of 45 to 6. The game, however, was really interesting and full of thrills, the Crockett men battling hard against an eleven rated as vastly superior to the varsity.

The big game with the Dr. Pepper Bottlers took place on Nov. 15th. After outplaying their rivals for the entire first half, the Soldiers fell easy prey to a deadly aerial attack which the Bottlers opened up late in the game, for their first touchdown. The seven-point lead was too much for Crockett, and the Peppers had little trouble in adding two field goals and another touchdown to make the final count 20 to 0. The Flyers were very weak on their pass offense and defense, but showed a world of power in a charging line that threw their opponents for one loss after another.

The football team at Randolph Field is made up of enlisted men from Randolph Field and a few who are placed on detached service from Brooks Field. To date, no officers have played on the team in any game. All students are restricted from playing in any game, due to the fact that they might receive injuries which would interfere with their training. The men who make up the team are all new to each other, some of them coming from March Field, some from Kelly Field, Fort Warren, Fort Sill and Brooks Field. However, they are working together very well as a team, considering the fact that this is the first season they ever played together. Due to the fact that the field was opened at a late date, no pre-season games were arranged.

Up to this writing, Randolph Field lost four games, being defeated by Fort Crockett, the Field Artillery, the 23rd Infantry and the 9th Infantry. The usual game played between Brooks and Kelly Field now being a thing of the past, Randolph and Kelly were scheduled to play at Fort San Houston on Thanksgiving Day. Randolph Field will enter a team in the 8th Corps Area Tournament which starts in San Antonio on December 4th, all games to be played at the League Park.

Scott Field football team lost a close game on Nov. 15th to the Trojans of St. Louis by a 7 to 6 score. About 1800 spectators witnessed this contest at Scott Field. This was the same team which Scott defeated by a six touchdown

margin earlier in the season. The improved play of the visitors, coupled with the many injuries received by the Scott end and backfield players, made this contest an even one. Both of the ends and three of the first string backs had to watch the game from the side lines. The first half brought no score, although the home team had a slight edge in play, especially defensively. Late in the third quarter, on a fourth down, a Scott back attempted to catch a Trojan pass instead of batting it down. The ball, after being juggled twice, landed in a Trojan player's arms on the 8-yard line, and one play was sufficient to put it over. A forward pass scored the extra point.

Scott came back with a fine sustained drive of about 65 yards in the last quarter for its touchdown, but the place kick for the extra point was blocked.

Fourth Composite Group, Nichols Field, P.I., Oct. 6th.

66th Service Squadron: Manila night life seems to get our bachelor officers down, as the following clipping from the Manila Daily Bulletin would indicate:

"Prominent Army Officer Returns from Baguio. Lieut. James S. Stowell, Manila playboy and well known local clubman, returned Wednesday from a visit to Baguio. Lieut. Stowell has been recuperating in the Mountain Province in anticipation of a gay social season in Manila."

2nd Observation Squadron: The Squadron furnished 12 airplanes for an aerial review and inspection by the Secretary of War, and sent nine to Fort McKinley the following day for another review for the Secretary.

For individual combat missions, machine guns were installed in the rear cockpits of several O-19C's, and the observers in those ships were given an opportunity to simulate war time flying. After trying to train a machine gun on an enemy plane from a bouncing cockpit, several observers were heard to agree with Sherman's opinion of war.

The Commanding Officer of this organization, with the approval of Major Brooks, Post Commander, declared a holiday for the officers and enlisted men of the Squadron on Sept. 16th, due to the excellent performance of duties in the past and during the inspection by the Secretary of War. A picnic at the Calamba Sugar Estate was decided upon, and the Squadron arrived there early in the morning by car and plane, ready to attack the eats awaiting them.

The edge of thirst and hunger worn off, different forms of amusement were investigated. Tech. Sgt. Hoijer and Staff Sgt. Lester took charge as masters of ceremonies, with the result that all men took a dip in the swimming pool, full pack, whether they wished to or not. Those who objected hit with a bigger splash. A kangaroo court was also held, with Sgts. Hoijer and Lester as accusers and judges. With this satisfactory arrangement, none of the defendants escaped sentence. About 4:00 p.m., the party broke up and started homeward. Everyone said the outing was second to none the Squadron ever had, all of which was made possible by the wonderful generosity of the Calamba Sugar Estate. We extend our most sincere thanks to them for their cooperation.

6th Photo Section. The Photo Section was kept busy during the month supplying pictures of the Secretary of War's arrival in the Philippines and of his inspection of all the airplanes of the 4th Composite Group. From the large smile on the Secretary's face, he was mighty well pleased with the aerial review.

Lieut. Ployer P. Hill and family departed for nearly three months' vacation in China and Japan. Lieut. James S. Stowell, who assumed command of the Section on the departure of Lieut. Hill, also departed for a ten-day vacation to Baguio. During his absence, Lieut. R.W. Gibson directed operations.

28th Bombardment Squadron: Nine B-3A Bombers, led by Captain Black, participated in a cross-country formation flight to Laoag, Ilocos Norte, 255 miles northwest of Nichols Field. Pilots making up the formation were Major Brooks, Captains Black, Gaines, Lieuts. Zettel, Colman, Stowell, Malone, McCormick and Huggins. The purpose of this, the first long cross-country flight attempted since the beginning of the rainy season, was to try out the landing field at Laoag, where Bombers have never attempted to land before.

October 1st opened the training season for bombers and aerial gunners. Incidentally, this year we are training enlisted personnel as well as officers in this work, and it is whispered about that the officers are in for some heavy competition. Our prospective enlisted bombers are Sgts. Grant, Nero, Mathews, Kehul, Harvey, Olson, Norich, Bulloch, Young, Erney, Schultz and Kolins. For our Bombers we have Sgts. Linard, Drobin, Martini, Dexter, Kirby, Ross, Johnson, Cols. Lambert Trammel, Needles, Pvts. Finklestein, Lester, White, Shiplett, Ponyman, Guy, Walker, Murphy, Sweet, Pringle, Fricks, Dillion, Kruskey. Well, here's looking to some high record-breaking scores.

This Group was inspected by Hon. Patrick J. Hurley, Secretary of War, on Sept. 11th. He found everything on the field ship shape, 36 planes passing in review before him. After the inspection was completed, he complimented the Group as a whole on the splendid show put on for him with those famous last words: "Well Done."

INSPECTION DIVISION NOTES

Cross Country Envelopes

In order to insure that cross-country envelopes contain at all times the items listed in Air Corps Circulars 15-67 and 15-67A, and in order to facilitate their proper maintenance, it is suggested and recommended that when envelopes are assembled and ready for issue they be sealed by using a heavy piece of white paper (gummed if possible) 3 inches wide and 4 inches long, upon which is typed the following information, amended as required.

ENVELOPE NO. 1 CONTAINING
TAX EXEMPTION CERTIFICATE
W-90004 to W-90020 INCL.

PLEASE RETURN TO OPERATIONS OFFICER,
SELFRIDGE FIELD, MT. CLEMENS, MICH.

NOTICE
THIS SEAL NOT TO BE REMOVED OR TORN
UNLESS NECESSARY TO CORRECT OR USE
CONTENTS.

By using the above seal on all cross-country envelopes, it will not be necessary, once the envelopes are prepared for issue, to again check the envelope until such time as it is necessary to change contents or unless the seal has been broken by personnel on cross-country flights.

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AIR CORPS CIRCULAR 60-6

Various methods are now employed at Air Corps stations for the purpose of complying with paragraph 2 d, Air Corps Circular 60-6, dated August 18, 1928. A visual wall chart very similar to the one below has been in use in the Operations Office, Bolling Field, Washington, D.C., since the issuance of this Circular and has proven ideal for the maintenance of the required record. These charts may be made in any length and width, according to the needs of the station, and furnish at a glance the various types of aircraft for which pilots at the station have demonstrated an operating knowledge of the starting ignition and fuel systems and their control.

It is recommended in all cases where this chart or a similar one is initiated that it be maintained in the office of the station Operations Officer.

RECORD OF COMPLIANCE WITH AIR CORPS CIRCULAR 60-6

Name and Rank	TYPES OF AIRCRAFT					
	PT-3	O2-H	BT-2B	B-3A	C-4A	Y1C-14
Anderson, John, 1st Lt.	10-31-30	10-21-30	1-6-31	6-7-31		10-14-31
Brown, William, Capt.	1-9-29	1-9-29		6-15-31		10-15-31
Jones, John, Major						
Smith, Bill, 2nd Lt.	7-10-31	7-10-31	7-10-31		7-10-31	
Williams, Roy, Capt.	8-10-30	8-10-30	6-10-31	8-1-31	4-23-31	11-10-31

Note: When chart is initiated, personnel should be listed in alphabetical order regardless of rank, with sufficient space between each letter for additions.

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UNSATISFACTORY REPORTS

During recent technical inspections conducted by representatives from this office, many unsatisfactory performances of aircraft and equipment have been reported to the inspecting officers concerning which, subsequent investigation disclosed, no Unsatisfactory Report, Air Corps Form No. 54, had been submitted. In

many cases the negative report required by paragraph 2 b, Air Corps Circular 15-54 had not been submitted where no unsatisfactory performances occurred in the reporting activity during the month.

If Unsatisfactory Reports in all cases are not conscientiously prepared and submitted, the Materiel Division has no means of knowing the various maintenance difficulties arising in the field and is therefore unable to take proper corrective action. Neglect in the submitting of Unsatisfactory Reports may even result in loss of life.

It is especially recommended that officers in charge of Station, Group and Organization technical departments, such as: Photographic, Parachute, Communication and Armament Sections, make frequent use of the Unsatisfactory Report and submit immediate reports of all unsatisfactory performances of equipment occurring in their respective activities in order that such equipment can be improved as rapidly as possible. Station Engineering Officers could assist materially if, when there is forwarded through them an Unsatisfactory Report (as required by paragraph 2 a, AC Circular 15-54) they investigate to determine if the difficulty is being experienced in other organizations or departments at the station and include such information in their comments which are added to the Unsatisfactory Reports.

Many station activities are now numbering Unsatisfactory Reports. As this facilitates filing and reference, it is recommended that All Unsatisfactory Reports be numbered serially by each Station Engineering Officer, commencing with Number 1 and continuing consecutively throughout each calendar year.

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The following Technical Orders and Letters have been issued since the last issue of the Air Corps News Letter on November 9, 1931:

<u>Date and No.</u>	<u>Subject</u>	<u>Distribution</u>
9/15/31 TO-00-5	Technical Orders, General provisions - explanation of system and distribution.	General
10/22/31 TO-01-1-82	Airplanes and Parts, General use, care and disposition of small pump and pressure type fire extinguishers.	General
10/27/31 TO-10-5-1	Photographic Equipment, Chemicals and sensitized materials - containers for and storage of.	General
10/30/31 TO-06-10-1	Fuels and Lubricants, Aircraft-engine lubricating oil - storage and use.	General
11/1/31 TO-00-0-8	Monthly Index of Technical Instructions	General
11/23/31 TL-31-95	Replacement of impeller shaft bearing part No. 105, at overhaul of all SR 1340 type engines.	All Depots and Chanute
11/13/31 TL-31-115	Replacement of spring drives in Leece-Neville E-3 and E-4 generators	All Depots and Chanute
11/23/31 TL-31-127	V-1150 and V-1570 fuel pump drive. (Re-working of housings and shafts).	All depots except Panama,
11/19/31 TL-31-195	Bearings oversize on outside diameter for V, GV and GIV-1570 engines. (Replacing letter same No. of 6/25/31).	Wright, Chanute, FAD, MAD, SAAD, and RAD.
11/21/31 TL-31-213	Reworking pilots safety belt assemblies No. 074035.	General
11/23/31 TL-31-262	Modification of main bearings and journals Nos. 6 & 8 on GV and GIV-1570 engines.	Chanute, FAD, MAD, SAAD, and RAD.
11/10/31 TL-31-278	Checking electrode clearance with template No. 4-140 in scintilla type V-AG 9-D Magnetos.	Chanute and all Depots.
11/7/31 TL-31-279	Towing targets with model C-6A airplanes	Bolling, Crissy, Crickett, France, Langley, Luke, March, Mitchel, Selfridge, West PT., Nichols, Hawaii, Philippines and Panama A.D.
11/19/31 TL-31-280	Inspection of Wing Terminal Fittings on P-12, P-12B, P-12C, P-12D and P-12E airplanes.	Bolling, France, Luke, March, Mather, Maxwell, 4th Comp. Group, Selfridge, Wright and all Depots.
11/9/31 TL-31-282	Change in installation of windshield on P-12B, P-12C and P-12D airplanes.	Wright and all Depots
11/16/31 TL-31-283	Inspection and resoldering of clip-pilot parachute frame, Dwg #066397	General

11/11/31 TL-31-284	Change on instrument board on B3A, B5A, Y1B4 and Y1B6 airplanes.	Wright and all Depots.
11/11/31 TL-31-285	Reinforcement of tail post on Ford C-4A airplanes.	Wright and FAD, MAD, RAD, and SAAD
11/25/31 TL-31-288	Flare equipment for C-7 and C-7A airplanes.	Brooks, March, Mitchel, FAD, RAD and SAAD.
11/18/31 TL-31-289	Instructions on the operation and maintenance of King-Seeley fuel gauge.	Chanute, Crissy, Kelly, March Mather, Maxwell, Selfridge, Wright, FAD, MAD, RAD & SAAD.
11/19/31 TL-31-290	Replacement of clamp, landing gear axle fairing on P-12B airplanes.	Bolling, France, Luke, March, Mather, Maxwell, 4th Comp. Gr Selfridge and all depots.
11/20/31 TL-31-291	Replacement of acceleration pump lever No. P-14022 on Stromberg carburetors.	FAD, RAD, SAAD and Chanute.
11/19/31 TL-31-293	Installation of carburetor air intake stack screens on PT-3 airplanes to prevent rags, tools, and parts from entering the carburetor air intake.	Chanute, FAD, MAD, RAD, and SAAD.

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ADDITIONAL NOTES FROM AIR CORPS FIELDS AND STATIONS

Bolling Field, Anacostia, D.C., Nov. 19th.

Lieut. Stranathan recently returned from a trip, carrying as passengers Lt. Col. Fickel and Congressman Jones. They were gone a little over a month, and during this time covered approximately 13,000 miles and visited approximately 90 airports. Very little trouble was encountered on the trip, and from all appearances it must have been a pleasant one.

Our Commanding Officer, Major Davidson, and General Fechet were among the first to open the duck shooting season. They spent a few days down on Chincoteague Bay.

On Nov. 9th, Major Davidson, Capt. Eaker, Lieuts. Umstead and Lawton flew a night mission to Middletown to attend the two-day Engineering and Supply Confab.

Lieut. Goodrich, our Photographic Officer, Lieut. Cousland, Sgts. Matos and Williams "shot up" the U.S.S. AKRON on its visit here. Film was used as ammunition and no misses were recorded.

Lieuts. Merrick, Cousland and Goodrich ferried three BT-2B planes to San Antonio, Nov. 18th, returning by rail.

There are two volley ball teams on the post, composed of officers of this command. It has become a very popular game among the officers and it is desired contests with other good teams in this vicinity.

Squash has also become very interesting to officers at the field. Some of our Squash fans would like to arrange games with other nearby post teams.

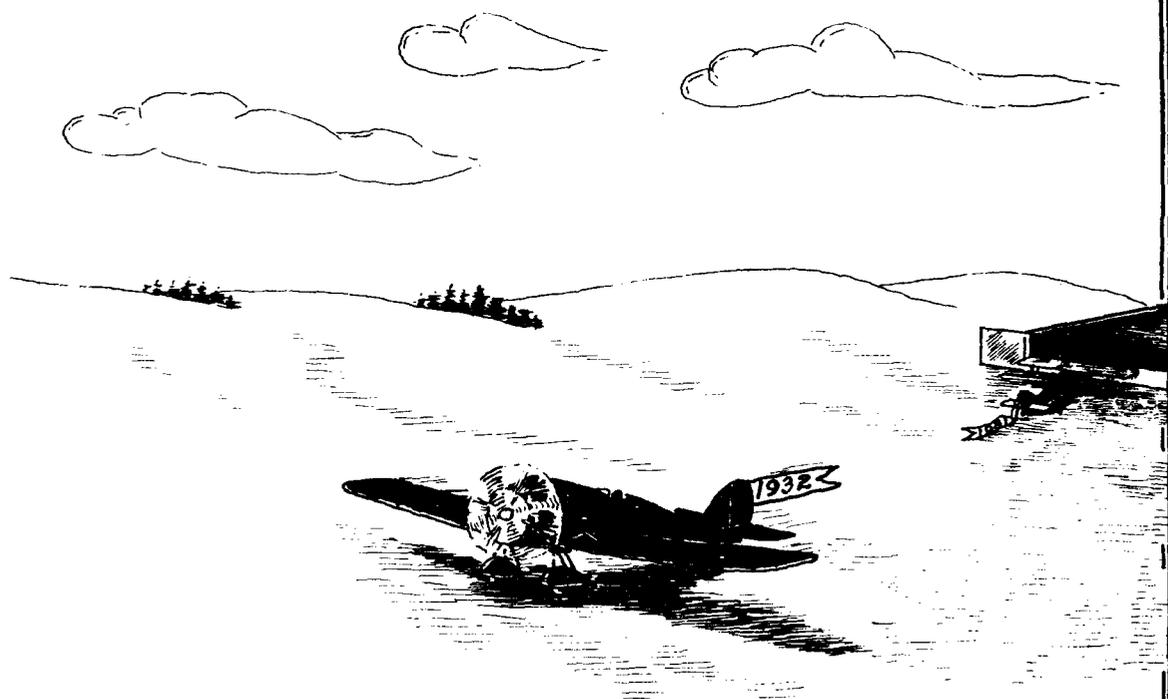
The Bolling Field Basketball Team is starting its season under the able management of Lieut. Cousland and Sgt. Clavadetcher and have moulded a team that will prove worthy of their efforts. They have scheduled games with some of the best teams in the District and nearby places.

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PILOTS GET LUCKING

Second Lieuts. T.W. Crawford and J.P. Biggerstaff, of the 2nd Bombardment Group, Langley Field, Va., "took the rap" on October 21st, when the Keystone Bomber in which they were flying dived into back river. As the aviators were returning from a bombing mission, one motor stopped, and the pilot, Lieut. Crawford, could not make the field. In landing in the water, the Bomber struck tail first and whipped over on its nose. Lieut. Biggerstaff, the bomber, was still in the "golden chair" when the plane went over, and he received jars, strains, twists and bruises, as well as a complete baptism. Both officers were taken to the hospital. Lieut. Crawford was up and about the following day, but Lieut. Biggerstaff is still recovering from his shake down.

AIR CORPS NEWS LETTER



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

DUNNINGTON.

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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 in this publication.

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GENERAL FECHET BIDS ADIEU TO THE AIR CORPS

UNIVERSAL regret prevails in Air Corps circles, and in other quarters as well, over the departure of Major-General James E. Fechet as the active head of the Army Air Corps. This severance of relations with the branch of the service with which he has been affiliated since the early days of the World War was, of course, expected, in consideration of the fact that the tour of duty of Bureau Chiefs, and the assignments of other staff officers for that matter, are limited to four years, but it does seem that these four years have been all too short.

General Fechet goes into well merited retirement, that is to say, as far as the Army itself is concerned, but it is understood he will continue his affiliation with aviation matters in general in a civilian capacity. His tour of duty as Chief of the Air Corps was marked by substantial progress in this branch of the military establishment. It is regretted, of course, that one of his cherished ambitions - acceleration of promotion of Air Corps officers - was not fulfilled, but this was due to circumstances beyond his control. It would appear that this vital question is one for the future to decide. One could hardly feel optimistic on this score just now in these days of economic stress, and it would seem that promotion legislation must bide its time until that day - and we hope it will be soon - when prosperity has turned the corner and is in full swing again.

Notwithstanding the inequalities in rank which still confront the commissioned personnel of the Air Corps, their morale has been of a high order. Under General Fechet's regime there has been a complete transformation in the flying equipment of the Air Corps, which is now more modern. Army pilots are highly trained in the specialized branches of military aviation to which they are assigned, as demonstrated in the annual maneuvers held in past years, particularly those held last Spring.

The Air Corps, which has prided itself on the system of flying training given students at its flying schools, has now even more reason to harbor this high regard for it, with the establishment of Randolph Field, Texas, as the Air Corps Training Center. This flying institution is, of itself, a monument to General Fechet's administration, but many more projects looking to the progressive development of the Air Corps were realized during that time, chief among which were the steps taken to carry out the provisions of the Five-Year Expansion Program, which has served to bolster up the commissioned and enlisted personnel and supplied them with their necessary stock in trade - airplanes.

It would only be echoing the sentiments of all Air Corps personnel to extend to General Fechet our sincerest wishes for happiness and prosperity in civil life and to characterize the task he has performed as their Chief as one "Well Done."

General Fechet's farewell to the Air Corps is quoted below, as follows:

"They say that all things must come to an end some time. This is particularly true in official life, where the days of those holding office are numbered, literally speaking. Four years ago, on December 19, 1927, when I took the oath of office as Chief of the Air Corps, I hardly gave thought to the time I would retire therefrom - it seemed so far away. But the years have flown by far too swiftly, and December 19th of this year marks the completion of my four-year tour, as well as more than 33 years' service in the Army. They have been interesting and instructive years, all of them, but the most satisfying were those four years spent in directing the Air Corps. They have been constructive years, for during that time the Air Corps was in the midst of its five-year expansion program.

As Assistant Chief of the Air Corps, I aided my predecessor, Major-General Mason M. Patrick, in laying the foundation of this new organization, and now I

leave to my successor, Major-General Benjamin D. Foulois, the honor of placing the flag upon the capstone of a more completed edifice.

I say with much feeling that the most gratifying results accomplished during my tenure of office were mainly due to the whole-hearted support which all of you members of the Air Corps have given me. No Chief could ask for more loyalty and devotion to duty than that which you have accorded me. It is my sincere hope that you will manifest the same spirit of cooperation towards my successor and others who follow.

While I leave the active service of the Army in general, and the Air Corps in particular, with the deepest regret, it is also with a feeling of intense pride for having been affiliated for so many years with this young and vigorous combat branch of the Army which has made its mark in the general scheme of things connected with the National Defense of our country. My name may be separated from the active list, but my heart will ever be in sympathy with everything pertaining to the welfare of military aviation."

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BROOKS FIELD BECOMES STATION OF OBSERVATION GROUP ✓

Brooks Field, San Antonio, Texas, has been experiencing a rapid phantasmagoria hardly exceeded by the "quick change" artist. The Air Corps Primary Flying School pulled up stakes and moved to their new station at Randolph Field, taking many officers and enlisted and civilian personnel. However, Lieut.-Colonel H.B. Clagett, formerly Commanding Officer of the Field, moved to Kelly Field, where he assumed command, and took with him several officers of Brooks Field, among them being Captains C.C. Nutt, T.S. Voss, James A. Healey, C.W. Ford, Lieuts. Lewis A. Dayton, W.E. Baker and R.C. MacDonald. Captain Healey, Lieuts. Dayton and Baker, who filled the respective positions of Secretary, Adjutant and Personnel Adjutant of the Primary Flying School, are performing the same duties for the Advanced Flying School at Kelly Field.

With the departure of the school, the 12th Observation Group moved into Brooks Field, the first tactical organization to be stationed in San Antonio since the War. Major Frank D. Lackland, who was commanding Dodd Field, took over the command of Brooks, and the field now includes the 22nd Observation Squadron, formerly of Maxwell Field; the 12th Observation Squadron. 12th Observation Group Headquarters and First Photo Section, formerly of Dodd Field; the 88th Observation Squadron from Fost Field, Fort Sill, Okla.; the 58th Service and 62nd Service Squadrons, formerly with the Air Corps Primary Flying School, and retained at the Field when it became a station for the Tactical Group, besides detachments of the Quartermaster, Signal, Medical and Ordnance Corps, numbering 870 enlisted men and approximately 75 officers.

Under the able direction of Major Lackland, who previously commanded Fort Crockett and Dodd Field, and who is a graduate of the Command and General Staff School at Fort Leavenworth and an officer of wide experience, the 12th Observation Group already has begun operations contingent upon the training of air officers in the intricacies of Observation tactics.

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NEW TYPE OF INERTIA STARTER

A new type of inertia starter was recently developed at the Materiel Division, Wright Field. It consists of the standard inertia starter with a booster magneto incorporated in the drive in such manner as to mesh the booster with the starter gears at the same instant the starter is engaged with the engine. The total weight of the new equipment is 30 pounds, including the booster magneto and hand crank. Necessity for separate booster magneto and control is eliminated thus saving a weight of ten pounds over the type B-11 which is at present standard. The new starter has the further advantage of freeing the hand of the pilot formerly used on the booster for the operation of the throttle and wobble pump.

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The Houston Public School System, at the beginning of the February semester, is going to incorporate in its vocational school curriculum aviation ground school courses. These courses consist of Motors, Navigation, Meteorology, and Theory of Flight. This is being done with the cooperation of the 111th Observation Squadron, Texas National Guard. The Instructors who have been selected to teach this course are officers of this Squadron.

TRAINING STARTED AT RANDOLPH FIELD ✓

On November 2nd, 331 students started training at Randolph Field, Texas. Of this number, 113 started training on the Basic Stage and were transferred from March Field, Calif., and Brooks Field, Texas. Starting training in the Primary class were 218 students, including seven holdovers. Prior to the start of flying, eight students were eliminated for physical disqualifications.

The following is a list of the students:

BASIC STAGE

2nd Lieuts.

Hefley, William T.
Johnson, Harry W.
Wilson, Russell A.

Flying Cadets

Aring, Wilbur W.
Baker, Carl F.
Beck, Stephen A.
Belden, Lloyd I.
Bell, Jasper N.
Bird, A.J., Jr.
Bogardus, William I.
Bonnell, William F.
Borchers, Adrian
Bordelon, Henry O.
Borgers, Eldor W.
Brady, Robert W.
Brannon, William F.
Brashear, Maurice P.
Brockliss, Cedric J.
Bruce, James L.
Cahill, Martin B.
Cassady, George S.
Cazier, Frank W.
Christner, John W.
Churchill, Randolph E.
Clark, Glenn C.
Clark, William L.
Combest, William L.
Cooper, Robert E. Jr.
Corrigan, Emmett J.
Coursey, Harry
Cox, Dudley S.
Cox, Homer M.
Culler, Harry H.
Davis, William E.
Deavenport, James M.
Demler, Marvin C.
Ditzen, William G.

Flying Cadets

Doherty, John C.
Duckworth, Hubert B.
Eaker, Carl H.
Earle, Lloyd W.
Flower, Scott
Fouche, John S., Jr.
Freyer, Frederick R.
Gates, Thomas L.
George, Clifton V.
Giffe, George M.
Glasgow, Marvin C.
Govoni, George L.
Haarman, Donald W.
Haley, Olin K.
Hamilton, Edward N.
Hanspeter, Paul J.
Harris, Clyde C.
Harris, Lester S.
Henderson, Richard W.
Hill, Robert L., Jr.
Hoffman, Cecil R.
Horvath, Lewis, Jr.
Hughes, Louis R.
Hunt, Jack S.
Hunt, Wilburn R.
Hurst, Don L.
Hutcherson, Benj. F.
Jackson, Edmund L.
Jamson, Robert E.
Jobson, Theron S.
Johnson, William W. Jr.
Kane, John R.
Keenan, Gregory F.
Krug, Lester E.
Lancaster, David B. Jr.
Lovelace, William T.
McCormick, Paul
Mackelcan, Howard W.

Flying Cadets

Matthews, James M.
Matthews, Francis H.
Moody, Howard A.
Moore, Ralph J.
Mosman, Ormond J.
Moyers, Frank N.
Murchison, George M.
Neal, Jesse
Nelson, David R.
Nuckols, William P.
Oglesby, Walter A.
O'Hara, Byron G.
Parrish, Noel F.
Payne, Samuel V.
Philip, Donald E.
Purser, Brittain H.
Qualm, Joseph R.
Randolph, Jack L.
Reynolds, Roger M.
Richardson, Harold G.
Searles, Nathan F.
Sheffield, Douglas A.
Shockley, Moir L.
Smith, Elton
Spake, John P.
Sprunger, Noble O.
Stevens, Fred D.
Swift, Henry H.
Thruelsen, Richard D.
Trimble, William L.
Unruh, Marion D.
Ward, Roy P.
Wassell, Ralph L.
Weller, Richard C.
Woolley, Paul S.
Workman, James T.
Selazo, Steve L.
Zuck, Carol W.

PRIMARY STAGE

Captain

Welch, Clarence H.

1st Lieuts.

Conway, Harold J.
Hinds, John H.
Kirkendall, John P.

2nd Lieuts.

Arnett, Charles T.
Kohler, John F.M.
Skinner, Merson L.

2nd Lieuts.

Military Academy

Adams, Andrew J.
Arnold, Milton W.
Bard, Charles R.
Barr, John E.
Beck, Theodor J.

2nd Lieuts.

Military Academy

Beebe, Royden E. Jr.
Bell, William J.
Berg, Frederick T.
Blake, Gordon A.
Blanning, James C.
Blunda, Gaspere F.
Bond, Van H.
Bowman, Wendell W.
Boyd, Richard K.
Brown, Robert Q.
Callahan, Daniel F., Jr.
Cardell, Robert L.
Carlisle, James H.
Carlmark, Carl W.
Carlson, Gunnard W.

2nd Lieuts.

Military Academy

Carroll, Joseph F.
Carter, Richard S.
Cather, Leo W.
Corbett, James B.
Daley, John P.
Damberg, Carl F.
Davis, William D.
Densford, Charles F.
Diestel, Chester J.
Dougher, Charles B.
Dudley, Howard H.
Duffy, Marcellus
Eaton, Robert E.L.
Feagin, John A.
Fletcher, George E.

PRIMARY STAGE - 2ND LIEUTENANTS, MILITARY ACADEMY

Frederick, Charles E.	Lee, Robert M.	Roller, Harry G.
Fulton, Robert F.	Leeper, Earle B.	Skeldon, John R.
Gordon, John C.	Lester, Raymond T.	Smart, Jacob E.
Griffith, Russell H.	Levenick, Maynard N.	Stiness, Philip B.
Guenther, Louis A.	Lichirie, Cornelius A.	Strother, Dean C.
Hampton, William A.	Little, Donald C.	Stunkard, Robert A.
Hanmer, Stephen R.	McClellan, James T.	Thomas, Marvin L.
Hartman, George F.	McGowen, Clarence D.	Thompson, Elmer L.
Haynes, Ashton M.	McVea, A.J.	Timberlake, Edw. J., Jr.
Helms, John T.	McLaughlin, Victor J.	Uhlman, Harold R.
Hickey, Terrence R.J.	Mahoney, William J.	Walker, Edwin A.
Hockenberry, Earle W.	Miller, Paul G.	Ward, Peter O.
Hoy, Charles E.	Mitchell, Elmo C.	Williams, Gerald E.
Humber, Charles I., Jr.	Mooney, Henry K.	Williams, Hoyt D.
Hutchison, David W.	Moore, Ernest	Wise, Richard H.
Isbell, William H., Jr.	Motherwell, David N.	Woodward, William R.
Jackson, Irving W.	Muenter, Hilbert F.	Yates, Donald N.
Kerwin, Arthur R. Jr.	Parham, William L.	Young, Millard C.
Kunish, Lester L.	Read, John W.M.	

FLYING CADETS

Aldahl, Joice E.	Gruver, Dorsey B.	Oppenheim, Russell I.
Amber, Charles J.	Halvorsen, Lars J.	Pettigrew, Bruce C.
Amorous, William W.	Harmon, Harold D.	Plummer, Everett C.
Blade, Allen P.	Hart, John B.	Prime, Frank J.
Bogen, William T.	Hearne, William F.	Reiff, Allan E.
Bowers, Cleo L.	Howard, Tom R.	Renshaw, Harry N.
Burdzinski, Bernard F.	Hunter, Dwight H.	Rogers, Craven C.
Eyers, Edward W.	Hutchinson, Donald R.	Rosasco, Walter L.
Caldara, Joseph D.	Jarboe, Max F.	Rose, William A.
Carter, Riley B.	Johnson, Earl D.	Rutherford, Stuart E.
Chapman, John L.	Joyce, Edwin A.	Shedd, Morris H.
Claassen, Clayton B.	Kelley, Joseph J.	Short, Henry B.
Collier, Claire B.	King, James F.	Sindo, William J.
Cooper, Marcus F.	Kleinoeder, Leonard P.	Skaer, Arthur H., Jr.
Corley, Quinn M.	Koch, William A.	Smith, John H.
Cothran, John A.	Laughlin, Jess M.	Stackhouse, Walter C.
Cowing, Charles A.	Lesesne, Chas. H., Jr.	Stophlet, Richard B.
Crutcher, Harry, Jr.	Lowrie, Theodore W.	Stouff, Charles W.
Dahl, Harold E.	Lukehart, Luther H.	Stuermer, Henry J.
Darnell, Cecil	Lumpkin, Charles R.	Sweetser, Luther W., Jr.
Dittrich, Chas. M. Jr.	McAllister, William G.	Thomas, Albert J.
Doolé, Geo. A. Jr.	Manchester, Horace H., Jr.	Thomas, John B.
Ducrest, James R.	Mangen, Albert J.	Tibbs, Orville E.
Earp, James W.	Marshall, Riley H.	Vavrina, Richard F.
Eisenmann, Samuel B., Jr.	Martine, Lawrence L.	Wackwitz, Donald N.
Fator, Jephtha W.	Miller, Clark L.	Webb, Lynn H.
Ford, Vincent	Miller, John A.	Whitlock, Howard W.
Fraser, Lloyd D.	Mims, Bert P.	Wood, Clyde H., Jr.
Furlow, James W.	Montgomery, Malvin	Woodward, Raymond C.
Gavin, Edward M.	Moore, Edwin M.	Worrall, Charles H.
Gebelin, John, Jr.	Muehleisen, Dolf E.	Yarborough, John M.
Gephart, Laurel J.	Nelson, Carl A.	Zongker, Leonard E.
Gettys, James T., Jr.	Nuckolls, Emmett B.	

NONCOMMISSIONED OFFICERS TRAINING IN GRADE

Kolb, Julius A., Master Sergeant	Lovvorn, Ancel L., Staff Sergeant
Field, Charles B., Technical Sergeant	Martin, Morris, Staff Sergeant
Stockwell, Raymond, Technical Sergeant	Rureska, Henry J., Staff Sergeant
Walsh, Lambert C., Technical Sergeant	White, Andrew, Staff Sergeant
Hanson, Arthur, Staff Sergeant	Cunningham, Charles C., Sergeant

FOREIGN STUDENTS

Baier, Eberhart F., Captain, German Army. Wan, Charles C., Chinese student
deLeon, Nicholas H., 1st Lieut., Guatemala Yuinn, Roy C., Chinese student.

The following students who reported for flying training with the November

class were found to be physically disqualified:

2nd Lieut. Frank Kowalski, Jr., (Q.M.C.), Flying Cadets Daniel C. Edwards, Jr., Harvey B. Hartline, Elmer L. Koup, Henry L. McClellan, Herman C. Shockley, Laurence E. Shumaker, and Tech. Sgt. Lambert C. Walsh.

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FLYING LABORATORY USED TO TEST RADIO SETS

The Ford tri-motor airplane, which is equipped as a flying radio laboratory, left its home base at Wright Field, Dayton, Ohio, recently to spend a few days at Selfridge Field, Mich., in connection with the testing of Western Electric Command Sets. These sets, installed in airplanes of the First Pursuit Group, were recently reworked at Wright Field.

Captain Rives of the Signal Corps, accompanied by Mr. Robe of the Air Corps Materiel Division at Dayton, and Lieut. Halloman, pilot, made up the party, and were joined at Selfridge Field by Mr. Brymer, engineer for Western Electric. Much valuable information was obtained by the pilots of the Group flying planes equipped with the sets and aided in their tests by the personnel of the flying laboratory.

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MAIL PICK-UP DEVICE DEMONSTRATED AT WRIGHT FIELD, OHIO.

A demonstration was recently made at Wright Field of the Cabot Aerial Pick-up Device which facilitates the collecting of mail or message bags by an airplane without landing. This equipment consists mainly of a truck from an axle of which rise two 20-ft. uprights at the head end of the car. The top of the uprights are 15 feet apart. Between them is stretched shock cord, to an extension of which is attached the mail or message bag. The airplane picking up the bag flies above and between these uprights in such a manner that a hooking device extending from beneath the plane catches up the 60 feet of shock cord with its attached bag, the pilot winding up the cord on a windlass situated in the cockpit and drawing the bag into the plane through a trap door placed in the bottom.

An unusual feature of the device is the catapult arrangement. Upon the truck is laid a 12-foot runway upon which moves a carrier. The mail or message sack attached to the shock cord is placed in this carrier. The moment the hook from the plane strikes the shock cord, a trigger is sprung which releases shock cord under high tension attached to the carrier and catapults the carrier down the track. Thus, when the hook of the plane drags up the message bag, it has already been set moving in the direction of the plane and at the same approximate speed at which the plane is traveling, so that neither shock nor the effects of shock are experienced by either pilot or plane. The speed of the car upon release is usually set for 70 m.p.h. This speed can be distinctly increased, however, by a tighter winding of the windlass which controls the speed of the car.

The pick-up device on the plane is likewise ingenious. The windlass is automatically operated. A steel pick-up pole, 12 feet long, and clamped beneath the fuselage, contains a groove in which the pick-up hook rides. This pole is let down by one end changing vertically as the plane approaches the truck. The weight of the mail sack on the hook causes the windlass in the plane to turn, drawing the sack to the trap door. The pole is then clamped back to its horizontal position.

In the demonstration at Wright Field, which was held for the purpose of determining the possible usefulness of the device in carrying messages, dispatches or mail in time of war, the device operated quite successfully. A hook-up installation was made on an Army plane, and tests with Lieut. Parker piloting continued the following day.

The Cabot Aerial Pick-up device was designed by Godfrey L. Cabot, a former president of the National Aeronautic Association, and a familiar figure in national aviation affairs. It is said that Mr. Cabot conceived the idea during the World War to make flying possible between battle fronts where landings would be impossible. Now it seems to have a definite peace-time value for air mail fields.

BIG TWO-PLACE GLIDER TESTED AT LUKE FIELD

The first test flight of the two-place glider constructed at Luke Field, T.H., resulted in a broken wing skid and a cracked tail skid, due to a sudden change in wind direction while being towed off. With Lieut. Joseph B. Stanley at the controls, the craft was again taken off - into an 8-mile wind. It left the ground at about 15 miles per hour speed after a run of from 50 to 75 feet.

Lieut. Stanley, who with Lieut. Tallmadge L. Boyd and Lieut. James M. Thompson, has worked for months on the construction of this revolutionary glider, said that the craft handled well. ~~"The success of the first flight," he said, "was to test the controls and balance. The balance is perfect, but the aileron controls are stiff and may have to undergo slight alteration. We worked with nothing but our own ideas in constructing this glider, as plans for a cabin glider were not available. For that reason, we have made mistakes. I mean, if we were building another glider of this type, we would do some things differently. But the glider comes up to expectations in every way."~~

One reason for making the test flight and planning another was that Lieut. Boyd and Stanley were to leave soon for the mainland. Having spent months on the construction of the glider, their friends at the field aided in rushing work on it so they would have an opportunity to fly it.

The glider has a wing span greater than the Luke Field Keystone Bombers, which are the largest airplanes at the Army flying fields. The fuselage resembles a shark lying on its back with opened mouth. The craft is designed to carry two persons so that pilots may relieve each other during long flights. The officers have hopes it will be used here to set an official world's record for motorless flight.

The fliers plan to establish a camp on windward Oahu and to seek an endurance record. This plan has been decided upon after short test flights in which it was indicated there is nothing wrong in the design or construction of the glider and that it will be ready for the rising currents at the Nuuanu Pali after minor repairs and alterations.

On October 30th, Lieuts. Tallmadge L. Boyd and James M. Thompson made short test flights with the glider, and both declared it was functioning properly. Both officers enjoyed only a minute each aloft as compensation for their months of labor, as they were making ready to return to the mainland. After the glider was brought to a landing, Lieut. Boyd said: "My few seconds of glider pilot time have repaid me for all the work I have done on the ship." Neither pilot gained more than 40 feet from the ground after a short tow by automobile.

Following the flights, it was decided to place a long metal skid behind a small wheel on which the fuselage of the glider rests. This will relieve the tail skid. Lieut. Thompson said that there would be changes in the control system to make the ailerons work easier. When the changes are completed, it is planned to take the craft over the Pali.

Lieut. Howard B. Lathrop, another Reserve flier at Luke Field, will work with Lieut. Thompson, and may be relief pilot when the craft takes off for its record attempt. If the glider passes further tests, it is planned to enter it in the National Glider Contest on windward Oahu.

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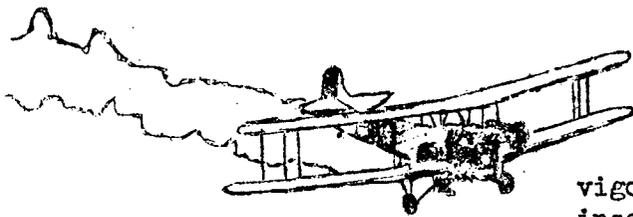
MAJOR RADER ADDRESSES RESERVE OFFICERS

Taking "Our Air Corps" as his subject, Major Ira A. Rader, Air Corps, Instructor and Air Liaison Officer at the Infantry School, Fort Benning, Ga., delivered addresses before a large number of Reserve officers in Atlanta, Ga., on December 16th; Rome, Ga., on December 17th and Griffin, Ga., on the 18th. The 12th District Conference Schools for Reserve Officers, of which Colonel Graham is instructor, sponsored the lecture tour.

Major Rader discussed the most important missions of the Air Corps, its great mobility, range of firepower, and power to move about in space, as well as a general outline of the missions of Attack, Bombardment, Observation and Pursuit branches of the Air Corps, the special missions of a combined air force, and the assignment of Air Corps units to ground forces.

Qualified from the standpoint of military education and experience on the subject, Major Rader, a forceful and interesting speaker, was given a cordial reception at each meeting in the three cities. Major Sereno E. Brett, Inf., is scheduled to address the Reserve Officers in the above named cities in February, and Captain Walter C. Phillips, Infantry, in the month of March.

MOSQUITOES IN PANAMA IN GRAVE DANGER



While there has been a lull lately in the campaign of extermination in Panama against the mosquito, the war is not over by any means. Should certain experiments soon to be conducted prove successful, a vigorous offensive will be launched against these insect pests.

In the issue of the News Letter of September 18th, the France Field Correspondent related the results of spraying experiments with poison dust over certain malarial mosquito breeding areas. A recent communication received from France Field states that, while dusting with Paris Green, diluted as low as 10% by weight of Paris Green and 90% of dust has been 100% successful in killing the anopheles mosquito larvae in the dusting operations conducted by the Air Corps in collaboration with the Health Department of the Panama Canal, it was found that this poisonous concoction, unfortunately, has no effect on other species. In addition, its effectiveness is destroyed after a period of four or five hours, due to the fact that the particles of dust absorb moisture and sink in the water.

A study of the above facts gave rise to the idea that it might be practical to spray oil from an airplane in sufficient quantity to produce a film of oil on the surface of the water where any mosquito larvae were developing and kill them. At first, experiments were conducted on the ground to determine the minimum air pressure required to expel fuel oil from jets of various sizes. These experiments developed that a pressure of 60 pounds was necessary to expel oil from a 3/32-inch opening. It was decided, however, that this pressure was too high for practical purposes, so the fuel oil was diluted 50% by volume with Deisel oil which, it was found, could readily be expelled from the jets with as low as 10 pounds air pressure.

With this discovery, an apparatus, consisting of an ordinary 40-gallon hot water boiler as a receptacle for oil, and a 10-gallon capacity tank, to act as a receptacle for air at a higher pressure than required to expel the oil, were connected with suitable piping and pressure gauges and mounted on a light truck. The truck was driven at 60 miles an hour, in order to determine, as far as possible, the disbursement of the oil after leaving the jets. A similar apparatus was then mounted on an O-19C plane of the 7th Observation Squadron for actual test. This apparatus consisted of two 30-gallon hot water boilers, the one for the oil being mounted on the fittings of the auxiliary fuel tank, while the one for the air was placed in the rear cockpit. The two tanks were connected by 1/2-inch pipe in which was placed an automatic pressure regulator, a globe valve and a pressure gauge, so that the air pressure on the oil could be maintained at 15 pounds.

The boiler containing the oil was mounted with the bottom to the rear and the two side outlets to the bottom, so that the air connection could be put in the rear outlet and the discharge for the oil could be connected with the rear of the side outlets. Oil is discharged from the tank through a galvanized iron pipe, one inch in diameter, with a one-inch straightway steam cock placed about 12 inches from the rear of the tank. Fastened to the core of the steam cock by means of a somewhat flexible connection is a T-shaped handle, which passes through the fuselage to the right side of the pilot's seat and provides a handy method of turning the oil on and off. The one-inch pipe continues from the steam cock to the rear of the fuselage, where it is connected to a one-inch T, in either end of which is connected a 5-foot length of 3/4-inch pipe, with 3/32-inch holes spaced 3 inches apart, the outer end of the pipe being closed with a 3/4-inch cap.

The one inch pipe leading from the tank to the 10-ft. spreader in the rear is supported by means of a strut from the camera opening in the bottom of the fuselage and a U bolt fastened to the streamline in front of the tail wheel. The 10-foot oil spreader is supported by means of a strut on each side, fastened to the elevator fitting and further supported by a cable extending forward to the tail wheel streamline.

For the preliminary test, in order to determine whether the installation was functioning properly mechanically, the oil tank was filled with water. Everything worked smoothly, and the first test with oil was made on October 1st in Miraflores Lake, between Miraflores and Pedro Miguel Locks. This test was con-

ducted to determine the disbursement as well as the thickness of the film. A film about forty feet wide was spread, although it was rather light. Later on in the day a test was made over the same area near Old Panama, which had been previously dusted with parts of Paris Green, and it was found that where vegetation was present the amount of oil discharged was not sufficient to create a film. In order to overcome this deficiency, the holes in the 10-ft. spreader pipe were increased from $\frac{3}{32}$ -inch to $\frac{5}{32}$ -inch, and a noticeable increase in the thickness of the film on the water resulted. However, the film still is not heavy enough, and further tests are to be made with the size of the spreader holes increased to $\frac{1}{4}$ -inch. The mixture of oil will also be changed from 50 to 60 percent fuel oil, and the air pressure increased from 15 to 25 pounds.

In the event further tests prove the feasibility of spraying oil from planes, larger installations will be made for use on Bombers.

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NEW FORM-FITTING BACK AND HEAD REST ✓

Of course, every pilot in the Air Corps knows how each and every pilot has his own particular sights for gunnery, but not all of them know about the latest design developed by Major Gerald E. Brower, Commanding the First Pursuit Group. Well, here's the dope:

About the middle of September, several pilots from the 94th Pursuit Squadron flew up to the Aerial Gunnery Camp for some practice in formation firing. Joining them were Major Brower and Lieut. Ballard, who were starting out for their record firing for the year. The first evening at camp, when the "Chow Bell" rang, all of the pilots jumped to their feet from where they had been sitting on the alert, and rushed for the mess hall. Nothing doing, however, because roll call proved that Major Brower was missing. "Where is he!" That was the question. An investigation was started, and he was soon found on the line at work. He was finally persuaded to call it a day, after such arguments as a man requiring sustenance and that he could not see in the growing dusk, anyway, were laid before him.

The next morning the Pursuiters saw the object of the Major's pride. It was a Form-Fitting Back and Head Rest direct from the Rue de la Paix. Of course, the object of the gadget is to keep the head from moving from side to side while coming down in the dive at the target. When the head is moving in that manner, it is much easier to hit the target with a brick than a gun. Instead of bracing the forehead against a head-rest fastened to the wind shield, in this case the pilot calmly reposes with his head, shoulders and back easily resting against the above mentioned form-fitting apparatus. It is true that this is more the correct position of a soldier than with the shoulders and head hunched forward, but what is a man going to do if he has to start dodging bullets?

"We are glad to say, however, that the 'form-fit' seems to work," says the News Letter Correspondent, "and also glad to say that Major Brower is always working for the best interests of the Air Corps. He takes advantage of every chance that he has to improve on equipment."

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A PARACHUTE JUMPING JAMBOREE AT MATHER FIELD ✓

After citing the fact that Mather Field seems to be a dangerous place for bachelor officers and enumerating various and sundry officers who fell before the unerring aim of the mythical little fellow with the bow and arrow, the News Letter Correspondent goes on to say that other officers, craving more excitement at less risk, put in for and received permission to try practice parachute jumps. First on the field to "bail out" voluntarily were Lieuts. W.G. Carter and A.W. Stainback. The latter carried a camera on his drop and secured an interesting picture or two on the way down. A few days later the Williams Twins jumped out as nearly at the same time as possible. Of the jumps, said Williams No. 1, "I got out first," while No. 2, not to be outdone, said, "But I landed first," which is the first time in history they have been so far apart. Next to qualify for the "Synthetic Caterpillar Club" was Lieut. B.S. Kelsey, who advises that his next voluntary jump will be after the development of a chute larger than the 28-foot trainer, or after he loses a few of his 228 pounds. Kelsey warped his fuselage slightly when he landed with a jolt on three points - two of which were his elbows.

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AIR CORPS TRAINING CENTER MOVES TO RANDOLPH FIELD

The Training Center has moved into the Administration Building at Randolph Field and occupies the suite of offices in the northeast corner of the second floor, having moved over about October 1st. The Training Center now consists of Brigadier General Charles H. Denforth, Commanding; Captain J. K. Cannon, Director of Training; Captain Arthur Thomas, Adjutant; and 1st Lieut. R.W. Douglas, Jr., Aide to the General.

The assignment of officers in the Air Corps Primary Flying School is as follows: Major F. L. Martin, Commandant; Major T.J. Hanley, Assistant Commandant; 1st Lieut. J.D. Givens, Secretary of School; Captain J.K. Cannon, Director of Flying; 1st Lieut. W.R. Cartan, Assistant Director of Flying; 1st Lieut. A.F. Glenn, Operations Officer.

The Flying Department is divided into two stages, Primary and Basic, Capt. J. G. Williams being in charge of the Primary Stage and Captain P.L. Williams of the Basic Stage. The Primary Stage uses the west side of the field, and the Basic Stage the east side. Each stage is divided into flights, to which the following officers are assigned as Flight Commanders and Instructors.

PRIMARY STAGE

<u>"A" Flight</u>	<u>"B" Flight</u>	<u>"C" Flight</u>
1st Lieut. J.R. Glascock	1st Lt. J.F. McBlain	1st Lt. C.W. Lawrence
1st Lt. L.S. Carr	1st Lt. J.A. Denniston	1st Lt. S.W. Van Meter
2nd Lt. A.M. Kelly	2nd Lt. D.W. Benner	2nd Lt. J.M. Jones
2nd Lt. K.A. Rogers	2nd Lt. A.J. Mickle	2nd Lt. R.E.L. Pirtle
2nd Lt. H.M. Newstrom	2nd Lt. Max H. Warren	2nd Lt. T.W. Scott
2nd Lt. E.H. Alexander	2nd Lt. S.R. Brentnall	2nd Lt. R.R. Walker
2nd Lt. E.H. Porter	2nd Lt. L.W. DeRosier	2nd Lt. J.P. Kenny
2nd Lt. W.H. Tunner	2nd Lt. R.L. Easton	2nd Lt. J.C. Fowler
2nd Lt. A.L. Moore	2nd Lt. W.H. Maverick	2nd Lt. A. Boyd
2nd Lt. R.W. Warren		

<u>"D" Flight</u>	<u>"E" Flight</u>	<u>"F" Flight</u>
1st Lt. P.H. Prentiss	1st Lt. H.W. Ferguson	1st Lt. L.C. Craigie
1st Lt. Ned Schramm	1st Lt. C.T. Myers	2nd Lt. O.I. Grover
1st Lt. E.G. Johnston	2nd Lt. J.H. Atkinson	2nd Lt. F.K. Park
1st Lt. H.S. Vandenburg	2nd Lt. F.A. Armstrong	2nd Lt. J.L. Daniels
1st Lt. D.N. Schlatter	2nd Lt. M.E. Tillery	2nd Lt. C.T. Mower
2nd Lt. H.R. Grater	2nd Lt. H.L. Sanders	2nd Lt. J.H. Wallace
2nd Lt. L.W. Watnee	2nd Lt. W.B. Blaufuss	2nd Lt. K.E. Tibbetts
2nd Lt. G.H. McNair	2nd Lt. G.R. Acheson	2nd Lt. F.A. Pillet
2nd Lt. W.H. Doolittle	2nd Lt. T.J. Meyer	
2nd Lt. D.D. Arnold		

BASIC STAGE

<u>"A" Flight</u>	<u>"B" Flight</u>	<u>"C" Flight</u>	<u>"D" Flight</u>
<u>1st Lieuts.</u>	<u>1st Lieuts.</u>	<u>1st Lieuts.</u>	<u>1st Lieuts.</u>
A.G. Liggett	H.A. Halversen	J.P. Bailey	H.C. Wisehart
L.D. Weddington	D.W. Norwood	B.E. Nowland	C. K. Rich
M.N. Clark	<u>2nd Lieuts.</u>	H.M. Turner	G.O. Barcus
R.B. Williams	F.J. Lauer	<u>2nd Lieuts.</u>	<u>2nd Lieuts.</u>
<u>2nd Lieuts.</u>	D.W. Allison	D.H. Alkire	R. Heber
B.A. Bridget	E.J. Rogers	P.B. Wurtsmith	J.W. Andrews
O.F. Carlson	G.W. McGregor	R.L. Winn	H.T. Sprague
W.L. Lee	T.H. Baxter	M.R. Nelson	J.W. McCauley
H.F. Dyer	F.E. Wolfe	C.W. Davis	O.C. George
	F.R. Uptegrove		

The Academic Department consists of the following officers: Director of Ground Instruction, Captain C.V. Finter; Instructors, 1st Lieuts. E.C. Lynch, J.F.J. Early, C.J. Crane, A.H. Johnson, 2nd Lieuts. C.D. Wheeler, H.C. Lichtenberger and R.D. Johnson.

The Cadet Detachment is divided into the following: Commandant of Cadets, 1st Lt. T. Griffiss; Supply Officer, 1st Lt. C.P. Bradley; Mess Officer, 2nd Lt. J.K. Fite. "A" Company is in charge of Lt. Bradley and "B" Company of 2nd Lieut. R.B. Swofford.

The following officers are in charge of post administration: Captain T.W. Hastey, Adjutant; 1st Lieut. L.E. Sharon, Assistant Adjutant; 1st Lt. F.L. Cook, Personnel Adjutant; 1st Lt. E. Sullivan, Asst. Personnel Adjutant, Captain G.W.

Polk, Jr., Engineering; 1st Lt. H.A. Bartron, Air Corps Supply; 1st Lt. J.E. Duke, Jr., Post Exchange; 2nd Lt. J.F. Kinzie, E. & R. and Athletic; 2nd Lt. J.W. Andrew, Officers' Mess; 1st Lts. A.H. Johnson and H.A. Bartron, Armament and Ordnance; Major F.L. Stone, Provost Marshal; 1st Lt. J.A. Mollison, Asst. Provost Marshal and Prison and Police Officer; Lt.-Col. J.F. Taulbee, QMC, Quartermaster; 1st Lt. L.D. Talbot, Asst. Quartermaster; 1st Lt. K.E. Webber, Finance; Major T.E. Harwood, Flight Surgeon; Majors C.J. Baker, C.R. Glenn and J.P. Beeson, Assistant Flight Surgeons; Captain R. Peterson, Medical Administrative Corps.

The 67th Service Squadron has as Commanding Officer, Major L.F. Stone; as Adjutant, 1st Lieut. I.L. Proctor; as Engineering Officer, Captain A.S. Albro; as Asst. Engineering Officer, 2nd Lts. E.C. Robbins and W.A. McArthur, and as Supply Officer, 1st Lt. G.L. Davasher.

Captain E.H. Tonkin is Commanding Officer and Adjutant of the Headquarters Squadron, Air Corps Primary Flying School, with 2nd Lt. W.L. Lee, Supply Officer.

Captain L.L. Koontz commands the 46th School Squadron, with 1st Lt. Carl B. McDaniel as Engineering Officer, 2nd Lts. E.L. Tucker, Adjutant, and E.P. Rose, Supply Officer.

The 47th School Squadron is commanded by Captain W. Miller, with 1st Lt. N.D. Frost, Adjutant; 2nd Lt. W.J. Davies, Supply Officer and 1st Lt. F.P. Booker, Engineering Officer.

Commanding the 52nd School Squadron is Captain E.D. Jones, with 2nd Lt. R.E. Cobb, Adjutant; 2nd Lt. M.K. Lewis, Jr., Supply Officer, and 1st Lieut. O.G. Kelly Engineering.

The 53rd School Squadron has as Commanding Officer Captain J.B. Patrick, who is also Adjutant; 2nd Lt. H.L. Grill, Supply Officer; 2nd Lt. H.A. Parker, Mess Officer and 2nd Lt. S.A. Gilkey, Engineering Officer.

The 20th Photo Section is commanded by 2nd Lt. G.W. Hanson.

Post Transportation is in charge of 2nd Lt. H.E. Rice.

The School of Aviation Medicine is under the supervision of Major Benjamin B. Warriner, Commandant; Major Edw. C. Greene, Asst. Commandant; Captain Robert Peterson, Executive and Secretary; and the following instructors: Psychology, Major Warriner; Administration, Physiology, Aviation Medicine, including Roentgenology and Photography, Major Lyle C. White; Otology and Ophthalmology, Major Robert K. Simpson; Correspondence Course, Major F.R. Borden.

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NONCOMMISSIONED OFFICERS' QUARTERS AT SCOTT FIELD

A total of 18 sets of noncommissioned officers' quarters, the first permanent buildings to be completed at Scott Field in the War Department building program, were officially occupied on December 1st. The addition of these nine buildings made it possible, for the first time in the history of the field, to quarter all the noncommissioned officers of the first three grades on the field.

The quarters are excellently designed, with ample room, and many reports of satisfaction were received since they were occupied. The noncoms. who drew the new quarters were Master Sergeants Herbert J. Bertram, Joseph H. Bishop, 9th Airship Company; Olin Brown, 24th Airship Service Co.; William C. Hughes, Henry G. Wilkes, 15th Obs. Squadron; Nico G. Loupos, 21st Photo Section; Otto H. Nelson, 21st Airship Group Hqrs.; Wilbur R. Rhodes, 5th Photo Section; Technical Sergeants John Bollinger, Ray Gaston, Cecil B. Guile, 15th Obs. Sqdn.; Clyde J. Hobart, 24th Airship Service Co.; Edward Koziboski, 9th Airship Co.; Peter Mahar, Ordnance Dept.; George D. McCartney, 21st Airship Group Hqrs.; Kenneth W. Ogilvie, Q.M. Corps; First Sergeants Ewald Davids, 9th Airship Co., and Robert J. Kelly, 24th Airship Service Company.

Construction on the first new barracks building at Scott Field was completed by the contractor, and it is expected the Ninth Airship Company will move into its new home in time to have Christmas dinner there. Lieut.-Col. John A. Paegelow has authorized the Airship Company to move its equipment into the building, but has decided to delay the occupancy of the building by the men until the building has been thoroughly dried out by the heating plant.

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A scheduled inspection and review of Air Corps troops turned out to be merely a 5-minute unofficial visit when Marshal d'Esperey of France stepped out of a C-9 Transport, paused for an official photograph with Major Heffernan, and was immediately whisked away to a waiting steamer. During the Marshal's day and a half visit in the Canal Zone, the entire time was spent on the Pacific side where all the military honors were tendered.

THANKSGIVING WEATHER POOR FOR CROSS-COUNTRIES

Bad weather conditions, including snow, haze, wind and generally poor flying weather settled down over the Mid-West and moved rapidly eastward during the Thanksgiving week-end and effectively placed a number of Selfridge Field airplanes on the ground wherever they happened to be.

Several pilots had carefully hoarded their cross-country allotment of time in order to spend a day or two at Thanksgiving with relatives or friends. These men were forced either to remain overtime at their destinations or, when suddenly set upon by the elements, were forced to seek a landing place without too much delay.

One of the most exhausting trips reported during the period was a flight of a C-4A to New York by Lieut. Wolf, carrying with him seven other officers and two enlisted men. The plane started out on Friday, November 27th, for Mitchel Field by way of Buffalo, and got within 30 miles of Buffalo when it was forced to return due to snow and impossible flying conditions. The next morning at 7:30 o'clock, as soon as a weather report had been received, another start was made, and this time Buffalo was reached with no difficulty. With good reports by way of Albany, the pilot set off for New York with nothing but a head wind to bother him.

This part of the trip was uneventful until east of Tarrytown, within a few miles of Long Island Sound, when a thick snow storm and high winds were encountered. The pilot sought the shore of the Sound and checking that headed towards New York along the shore line. It soon became evident that, due to the head wind, little progress was being made and the gasoline supply might be exhausted before Mitchel Field could be reached. The decision was therefore made to proceed to North Beach or Flushing and land.

It was at this point, while flying over the water of the Sound at a low altitude, that a dramatic incident occurred. The fuel gauges were incorrect and failed to disclose that the main tanks were out of gasoline. Suddenly, without warning, the three motors all stopped, and the ensuing commotion would have been humorous had it not been so serious. Maps flew all over the cockpit as the co-pilot sought to unfasten his belt. One of the passengers rushed madly to the rear of the plane and began to strip preparatory to a swim. The tanks were switched, and soon two of the motors picked up, although the right out-board motor failed to respond for several minutes. During that time the plane was flown with two motors alone. It was determined that the ship had crossed the Sound by that time and, after some milling around, the airport was located and a landing made.

Most of the party immediately proceeded to the Yankee Stadium by ferry and arrived at the Army - Notre Dame game during the second quarter. The events of the two-day trip were obscured by the wonderful display of perfect football shown by the Army team. Lieut. Wolf ferried the plane with the crew chief to Mitchel Field on Sunday.

Due to poor weather conditions and mechanical trouble, the return start could not be made until Tuesday morning. Encountering a stiff head wind again, three long hours were consumed to get to Syracuse, where it was necessary to land for fuel. After refueling, the plane took off for Buffalo, but at Rochester a severe snow storm was encountered. The storm was so violent and blinding that, although within sight of the Rochester Airport, the pilot did not dare to go near it as, just before the storm obscured nearly all visible objects, a civilian plane had been seen circling the port. After a few minutes of vainly attempting to find a break in the storm, the plane returned to Syracuse for the night.

A snow storm at Syracuse delayed the start until late in the morning when there was a break in the storm. Attempting to start the motors, it was found that the battery was low, due to the generator being out and there was insufficient power to turn the starters. The oil had hardened in the starters to such an extent that they could not be turned effectively by the hand crank. Considerable delay ensued while two motors were finally started. The third remained balky but was finally started by hand. A brief stop was made at Buffalo, where fuel was again procured, and the remainder of the trip to Selfridge Field was made without incident. The personnel making this flight were 1st Lieut. Paul W. Wolf, 2nd Lieuts. Arthur W. Meehan, Gerry L. Mason, George F. Schlatter, Mark E. Bradley, Jr., Air Corps; Monty J. Tennes, Jr., John F. Egan, George A. Hersam, Air Reserve, James W. Pumpelly, Inf.; Sgt. Harold H. Braun and Corp. Wm. B. Bradley. All appeared to be very fond of New York, but not of its weather.

CONSTRUCTION WORK AT MAXWELL FIELD

Construction of permanent buildings of the Air Corps Tactical School at Maxwell Field, Montgomery, Ala., continues at the usual accelerated pace common to all contractors on government construction.

The permanent Quartermaster warehouse, garage, and utilities buildings were accepted by the Commandant on November 5th. These buildings can only be used for storage for the present because of lack of heat and roads.

Bids have been asked for the construction of 21 sets of company officers' quarters, with a completion date set for August 1, 1932. This is the largest single construction item for Maxwell Field under the present appropriations, and their completion will insure quarters for at least a portion of the officers at Maxwell Field. At present, a portion of the commissioned personnel are living in converted war-time shacks and quarters constructed for noncommissioned officers. By far the larger percentage of the officers are residing in Montgomery, trying to stretch their commutation into covering rents, light, water, heat, phones, and numerous other items incident to renting in that city.

The new barracks, destined to be the home of the 54th School Squadron (1st Lieut. H.H. Mills, commanding) has been turned over to the Air Corps. The occupation of this building has been delayed pending the discovery of the source of the water which has converted the basement into an indoor swimming pool.

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GUN CAMERA FOR PURSUITERS

Patience has its reward, as well as persistence, and the First Pursuit Group, Selfridge Field, Mich., has at last been compensated for these virtues by being supplied with 20 camera guns to be used in connection with its tactical training. The guns are the G-3 type, made by the Gaertner Scientific Corporation, and are operated by a trigger fitted on the control stick, the film roll being actuated by a strong spring.

A test installation was made on a Boeing P-12 airplane and good results obtained. The remaining guns will be distributed to the Squadrons and installed in the near future. Eight guns will be used to equip one flight of two-seater Pursuit type of airplane to be assigned to the 36th Pursuit Squadron. The remaining guns will be distributed to the other Squadrons to be mounted as fixed guns.

It is anticipated that the use of these camera guns in the tactical work of the First Pursuit Group will result in many enlightening comparisons. They will aid greatly in the solution of tactical problems of attack, formation and position. Many arguments should be eliminated or at least settled, for on each exposure of the film there appears the exact time of the exposure and the target ship (if a hit was scored). Especially important will be the use of camera guns in the work the Group will perform in the formative period of two-seater Pursuit tactics. Many interesting and instructive comparisons should result between the guns mounted on the two-seater Pursuit airplanes and the guns fixed on the single seaters.

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HIGH RANKING OFFICERS INSPECT MANEUVERING AREA BY PLANE

Probably at no time in the history of the Army have so many high ranking officers of the Army taken an airplane flight at one and the same time. This unusual incident occurred recently in the Hawaiian Islands during the course of the preliminary maneuvers held there as a prelude to the Joint Army and Navy Maneuvers which are to be held in February.

Prior to the final phase of the preliminary maneuvers, an aerial inspection of the ground positions occupied by beach defense units was made by the Commanding General of the Hawaiian Department and his staff, the Commanding General of the Hawaiian Separate Coast Artillery Brigade and by Sector Commanders and their staffs.

Of the 27 airplanes, including two Sikorsky Transports, which comprised the aerial inspection armada, 18 carried a total of 25 officers from other branches of the military service, including five General officers, two Colonels, two Lieutenant-Colonels, four Majors, seven Captains and five Lieutenants. These officers were: Major-General Briant H. Wells, Brigadier-Generals W.E. Cole, Henry

W. Butner, Otho B. Rosenbaum, John F. Madden, Colonels John S. Fair, Frank B. Watson, Lieut.-Cols. Sherman Miles, C.E. Delaplane, Majors Elkin L. Franklin, Francis M. Brannan, Manton S. Eddy, Abraham Tabachnik, Captains Lucas E. Schoonmaker, Lloyd S. Spooner, Harold G. Archibald, Edward E. Walker, Henry C. Harrison, Jr., Ernest T. Hayes, Nicholas Szilagyi, 1st Lieuts. George K. Withers, Russell G. Duff, Charles D. Palmer, 2nd Lieuts. Harlan C. Parks and Andrew . McNamara.

Army pilots who flew the 18-passenger-carrying planes were: Lieut.-Col. Gerald C. Brant, 1st Lieuts. Wendell B. McCoy, Wm. B. Clarke, Nathan F. Twining, 2nd Lieuts. Edgar R. Todd, Donald W. Armagost, Robert E.L. Choate, Sidney A. Ofsthun, Howard B. Lathrop, Jr., William E. Karnes, Ezekiel W. Napier, Edward N. Coates, Fay O. Dice, Leonard H. Rodieck, Wilfred Rotherham, Weldon E. Rhoades, Thomas B. McDonald and John C. Crain.

All officers making the flight were of the unanimous opinion that they were able to obtain a comprehensive idea of the disposition for defense in a matter of minutes rather than the hours that would have required had this same survey been made by any form of ground transportation.

The Air Corps is congratulating itself that we have here in the Hawaiian Department so many flying Generals who appreciate the possibilities and also the limitations of military aviation.

Of considerable interest was the ease with which observations were made from aircraft of the movements of designated objectives, particularly during the night problems. During the period November 4th to 6th, inclusive, the 18th Composite Wing remained on the alert night and day and carried out day and night operations, consisting of reconnaissance at sea, bombardment attacks, laying of smoke screens, attacks on ground troops, interceptions by pursuit, etc. During the heat of the combat, the 75th Service Squadron, at Wheeler Field, received orders to pull and install a motor at 2:00 a.m. This was accomplished in the fast time of two hours and 20 minutes.

Upon completion of these maneuvers, a critique was held by the Commanding General of the Hawaiian Department.

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BEAUTIFYING THE GROUNDS AT SELFRIDGE FIELD, MICH.

As part of the beautification program now under way at Selfridge Field, Mich., a large group of evergreen trees from different localities in Michigan were received. Lieuts. Llewellyn O. Ryan, Provost Officer, and Edward W. Maschmeyer were instrumental in securing these trees for the Post. These officers first located the types of trees they desired by flying to the various localities and interviewing Federal and State Forest Reserve personnel. Another trip to Lansing secured the necessary permission and aid from the State authorities, and Lieut. Maschmeyer then proceeded to Alpena to supervise the digging and collecting of young trees near there. A detachment of enlisted men was sent to Camp Skeel, Oscoda, Mich., and assisted Lieut. Ryan in procuring trees in the vicinity of Tawas, Michigan.

About 450 young trees from five to eight years old, including various kinds of Pines, Cedars, and Spruces were obtained. The digging parties were very greatly aided by both Federal and State Forest Reserve personnel. The trees were transported from Alpena and Camp Skeel by air to Selfridge Field, where they are now being transplanted in and about the new quarters and buildings which were recently completed at this station.

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SOME SHARP SHOOTING BY PILOTS IN HAWAIIAN DEPT.

A tactical exercise was recently held at Fort Shafter, T.H., involving aerial machine gun fire and bombing. Ground targets representing a battalion of Infantry were scattered in open formation, based on actual dispersion of a battalion when warned of the approach of hostile airplanes. The 26th Attack Squadron of Wheeler Field was designated as the organization to perform the mission. Of a total of 270 targets, 232 were struck, many of them having six or eight bullet holes each. This demonstration was witnessed with much interest by Major-General Briant H. Wells, Department Commander, and his Staff, and by Major-General Albert J. Bowley, Commanding the Hawaiian Division, as well as about a hundred officers of other branches.

GAS HELMETS FOR NON-RIGID AIRSHIP USE

Request was made of the Materiel Division, Wright Field, Dayton, Ohio, a short time ago for the design and procurement of a helmet to be worn by persons entering the gas compartments of airships of the internal suspension type for the purpose of making inspection or repairs. Work of this kind has been found necessary in connection with the ZMC-2 airship at Scott Field. Inquiry divulged the fact that, although nothing of this kind had ever been used in other government services, a crude helmet had been developed and used by the Metalclad Airship Corporation. This company, Air Corps officers cooperating, thereupon designed a more finished product for Air Corps use which is now under construction.

This helmet, made of two-ply balloon fabric, fits over the head somewhat after the fashion of a deep sea diver's, except that it is fastened tightly about the wearer's neck on a collar of adhesive tape. A window of pyralin, approximately 6 x 4 inches, is curved to fit the forehead and is held in place by adjustable web straps inside the helmet which encircle the back of the head. Padding between the window and forehead insures comfortable wearing and places the window at a proper distance from the face. This is the only part of the helmet fastened to the head, the space inside the helmet acting as an air reservoir. The air supply and exhaust lines are located near the wearer's mouth, the former being standard half-inch high pressure air hose, the latter, $1\frac{1}{2}$ inches in diameter, the difference in size preventing the building up of pressure in the helmet. The air supply hose is led into the ballonet through an airtight fitting so that pressure can be maintained in the envelope. The air exhaust hose, however, exhausts into the ballonet space. This is necessary because thus it is exhausting against a pressure equal to that in the gas space, and the pressure in the helmet is sufficient to cause it to distend fully. If it led outside the envelope into the atmosphere, the pressure of the helium on the helmet would cause it to collapse tightly about the wearer's head and there would not be enough reserve air in the helmet to allow a full breath.

The two hose are taped together at intervals and fastened to a harness worn by the person entering the ballonet. An extra air cylinder for safety is now on the back. A rip panel in the helmet makes it possible in emergency to get air to the wearer more quickly than by removing the helmet. The gas helmet is, however, safe and efficient and there is virtually no limit to the time which the wearer may spend in the gaseous chamber without ill effects.

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FRANCE FIELD OFFICERS PARTICIPATE IN FIESTA CELEBRATION

In accordance with the policy of the Department Commander to secure and retain friendly relations with the citizens of the Republic of Panama, a six-ship good-will mission was sent to David, Republic de Panama, for the fiesta and ceremonies marking the third of November (Panamanian Independence Day). Contact and friendly relations were immediately made upon landing, and were continued until the flight took off the following morning.

The fiesta began with ceremonies in the Plaza, which included public singing, patriotic addresses and formation drill by the police department. The ceremonies were followed by a dance at the David Club in honor of the Governor of the Province of Chiriqui and the France Field delegates. Following toasts to the Governor, the Spanish Consul, the Mayor of David, and other influential citizens, the Governor and his Staff were tendered a luncheon by the aerial visitors.

In accordance with "the old Spanish custom," the afternoon got under way with a Panamanian bull fight. This differs from the Spanish version in that none of the animals participating are killed or injured. The Toreadors, instead of being professionals, are merely volunteers from the ranks of spectators, and no one is barred from the arena. The only near tragedy occurred when a lively bull found his way into the arena (evidently by mistake or malicious design) and contacted a Toreador who was in the act of bowing to a senorita on the sidelines. The momentum of the bull gave him the advantage and, needless to say, he received the ovation of the multitudes, who by this time were in true fiesta spirit.

In the evening the France Field delegates tendered a dinner to the Governor and Senor and Senorita Jurado. The dinner was followed by the Governor's ball. The flight returned home early the next morning. Officers participating in the flight were Capts. George and Trunk, Lieuts. Bevans, Duke, Nugent, Hobbs, Moody and Cabell.

HUNTING TALES

"Several week-end hunting forays for deer, turkey, ducks, etc., are being indulged in by various personnel of the Depot from time to time during this season, with fair success," says the News Letter Correspondent from the San Antonio Air Depot, and continuing, "Lieut. C.E. Thomas, Jr., was the first at this Depot, we believe, to get a deer this season, and this was the outcome of a hunting party composed of Majors E.F. Harrison and G.D. Griggs, M.C., of Kelly Field, and Lieuts. Chapman and Thomas of this Depot.

The deer in question, it is understood, was conquered by as masterly a piece of military strategy and tactics as has ever come within this correspondent's knowledge. It seems that Lieut. Thomas had taken up a position, as a reserve force, so to speak, at a point commanding a critical salient of the proposed theatre of operations, and the other three members of the expeditionary force had succeeded in weakening the enemy by scouting and harrying engagements and had maneuvered him into a precarious situation where he would be exposed to an overhead and enfilading fire from the said reserve force, who thereupon, by a clever ruse in the nature of a feint attack upon the enemy's air unit (to wit, one pelican), gained fire superiority in the engagement and inflicted one hundred percent casualties on the quarry. Such is the official verbal communique from the scene of battle, and Lieut. Thomas was the recipient of many congratulations upon his prowess."

From Randolph Field comes the story that, as the turkey season opened in Edwards County on November 16th, Major Frederick L. Martin, accompanied by Lieut. Harold A. Bartron, drove up to the ranch of Mr. Joe Sid Peterson on the afternoon of the 15th in order to be on hand at the first crack of dawn on the opening day. Major Martin succeeded in killing his first wild turkey that morning, and by noon had gotten his season's limit of three. Being a much better hunter than Lieut. Bartron (who up to that time had failed to get any), Major Martin returned to the post, leaving Lieut. Bartron to the mercy of the wilds. "It is regretted," says the News Letter Correspondent, "that Major Martin was not personally present to verify the facts in the following story brought back by Lt. Bartron, which is that officer's own recital of the facts. Lieut. Bartron states, however, that witnesses can be produced in case any one is energetic enough to start an investigation as to his veracity, that is, if they will come down here and interview them." Lieut. Bartron's story is as follows:

"I was a member of a camping party consisting of Mr. Peterson, his brother, and two other hunters from Houston, Mr. Holcomb and Mr. Woods. As these gentlemen had just arrived, Mr. Peterson took them in tow and left me to do what I wished. I had informed Mr. Peterson that I thought I knew where some wild turkey gobblers were roosting, that I would try to locate the tree and wait for them to come in, but not to wait for me in case I was late. When I got back to camp they were standing in front of the car apparently somewhat worried because I had gotten there quite late and, as I came up, Mr. Peterson said: 'Now, listen here, we really have been doing things this afternoon. Let's hear your story first and then we will tell ours.' To which I replied, 'What is this to be, one of these mental poker games where the first liar has no chance, as he is sure to be raised by the next one?' and he said, 'In all probability, yes.' So I said, 'In spite of all these odds, here goes.'

"I reached the tree wherein I expected the turkeys to roost at about 4:00 o'clock and began examining the ground to see if there were any signs that they had been around. Squirrels were quite plentiful and apparently had not been molested, as they paid little attention to me. One in particular was burrowing in the ground about 15 yards from me, so I picked up a rock and threw it at him. He must have heard the rock coming, for he lifted his head just in time to have a head-on collision with the rock, and he rolled over dead as a mackerel. Knowing that my story would be disbelieved, I took the squirrel back with me for evidence and proceeded further for turkey signs.

"I came to a small cave running back into the rock as far as I could see (about 20 feet) and being 4 feet in diameter. The entrance to this cave was by means of a narrow ledge, not more than two feet wide, and as I stepped on this ledge trying to peer into the cave, I noticed a slight movement on the side of my foot and looked down to see a full grown rattlesnake. Fortunately, he was not coiled, but he was within a foot of my feet and I didn't have room to point the gun at him, so I backed off a few feet and shot his head off, and added his

rattles to my collection of evidence to take back with me to the camp. The rattles are still in my possession, fourteen in number, in case of any inquiries.

"I then proceeded a little further and located the turkey signs I had been looking for, and sat down to await their arrival. At last they flew in, about 100 yards up the draw from me, and I waited until it was almost dark. Moving slowly, I managed to get under them and by moonlight was able to shoot the largest gobbler's head off. (Correspondent's note: An inspection of the calendar reveals that there was no moon scheduled at the time this incident was supposed to have taken place). As my collection of evidence was by this time one which I considered sufficient, I made tracks for my car and, while driving to the ranch house, was surprised to see what I thought was a small dog cross the road, in front of my car. However, being naturally a quick thinker, it occurred to me about that time that there were no dogs in that part of the country and that this was probably a fox (about the most destructive vermin to turkeys that Mr. Peterson has to contend with) so I ups with my trusty 16 gauge gun and made him a present of a charge of number two shot, added his carcass to my collection and came into camp.

"Having told my story, I then informed them that I was ready to hear their story on a competitive basis, to which they very generously replied that even though such instances were rare, that this was probably one exception in which the first liar won by a complete majority."

This is Lieut. Bartron's story and he says he will stick to it.

The pheasant is a gallinaceous bird - the dictionary says so. It is also numerous, brilliantly colored, native to Asia but widely bred elsewhere. Patterson Field is a habitat, for instance. Several of the Wright Field officers had been suspecting for some time that it was too flourishing a habitat in a depression year; that the pheasants were having altogether too easy a time of it. So when November 15th rolled around, marking the opening of the hunting season, guns were brought forth and cleaned, fire-arm shops visited, wives instructed to withhold all meat and fowl buying, and neighbors whose poor husbands didn't hunt were consoled with vague but happy promises foretelling good eating and cheer.

It was not made clear to the writer just where the pheasants fell down on the job. Perhaps, birds not being the most completely intelligent of our lower forms of life - Fabre and Maeterlinck were never inspired by them for instance as by bees - the pheasants didn't realize the advantageous possibilities of Patterson Field for their own domestic purposes. Or perhaps they did realize those advantages but wouldn't drop when shot. For they must have been hit! Shots rang out all those ten days from November 15th to 25th. Such marksmen as Major Coleman, Lieuts. Cook, Caldwell, Martenstein, Powers and Corkille were afield. But so contrary were those gallinaceous birds that Lieuts. Martenstein and Powers, after tramping all day, came home with one bird between them. Whose gun coaxed it down is another of those mysteries that the world rolls on without solving. And that was better luck than many others could boast of who tramped desperately through the lush grass and swamps day after day, from dawn to dusk, aiming high and low. Lieut. Caldwell brought one home, but they do say it was Johnnie Corkille's shot and he just let Charlie pick it up. The truth is they both shot at it; but gossip is a malicious thing.

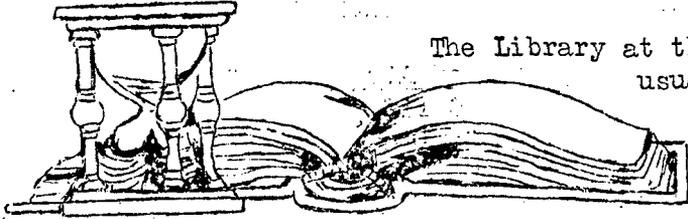
Oh, yes, for all the effect the hunting season had, pheasants may be well and widely bred birds at Patterson Field for another year.

The deer hunting season this year in Michigan found six mighty nimrods from Selfridge Field wandering towards the Northern Peninsula in search of the elusive buck. Included amongst these famous hunters were Capt. A.B. Ballard, Lieuts. Harry A. Johnson, H.T. McCormick, H.H. VanAuken, G.F. McGuire and J.V. Crabb. They arrived at Gladstone, Mich., late on the 14th of November, after pushing and pulling through the mud holes of an unused log road. Everybody was tired but hungry and managed to eat a big meal and get ready for the early morning hunting. On the first day, Lieut. Johnson distinguished himself by getting lost in a swamp. The rest of the party took a vote and decided to hunt him and bring him home, since he had the keys to his car. The Skipper, of course, claims that if the sun had not gone down he would have returned home okey.

The boys brought home one nine-point buck, but had to admit that one of the other men in the party shot him. It was a tough break, but next year, perhaps, better luck.

THE LIBRARY OF THE MATERIEL DIVISION, AIR CORPS

By Hope Thomas, Librarian



The Library at the Materiel Division, Air Corps, is usually termed an "aeronautical" library, but few people seem to realize how comprehensive that expression is. At least, if some of the requests for information are any indication;

many of them ask for "all you have on aeronautics," and others, who are more specific, for "everything you have on all types of airplanes." These requests, of course, cannot be filled until more definite information is furnished as to what is really wanted.

However, as the Library is primarily for the use of the engineers at Wright Field, it necessarily covers a great many subjects. Among the 6,500 volumes, one will find books on mathematics, mechanics, physics, chemistry, engineering materials, engines, electricity, radio, meteorology, and navigation, as well as those which fall under the direct classification of aeronautics. In addition, there is a patent and law library.

Books are not a reliable source of information about new developments, as aeronautics is a fast growing science. For reference and study of past performances, books are indispensable, and all new books on technical aspects of aeronautics are promptly added to the library. The most important data, however, are contained in the document files which comprise over forty thousand pamphlets and documents, each one of which is indexed under its subject, with such cross references as are desirable. These files contain reports on all test and development work of the Air Corps, reports from other engineering laboratories, manufacturers' handbooks, and reports from all over the world which are sent in by the military attaches. The majority of these reports describe specific tests, are very definite in character, and do not cover a subject in a general way. They represent, of course, the latest data available on a subject, with information still too new to be found in books or magazines. Technical reports are especially valuable, as they are written by men who are specialists in their subjects and afford authoritative information.

The library subscribes to about one hundred technical magazines, thirty of which are foreign. These magazines are bound at the end of the year and kept for reference. A card index is kept of the most important articles in magazines not listed in the Industrial Arts and Engineering Indexes.

Twice a week a list of new documents and books is issued. These lists are sent to aircraft manufacturers, aeronautical societies, colleges and universities maintaining an aeronautical course, as well as to other governmental agencies.

An important source of information is the photographic file, which comprises 42,485 negatives, 2,787 lantern slides, and a large number of motion pictures. These photographs afford a complete record of the engineering work of the Air Corps for the past thirteen years.

Although the library at the Materiel Division, Wright Field, is maintained primarily for engineers of the Air Corps, its policy is to cooperate with all who are interested in aeronautics. A great many manufacturers, universities, and individuals make use of the facilities offered. Documents are loaned outside the Division for a period of two weeks, if a duplicate copy is available. Others may be consulted in the library. All inquiries are promptly answered.

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LIGHTER-THAN-AIR ACTIVITIES AT SCOTT FIELD

Airship flying at Scott Field, Belleville, Ill., was somewhat restricted lately due to weather and the fact that only one ship is set up. Plans to increase the number of ships in commission will take effect late in the winter with the setting up of an E type bag to which will be suspended an included cabin. This cabin will be attached to the bag by internal suspension, the first time this type of suspension has been used by the Air Corps. The ship will be powered with two Lambert motors, which are rated at about 70 h.p. each. The capacity of this ship will be about 90,000 cubic feet, which is less than half the size of the TC type which is the type of airship now in use, and normally carries about four passengers.

Upon completing the set-up of this ship, an A type airship will be put together. This ship has a capacity of about 135,000 cubic feet, and it is expected to have it in commission about May.

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Office of the Chief of Air Corps, Washington, D.C. -

Captain Charles M. Savage, from Rockwell Field, Calif.

To Kelly Field, Texas: Captain Auby C. Strickland, from Hawaiian Dept.

To Chanute Field, Ill.: Captain Otto G. Trunk, from Panama Department.

To Bolling Field, D.C.: 1st Lieut. Donald B. Phillips, from Philippines.

To Philippines: 1st Lieut. Wm. D. Old, from Kelly Field, effective 5-25-32

To Panama: 1st Lieut. Harvey L. Boyden, Kelly Field, sailing March 10, 1932.

To Hawaii: Capt. Benj. B. Cassidy, March Field, sailing March 12, 1932.

To Maxwell Field, Ala.: 1st Lieut. Kenneth C. McGregor, Middletown Air Depot.

To Dayton, O.: Captain Hugh A. Bivins, from Fairfield Air Depot, for duty as Technical Supervisor in the Fairfield Air Depot Supply Control Area.

To Walter Reed General Hospital, Wash. D.C.: Captain Clarence B. Lober, Akron, Ohio, for observation and treatment.

DETAILED TO THE AIR CORPS: 2nd Lieut. Herbert C. Gibner, Jr., Field Art'y, and to Randolph Field, Texas, March 1, 1932, for flying training.

RELIEVED FROM DETAIL TO THE AIR CORPS: 2nd Lieuts. Elmer L. Thompson and Wm. H. Isbell, Jr., to Field Artillery, 2nd Division, Ft. Sam Houston, Texas; 2nd Lieut. Charles E. Frederick to 13th Infantry, Fort Adams, R.I.; 2nd Lieut. Frederick T. Berg to the 62nd Coast Artillery, Fort Totten, N.Y.

PROMOTIONS: Captain Wm. E. Lynd to Major, rank Dec. 1, 1931; To Captain: 1st Lieut. Emil C. Kiel, rank Nov. 25, 1931; 1st Lieuts. Harold L. George, Lewis A. Dayton, Younger A. Pitts, Howard Z. Bogert, Benjamin F. Griffin, Ward F. Robinson, rank Dec. 1, 1931.

RESIGNATIONS: Captain Clarence Edward Shankle; 2nd Lieut. Allen Joslyn Mickle.

RETIREMENT: 1st Lieut. Burnie R. Dallas, Dec. 31, 1931, with rank of Captain, for disability incident to the service.

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NEW BARRACKS FOR 23rd BOMBARDMENT SQUADRON

The War Department, having approved the construction of new barracks for the 23rd Bombardment Squadron at Luke Field, T.H., concrete was poured for the foundations recently, marking the inauguration of that organization's plan for a new area to replace the one totally destroyed by fire on June 15th. The Constructing Quartermaster, Captain J.E. Underwood, will disburse \$13,030.00, authorized for material for the 16 buildings to be erected.

The 13 sets of enlisted men's quarters will represent an innovation in Army housing. Each will be 16 x 32 feet and accommodate eight men. A large structure, 30 x 157 feet, will contain the kitchen, squadron mess, noncommissioned officers' mess, N.C.O. Club, while in an added ell, 34 x 140 feet, will be quartered senior non-coms. Headquarters building will be combined under one roof with supply, reading, and billiard rooms, occupying an area 40 x 127 feet. All construction will be frame on concrete foundations. Liberal use of wire netting in lieu of walls will be made.

As assistant to the Constructing Quartermaster, the Squadron Commander, 1st Lieut. John W. Warren, has his First Sergeant, John P. Grimme. It is planned to occupy the new barracks by Christmas.

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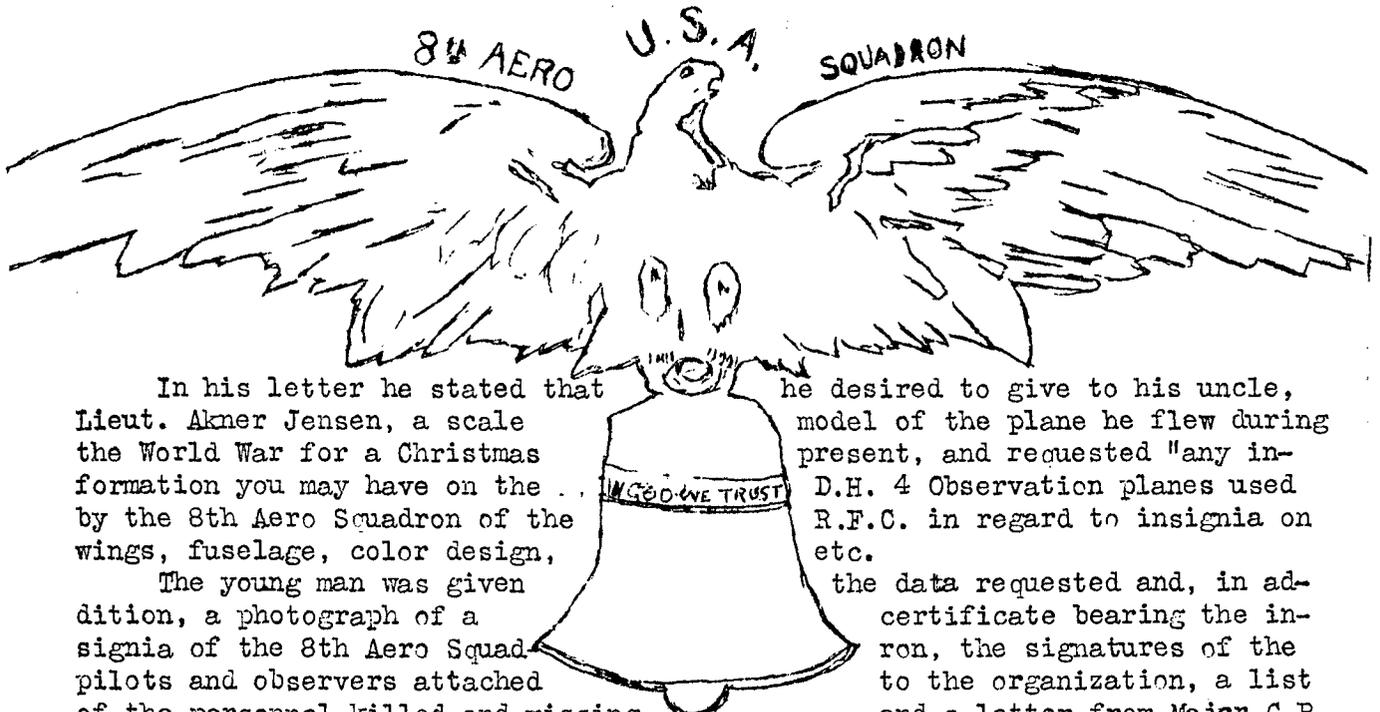
Captain Frank M. Hawks was a visitor at Wright Field, Dayton, Ohio, recently, arriving in his famous Travelair, the record-breaker of many standing marks in the United States, Canada and Europe. Captain Hawks served under General Pratt during the World War and was his guest while at the field. He was on his way from Wichita to New York.

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After months of talks and rumors, the famous American Clipper, the 42-passenger Sikorsky of the Pan-American Airways, became a reality when she came in to a landing at Floks River. Although Colonel Lindbergh remained at Barranquilla, Colombia, Mr. Sikorsky, the designer, accompanied the ship to the Canal Zone. He was the guest of numerous civilian organizations in the Canal Zone. Mr. Sikorsky called on the Commanding Officer of France Field, where many of the Air Corps officers had the pleasure of meeting him.

AN APPROPRIATE CHRISTMAS GIFT

Among the numerous requests received by the Information Division for photographs and data on aviation, and which are always cheerfully complied with as far as possible, perhaps none afforded the genuine appeal than the one received just recently from Herbert Jensen, of Bloomington, Ill.



In his letter he stated that Lieut. Akner Jensen, a scale the World War for a Christmas formation you may have on the by the 8th Aero Squadron of the wings, fuselage, color design,

The young man was given dition, a photograph of a signia of the 8th Aero Squad pilots and observers attached of the personnel killed and missing,

Summerall, Commanding General of the First Division, American Expeditionary Forces, France; September 15, 1918. This letter was addressed to the Commanding Officer of the 8th Aero Squadron, and reads as follows:

"I desire to express formally and in writing my thanks for the valuable assistance rendered by the 8th Observation Squadron during the recent offensive operations against the St. Mihiel Salient.

Under most trying weather conditions the Squadron carried out with marked courage and devotion its mission, contributing materially to this brilliant success of American arms.

To you and your fine command I desire to convey the thanks of the Division and myself."

The signature of Lieut. Anken Jensen appears among 57 odd varieties of handwriting specimens appearing on this certificate, also those of Captains Walter Bender and H.H. Young, the only members of this efficient organization who are still in active service with the Air Corps.

It is not known, of course, if Lieut. Jensen has in his possession a copy of the historical document above described. If he has not, the Christmas present of his young nephew will no doubt be a source of much surprise and pleasure to him.

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TANGLE IN A CLOUD

While in the descent of a multiple parachute jump for a motion picture news reel, recently, Sergeant Levi C. Schneider and Sergeant Lloyd T. Burval exchanged greetings in a cloud and, deciding that neither cared for the other's immediate company under the circumstances, parted after strenuous efforts, and meticulously avoided each other during the remainder of the descent.

Five men jumped from the Chanute Field Transport at an altitude of 6500 feet, for the purpose of permitting newsreel photographers to take motion pictures of the five parachutes descending into clouds and emerging from the bottom of the cloud bank. The wind at that altitude was estimated at 50 miles an hour. Sergeant Schneider jumped third, after Sergeant Burval has preceded him as the second to jump. The soldiers cleared the ship properly and the parachutes functioned in a normal live opening. Their objective, a large white fleecy inviting cloud, about 1500 feet thick, lay 1000 feet below them and to one side. Intent upon kicking holes in the cloud with their feet, the two

jumpers, carefully watching their direction, slipped their chutes. Just as Sergeant Schneider was within nice kicking distance, about to release his risers and float into the cloud, he received one of life's thrills by suddenly finding one pair of army issue shoes directly in front of his nose. By the size and general contour of the shoes, he at once recognized his friend, Sgt. Burval, who also had been intently navigating toward the cloud. Due to the high wind, the parachutes were oscillating violently, and before the two men had a chance to separate, Sgt. Burval was thrown thru Sgt. Schneider's shroud lines, his legs and body becoming entangled by the cords which wrapped around him. Both chutes had by this time been allowed to open full, but Sergeant Schneider's chute was flattened on one side by the lines of the other chute, and he began to drop more rapidly, dragging Sgt. Burval with him, the tangle becoming more severe.

As this happened, a hole was torn thru one panel of Schneider's parachute, causing it to fall still faster. Both had reached their objective together. They were in the center of the milky white cloud, and each violently wished that he or the other were somewhere else.

By what is considered exceptional headwork and methodical skill in this emergency, Sgt. Burval, jammed against the torn canopy of Sgt. Schneider's parachute, with many silk lines around his legs, while both chutes were oscillating wildly in the center of a white soupy cloud, with assistance from Schneider as far as possible, held the shrouds out from him and slowly disentangled himself. Finally he was free and swung away. But before they could effectively separate, they were again thrown together in oscillation, but this time freed himself more easily and again was free.

By this time each man was tired of the sight of the other, longed to get out of that cloud where such aerial combat was unfair, and, deciding that if he never saw the other again it would be too soon, each took immediate steps to hunt some other portion of the atmosphere. Burval slipped one way, while Schneider with his torn chute fell away rapidly, slipping out of the cloud in another direction. Burval dropped 500 feet below Schneider, who decided that there was no disgrace in remaining somewhat higher. Both then made normal descents, drifting about ten miles from their starting point and, from the latest information at hand, they are still friends.

- PROF WASH, Chanute Field.

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MORE "DOPE" ON RANDOLPH FIELD, TEXAS ✓

Landing Area: Kept in condition by a battery of multiple-unit tractor-drawn fairway mowing machines. Probably the best kept and largest Bermuda grass lawn in the country. Boundary lights around the field, and on inner side of the field are the hangars lighted up.

Approach: From the highway on the North. The gate house group is also of the Spanish type and is flanked by rows of pines and cedars. From here a two-road parkway runs south across one side of the landing area until it reaches the building group where it meets the Administration Building, which faces north. In front of the gate-house group, there are a pair of aeronautical Air Corps Insignia worked out in flowers and colored plants. At the Administration Building the insignia layout is repeated with the large letters spelling "Randolph Field."

Boulevard: Encircles the major portion of the building area, with native trees and shrubs lining it.

Recreation facilities: On the East side of the building area is the Main Athletic Field. Facing it is the Gymnasium. The enlisted men's swimming pool is between their barracks, also on the east side of the building area, and around this swimming pool is an open air theatre with a seating capacity for 1500. There are three swimming pools in all, and there may be still another for commissioned and noncommissioned officers and their families. These pools act as reservoirs for the sprinkling and fire-fighting systems on the post. They have sub-aqueous illumination for night use. In fact, the primary purpose of these pools was originally as reservoirs, with their construction adapted to make them suitable for swimming pools.

Nursery: An 18-acre tract at one corner of the field was used to transplant all native plants on the original field which were worth saving. It is now set aside as a reservation wherein trees and shrubs are cultivated for beautifying the field.

Barracks: In general, the barracks are finished similar to the quarters.

NOTES FROM AIR CORPS FIELDS

Maxwell Field, Montgomery, Ala., December 1st.

The flying of the Tactical School has been severely hampered by heavy haze caused by numerous forest fires in Alabama and neighboring States. In common with the air mail and other commercial flying activities, ships were left in the hangars while students devoted their attention to what General A should do.

Maxwell Field is indulging in congratulations on that rarest happening on Air Corps posts - promotions. First Lieut. W.R. Peck was promoted to the grade of Captain, and Capt. Will Gooch, QMC, was promoted to the grade of Major. Appropriate ceremonies commemorated each event, but no amount of ceremony can accustom Peck to his new dignity. Not so with the Quartermaster.

Maxwell Field is rapidly becoming accustomed to being inspected by dignitaries. It was honored recently by an inspection by Hon. W. Frank James, M.C., Chairman of the Committee on Military Affairs, House of Representatives. Mr. James expressed great interest in the program of construction, and in a press interview sponsored the establishment of a Squadron Officers' Course as a part of the curriculum of the Tactical School. This matter also has the intense interest of Mr. Lister Hill, Member of Congress from this district, and from press expressions it would appear that the convening Congress will receive bills destined to make the new course an actuality.

Maxwell Field was also visited by Major-General Robert U. Patterson, Surgeon General, and Major-General Stephen Fuqua, Chief of Infantry. Both officers expressed great interest in the development of the Tactical School.

Another inspection of a totally different kind was made by Major Junius W. Jones, of the Office of the Chief of the Air Corps. The results of this last inspection will probably be received with great interest by certain gentlemen on the staff.

The personnel of Maxwell Field supported the drive for funds of the local Red Cross and Associated Charities to the tune of approximately \$1,200.

A very interesting and instructive lecture on Aerial Navigation was given the Post by Lieut.-Commander P.V.H. Weems, USN. Fortunately for our embryo navigators, poor flying conditions have prevented any attempts at practical application of this lecture.

The equitation class of the school continues practice as well as disgusted horsemen. The former swell the ranks of the Hunt Club on their Sunday rides, to the derision of the latter. The foregoing is almost equally true of the Ladies' Riding Class.

Armistice Day and Thanksgiving were observed in the customary Air Corps manner.

Scott Field, Belleville, Ill., December 9th.

Against keen competition, which included both American and Canadian birds, Scott Field homing pigeons made an excellent cleanup of awards at the Chicago Pigeon Show from December 1st to 6th.

Lieut.-Colonel John A. Paegelow, post commander, who personally pays all the expenses of entering and shipping the birds, entered 14 pigeons in this show, and the final results showed eight firsts, five seconds and one fourth. The premier prize in the homer class, a cup for the best homer in the show, was captured by "Colonel John A. Paegelow," the bird which won the same prize in the National Show last year. Another crack Scott Field bird, "General Frank Parker," took top honors in the class for 1931 birds.

Staff Sgt. Max Bronkurst, Scott Field pigeonier, sent many of the Chicago prize winners to the Cairo, Illinois, Show, which opened on December 9th, and expects to see the birds capture a big portion of the homer awards. From the showing made at Chicago, he also has high hopes for the Scott Field entries in the National Show at Louisville, Ky., in January. The National Show will complete the schedule of showings for the season.

Mather Field, Mills, Calif., November 27th.

The Communications Officer at Mather Field claims to have found a new one to add to the list of thousand and one things that may go wrong with his G.I. radio transmitter. It seems that on a recent bright morning, with outgoing messages piled high on the operator's desk and the dits and dots stringing through

the ether in proper and rapid sequence, the transmitter suddenly quit - finally and completely. A check revealed a short condenser. It was replaced. The operator essayed to test his transmitter. "Click" and another condenser was shot.

"Ah, hai" says the operator, "I smell a rat." And he did! A mouse, curious as to why all the electric lights were left burning in the daytime, had crawled into the set and with his body shorted the current in the key leads. Now he is gone but not forgotten. Every time the transmitter is used, the radio room is freshly charged with an odor of frying rat. Very appetizing.

The inter-squadron basketball league at Mather Field developed a very interesting series of games. To date, with three games behind each of the four teams, the 55th Squadron's outfit, with Lieut. H.A. Berger as coach, has a decided edge, having won three out of three, and by high scores.

Regarding the high (and very cold) winds of the past week, several of the bachelor officers claim to have run a series of wind tunnel tests in the halls of their quarters, with all the doors and windows shut.

Patterson Field, Fairfield, Ohio, November 25th.

Major A.L. Sneed, Commanding Officer, ferried a P-12C to Maxwell Field on November 20th, this plane having been overhauled at this station. While at Maxwell, Major Sneed conferred with the Commanding Officer regarding the coordinating of matters to be discussed at the Engineering-Supply Conference scheduled for December 1st to 4th.

Visitors at this station during the past two weeks included Captain Connell, Chanute Field, Nov. 9th, ferrying a BT2 for major overhaul, returning the same day ferrying a YF1 to his home station -- Eight civilian pilots in commercial planes Nov. 10th, enroute on cross-country missions -- Captain Herold, Lambert Field, Nov. 12th, ferrying a BT-1 for major overhaul -- Lieut. Shanahan, pilot, and Captain Dunn, passenger, Middletown Air Depot, Nov. 13th -- Majors Brett, Brower, Lieuts. Lowry, Heiman, Sillin and McLaughlin, Selfridge Field, Nov. 13, ferrying Pursuit planes for major overhauls -- Lieut. Walthal, Bolling Field; Lieuts. Veigel and Hart, Lunken Airport, and Sgt. Swisher, Chanute Field, Nov. 16th, ferrying planes for major overhaul at this station -- Lieut. Horn, Nov. 17th, ferrying an O2-H for major overhaul -- Lieuts. Bradley and Todd, Selfridge Field, Nov. 19th, ferrying P-12 and O4B, respectively, for major overhaul.

The Engineering Department during October performed major overhauls on 18 airplanes and 47 engines, and minor overhauls on 31 planes and 28 engines.

Lieut. R.L. Williamson, pilot, and Mr. Merklings, mechanic, flew to Mt. Vernon, Ohio, Nov. 25th to make necessary repairs to an O-25A plane, flown by Lieut. Sparhawk, of Chanute Field, which was forced down due to engine failure.

Lieut. C.S. Irvine drove to Battle Creek, Mich., where he entered the hospital and submitted to a gangrenous appendicitis operation. He is convalescing very nicely at this writing.

Lieut. F.M. Zeigler, pilot, and Lt.-Col. L.E. Goodier, Jr., passenger, flew to Wooster, Ohio, Nov. 23rd to obtain shrubbery in connection with the nursery which is to be started at this station.

Lieut. G.V. McPike, pilot, and Mr. L.M. Hill, passenger, made a cross-country flight to Lunken Airport November 5th.

Lieut. Melvin B. Asp ferried from Wright Field to Crissy Field on November 5th a BT-2B plane, and ferried an O-25A on his return journey, having as his passenger Mr. Albert de Obarrio, Representative of the Republic of Panama Consular Service of the United States, who made a good-will tour of various Consular Posts en route. Lieut. Asp took the northern route out - Dayton, Omaha, Cheyenne, Salt Lake City, Reno and San Francisco, and the southern route back - San Francisco, Los Angeles, San Diego, Tucson, El Paso, San Antonio and Dayton. The trip from San Antonio to Dayton was made in one day - 9 hours, 50 minutes.

Lieut. D.R. Goodrich, pilot, and Major M.C. Grow, passenger, flew to Battle Creek, Mich., Nov. 2nd to visit Lieut. C.S. Irvine, a hospital patient there.

France Field, Panama Canal Zone, December 6th.

Although the past few weeks at France Field were not crowded with events of general interest, a few have occurred of a nature which will interest former members of the Post now on active duty in the States.

With the dry season "just around the corner," the weather has been such that

to speak of it as being wet would be entirely inadequate. Slightly more than 18.1 inches of rain fell during the period from November 1st to 16th, so one may safely assume that the flying program here was fairly well shot to pieces.

Only two cross-country flights of any importance occurred during the past month and a half, and both missions were carried out successfully. One of the missions was from Langley Field, Va., for the purpose of ferrying three B-3A Bombers to the Canal Zone. Headed by Major L.G. Heffernan, Captains R.N. Ott, R.B. Knapp, and Lieuts. L.D. Fredericks and J.G. O'Neal made the trip. Good weather was experienced until the flight reached Costa Rica, where storms prevented them from reaching San Jose. A forced landing was made at Punta Arenas. Every courtesy was extended to the pilots by the countries over which the flight passed, and the utmost cooperation was tendered by the Pan-American Airways through services rendered at their various landing fields. The pilots discovered many inaccuracies in the maps that were used, and it has been suggested that all pilots flying this route report their observations so that the maps may be corrected.

A good-will flight that reached international proportions was made on November 17th, when Major L.H. Brereton and Lieut. E.E. Partridge took off in an Army Sikorsky for a tour of capitals of Central American Republics. Accompanying them were Col. Fred D. Cruse, retiring Military Attache with headquarters at San Jose, Costa Rica; and Major A.R. Harris, who will succeed Colonel Cruse. The trip was highly successful and stops were made at San Jose, Costa Rica; Guatemala City, Guatemala; San Salvador, Salvador; Managua, Nicaragua; Tapachula, Mexico; and Tegucigalpa, Honduras.

Mitchel Field, L.I., New York, December 13th.

Mitchel Field has been pretty much in the doldrums lately as a result of the bad weather curtailing our flying. There have been just two breaks in the monotony of a rather humdrum existence. The first caused a good deal of excitement momentarily but didn't last long and ended very peacefully. Three general prisoners attacked their guard and, after knocking him down and taking his gun, escaped from the Post. They were retaken very shortly, however, by the guard which had immediately turned out. In fact, they were retaken before the majority of persons at Mitchel Field realized what the alarm was about. So the brief flurry of excitement subsided and we returned to our occupation of berating the weather and sulking.

The other event was more interesting and has served to brighten up the week end for us. I mean the Army-Navy football game here in New York. Most of Mitchel Field and their guests turned out for the game, and a good time was had by all except the Navy. Several officers came up from Langley Field for the game - and what a game it was! From all we can gather, their trip certainly was worth while, even if it was just for the entertainment that was supplied at the Astor Hotel after the game. The weather was rather bad on Sunday, and we had hoped that they'd have to stay a day or two longer, but it seems New York was too much for them and they wanted to get home. Again we sink back into our lethargy at least until the Christmas Holidays.

Several dances had been planned for the period, but at the last Officers' Call a unanimous vote caused the entertainment committee to change its plans and put all its eggs in one basket. Present plans call for a colossal party on New Year's Eve, and we're all looking forward to it with much gusto.

Boston Airport, Boston, Mass., December 1st.

Hollywood will have to look to its laurels! With Captain Joseph A. Wilson as director and Lieut. Rohrback, of Bridgeport, Conn., as staff photographer, a movie was made recently at the Boston Airport. The "atmosphere" was provided by nearly all the Reserves who fly from Boston during the year, and the story - well, we won't go into that.

Scenes were made on the ground and in the air; comedy and pathos were injected into the film, and in all a fine picture was produced. At a screening held in Captain Wilson's quarters, it is understood that the film was a big success. This preview was held in accordance with "Hollywood" ritual. The film will now be released generally in all parts of - well, it is to be shown at our next regular meeting of the Air Reserves Association.

Lieut. Glenn C. Salisbury is giving intensive training to the Reserves in close formation flying. When we say close, we mean CLOSE. Every Saturday, when most of the gang is at the airport, Lieut. Salisbury takes different pilots out for half hour training periods. With Lieut. Salisbury leading, and usually Lieut. Hixson (formerly of Selfridge Field but now studying at M.I.T.) on the right, a Reserve Officer is placed on the left. Various formation maneuvers are in order, and if the officer hugs the leader's ship very closely throughout, he has passed his test. If not, Lieut. Salisbury has him up for another workout at a later date.

It is evident that Lieut. Salisbury, who is in charge of Reserve activities

and training, believes in real training, and the boys are enjoying the workouts.

Recent formations have been sent over various affairs of military nature, including the recent unveiling of a monument in Amesbury, Mass. Capt. Joseph Wilson led the formation to his home city, with Lieut. Griffin as passenger. In the other ships were Lieuts. Wm. Tanner with Sgt. Breen, O.P. Pierson with Jos. A'Hearn, C. Parker with Edward Newhall and "Mike" Harlow with Meyers as passenger.

The grief of the Reserves on learning that the PT-1's are to be dismantled and presented to accredited schools or colleges for ground school purposes was surprising to note. Several of the officers were seen to bury their heads in their hands, and their shoulders heaved and heaved. It was rather doubtful whether the heaves were from laughter or tears. We leave that to your imagination. We would like to see a couple of those PT-6A ships, as we understand that these "Fleet's" are nice jobs, but we are perfectly satisfied with the PT-3 and Ol-E jobs we have.

Hqrs. 18th Composite Wing, Fort Shafter, T.H., December 1st.

Upon assuming command of the Hawaiian Department, one of the first inspections made by Major-General Briant H. Wells was that of the Fifth Composite Group at Luke Field. Airplanes and flying personnel and equipment at Luke Field were inspected, the General being accompanied by Lieut.-Col. Gerald C. Brant, Wing Commander, and Major Maxwell Kirby, commanding the Fifth Composite Group. The General was greeted by a 13-gun salute. Following the inspection, 18 planes flew in a review formation by squadrons.

Fifth Composite Group, Luke Field, T.H.: Flying training for the month consisted of formation, night, cross-country, communication and instrument flying, aerial photography, aerial bombing, camera obscura, aerial reconnaissance, aerial navigation and maneuvers in conjunction with other branches of the service.

On Oct. 16th, the Sikorsky airplane from this station, with 2nd Lieut. Pearl H. Robey, pilot; Pvt. 1st Cl. Charles F. Bibbs, Crew Chief; and Pvt. Morley S. Roberts, Radio Operator, also, as passengers, Major J.H. Brooks, Medical Corps, and Mr. A. Mullen, civilian contractor, made an airways flight to Port Allen, Kauai, the purpose being to inspect the installation of service tanks at the Airport at that place.

The Department Commander, Major-General Briant H. Wells, made a general inspection of this Group Oct. 23rd.

The 23rd Bombardment Squadron and the 4th Obs. Squadron are tied for first honors in the inter-squadron Basketball League, each with two wins and one loss. Lieut. Pryce, coach of the Basketball Team of the 23rd Sqdn., is trying to keep his team on top. Lieut. Boyd caused the upset of the season when he led the 72nd Bombardment Squadron team to a win over the strong 23rd team.

Boxing started off with a bang under the direction of Lieut. Thompson, the Post Boxing Coach. Results of the first smoker, held Oct. 28th, were as follows:

23rd Bombardment, 60 points; 72nd Bombardment, 50; 4th, 50th and 65th Obs. Squadrons, 40, 20 and 15 points, respectively. Pvt. Mitchell, of the 50th Obs. Sqdn., a recent arrival from Ft. Benning, Ga., was the star knuckle duster.

On October 21st, the Field was treated to an exhibition of super wrestling, at which time "Al" Karasik met and defeated "Bull" Montana. The groan and grunt struggle was very interesting.

The Field Volleyball Team is leading the Sector League with 3 games won and none lost. Remaining games are with Forts Kamehameha, Derussy, Shafter and Armstrong.

Captain Ulysses G. Jones, formerly Commander of the 50th Observation Squadron, departed Oct. 24th for his new station. Upon the departure of the CHATEAU THIERRY, which also carried Capt. John P. Temple, both were given a final farewell and "Aloha."

Captain and Mrs. Carl F. Greene and 1st Lieut. Charles G. Brenneman were recent arrivals here. Capt. Greene was attached to the Hawaiian Air Depot and Lieut. Brenneman to the 50th Observation Squadron.

On Oct. 15th, the 4th Observation Squadron returned from Waimanalo, where they had been for Field Training. While there, the Squadron was engaged in a heavy and extensive schedule in aerial gunnery on ground targets, low altitude bombing and radio communications. Several officers participated in aerial gunnery and bombing, and the official scores showed Lieut. G.W. Peterson as high man with a score of 648, in Event I. Lieut. D.D. FitzGerald, Squadron Commander,

was the best in Event IV, with a score of 504; and Lieut. D.Z. Zimmerman won the bombing with 148. The Squadron also participated in a night reconnaissance mission over Pearl Harbor for the purpose of locating transports or landing parties by the use of pyrotechnic illuminants and furnishing information thereby gained. Three planes of this Squadron took part in this mission, with Lieuts. Zimmerman, Ofsthun, Dodson, Rawlings and Peterson taking turns as pilots and observers. The mission was performed in a very commendable fashion.

We are sorry to announce that Lieut. and Mrs. Donald W. Titus are ordered back to the mainland. The Hawaiian climate did not agree with Lieut. Titus, and he was forced to leave our midst. Lieut. Fay O. Dice, who has been with us for just a few weeks, was transferred to the 50th Observation Squadron.

Hawaiian Air Depot, Luke Field, T.H. The Air Depot was the center of activity during October. In addition to the routine duties of the various departments, a general cleanup was inaugurated, which prepared for a tour of inspection from the Commanding General, Hawaiian Department. Everything was painted and shined until every last vestige of dust and dirt had been removed, and when the General made his inspection every spot in all the shops was immaculate. Of course, we were not exactly slovenly before the inspection, but there were corners that had not seen light for some time. Such corners are a thing of the past, and everything was literally gone over with a fine tooth comb.

The activity seemed contagious, and a spirit of neatness and cleanliness permeated the whole Depot. Each section attempted to outdo the other, with the result that each was well nigh perfect. There is some talk now among the civilian employees of getting the standard airport white jumpers for wear in the shops. They contemplate having the name of the organization, Engineering Department, H.A.D., sewed on the backs of the suits in red. This idea originated in the Inspection Department and is meeting with approval all along the line. It is about the only thing that is needed to make our shops on a par, as far as appearance goes, with the most up-to-date and modern shops in the country.

The Dope and Fabric Department, after a wait of four years, have at last started a dope storage building. The foundation has been laid and, using old airplane crates, the construction of the building is going forward at once. The present Dope and Fabric building is badly infested with termites, and for the information of those on the Mainland who have never seen termites in action, we can say that they thrive on wood and frame buildings. Often it is impossible to tell that termites are at work until some rafter crumbles and it is discovered that the whole interior has been eaten away. All of the newer construction in the Islands is guarded against termite infestation in various ways, such as treating wood with creosote and raising all buildings on concrete bases.

On October 16th, Lieut. P.H. Robey, Mr. D.L. McClelland and Mr. Charles Smith, of the Depot Supply, flew to the Island of Kauai to inspect servicing equipment at Port Allen Landing Field.

The Machine Shop completed 61 jobs on work orders and about 180 on instruction slips during the month.

During October, the Final Assembly accomplished two major assemblies of B5A planes, two major overhauls of O-19B planes, in addition to four minor overhauls.

The Engineering Department was intensely interested in the two-place glider which was recently completed. Trial flights were made which proved very successful. News Letter report will be able to give some first hand accounts of the experiences of the test pilot and the results of the tests.

Wright Field, Dayton, Ohio, December 12th.

The first delivery of baskets to the needy by the Wright Field Sunshine Club for this season was made Nov. 21st. The Club, composed of all Wright Field employees who contribute to the Sunshine Fund (collections being taken up each Friday), donated baskets last year to an average of 35 families each week. This year the Committee hopes to help a greater number. Families are reported by Wright Field employees to Miss Lackner, the Field Nurse, who investigates the case and sees that help is given if the object is worthy. The baskets are made up for distribution at the Field and delivered each Saturday morning. The committee in charge of this work is made up of - Chauncey Jones, Chairman; W.W. Cummings, Secretary and Treasurer; Hilda Lackner, Investigation and visitation; G.E. Stoll, preparation of baskets; P.P. Walsh, delivery of baskets.

Major J.J. Davis, Air Reserve, reported for two weeks' active duty at Wright Field December 7th, and was assigned to Industrial War Plans Section.

Lieut. A.F. Hegenberger, R. Bussdicker of the Legal Branch, and Newton Lumm of the Instrument Unit flew to Washington Nov. 16th for conference with the Bureau of Standards regarding research work on the induction compass. The Engineering School flew to Cincinnati in nine planes on Nov. 18th to visit several industrial concerns in that city in connection with their school courses.

Lt. J.F. Whitely visited Burbank, Calif., to inspect the mock-up of a new Lockheed plane, going on to Rockwell Field to ferry a plane back to Wright Fld.

Capt. A.W. Stevens, piloted by Lt. J.F. Philips, took off for Crissy Field to photograph the Sacramento and San Joaquin Valley with a view to preparing navigation charts for these areas. In this work for the Coast and Geodetic Survey, the Air Corps T-3A or five lens camera will be used. It is especially well adapted for this work because of the large angular field included in each photograph.

Capt. L.C. Hurd, Air Corps Representative at the Curtiss Co. plant, Buffalo, N.Y., and last year a student of the Engineering School, Wright Field, arrived here Nov. 27th for a conference on contracts.

Lieut. C.S. Thorpe and Major J.L. Hatcher, Ordnance Dept., flew to Bolling Field and Dahlgren, Va., for a conference on bomb sight developments on November 10th. On the same day, Dr. S.M. Burka left for Rockwell Field for a stay of approximately six weeks to witness bomb sight tests at that station.

Lt. C.D. McAllister and Capt. D.L. Bruner flew to Detroit Nov. 24th for a conference with General Motors Research Corp. regarding landing light reflectors.

Present at the Supply-Engineering Conference on Dec. 2nd to hear Major Howard's address were Major Gerald Brower, Capt. Rowland Blessley and Lieut. Harry Johnson, who flew in from Selfridge Field.

Major G.H. Brett, Selfridge Field, was a visitor here November 14th.

Lt. E.C. Langmead and Lt. H.R. Wells went to Buffalo Nov. 12th to ferry here two new primary training planes from the plant of the Consolidated Company.

Capt. R.C. Moffatt left for Bolling Field Nov. 13th to ferry the C-4A to Wright Field.

Lt. P.S. Kemmer with R.S. Carpenter, Electrical Unit, flew to Pittsburgh, Philadelphia and Teterboro, N.J., and North Beach Airport for conference with steel contractors.

Three representatives of the Ernest Heinkel Flugzeugwerke, Warnemunde, Germany, Richard M. Mock, Siegfried Gunter and Willy Swagert, were guests at the Division on November 19th.

Lieut. R.S. Heald left November 20th for a tour of various Ohio and Indiana cities in connection with procurement activities.

Capt. J.G. Taylor, A.J. Lyon, Lts. D.W. Watkins, J.A. Woodruff, W.G. Smith and A.R. Crawford visited the plants of the Boeing and Douglas Companies, Seattle, Wash., and Santa Monica, Calif., late in November to inspect mock-ups of new airplanes.

Brigadier-General H.C. Pratt left for Washington November 21st for a conference with the Chief of the Air Corps.

Lieut. R.J. Minty ferried in a new Pursuit plane from the plant of the Verville Company to Wright Field on November 21st.

Capt. A.W. Vanaman flew a YPT-11C to Randolph Field for service test, Lt. B.W. Chidlaw flying a second plane of the same type to the same station.

R.E. Hoffman, Power Plant Branch, traveled to Paterson, N.J., to witness tests of engines at the plant of the Wright Aeronautical Corporation.

Master Sergeant David Samiran left the Field Nov. 21st for Denver, Colo. for a period of outdoor living and rest. He will be remembered for his excellent work in connection with the development of the fuel segregator which is proving exceedingly useful equipment at the field and elsewhere. It is hoped his health will be completely restored by the western sunshine and good care.

Lieut. R.J. Minty flew to New York to carry out tests on a Sperry automatic pilot installed in the C4A airplane and to take an automatic pilot, formerly installed in the plane, to company headquarters for adjustment.

Lieut. J.L. Davidson, a student of last year's Engineering School class, was transferred from the Armament Branch to the Technical Data Branch. He returned recently to Wright Field after a period of temporary duty in Washington.

Capt. Bruce Hill left for New York Nov. 30th to witness a demonstration of map contouring methods made by the American Geological Society.

Major L.A. Walton, former Assistant Chief of the Engineering Division at McCook Field, is at present on temporary duty at Wright Field, and it is good to see him about among his old associates. On December 7th he flew to Washington for a conference with the Chief of the Air Corps.



On Thanksgiving morning the Selfridge Football Team wound up its season by defeating the Oak Cleaners of Royal Oak, Mich., 32 - 0. Last year this team was runner up in the Detroit Industrial Semi-Pro League, and this fall had already defeated last year's champions. However, Selfridge outplayed the visitors and had little difficulty in stopping their attack.

The first score was made on the opening kick-off, which Saums ran back for a touchdown. Soderstrom kicked the extra point. Early in the second quarter, Tatham scored on a pass, but missed the extra point. In the same quarter, Saums, receiving the ball on his 40-yard line, started a tricky run down the field, and after reversing his run three times, crossed the goal line. Strong^{scored} in the third quarter and early in the 4th Berger completed a pass for a touchdown.

The Selfridge Football season was completed with six victories and one defeat. Victories were scored against the Marine City Merchants, 12-6; Scott Field, 6-0; Port Huron Merchants, 32-20; Fenten Athletic Club, 44-0; Michigan Avenue Merchants, 29-0 and Oak Cleaners, 34-0. The lone defeat was sustained at the hands of the University of Detroit Freshmen, 0-12.

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Chamute Field defeated Scott Field in a hard fought battle on November 29th on a muddy, slippery field, by the score of 7-6. This is the first time in history that Chamute has ever beaten Scott. The touchdown was made in the final period when Chamute blocked a kick which rolled back over the goal and was recovered by Joe Stinchcomb after Charlie Coleman and a Scott Field man had missed it. Lester kicked the extra point which gave Chamute a one point lead over Scott and incidentally the game.

Scott made the first touchdown early in the first quarter when, recovering a blocked kick on Chamute's ten-yard line, they carried the ball over in a few plays. A forward pass for the extra point was knocked down.

Slow in getting started, Chamute made no progress in the first half, but in the second half their plunging backs tore holes through the Scott line. Most of the gains made by Scott Field were on long end runs and passes.

After Chamute made the touchdown and kicked off to Scott, the latter team opened up with an aerial attack, marching up the field on a series of passes to Chamute's ten-yard line. Here a Chamute Field end intercepted a pass and ran it back to the 50-yard line. Chamute started a march down the field to what appeared another touchdown when the final whistle blew.

So ends the season for Chamute Field - a mediocre season turned into a successful one by defeating Scott for the first time in history. Chamute won three games, lost three and tied two.

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Selfridge Field, Mt. Clemens, Mich., December 8th.

SELFRIDGE FIELD HAS A FIRE, WRITES ABOUT IT AND WINS AIR CORPS
NEWS LETTER MEDAL

Outstripping all entrants, even the Elatant Ballyhoo from the Correspondent of a certain post, located 22 miles east of New York; the Pigeon-Pushing Pressmen of Scott; yea, even Lieut. Eareckson's hot-hot line, the Selfridge Field Correspondent of the News Letter wins this publication's Semi-Occasional Prize* for Rhetorical Endeavor.

The prize winning sentence is the underscored one of the following:

"One of the few remaining old wooden hangars was completely destroyed at Selfridge Field on December 8th when fire, which broke out in the furnace room, quickly spread to other parts of the building. The bitter chill of a wintry December day was tempered as the flames, feasting ravenously on the dry wood and beaver board hangar of wartime construction, rapidly engulfed the entire structure."

* The prize consists of the collection of Xmas bills of the News Letter Editorial Staff.

But to go on with this story in a serious vein - our Correspondent goes on to say that the fire was started by the explosion of a plumber's pot which was being lighted in the furnace room of the hangar. This plumber's pot, of an approved type used in the Air Corps for heating airplane motors, was being ignited preparatory to starting a recalcitrant motor in a plane on the flying line. The pot had just lighted and was being lifted from the floor when, from a cause undetermined, it exploded, painfully burning Staff Sgt. Raymond Whitehead and Sgt. Ford M. Swiney, who were handling it.

Due to the inflammable material from which the building was constructed, the flames rapidly spread in spite of all the post fire apparatus which was brought to bear upon it. Attention was turned to getting out the airplanes and equipment, and with heroic efforts all airplanes and most of the equipment were removed. Soon nothing remained except the concrete floor under smouldering ashes.

The hangar was one of the original post buildings built during the war period. It was due to be torn down shortly to make way for new construction.

The Commanding Officer of Selfridge Field received the following letter from Mr. Morton C. Page, Secretary, Exchange Club, Board of Relief, Mt. Clemens:

"It is with deepest appreciation that we extend our thanks for your contribution ---- for the relief of the families of the unemployed of Mount Clemens. It is gratifying that we have the support of your organization and that you have displayed your confidence in us. We assure you that the money will be used judiciously at points where it will do the most good for the greatest number of people."

17th Pursuit Squadron: On Nov. 29th, Captain Hoyt returned from Walter Reed General Hospital, where he had been since September 1st, undergoing a kidney operation and convalescing therefrom. All officers welcomed the Captain with much enthusiasm after his long absence.

Lieut. Coolidge had a slight disaster while returning from a cross-country to Chicago on Nov. 29th. His story is that the weather closed down on him and that, together with darkness fast approaching, made him decide to set his fast Pursuit ship down immediately. As he stated in his own words, "I deemed it advisable to land." The field was a bit rough and rolling upon landing his left wheel gave way. On his second landing the other wheel collapsed and he finally ended up on his back after skidding along on the "Belly Tank." The ship was washed out, but Lieut. Coolidge escaped unhurt and wiser.

Five regular officers reported to the Squadron the past month from Kelly Field - Lieuts. Schlatter, Mason, Blanchard, Castle and Burnett. Two Reserve officers also reported, Lieuts. Hughes and Wilson.

Lieut. Strunk decided that automobile designers need coaching. Not liking the looks of his Packard roadster, he tried to alter its lines with a telephone pole rampant on the radiator. He met with too much success and so traded for a Buick. The Buick's lines were soon changed by contact with another car, and Lieut. Strunk drove for some time with goggles instead of a windshield. He says it makes his hair curly. Everyone eagerly awaits new developments in design from this master craftsman.

The 17th Squadron now occupies half of one of the new hangars - sharing the whole with the 36th. The old hangar of the 17th is over-run with the fire department and the house for disabled hand-ball players.

36th Pursuit Squadron: On Nov. 20th, the 36th sponsored one of the most attractive dances of the winter season. The dance was the first to be held in the new Officers' Club since its completion. The Club, which was formerly the Commanding Officer's quarters, was attractively decorated. Among the guests was Miss Katherine Fechet, who was paying a brief visit to Selfridge Field.

Captain E.C. Whitehead, Commanding Officer of the 36th, accompanied by Lts. Vaupre, Sillin and Franklin, spent several days in northern Michigan at Camp Skeel, the aerial gunnery camp of the First Pursuit Group, where they service-tested a wing gun installation in an XP-1B airplane.

On December 3rd, the Squadron lost one of its officers by transfer when Lt. Emmett F. Yost departed for the Hawaiian Department.

Since the last News Letter, the Squadron gained a number of new officers, all recent graduates of the Air Corps Training Center. Three Regular Army officers were assigned and nine Air Corps Reserve officers attached during the month.

27th Pursuit Squadron: November offered to the Squadron the usual number of flying days, the usual number of airplanes, and the same deplorable lack of allotted time. For the first twenty days of the month, pilots stormed the Operations Office demanding time, and received time -- sitting around the office.

Thanksgiving cross-countries relieved the monotony finally, and most of our pilots were successful in failing to return because of bad weather. Lieuts.

Swain and Meyers enjoyed a week's leave in Fletcher, N.C., while on an overnight cross-country. Lieuts. Schott and Day successfully explained an extended stay in New York. Lieut. Ramey took off Nov. 23rd with General Parker for New York, Philadelphia and Washington. The General returned to Selfridge Nov. 28th, entirely rested and unhappy from a long train ride. Lieut. Ramey returned two days later with a story of fog in Edgewood Arsenal. Capt. Blessley made a trip to Seattle, Wash., to attend a conference board on the new P-12E. Lieut. Smith took his usual monthly leave to New York.

Preparation for Thanksgiving activities by some of the new wives in the Squadron brought about an astounding disclosure. There are no beans in the Air Corps Supply. This is an example of the horrible shortcomings of some of the departments of our Corps and should be called to the attention of those in authority. This Squadron intends to take its stand unsupported as we may be, and "when we go home, look into our wives' eyes and say 'Today we have demanded beans for the Air Corps Supply.'"

The Squadron Thanksgiving dinner was attended by Mrs. C.R.W. Blessley and children, Bill, Jack and Betty; Miss Melba Cox, Lieuts. Allemang, Piper, McGuire, Eckhart, Bradley, Holton and Mr. Allemang.

94th Pursuit Squadron: During the first part of November the Squadron welcomed five new officers from Kelly Field - Lieuts. H.M. McCoy, B.W. Davis, J.B. Adams, J.F. Muffat, and E.H. Schlauser.

No doubt these officers feel as though they are flying not at all after leaving the School, where they had loads of time, and landing here at Selfridge where they sit on the ground most of the time. Of course, this cannot be helped, and they are looking forward to the Springtime and Maneuvers, joping to get in the time they so much desire. Everybody welcomes them and wishes them the best of luck.

Hors. Flight B, 16th Obs. Sdn., Lawson Field, Ga., Dec. 3rd.

This Flight completed its practice and record bombing during November. Training flights were made as follows: Radio missions, camera gunnery, reconnaissance and cross-country.

Cooperative missions were flown for the Infantry School, as follows: Nov. 4th, 5th, 9th and 30th, Lieuts. Holland and Skow - Drop and Pick Up Messages; Nov. 6th, 10th, 12th, 20th and 24th, Lieut. Brownfield - Tow Target; Nov. 17th, Major Rader - Reconnaissance; Lieut. Barnett - Reconnaissance; Nov. 25th, Lts. Brownfield and Skow - Drop and Pick Up Messages.

Six flying days were lost during the month due to a combination of heavy forest fire smoke and fog.

This organization received one new Field Servicing Truck, Type E-3, to replace the antiquated hand pumping of gasoline and hand pouring of oil and water system previously in use. (Now bring on the next Fort Benning Motor Transport Show).

With a new type road grader smoothing out the kinks in our field, and steel bins and shelving being installed in the Supply, we are gradually getting into shape to go through the winter, looking forward to the hope of receiving contemplated appropriations for extensive building and improvement plans for next Spring.

Major Jones and Captain Giles flew in to inspect this organization during November. The resultant "skin sheet" hasn't arrived as yet, but we don't anticipate a great shock.

On Nov 24th, Pvt. Williamson, pilot, with six passengers from Maxwell Field, had a forced landing with a Y-1C-14, due to a broken rocker arm shaft, about three miles north of Lawson Field. As no spare parts were available at the home station of this plane, the mechanical force at Lawson Field fabricated a rocker arm shaft which enabled the plane to proceed to its destination.

Additional military personnel to pass through Lawson Field by air during November were Major General Fuqua, Chief of Infantry; Major Hume Peabody, Assistant Commandant of the Air Corps Tactical School; Major Candee, Captain Blackburn, Lieuts. Barker, Walker, Mills and Hansell, all of Maxwell Field, and Lieut. McNiel, Regular Army Air Corps Instructor of the Alabama National Guard.

Bolling Field, D.C., December 5th.

On November 24th, Lieut. R.K. Giovannoli and Sgt. Bernard Walsh made parachute jumps from a C-4A airplane, piloted by Lieut. L.S. Stranathan. Lieut. Giovannoli used a standard parachute and Sgt. Walsh a Triangle type. It was found that the Triangle chute landed more slowly than the Standard type. With the shortage of flying time, we are all contemplating getting some time in the air by this method.

On November 23rd and 24th, approximately forty Medical officers visited the Field, were shown over it, and given "hops" by Lieut. Stranathan and Lieut. Willis

in the C4-A and Northrup airplanes.

Lieut. J.A. Willis ferried a BT plane to Kelly Field Nov. 25th, returning by rail.

Major Davidson was the Bolling Field representative at the Supply Conference held at Wright Field.

The officers, enlisted men and their families enjoyed their Thanksgiving Dinner at Bolling Field, which was held in the Detachment Mess Hall.

Saturday, Nov. 28th, the Emergency Crew had a stag party on the post. Gen. Fechet and Gen. Foulois were guests of honor. The party was a big success.

Lt. Cousland's prize basketball team, composed of enlisted men of Bolling, has so far run its games won up in the twenties with only one defeat. When the tournament season begins this winter, it is expected and hoped they will continue their fine performances.

115th Obs. Squadron, Calif. Nat'l Guard, Los Angeles, Dec. 8th.

• Participating in the civic memorial services on the morning of Armistice Day, the Squadron flew formation over the Olympic Stadium at that time, and over the city and surrounding towns afterward. In the afternoon aerial photographs were taken of the crowd at the Stadium attending the football game between the University of California and St. Mary's, also of the U.S. Battle Fleet at anchor in Los Angeles Harbor at San Pedro. Two planes were sent up to Ventura for the day to help the American Legion there put on a good Armistice Day show.

It is with heavy heart that we refer to the death on Nov. 12th of our Flight Surgeon, Capt. Elmer E. Langley. Coming to us two years ago from the Washington National Guard Aviation Unit, he very soon endeared himself to us by his understanding, patience, jolly disposition and ability. He attended two active duty training camps with us, and there made innumerable friends in the Division. He was a successful practicing physician in Los Angeles, and was Flight Surgeon for the Department of Commerce Aeronautics Branch. He leaves a large number of sorrowing friends both here and in his old home, Spokane. His widow has been presented with a memorial plaque from the officers of this Squadron, commemorating his duty with us and expressing the organization's respect and admiration for him.

On Nov. 22nd, a formation of 3 planes took part in joint maneuvers with the Air Corps Reserve of Long Beach, Calif. Our ships were given the mission of acting as light bombardment on a surprise attack on a railroad bridge near Uplands, Calif., about 50 miles east of Los Angeles. The Reserves represented the defending Pursuit, and operated in three flights of three ships each, their object being to intercept and prevent the attack. Army and Navy judges acted as aerial observers. Decision was awarded the National Guard.

On Sunday, Nov. 29th, Headquarters Co., 160th Inf., Calif. N.G., had a communications detachment at our regular drill period during the morning, and worked with our planes via radio, pick-up messages, drop message and ground panels. Field telephones were also used. Excellent experience was derived by both units through these combined operations.

On Dec. 5th, five O-38 planes were sent to Imperial Valley, 250 miles from Los Angeles, to participate in joint aerial maneuvers with 9 BT-2 planes from the Air Corps Reserves based at Long Beach, Calif. The 115th Obs. Squadron represented friendly defensive forces, its mission being to photograph several points along the way held by the invading forces who had penetrated from Mexico, and to attack at a given time, as light bombardment, an enemy concentration of Infantry encamped at Calexico on the Mexican Border. The Air Corps Reserve, in three flights of three planes each, represented the defensive Pursuit, their object being to intercept the Bombers and prevent the destruction of their own Infantry camp.

Saturday afternoon saw the completion of the problem, in the presence of Regular Air Corps officers and Naval Reserve aviation officers as aerial judges. All forces based at the Imperial County Airport, Brawley, Calif., overnight, where they were entertained by local authorities, returning to their home stations the following day.

This is the second joint problem to be carried out between the 40th Division Aviation and the Air Corps Reserve, the first, two weeks previous, involving the destruction of an important railroad bridge near Uplands, Calif., which included problems of cross-country, reconnaissance, formations, interception, attack and defense tactics and correct reading of maps, etc. Both Squadrons and the participating pilots received extremely practical experience and plan to continue the joint maneuvers.

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The 11th Observation Squadron, Texas National Guard, Houston, Texas, has been well represented in the major aeronautical functions of this part of the State, including the opening of the Wharton Airport, the Rededication of the Houston Airport, and attending the Mason M. Patrick Trophy Race at Galveston. The Squadron also participated to the extent of five O-38's in the Convention of the 36th Division, which was held at Dallas, Texas, October 24th.

SUGGESTIONS FOR THE IMPROVEMENT OF
AIRCRAFT MAINTENANCE AND TECHNICAL RECORDS, REPORTS AND FILES

The last pages of the Air Corps News Letter are now being utilized by the Chief of the Air Corps to bring to the attention of all Air Corps activities and personnel various suggestions for the improvement of aircraft maintenance and more accurate preparation and maintenance of technical records, reports and files. The last pages of the Air Corps News Letter are used for this purpose, so as to permit interested activities and personnel to detach these pages from the Air Corps News Letter and maintain them in a separate folder for their own information, reference and application, where desired.

This is the third article published to date, and the comments and recommendations of all interested personnel are desired. Suggestions for the improvement of these articles and complete information on station and organization methods or systems employed to facilitate Operations and Engineering work are especially desired. Correspondence reporting the above information should be addressed to:

Chief of the Air Corps,
Attention, Chief Inspection Division,
Washington, D.C.

PARACHUTE IDENTIFICATION

During a recent technical inspection of Maxwell Field, Montgomery, Ala., by a representative from this office, the following method of identifying parachutes was noted:

A small white cloth pad, approximately 6 inches wide by 8 inches long, was sewed to the upper end and on the inside of the back pad on each parachute. This pad bore the name, rank and station of the individual to which assigned painted or stenciled thereon in black, as follows:

WILLIAM A. WHITE
1ST LIEUT. AIR CORPS

MAXWELL FIELD
MONTGOMERY, ALA.

The above makes an excellent and immediate identification for parachutes and is much better than placing this or similar information on the harness where it is difficult to locate and read. The installation of such identification pads on all parachutes now in service is recommended.

RECORD OF EXPENDED
GASOLINE EXEMPTION CERTIFICATES

Par. 4, War Dept. Circular No. 39, dated July 31, 1930, reads as follows:

"Standard Form 44 and General Accounting Office Standard Form No. 1066 will be made up into books containing 20 of each. These books will have symbol letters and serial numbers, and offices to which they are issued will be responsible for the safe-keeping and proper use of such books. Each office will be prepared, upon request of proper authority, to account for all books which have come into its custody."

In order to simplify the accounting of these certificates, it is recommended that a form similar to the following be prepared and maintained for each book of these forms received at each station.

RECORD OF EXPENDED GASOLINE EXEMPTION CERTIFICATE

X.C. Envelope Number	Certificate Number	Expended by	Issued to	Date
3	90001	Lt. R.A. Smith	Standard Oil Co., Augusta, Ga.	11-10-31
3	90002	Capt. B.N. Jones	Capitol Oil Co., Kokomo, Ind.	12-1-31

The above information can be obtained by operations personnel from Form No. 1066 remaining in the book upon their return by personnel to whom issued.

The above form may be maintained on separate sheets or in a ruled book or ledger as desired but in all cases should be a permanent record in the office to which the books were issued.

V-6218, A.C.

The following Technical Orders and Letters have been distributed since the last issue of the Air Corps News Letter on December 4, 1931:

<u>Date and No.</u>	<u>Subject</u>	<u>Distribution</u>
11-16-31 TO-01-1-34	Installation of oil Thermometers	General
11/16/31 TO-02-1-8	Disposition of engines requiring replacement of crankshafts, crankcase sections, or connecting rods.	General
11/27/31 TO-02-1-18	Service carburetor specifications.	General
11/24/31 TO-08-5-10	Aircraft-Radio-Disconnecter Units.	General
11/27/31 TO-08-1-2	Inspection and removal of dry batteries installed in electrical communications equipment	General
11/23/31 TL-31-189	Inspection of detachable blade propeller hubs.	General
10/28/31 TL-31-274	Equipping of Engines in the Air Corps, except those used for Primary Training and Liberty Engines, with radio shielding, if not so equipped.	Wright, Chamute and all Depots.
11/25/31 TL-31-286	Replacing of Non-ventilated type spark plug shields, type RFL, Drawings No. A-3747, with the ventilated type.	General
11/21/31 TL-31-287	Surge Chamber for dampening out oil pressure fluctuations on all types of V-1150 and V-1570 engines.	All activities equipped with these engines on 11/21/31
11/25/31 TL-31-292	Corrections to Stromberg carburetor Army setting chart, marked for revision as of January 1, 1932.	General
11/30/31 TL-31-294	Denatured alcohol.	General
11/25/31 TL-31-295	Oil seepage in starters installed in P-12 series of airplanes.	Bolling, Langley, March Mather, Maxwell, Wright Selfridge & all depots
11/25/31 TL-31-296	Replacement of needle valve seats or restrictions by ball check needle valve seats in Stromberg type NA-Y5F carburetors.	Middletown, Fairfield, San Antonio, Hawaiian Depot, Chamute & RAD.
11/28/31 TL-31-297	Inspection of Valve Guides, Part #C-6110, on early V-1570 series engines.	FAD, MAD, SAD, RAD, and Chamute.
11/30/31 TL-31-298	Multiple and single lens photographs	All Photographic activities at RA stations
12/3/31 TL-31-299	Minimum oil temperatures for winter operation on airplanes equipped with air-cooled type oil coolers.	General
12/1/31 TO-00-0-9	Monthly Index of Technical Instructions	General

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The following Air Corps Circulars and Air Corps Circular Letters have been published and distributed since the issue of Air Corps Circular O-2A, Subject: Numerical, Index to Air Corps Circulars, dated October 1, 1931.

AIR CORPS CIRCULARS

<u>Number</u>	<u>Subject</u>	<u>Date</u>
Cir. 15-63	Air Corps Form No. 5, Individual Flight Record	10-14-31
Cir. 35-4	Enlisted Pilots.	12-5-31
Cir. 40-3	Routine Reports.	11-30-31
Cir. 40-5A	Appointments.	10-24-31
Cir. 60-9	Acrobatic Maneuvers Performed with Air Corps Airplanes	10-6-31
Cir. 65-5	The Air Corps Supply System	11-24-31
Cir. 65-14	Submitting Samples for Test, Identification, Etc.	10-7-31
Cir. 65-14A	Submitting Samples for Test, Identification, etc.	10-23-31
Cir. 65-26	Stationery and Office Furniture	11-21-31
Cir. 90-1	Requisition and Use of Maps	11-18-31
Cir. 115-1	Air Corps Historical Records	10-28-31

AIR CORPS CIRCULAR LETTERS

Stencil No.	Subject	Date
W-1991, A.C.	Restricted Flights of Aircraft during Yorktown Centennial	10-1-31
W-1990, A.C.	Cross-country Flights in Excess of 500 miles	10-3-31
W-1998, A.C.	Glider Flying Accident Not in Line of Duty	10-20-31
W-2000, A.C.	Promotions	10-21-31
W-1996, A.C.	Proposed Award of Trophy for Flying Efficiency	10-23-31
W-2003, A.C.	Per diem Travel Allowances of Civilian Employees	10-28-31
W-2002, A.C.	Military Credit Toward Retirement of Civilian Personnel	10-29-31
W-2004, A.C.	Appointment of Civilian Personnel	10-30-31
W-2006, A.C.	Per Diem Travel Allowance - Civilian Employees	11-6-31
W-2007, A.C.	Data Needed to Complete Forms 2806 for Fiscal Year 1931	11-9-31
W-2008, A.C.	Transfers and Details of Civilian Employees	11-12-31
W-2011, A.C.	Civilian Employees Formerly Emergency Officers and now on the Emergency Officers Retired List.	11-12-31
W-2014, A.C.	Cheney Award for 1931	11-20-31
W-2018, A.C.	Purchase of Service Credit.	12-8-31
W-2021, A.C.	Transfers and Details of Civilian Employees	12-15-31

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ADDITIONAL NOTES FROM AIR CORPS FIELDS

San Antonio Air Depot, Duncan Field, Texas, Dec. 16th.

The Duncan Field Welfare Association has been reorganized by the personnel of this Depot, having for its special object the furtherance of the President's Unemployment Relief Program through cooperation with the civic welfare organizations of the City of San Antonio in relieving suffering among the community's unemployed and needy this winter, by distribution of food, clothing and fuel, and much good work has already been done along this line by this organization, which represents a personnel of 650.

The Headquarters Office of the Depot has been moved from the building which it formerly occupied, at the center of the Depot Reservation, to Building No. 44 on the Frio City Road, formerly the Headquarters of the Air Corps Training Center. This move was necessitated by the progress of the new construction now under way for the Engineer Shops Building of the Depot.

During the month of November, the Engineering Department of the San Antonio Air Depot overhauled and repaired the following airplanes and engines:-

Airplanes overhauled - 2 A-3, 3 A-3B, 4 O-2H, 1 O-17, 2 O-19B, 2 P-1C, 1 P-1D, 1 P-1E, 2 P-1F, 1 BT-1, 5 BT-2B, 2 PT-3, 3 PT-3A, Total 29.

Airplanes Repaired - 2 A-3B, 1 XO-14, 4 O-19E, 1 O-25A, 2 O-25C, 1 O-38, 1 P-1F, 1 C-7A, 1 C-9, 1 Y1C-15, 1 F-1, 1 NS, Total 17.

Engines Overhauled - 21 V-1150, 10 R-1690, 9 R-790, 5 R-975, 5 R-1340, Total 50.

Engines Repaired: 5 V-1150, 12 V-1650, 1 R-1340, 1 R-1750, 3 R-790, Total 22.

Lieut-Col. A.G. Fisher, Commanding Officer; Capt. E.V. Harbeck, Jr., Chief Engineer Officer, and 1st Lieut. C.E. Thomas, Jr., Depot Supply Officer, of this Depot, returned on December 6th from Wright Field, Ohio, where they attended the Annual Engineering and Supply Conference held in the Office of the Chief of the Materiel Division. Captain Harbeck also visited the Middletown, Pa. Air Depot to confer with the Commanding Officer thereof on shop methods used in the overhaul of equipment.

Mr. J.M. Bailey, Aeronautical Mechanical Engineer of the Rockwell Air Depot, Rockwell Field, Calif., visited this Depot Nov. 28th to December 3rd on temporary duty for the purpose of observing engineering shop methods in use here.

On a week-end hunting trip to Medina Lake on Dec. 12-13, Lt.-Col. A.G. Fisher, our Commanding Officer, with Lieut. T.H. Chapman, and party, reported great success, bringing home a fine bag of ducks.

Warrant Officer and Mrs. Charles Chester departed Dec. 3rd for two months' leave, visiting in San Diego, Calif. Warrant Officer Chester is under orders for foreign service in the Philippines, to sail from San Francisco on February 4th. He has been on duty at this Depot since January, 1921, and for the past eight years was Cost Officer, in charge of the Air Corps Cost Accounting System at this Depot. The best wishes of the personnel of the Depot go with Mr. and Mrs. Chester for happiness at their new station.

V-6218, A.C.

Serial No. 312 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES
Oct. 13th to Dec. 28th Incl.

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

DOCUMENTS

- A 00.51/38 The International Aviation Policy of the United States, by
Kenneth Colegrove. n.p., Oct., 1931.
- A 08/US/8 Betsy Ross Corp. Constitution and By-Laws.
- A 10/192/#643 Load assumptions for the Landing Impact of Seaplanes by Josef
Taub. Nat. Advisory Committee for Aero. Tech. Memo. #643. Wash.
N.A.C.A. Oct. 1931.
- A 10/192/#644 On Atomization in Carburetors by F.N. Scheubel. Nat. Advisory
Committee for Aero. Tech. Memo. #644. Wash. N.A.C.A. Oct., 1931
- A 10/192/#645 Relations between Ship and Seaplane Design, by Georg Schnadel.
Nat. Advisory Committee for Aero. Tech. Memo. #645. Wash. N.A.C.A.
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- A 10/192/#646 Measurement of Visibility from the Pilot's Cockpit on Different
Airplane Types, by Gerhard Kurz. Nat. Advisory Committee for Aero.
Tech. Memo. #646. Wash. N.A.C.A. Nov. 1931
- A 10/192/#647 Spatial Buckling of Various Types of Airplane Strut Systems
by Alfred Teichmann. Nat. Advisory Committee for Aero. Tech. Memo.
#647. Wash. N.A.C.A. Nov. 1931
- A 10/192/#648 Measurements of Vertical Air Currents in the Atmosphere by K.O.
Lange. Nat. Advisory Committee for Aero. Tech. Memo. #648. Wash.
N.A.C.A. Nov. 1931.
- A 10/192/#649 Liquid Cooling of Aircraft Engines by Hanns Weidinger. Nat. Ad-
visory Committee for Aero. Tech. Memo. #649. Wash. N.A.C.A. Dec.,
1931.
- A 10/US/100 Civil Aeronautics in the United States by U.S. Department of
1931/#1. Commerce, Aero. Branch. Aero. Bulletin #1. Wash. Government Print-
ing Office. 1931.
- A 10/US/140 Air Defense from the Viewpoint of the Aircraft Industry by
Charles L. Lawrence, President, Aero. Chamber of Commerce of Amer-
ica, Inc. Washington. U.S. Air Services, Aug. 1931.
- A 10.01/US/26 Commercial Aviation - Its Relation to National Defense, by
Charles L. Lawrence, President, Aero. Chamber of Commerce of Amer-
ica, Inc. Washington. U.S. Air Services. Oct. 1931.
- A 10.01/US/27 American Air Transport Development by Harry H. Blee. Washington
Dept. of Commerce Aero. Branch. n.d.
- A 10.23/109/#395 Pump Injection System, Penetration and ... Rothrock, A.M.
Penetration and Duration of Fuel Sprays from a Pump Injection
System by A.M. Rothrock & E.T. Marsh. Nat. Advisory Committee for
Aero. Tech. Note #395. Wash. N.A.C.A. Oct. 1931.
- A 10.23/109/#396 Performance of a Compression-Ignition Engine with a Precombus-
tion Chamber Having High-velocity Air Flow, by J.A. Spanogle
and C.S. Moore. Nat. Advisory Committee for Aero. Tech. Note #396.
Wash. N.A.C.A. Oct. 1931
- A 10.23/109/#397 The Aerodynamic Characteristics of Six Commonly Used Airfoils
over a Large Range of Positive and Negative Angles of Attack,
by Raymond F. Anderson. Nat. Advisory Committee for Aero. Tech.
Note #397. Wash. N.A.C.A. Nov. 1931
- A 10.23/109/#398 The Effect of Slots and Flaps on the Lift and Drag of the Mc-
Donnell Airplane as Determined in Flight. Nat. Advisory Com-
mittee for Aero. Tech. Note #398. Wash. N.A.C.A. Nov. 1931.
- A 10.23/109/#399 Some Characteristics of Fuel Sprays at Low-Injection Pressures
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