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Information Division
Air Corps

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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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DEVELOPMENT AND PROCUREMENT OF MILITARY AIRCRAFT

It is a universal experience that individuals engaged in different specialized phases of any one activity often have difficulty in understanding each other's problems. This usually takes the form of a claim of lack of cooperation when more often it is a lack of mutual understanding. In the Air Corps this difficulty appears in providing suitable aircraft for the users of the airplanes. A worth while characteristic noted as a new technical development may be desired by the service and requested by it. Procurement and engineering organizations then seem to overlook it until it just happens to appear, as what may seem to be an obsolete feature, some years later. This may all be quite routine and the time loss entirely legitimate. On the other hand, those in closer touch with technical developments may foresee definite changes in requirements but, due to a lack of general understanding, be unable to sell the idea to the Service. Air Corps development history has been full of such antagonistic incidents.

In an effort to throw a little light on the dark subject of those years between the first expression of an idea and its delivery to the Service as standard equipment, the following descriptive outlines are offered:

The first one which follows immediately covers the subject from the fundamental considerations as far as the "Type Specification" and its publication. This will be followed by subsequent articles explaining, briefly, first, the extent of the experimental stage and, second, the details of the evaluation, contracting and construction of airplanes for service procurement.

The procurement of military airplanes like airplanes themselves must be a compromise of several features. There are two exactly opposite fundamental considerations which must first be reconciled. The first is the reduction to concrete material of an expression of the Service need. The second is the development of an item to a usable form and then building the tactics around the resultant equipment.

If the sources of information are of a high order of reliability and extremely foresighted, the first arrangement is probably the best. The difficulty, however, lies in visualizing the appear-

ance of an article to be built to meet these expressed requirements. In the reduction to practice of an idea, all the loosely phrased and occasional haphazard requirements are built in just as surely as the soundest and most concisely stated considerations. For this reason, our military airplanes are often handicapped in weight, size, and performance by having included features which originally were expressed as merely desirable adjuncts to the fundamental creation.

Therefore, it is occasionally advantageous to start out on a development program on a pure type, not handicapped in this manner, so that some concrete example of the "thoroughbred" is available as a model from which to start. It is just as sound to work on this basis, meeting only one fundamental functional requirement and then modify the airplane, as it is to take an expression of a lot of needs, build to meet these, and then refine the product to approach the ideal form. The criterion for determining the procedure to be followed should be, first, the degree of perfection of the existing tactics versus the rate of development of technical progress and, second, the ability of those expressing these requirements to rationalize the situation and arrange a correct order of importance of the several features versus the ability of those charged with developing a type to work along a logical path leading to a definite practicability.

It is, indeed, a delicate problem, and may be summed up in some such fashion as this. Many a technical article actually produced in metal, wood, or fabric bears little resemblance to the article intended by the originator of the idea, and likewise many a technical development of tremendous academic interest has no immediate practical application.

Another compromise which must be made is that between training requirements and expected tactical requirements. It is certain that immediately following the first stages of any military conflict, a number of new and definite requirements will be established, and then the corresponding technical developments will have to take place. There are several ways of handling this situation. The first is to concentrate upon the training requirements of peace-time development and include as many of the anticipated service features as possible. The second is to concentrate on estimated service re-

quirements and include as many peace-time training features as possible. The third is to build solely to training requirements, keeping a small scale development program of pure service types under way. Whatever the course followed, it is certain that the inclusion of any extraneous feature not required for the performance of the established mission is a distinct handicap. The factors determining which plan to follow are many and include (1) the possibility of an emergency occurring in the near future; (2) the time necessary to establish emergency production; (3) its rate after establishment; (4) the state of training of the Air Force; and (5) the accuracy with which emergency conditions can be estimated.

Still another compromise exists in balancing the use of tried equipment of inferior performance against the use of development equipment of promise but of uncertain dependability. Faster development of equipment is always obtained when this equipment is in actual service, but it handicaps the operating personnel to a marked degree in a fixed training schedule. The decision as to policy again depends on whether the service can assist in the development or whether the necessities of training and preparedness for expected emergencies require some sacrifice of aircraft performance in order to secure service dependability.

There is one more fundamental characteristic in the development of aircraft that affects all the other factors and must always be considered. This is the element of time. An idea expressed today will be a service item in from three to five years elapsed time. In the meantime, there is a maze of development and procurement detail to be gone through. By far the greatest time requirement is for the stage from initial expression to the service test article. Previous experiences have indicated that the production of existing types can reach astounding figures in a relatively short time, but there is no short cut in the experimental and development stages.

The Air Corps system as it now exists is essentially one of compromise, leaning at all times to the practical side and taking its cues from the service, but restricted by budget limitations.

There is at all times a "design study" development going on which is intended to anticipate requirements by several years. Little restraint is shown here other than to base the requirements on the last existing expressions from the service. However, all technical developments, regardless of their service record, may be considered as fair means to achieve the ultimate at this stage.

These studies indicate the fields of investigation which apparently are not worth further development, as well as establishing the approximate form or, in

some cases, almost the exact form of future procurement. The "Directives" or "Approved Type Characteristics," which form the immediate basis for specifications, are the expressions of the service through the agencies of "Boards," as approved by the Secretary of War and correlative to the assigned missions of the Air Corps in the scheme of National Defense. These "Boards" have been in the past generally convened for the purpose of studying existing experimental aircraft. They then make recommendations for future development. At this time the relative importance of the numerous characteristics are determined and the item of equipment chosen. This is usually a matter of altering the requirements of existing specifications. All too often there is a mere adding of items and requirements and not modification. One of the greatest difficulties existing at present is that the recommendations of any one board or group cannot be produced in a serviceable airplane for at least two more years and therefore appears obsolete to the Board called to flight test it. For this reason it appears that it would be preferable to have a nearly permanent type board, which could accustom itself to this long-range planning and, in addition, keep its recommendations modernized or even slightly futuristic. In some instances where an old Directive has been outdistanced by the performance of modern airplanes a new set of increased performance figures are submitted to be approved as "Approved Type Characteristics."

These "Directives" or "Characteristics" include all the specific items of performance and equipment and then, using the last previous specification, a new "Type Specification" is written, based upon these "minimum" requirements.

This Type Specification is a reduction to technical terms of the recommendations made by the service through its representatives. This Specification tells "what" but not "how." The manufacturer must make up his own description (Detail Specification) telling in detail how he proposes to accomplish the desired results. The drafting of these Type Specifications is a tedious engineering job, requiring the close coordination of all the separate units charged with the component parts of an airplane. There is in addition a "Handbook of Instructions for Airplane Designers," which is kept up to date and serves not only as a guide but includes definite demands and criteria in the way of principles of construction, strength, safety features, and installations which have been shown to be satisfactory in service. In this way a multitude of features which would turn out to be unsatisfactory in service are eliminated before the airplane ever reaches the drawing-board stage.

The Type Specification lists the engine that may be used; it lists the equipment

required; and in general gives quite detailed statements of the portions for which the Air Corps itself is responsible.

Under existing procurement procedure there cannot be any submission of data for preliminary approval or comment. It all has to be submitted for "information only." Since the details cannot be passed upon for agreement with Air Corps standards of practice, the Type Specification itself must become more binding.

This Specification as written must then be approved by the Secretary of War and is then ready for promulgation by the procurement organization. The minimum of time which will have elapsed will be from two to six months.

These Specifications are then attached to a proposal and the Industry is invited to submit bids on airplanes purporting to meet them.

These bids will be received from two months to a year later, depending on

whether the Type Specification covers a production model already well developed, or an experimental type, or simply a "design."

Since at the present time each procurement must be a separate competition, there can be no assurance that a definite line of development has taken place or that a definite line of improvement will ever take place.

This completes the first stage of any procurement program going from the source of the requirements (the expressions of the service), through the reduction of these expressions to a concrete form for procurement (the Type Specification), to the reduction of these expressions to practice in the form of complete aircraft, designs, and specifications, submitted in a competition in response to the pertinent Circular Proposals. The time elapsed will have been from six months to a year and a half for this phase.

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HONORARY DEGREES AWARDED TO SECRETARY OF WAR AND CAPTAIN STEVENS

During the Commencement Exercises of the 1935 graduating class of the South Dakota State School of Mines, Rapid City, S.D., the Hon. George Henry Dern, Secretary of War, and Captain Albert W. Stevens, Air Corps, were among several other men prominent in the field of science, awarded honorary degrees.

The honorary degree of Doctor of Engineering was conferred upon the Secretary of War for his high achievements in the profession of mining engineering, his inventions in the field of ore treatment, and his record of eminent statesmanship as State Senator, Governor of Utah and Secretary of War.

Captain Stevens received the honorary degree of Doctor of Science in recognition of his ability as a leader and as a scientific observer of the greatest of stratosphere flights. The regents of Education of South Dakota, in awarding this degree to Capt. Stevens, stated:

"Possibly an admiring public thinks of Captain Stevens principally as a courageous explorer of the upper air, but he has received wide recognition and many honors for his outstanding accomplishments in engineering and science as well. Particularly in the field of aerial photography, both in war and in peace, has he made important contributions. His photographic surveys of large areas of South America, the first photograph ever made of the moon's shadow upon the earth during a total eclipse of the sun, and his long distance photographs made by the infra red method are some of his well known achievements."

Dr. Lyman James Briggs, Director of the National Bureau of Standards, who

received the honorary degree of Doctor of Engineering, delivered the commencement address, during the course of which, touching upon the forthcoming Stratosphere Flight, he praised the National Geographic Society for making the flight possible by financing the expedition and attending in an executive capacity to endless vitally important details, and the Army Air Corps for making it possible through detailing flight personnel of unsurpassed experience and ability, together with airplanes and special equipment for the use of the expedition.

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APPROPRIATION EXPECTED FOR KELLY FIELD

The Associated Press recently carried a dispatch to the effect that \$524,350. was to be allotted to Kelly Field from the Work Relief Funds. According to the dispatch, this fund was to be expended as follows:

\$ 68,250.00 for Gas and Oil storage and distribution.
52,400.00 for a miniature range.
170,000.00 for paved aprons and runways.
180,000.00 for improvements to landing field and building area.
3,000.00 for machine gun butts.
50,700.00 for general repairs to buildings and utilities.

Official confirmation of these allotments has not been received at this writing.

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The Air Corps, as of May 31, 1935, had 116 enlisted men holding flying ratings - 109 pilots and 7 observers. Since then, 39 of these pilots were commissioned second lieutenants in the Air Corps.

V-6822, A.C.

BILL INTRODUCED CREATING A DEPARTMENT OF AIR SERVICE

Hon. Ernest Lundeen, Member of Congress from Minnesota, introduced in the House of Representatives on June 29th, a Bill, H.R. 8729, to the following effect:

"That there is hereby created an executive department in the Government, to be called the 'Department of Air Service', and a Secretary of Air Service who shall be the head thereof and who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall receive a salary of \$15,000 per annum and whose tenure of office shall be like that of the heads of the other executive departments; and section 158 of the Revised Statutes is hereby amended to include such Department, and the provisions of Title 4 of the Revised Statutes, including all amendments thereto, are hereby made applicable to said Department. The purpose of the Department of Air Service shall be to promote, develop, and regulate the navigation of the air for the benefit of the people and the Government of the United States. The said Secretary shall cause a seal of office to be made for the said Department, of such device as the President shall approve, and judicial notice shall be taken of the said seal.

Sec. 2. That there shall be in said Department an Assistant Secretary of Air Service, to be appointed by the President, who shall receive a salary of \$12,000 per year. He shall perform such duties as shall be prescribed by the Secretary or required by law. There shall also be one Chief Clerk and a disbursing clerk, and such other clerical assistants, inventors, inspectors, experts, scientists, and special agents as may from time to time be provided for by Congress.

Sec. 3. That the following offices, bureaus, divisions, and branches of the Government are hereby transferred to the Department of the Air Service and the same shall hereafter remain under the jurisdiction and supervision of such Department:

- (a) The Air Corps of the Army;
- (b) The Naval Flying Corps in the Department of the Navy;
- (c) The Bureau of Aeronautics in the Department of the Navy;
- (d) The Bureau of Air Commerce in the Department of Commerce;
- (e) The military air stations;
- (f) The naval air stations; and
- (g) All agencies of the Government connected with or supervising the production or procurement of aircraft or aircraft supplies for the United States or any agency thereof.

Sec. 4. That the official records and papers now on file in and pertaining exclusively to the business of any bureau, office, department, or branch

of the public service in this Act transferred to the Department of Air Service, together with the furniture and apparatus now in use in such bureau, office, department, or branch of the public service shall be, and hereby are, transferred to the Department of Air Service.

Sec. 5. That the Secretary of Air shall have charge in the buildings or premises occupied by or appropriated to the Department of Air Service, of the library, furniture, fixtures, records, and other property pertaining to it or hereafter required for use in its business. He shall be allowed to expend for the purchase of buildings, materials, machinery, vehicles, vessels, and apparatus required for the operations of the air service in promoting, developing, and regulating the navigation of the air, and for periodicals and for the purposes of the library and for rental of appropriate quarters for the accommodation of the Department of Air Service within the District of Columbia, and for all other incidental expenses, such sums as Congress may provide from time to time: Provided, however, That where any office, bureau, or branch of the public service transferred to the Department of Air Service by this Act is occupying rented buildings or premises it may still continue to do so until other suitable quarters are provided for its use: Provided further, That all officers, clerks, and employees now employed in any of the bureaus, offices, departments, or branches of the public service in this Act transferred to the Department of Air Service are each and all hereby transferred to said department at their present grades and salaries, except where otherwise provided in this Act: And provided further, That all laws prescribing the work and defining the duties of the several bureaus, offices, departments, or branches of the public service by this Act transferred to and made a part of the Department of Air Service shall, so far as the same are not in conflict with the provisions of this Act, remain in full force and effect, to be executed under the direction of the Secretary of Air Service.

Sec. 6. That all duties performed and all power and authority now possessed or exercised by the head of any executive department in and over any bureau, office, officer, board, branch, or division of the public service by this Act transferred to the Department of Air Service, or any business arising therefrom or pertaining thereto, or in relation to the duties performed by and authority conferred by law upon such bureau, officer, office, board, branch, or division of the public service, whether of an appellate or revisory character or otherwise, shall hereafter be vested in and exercised by the head of the said Department of Air Service.

Sec. 7. That the Secretary of Air Service shall annually, at the close of each fiscal year, make a report in writing to

Congress, giving an account of all moneys received and disbursed by him and his Department and describing the work done by the Department. He shall also, from time to time, make such special investigations and reports as he may be required to do by the President, or by Congress, or which he himself may deem necessary.

Sec. 8. That the Secretary of Air Service shall investigate and report to Congress a plan of coordination of the activities, duties, and powers of the office of the Secretary of Air Service

with the activities, duties and powers of the present bureaus, commissions, and departments, so far as they relate to the air service and the navigation of the air, in order to harmonize and unify such activities, duties, and powers with a view to further legislation, to further define the duties and powers of such Department of Air Service.

Sec. 9. That this Act shall take effect from and after the date of its passage, and all Acts or parts of Acts inconsistent with this Act are hereby repealed.

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WASHINGTON NATIONAL GUARD AIRMEN RETURN FROM ENCAMPMENT By the News Letter Correspondent

Machine guns cracked five miles out over the Pacific Ocean; airplane motors droned over Camp Murray on day and night patrols; the Fort Lewis airdrome belched up dirt from ground gunnery practice, and the photographic and radio stations bustled with activity for a two weeks period as the 41st Division Aviation, Washington National Guard, participated with troops from Washington, Oregon, Idaho and Montana in the annual Division encampment at Camp Murray and Fort Lewis, Washington, from June 11th to 25th.

It was the first National Guard division encampment to be held in the Northwest since the World War and, under the command of General White, Adjutant General of Oregon, the 7600 Guardsmen moved into camp with precision. Except for one Infantry regiment, practically all of the troops moved by motor caravan, using trucks issued just before the camp.

Enlisted personnel of the Division Aviation moved to Camp with the 161st National Guard Infantry regiment from Spokane, Wash., via the Northern Pacific Railroad. Six pilots with enlisted passengers flew the Douglas Observation planes to camp, arriving over Fort Lewis just as the Air Corps troops were detrainning.

Arriving in camp, the Division Aviation learned that it was to have Col. Roy Kirtland, Air Officer, 9th Corps Area, Presidio of San Francisco, Calif., as Division Air Officer; and Captains Joe Bayley, Instructor of the California National Guard, and Guy B. McNeal, of Crissy Field, Calif., as inspectors during the encampment.

Captain Bayley flew a Douglas Observation plane to Fort Lewis for use by the 41st Division Aviation, making a total of seven airplanes for the encampment.

Reaching the Fort Lewis airdrome at 10:00 a.m., June 11th, Captain Claude Owen, Operations Officer, started his first tow target gunnery missions at 1:00 p.m.

Because of the populated areas in Western Washington, it was necessary to conduct the gunnery missions five miles

out over the Pacific Ocean, which was an hour's flight from Fort Lewis, and necessitated the use of life preservers by all persons on these missions.

Despite adverse weather conditions, rain, fog and low hanging clouds, all phases of the tow target gunnery were fired by both front and rear gunners.

With gunnery missions both in the forenoon and afternoon on the regular schedule, the remaining five airplanes were used in cooperative missions with other arms of the service. Artillery fire was adjusted by radio for the 146th and 148th Field Artillery, as well as the Coast Artillery at Forts Casey and Worden.

Having just received four of the new SCR AA 185 radio sets for airplanes and the SCR AA 186 ground set before going to camp, much attention was paid to radio communication, both code and voice. The old SCR 134 sets were used in two airplanes, making radio communication possible in six of the seven airplanes. A requirement laid down by Major Robin A. Day, Air Corps, Commander-Instructor, was that on every flight each airplane was to check in with the ground station as soon as possible after the take-off.

The new radio sets proved a revelation to the officers who, although requiring some time thoroughly to acquaint themselves with their operation, found such operation easy and very effective before the camp was over.

Flying started every morning at 7:30 a.m., and continued until 9:00 a.m. Under the program of operations, it was not necessary to hold any airplanes on the ground during the day for their 20 and 40-hour checks, these checks being made at night.

Intense interest in the camp came with the execution of the 81st Brigade problem, which took ground troops into the field for a night advance. Three airplanes were requested for Red and Blue patrol by General Carlos Pennington, Brigade Commander. The patrols started at 4:00 p.m., and continued throughout the night until 8:00 a.m. the following morning. It was during these problems that both the air and ground forces learned considerable about the tactics of the other.

Red airplanes were assigned the duty of

observing the advance during the night. As the doughboys advanced through the woods into semi-open country, parachute flares were dropped with considerable effectiveness on the ground forces, who were not visible to the airplanes.

The Red ground forces were represented by various panels, and small details of men, who constantly moved the panels. Each movement was sent by code communication to the Blue Army. At dawn, although it was raining, the Blue Army called for photographs showing the position of the Red Army.

It was both pleasing and surprising to the Photographic Section, commanded by Lieut. H. R. Wallace, that pictures taken under such adverse conditions at 4:30 a.m., showed the enemy panels so clearly. The pictures were taken on a 30th and 50th of a second. Both obliques and verticals were taken.

Great secrecy surrounded the Division problem, which started with the issuance of orders that no one leave camp for 48 hours. All orders for the problem were issued over the radio net. In this problem the Red airplane carried long Red streamers, and was given the particular duty of photographing every movement of the Blue Army, in order to impress upon the ground troops the extreme care that must be used in maneuvering on the ground.

The two Blue airplanes were assigned the duty of observing the panel movements of the Red ground force, and reporting these movements by radio, drop and pickup messages and overlays. On these problems Captain McNeal acted as Division Air Officer, Captain Bayley as Red Air Officer and Colonel Kirtland as Division Air Force Umpire. Major Day was left to command his air force, which kept an up-to-date situation map of both problems.

Despite the fact that the Fort Lewis airdrome is not lighted, night flying operations were conducted off this field during the problems. Ground crews were kept on the alert to see that highway "pots" were burning all night. These pots were used to outline the airdrome, which is being considerably enlarged under the direction of Lieut. Davis, commander of the Fort Lewis Regular Army corps detachment.

Every cooperation was given the National Guard flyers by the Fort Lewis detachment, which was at Ilwaco, Wash., conducting their gunnery when the camp started. The photographic shack was thrown open to the Guardsmen, as was the Fort Lewis hangar and gassing facilities.

During the only two photographic days of camp, a mosaic was made of the Camp Murray-Fort Lewis reservations for the Division Commander. The War Department request for verticals and obliques of

all airports in Western Washington was complied with, and the Photographic Section photographers were busy fulfilling the requests of ground troops for various kinds of pictures.

The official field inspection was made by Colonel Kirtland, who expressed satisfaction with both men, officers and equipment. The troops were mustered by Captain McNeal, who was the camp inspector.

Governor Charles H. Martin, of Oregon, joined with Governor Clarence D. Martin, of Washington, in the official review of all troops at Fort Lewis, where 35,000 persons saw the largest review in years. General Paul B. Malone, Commanding General of the Ninth Corps Area, and General Rosenbaum, Commander of Fort Lewis, were on the reviewing line.

As the last foot troops passed the reviewing stand, two 3-ship formations came low over the parade ground as observers stood at salute to the reviewing officers.

The speed with which aerial photographs can be taken, developed and delivered back to their destination was demonstrated to the two Governors by the 116th Photographic Section. A picture was taken as the first troops passed the reviewing stand. In 20 minutes it was delivered by airplane at the feet of the two State Executives bearing the same name. An hour and 50 minutes constituted the time required for the parade to pass in review.

"You've had a most splendid camp, and I want to congratulate you on your organization," Colonel Kirtland stated to Major Day when bidding him good bye. In this remark both Captains Bayley and McNeal concurred.

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PURSUIT PLANES TESTED AT HIGH ALTITUDES

Major C.V. Haynes, Air Corps, recently conducted tests flights at Langley Field, Va., on P-6D and P-12K airplanes. In testing the turbine supercharger, the P-6D reached an altitude of 34,000 feet with the propeller set at 21.5° pitch. At that altitude the gas consumption was between 40 and 50 gallons per hour and, incidentally, the weather temperature was 50° below zero. The best rate of climb was between 15,000 and 20,000 feet. The peak in air speed was found to be at 22,000 feet, with a maximum of 218 miles per hour.

The P-12K, equipped with a ten to one blower, reached 26,500 feet. In combat against the P-6D, it demonstrated superiority in maneuverability up to 15,000 feet. Above this altitude, the P-6D was superior. In combat with the P-12E, P-6E and P-26, the P-12K proved itself to be superior at any altitude.

In acrobatic flying, the P-12K is almost perfect. The motor will not cut out in V-6822, A.C.

any position, and the elimination of a carburetor enables the motor to clean itself of small quantities of water in the gasoline. Although its full throttle air speed is a little more than that of the P-12E, the increased rate of acceleration is astonishing.

One chief difficulty encountered with the P-12K has been the inability to keep the air and gasoline controls properly adjusted. And the discharge nozzle screens have given some trouble by fouling easily. But it's a real motor, judging from the one that has just topped 288 hours without overhaul.

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CONTRACT AWARDED FOR TRAINING PLANES ✓

Hon. Harry H. Woodring, Assistant Secretary of War, recently announced the award for 26 Primary Training airplanes to the Stearman Aircraft Company of Wichita, Kansas, in the total amount of \$243,578.

The circular proposal for this type of airplane was issued to the industry on August 20, 1934, with the opening date of April 22, 1935.

In accordance with normal procedure, the airplane on which the bid was received was evaluated by means of actual flight tests conducted by a Board of Officers and, in view of the fact that it represented a marked advance in Primary Training type development, the contract was awarded for these airplanes. The total amount also includes a limited number of spare parts.

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GUNNERY PRACTICE FOR 33RD PURSUIT SQDN. ✓

The 33rd Pursuit Squadron, stationed at Langley Field, Va., completed a week of gunnery practice at Virginia Beach, Va., on June 22nd, with most satisfactory results. The entire squadron flew to Virginia Beach on the morning of June 17th and set up camp at the National Guard Airport.

Most of the first day was spent in arranging and organizing the camp. On the following day, however, the routine began in earnest. The ships were in the air and on their various missions incident to the gunnery practice by 4:30 in the morning. Most of the flying was completed by ten o'clock, and the servicing of the ships completed by eleven, after which the men were permitted to indulge in the various forms of recreation offered at Virginia Beach proper.

The squadron was rationed with a detachment of the 58th Service Squadron, and it is doubted if any member of the organization had any complaint to make concerning the food served.

On June 21st, the squadron proceeded to Rocky Mount, N.C., for the dedication of the municipal airport at that city, returning the following morning

to Virginia Beach. A number of the enlisted men of the squadron returned to Langley Field on Saturday, June 23rd, the remainder returning Monday morning. The News Letter Correspondent believes that the gunnery practice was a success, as shown by the scores made by the officers and cadets, and, further, that with all the conveniences and amusements to be found at Virginia Beach, everyone must have had a pleasant time.

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IMPROVEMENTS AT POPE FIELD, FT. BRAGG.

Within the last nine months, many improvements have been made at Pope Field, Fort Bragg, N.C., under the direction of the new commanding officer, Captain E.P. Gaines, Air Corps. A few of the more important improvements are as follows:

An 800-foot drainage system which has four circular brick-lined manholes; partitions with burned lined finish in the operations office which divide it into an operations office, an engineering office and a waiting room for pilots; the planting of 81 pecan trees bordering the street adjacent to the barracks and officers' quarters; planting of 50 peach trees and a 5-acre garden for the organization mess; the clearing and leveling of an extension to the airship field which increases its size to 2,000 x 1,000 feet and makes it large enough to permit heavily loaded airships to take off by dynamic lift.

It is rumored that a 24-hour teletype weather station will soon be in service at the field, completing the New York - Miami chain. The Department of Commerce will install the teletype system, and the Balloon Squadron and Flight "C" men will maintain the station.

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AIR SICKNESS ATTACKS WEST POINTERS

Persons traveling in airplanes under bumpy air conditions are just as susceptible to air sickness as ocean voyagers are subject to sea sickness when the going is rough. According to the Langley Field Correspondent, bumpy air conditions around Mitchel Field, N.Y., have caused much distress to a large percentage of the first classmen of the United States Military Academy who are now at that field receiving familiarization flights in airplanes of the Second Bombardment Group, commanded by Lieut.-Colonel Charles B. Oldfield. It is to this epidemic of air sickness that the News Letter Correspondent attributes the increase in the number of man hours devoted to airplane maintenance work.

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Mr. Lee Smith recently piloted a new Vultee fast transport plane to Langley Field for inspection by General Andrews and his staff. Major Alec Seversky arrived in his new two-place Pursuit plane for a similar inspection.

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FAST WORK IN CHANGING ENGINES

According to the News Letter Correspondent from Pope Field, Fort Bragg, N.C., Flight "C," 16th Observation Squadron, stationed at that post, has set a record on engine changing, and he then adds: "Anyway, it is believed to be a record for an organization of its strength of 28 men at the time of the occurrence.

The record breaking engine change was made while the Flight was on maneuvers at Fort Benning, Ga., with the 8th Infantry Brigade, May 6-18, 1935. In an elapsed time of 11 hours and 15 minutes, an engine was procured by truck from Maxwell Field, almost 100 miles away, the damaged engine removed, and the new one installed and ready to run."

A letter was received from Brigadier-General R. O. Van Horn, Commanding the 8th Brigade (Reinforced) commending six members of Flight "C" and two members of the Second Balloon Squadron for this achievement, viz: 2nd Lieuts. Dudley E. Whitten, John C. Covington, Master Sgt. Samuel E. Lunday, Staff Sgt. Frank Hall, Sergeant Jesse Webb, Privates Gordon T. Kight, Samuel P. Schaaf and Deams C. Pearce. The letter goes on to say:

"On the morning of May 8th, the engine in O-1G airplane No. 3 began to throw oil badly and gave other indications of being in a dangerous condition. Arrangements were made with Maxwell Field to supply a new engine and at 3:00 p.m. that day Lieut. Whitten and Sgt. Webb departed by truck. They were back at Fort Benning with the engine at 10:50 that night, and by 2:00 p.m. the next day this engine was installed and running. At about 2:30 p.m., the crew chief informed the Commanding Officer, Flight "C," that the crankcase of the newly installed engine was cracked. In the face of this disheartening turn of events, Lieut. Covington and Private Pearce departed for Maxwell Field by truck for another engine at 3:15 p.m. They were back at Fort Benning at 10:30 that night, and a crew of four, consisting of Sgt. Lunday, Sgt. Hall, Pvt. Schaaf and Pvt. Kight started at once to install the new engine. At 2:30 a.m., May 10th, this engine was completely installed and ready to run. The engine was run in that morning and at noon May 10th, airplane No. 3 was on the line ready to do its share of the tow-target work which commenced at that hour.

The services rendered by the above-mentioned constituted a signal contribution to the success of the maneuvers, and it affords me genuine pleasure to make record of their accomplishments."

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The last P-12D airplane in the 36th Pursuit Squadron, Langley Field, Va., was ferried to March Field, Calif., by Lieut. B.S. Harrell, Air Corps, on June 4th.

NEW CLASS REPORTS AT ADVANCED SCHOOL

A total of 68 students, graduates from the Primary Flying School at Randolph Field, Texas, reported at the Advanced Flying School, Kelly Field, Texas, for the final four months of training, on July 1st. This class consists of 32 officers of the Regular Army, 33 Flying Cadets, and 3 foreign officers, namely, 1st Lieuts. Ismail Hickmet and Ismail Raif of the Turkish Army, and 1st Lieut. Fructuoso P. Saurez of the Mexican Army. This class is scheduled to graduate on October 15th, next. Below is given a summary of the flying and ground school training to be given this class:

<u>Flying</u>	<u>Hours</u>
Transition	15
Specialized	56
Instrument Flying	13
Cloud Flying	5
Night Flying (Local)	3
Day navigation	28
Night navigation	15
Total	135

<u>Ground School</u>	<u>Hours</u>
Attack Aviation	3
Bombardment Aviation	3
Bombardment Racks	3
Bombs and Explosives	4
Bomb Sights	6
Combat Orders	10
Cooperation with Artillery	24
Infantry Missions	10
Military Organization	4
Observation Aviation	8
Photo Interp and Photography	4
Pursuit Aviation	3
Code Practice (18 words per minute)	20
Reconnaissance	8
Signal Communications	12
Squadron Duties of Junior Officers	8
War Planning Principles	2
Trap Shooting	
Total	132

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The 37th Squadron, Langley Field, Va., is fast acquiring information necessary to the performance of its mission as Attack. Three officers and three enlisted men (Captain Schramm, 1st Lieut. Grussendorf, and Lieut. Sutherland (ACR), Staff Sgt. Miller, Corporal Martini and Pvt. 1st Class Hankey) have just returned from a 10-day period of visiting the Third Attack Group at Barksdale Field, La., observing their tactics and acquiring some first hand information on the loading and laying of smoke as well as dropping some parachute bombs. The trip was made in three newly acquired A-8 type airplanes.

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AIR FORCE CRUCIBLE REACTIONS

FOLLOWING out the purpose of an open forum discussion, the Air Corps News Letter article, entitled "The Air Force Crucible," in the issue of June 15, 1935, has caused a considerable amount of reaction within the Air Corps.

As one old field soldier phrased it, the attitude taken in the above referred to article was a typical case of "the ostrich hiding his head in the sand." It will be recalled that the author of "The Air Force Crucible" based his position upon the U.S. national policy as expressed in the National Defense Act and other supplementary legislation. These state that our national policy is one of defense. Carrying out that thought, the author presented the considerable advantages possessed by a land-based air force when combating any carrier-based air force which might be brought to attack the United States.

Comments of other students of the development of military aviation show that they believe that attack in the future will not be made by employing aircraft carriers to bring the military planes close to the shores of the country against which an attack is to be launched. They base their belief upon the history of the development, not only of military airplanes, but also of commercial airplanes, during the brief span of years during which airplanes have been the subject of intensive aeronautical engineering research. Recently, commercial engineers have been prolix in their claims that, insofar as commercial airplanes are concerned, the efficiency increases with the size. They are unable, at present, to see any limitation to this progression although, as with all other moving craft, such a limit will, no doubt, ultimately be reached.

In line with this trend of development, these students foresee for the military airplane of the future a great range, which will permit it to go from its base in the home country, across great distances, either over land or sea, and return to its home base for replenishment of ammunition, fuel and supplies. They state that, if this is to be the case, probably the best defense will be the possession of a force of similar airplanes which could be used to inflict adequate retaliation.

This school of thought bases its contention upon the analogy with the development of surface fleet operations. In the days of Drake and Nelson, surface fleets enabled the country possessing them to exercise domination over countries with seaboard cities, which were defended neither by fortifications nor an adequate navy. Such do-

mination was in most cases exerted by the mere threat of inflicting damage for which no retaliation could be made. There appears to be considerable merit in the argument that a similar influence would be exerted by a country possessing a strong air force over such countries within the limit of its range of action as did not have adequate means of making reprisals.

In further support of their theory, these proponents point to the vulnerability of aircraft carriers and their accompanying escort of fleet vessels as they approach within the radius of action of shore-based aircraft. The advantage in range of shore-based planes over the carrier-based aircraft will always necessitate the aircraft carrier coming within the effective range of the airplanes operating from the shore before it is able to launch its planes to attack objectives on the land.

As indicating the vulnerability of surface craft to aircraft bombing, there are the known results of the submarine attacks of the World War. No direct relationship can, of course, be established between the effectiveness of aircraft bombing of surface vessels and of submarine torpedoing of them. However, the analogy is sufficiently close to afford an approximation to the probable results of aircraft bombing. The aircraft bombs can undoubtedly exert the same damaging effect against the surface vessels as do the torpedoes of the submarines. The airplanes have speed and altitude to counter-balance the concealment enjoyed by the submarine.

Submarines of the Central Powers sank the following surface vessels during the World War:

<u>No.</u>	<u>Type</u>	<u>Tonnage</u>
9	Battleship	124,645
12	Cruisers	118,009
4	Light Cruisers	19,230
22	Flotilla Leaders and Destroyers	16,620
3	Torpedo Boats	628
18 Misc.	(Sloops Gunboats Mine Sweepers)	19,290
9	Submarines	<u>3,900</u>
77	Totals - tons	302,322
62	Fleet Auxiliaries	<u>300,364</u>
	Grand Total - tons	602,686

As early as 1921, General Douhet published his belief that the trend in military bombing airplanes should be toward greater air endurance (range), so that less and less of an enemy's territo-

ry would be immune to their attacks. General Douhet also advocated concentrating all of a country's air effort in long-range bombers, even to the exclusion of observation aircraft for the Army and Navy. He stated that for a country to provide other types of aircraft was to detract from the main effort. His thesis was predicated, principally, upon the premise that fighter aircraft could not successfully stop the attacks of bombardment aircraft against land or sea objectives. Although this premise was stated fourteen years ago, it appears to be coming more and more into general acceptance as the years go by. The tremendous difficulties presented in obtaining information of a bombardment formation's approach are intensified when such formation can approach from any point of the compass, and at almost any altitude within the capacity of the ceiling of the aircraft, and at a speed which, if it has not already reached 200 miles an hour, will soon do so.

Tacticians are fairly well agreed that successful results against the bombardment airplanes themselves will probably have to be secured by attack against these airplanes on the ground, when they are refueling and re-arming; by destroying the facilities of their bases, and, to a lesser extent, by attacking them in the air, especially upon their withdrawal after bombing an objective. The time lost in finding the objective and completing the bombardment may furnish the necessary element of time required for the fighter airplanes to place themselves across the path of the hostile bombardment in a position to attack them on the way back to their base.

Air Commodore Charlton, in his recent book, "War From the Air, Past, Present and Future," presents General Douhet's arguments and then proceeds to state the air-line distances from the frontiers of the various countries of Europe to the vital objectives of neighboring countries. If he does not definitely accept General Douhet's theory that hostile air effort will be concentrated upon attacking the vital objectives to be found in the enemy's country, he at least indicates that such a course of action would afford results redounding to the advantage of that country possessing the shortest lines of operation. An apparent inconsistency in this respect is Air Commodore Charlton's statement that bombardment would probably operate from bases far in the rear of the frontiers, in order to secure pro-

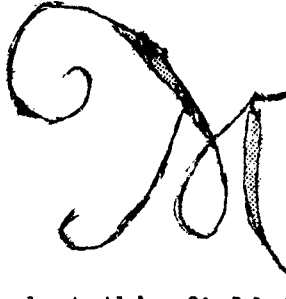
tection for the air bases. It is obvious that to do so would considerably lengthen the lines of operation for the bombardment airplanes and might thus result in converting an advantage in this respect into a disadvantage where the enemy country operated from bases close up to their own frontier. Air Commodore Charlton emphasizes the point that correspondingly greater effect can be brought to bear against enemy objectives the shorter the lines of operation become.

As fleets have developed, naval powers have studied the conversion of commercial vessels to fleet uses in time of war. In general, the experience has been that an effective conversion which would include the installation of protective armor and the elaborate fire control systems of naval vessels required too great a time to permit having the commercial vessels made available in time to be used effectively in the war. It does not appear that this experience will be repeated in the case of converting commercial airplanes to military use. This is due to the fact that protective armor has not been found suitable for use upon military airplanes, and to the further fact that most of the installations and equipment required for the successful operation of military airplanes will also be required for the satisfactory operation of commercial planes. This makes the problem of conversion a far simpler one in the case of aircraft than in the case of surface vessels. It is probable, however, that in making such a conversion, the saving in time may make it worth while to accept certain shortcomings in the military installations which are placed in the commercial airplane. For example, a commercial airplane of an equal gross weight with a given bombing airplane may not, after conversion, be able to carry more than perhaps half of the bomb weight of the military airplane, and it may have to carry this weight on racks mounted beneath the wings or fuselage, rather than in internal bomb bays, where they are protected from head resistance as they are in the military bomber.

All these considerations confront the student of the possibilities of air warfare of the future. As has been the case with the development of other forms of the military art, it may be expected that the final air strategy and tactics at the end of the next major war will be far different from what is visualized after a merely theoretical approach to the subject.



WAR TIME AIRMEN HOLD REUNION



MEMORIES of war-time days were revived on the occasion of the recent visit to the Air Corps Technical School at Chamute Field, Rantoul, Ill., of members of the former 267th Aero Squadron which was station-

ed at this field during the War. Members of this Squadron had a reunion in Champaign, Ill., and were accorded permission to visit Chamute Field in a body. Altogether, 22 of these World War veterans gathered in this well known college town, some of them coming from localities over 900 miles distant in order to meet the "Gang."

The Reunion was an inspiration and a success from every standpoint, and it was felt that every member present was well repaid for the time and money expended in making the effort to come to Champaign.

After the meeting was convened, a good fellowship session was held for an hour, everyone renewing old acquaintances and talking over old times. Then they gathered around the piano and sang the old songs they loved so well when the squadron was stationed in England.

The election of Louis K. Handorf and Lloyd Hessey, both of Indianapolis, as President and Secretary-Treasurer, respectively, for the ensuing year, was followed by a discussion as to the meeting place for the 1936 Reunion, and it was voted to hold it on May 31st at Indianapolis, Ind.

Throughout the entire meeting, different comrades spoke of the various happenings of the old 267th Squadron back in 1918. All letters and telegrams which had been received in the past 60 days from the different members residing in various parts of the United States were read and greatly enjoyed by all present. Many a laugh and a joke was had during the reading of these letters.

Touching on the visit to Chamute Field, Lee Stonebraker, retiring President, in recording the minutes of the Reunion, stated:

"Our experiences at Chamute Field were very different from the time we served there in 1918. We were met at Headquarters by Col. Junius Jones, Commandant of Chamute Field; Major Carey; Captain Anderson, Adjutant of the Post, and Captain Goddard, an authority on National Aerial Photography. These officers escorted us through the Field, the first stop being made at the Aerial Photography School where we saw a map of the City of Chicago, which was approximately 12 x 27 feet in size, taken over the City of Chicago by numerous ex-

posures and pieced together absolutely faultlessly, being accurate in every respect. We also saw one of the greatest collections of aerial pictures that have ever been taken for the United States Government, and I think I am safe to say any place in the World.

They also explained in detail how these pictures were taken, and told us of one of the big projects of the Government at this time, that is, the making of aerial maps taken from an altitude of 25,000 feet. These different pictures, which look like a zigzag puzzle at the present time, will be fastened together accurately to make the first and only accurate aerial map of various areas of this size in the world. We saw among other things aerial cameras ranging in cost from \$3,000 to \$8,000; also moving pictures; how films are stored in a modern frigidair unit, and other equipment too numerous to mention.

From this building we went to one of the barracks at the northeast part of the field, equipped with a lounging room, pool tables, etc. From here the group was escorted to the old building which we would call the E. and R. building, known to the Squadron as the "Erection and Repairing of Airplanes Building," but now called the Woodworking Department. In this building we saw the modern way of repairing wings, doping of wings, instrument testing room, the propeller room, and the general repair of the wings and fuselage. This building is being changed shortly to accommodate work on all-metal planes, the wooden planes giving way to the all-metal planes. This work was explained to us very thoroughly by civilian instructor in charge, Mr. Browning. Here we learned that Mr. Drinkwater, known to most of the old gang, was still on duty.

Our next stop was at the Engine Testing Room. This building is given over to the repairing and reconditioning of airplane motors. We had a very interesting lecture on the tearing down and repairing of the modern airplane motors by civilian instructor, Mr. Jackson. He stated what they are trying to achieve is for every cubic inch of displacement in the motor to produce more horsepower. We saw motors ranging from 400 horsepower to 700 horsepower. There are two different types of motors used at the present time, the whirlwind motor and the liquid-cooled V-type stationary motor. He also gave us a very interesting discussion on superchargers.

From here we were taken to the barracks of the 267th, which looked very similar excepting the squadron now has a very nice lounging room in one end, being equipped with easy chairs, radio, magazines, smoking stands, etc., Instead of having double deck beds as we had, single

beds are now used, with about twice the space between them as when we were at Chamute, otherwise the appearance of the barracks is practically the same as when we were stationed there.

We were next escorted to the hangar directly south of the barracks; these hangars were formerly divided into two sections, the partition now having been removed to accommodate the large bombing planes and the much larger planes they are using today than during the time of the war.

We next walked to the center of the field, where they have erected a new two-story building where the flyers obtain each hour of the day radio broadcasts and weather reports from all the commercial and government fields of the United States. They have divided the Country into 4 zones and know the weather conditions from Portland, Maine, to Portland, Oregon, every hour of the day. This is also a checking-in and checking-out station for Army flyers.

Photographic Officer of the Post, Captain Goddard, next took a picture of all the fellows of the 267th who attended this reunion, in front of one of the new type planes. This picture was taken at 5:30 p.m., and is a very good example of the high type photographic work they are doing at Chamute Field.

The surprise of the day followed when we were taken to one of the former hangars which is now occupied as an enlisted men's and Noncommissioned Officers' mess hall for the entire field. Here Major Carey, Post Mess Officer, had provided a fine 'Dutch Lunch' for everyone present. You have no idea what satisfaction and thrill this gave all the members present to sit down together again in the old field for mess."

Returning to Champaign following their enjoyable visit to Chamute Field, the veterans attended a banquet at the leading hotel, and a good time was had by all. The chief entertainer was a member of the old outfit, Victor J. Beasley, assisted by Harry Curzon, a Champaign ex-Service man. Describing his various feats of legerdemain, the minutes state:

"He took dollar bills out of our pockets, burned them up, and returned them to us in a lit cigarette. He also took quarters away from us and returned them to us in a fresh egg, breaking the shell and returning the money within the egg; also cutting a banana in three parts and never cutting the skin; so if any of you fellows happen to meet this man in your travels you had better watch your step. He is liable to take out your gold fillings."

Following speeches by incoming and retiring officers, the banquet came to a close with the winging of "Old Lang Syne" by all present.

We wonder how many more war-time out-

fits have banded together and are keeping fresh the memories of their war service as is being done by the veterans of the 267th Squadron? All of us are wont to allow our memories to drift back to bygone days and, whether it is an actual fact or not, talk of them as "the good old days."

The example set by the Commanding Officer of Chamute Field and the officers under him in according all possible courtesies to the visiting veterans is worthy of emulation by every army post in the country. These veterans, inspired solely by patriotic motives, answered their country's call in a time of emergency. Their service then was most highly appreciated and they were heroes in the eyes of all. But, alas, their heroic deeds and the many sacrifices they made for their country's cause are all too soon forgotten. Who has a better right to expect the hand of friendship and courtesies from military men than the war veteran?

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CRISSY FIELD COMPLETES AIRPORT QUESTIONNAIRES.

The Chief of the Air Corps recently sent a letter of appreciation to the Commanding Officer, Crissy Field, Calif., expressing his satisfaction on the excellent performance of Crissy Field in completing within a very short period the questionnaires covering airports in the San Francisco Bay Strategic Area. The Commanding Officer also supplied excellent photographs of each of the airports covered, and the record thus furnished forms valuable information for the Office Chief of the Air Corps and the General Headquarters Air Force in preparing training exercises and maneuvers, as well as plans covering the area concerned.

The progress throughout the Air Corps in completing these questionnaires has been satisfactory. It is probable that in many cases questionnaires have been completed and are being held until all questionnaires covering the area are completed, when all will be forwarded together. When all these questionnaires are received the Air Corps will have a record of over 600 airports, with information in sufficient detail to enable the formulation of plans for training exercises and maneuvers for all strategic areas of the Continental United States.

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Colonel Alva J. Brasted, Chief of Chaplains, was a recent visitor at Kelly Field, Texas, for the purpose of giving a character building talk to the personnel at that station. This was his first official visit as Chief of Chaplains to all Regular Army posts, including CCC Camps.

Colonel Brasted was accompanied by Col. Jacob E. Fickel, Commandant, and Captain E.R. Martin, Chaplain, at Kelly Field.

V-6822, A.C.

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WEATHER FLIGHTS BY PILOTS OF WASHINGTON NATIONAL GUARD
By the News Letter Correspondent

Washington's 41st Division Aviation, National Guard, Felts Field, Spokane, commanded by Major Robin A. Day, Air Corps, Instructor, has just completed a unique record that has brought distinction to both the commissioned and enlisted personnel of that organization.

Reported by Malcolm Rigby, Felts Field airways weather observer, as being the only National Guard Air Corps unit in the United States to render such a service, the 41st Division Aviation has just completed one year of making volunteer "weather hops" to the higher altitudes.

During the past year Regular pilots at seven Army and Navy stations, each, have assisted the Weather Bureau with its experimental studies of the upper weather conditions.

The inauguration of "weather hops" started on July 1, 1934, with pilots of the 41st Division Aviation receiving no compensation other than gasoline mileage for their cars to the field. For the first few months, the flights were made at 1:00 a.m., so as to correspond with weather reports secured from similar flights in the eastern section of the country. Douglas O-38E Observation planes were used generally for the work, with the device that holds the weather recording instrument installed on the left wing.

The airplane was equipped with oxygen for use by the pilots at higher altitudes. The radio equipment consisted of the SCR 134 set, through which communication was kept with either the Division Aviation ground station or Department of Commerce station.

During the 365 days, flights were made every day with the exception of 56 days. Six days of extremely bad weather made weather flights impossible. On 43 days the airplanes were away on extended navigation flights, and on 7 days the weather recording instrument was out of commission. On 11 days, two flights were necessary because of bad conditions. There were a total of 320 flights, ranging in altitude from 6500 to 22,300 feet. The average altitude was 18,500 feet. An average of 80 minutes was necessary to complete each flight, or a total of 440 hours flying time for the year.

"During all this time there were only two occasions when the pilot did not return to Felts Field," related Mr. Rigby, "and that was because the clouds closed in, making landing necessary at Pasco and Deer Lake, Washington.

This is the first time that upper air current observations have been made in the Northwest. From these observations we discovered that over Spokane we have the lowest mean temperature in the

United States, and also the highest humidity.

At 17,000 feet altitude we found a temperature of 40 degrees below freezing. From this we have determined by our observations that this temperature is lowest when storms are approaching this area.

From data gathered on these flights we are now determining the type of clouds in which ice is most encountered by airplanes. Comparing our night and day flight records, we have learned that there is a 30 degrees temperature inversion in the night flights."

During the weather flights the pilots and observers used 12 tanks of oxygen. Weather Bureau rules by which the flights were made provided that, after reaching certain definite altitudes, the pilots should fly level for a brief time in order to permit the weather instrument to make the proper recordings.

On these flights every pilot agrees that he received exceptional and valuable training, particularly in blind and instrument flying. Many of the flights required navigation through several layers of clouds, and landings with none too high ceilings. In instances of low ceilings voice communication was maintained with the field stations.

Felts Field, with its beacon and its boundary well lighted, proved to be an excellent base from which to carry on such operations during the night. This field is practically two miles long and more than three-quarters of a mile wide.

Closeness of the airport to Spokane also proved beneficial as pilots coming down through bad weather were able to check their bearings by the light spot created in the weather from thousands of lights in the city.

"The work by the 41st Division Aviation is a splendid example of cooperation between two branches of government, and the Weather Bureau has nothing but unlimited praise for the outstanding work by the 41st Division National Guard Aviation," said Mr. Rigby.

While some pilots, with more time available from their private business than others, did more Weather Bureau flying, every pilot in the Division Aviation assisted with the flights. Each pilot got at least 10 hours of weather flying.

"I am proud of the record made by the pilots in the organization, who started making the weather hops before my assignment with the squadron," said Major Day. "I was glad to see the policy continued."

A contract for weather flights has been awarded a commercial operator.

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B I O G R A P H I E S

LIEUT.-COLONEL MILLARD F. HARMON, JR.

Lieut.-Colonel Millard F. Harmon, Jr., Air Corps, Commanding Officer of the 20th Pursuit Group at Barksdale Field, Shreveport, La., was born at San Francisco, Calif., January 19, 1888.

Following his graduation from the United States Military Academy June 12, 1912, he began his military career as a second lieutenant of Infantry, and was stationed successively in Minnesota, Kentucky, Texas, and the Philippines. While serving with the 27th Infantry he was, in November, 1915, attached to the Aviation Section, Signal Corps, and assigned to undergo flying training at the Signal Corps Aviation School at San Diego, Calif. Completing this course on October 15, 1916, he was later attached to the 1st Aero Squadron with the Punitive Expedition into Mexico.

In February, 1917, he was one of three American officers sent abroad to go through the French schools with a view to acquiring a knowledge of methods employed in France for their training of aviation personnel.

During the World War, Lieut.-Col. Harmon was on duty connected with the inspection and laying out of landing fields and, in addition, performed various other staff assignments. For a brief period he commanded the First Air Depot, and later served as pilot with French Escadrille 65. For his service with this organization he was highly commended by the commander of the French Combat Squadron No. 2, who stated that he (Major Harmon) insisted in taking part in all of the patrols of that Escadrille and had made besides a great number of voluntary patrols, thus setting the very best example of enthusiasm and of scorn of danger.

Recalled from duty in France in May, 1918, Lieut.-Col. Harmon was ordered to Washington and assigned to duty as Chief of the Flying Branch, Schools Section, Office of the Director of Military Aeronautics. He was rated Junior Military Aviator, June 16, 1917. On August 5, 1918, he was designated as Assistant Chief of the Training Section, in charge of heavier-than-air training.

Relieved from duty in Washington in October, 1918, he was assigned to the command of the First Provisional Wing at Mineola, L.I., New York, and served in this capacity until January, 1919, when he was ordered to Panama to assume command of the air forces to be placed in operation in the Canal Zone. In addition to serving as Commanding Officer of France Field, Panama, he also performed the duties of Department Air Service Officer, Panama Canal Department.

In April, 1921, Lieut.-Colonel Harmon was assigned to duty in the Office of the Chief of Air Service, serving there until January, 1922, as a member of the

Advisory Board and then in the Training and War Plans Division.

Assigned as student at the General Service Schools, Fort Leavenworth, Kansas, in the fall of 1923, he graduated therefrom in June of the following year and then went to school another year, this time at the Army War College. His graduation was followed by several months' duty at Bolling Field, D.C., as commanding officer, and in September, 1925, he was assigned as a member of the War Department General Staff.

With the reestablishment of March Field, Riverside, Calif., as a Primary Flying School, he was, in April, 1927, assigned as Commandant thereof, performing this duty until August, 1930, when he was placed on duty at Fort Leavenworth, Kans., as Instructor at the Command and General Staff School. In June, 1932, he was assigned to duty at Barksdale Field, La., as Commanding Officer of the 20th Pursuit Group. By virtue of this assignment, he holds the temporary rank of Lieut.-Colonel.

Lieut.-Col. Harmon has over 2,000 flying hours to his credit. For his service overseas during the World War, he received from the French Government the Croix de Guerre with star.

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LIEUT.-COLONEL GEORGE C. KENNEY ✓

Recognized as one of the outstanding officers in the Air Corps, Lieut.-Colonel George C. Kenney received concrete evidence of the high regard in which he is held by his superiors when, upon the organization of the GHQ Air Force on March 1, 1935, he was promoted from Captain to the temporary rank of Lieut.-Colonel and assigned to duty as Assistant Chief of Staff, G-3, GHQ Air Force, Langley Field, Va. He entered the military service during the World War and served overseas for a period of 18 months, all but two months of this service being with the 91st Aero Squadron.

Born at Yarmouth, Nova Scotia, Canada, August 6, 1889, he passed through grammar school and high school in Boston, Mass., and attended the Massachusetts Institute of Technology, Cambridge, Mass., for three years. For six years thereafter he was engaged in civil engineering work and as a contractor and, on June 2, 1917, enlisted as a Private in the Aviation Section, Signal Corps, with a view to becoming a flyer. Assigned to pursue the aeronautical ground school course at the institution of learning he previously attended - the Massachusetts Institute of Technology - he was, upon the completion of this course, assigned on July 25, 1917, to Hazelhurst Field, Mineola, L.I., New York, for flying training, and passed the required tests for the rating of Reserve Military Aviator on September 14, 1917.

On November 8, 1917, he accepted a com-

mission as 1st Lieutenant, Aviation Section, Signal Corps, and, assigned to active duty with the 14th Foreign Detachment, he proceeded overseas with this organization and began advanced flying training on December 16, 1917, at the Third Aviation Instruction Center at Issoudun, France.

Upon the completion of this advanced training, on February 13, 1918, he was a student for a brief period at the First Corps Observation Training Center at Amanty, France, and on February 22, 1918, was assigned to the 91st Aero Squadron. He was on duty with this organization for a period of nearly 16 months, during which time it was under the orders of the French 8th Army from May 24 to September 4, 1918; the First American Army from September 4 to November 16, 1918, and the Third American Army from November 16 to April 9, 1919.

Lieut.-Colonel Kenney piloted the Salmson type airplane on the Toul and Meuse-Argonne Sectors, accumulating a total of about 110 flying hours over the front lines and engaging in twelve combats. He was credited with the destruction in aerial combat of two enemy aircraft, and was awarded the Distinguished Service Cross for extraordinary heroism in action near Jametz, France, October 9, 1918, the citation accompanying same being as follows:

"This officer gave proof of his bravery and devotion to duty when he was attacked by a superior number of aircraft. He accepted combat, destroying one plane and drove the others off. Notwithstanding that the enemy returned and attacked again in strong numbers, Lieutenant Kenney continued his mission and enabled his observer to secure information of great military value."

Lieut.-Col. Kenney was promoted to Captain, March 18, 1919. He acted as flight commander while the 91st Squadron, serving with the Army of Occupation, was located at Treves and Coblenz, Germany. He was detached from the Squadron on June 2, 1919, and returned to the United States, being stationed at Mitchel Field, L.I., New York, until his transfer to Kelly Field, Texas, in August.

Assigned to the 8th Aero Squadron at McAllen, Texas, on October 12, 1919, he served for ten months as pilot and commanding officer of this squadron, flying the DH-4 airplane on border patrol missions. Following two months of temporary duty at Fort Knox, Ky., where, flying the DH-4-B airplane, he was engaged in artillery adjustment work, he was detailed on November 1, 1920, as a student at the Air Service Engineering School at McCook Field, Dayton, O.

For two years, following his graduation from the Engineering School, he was on duty as Air Service Inspector at

the plant of the Curtiss Aeroplane and Motor Corporation at Garden City, Long Island, N.Y.

Returning to the Engineering Division at McCook Field in June, 1923, he occupied successively the positions of Chief of the Factory Section, Contracting Officer, and Chief of Production Engineering.

Detailed as a student at the Air Corps Tactical School, Langley Field, Va., in September, 1925, he completed the course in June of the following year. He next completed the one-year course at the Command and General Staff School, Fort Leavenworth, Kansas, and returned to Langley Field to assume the duty of Instructor at the Tactical School.

From September, 1932, to June, 1933, he was a student at the Army War College, Washington, D.C., and, upon his graduation, was assigned to duty in the Plans Division, Office of the Chief of the Air Corps, where he remained until he was assigned to staff duty with the GHQ Air Force.

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A CLUBHOUSE FOR FLYERS AT PITTSBURGH

The "Flyers Club," erected and furnished by the Commissioners of Allegheny County, Pittsburgh, Pa., for the benefit of all pilots, military and civilian, was formally dedicated on Saturday, May 18th. Colonel Charles C. McGovern, Chairman of the Board of Commissioners, was the prime mover in seeing that the Club was rushed to completion in record time, about sixty days. He personally spent many hours at the airport, seeing that all went well with the Club. Among Air Corps officers who were guests of the Flyers Club on the opening day were General Westover and Captain Trunk, of the Office of the Chief of the Air Corps; Colonel Frederick L. Martin and Captain Elmer E. Adler, of the Army War College. Members of the Pennsylvania National Guard Air Corps present on this occasion were Major Victor Dallin, Captain George R. Dickens and Lieut. Claude Craven.

The Flyers Club is Colonial in design, and the Colonial spirit has been followed throughout the house. It has accommodations for twenty pilots overnight, and to date there have been approximately fifty Air Corps pilots who have made use of its accommodations.

All Air Corps officers on cross-country flights are invited to make use of the Flyers Club as guests of Allegheny County.

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A Board of Air Corps officers, consisting of Brigadier Generals James E. Chaney, Frank M. Andrews, Henry C. Pratt and Lt.-Colonel Arnold N. Krogstad, was appointed by the War Department for the purpose of making flying proficiency classification of all commissioned officers of the Air Corps, under provisions of W.D. Circular 6.

AUTOMATIC DEVICE FOR SWITCHING FUEL TANKS

THE Air Corps Materiel Division is constantly striving to develop various aids for the airplane pilot to safeguard flying to the utmost possible extent. In the efforts put forth to prevent forced landings due to fuel system difficulties, the Division has developed a device which will insure the continuous operation of the engine in the event of the failure of the pilot to "switch tanks" at the proper time. This aid to the pilot is embodied in a fuel-system design in which the changing from an empty tank to a full one is performed automatically.

The pilot is warned by a light when the main or auxiliary supply is exhausted, but fuel is drawn from the other supply or reserve, whether the pilot turns the fuel cock or not. Whether the desirable features of this fuel system will warrant the additional complication can only be determined by installation in an airplane and through experimental and service test, which will probably extend over a period of two years.

Another proposal is the installation of a warning device which will indicate when the fuel supply is exhausted sufficiently early to enable the pilot to switch tanks before the engine stops. Such a signal, consisting of a red light

on the instrument panel, is being developed. One of the actuating devices is merely a fuel pressure-operated switch which will light the signal when the pressure drops, giving the pilot ten seconds or more in which to switch tanks. A quantity of such units is being procured for installation on airplanes in service. The other devices operate the signal switch by means of a float mechanism and incorporate a reserve of two or four quarts of fuel which will operate the engine from one to three minutes after the pilot has been warned. One of these units has undergone a successful flight test and will be service tested.

Of the proposed systems, Materiel Division engineers believe that the simple pressure-operated switch and signal light will prove most satisfactory, due to its lack of floats, levers, check valves, and extra plumbing, which are potential sources of trouble. The belief is further expressed that a short period of warning, requiring immediate action, will be more effective than one of a minute or more, as in the latter case the pilot might, if busy, postpone turning the fuel cock, depending on the longer period of time, misjudge the time, or have his attention turned to other matters.

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TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Lieutenant-Colonel

Major William B. Mayer, 19th Composite Wing, Albrook Field, assigned as Commander, Panama Air Depot, France Field, Panama, July 11, 1935.

To Major

Captain Harold G. Peterson assigned as Commanding Officer, 65th Service Squadron, Luke Field, T.H., July 3, 1935.

Captain Ray H. Clark assigned as Commanding Officer, 19th Pursuit Squadron, Wheeler Field, T.H., July 3, 1935.

1st Lieut. Russell I. Williamson assigned as Supply Officer, Fairfield, O., Air Depot, June 30, 1935.

Captain Gilbert T. Collar assigned as Supply Officer, 19th Composite Wing, Albrook Field, Canal Zone, July 11, 1935.

Captain Albert B. Pitts assigned as Commanding Officer, Philippine Air Depot, July 10, '35.

To Captain

1st Lieut. Willard R. Shephard assigned as Intelligence and Operations Officer, 2nd Observation Squadron, Philippines, July 10, 1935.

1st Lieut. George W. Hansen assigned as Flight Commander, 28th Bombardment Squadron, Philippines, July 10, 1935.

1st Lieut. John P. Kenny assigned as Flight Commander, 28th Bombardment Squadron, Philippine Dept., July 10, 1935.

To Captain (Continued)

1st Lieut. Russell Scott assigned as Flight Commander, 5th Bombardment Squadron, Mitchel Field, N.Y., June 26, 1935.

1st Lieut. Dixon M. Allison assigned as Engineer and Armament Officer, 1st Pursuit Group, Selfridge Field, Mich., June 30, 1935.

1st Lieut. Jack W. Wood assigned as Flight Commander, 4th Observation Squadron, Hawaiian Department.

1st Lieut. Lewis R. Parker assigned as Engineer and Armament Officer, 5th Composite Group, Hawaiian Department.

1st Lieut. Walter C. White assigned as Flight Commander, 1st Bombardment Squadron, Mitchel Field, N.Y., June 30, 1935.

1st Lieut. Harry C. Montgomery, Jr., assigned as Flight Commander, 50th Observation Squadron, Luke Field, T.H., July 4, 1935.

1st Lieut. Raymond L. Winn assigned as Flight Commander, 26th Attack Squadron, Wheeler Field, T.H., July 4, 1935.

1st Lieut. Richard H. Lee assigned as Intelligence and Operations Officer, 28th Attack Squadron, Wheeler Field, T.H., July 4, 1935.

To 1st Lieutenant

2nd Lieut. Benjamin J. Webster assigned as Transport Officer, 75th Service Squadron, Wheeler Field, T.H., July 4, 1935.

To 1st Lieutenant

2nd Lieut. Edwin G. Simenson assigned as Supply Officer, 50th Observation Squadron, Luke Field, T.H., July 4, 1935.

2nd Lieut. Daniel S. Campbell assigned as Supply Officer, 26th Attack Squadron, Wheeler Field, T.H., July 4, 1935.

2nd Lieut. William G. Beard assigned as Communications Officer, 72nd Bombardment Squadron, Luke Field, T.H., July 4, 1935.

2nd Lieut. Ivan L. Farman assigned as Signal Officer, Air Corps Technical School, Chanute Field, Ill., June 30, 1935.

2nd Lieut. John J. Hutchison assigned as Armament Officer, 72nd Bombardment Squadron, Luke Field, T.H.

2nd Lieut. Donald L. Hardy assigned as Supply Officer, 50th Observation Squadron, Luke Field, T.H.

2nd Lieut. Byram Bunch assigned as Armament Officer, 23rd Bombardment Squadron, Hawaii.

2nd Lieut. John M. Price assigned as Armament Officer, 25th Bombardment Squadron, France Field, Panama, June 16, 1935.

2nd Lieut. Samuel A. Mundell assigned as Communications Officer, 44th Observation, Albrook Field, June 28, 1935.

2nd Lieut. Robert H. Landry assigned as Supply Officer, 78th Pursuit Squadron, Albrook Field, Canal Zone, June 28, 1935.

2nd Lieut. Charles A. Clark, Jr., assigned as Commanding Officer, 6th Photo Section, Philippine Department, July 10, 1935.

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The following-named Air Corps officers, holding temporary increased rank, were assigned to other duties but continue to hold such increased rank:

Lieut.-Colonel Junius H. Houghton from duty with Panama Air Depot to Commanding Officer, 6th Composite Group, France Field, Panama.

Captain Archibald Y. Smith as Flight Commander, 49th Bombardment Squadron.

Captain Robert E.L. Choate as Intelligence and Operations Officer, 49th Bombardment Squadron, Langley Field, Va.

1st Lieut. David H. Kennedy as Supply Officer, 49th Bombardment Squadron, Langley Field.

1st Lieut. David H. Baker from Armament Officer, 78th Composite Squadron, Albrook Field to duty as Adjutant, 16th Pursuit Group.

Captain Elmer J. Rogers, Jr., from 4th Observation Squadron, Luke Field, to Intelligence and Communications Officer, 18th Composite Wing, Fort Shafter, T.H.

1st Lieut. Lawrence B. Kelley from Armament Officer to Supply Officer, 25th Bombardment Squadron, France Field, Panama.

Captain Charles G. Goodrich from 36th Pursuit Squadron, Langley Field, to duty as Supply Officer, 58th Service Squadron.

1st Lieut. Frederick E. Calhoun from 13th Attack Squadron to Adjutant, 3rd Attack Group, Barksdale Field, La.

Captain Homer L. Sanders from 26th Attack Squadron, Wheeler Field, to Flight Commander, 6th Pursuit Squadron, Wheeler Field.

1st Lieut. Donald L. Hardy, 50th Observation Squadron, to Supply Officer, 4th Observation Squadron, Luke Field, T.H.

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OFFICERS RELIEVED FROM TEMPORARY RANK

Colonel John F. Curry relieved from duty as Commandant, Air Corps Tactical School, Maxwell Field, Ala., June 30, 1935.

Lieut.-Colonel Claude E. Duncan relieved from duty with 1st Wing, March Field, Calif., July 26, 1935.

Captain Robert L. Easton from duty with 26th Attack Squadron, effective upon date of departure from Hawaii.

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CHANGES IN STATION OF AIR CORPS OFFICERS

To Bolling Field, D.C.: Captain Henry R. Baxter from Panama. Relieved from temporary rank effective on date of departure.

To Kelly Field, Texas: 1st Lieut. Charles E. Densford, 4th Observation Squadron. Relieved from temporary rank upon departure from Hawaii.

To Langley Field, Va.: Major Hugh C. Downey, from Mitchel Field, N.Y., to duty with station complement. Relieved from temporary rank, June 26, 1935.

To San Diego, Calif.: Captain Leland C. Hurd from duty as Air Corps representative at Curtiss Aeroplane and Motor Co., Buffalo, N.Y., to duty as Air Corps representative at plant of Consolidated Aircraft Corporation.

To Fort Leavenworth, Kansas: Captain Harry A. Johnson for duty as student at Command and General Staff School.

RELIEVED FROM DETAIL TO AIR CORPS: 2nd Lieuts. Charles E. Brown, Donald F. Buchwald, Paul Burlingame, Stephen O. Fuqua, Infantry; Richard T. Coiner, Jr., Cavalry; Horace L. Sanders, Field Artillery; Paul E. Ruestow, Corps of Engineers.

TRANSFERS: 1st Lieut. Leslie A. Skinner to the Ordnance Department, May 28, 1935, with rank from August 1, 1929.

PROMOTIONS: to 1st Lieutenant: 2nd Lieut. Louis E. Massie, rank June 7, 1935; 2nd Lieut. Stuart P. Wright, rank June 12, 1935.

ORDERS REVOKED: Relief of Major Phillips Melville from assignment and duty with 5th Composite Group and from temporary rank and his assignment to Randolph Field, Texas.

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AIR CORPS OFFICERS TO ATTEND UNIV. OF MICHIGAN

The following-named officers were detailed for duty as students at the University of Michigan, Ann Arbor, September 16, 1935:

1st Lieuts. Louis E. Massie, upon completion of present course of instruction at Air Corps Technical School, Chanute Field; Robert W. Stewart, Fort Bragg, N.C.; 2nd Lieuts. Samuel O. Redetzke, 62d Service Squadron, Brooks Field, and Herbert H. Tellman, Supply Officer, 1st Pursuit Group, Selfridge Field, Mich. Two last named officers relieved of temporary rank, that of Captain, September 15, 1935.

The War Department recently issued the following announcement relative to a new type of Bomber constructed by the Boeing Company:

"Hailed as the fastest and longest range Bomber ever built, a giant four-engined all-metal airplane, today was brought to light by the Boeing Aircraft Company of Seattle after more than a year of work on the project.

Known merely as the Boeing 299, the huge craft shortly will undergo test flights before being submitted to the United States Air Corps in open competition with other types at Dayton, Ohio. These tests, it was announced, are expected definitely to stamp the plane as the most formidable aerial defense weapon ever offered this country, with far more speed and a substantially greater cruising range than any bomber ever before produced.

Military secrecy necessarily shrouds many details of the Model 299. Boeing officials said, however, that it would meet or exceed specifications of the Air Corps as set forth in a public call for bids and equipment.

Among other things, these requirements are known to call for a high speed of from 200 to 250 miles an hour at 10,000 feet altitude, for an operating speed of from 170 to 220 miles an hour at the same altitude, for an endurance at operating speed of from six to ten hours, and for a service ceiling of from 20,000 to 25,000 feet.

The Boeing "aerial battle cruiser" has a wing span of approximately 100 feet, length of 70 feet, height of 15 feet, and gross weight of about 15 tons. It is of the all-metal mid-wing type, equipped with four Hornet engines of over 700 horsepower each, and with the new Hamilton Standard three-bladed constant speed propellers. Clean streamlining is a feature, with retractable landing gear and tail wheel as further aids to speed. Officials declare the plane to be the first military type which will be able to complete a mission in the event one engine ceases to function.

A number of new armament installations, developed by Boeing engineers, are carried in addition to the latest types of flight and engine instruments, including an automatic pilot, two-way radio telephone equipment and a radio "homing" device. Air brakes are used for the first time in any American aircraft, with these as well as the craft's wheels and tires having been especially developed.

Construction is of typical Boeing semi-monocoque type, the structure consisting of longerons, skin stiffeners, bulkheads and smooth outside metal skin.

The Model 299 makes its bow as the latest in a long line of Boeing achievements dating from 1916. Among these in recent years have been the company's high-speed twin-engined bomber of 1931 and commercial transport plane of 1933, both of which established the current trend in aircraft design and construction.

An entire fleet of the transports, known as the Model 247-type, today is operating on the routes of United Air Lines, Pennsylvania Airlines, National Park Airways, Western Air Express and Wyoming Air Service. In addition, single-seater Boeing fighters are regular equipment at Army Air Corps bases, at Navy shore stations and on Uncle Sam's aircraft carriers."

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✓ BOARDS TO PASS ON PURSUIT AND CARGO PLANES

Under Special Orders of the War Department recently issued, two boards of Air Corps officers were appointed, to meet at the call of the president thereof, at Wright Field, Dayton, Ohio, on a date to be set by the Chief of the Materiel Division of the Air Corps, for the purpose of evaluating as to utility of type and landing and take-off characteristics, the two-place and single Pursuit airplanes submitted under circular proposals No. 35-48 and 35-49, and the cargo airplanes submitted under circular proposal No. 35-29.

Officers of the Board to consider the Pursuit types of airplanes comprise Lieut.-Cols. Millard F. Harmon, Jr., Barksdale Field, La.; Ralph Royce, Selfridge Field, Mich.; Adlai H. Gilkeson and Major Harold H. George, of Langley Field, Va.; Major Claire L. Chennault of Maxwell Field, Ala.; Captains Ross G. Hoyt of the Office of the Chief of the Air Corps, Washington, and Ployer P. Hill, of Wright Field, Dayton, Ohio.

The Board appointed to pass upon the merits of the cargo airplanes consists of Majors John F. Whiteley, Orlo H. Quinn and Captain Russell A. Wilson, Langley Field, Va.; Major Harrison W. Flickinger, of the Fairfield, O., Air Depot; and Captain Ployer P. Hill, of Wright Field, Ohio.

The proceedings of these Boards will be submitted to the Secretary of War, through the Chief, Materiel Division, Air Corps, pursuant to the provisions of Section 10 (b) Air Corps Act of 1926.

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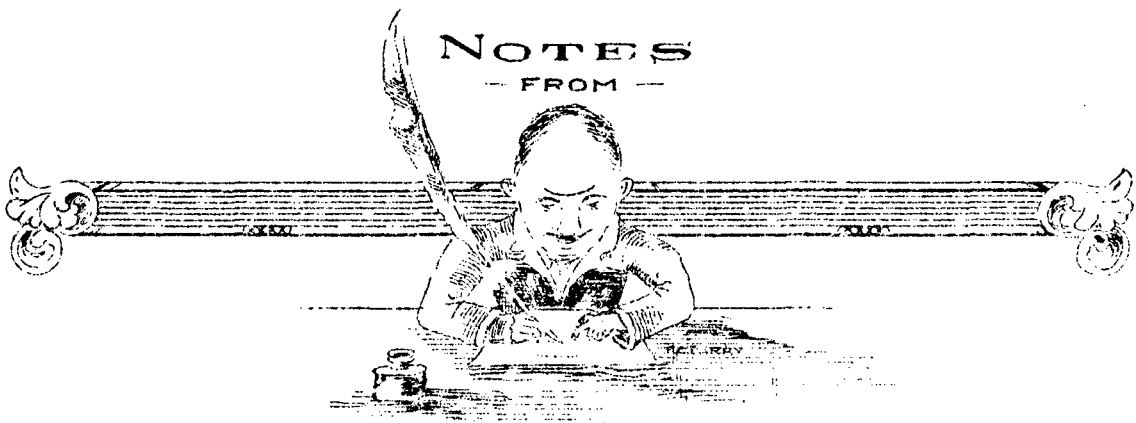
✓ BOMBING COMPETITION BY 35TH PURSUIT PILOTS

The 35th Pursuit Squadron, Langley Field, Va., completed its gunnery and bombing, both practice and record. Lieut. Kroeger, Reserve, who reverted to inactive status June 30th, was high man with a total score of 1113.

Three teams of three men each were organized for an informal competition in formation bombing. Each man dropped six bombs, a total of 18 bombs per element, with a possible total of 450 points. Captain Dorr's element won the competition with 300 points, Major Waller's was second with 295, and Captain Peaslee's third with 161 points.

NOTES

— FROM —



AIR CORPS FIELDS

41st Division, Washington National Guard.

The encampment of the 116th Observation Squadron, Washington National Guard, with the 41st Division National Guard troops of Washington, Oregon, Idaho and Montana, at Fort Lewis, Wash., proved to be a rendezvous for Air Corps officers of the Regular Army.

Ranking first among the visiting Regular Army Air Corps officers at the 41st Division Aviation camp was Colonel Roy C. Kirtland of the Presidio of San Francisco, Air Officer for the 9th Corps Area. He was the senior instructor for the entire Division encampment. He lived under canvas with the Division Aviation for the entire two weeks and conducted the official camp inspection of the Division Aviation.

Captain Guy B. McNeil, Executive Officer from Crissy Field, Calif., was the Camp Inspector, and served as Division Air Officer on both the Division problem and 81st Brigade problem. He mustered the troops at the conclusion of the camp.

Captain Joe Bayley, Regular Army Air Corps Instructor for the California National Guard, flew to Fort Lewis with one of the California Douglas Observation planes for use by the Washington National Guard Air Corps. He represented the National Guard Bureau and also lived under canvas, as did Captain McNeil.

Captain Thomas W. Blackburn, from the National Guard Bureau, Washington, spent three days in camp, coming direct from the Nation's Capital over the Northern Transcontinental Airway to Fort Lewis. While in camp, he called on Adjutant General Maurice Thompson, of Washington, in company with Major Robin A. Day, Commanding Officer and Instructor of the 41st Division Aviation.

In company with an enlisted man, Captain Hez McClellan, of Bolling Field, landed at Fort Lewis in a Douglas "Duck." He remained 24 hours before resuming his journey.

On leave, Captain "Swede" Larsen and family drove into camp for an evening mess with Major Day, as did Major and Mrs. John M. Davies.

In a Douglas Observation airplane from Bolling Field came Captain Harry A. Halverson

and 1st Lieut. John B. Grow (M.C.):

During the first ten days of the Division encampment, the Fort Lewis Air Corps Detachment was encamped at Ilwaco, Washington, performing gunnery work.

Flying hours equal to approximately ten times around the world is the record hung up by pilots of the 41st Division Aviation, Felts Field, Spokane. With the close of the Fiscal Year, it is the belief of Major Robin A. Day, Commanding-Instructor, that his pilots have flown more hours than those of other National Guard Observation Squadrons.

Entering upon his tour of duty with the 41st Division Aviation, Major Day asked that every pilot in the organization average 205 hours for the year. His request has been considerably exceeded, as the average flying time for the 13 pilots is 296 hours, 20 minutes. Their total flying time for the year is 3498 hours, 35 minutes which, estimated at a cruising speed of 100 miles per hour, represents about 348,800 miles, or approximately ten times around the world.

When the Squadron entered on June 11th upon its annual encampment at Fort Lewis, Wash., the total flying time was 2924 hours, an average of 225 hours per pilot. During camp, which included an extended navigation flight by two 3-ship formations to San Diego, the total flying time was 574 hours and 35 minutes, or an average of 44 hours and 18 minutes per pilot for the 14-day encampment period. This does not include the time registered by the four observers in the Squadron, which is as follows:

Captain Robert Owen	133 hrs.,	55 min.
Lieut. Charles Holter	32 "	15 "
Lieut. Ellsworth C. French	177 "	55 "
Lieut. Dean Eshelman	102 "	10 "

"Every possible type of flying is included in this time," said Major Day. "Pilots in our organization have all taken extended navigation flights, including a squadron movement to Nashville and Miami. There have been individual navigation flights to Washington, D.C., and several southern points. Every pilot has his minimum of instrument flying time and night flying. We have rolled up lots of hours flying the beam, and have plenty of time on cooperative

missions with other arms of the service."

Individual flying time for each pilot follows:

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Maj. Robin A. Day	411:50	4:00	4:00	415:50
Capt. W.G. Foster	149:40	37:55	61:55	211:35
Capt. Claude Owen	382:10	20:05	20:05	402:15
Capt. L.C. Sherman	115:55	32:00	56:00	171:55
Capt. J.L. Walter	243:00	30:15	30:15	273:15
Lt. Byron Cooper	159:00	33:00	33:00	192:00
Lt. C. Hartnett	145:35	46:45	70:45	216:20
Lt. L. Heral	96:10	44:35	68:35	164:45
Lt. Dale Swartz	384:00	38:15	38:15	422:15
Lt. S. Wagner	145:20	40:20	64:20	209:40
Lt. H.R. Wallace	249:30	27:15	27:15	276:45
Lt. E. Corrigan	155:15	37:15	61:15	216:50
Lt. E. Malstrom	286:35	38:55	38:55	325:30

Note: A - Time to June 10, 1935; B - Camp time to June 22, inclusive; C - Camp time total; D - Total time.

Advanced Flying School, Kelly Field, Texas.

Class 22b of the Air Corps Advanced Flying School was graduated at Kelly Field on June 22, 1935.

Brig. General Oscar Westover, Assistant Chief of the Air Corps; Brig. General J.E. Chaney, Commanding the Air Corps Training Center; Brig. General Robert C. Foy, Commanding the 2nd Field Artillery Brigade; Colonel Jacob E. Fickel, Commanding the Air Corps Advanced Flying School, and Lt.-Colonel E.H.C. Richards, Assistant Commandant of the Air Corps Advanced Flying School, were in the reviewing stand to receive the Aerial Review, which was held at 8:00 a.m.

Graduation exercises were held in the War Department Theatre at 10:00 a.m. General Westover made a very interesting and instructive address to the students, who would do well to follow his timely advice. Following the presentation of diplomas, the graduates proceeded to their new stations. The previous issue of the News Letter contained the names of the graduates and their station assignments.

The following officers recently arrived at Kelly Field and were assigned to duties, as follows:

Captain C.E. Crumrine to Air Corps Advanced Flying School Detachment.

Captain Mark R. Woodward, Director of Ground School, also Officer in Charge Student Officers and Commandant of Cadets.

1st Lieut. R.F.C. Vance, Operations and Intelligence Officer of 41st Observation Squadron, and additional duty with A.C. A.F.S. Detachment.

San Antonio Air Depot, Duncan Field, Texas.

Warrant Officer and Mrs. W.E. Perkins and daughter were welcomed on June 26th as additions to the personnel of this station. Warrant Officer Perkins was formerly stationed at the New York Port of Embarkation, and he was assigned to this Depot for duty with the Signal Corps Radio Section.

The Depot regrets to announce the death in performance of duty of Mr. Joe C. Ramirez, 51, Civil Service Firefighter, which occurred on June 21st as the result of an apparently accidental fall from a fire truck while returning from fire drill. His skull was fractured and he died a few minutes afterward at the Kelly Field Station Hospital. Mr. Ramirez had served in the Depot Fire Department for the past 14 years, and for several years previously with the San Antonio Fire Department. His unflinching cheerful and friendly disposition and sterling character, as well as his absolute loyalty and devotion to duty, has won him the esteem of all at this station. Interment took place June 23rd in the Roselawn Burial Park, San Antonio. Surviving him are his widow and one daughter, 318 El Dorado St., San Antonio, and one sister.

Warrant Officer A.R. Trabold, of the Depot Supply Department, and family, departed July 1st on two months' leave.

Sergeant J.H. Price, of the Depot Transport Service, and Mrs. Price, departed on 60 days' furlough, July 2nd.

Luke Field, T.H., June 25, 1935.

Air Corps officers arriving in the Hawaiian Department on the Transport REPUBLIC on May 25th and assigned to this station were 1st Lieut. Chester P. Gilger, 2nd Lieuts. Harry S. Bishop, David N. Crickette (Air Corps); 2nd Lieuts. Dale E. Altman, Cady R. Bullock, William C. Capp, Henry R. Spicer, John P. Stewart (Reserve).

On May 29th, an "Aloha" flight was staged in honor of Lieut.-Col. Laurence F. Stone and other officers of the 18th Composite Wing who departed on board the U.S.A.T. REPUBLIC. A few of visiting Naval personnel from the Fleet on shore leave at the time were taken up on this flight to obtain a bird's eye view of the Fleet anchored in Pearl Harbor.

Hawaiian Air Depot, June 25th.

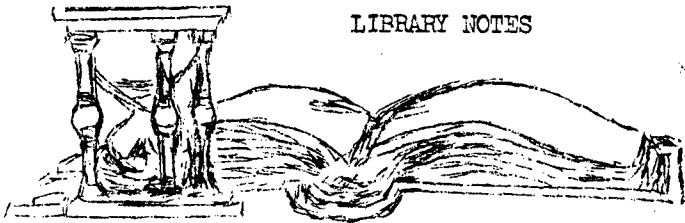
Lieut.-Colonel Laurence F. Stone relinquished command of the Depot when he sailed for the mainland on May 29th. Captain Edwin R. Page is at present commanding the Depot.

On the June Transport arriving on the 17th, Mr. Rudolph C. Miller, Shop Superintendent, is scheduled to return after an extended leave on the mainland. During this leave he spent considerable time at the Materiel Division.

Mr. Walter F. Hatfield, who is being transferred to Hawaii from Fairfield, is also expected to arrive on the June transport with his family.

The largest shipment of supplies ever received in the Hawaiian Air Depot within one week recently arrived from the mainland. The uncrating and storing of this material is keeping our force busy.

Rapid progress is being made in rebuilding the interior of the main Depot Supply Building, under direction of Captain C.P. Kane.



Some of the More Interesting Books
and Documents
Recently added to the Air Corps Library

A 00 U.S. 29, May 31, 1935. Aviation leaders plan national educational campaign. National Aeronautic Association Release June 1, 1935, 2p.

A 00 U.S. 29, May 31, 1935. \$10,000 cash prize offered. National Aeronautic Association Release June 3, 1935, 2p.

C 20.3, Russia 1. The Military Air Force on the eve of the general Autumn drills. Trans. by M.I.D. from "Vestnik Põzdushnovo Flota (Organ of the Air Command), No. 9, Sept. 1934. Tr. B-8872, 3p.

C 71.8 Russia 1. Light bombing aviation in combat with the aerial enemy. Trans. by M.I.D. from "Vestnik Põzdushnovo Flota (Organ of the Air Command) March and June, 1934. Tr. B-8657. 73p.

D 11.2/67. Painting magnesium alloys, by National Paint, Varnish and Lacquer Association, Inc. Circular 482, June, 1935, 185 p.

D 13.3/153. "Aviator"; an instrument for finding the wind and determining the angle of lead, by C. Plath. Trans. by M.I.D. from German. 4p.

D 13.3 Gyroscope 12. The Sperryscope, Vol. 7 No. 7. April, 1935, 16p.

629.1307/C69. A complete course for the aeronautical ground engineer, by Captain S.L. Collins, 1933. Vol. 3, 211 p.

629.1307/Sp8. Air License, the requirements, practical, theoretical and official for the award of certificates of competency in civil aviation, by T. Stanhope Sprigg, London, 1934, 114p.

629.1309/B73. History of aviation, with interesting records, by Major Edward M. Brown, 1932, 267 p. In this history, adventure and romance are outstanding. It explains the dreams and the dreamers, starting with Roger Bacon and his first experiment with ethereal gas in a hollow globe, 1250 A.D. and down to our present time.

629.181/H83. The stresses in aeroplane structures, by E.B. Howard, 1933. 264p.

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Of late the Editor of the News Letter has been considerably handicapped in his efforts to put forth a truly representative Air Corps publication because a number of Air Corps Fields have not sent in contributions of material. Some of the fields are sending in contributions regularly, while others have not been heard from for some time.

Contributions are desired from every Air Corps activity, as well as from Air Reserve and Air Corps National Guard activities. The primary purpose of the News Letter is to disseminate information regarding military aviation and to keep Air Corps personnel informed of the activities at every Air Corps station, including Reserve and National Guard. Every member of the Air Corps is interested in hearing what is being done at all fields and stations and, unless the News Letter is given whole-hearted cooperation, it cannot be termed a truly Air Corps publication. It is desired that every activity be represented therein.

Thus far, the News Letter has been issued twice a month, and it is desired to continue to do so. The failure, however, of some Air Corps activities to forward material regularly makes this task increasingly difficult.

Air Corps fields and stations which have not been heard from for some time are:

Selfridge Field, Mich.
Mitchel Field, N.Y.
March Field, Calif.
Scott Field, Ill.
Chamute Field, Ill.
Fairfield Air Depot, Ohio.
Middletown, Pa., Air Depot.
Rockwell Field, Calif.
Barksdale Field, La.
Bolling Field, D.C.
Brooks Field, Texas.

All Reserve Activities.
National Guard Squadrons (who may well emulate the example of the Washington National Guard Squadron, which has been sending in some very interesting material).

Publicity officers are requested to send in material on the 5th and 20th of the month.



TECHNICAL INFORMATION

ENGINEERING AND NEWS



AIR CORPS MATERIEL DIVISION

Copying Camera.

An engineer from the Equipment Branch made a visit to the E.R. Robertson Company, Chicago, Ill., to investigate the practicability of installing an adapter and adjusting mechanism for holding a half-tone screen in the Type A-2 copying camera to enable negatives to be made for offset printing work. The change was found to be feasible and, as a result, it was recommended that the five Type A-2 cameras being procured have the change incorporated, and that all the Type A-2 cameras in the service be reworked.

Tractor to be Transported by Airplane.

An engineer from the Equipment Branch made a visit to the Cleveland Tractor Company, Cleveland, Ohio, in connection with a study to determine the requirements of a light-weight tractor which can be transported by air. Various models were inspected and demonstrations of performance witnessed.

New Material Developed for Exhaust Stacks.

The material for exhaust stacks and exhaust equipment has presented a problem of corrosion and scaling due to the use of gasolines containing relatively high proportions of ethyl fluid. Combustion of these fuels results in the formation of lead and bromide compounds which are quite corrosive. The attack on the plain carbon steel and soft iron stacks was sufficiently severe as to cause accumulations of corrosive products on the stacks which upon being blown out caused frequent fires. The stacks also became badly rusted. The first metal to be used for replacement was a stainless steel containing 18 percent chromium and 8 percent nickel. This proved more resistant to corrosion and scale formation than the carbon-steel stacks, but had a tendency to become brittle at constant exposure to high temperatures. The next step was the addition of a stabilizing element, such as titanium, which prevents this embrittlement. All stacks on present contract are manufactured from this material. Recently, a nickel alloy containing 14 percent chromium and 10 percent iron has been developed, known as INCONEL, which is also free from embrittlement and apparently has properties superior to the stainless steel. Several short stacks manufactured from INCONEL are on service test. The appearance of these stacks after 150 hours' service is

quite superior to the stainless steel stacks. Coatings for exhaust stacks have been tried but were not very satisfactory except for a short period of service. Eventually these coatings scale or change color.

New Steel Jig for Static Test.

A heavy steel jig has been installed in the Static Test Laboratory to replace the old wooden jig structure that has been used during past years. The weight of the new jig and its auxiliary members is fifty-two tons, and it is supported on a 228-ton base of reinforced concrete and steel.

Several distinct advantages will result from the use of this new equipment. A finer accuracy in the test readings will be assured. Separate parts of the airplane structure can be fastened rigidly to the jig, and thus deflections of that part only will be obtained. In the static testing of a complete airplane, deflections of the various parts are certain to influence each other. The cost of static test and research work will be reduced considerably since, on some designs at least, it will be necessary to test only certain critical sections before going to the expense of building a complete structure with the airplane still in the experimental stage. During fabrication of the first article it will solve many difficult problems and will enable much more rapid development of the type. A great deal of the time spent at present in correcting structural troubles occurring in the first article and in the succeeding service articles can be eliminated. The first use of the new jig will be made in testing a large wing panel, the B-9A, from a research viewpoint.

Another interesting feature of the Static Test Laboratory may be pointed out. In the floor of the building there are one hundred and sixty-six T-slotted cast-steel hold-down fittings, each designed for a reaction of 15,000 pounds. These fittings will carry the test reactions into the floor and will eliminate much work in testing, since counterbalance loads will not have to be provided. To keep dirt from collecting in these slots when they are not in use, covers have been provided that are flush with the floor.

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Air Corps

NEWS LETTER

F. G. BARRY

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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.

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AIR NAVIGATION INSTRUCTION IN THE TACTICAL UNIT

By Captain Norris B. Harbold, Air Corps

Ed. Note: This article was written as a result of the experience gained by Captain Harbold at the Advanced Air Navigation Training Units at Langley and Rockwell Fields. The views set forth, although concurred in by the officers directly concerned in the conduct of the Navigation Training at Rockwell Field, represent purely the personal ideas of the author and do not constitute an official report.

The mention of the word "navigation" conjures in the mind of the normal pilot visions of intricate and complicated instruments, theories, methods and procedure. Particularly is celestial navigation visioned as the final and occult method of determining position. The fundamental basis of all navigation, whether it be air, marine or terrestrial, is forgotten and relegated to the limbo of the past. Dead-reckoning, deduced-reckoning, educated guessing, or whatever one wishes to call it, is forgotten.

However, when reminded of dead-reckoning, most pilots will step up boldly and declare in unmistakable firmness that they are competent dead-reckoning navigators. They have flown over the whole United States with the greatest of ease. Some will even state that they have never been lost. The latter statement will classify the individual as a phenomenon or one given to exaggeration. Granting that there do exist a few phenomena, we are still left with a lot of glib-tongued individuals with highly colored imaginations.

Moreover, as a result of close association with the Advanced Air Navigation Training conducted at both Langley and Rockwell Fields in the training of some 100 pilots, we are obliged to disagree with those who have considered themselves dead reckoning navigators and ascribe their success, if any, to a spurious form of pilotage, a minimum of dead-reckoning and considerable good luck.

Of what does Dead Reckoning consist? Let us consider the various items in detail which we should have available and which we should be able to use intelligently. Also, let us try in all our work to reduce those possible errors, which we know are probable and which we can ascertain and tabulate, to the barest minimum.

First, let us consider our maps and

hydrographic charts. A prospective navigator should understand the basic differences between the four generally used types of projection, namely, the Lambert Conformal, Mercator, Gnomonic (Great Circle) and Polyconic. He should know when to use each type of map and how to use it. He should know how to draw and measure courses, pick off latitude and longitude, measure distances and determine mean variation on each type of map. With this information our embryo navigator is prepared to use intelligently what is available and prescribe what changes or improvements he thinks necessary, not before. He is also prepared for the next step in his training.

We now consider the airplane and its equipment, and we are confronted with what is probably the most important instrument which, for many reasons, has become known as a "screwy compass."

Our prospective navigator begins to lose this prejudiced concept as he begins to learn more about this instrument. He is taught the basic principles upon which the various types of compasses are constructed. He learns the sources of compass errors, namely, variation, deviation, and lubber line error; and how these errors are corrected or accounted for, but most important, he learns how much these errors can be reduced. The proper installation of the compass is learned, and the proper method of compass compensation. With this information, our prospective navigator is competent to check the installation, compensate and use his compass confidently. He may now be qualified to recommend changes or improvements in existing equipment, but certainly not before.

In the air we are supported in a medium which has no relationship to the ground on which our point of departure and destination are located. However, with the knowledge the navigator has acquired, together with instruction on the effect of wind upon aircraft in flight he can

intelligently deduce his drift correction and ground speed and then check and correct that deduction by pilotage. To avoid rash deductions (or guesses, whatever you like) and to avoid forgetting deductions, our navigator is required to keep a brief log of the flight, on which he keeps a running record of drift corrections and subsequently compass headings, ground speeds and his estimated time of arrival (ETA) at his destination. This is most important.

With the knowledge he has now acquired, our prospective navigator is competent to proceed upon missions in which he can use dead reckoning combined with pilotage with hopes of success. It does not appear too difficult so far, we hope.

At this stage of instruction our navigator will have become acquainted with the fact that reported winds (found by soundings) are seldom of value except directly above the station from which the soundings were made. If he has had occasion to fly over territory where landmarks are few, or over water, he has undoubtedly found that his deductions as to drift correction and ground speed were too faulty to be of material value, and he clamors for help.

Help is forthcoming in the form of various instruments and equipment which are usually classed generally as "gadgets."

To answer the problem of determining drift correction we find that the Air Corps has been the proud possessor, for years, mind you, of several instruments which, by later experiment, were found highly satisfactory under various conditions, though naturally, not the last word. We find these instruments listed under the name Meter Assembly, Drift, Type A-3, Type D-1A. Our navigator experiments therewith and determines for himself the efficiency of these instruments. Over land he finds that all of them will be of material aid at all altitudes under most conditions of light and terrain. Over water he finds that some of them will work as high as 3,000 feet with good light and a broken surface. He also finds that none of them work at night, although some success is had at low altitudes with a spot light. Apparently his problem of determining drift correction is solved to a great extent, and so it is. However, he still does not know what to do about ground speed.

Instruction follows quickly, enabling the solution of this problem. He finds that there are three general methods of determining ground speed: 1. By manual timing of the passage of an object between two grid lines; 2. By the automatic timing by a mechanical gadget, and 3. By solving a wind star using several drift readings.

In the first method, manual timing is found to be inconsistent because of personal error. In the first two methods he finds that accurate altitude is required; in the third method he finds that accurate airspeed is required. A constant indication of accurate altitude, quite apparently, is next to impossible as we have to know the exact altitude of flight and the exact altitude of the terrain over which we are flying. This seems to make the first two methods difficult, to say the least, and so they are.

In the third method, requiring accurate airspeed, he finds that the airspeed meter, which most of us have consulted sheepishly, perhaps, (instead of gliding with that old feel of the airplane coming up through the pants) is rated as one of our most accurate instruments. This instrument, however, must be carefully calibrated to determine installation error and corrected for temperature and altitude. The procedure in calibration is soon determined. All corrections for temperature, altitude and calibration are accomplished by another small gadget (Mark V or VC-1 Computer) in one operation.

Instruction then continues with the Double Drift Method which entails taking two Drift Readings on headings of 45°, respectively, to the original Compass Heading. Then with the True Airspeed, he finds ground speed from a Table, a really simple operation which requires, at the most, two minutes. Such calculations as he finds necessary in finding ground speed and ETA he accomplishes with another interesting gadget known as Type A-1 Dead-Reckoning Computer.

So we find our navigator practicing with his instruments and arriving at his destinations with commendable accuracy, both in direction and ETA. Another step is accomplished and he comes back for more.

Imagine his astonishment when he finds that he is now a D.R. Navigator. But what of pilotage, radio and celestial navigation he will ask, and so will most pilots.

Explanation follows. Pilotage, which includes bearings on recognized objects, Radio Navigation and Celestial Navigation are AIDS to navigation only. Dead-Reckoning is the basis of all navigation. All Marine Navigation, whether it be practiced by the skipper of the "Rex" or "Normandie," or our brothers in arms, the Navy, is based on Dead Reckoning. Granted that improvement in equipment and knowledge of ocean currents has practically reduced the reckoning to knowledge, we still find, sometimes, that the aids fall down and so does the dead reckoning, and vessels go aground. In most cases, however, it will be found that too much dependence was placed upon the aids and not enough upon the basic D.R. Nor are airplanes exempt. How many have landed in cow pastures or crashed because pilotage (visibility) and radio failed?

Operations personnel in Wings, Groups,
V-6827, A.C.

Squadrons and Flights are sometimes apt to consider this really simple training as the subject for a special school. It seems that Instrument Flying was considered specialized not long ago; now it is in the Squadron. Why not Navigation?

We now have, as stated before, approximately 100 pilots who have been exposed to this so called Advanced Air Navigation Training. Let us use them. They can be Operations, or Armament, or Engineering or Supply, but let us tag them again - Navigation Officer. Let them be responsible for the accumulation and dissemination of available equipment and information. Let us establish a chain of Navigation Officers. When a Squadron Navigation Officer becomes stumped, he can appeal to the Group, he to the Wing and so on up, so that new equipment and information can find its way down to the lowly wing man through those really interested in navigation.

In the matter of training, Operations are also wont to express firm opinions as to the lack of time, but consulting our training directive we find sixty flying hours allotted to W-2, Air Navigation. Why not use it for Navigation? So, when our wing man, after some ground instruction, which with our present dearth of flying equipment should not be difficult, acquires a little information and interest and submits a cross-country request, it is approved. However, his route and preparation are checked (not always, but just to make sure it is not haphazard) and he is required to submit a complete log of the flight.

If in a single-seater or two-seater, where pilot is also navigator, he may elect to follow a radio beam for some distance. This is all well and good and is noted on the log. However, not all W-2 should be on a beam. If a multi-seater is used, the pilot is required to take an additional pilot; one acts as navigator while the other pilots, but in any case a complete and detailed Log is required.

At another field, gunnery and bombing are being stressed. Navigation training is hanging on the edge. But wait! Our new navigation officer has a bright idea. The bombing or M.G. range selected is some distance from the home station. By a roundabout method it can be approached without flying over the inhabited country. The Navigation Officer, therefore, suggests to load up at the home station, navigate to the target and bomb. The recommendation is accepted and two phases of training are combined. Everyone is content.

Let us, therefore, not forget or neglect the important aids to Navigation. Pilotage and Radio should be used continually, but used in their correct relationships - as aids. Likewise, celestial navigation is important; not so much at the present time, but as the range of aircraft increases, celestial navigation is becoming a more important aid. Let us, therefore, as the motto of one of our automobile manufacturers so aptly states - keep an eye to the future, but an ear to the ground - and so we may never forget the possibilities of DEAD RECKONING.

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BARKSDALE FIELD PARTICIPATES IN SHREVEPORT'S CENTENNIAL EXPOSITION

Crowds lined along a two-mile route in the Shreveport, La., business district on Saturday morning, June 30th, to witness the gigantic military parade, feature of the Centennial Exposition sponsored by the City of Shreveport, and to view the floats significant of the progress of aviation, prepared and built by Barksdale Field.

Headed by a police motorcade, the two-mile long parade swung into view at 10:20 a.m., and passed between the thronged lines of spectators, who officials and old-timers say formed one of the largest parade crowds in the history of Shreveport.

First came the Beaumont American Legion Drum and Bugle Corps; Governor O.K. Allen and his staff; Colonel G.C. Brant, Commanding Officer of Barksdale Field, and his staff; a series of seven military floats, and squadrons of uniformed men representing the respective organizations of Barksdale Field.

The Barksdale Field floats were led by "Wings of a Century," with Miss Marilyn Lovell as the "Goddess of

Aviation." Next in order were the "Wings of Yesterday," bearing a model of the first airplane; "Wings of the World War"; "Wings of the Lone Eagle," showing a replica of Lindbergh's "Spirit of St. Louis," suspended between a miniature New York skyscraper and the Parisian Eiffel Tower; "Wings of Progress," contrasting the ox cart transportation of 1835 with today's streamlined aviation; "Wings of Tomorrow," in which aviators hazard a guess on future airplane construction; and "Wings of Barksdale," symbolizing the spirit of the world's largest airport.

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Machine gun practice is strictly aerial at Hamilton Field these days. While one fast Martin Bomber pulls a tow target through the air at the rate of 200 miles per hour, another equally fast Bomber peppers it with its machine guns. Thus, the pilots of the 7th Bombardment Group are acquiring practice in the air at a moving object which is speeding at the rate of an average airplane.

V-6827, A.C.

COLLIER TROPHY PRESENTED TO CAPTAIN HEGENBERGER

For his solo blind landing, his preparatory work in connection with instrument flying over a period of 15 years, and his subsequent contribution to the advancement of aviation in perfecting the instrument landing system of the Army Air Corps, Captain Albert F. Hegenberger, Air Corps, was awarded the Collier Trophy on July 22nd at the White House at the hands of the President.

President Roosevelt said he followed Captain Hegenberger's career with interest and praised the Air Corps officer's contribution to American flying knowledge.

Among those who witnessed the presentation were Second Assistant Postmaster General Harlee Branch; Brigadier-Gen. Oscar Westover, Assistant Chief of the Air Corps; Major James H. Doolittle; Col. Edgar S. Gorrell, Chief of Staff of the Army Air Service in France during the War and Chairman of the Committee on Awards, and officers of the Army and officials of the Bureau of Air Commerce.

The twentieth award of this Trophy, made annually by the National Aeronautic Association for the greatest achievement in aviation in America, the value of which has been thoroughly demonstrated by actual use during the preceding year, was accompanied by the following citation:

"To Captain Albert F. Hegenberger, United States Army Air Corps, for the development and demonstration of a successful blind landing system.

This blind landing system, first demonstrated by Captain Hegenberger on May 9, 1932, in the world's first solo flight, alone in the plane and depending solely upon instruments from take off to landing, reached complete development and was put into actual use in 1934. It overcomes one of flying's greatest hazards.

Adopted not only by the Army Air Corps but also by the Bureau of Air Commerce, Department of Commerce, it has been accepted as the most practical system developed to date for either military or commercial purposes."

Captain Hegenberger, one of the best versed pilots in the Air Corps in the art of aerial navigation, has rendered distinguished service to his branch and to aeronautics in general. For the memorable first flight over the Pacific from Oakland, Calif., to Honolulu, Hawaii, in June, 1927, in an Army Transport plane, covering a distance of over 2400 miles, when Captain Hegenberger shared the piloting of the plane with Captain Lester J. Maitland, and also acted as navigator, both officers were awarded the Distinguished Flying Cross as well as the Mackay Trophy, the latter given annually for the most outstanding flight of the year by an Army pilot or pilots.

During the greater part of his service in the Air Corps, Captain Hegenberger has devoted himself to the science of aerial navigation. He has the distinction of

being the first Army pilot to fly alone in an airplane with a covered cockpit which excluded all outside vision.

This successful flight was the seventh in a series of nine attempts. During the first three flights, observers were carried in the plane who knew nothing of flying. On the seventh flight, Captain Hegenberger took off alone, made two 180-degree turns and landed at the take-off point. He used radio to guide him into the field, to mark for him the point at which to begin his glide and to warn him when he neared the field boundary. He employed a super-sensitive altimeter to indicate his altitude above the landing area. Other aids to flight utilized included artificial horizon, gyro compass, radio compass and standard flight instruments.

On the ground were three radio sets. Sitting in the cockpit which had a shielded cover, cutting off all view outside the plane, he first tuned in on a transmitter distant from the field to simulate cross-country flying. After executing the first 180-degree turn, he tuned in first on a portable transmitter placed 1,000 feet from the border of the field and then on another a mile and a half away. Although flying away from the field, he was able, by lining up the two radio transmitters, to ascertain the correct flight path on which to return for his landing. Executing his second 180-degree turn at a height of 1,000 feet, he began gliding down as he headed for the mile-and-a-half station.

Captain Hegenberger has instructed many Air Corps pilots in the art of flying by instruments alone and, as a result of his energetic efforts in this line of endeavor, instrument flying is now being carried on at every Air Corps flying field.

His most valuable contribution along the line of promoting safety in flight under unfavorable flying conditions was recognized by the War Department, when he was awarded the Oak Leaf Cluster to the Distinguished Flying Cross.

The airworthiness of the Army's instrument landing system as developed by Captain Hegenberger received the hearty indorsement of the Bureau of Air Commerce, Department of Commerce, at the beginning of this year when, after painstaking tests, that governmental agency adopted this system in its entirety.

Captain Hegenberger was born in Boston, Mass., September 30, 1895. He attended the Boston Elementary Schools, the Mechanics Art School, and pursued a course in civil engineering at the Massachusetts Institute of Technology for three years.

On September 8, 1917, he enlisted in the Aviation Section, Signal Corps, receiving his aviation ground school training at the Massachusetts Institute of Technology and his flying training at Ellington Field, V-6827, A.C.

Houston, Texas. He passed his tests as a Reserve Military Aviator on April 6, 1918, and was commissioned on that date as a second lieutenant.

After brief periods of duty at Ellington Field and at Camp Dick, Dallas, Texas, he was assigned to the School for Aerial Observers at Post Field, Fort Sill, Okla., and subsequently to the Aerial Gunnery School at Taliaferro Field, Hicks, Texas. He graduated as a gunnery pilot on July 5, 1918.

Again Captain Hegenberger found himself back at his old School, the Massachusetts Institute of Technology, this time to pursue a four months' course in engineering, following the completion of which he was assigned to duty in the Equipment Section of the Engineering Division of the Air Corps at McCook Field, Dayton, Ohio. He was Chief of the Instrument and Navigation Branch of the Engineering Division from July, 1919, to September, 1923, when he was ordered to duty in the Hawaiian Department, where he served as Operations Officer of the 72nd Bombardment Squadron and Group Operations Officer of the 5th Composite Group. Upon the expiration of his tour of duty in Hawaii, he returned to duty at McCook Field.

During his stay at this field, and later at Wright Field, to which all Air Corps engineering activities were transferred in 1927, Captain Hegenberger made a number of long-distance flights through fogs or above the clouds, relying on the earth inductor compass to guide him to his destination.

Almost twelve years ago, on September 6, 1923, Captain Hegenberger flew the greater part of the journey from Dayton to Boston completely out of sight of land. Of course, there were no hooded cockpits in those days but, so far as vision of the ground was concerned, the pilot and his passenger, Mr. Bradley Jones, then Navigation Engineer at McCook Field, were not much better off than the present day airman piloting a covered wagon, aerial type.

Despite unfavorable weather conditions, they took off from McCook Field in a DeHaviland plane at ten o'clock and landed at the Boston Airport seven hours and 25 minutes later. The sky was obscured by clouds which stretched from 300 to 7,000 feet altitude. After sighting the Ohio State University at Columbus, the clouds became so dense that the flyers climbed above them and found themselves in clear sunlight a little above 10,000 feet. A solid layer of clouds stretched beneath them. Not a glimpse of a land mark was obtained for a number of hours. The entire State of Pennsylvania was passed over without their obtaining a glimpse of it. Flying by instruments alone, Captain Hegenberger at about 3:40 p.m., estimated that he should be close to the Hudson River, so

he descended through the clouds and crossed this body of water not five minutes later. The remainder of the journey to Boston was made under the clouds. The successful termination of this flight demonstrated the efficiency of air navigation instruments even in those early days of Army aviation.

The various navigation flights conducted by Captain Hegenberger aided in a great measure in the development of the earth inductor compass, the instrument on which Colonel Lindbergh relied on mainly during his memorable New York to Paris flight in 1927.

Captain Hegenberger completed a navigational course at the U.S. Naval Air Station at Pensacola, Fla., and he is generally considered one of the best navigation and instrument officers in the service.

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FAST FLYING ACROSS THE CONTINENT

In a long flight, directed by the Commander of the First Wing, to test GHQ equipment, Lieut.-Colonel Clarence L. Tinker, Commanding Officer of the 7th Bombardment Group, Hamilton Field, Calif., flew from that field to Washington, D.C., on July 4th, in 14 hours and 40 minutes. This flight was made via Salt Lake City, Omaha, Neb., and Indianapolis, Ind., with stops at all of these points.

On the return flight, Col. Tinker winged his way from Bolling Field to Hamilton Field in his Bomber, the "Bird O'Prey," on July 9th, in 16 hours and 55 minutes, intermediate stops being made at Indianapolis, Scott Field, Denver and Salt Lake City.

Accompanying Col. Tinker on this flight were Captain Donald J. Keirn, 2nd Lieut. Nathan F. Searles, Air Reserve, and Technical Sergeant Peder Berg, Crew Chief.

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CHANGE IN COMMANDERS AT FRANCE FIELD

Lieut.-Colonel Lewis H. Brereton, Air Corps, Commanding Officer of France Field, Panama Canal Zone, for the past three and one-half years, recently departed for the United States via Pan-American Airways. Col. Brereton has been assigned to the Command and General Staff School, Fort Leavenworth, Kansas, for duty as instructor, and will report at this school the latter part of August.

Lieut.-Colonel Junius H. Houghton, Air Corps, assumed command of France Field on June 20, 1935.

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During the month of June, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled a total of 24 airplanes and 52 engines and repaired a total of 24 airplanes and 37 engines.

DIVERSIFIED GROUP OF FLYING CADETS REPORT AT LANGLEY FIELD

Twenty students (19 Bombardment and one Pursuit) members of the class which graduated from the Air Corps Training Center on June 22nd last, reported for active duty at Langley Field, Va., on July 1st.

"As is the rule with cadets," says the Langley Field Correspondent, "they are a representative and diversified group. Educationally, they range from Ph.D. down, and physically from six feet five to five feet six. Twelve States are represented, California leading with five men. Professionally, they range from globe trotter to artist, but the largest number are engineers, several in the aeronautical field.

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FORMER KELLY FIELD PRIVATE BECOMES COUNTY COURT JUDGE

While a member of the Headquarters Squadron of the Air Corps Advanced Flying School at Kelly Field, Texas, Private William L. Scarborough, 6225683, spent his spare time attending the San Antonio Public School of Law. He was graduated near the head of his class and was admitted to the Texas Bar and licensed to practice in the Federal Courts.

Shortly after this, he was discharged per expiration of term of service, on September 2, 1934, and became the junior member of the legal firm of

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ACTIVITIES OF THE 20TH BOMBARDMENT SQUADRON

The operations of the 20th Bombardment Squadron of late have been of an unusual type. Major Barney M. Giles, Air Corps, arrived from the Air Corps Tactical School on May 31st, and assumed command of the Squadron. On June 11th, the Squadron flew to Mitchel Field with the 2nd Bombardment Group for the purpose of training West Point cadets, during the period June 15th to July 5th. Sixteen pilots and thirty-six enlisted men made the trip, and since the Squadron had only 8 B-6A's and one PT-3, twelve members of the organization drove their automobiles. All personnel reported an enjoyable time.

While at Mitchel Field, 2nd Lieuts. Insman, Dilley and Murphy, Air Reserve, and Flying Cadets Cunningham and Gresham flew by transport to Langley Field. The Reserve Officers were to revert to

Effective July 27, 1935, Major William B. Wright, Air Corps, was assigned to duty as Air Officer on the staff of the Commanding General, 5th Corps Area, Fort Hayes, Columbus, Ohio, with the temporary rank of Lieut.-Colonel during the period of such assignment.

Among these new acquisitions are 'Skipper' Adair, South Carolina's contribution to this season's Langley Field Football Team; 'Clancy' Schmid, with two round-the-world and several shorter ocean cruises to his credit; Emil Scott, holder of several Texas State pole vault records in 1932; 'Ace' Williamson, a successful production engineer for Caterpillar Tractor before enrolling at Randolph, and 'Benn Gunn' Pearson, whose altitude of six feet five inches speaks for itself. The remaining members of the group also have their claims for fame, but the above will serve as a cross section of the diversified character of these recently graduated airplane pilots."

Houtz and Scarborough at Sinton, Texas. Hon. James V. Allred, the Governor of Texas, recently appointed him a special judge, one of the first assignments being to serve on the County Court bench, San Patricio County.

The rapid rise of this individual from a private in the Air Corps to a civil judgeship is an excellent illustration of what application and energy can accomplish, and should serve as an incentive and as an inspiration to others who aspire to improve their present standing.

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inactive status for one day and then report for additional active duty, and the Cadets to receive their commissions as second lieutenants in the Air Reserve and report for one year's active duty. They returned to Mitchel Field on July 2nd.

LIEUT. NELSON JOINS UNITED AIR LINES CORP.

The 11th Bombardment Squadron, Hamilton Field, lost a valuable officer as 2nd Lt. Orvis M. Nelson, Air Reserve, took off for Chicago to accept a position as co-pilot with the United Air Lines Corporation. Lt. Nelson served as the Squadron School Officer and Asst. Operations Officer. He also functioned as the Photographic Officer for the 7th Bombardment Group at Hamilton Field. He regularly flew a mail run while the Air Corps carried the mail in 1934. In April, 1935, Lt. Nelson, accompanied by 1st Lt. Aubrey K. Dodson, brought honor to the 11th Bombardment Squadron and the Air Corps by performing an errand of mercy when he flew over San Pablo Bay, located a fleet of Sea Scouts thought to be in possession of poisoned food, dropped messages of warning, and so saved them from possible death or serious illness.

ASSIGNMENT TO STATIONS OF NEWLY COMMISSIONED AIR CORPS OFFICERS

The 40 ~~only~~ men and two Reserve Officers of the Air Corps, who were recently selected for appointment as commissioned officers in the Air Corps, Regular Army, as a result of the examination conducted in the United States and foreign possessions, April 2-8, 1935, and for which approximately 475 candidates competed, were, under Special Orders of the War Department recently issued, commissioned second lieutenants, with rank from June 30, 1935, and assigned to various Air Corps stations, as follows:

Air Corps Reserve Officers

Daniel E. Hooks to Air Corps Training Center, Randolph Field, Texas.
Raymond P. Todd to Selfridge Field, Mich.

Privates, Air Corps *

To Air Corps Training Center, Randolph Field:

Harry N. Renshaw, Barksdale Field, La.
Bob Arnold, Barksdale Field, La.
John D. Pitman, Barksdale Field, La. (1)
Marvin F. Stalder, Rockwell Field, Calif.
Eyvind Holtermann, Crissy Field, Calif.
Donald N. Wackwitz, Brooks Field, Texas.
Randolph L. Wood, Langley Field, Va. (2)
George H. Macintyre, Crissy Field, Calif.
Mell M. Stephenson, Jr., Maxwell Field, Ala.
Robert S. Fisher, Brooks Field, Texas.
Clarence M. Sartain, Brooks Field, Texas.

To Fort Leavenworth, Kansas:

Lawrence S. Fulwider, Scott Field, Ill.

To Bolling Field, Anacostia, D.C.

Dolf E. Muehleisen, Rockwell Field, Calif.

For duty with General Headquarters Air Force.

To Mitchel Field, Long Island, N.Y.:

Ray W. Clifton, Maxwell Field, Ala. (3)
Thomas F. Langben, Barksdale Field, La.

To March Field, Riverside, Calif.:

Harry Crutcher, Jr., Randolph Field, Texas.
Clair L. Wood, Crissy Field, Calif.
Carl Swyter, Fort Lewis, Wash.
Jasper N. Bell, Crissy Field, Calif.
Joseph C. Moore, Kelly Field, Texas.

To Hamilton Field, San Rafael, Calif.:

Robert E. Jarmon, Crissy Field, Calif.

To Barksdale Field, Shreveport, La.

Noel F. Parrish, Patterson Field, Ohio
Jack M. Malone, Brooks Field, Texas.
Edward M. Gavin, Maxwell Field, Ala.
Charles H. Leitner, Jr., Maxwell Field, Ala.
James H. Price, Maxwell Field, Ala.
James H.C. Houston, Langley Field, Va.
Frank N. Moyers, March Field, Calif.

To Langley Field, Hampton, Va.:

Joseph B. Stanley, Mitchel Field, N.Y.
Russell L. Waldron, Maxwell Field, Ala.
William F. Day, Jr., Mitchel Field, N.Y.
Richard C. Weller, Mitchel Field, N.Y.
Charles B. Harvin, Bolling Field, D.C.
Burton W. Armstrong, Jr., Bolling Field, DC.
Erickson S. Nichols, Mitchel Field, N.Y.
Harry Coursey, Middletown, Pa. Air Depot.

To Selfridge Field, Mt. Clemens, Mich.:

Arnold T. Johnson, Scott Field, Ill. (1)
Edward S. Allee, Langley Field, Va.
Lester S. Harris, March Field, Calif.
Harold L. Neely, Langley Field, Va.

NOTE:

- * Except as noted.
- (1) Corporal
- (2) Sergeant (First Class)
- (3) Staff Sergeant

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TEMPORARY PROMOTION OF CHANUTE FIELD OFFICERS.

Effective July 24, 1935, the following-named officers of the Air Corps, stationed at Chanute Field, Rantoul, Ill., were assigned to the duties indicated, and with temporary rank during the period of such assignments, as follows:

To Captain

1st Lieut. Donald W. Norwood, Director, Clerical, Air Corps Technical School.
1st Lieut. Benjamin T. Starkey, Operations Officer.
1st Lieut. George R. Bienfang, Intelligence and Operations Officer, 48th Pursuit Squadron.
1st Lieut. Albert Boyd, Flight Commander, 48th Pursuit Squadron.
1st Lieut. Forrest G. Allen, Flight Commander, 48th Pursuit Squadron.

To First Lieutenant

2nd Lieut. Charles W. Haas, Meteorological Officer.
2nd Lieut. Gordon A. Blake, Communications Officer.

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AIR CORPS OFFICERS DETAILED TO M.I.T.

The following-named Air Corps officers were, under Special Orders of the War Department recently issued, detailed as students, under the provisions of Section 127a, National Defense Act, as amended, to take a course of instruction at the Massachusetts Institute of Technology, Cambridge, Mass.:

1st Lieut. Anthony Q. Mustoe, Engineering Officer, 39th Observation Squadron (Corps and Army), Kelly Field, Texas.

1st Lieut. Floyd B. Wood, Middletown Air Depot, Middletown, Pa.

1st Lieut. Royden E. Beebe, Jr., Engineer Officer, 97th Observation Squadron (Corps and Army), Mitchel Field, N.Y.

1st Lieut. Torgils G. Wold, station complement, Selfridge Field, Mich.

Lieuts. Mustoe, Wold and Beebe are relieved from temporary rank, effective June 7th, 8th and 9th, respectively.

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Technical Sergeant John T. Dee, 61st Squadron, Mitchel Field, N.Y., was placed on the retired list June 30, 1935.

GENERAL FIELD EXERCISE NO. 8
IN CONJUNCTION WITH FIELD ARTILLERY SCHOOL
By Sergeant R. E. Ingmundson

On Monday, June 24th, the First Balloon Squadron, Air Corps, left Post Field, Fort Sill, Okla., for participation in General Field Exercise No. 8. Two Air Corps officers, Major Ira R. Koenig and Captain W.C. Farnum, and a total of 82 enlisted men were taken to the field.

The truck column consisted of two station wagons, two winches, three $\frac{1}{2}$ -ton pick-ups, four $1\frac{1}{2}$ -ton cargo and two $2\frac{1}{2}$ -ton cargo trucks. A minimum of tentage was carried, due to the fact that the whole maneuver was carried out insofar as possible with a view to maximum concealment of the encampment from hostile aircraft. The men bivouacked.

The organization left Post Field at 6:00 a.m., and maneuvered the balloon cross-country to a position between Signal Mountain and West Lake in the Fort Sill Military Reservation, going into concealment there and flying the balloon until 3:00 p.m. that day. Flying conditions were good at the start, but along towards noon the wind started increasing in velocity until at 3:00 p.m., when the organization broke concealment and commenced its maneuver to Cow Creek, Wichita National Forest and Game Preserve, the wind was very gusty, with velocities running up to 45 and 50 miles per hour.

Due to the fact that several "jumps" had to be made before arriving at Cow Creek, it was necessary to fly the balloon from the transportation cable at an altitude of 300 feet. The gusty winds, coupled with the fact that the maneuver was made through hilly country with its corresponding tricky "bumps," made this maneuver exceptionally hard on the men and the balloon. The balloon had a decided tendency to dive. After leaving Purington Gate, the balloon made two bad dives, almost reaching the ground before straightening up again. On the second of these dives, it crabbed so far off-wind that the basket became entangled in the rigging, and when the subsequent jerk came in straightening it up, a whole section of rigging on the right rear metallic vee tore out, pulling and breaking battonets from the rigging band and severing many first and second bridles. It is the general consensus of opinion in the squadron that we were mighty lucky to get the balloon bedded down at Cow Creek because, due to the breakage of so much of the rigging, we expected at any minute to have to break convoy and chase one each free "captive balloon."

Luck was with us, and at 5:55 p.m., we pulled into Cow Creek and bedded the balloon down and prepared camp. The damage to the rigging was speedily repaired by the rigging crew before dark and the balloon was ready to fly the following morning.

It was found by the rigging crew that seven upper first bridles, five lower first bridles and eleven second bridles had become broken in our first day's maneuver. Most of this rigging was the attachment to the rear metallic vee.

Tuesday, June 25th, we remained in bivouac at the Cow Creek encampment all day. The balloon was flown at various times during the day, making observations and reports of friendly and hostile activities. The men made good use of nearby lakes on Cow and Panther Creeks during our stay at Cow Creek, several of them coming up with blistered backs, not to mention numerous "chigger" bites.

Wednesday, June 26th, we put the balloon in the air at daybreak, but were forced to bed it down shortly due to rapidly approaching bad weather, which delayed our scheduled move from the encampment from 9:45 a.m. until 12:00 noon. Towards noon the weather cleared rapidly and the wind subsided, so we broke camp and proceeded to maneuver the balloon to a position one mile west of Purington Gate, going into concealment there at about 1:30 p.m. The balloon was flown from that position until 4:00 p.m., with observations being made on the "Blue" advance and the "Red" retreat. At 4:00 p.m., we maneuvered the balloon through Purington Gate and to a position between West Lake and Signal Mountain (the same position occupied Monday morning) where the organization bivouacked for the night. We flew until dark this day and observed fire for the 1st Battalion, 2nd Field Artillery. Very interesting work - we should do more of that kind.

Thursday, June 27th, we put the balloon up at daybreak, flying from our Signal Mountain position until 9:30 a.m., when we broke camp and maneuvered the balloon to a position adjacent to Four-Mile Crossing, where it was flown until 7:00 p.m., making observations. The balloon was then maneuvered back into Post Field for the night.

Friday, June 28th, we were scheduled to observe actual firing in the South Arbuckle Range, from day-break until about 9:00 a.m. (the completion of the problem), but due to rain, high winds and no ceiling, were unable to complete this morning's portion of the problem.

This is the fifth problem of this nature that this organization has participated in since its arrival at this station in 1929, and we encountered the worst flying weather for the elapsed time of the problem that we ever had to contend with, but at the same time completed more pilot hours than any other problem we participated in, completing 24:45 pilot time, with 14:50 ballast maneuvering time, for a total of 39:35 balloon time for the

problem.

Among humorous events in connection with the problem was the extreme lack of appreciation by the various Field Artillery units of our bugler sounding off first call at 4:00 a.m. Thursday morning at Signal Mountain, as evidenced by many sarcastic comments. Also, the old balloon war-cry of "how you hear me now" reverberated during all phases of the problem.

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UNFORTUNATE AIRPLANE ACCIDENT IN PANAMA

Death claimed the lives of two France Field flyers late Wednesday afternoon, July 3, 1935. First Lieut. Winton S. Graham and 2nd Lieut. George R. McMahon had flown to Rio Hato, Republic of Panama, some eighty miles from France Field, that afternoon in an O-19C observation plane and were returning to France Field, when for some unknown reason they were forced down into the Bay of Panama, near Taboga Island. Apparently they were immediately drowned. Lieut. Graham's body was recovered on Friday afternoon, July 5th, with the parachute and life belt still fastened to the body and unused. According to the News Letter Correspondent, the belief prevails that unfavorable weather conditions and an unusually heavy rainfall caused the crash. He stated that up until late Saturday afternoon, July 6th, neither Lieut. McMahon's body nor the airplane had been recovered. The body of Lieut. Graham was found floating in the ocean, showing evidences of severe impact.

Search for the missing flyer and the plane had been constantly maintained by all Army planes on the Isthmus. Several Navy airplanes also assisted in the search.

Lieut. Graham's home was at Big Stone Gap, Va. He graduated from West Point in 1933, and from the Air Corps Advanced Flying School, Kelly Field, Texas, in 1934.

Lieut. McMahon's home was at Huntington, West Va. He was an Air Corps Reserve officer, graduating from the Advanced Flying School in 1934.

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FLYING ACTIVITIES AT FRANCE FIELD, PANAMA

Four airplanes from the 7th Observation Squadron and two from the 25th Bombardment Squadron, France Field, Panama Canal Zone, were recently flown on a 200-mile cross-country training mission to Volcan, some 50 miles north of David, Republic of Panama. Originally intended for two days, the flight was extended to three days because of the inclement weather encountered on the return trip. It was necessary to spend the last night in David. On the whole the trip was

very successful and enjoyed by all.

During the fiscal year ending June 30, 1935, ninety percent of the maximum flying requirements were flown by France Field pilots, and everyone completed his minimum flying requirements. The News Letter Correspondent states that, in consideration of the limited aircraft at the field and adverse weather conditions proving a handicap to flying the year round, this is an enviable attainment.

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THIRD TRANSPORT SQUADRON ORGANIZED

A new organization is welcomed into the Air Corps, as well as into the San Antonio Air Depot's own circle, in the establishment of the Third Transport Squadron, pursuant to War Department instructions, as an active unit of the Army at that Depot on July 5, 1935. This organization takes the place of the former Third Provisional Transport Squadron, which had been in operation at the Depot as an embryo organization of the Air Transport Service instituted in February, 1933. This organization was commanded successively by Major R.B. Walker, Lts. D.F. Fritch and D.J. Ellinger, with a force of three enlisted pilots for airplane transport duty on detached service at the Depot from other stations.

On the date of the initial organization of the new Squadron, Captain J.P. Richter of the San Antonio Depot was assigned to its command, and the following "veteran" pilots of the transport service on detached service at this Depot were transferred from their former organizations as its first enlisted personnel:

Master Sgt. C.P. Smith from 12th Observation Group Hqrs., Brooks Field, Tex.

Staff Sgt. T.K. Dorsett from 71st Service Squadron, Barksdale Field, La.,

Sergeant A.M. 1st Cl. J.H. Price from 67th Service Squadron, Randolph Field.

On July 11th, Lieuts. J.H. Hicks and D.J. Ellinger, of this Depot, were assigned as Supply Officer and Engineer Officer, respectively, of the new squadron, and seven enlisted men were transferred to it from organizations at Brooks Field, as follows:

Sergeant H.R. Riley from 12th Observation Group Headquarters,

Corporal I.K. Redding from 62nd Service Squadron,

Private 1st Cl., Specialist 3d Cl. F.M. Anthony and Pvt. Specialist 5th Class N.O. Ward from Station Complement,

Private 1st Cl., Specialist 4th Cl. R.L. Cole; Pvt., Specialist 5th Cl. Vance Vostel, and Pvt., Specialist 6th Cl. A.L. Wackerle from 12th Observation Squadron.

On July 17th, Pvt. A.M. 1st Cl. John Gebelin, Jr., from the 53rd School Squadron, and Pvt. L.P. Kleinoeder from the 52nd School Squadron, Randolph Field, both airplane pilots, were transferred to the new Squadron. This occasion is also V-6827, A.C.

noteworthy from the fact that it is the first time in the history of the San Antonio Air Depot that enlisted men were assigned to duty therewith.

During these first few days, of course, the main objective has been to get the unit properly organized and in

smooth running order, and much enthusiasm and esprit de corps on the part of its personnel have made an auspicious beginning toward getting the Third Transport Squadron on its way to the fulfillment of the mission for which it was organized.

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RECIPIENTS OF THE COLLIER TROPHY

Elsewhere in this issue of the News Letter is the announcement of the award of the Collier Trophy for the year 1934 to Captain Albert F. Hegenberger, Air Corps, for his development and successful demonstration of the instrument landing system.

This Trophy was given in the year 1911 by the late Robert J. Collier, and since that time it has been awarded annually, except during the years 1917 to 1920, inclusive, to various individuals and organizations who have figured most conspicuously in advancing in a practical way the progress of aviation in America.

Enumerated below are the individuals and organizations who have thus far received the Collier Trophy:

- | <u>Year</u> | <u>Recipient</u> |
|-------------|--|
| 1911 | Glenn H. Curtiss for hydroaeroplane development. |
| 1912 | Glenn H. Curtiss for development and demonstration of the flying boat. |
| 1913 | Orville Wright for development and demonstration of the automatic stabilizer. |
| 1914 | Elmer A. Sperry for development and demonstration of gyroscopic control. |
| 1915 | W. Starling Burgess for development and demonstration of Burgess-Dunne hydroaeroplane. |
| 1916 | Elmer A. Sperry for development and demonstration of Sperry Drift Set. |
| 1917) | |
| 1918) | Not awarded on account of the |
| 1919) | World War. |
| 1920) | |
| 1921 | Grover C. Loening for development and demonstration of his Aerial Yacht. |
| 1922 | Personnel of the U.S. Air Mail Service for their wonderful achievement in completing a year's operation along different routes from coast to coast without a fatal accident. |
| 1923 | Pilots and other personnel of the U.S. Mail Service for successfully demonstrating to the world the practicability of night flying in commercial transportation. |
| 1924 | U. S. Army Air Service for having accomplished the first aerial flight around the world. |
| 1925 | Dr. S. Albert Reed, of New York, |

- | | |
|------|---|
| | for development of the Reed metal propeller. |
| 1926 | Major Edward L. Hoffman, Army Air Corps, for his work in developing the parachute, now universally used. |
| 1927 | Charles L. Lawrence for the development of the air-cooled engine. |
| 1928 | Aeronautics Branch, Department of Commerce, for their development of civil aeronautics in making better landing fields and landing lights, as well as other safety devices. |
| 1929 | National Advisory Committee for Aeronautics for its outstanding achievement in the development of the airplane engine cowling. |
| 1930 | Harold F. Pitcairn for his development and application of the autogyro. |
| 1931 | Packard Motor Car Company for the Packard Diesel engine. |
| 1932 | Glenn L. Martin as the world's most important manufacturer of large military airplanes. |
| 1933 | Hamilton Standard Propeller Company, of Hartford, Conn., through its Chief Engineer, Frank Walker Caldwell, for development of the controllable pitch propeller. |
| 1934 | Captain Albert F. Hegenberger, Army Air Corps, for his development and demonstration of a successful blind landing system. |

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CADET MAKES LANDING MINUS PROPELLER

Displaying a cool head and a steady nerve, Flying Cadet F.R. Drake, 55th Pursuit Squadron, cut his switch and chose to ride his ship to a safe landing rather than jump when it threw its propeller at an altitude of 3,000 feet at Barksdale Field, La., on July 19th. Flying a low wing Pursuit plane, model P-26, Cadet Drake was in a formation of six planes. Luckily, the propeller did not strike any of the other ships. His plane dropped sharply, but he righted it and began dipping downward, bringing the craft to a perfect landing.

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Because newspaper articles disclosed his identity as a former German pilot in the World War, Corp. Max Mueller, of Hamilton Field, assistant crew chief of Col. Tinker's Bomber "Bird O'Frey," has received fan mail from all parts of the country.

WEST POINT GRADUATES ASSIGNED TO UNDERGO FLYING TRAINING

A total of 47 members of the class of 277 cadets who graduated from the United States Military on June 12, 1935, were, under recent orders of the War Department, directed to proceed upon the expiration of their graduation leave to Randolph Field, Texas, and report to the Commanding General of the Air Corps Training Center for duty and flying training.

These 47 students, or 17% of the entire graduating class, received commissions in the various branches of the Army, except the Air Corps, as follows: Corps of Engineers, 4; Cavalry, 5; Coast Artillery, 4; Field Artillery, 14; Infantry, 20.

A year of intensive flying training is ahead of these West Point graduates to whom aviation presented a special appeal, i.e., an eight months' primary and basic course at the Primary Flying School at Randolph Field, and a four months' course at the Advanced Flying School at Kelly Field, Texas. Those who succeed in completing the year's course will be given the rating of "Airplane Pilot" and transferred to the Air Corps, while those failing to make the grade will return to the branch of the Army in which they were commissioned upon their graduation from the Military Academy.

It is now 14 years since the policy was inaugurated of assigning West Point graduates to the Air Corps flying schools for training. During the period from 1922 to 1934, inclusive, 801 West Pointers were accepted for flying training, of which number 375 graduated from the Advanced Flying School, or 47%. It would appear from this that slightly less than one-half of the young men mentally and physically qualified to undergo flying training at the Air Corps Training Center are able to complete the course successfully.

The following statistics covering a 13-year period of flying training given to West Point graduates may be of interest:

Year	Total Graduates	Assigned to Air Corps	Pct.	Number graduating from the Advanced Flying School	Pct.
1922	102	16	15.6	8	50.00
1923	261	51	19.5	25	49.21
1924	406	61	15.0	20	32.78
1925	244	42	17.2	9	21.43
1926	152	18	11.8	7	38.88
1927	203	30	14.7	16	53.33
1928	260	77	29.0	53	68.83
1929	297	110	37.0	41	32.27
1930	235	84	35.7	40	47.62
1931	296	92	31.0	43	46.74
1932	258	68	26.3	38	55.88
1933	346	92	26.6	43	46.74
1934	247	60	24.3	32*	53.33
Total	3307	801	24.2	375	46.82

* Scheduled to graduate October 15, 1935
The West Point graduates who will soon wend their way to Randolph Field to try their hand

at piloting Army airplanes are enumerated below, as follows:

Class Standing	Name	Home
<u>Corps of Engineers</u>		
5	Albert J. Shower	Madison, Wis.
9	Jack W. Hickman	McCook, Neb.
12	Leighton I. Davis	Lyndhurst, N.J.
20	George R. Smith, Jr.	Coronado Beach, Fla.
<u>Coast Artillery</u>		
81	Kenneth I. Curtis	Milwaukee, Wis.
125	James W. Totten	Fort Omaha, Neb.
131	John N. Howell	Margate City, N.J.
145	Pennock H. Wollaston	West Point, N.Y.
<u>Field Artillery</u>		
6	David C. Wallace	Richmond, Va.
35	James V. Wilson	Elwood City, Pa.
51	Robert M. Stillman	Pueblo, Colo.
57	George S. Eckhardt	Viroqua, Wis.
66	Raymond W. Sumi	Nashauk, Minn.
74	Sanford W. Horstman	St. John, Kans.
76	David G. Presnell	Atlanta, Ga.
93	Kenneth P. Bergquist	Crookston, Minn.
100	Arthur A. Fickel	Fort Sam Houston, Texas
104	Downs E. Ingram	McElhattan, Pa.
106	Edgar A. Clarke	Kansas City, Mo.
113	Elmer J. Gibson	Shenandoah, Pa.
115	James H. Walsh	Carbondale, Pa.
116	Walter J. Bryde	Newburgh, N.Y.
<u>Cavalry</u>		
58	Richard E. Ellsworth	Erie, Pa.
136	Thomas Wildes	Brooklyn, N.Y.
149	Wilhelm C. Freudenthal	Worcester, Mass.
220	Albert A. Matyas	Brooklyn, N.Y.
229	Pelham D. Glassford, Jr.	Washington, D.C.
<u>Infantry</u>		
86	Joseph G. Russell	Fort Worth, Texas
138	Aaron W. Tyer	Natchez, Miss.
147	Carl T. Isham	Redlands, Calif.
175	Noel M. Cox	Canton, Miss.
182	Charles J. Daly	Pacific Grove, Calif.
183	Samuel C. Mitchell	Westerleigh, N.Y.
188	Lamont Sexton	Lynchburg, Va.
192	John Williamson	Brooklyn, N.Y.
201	Orin H. Moore	Winchester, Tenn.
204	Harvey Bower	Osborn, Ohio
208	Thomas C. Musgrave, Jr.	Atlanta, Ga.
219	Thomas J. Gent, Jr.	Crestwood, N.Y.
233	Maurice M. Simons	Ft. Leavenworth, Kans.
234	Richard C. Hopkins	Topeka, Kans.
251	George B. O'Connor	Yonkers, N.Y.
255	Jack Roberts	New York, N.Y.
257	George M. Jones	Memphis, Tenn.
270	Glenn C. Thompson	Roanoke Rapids, N.C.
271	Samuel B. Knowles, Jr.	Beechhurst, N.Y.
274	Ralph O. Lashley	Richmond, Ind.

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AIR CORPS OFFICERS PROMOTED

The following 2nd Lieutenants of the Air Corps were promoted to 1st Lieutenant with rank July 1, 1935: William A. Schulgen, Daniel B. White, Donald H. Baxter, Samuel O. Redetzke and Roy T. Wright.

B I O G R A P H I E S

LIEUT.-COLONEL HERBERT A. DARGUE

Belonging to a small group of Air Corps officers who were affiliated with Army aviation practically from its inception is Lieut.-Colonel Herbert A. Dargue, now Assistant Commandant of the Air Corps Tactical School, Maxwell Field, Ala. He became associated with aviation while stationed in the Philippine Islands as a second lieutenant of the Coast Artillery Corps, having been detailed to the Aviation Section, Signal Corps, in March, 1913, and serving with this branch in the Islands at Fort McKinley and later at Fort Mills, Corregidor Island.

With an old hydroplane which he kept in repair, he made numerous flights and assisted the Coast Artillery very materially in locating targets invisible from batteries, observed the effect of siege gun firing at these targets, reconnoitered Mariveles and south shores to assist in selecting routes of travel between the shore lines and neighboring points, and conducted successful experiments in sending radio messages from the hydroplane.

At that time an aviation school was conducted at Fort William McKinley, with Lieut. (now Colonel) F. P. Lahm, 7th Cavalry, as instructor. There were six enlisted mechanics on duty at the school and three student officers taking instruction, Lieut. Dargue being one of them. Lieut. Dargue received the rating of Military Aviator, July 19, 1913, and the rating of Junior Military Aviator as of July 22, 1914.

Born at Brooklyn, New York, November 17, 1886, he graduated from the United States Military Academy, June 13, 1911, and was commissioned a second lieutenant of Coast Artillery. His first assignment to duty as an officer of the Army was in the Philippines where, prior to his detail for aviation duty, he served for six months with the 41st Company and for the next eight months with the 138th Company, Coast Artillery Corps.

Leaving the Philippines in January, 1915, Lieut. Dargue proceeded for duty at the Signal Corps Aviation School at San Diego, Calif. Considering the type of aircraft utilized in those early days of aviation and the difficulties encountered in piloting them, he accumulated up to that time quite an impressive flying record, making 189 flights for a total flying time of 73 hours and 31 minutes.

In December, 1915, Lieut. Dargue was transferred to duty with the 1st Aero Squadron at Fort Sam Houston, Texas. While assigned to this Squadron he saw service with the Punitive Expedition into Mexico under General Pershing, from March 19 to May 4, 1916, and performed a considerable amount of flying. Piloting airplanes considered wholly unsuited for military

operations, these few months of service in Mexico proved very eventful. All officer pilots on duty with the Squadron were constantly exposed to personal risk and physical suffering. Due to the inadequate weight-carrying capacity of the airplanes, it was impossible to carry even sufficient food, water or clothing on many of the reconnaissance flights. During their flights the pilots were frequently caught in snow, rain and hail storms which, due to inadequate clothing, invariably caused excessive suffering. In several instances, the pilots were compelled to make forced landings in desert and hostile country, 50 to 70 miles from the nearest troops. In every case the airplanes were abandoned or destroyed and the pilots, after experiencing all possible suffering due to lack of food and water, would finally work their way on foot, through alkali deserts and mountains, to friendly troops, usually arriving thoroughly exhausted as a result of these hardships.

On one occasion, Lieut. Dargue, accompanied by Captain B. D. Foullois, the present Chief of the Air Corps, as observer, flew from San Geronimo to Chihuahua City to enable the latter to deliver despatches to the American Consul at that point. After Captain Foullois left the plane, Lieut. Dargue took off, in accordance with instructions, to join another army plane which had landed to the north of the town. He was immediately fired upon by four mounted rurales. Fortunately, Captain Foullois heard the shots and succeeded in stopping the firing, but the rurales arrested him and took him to the city jail. Succeeding in getting word of his arrest to the Military Governor of Chihuahua, the latter ordered his immediate release.

After landing alongside the other Army plane, piloted by Lieut. Carberry, from which the observer, the late Captain Thomas F. Dodd, had departed in order to deliver duplicate despatches to the American Consul at Chihuahua City, a large crowd of natives, Carranzista soldiers and officers, collected around both planes, hurling insulting remarks, burning holes with cigarettes in the wings, slashing the cloth with knives in several places, and extracting bolts and nuts from various parts of the planes.

Feeling that the mob would ultimately wreck the planes, Lieuts. Dargue and Carberry decided to fly them to the smelters of the American Smelter and Refining Company, six miles from Chihuahua City. Lieut. Carberry got away without difficulty, but Lieut. Dargue, taking off in the midst of a shower of stones thrown at him by the mob, had only flown a short distance, when the top section of the fuselage flew off, damaging the stabilizer and forcing him to make an im-

mediate landing. He then stood off the crowd without further damage to the airplane or to himself until the arrival of a guard sent by the Military Governor at Captain Foullois' request.

On April 15, 1916, Lieut. Dargue exceeded all previous long-distance flights by accomplishing a reconnaissance mission from Columbus, New Mexico, to Boca Grande, Pulpit Pass, Dublin, Namiquipa and Satevo, involving a total distance of 415 miles. Four days later during a reconnaissance mission from San Antonio, Texas, to Chihuahua City, Lieut. Dargue, accompanied by Captain R.E. Willis, Observer, was forced to land in the hills, due to motor failure. His plane was completely wrecked, but he escaped without injury. Captain Willis, pinned under the wreckage, was considerably bruised. The airplane was burned on the spot, and the two aviators with their personal equipment started to walk to San Antonio, their nearest base, a distance of about 65 miles. Two days later, after constantly suffering hardships due to lack of food and water, they reached San Antonio.

Returning to the Signal Corps Aviation School at San Diego on July 11, 1916, Lieut. Dargue remained there until July 3, 1917. On the 13th of that month, he was transferred to the Field Artillery, and he served with Battery F, 16th Field Artillery, at Fort Robinson, Wisconsin, until the latter part of September, 1917, when he was assigned to duty at the School for Aerial Observers at Fort Sill, Okla.

From August 17, 1918, to October 21, 1918, he was on temporary duty with the A.E.F. in France and England, making a study of the training of pilots, observers and enlisted men. Upon his return to the United States, he was assigned to duty in the Office of the Director of Military Aeronautics, Washington, D.C., as Assistant Chief of Training, for a short period. He then took the course at the Air Service Engineering School at McCook Field, Dayton, Ohio, graduating in 1920. He entered this school with the temporary rank of Lieut.-Colonel, reverted to his former rank of Captain, but was promoted to Major, Air Service, on July 1, 1920, these changes occurring during the reorganization of the Army to its regular peace-time status.

From the Engineering School, Major Dargue returned to Washington, serving for a short time in the Office of the Chief of Air Service as a member of the Advisory Board, then as Chief of the Operations Division and later as Chief of the War Plans Section. This tour of duty was followed by his entering as a student at the Command and General Staff School, Fort Leavenworth, Kansas, from which he graduated with distinc-

tion in 1924, returning again to Washington for duty in the Training and Operations Division, Office of the Chief of Air Service.

Major Dargue was selected as Commanding Officer of the Pan-American Flight around South America for which he, as well as the other members of the flight, was awarded the Distinguished Flying Cross, the citation accompanying same being as follows:

"For extraordinary achievement while participating in an aerial flight. Major Dargue, as one of the pilots of the airplane New York and as commanding officer of the Pan American Flight, December 21, 1926, to May 2, 1927, by his untiring energy, broad vision, and technical knowledge assisted materially in the organization of this important expedition. His leadership, skill, sound judgment, and courageous conduct were vital factors in bringing to a successful completion this mission of good will. In the excellent performance of his many important duties, he brought great credit to himself and to the Army of the United States, and contributed to the cause of Pan American amity." The members of this flight were also awarded the Mackay Trophy, tendered annually for the most meritorious flight by an Army pilot or pilots during the year.

During the course of the Pan-American Flight and just prior to landing at Buenos Aires, Argentina, Major Dargue narrowly escaped death, following a mid-air collision with one of the other planes of the flight. Immediately following the collision, the two planes fell together in a violent spin and, as soon as he loosened his safety belt, it was impossible to remain with the plane, so great was the force tending to throw him out. As he left the plane, the parachute became entangled with the wing or the stabilizer. "My parachute ring must have caught on something," Major Dargue stated in his report of the jump, "for I have no recollection of pulling it, and yet my parachute opened just as I was leaving the plane and caught on the wreckage. At the same time I received a violent thud in the left side from striking some part of the plane. I was carried rapidly toward the ground with the wreckage and recall distinctly thinking this was the end. It seemed impossible to escape, but all of a sudden a giant hand held me aloft and I looked above to see a rip in my parachute from skirt to crown and two large holes, the size of the top of an office desk. Several shroud lines were cut and dangled all around. Pieces of plane filled the air and I caught a glimpse of another parachute far above me."

A double crash, and one plane burst into flames and then I struck the ground

* Lt. E.C. Whitehead, co-pilot.

rather violently. I could not have been very high when my parachute broke away from the wreckage and saved my life, for it seemed only a couple of moments between the opening of the chute and my safe landing."

Shortly following the return of the Pan-American flyers, Major Dargue, in the same type airplane utilized in the South American Flight, made a good will tour of some 70 cities in the United States, embracing 35 States. The City of Ottawa, Canada, was also visited. This flight involved a total distance of approximately 10,000 miles.

Major Dargue remained in the War Plans Section, Office of the Chief of the Air Corps, until August 15, 1928. He then completed the one-year courses

at the Army War College, Washington, D.C., and the Naval War College at Newport, R.I., following which he was assigned to duty at Langley Field, Va., as Commanding Officer of the 2nd Bombardment Group. He continued on this duty until August, 1933, when he was assigned as Commanding Officer of the Second Bombardment Wing, Langley Field. On October 18, 1934, he assumed the duties of Assistant Commandant of the Air Corps Tactical School at Maxwell Field, Ala., being promoted on March 4, 1935, to the temporary rank of Lieut.-Colonel during the period of his tenure of this position.

At this writing Lieut.-Colonel Dargue is credited with a total flying time in excess of 4,250 hours.

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AWARD OF CONTRACT FOR BASIC TRAINING AIRPLANES

The Assistant Secretary of War, Hon. Harry H. Woodring, recently announced the award for 42 basic training airplanes; for spare parts, equivalent to 3 airplanes; and for certain data, to the North American Aviation, Inc., Dundalk, Maryland. The amount of the award totals \$559,731.80.

The price per plane was \$12,100.00, making a total of \$508,200.00 for the 42 airplanes. The cost of the spare parts was \$36,300.00, and that of the data \$15,231.80.

The circular proposal inviting bids for this basic training airplane was

issued to the aviation industry on August 22, 1934, with opening date on April 22, 1935.

In accordance with the established practice of the War Department, the airplane for which the award was given was thoroughly tested by repeated flights. The plane is single engined with a maximum speed of 175 miles per hour, and with a service ceiling of 20,000 feet. It has complete radio installation, but no armament. It has a gross weight of 4150 pounds, of which approximately 1150 is its useful load, including pilot and student.

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THE FIELD ARTILLERY SCHOOL CLOSSES FOR YEAR

The Field Artillery School, Fort Sill, Oklahoma, closed on Friday morning, June 28th, with the firing of "Lights" and "Mediums" at the fleeing Reds as they left for parts east via North and South Arbuckle.

General Field Exercise No. 8 is the culmination of the school year, and is a problem which embodies all the principles of Tactics and Technique of Artillery as taught at the School.

In order better to be equipped for cooperation in this problem, Flight "E," 16th Observation Squadron, was augmented by three additional observation planes with pilot-observer teams from Brooks Field, also by three A-3's with smoke screen apparatus from Barksdale Field.

At the outset of the problem, three airplanes with pilot-observer teams were designated to act as Blue Observa-

tion and the remaining two observation planes with teams to operate as Red Observation. The Attack planes, with the exception of one prearranged smoke mission, operated as Red attack aviation.

With this set up the Division Aviation for Blues as well as Reds operated in a satisfactory manner. The Red attack simulated attacks on troop columns on radio call and were in all cases successful in "annihilating" the Blues to their delay and discouragement.

On June 29th, the visiting airmen and aircraft returned to their home stations to routine duties, while Flight "E" rejoined at the approaching half day summer schedule and at the successful completion of another year with the Field Artillery School.

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Bulletin No. 3, recently issued by the Headquarters GHQ Air Force, Langley Field, Va., invites the attention of all commanders to the following War Department policies governing the organization, on a clear-cut functional basis, of the various type units of the Air Corps at stations where GHQ Air Force units are located, viz:

a. The Station Complement: At each of the home stations, a station complement, not a part of the GHQ Air Force, will be organized consisting of Air Corps, Quartermaster, Ordnance, Signal Corps, Medical and other service personnel necessary to operate permanently the respective stations. This station complement will form the nucleus of the Corps Area service command upon mobilization and will be organized so as to operate the station on an inactive status when combat units are absent.

b. The Service Squadron: Mobile service squadrons capable of servicing and maintaining the combat units and taking over the administration, operation and maintenance of a field other than the home station from which these combat units may be operating.

c. The Combat Squadron: Highly mobile tactical units consisting only of such personnel and equipment as are essential for their self-sustained operation in the field for short periods of time.

2. The attachment of enlisted men assigned to the GHQ Air Force, for duty with the station complement, is not favored by this headquarters. Such procedure so interlocks the operation of the station complement with that of the GHQ Air Force as practically to preclude operations by units of the GHQ Air Force away from their home stations. It requires a complete reorganization of the station complement when tactical units are sent into the field. It prevents a test both of the GHQ Air Force units and of the station complements. The attachment of these additional men to the station complement prevents a test of the ability of the station complement to operate with a predetermined minimum of required overhead. It withdraws from the tactical units men essential to training for operations in the field.

3. It is felt that the stations at

which GHQ Air Force units are located should be reorganized on a functional basis, with a clear-cut line of demarcation drawn between the functions performed by GHQ Air Force units and those performed by the station complement. The operating functions charged to the station complement should be the same whether or not GHQ Air Force units are located at their home stations. The training given service squadrons cannot be sporadic and accomplish the desired results. It must be continuous and habitual if the Air Force is to be in fact an ever-ready striking force. Such reorganization as may be required should utilize to the maximum the personnel and facilities of service squadrons as units, and not as isolated individuals executing station complement functions.

4. In order to properly service test the principles upon which the GHQ Air Force has been established, within the very limited period of time allotted for the purpose, it is the policy of this headquarters that:

a. Combat crews will be organized and trained as units. It is not sufficient that there be a proper total of trained pilots, bombers, gunners, etc. It is essential that trained teams accustomed to working together be developed to man the type of airplane with which the squadron is equipped.

b. Service squadrons, organized and trained, to operate as units are vital to the accomplishment of the Air Force mission. The efficiency of these organizations will be the primary concern of group commanders until such time as they are firmly established and functioning. Efficiency of combat units is of little moment in sustained operations unless properly supported by an efficient supply and maintenance service.

c. In view of the extreme shortage of airplanes that now exists and will continue to exist for the next three years, it is essential that the maximum number possible be kept in commission at all times. To do this, fixed hours of work must give way to accomplishment of objectives. Schedules of calls will be considered a guide and not a mandate for the employment of time. All agencies will be so organized as to be capable of rendering necessary services upon short

notice at any hour of the day or night.

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Brigadier General Henry H. Arnold, Commander of the First Wing, GHQ Air Force, inspected the planes and personnel of Hamilton Field, Calif., on July 12th to insure that the organizations are prepared to conduct field operations for a period of three days. Lieut.-Col. Clarence L. Tinker had placed his command in preparation for this quarterly load test of airplanes with full military equipment, in compliance with an order from the Commanding General, GHQ Air Force. Machine gun and bombing competition featured the test, the pilots dropping all types of bombs and firing ten rounds from each machine gun. The Martin Bombers took off with their full military loads, which averaged 2,000 pounds of bombs plus other impedimenta, with ease about 10:00 a.m. The planes and personnel of Headquarters Flight, 31st, 11th and 9th Bombardment Squadrons participated in the aerial inspection. Test flights of 25,000 feet and above with oxygen masks showed the ability of the Bombers to soar to great heights. All personnel were also subjected to a ground inspection, including the 69th and 70th Service Squadrons.

According to word received from Hamilton Field, the 11th and 31st Bombardment squadrons were scheduled to fly to Salt Lake City on July 22nd as the 7th Bombardment Group's contribution to the concentration of the 1st Wing to be held there; that approximately 19 Martin Bombers were to wing to the Mormon City to enable the pilots to familiarize themselves with the country. Major Harold D. Smith was slated to lead 8 planes of the 31st Bombardment Squadron on these maneuvers. Three days were to be consumed in these training missions with the purpose of stressing the fact that Salt Lake City is one of the centers from which the 1st Wing must be prepared to operate in the defense of the West Coast. Brigadier General Henry H. Arnold was to supervise the problems and Lieut.-Colonel Clarence L. Tinker was to fly in his Bird O'Prey as the commanding officer of the 7th Bombardment Group.

Several of the squadrons stationed at Langley Field, Va., have recently been engaged in operations which were interesting in that they were unusual and were accomplished at bases other than Langley Field. From a tactical point of view, the operations of the 59th Service Squadron, combined with the 96th Bombardment Squadron, both with their complete complement of officers, enlisted men and equipment, are probably the most interesting. They were engaged in the first of a series of tests of the new

tables of organization under the GHQ Air Force and have established an operating base at the Richard E. Byrd Airport at Richmond, Va.

The movement from Langley Field began at 7:00 a.m., July 11th, and ended at 10:10 a.m. Actual war conditions obtained throughout the period of the maneuver, with the Service Squadron maintaining the Bombardment Squadron as prescribed in the GHQ directive. All bombs, ranging from 600 to 2,000 pounds, are transported from the rail head and spotted for loading by the Armament Section. Gasoline and oil are also spotted promptly to avoid any delay in the servicing of the ships which are engaged in the tactical missions. Ammunition is inspected and loaded in belts and delivered to the ships.

The problem presented to the several departments of the Service Squadron can more readily be appreciated when it is known that the Bombardment Squadron is performing two or three-hour missions daily for seven days, including both day and night assignments. Each ship is fully armed with guns and bombs and carries a regularly assigned combat crew to man all stations.

It is too early to ascertain definitely the advantages and disadvantages of the new tables of organization under actual field conditions, but tests such as the above will furnish valuable information by which the efficiency of the organization can be increased.

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RECRUITS NEEDED BY HAMILTON FIELD

According to the News Letter Correspondent, Hamilton Field needs 111 recruits. The recruiting party designated to go out and get them consists of 2nd Lieut. James E. Roberts, Air Reserve, First Sgt. Michael Binder, Staff Sergeants Ray C. Clemons, Delno W. Ross and Sergeant Bryan I. Doughty. Their area consists of a tier of counties than run up to the Oregon line, where ranching is the popular pastime.

"Rodeos and frontier conditions abound in this area," continues the Correspondent. "It should furnish some 'Huskies' for the Air Corps. The life of an Air Corps soldier is as exciting and as remunerative as that of a ranch hand."

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An O-19C Observation plane at France Field, Panama, was equipped with a supercharged 10-1 compression ratio motor for high altitude tow target missions. This motor has proven very successful in this high altitude work.

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First Lieut. Kenneth N. Walker, who recently graduated from the Command and General Staff School, Ft. Leavenworth, Kans., reported for duty at Hamilton Field, and was assigned to the 7th Bombardment Group.

V-6827, A.C.

TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Major

Captain Samuel C. Skemp assigned as a member of the Air Corps Board, Maxwell Field, Ala., June 22, 1935.

Captain Mark R. Woodward assigned as Director of Ground Training, Air Corps Advanced Flying School, July 13, 1935.

Captain Herbert W. Anderson, from duty as Operations Officer, Air Corps Technical School, Chanute Field, Ill., to Director, Armament, at that School, July 24, 1935.

Captain Earl H. DeFord assigned as Chief, Air Intelligence, Air Corps Tactical School, Maxwell Field, Ala., July 30, 1935.

To Captain

1st Lieut. Everett S. Davis assigned as Flight Commander, Air Corps Detachment, Fort Lewis, Wash., June 22, 1935.

1st Lieut. Edwin R. French assigned as Supply Officer, Philippine Air Depot, Nichols Field, P.I., July 16, 1935.

1st Lieut. William A. Matheny assigned as Flight Commander, 21st Observation Squadron, Bolling Field, D.C., July 13, 1935.

1st Lieut. Stanley K. Robinson assigned as Flight Commander, 21st Observation Squadron, Bolling Field, D.C., July 13, 1935.

1st Lieut. Reginald F.C. Vance assigned as Intelligence and Operations Officer, 41st Observation, July 18, 1935.

1st Lieut. Robert W. Douglass, Jr., assigned as Flight Commander, 55th Pursuit Squadron, Barksdale Field, La., July 23, 1935.

1st Lieut. Elmer P. Rose assigned as Engineer and Armament Officer, 6th Composite Group, France Field, Panama, July 26, 1935.

1st Lieut. Clarence T. Mower assigned as Flight Commander, 25th Bombardment Squadron, France Field, Panama, July 26, 1935.

To First Lieutenant

2nd Lieut. Wendell W. Bowman assigned as Communications Officer, 96th Bombardment Squadron, Langley Field, Va., July 30, 1935.

2nd Lieut. Othel R. Deering assigned as Transport Officer, 71st Service Squadron, Barksdale Field, La., July 18, 1935.

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The following-named Air Corps officers, holding temporary increased rank, were assigned to other duties, but retain such increased rank:

Major Robert T. Cronau from 20th Bombardment Squadron to Intelligence and Operations Officer, 2nd Bombardment Group, Langley Field.

Lieut.-Colonel William O. Ryan from assignment as Director to duty as Assistant Director, Air Corps Board, Maxwell Field, Ala.

Captain James S. Stowell from Director, Clerical, Air Corps Technical School, Chanute Field, Ill., to duty as Director, Basic Instruction, that School.

Captain Donald W. Benner from Engineer and Armament Officer, 6th Composite Group, to Adjutant, Panama Air Depot, France Field, C.Z.

Captain Frank H. Robinson from Flight Commander, 25th Bombardment Squadron, to Intelligence and Operations Officer of that squadron.

Captain Thurston H. Baxter from Supply Officer, 20th Pursuit Group, Barksdale Field, La., to Intelligence and Communications Officer, Third Wing, that station.

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OFFICERS RELIEVED FROM TEMPORARY RANK

Major Warren R. Carter from assignment and duty as Chief, Air Intelligence, Air Corps Tactical School, Maxwell Field, Ala., July 29, '35.

Captain Ernest S. Moon as Adjutant, Air Corps Tactical School, Maxwell Field, Ala., and to duty at that station as Student, 1935-36 course, July 29, 1935.

Captain Don W. Mayhue from Intelligence and Communications Officer, 3rd Wing, and from further duty at Barksdale Field, August 5, 1935.

Major Leland W. Miller from Commander, 61st Service Squadron, Mitchel Field, N.Y., July 16, 1935.

1st Lieut. Harold L. Smith from Station Complement, March Field, Calif., and assigned to duty with GHQ Air Force, that field, July 23.

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CHANGES IN STATION OF AIR CORPS OFFICERS

To March Field, Calif.: Major Early E.W. Duncan from Hawaiian Department. Previous orders assigning him to Chanute Field revoked.

To Maxwell Field, Ala.: Captain George H. Sparhawk, 19th Pursuit Squadron, Hawaii. Relieved from temporary rank upon departure.

To Wright Field, Ohio: Captain Edwin R. Page, upon completion tour of duty in Hawaii.

To Rockwell Field, Calif.: Captain Harry G. Montgomery, Jr., 50th Obs. Squadron, for duty with GHQ Air Force. Relieved from temporary rank upon departure from Hawaiian Department. - 2nd Lieut. Dolf E. Muehleisen, assignment to Bolling Field, D.C., revoked.

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PROMOTIONS: to 1st Lieutenant - 2nd Lieuts. William C. Dolan, rank June 21, 1935; Ivan L. Farman, June 22, 1935.

RETIREMENT: 2nd Lieut. Louis A. Vaupre, July 31, 1935, with rank of 1st Lieut. as of July 1, 1935, for disability incident to the service.

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Changes in the duties assigned the following-named Air Corps officers were made, no temporary rank being involved:

Captain William N. Amis from GHQ Air Force, Barksdale Field, La., to duty with Station Complement, that field.

Captain Burton F. Lewis from 1st Bombardment Squadron, Mitchel Field, N.Y., to duty with Station Complement, that station.

1st Lieut. Robert M. Losey from Hqrs. First Wing, March Field, to duty with Station complement, that field, as Meteorological Officer.

Colonel Jacob W.S. Wuest, upon arrival at Rockwell Field, to assume command of Rockwell Air Depot. Previous orders in his case amended.



Names still continue to be entered on the Register of the Caterpillar Club. This year, up to and including July 16th, there were 23 initiations into this mythical organization, and three other members were given second degrees, namely, Captain Richard I. Dugan and Flying Cadet George S. Buchanan, Air Corps, and Lee Gehlbach, noted civilian test

pilot and former Air Corps officer who at one time served with the First Pursuit Group at Selfridge Field, Mt. Clemens, Mich.

In the year 1934, up to and including July 16th, there was a total of 51 initiations into the Mystic Order of Caterpillars, or 28 more than for the same period of time this year - an encouraging sign, let us hope.

Up to this writing, 716 names are entered on the Caterpillar Club roster, with the number of jumps recorded as 752. Colonel Charles A. Lindbergh, Caterpillar-in-Chief, has four "hash" marks, or what have you, by virtue of his four emergency parachute jumps; Major Frank O'D. Hunter, Air Corps, three; and 31 others are perfectly content with two each.

In the News Letter of May 15, 1935, it was stated that a total of 706 airmen and airwomen had made emergency parachute jumps up to that time. Since then, ten names have been added, prominent among which is that of Major-General George E. Leach, who now bears the distinction of being the highest ranking Caterpillar.

Those who have joined the Order since April 17th, the latest jump recorded in the News Letter, are listed below, as follows:

No.	Name, Rank and Place of Jump
707	May 6 Lee Gehlbach, civilian test pilot, Ravenna, Ohio.
707*	May 17 Lee Gehlbach, civilian test pilot, Dahlgren, Va.
709	May 27 William A. Matheny, 1st Lieut., Air Corps, Tallassee, Ala.
690*	May 30 George S. Buchanan, Flying Cadet, Air Corps, Montpelier, Indiana.
708	May 11 Frank P. Hunter, Jr., 1st Lieut., Air Corps, Brujas Point, Panama
710	June 21 Hanlon H. Van Auken, Captain, Air Corps, Chesterfield, Mich.
711	June 22 Francis H. McDuff, Flying Cadet, Air Corps, Banning, Calif.
115*	June 22 Richard I. Dugan, Captain, Air Corps, Banning, Calif.

712	June 22	John L. Giles, Technical Sergeant, Air Corps, Banning, Calif.
713	June 27	Armine F. Herold, Major, Air Corps, near Taylortown, La.
714	July 11	William J. Bell, 1st Lieut., Air Corps, Guelph, Ontario, Canada.
715	July 16	George E. Leach, Major General, Conception, Arizona.
716	July 23	Forrest G. Allen, 1st Lieut., Air Corps, Chanute Field, Ill.

NOTE: * second emergency jump.

Captain Richard I. Dugan, it will be noted from the number opposite his name, is one of the early members of the Caterpillar Club, he having made his first jump on November 22, 1928, while a Flying Cadet at Kelly Field, Texas. In his second initiation, he figured in a triple jump with Flying Cadet McDuff and Technical Sergeant Giles. While flying in the vicinity of Los Angeles, Calif., the left motor of the airplane, which was piloted by Cadet McDuff, suddenly burst into flames. According to newspaper reports, Captain Dugan credited Cadet McDuff with having saved his life, stating that McDuff bravely remained at the controls until his two passengers had leaped free of the burning aircraft.

Lieut. Matheny, recipient of the Cheney Award for 1929 for bravery in rescuing a fellow flyer from a burning airplane, stated in his report of the jump that he was forced to resort to his parachute when, flying at night, engine failure occurred when the airplane was over terrain unfavorable for a safe landing.

"Once definitely committed to jumping," he said, "the pilot slowed the ship down, unfastened his belt, hooked his left thumb in the rip cord, pulled his feet up into the seat, grabbed the stick and righted the ship, which had started off to the left, and then dove out head first over the right side. As soon as the sensation of rapid falling hit him he struck his left hand with his right and pushed out. Looking back he saw the white shape of the as yet unfilled parachute being drawn out of its pack. Almost exactly coincident with that, the jar of the opening parachute hit him and he swung free and safe, with absolutely no further sensation of falling. * * The greatest source of bother to the pilot as he left this ship was its extreme instability when flying hands off. There was never any slightest question in his mind as to whether he could find and pull the rip cord or as to the dependability of the parachute. As a matter of fact, finding and pulling the rip cord was automatic without any thought at all by the pilot."

Strange as it may seem, Flying Cadet George S. Buchanan became a second degree member of the Caterpillar Club without even pulling the rip cord of his parachute. He was piloting a Pursuit plane in the vicinity of Montpelier, Ind., when a flare ignited in the container and was burning underneath the ship. Orders were relayed to him by radio to jump, following another radio message instructing him to attempt to release his flares. He failed to receive this latter message, due to poor receptive conditions.

Unaware at the time of the true cause of the fire, Cadet Buchanan attempted to extinguish it by cutting the main line switch and tearing out all the electrical wiring behind the instrument panel. He then slipped the aircraft in an attempt to put out the fire. It was then that he received the relayed message that the plane was still burning and that he should jump.

Leaving the airplane by opening the door on the left side, Cadet Buchanan climbed out on the wing, using the landing wires as a handhold. "I attempted to place my right foot against the side of the fuselage and push myself away," he stated. "The wing was slippery and the position of the aircraft was such that this was impossible to do. I was blown off by the slipstream and struck the stabilizer with my left side. The blow was hard enough to split the ripcord housing and open the parachute without my having to pull the D-ring. When I landed the D-ring was still in the socket."

Major Armin F. Herold, Air Corps, leading the second flight of a two-flight squadron from Barksdale Field, La., in a signal drill, was forced to "bail out" when one of the planes in the formation cut off the rudder and stabilizer of his plane just above the horizontal stabilizer. Immediately his plane started falling in a fast spin.

"I attempted to leave the airplane twice while it was spinning," Major Herold stated, "but was unable to do so because of air pressure from outside. I brought the airplane out of the second spin and opened the cockpit door and reached for landing wires on left side. With switches 'cut' the nose of the airplane dropped and the aircraft picked up speed rapidly, but I succeeded in pulling myself out of the cockpit and hung literally streamlined and suspended from the landing wires. At the speed I was traveling, I feared I might strike the empennage if I let go of the landing wires, so I held on for a short time waiting for the airplane to begin a spin or in some way change direction. My hands were being cut badly by the landing wires, so I finally let go and cleared the tail section of the aircraft without difficulty.

My reactions and feelings were perfectly normal, much to my surprise. There seemed plenty of time for everything I had to do, no hurry or rush, and the thought that I might not get out of the aircraft or the parachute would fail did not once enter my mind. After the parachute opened I was rather confused, as the opening occurred while I was still traveling fast, stunning me to a degree where I was not really normal until after I rested on the ground a few minutes later."

General Leach, Chief of the National Guard Bureau, was flying from Washington, D.C. to Santa Maria, Calif., piloted by Captain Charles M. Cummings. While over desert country in Arizona, the plane caught on fire, believed by Captain Cummings to be due to a leaking gasoline line. According to newspaper reports,

Captain Cummings said he told the General "to get ready to jump," but that all that General Leach heard was the word "Jump," and he lost no time in following what he thought were the pilot's directions. The reports also credit the General as saying: "I tumbled like a ball before the chute finally opened, then I fell in the biggest hole outside of the Grand Canyon."

General Leach cut his left arm either in crawling out of the plane, while leaving it or in landing on a rock. He reached Kingman, Arizona, after wandering for some hours through wastelands, and had his wound dressed by a physician.

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GUNNERY PRACTICE BY 35th PURSUIT SQUADRON

The 35th Pursuit Squadron, Major A.E. Waller, commanding, from Langley Field, Va., moved into the Gunnery Camp at Virginia Beach on July 2nd, and remained there until July 12th.

Ten Pursuit ships left Langley Field at 8:40 a.m., and the first tow target mission was fired exactly one hour later. The normal schedule called for ground gunnery at 5:00 a.m., followed by tow target. Firing was generally completed by 10:00 a.m., and after service and maintenance of the airplanes, the remainder of the day was devoted to baseball or swimming.

During the stay, 12,770 rounds of 30 caliber and 870 rounds of 50 caliber ammunition was fired. Nine pilots flew 84 hours on gunnery missions, an average of over nine hours per pilot. Captains Peaslee and Dorr were the only two members of the Squadron to fire record. The former made a score of 713 on ground targets and 114 on tow targets. Captain Dorr made a score of 654 on ground targets and 145 on tow targets.

All who made the trek say that the stay was most pleasant, with the exception of four o'clock breakfast and one violent electric storm. The News Letter Correspondent says: "To those of us who know Virginia Beach and stayed at Langley it was an enviable ten days for the 35th."

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D.F.C. PRESENTED TO CAPTAIN ANDERSON

Captain Frederick L. Anderson, of Hamilton Field, Calif., who won the Distinguished Flying Cross for piloting a burning airplane above the City of San Francisco and delaying his jump therefrom until it could fall harmlessly into San Francisco Bay, received this decoration on July 3rd for his extraordinary heroism. Colonel Roy C. Kirtland, Air Officer of the 9th Corps Area, presented the medal to Captain Anderson at 11:45 a.m. before the entire garrison at Hamilton Field.

Captain Anderson, Caterpillar No. 691, performed the above deed on December 14, 1934.

RESERVES ATTEND TRAINING CAMP

A most interesting and profitable 14-days' training camp for nineteen Air Corps Reserve officers of the 4th Corps Area was held from July 7th to 20th, inclusive, at the Municipal Airport at Atlanta, Ga. Under the able direction of Captain John B. Patrick, Non-Divisional Air Corps Units Instructor, assisted by Lieut. Robert W. Stewart, the Reserve officers were directed to organize themselves into a provisional squadron, with a complete staff, to plan and supervise the execution of all missions, provide for their own mess and attend to all administrative and supply details. The above-named Regular Army instructors acted in an advisory capacity only.

The results of the camp were gratifying. Although only nine planes - one O-25A, two O-1E's and six PT-3's - were available, 300 hours of tactical flying were accumulated, and every pilot soloed on service type airplanes. All flights were actual tactical missions simulating Pursuit, Observation and Attack Aviation problems. The afternoons were devoted to classroom work and instructive lectures by instructors from the Air Corps Tactical School which aroused much interest as to the possibilities of an Air Force for national defense. Also, a general court was appointed and conducted a court martial to illustrate the functions of a military court. The accused was duly initiated into Army life but was acquitted, and the court, breaking all precedents, fined the prosecution, Jack Lanier, for criminal prosecution without grounds for prosecution.

The nineteen officers attending the camp unanimously agreed that their period of 14 days' training was, without exception, the most profitable of their experience. These officers were:

Major Wiley R. Wright, Camp Commandant; Colonel Lee W. Wiggins, Flight Surgeon; Captain W. H. Beatty, 1st Lts. F.L. Gunter, C.J. Weinmeister, C.M. Robertson, E.E. Myers, S.R. Barker, A.J. Lanier, G.A. Holland, G.K. Crain, J.P. Fraim, 2nd Lieuts. M.A. Bateman, H.H. Culler, H.M. Cox, J.G. Nall, A.L. Laney and I. Munroe.

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NEW "DOPE" ON MECHANICS

An Air Corps officer from France Field, Panama Canal Zone, submits, to use his words, "two good ones I picked up from mechanics examination I corrected."

Q. State three dangerous troubles which may result from ice formation in carburetors of a radial type engine.

- A. 1. Motor quit.
2. Forced landing.
3. Crackup.

Q. In some engines, why are the two magnetos timed to fire at different positions of piston?

A. One magneto may be placed in a position which requires a longer secondary wire to the spark plug than the other magneto. Thus the one that has the longest wire must fire sooner than the other one with the short wire because the distance the charge must go from magneto to the plug is different and the one furthest away requires more time to get to its destination.

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PERSONNEL ITEMS

Captain Hugh C. Downey was relieved from assignment and duty with Station Complement, Langley Field, Va., and assigned to duty with the GHQ Air Force, that station.

The assignment of Captain Oscar F. Carlson, on duty at the Hawaiian Air Depot, Luke Field, T.H., was changed from Supply Officer to Adjutant. He retains the temporary rank of Captain.

The assignment of Major James F. Doherty, on duty at the Fairfield, Ohio, Air Depot, was changed from Supply Officer to Executive Officer. He retains the temporary rank of Major.

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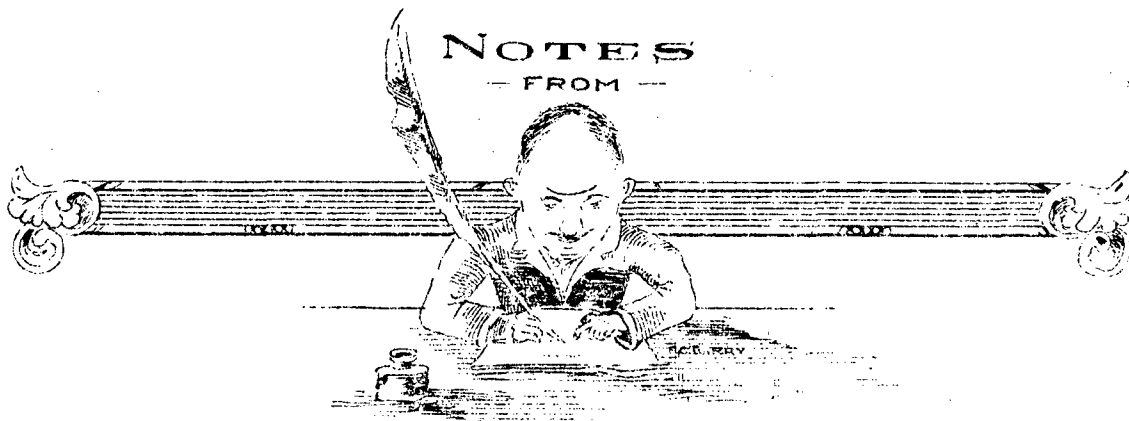
NEW CAFETERIA SYSTEM IN 75TH SQUADRON

The 75th Service Squadron, Wheeler Field, T.H., is becoming increasingly popular since the cafeteria system has been introduced as a permanent feature of the mess. A large number of palms and framed photographs showing beautiful Island sights, together with a cascaded fountain and fish pond lend to the mess hall the appearance of the better class of cafeteria. Certain refinements of procedure and routine have been introduced, with the result that men from other squadrons visit the 75th Squadron whenever possible, and it has even influenced requests for transfers.

Among the advantages now enjoyed at the 75th Squadron are napkins, toothpicks and after-dinner mints. It has been found that, when properly operated, this system not only furnishes better and hotter food but results in saving in food and in operating personnel. It seems to result in more leisure meals, which surely has a direct result on the health of the command.

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NOTES — FROM —



Hamilton Field, Calif., July 20th.

Seventeen of the 26 men, who comprised the post personnel at Hamilton Field from the very first, staged a reunion dinner on the night of July 17th at the Cotati Inn, Cotati, Calif. This was the second anniversary of their arrival at Marin's beautiful air field at Hamilton. Among those who attended the dinner were Master Sergeants Henry A. Doirant, Christian E. Peterson, Staff Sergeant Erik W. Lindhe, Sergeants William T. Oglesby, Nathaniel W. White, Corporal Anselmi, Privates Irving E. Ashton, John Cerason, Charles G. Fraser, Arthur Friend, Lawrence W. Pippin, Roy W. Robinson, Clifford W. Temple, James R. Wright and Charles F. Britt.

Captains James W. Spry, Edgar T. Noyes, Charles B. Stone, III, 1st Lieuts. Richard C. Lindsay, Roy H. Lynn, William Ball and Birrell Walsh have been designated as instructor pilots at this station.

Flying Cadet Kenneth R. Kreps, Bachelor of Arts in philosophy, University of California, Los Angeles, received his commission as a second lieutenant in the Air Reserve and was assigned to the 31st Bombardment Squadron with which he served as a flying cadet.

Major Walter B. Hough, Post Executive Officer, received his promotion to that grade on June 30th from the War Department.

Captain Oliver K. Robbins is now visiting the Field at the Officers' Club, although still on leave. Rumor has it that he will be assigned to the command of the 69th Service Squadron at this station upon his return to a duty status.

Technical Sergeant Walter A. Waddell is scheduled to sail on August 3rd from San Francisco for service in the Panama Canal Department.

Staff Sergeant John C. London, formerly of the Medical Detachment at Luke Field, T.H., reported at the Station Hospital at Hamilton Field for duty.

Major Lewis R.P. Reese, who has been confined at Letterman General Hospital since July 5th, was given sick leave for one month. Major Arthur G. Hamilton has been sick in this hospital with sinus trouble since July 8.

Captain Howard B. Nurse, formerly construction quartermaster at Hamilton Field, sailed for Honolulu on the PRESIDENT HARRISON on July 19th. He will take full charge of the new Hawaiian air field upon his arrival.

Major Fuy Kirksey piloted a BT-2C1 to the Rockwell Air Depot on July 15th, while Capt. A.V.P. Anderson ferried to that station a C-14 Transport, accompanied by Sgt. William T. Oglesby as crew chief. These planes are scheduled for overhaul.

The Hamilton Field Aces (Capt. John O. Roady's post team) clashed with the San Quentin All-Stars on June 30th behind the walls of the Big House. Although the "Bombers" piled up five runs in the first inning, the airmen fell before the heavy hitting of the All-Stars, who accumulated 19 tallies against Hamilton Field's 14. Humorous moments occurred as a drive over third base would hit the wall immediately back of it and carom almost anywhere for a two or three bagger. This game has become an annual event in the baseball history of Hamilton Field.

Captain John O. Roady, Post Quartermaster, left on July 20th for 12 days' leave.

France Field, Panama Canal Zone, July 8th.

First Lieut. Richard J. O'Keefe, Air Corps, suffered the very unpleasant experience of being forced down to a watery landing near the Coco Solo Navy Base in a P-12E Pursuit plane on the morning of June 24th. The plane was being flown on a test hop subsequent to a major overhaul and had just cleared the air-drome when the engine failed to function and went completely dead. Lieut. O'Keefe attempted to return to the field but failed in his objective, landing in the shallow water nearby. He was rescued by the Navy "Crash Boat" after a short swim to stay afloat. The plane was towed to the Fleet Air Base by a tender and was later brought back to France Field.

Minor injuries to one knee of the pilot and small damage to the plane resulted from the forced landing.

During the past month, the 7th Observation Squadron lost two O-19C's. One, which came out of overhaul some few months ago, was found

to be so corroded between the inner and outer skins of the monocoque fuselage as to render it unserviceable. It is being considered for survey now. There has been quite a bit of similar trouble on this type of ship lately. Most likely old age together with the moist tropical climate is responsible for this condition.

The 7th Observation Squadron turned over one O-19C to the 16th Pursuit Group at Albrook Field for use in instrument flying in return for two P-12B's, one of which was turned over to the 25th Bombardment Squadron. The purpose in obtaining the P-12B's was to assist both squadrons in acquiring acrobatic time. Unfortunately, however, one of these ships was turned over for survey immediately upon delivery, and orders were published to the effect that no acrobatics would be performed in this type of airplane.

First Lieut. I.W. Ott was made permanent Engineering Officer of the 7th Observation Squadron, vice 1st Lieut. E.P. Rose, who was relieved from assignment to this squadron and appointed Station Inspector.

First Lieut. W.H. Turner has been assigned officer in charge of the A.A.I.S. (Anti-Aircraft Intelligence Service, we presume). Sergeant Irlenborn, Headquarters Squadron, a recent arrival on the field, was detailed as assistant to Lieut. Turner.

Staff Sergeant Donnelly is a recent newcomer to the 7th Observation Squadron.

Tennis enthusiasts at France Field, both officers and enlisted men, have in the past found it necessary to visit the Navy courts or to share the local courts. The completion of the enlisted men's courts, now under construction, will mark an end to that condition. Lt. Montgomery, officer in charge of construction of the new courts, cannot be too highly commended for his work in connection therewith, nor the enlisted men who have labored so strenuously to expedite the completion of the courts.

Lieut. Epler, 7th Observation Squadron, has been quite successful in coaching the Post Basketball Team since Captain C.W. Cousland relinquished the coaching responsibilities. The team has won a number of victories for the Air Corps on this end of the Canal. Lieut. Epler has participated in the majority of the games himself and has proven himself one of the best basketeers on the Isthmus. Privates Ruiz, Watkins and Ely also are responsible in part for the team's showing.

The France Field Swimming Team won second place in the Department Swimming Meet. Pvt. Turner, 7th Observation Squadron, assisted greatly to the final standing. In view of the lack of material and support, the team could hardly have done better.

The Post Basketball Championship was recently won by the Panama Air Depot team. Panama Air Depot talent is very much in evidence in connection with the Post Basketball Team.

San Antonio Air Depot, Duncan Field, Texas.

On July 8th, the Depot had the honor of a visit from the Most Rev. Joseph Gawlina, Bishop and Chaplain-General of the Army of Poland, with the rank of Brigadier-General, and his secretary, the Rev. Jan Morawinski, a Captain in the Polish Army and an airplane pilot. They were escorted by a group of local ecclesiastical and civil dignitaries. Bishop Gawlina and Rev. Morawinski had just arrived from Warsaw on their first visit to the United States and journeyed here immediately by air from the Polish Embassy in Washington to visit Polish communities in Southwest Texas on a tour through the Middle West.

Lieut.-Colonel William O. Ryan, of the Air Corps Board, Maxwell Field, and Lieut.-Colonel Walter Kilner, of that station, passing through this vicinity on an extended flight, enjoyed a round of golf while guests of the Depot Commander, Colonel John H. Howard.

Major George R. Gaenslen, Air Reserve, of San Antonio, in civil life a construction engineer, began his eighth 2-weeks' active duty training tour at the Depot, July 8th.

Captain N.P. Walsh, Quartermaster at this Depot since June, 1934, was transferred on July 6th to Fort Sheridan, Ill., for duty. Captain and Mrs. Walsh and family departed on a month's leave, and the Depot greatly regrets to see them go.

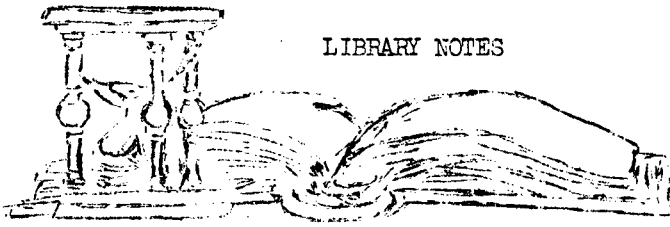
The regular monthly Control Area Supply and Engineering Conference and Luncheon at the Depot was held on July 9th, and was attended by 12 Air Corps officers from stations in this Area and the officers of this Depot.

Barksdale Field, Shreveport, La., July 24th.

With several of the leading boxers of the Air Corps members of the Barksdale Field boxing squad, this sport has become one of the most popular branches of athletics at this station. Two boxing shows each month are staged by the Athletic Association, featuring soldier boxers against leading civilian boxers of the South. The shows have been highly successful in every way, the large outdoor arena being packed with fans on every occasion and the bouts being fast and hard fought.

The Barksdale Field baseball team has turned in a string of 18 victories against 4 defeats for the present season. Piloted by Lieut. J.W. "Grassy" Hinton, the Wingmen have turned back the Maxwell Field Fliers, Pensacola Naval Air Station and several of the leading amateur and semi-pro baseball teams in this section of the country.

Barksdale Field golfers are enjoying the benefit of a well kept 9-hole golf course. Completed a month ago, the course is the scene of much activity early mornings and late afternoons. Among the leading golfers of the field are Cols. G.C. Brant, M.F. Harmon, E.L. Naiden, Majors Albert F. Vaughan and A.H. Foster.



LIBRARY NOTES

Some of the More Interesting Books
and Documents
Recently added to the Air Corps Library

D 13.3 Gyroscope 13. The Sperry horizon and directional gyro instruction manual, by Sperry Gyroscope Co., Inc., 10 p. 7 diagrams.

D 52.41 Doble 1. The Doble steam car, by Doble Steam Motors, 15p.

E 10.2 Europe 2. Economics of air transport in Europe. Final edition, by League of Nations. 73p. Report of Special Sub-Committee.

623.74/C56. War from the air - past - present - future, by L.E.O. Charlton. Air Commodore Charlton states that aviation has entirely changed conditions of modern warfare. Cites how shortsighted the nations were on the use of the air arm during the World War, and what will happen if the Service departments, which are constantly preparing for war, continue to follow a policy of laggard conservatism.

629.1312/G91. Our Future in the Air, by Brigadier-General P.R.C. Groves. A brief and simply told survey of commercial and military aviation as it is at present. Emphasizes the necessity of Britain changing its air policy before it is too late. The author says: "Let us make no mistake; in the world of today there is not the faintest hope of general disarmament nor of the creation of an international police force...We must face our responsibilities and act."

629.144/Un3a. Airport Bulletin, by Bureau of Air Commerce. A new Bulletin just recently started by this Bureau. The title of the first number is: Airport Grading and Drainage.

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Scott Field, Belleville, Ill., July 25th.

Recruiting started July 1st to increase the authorized strength of the post to 564 men. At this date, 13 recruits have been assigned to the Station Complement, 25 to the 9th Airship Squadron and 10 to the 15th Observation Squadron.

The following men, who are on detached service at the Stratosphere Camp, are expected back in the near future: Master Sergeant Bennett, in charge of Gondola; Master Sergeant Bishop, in charge of Rigging; Staff

Sergeant Jensen, Parachute Rigger; Sergeant Money, Balloon Rigger; Corporal Van Agtmael, Gas Worker, and Private, 1st Class, Lourin, Radio Operator.

Master Sergeant Bishop has been commended on his quick thinking which probably saved the lives of a number of men when the Stratosphere Balloon was wrecked. In addition to this, the other men were commended on their excellent work.

Captain Ralph O. Brownfield was relieved from assignment and duty with the 15th Observation Squadron and assigned to duty as Adjutant of the Station Complement, retaining his temporary rank of Captain.

Captain Raphael Baez, Jr., was transferred to Walter Reed General Hospital for an operation on June 28th.

The following named officers recently reported for duty at this station: 1st Lieut. James F. Walsh from Fort Monmouth, N.J.; 2nd Lieuts. Kurt M. Landon from Chanute Field, and John J. O'Connell, Air Reserve, for six months' active duty.

Officers scheduled to report for duty at Scott Field in the near future are: 1st Lt. Hymie McCormick, from Fort Sill, Okla., on or about October 1st, and 1st Lieut. Gerald G. Johnston from the Philippines, on or about October 20th.

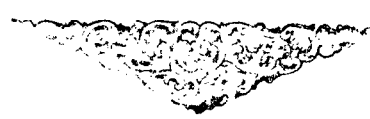
Wheeler Field, T.H., July 18th.

On an inspection made by the Department Inspector General, Major W.A. Pickering, I.G.D., the 75th Service Squadron was complimented highly on the appearance of its mess hall and kitchen, day room and supply room. The men in charge of these departments have taken a decided interest in their work.

On June 11th, the 75th Service Squadron Amphibian, with Captain P.H. Clark as pilot and 1st Lieut. C.E. LeMay as co-pilot, departed on an inter-island flight for the purpose of ferrying Colonel G.E. Allin, IGD, Hqrs. Hawaiian Dept., to Hilo on official business.

On June 13, 1935, following emergency orders from Department Headquarters, the Amphibian returned to Oahu, bringing as a passenger Private Clarence F. Drahiem, Company "K," 21st Infantry, who had been critically injured at the Kilauea Military Camp. The flight was made in record time. The injured man was picked up at John Rodgers Airport and taken to Tripler General Hospital.

The Amphibian returned to Hilo the same day, and returned again to Oahu with Colonel Allin and Captain Poineau of the Kilauea Military Camp.





TECHNICAL INFORMATION

ENGINEERING AND NEWS



AIR CORPS MATERIEL DIVISION

Floats on Martin Bomber.

Flight tests by Materiel Division officers were made at North Beach Airport, Long Island, New York, on the B-12A (A.C. No. 33-265) equipped with Edo floats containing gasoline tanks of 600 gallons capacity. The airplane flew satisfactorily, and has been delivered to Langley Field for service test by the General Headquarters Air Force.

Dr. Younger Comes to Materiel Division.

John E. Younger, Professor of Mechanical Engineering, University of California, Berkeley, Calif., on leave from the University for one year, reported July 1st in the Aircraft Branch, Structures Unit, for work on special research problems.

Lieut. Kemmer assigned as Structures Director.

Lieut. Paul H. Kemmer reported for duty in the Aircraft Branch on June 28th and was assigned as Director of Structures Development and Test Laboratory.

Experimental Telescopic Camera.

An experimental telescopic camera was fabricated at the Materiel Division for the purpose of obtaining photographs of the stratosphere balloon at various altitudes during flight. This camera has a 15-foot focal length lens giving an approximate speed of F/50.0. The lens is mounted in an aluminum tube 9 feet long and approximately 6 inches in diameter. The camera body is a case of a 4" x 5" Graflex speed graphic camera, mounted in the end of another tube 9 feet long and approximately 6 inches in diameter. The tubes can be telescoped together, forming a camera approximately 17½ feet long. The camera proper is mounted on a tripod specially constructed, having legs that extend approximately 11 feet. This permits the making of photographs from a vertical position. A minus blue filter is used in the lens and shutter speeds varying from 1/10th of a second to one second will be used.

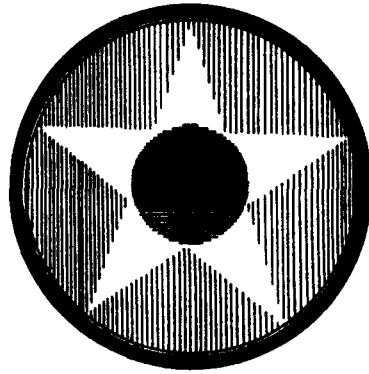
Various types of Panchromatic film will be used to obtain maximum contrast and fineness of grain under the various conditions. The plan was to carry the camera in a Type C-8 airplane to a point in the approximate path of the balloon flight. The airplane equipped with an all-wave radio set was to receive signals either from the balloon or from the re-

broadcast giving the location of the balloon at various altitudes, after which the airplane was to be flown somehead ahead of the path of flight and as nearly under the balloon as possible, landing facilities permitting, after which the camera was to have been set up and the balloon photographed. At an altitude of between 75,000 and 80,000 feet, it was expected that an image between 7/16" and 1/2" in diameter would be obtained. The camera is set up on the ground for taking the pictures.

Lieut. J.F. Phillips and George Magnus, designer of the camera, started from Wright Field when information was received that inflation of the balloon at the Stratocamp, Rapid City, South Dakota, had started, and were among those who sympathized with Captains Stevens and Anderson in the loss of the balloon, especially as it affected the test of the camera.

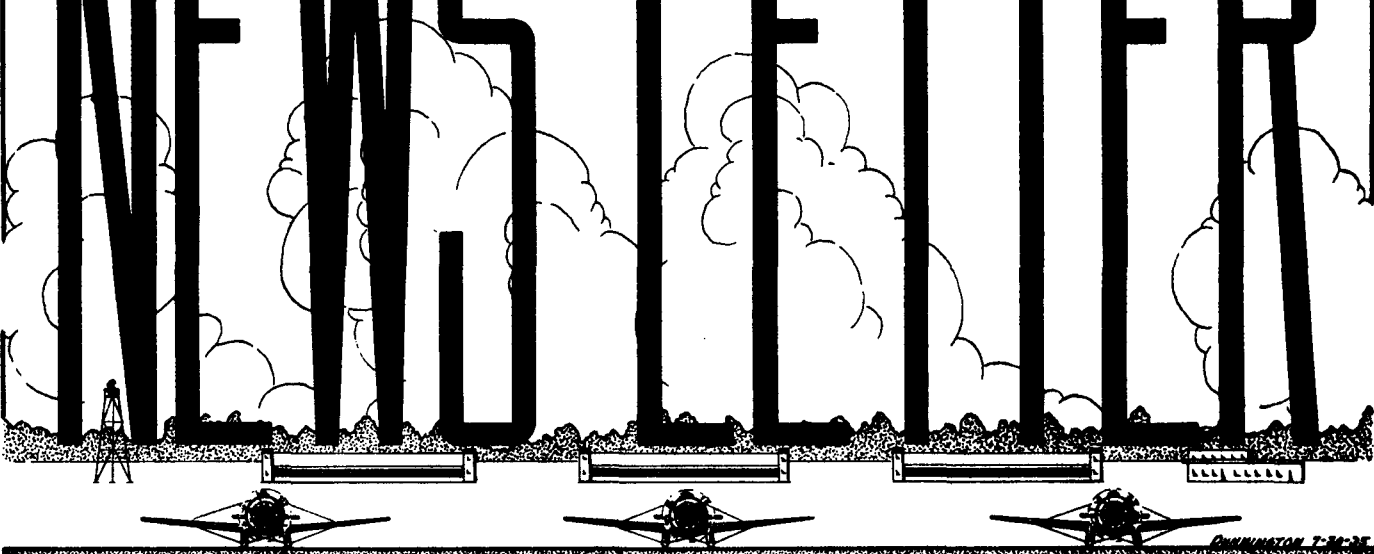
Floodlight Reflectors.

Initial tests have been completed and a report prepared on the problem of deterioration of reflectors in Types A-9 and A-9A floodlights. The results of the tests disclose that failures produced in the laboratory are not similar to those described in Unsatisfactory Reports submitted by service activities. It is probable that the investigation of this trouble will not be completed in the very near future, as additional data from all stations using these reflectors will be required. The investigation under way at present includes the possibility of using a metal reflector. If the deterioration of silvered glass reflectors cannot be overcome, such mirrors will offer a possible substitute. Use of such mirrors will increase the initial cost approximately 10%.



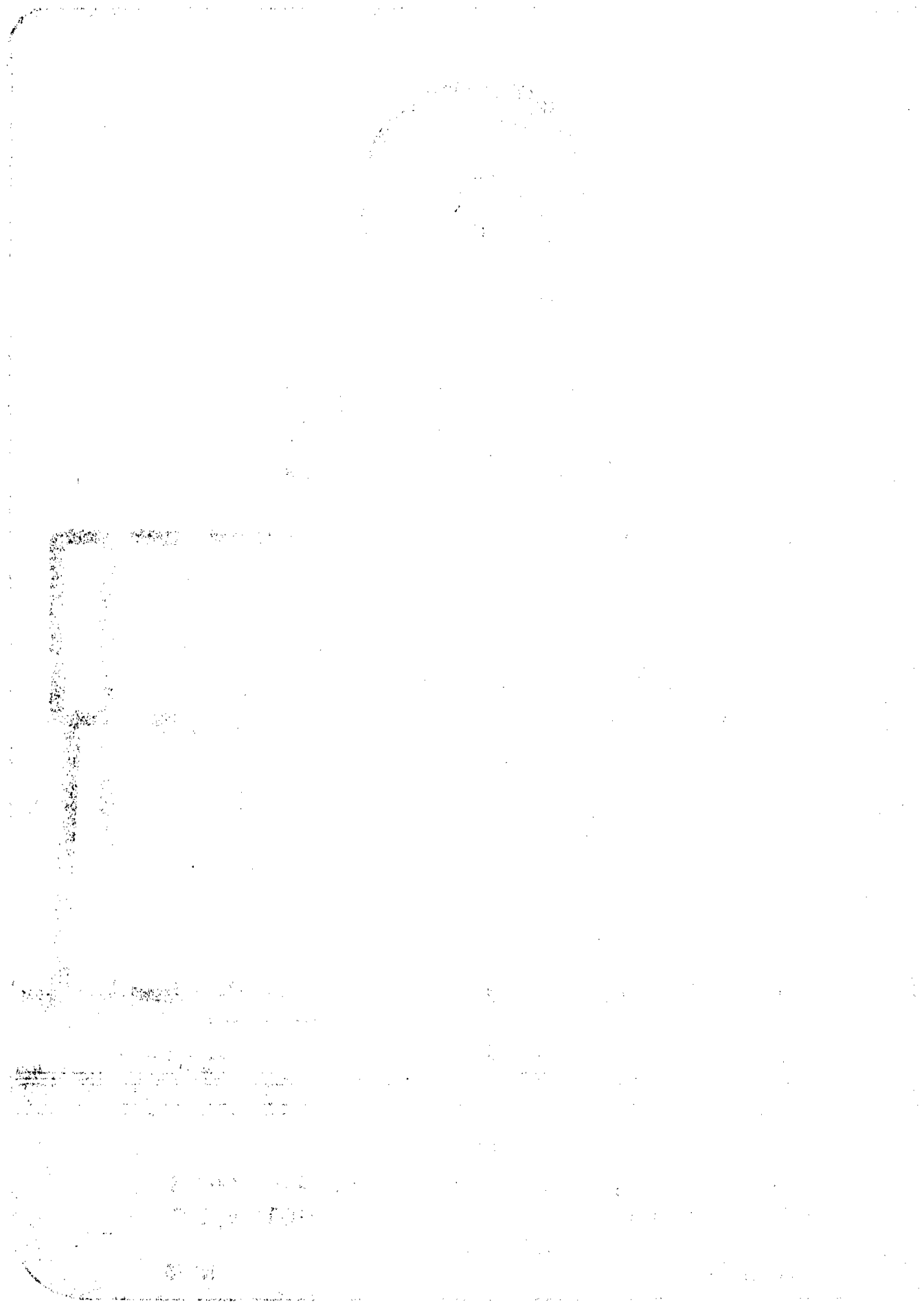
AIR CORPS

NEWS LETTER



ISSUED BY
 THE OFFICE OF THE CHIEF OF THE AIR CORPS
 WAR DEPARTMENT WASHINGTON, D.C.
 AUGUST 15, 1935.
 VOL. XVIII NO. 15

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Information Division
Air Corps

August 15, 1935

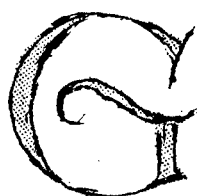
Munitions Building
Washington, D.C.

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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AIR CORPS ENGINEERING SCHOOL GRADUATION

By the Materiel Division Correspondent



GRADUATION exercises of the Air Corps Engineering School were held at the Wright Field Auditorium on July 31st, Brigadier General A.W. Robins, Commandant; Major Frederick M. Hopkins, Jr., Assistant Commandant; the Faculty Board, consisting of Lieut.-Colonels Frank D. Lackland, Harold A. Strauss and Oliver P. Echols; prominent Dayton citizens; the graduating students, their families and friends; and Wright Field personnel being in attendance. General Robins delivered the address and presented the diplomas. He said in part:

"I can think of no happier occasion in the experience of an Army officer than the day when he is handed a diploma showing that he has graduated from one of our many educational institutions. I am sure most of us look upon graduation exercises as evils connected with tight uniforms, hot temperatures, and large doses of 'hot air.' Having in mind numerous occasions when I have sat with the graduating class and hoped the speaker would make it snappy, I have decided to save you as much as possible this morning by reducing the 'hot air' to a minimum.

Of all the schools we have in the Army, in my opinion, there is none which carries with it any more distinction or gives to the student any more valuable education than does the Air Corps Engineering School. The student body is made up of men who have shown their enthusiasm for matters pertaining to our profession and have indicated their willingness to follow a career of hard study and hard work. When an officer has made application to be sent to the Engineering School, his ability and character are very carefully scrutinized by members of the faculty and by the Chief of the Air Corps, and his acceptance as a student is a compliment in itself. We are always assured that those who enter the Engineering School, whether they are assigned engineering duties within the Materiel Division, or elsewhere, will be of valuable service to the entire Air Corps.

I suppose you have all read extracts from the proceedings of the Special War Department Committee and the Howell Commission. In both of these proceed-

ings there has been emphasized the recommendation that those officers of our Air Corps who are valuable from an engineering, procurement, or supply standpoint should continue their flying experience even after they have become incapacitated, for one reason or another, to act as pilots, or even as good observers. I am bringing this matter to your attention this morning to bring out the great advantage the position of a valuable engineer has for officers of the Air Corps. In the proceedings of the War Department Special Committee it is also provided that those officers who no longer are valuable from a flying viewpoint and who are not experts in engineering or procurement or supply, should be retired or transferred to some other branch of the service.

Every officer in the Air Corps faces the time when he will find himself of no value from a flying viewpoint. When that time arrives, it will be of great comfort to you officers who graduated from the Engineering School to feel that you can still carry on and do extremely important work for the Air Corps until your age of retirement. I would therefore advise each and every one of you to keep this fact in mind and to take advantage of every opportunity that may present itself to improve yourselves as engineers of the Army Air Corps.

I extend to you the very best wishes for success from the Commandant, the Assistant Commandant, and members of the faculty of the Air Corps Engineering School."

The following student officers received diplomas and have been assigned at the activities following their names:

- 1st Lieut. Laurence C. Craigie to the Aircraft Branch, Wright Field.
- Captain Harrison G. Crocker to Maxwell Field, Ala.
- 1st Lieut. George V. Holloman to the Equipment Branch, Wright Field.
- Captain Reuben C. Moffat to Rockwell Field, Coronado, Calif.
- 1st Lieut. James F. Phillips to the Philippine Islands.
- 1st Lieut. Russell E. Randall to Kelly Field, Texas.
- 1st Lieut. John W. Sessums, Jr., to the Fairfield, Ohio, Air Depot.

AVIATION TRAINING IN CHINA ✓

The magazine ASIA for August publishes an interesting article by Wilbur Burton on the development of aviation in China.

Touching on aircraft equipment, Mr. Burton states that China today has a total of probably about 500 airplanes, but not all are in Nanking hands, and many that have become either obsolete or of no use save for training pilots. Outside of Nanking, the only air force of any consequence is that of Canton, which has a fleet of about fifty fully equipped fighting planes and sixty first-class military pilots.

Canton now has seven American air advisers, and development there is still entirely under American auspices. The eighteen Americans still in Nanking's service, including Lieut.-Colonel John H. Jouett, U.S. Army Air Corps Reserve, and ten flying instructors and five mechanical instructors, are all in Shienchiao. Their contracts, it is stated, expire on June 1, and at that time Colonel Jouett will return to the company which granted him three years' leave for what he must regard as the greatest adventure in his eventful life as a pioneer of the air. For the Central Aviation School that he developed from one ramshackle hangar and a small, bumpy field into an institution that in some respects is the most modern of its kind in the world is easily the most dramatic and significant aspect of China on wings.

When Colonel Jouett took charge, Mr. Burton states, Nanking had two hundred more or less - mostly less - trained aviators. All were required to take a "refresher" course at the school, and when the course was completed one hundred and fifty had failed, or "washed out," in aviation idiom. Then began the process of making pilots out of youths who before entering the school have never seen an airplane save from a distance, and usually can neither drive an automobile nor tighten a nut on a bolt. For it is necessary to select young men with at least a high school education - and education and working with one's hands have always been mutually exclusive in Chinese civilization. Only a few of the most modernized schools combine books with machines. Recently, aviation has been publicized as the salvation of China, so it appeals greatly to the youth of the land, with the result that there has been no dearth of applicants for air training.

The educational requirements at Shienchiao, which are somewhat lower than is the case in the United States where virtually only college graduates are now accepted for aviation training, fit in admirably with Nanking's need of class consciousness in its air force. A high school education in China means

that a youth comes from at least a fairly well-to-do family; for there is no free education.

From the beginning, rigorous American methods were adopted by Colonel Jouett, and experience has shown that the results are practically the same in China as in the United States. Out of every 100 applicants for admission, only 15% pass all tests for entry and, of those who enter, one-half "wash out." These figures are almost precisely the same as in American military aviation schools. Only in the beginning, according to Mr. Burton, do Chinese flying students show any inferiority to American students. Knowing nothing about any machines which even resemble an airplane, the average Chinese student cannot "taxi" in a straight line when he begins training. Ten hours are usually required to teach just that, while the average American student knows instinctively how to "taxi" straight from previous experience with either automobiles or bicycles.

But once the Chinese learns to go in a straight line, his progress is rapid. In dead reckoning navigation - that is entirely by instruments - the American advisers in Shienchiao rate the Chinese even ahead of the Americans. Their enthusiasm for their work is probably greater than that of American students because they feel themselves to be the advance guard of a New China. They are also more intensely serious, doubtless for the same reason; the first student who was "washed out" committed suicide, and the students often shed tears when, in conformity with an old American training custom, they are forced to wear a brown derby all day on the "line" for "pulling a boner."

In resourcefulness and "keeping their heads," Mr. Burton states, the Chinese students appear fully equal to Americans. A little story will illustrate this. A student was forced to "bail out" in his parachute over Hangchow Bay after his plane collided with another. On his way down, he decided that his shoes would interfere with swimming; so he pulled them off. He then reflected that, if and when he swam to shore, he would need his shoes to walk back to the school; so he put them in his pockets. After landing and extricating himself from his parachute, he found the current too strong for him, whereupon he noted that the top of the parachute still contained a large amount of air, thus floating on the water. So he made a water-wing of it by tying a sock around the base and then, balancing himself prone upon the top, paddled ashore. Three hours later he walked into the school with the parachute under his arm.

Although the Chinese display instinctive ability as flyers, training them in

the care of planes has been much more difficult. Like all industrially backward peoples, they apparently regard a piece of machinery as something that will last forever without any care. Also, the Chinese have not taken so kindly to the impersonal ruthlessness of Americans in "washing out" the incompetent. Otherwise, the Central Aviation School today could be - and it largely is - operated by the Chinese whom Colonel Jouett and his assistants have trained.

One minor difficulty that more amused than bothered the Americans in the early days of the school was finding Chinese workmen who were willing to revise their diet to conform to the unique requirements of the workshop where the linen covering of wings is repaired. The covering, in order to become taut, must be painted with a vile-smelling banana-oil solution, constant contact with which causes a chronic stomach ailment, unless a quantity of milk is

drunk daily. Now, milk in any form is practically an unknown item in native Chinese cuisine, and it took some time to obtain workers who were willing to consume it regularly as their bit toward the air progress of their country.

Discipline in Shienchiao is, in some ways, more severe than in American or other western aviation schools. The New Life Movement has been invoked to prohibit smoking. Military drill is stern and regular. Little leave of absence is granted. The students are on duty eleven hours a day six days a week with considerable night flying in addition.

Up to the end of 1934, the school had graduated 150 students - which is the total number of Nanking's fully trained pilots. Meanwhile it has been built up, in both equipment and efficiency, to a standard unsurpassed anywhere. Much of the equipment is more modern than that of American schools. It can accept 200 students every six months for a year's course, which means the graduation of 200 a year since half will "wash out."

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IMPROVEMENTS AT THE MIDDLETOWN AIR DEPOT ✓ By the News Letter Correspondent

Air Corps officers who have recently renewed acquaintance with the Middletown Air Depot after a lapse of two years or more never fail to express their gratification at the many improvements which have been made during the past two years. The allotment of approximately \$1,650,000.00 of P.W.A. funds in 1933 made possible the construction of sorely needed buildings to replace those constructed during 1917 and 1918 and the improvement of other buildings and utilities, as a result of which the Middletown Air Depot now not only has an appearance that lends credit to it as a modern Army Air Corps establishment, but is in a position to operate even more efficiently than has been the case in the past.

When the Middletown Air Depot was established in 1917, it operated only as an Aviation General Supply Depot. The buildings were of the typical war-time frame construction, with the main supply warehouses as the central structure. In 1925, when the Engineering Department was added to the Depot, the Air Corps took over the Ordnance Depot, which adjoined the Air Depot on the west, and established an engineering shop in one of the old Ordnance warehouses, a building of wood and tile construction. This building, with the addition of three 110-foot hangars, which were erected to house various engineering activities, has served as the main shop building up to the present time. This building, a warehouse adapted to use as a shop, is poorly lighted, difficult to heat during cold weather, and

sometimes unbearably hot during the summer, but through it in the ten years of its existence as a shop have passed approximately 1,000 airplanes and 2800 airplane engines of all types. Now it has about reached the end of its existence as such, and the engineering activities are about to be moved into a new building of the most modern design, of steel and brick construction, with a layout that will permit greatly increased efficiency of the Engineering Department. The new building, having overall dimensions of 850 ft. by 375 ft., has a production capacity of 40 airplanes and 100 engines per month, given the proper number of employees, working 44 hours per week. The new building is well lighted, well ventilated, and can be heated comfortably in the coldest weather. Its layout is such as to permit straight line production, with back-tracking eliminated, and it will contain all the modern equipment and machinery necessary to the efficient overhaul and repair of Air Corps equipment.

This new building is located on the north edge of the flying field where it is in reasonably close proximity to the Administration Building and the supply warehouses. It is expected that this new building will be supplemented by the addition of two hangars, an Operations Office, a dope shop and an engine test building, for which funds have been requested. When these buildings are completed the Middletown Air Depot will have a complete modern group of structures for the Engineering and Oper-

ations Departments.

The main warehouse of the Depot Supply Department has been greatly improved by replacing the original wooden walls with brick, which has the effect of converting this warehouse into a permanent building. Other improvements to this building have been accomplished and additional improvements are planned as funds become available in the future. It is also hoped that the hollow tile walls of the two auxiliary supply warehouses can be replaced by brick as has already been done on the Quartermaster warehouse.

Depot headquarters which for many years occupied space in the main supply warehouse, has been transferred to a handsome new Administration Building, which is located on elevated ground at the head of the road leading to the hangars and new shops. In addition to Depot Headquarters, this building also houses the Quartermaster Office, the Constructing Quartermaster's Office, Signal Office, Radio Section, telephone switchboard and the Dispensary, and still has ample space in the basement for storage purposes or office expansion should the need arise.

The comfort of the personnel was not forgotten during this construction period, as new quarters were provided to accommodate fourteen officers and two warrant officers. These quarters, two single sets and six sets of double quarters for officers and one double set of warrant officer's quarters are of standard design and construction and are a great improvement over the small, dark frame buildings that had been occupied by officers for several years in the past. In close proximity to the officers' quarters is the new officers' mess building, a handsome brick structure that adds to the recreational facilities of the post. Present plans contemplate the development of a recreational area near the officers' quarters which will include a swimming pool, tennis court, skating rink and children's playground that will add to the appearance as well as the utility of the area. Plans also contemplate the removal of the group of old shop buildings that are at present in the quarters area as soon as they are vacated, and the west end of the reservation will be used entirely for residential and recreational purposes.

A modern fire station with space for fire trucks on the first floor and living quarters for the fire fighting personnel on the second floor; a modern central heating plant; new roads and the reconstruction of old roads and numerous other improvements complete the picture of the first phase of the construction program at the Middletown Air Depot.

Plans for future work in addition to the new construction already mentioned include a comprehensive grading and

landscaping program, the removal of buildings of war-time construction no longer needed, the erection of ornamental gate posts and gates at the two entrances to the reservation, and many other minor projects which will result in placing the post in general in excellent condition.

The personnel assigned to the Middletown Air Depot includes eight Air Corps officers, two Quartermaster Corps officers, one Signal Corps officer, the Contract Surgeon, four Warrant Officers and thirty-five enlisted men, of whom twenty-five are assigned to the 2nd Transport Squadron. A total of four hundred civilians are employed. ✓

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36TH PURSUIT COMPLETES GUNNERY PRACTICE

The 36th Pursuit Squadron returned to Langley Field, Va., July 26th, from the Aerial Gunnery Camp established at the National Guard Airport, Virginia Beach, Va. The organization moved into the field on July 12th by air and motor transportation. Owing to heavy rains, the gunnery practice did not commence until July 16th. From then on it continued until July 25th, the daily schedule of firing being from 5:00 a.m. to 9:30 a.m., after which daily maintenance by ground crews was performed on airplanes, leaving the afternoons free for recreational activities, such as baseball, volley ball and surf bathing.

The camp site, about 2½ miles from Virginia Beach, was ideally situated. ✓

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11TH BOMBARDMENT SQUADRON CELEBRATES

The famous Juggs organization, known officially as the 11th Bombardment Squadron, celebrated its 18th anniversary on August 2nd in an organization picnic at Bodega Bay. Although the 11th saw its beginning as a war baby back in 1917 on June 26th, August 2nd was the first open date that could be taken, as June and July were too full of flying training for the Hamilton Field bombers.

In the World War this Squadron participated in 32 bombing raids and received official confirmation for 13 victories. Major Arthur G. Hamilton of Arctic Patrol fame commands this intrepid Squadron. ✓

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LONG FLIGHT BY INSTRUMENTS ALONE ✓

In a flight of over 400 miles and four hours of actual time, Capt. Charles G. Williamson flew blind with the hood over the cockpit between Hamilton Field and Clover Field, Santa Monica, Calif. Lieut. Edward W. Virgin, Air Reserve, accompanied him as the emergency pilot. Without one outside observation until directly over Clover Field, Capt. Williamson flew only by instruments and checks on them afforded by the radio "beams."

V-6844, A.C.

JOINT MANEUVERS OF 15TH OBSERVATION SQUADRON AND 61ST ANTI-AIRCRAFT UNIT

Approximately one year prior to the joint maneuvers recently conducted by the 61st Coast Artillery (Anti-Aircraft) and the 15th Observation Squadron, Scott Field, Ill., Lieut.-Colonel Charles B. Meyer, Coast Artillery, and Major William C. Goldsborough, Air Corps, respective commanding officers of these two units, began working for authority to conduct these maneuvers.

Success attended these efforts and careful planning, and on May 10th, at 4:00 a.m., the ground forces of the 15th Observation Squadron departed for Fort Sheridan, Ill., - a convoy of 21 vehicles - there to join the Fifteenth's Air Force, consisting of 9 Observation planes and one Ford Cargo plane, which took off from Scott Field at 10:00 a.m. the following day.

The arrivals at Fort Sheridan of the air and ground force was a well executed problem in logistics in that they were simultaneous almost to the minute.

The accommodations at Fort Sheridan were very satisfactory, the officers being billeted in General Parker's old home and the enlisted men tented on the C.C.C. grounds. A C.C.C. mess hall was used for the mess of both officers and enlisted men.

The training of these two units was definitely started the following day, particular attention being paid to field training and logistics. From May 11th to the 22nd, tracking missions, both day and night, machine gun and 3-inch gun tow target missions were carried out, and final plans for the joint maneuvers were completed.

At 7:15 a.m., May 22nd, the airplanes and a convoy of trucks from the 61st C.A. (AA) and the 15th Obs. Squadron departed for the Milwaukee County Airport, Milwaukee, Wis. The planes arrived at 8:00 a.m., and the convoy three hours later. Practical field problems were carried out on the move, the Air Force becoming a portion of the defending Red Forces and the convoy the attacking Blue Force. In compliance with published field orders, the objectives of the Red Force were special missions in observing, photographing, bombing and strafing the Blue Force enroute. The Blue Force which, to escape detection, had separated into two units, one taking an inland route and the other a shore line route, simulated war time conditions by issuing sealed orders at predetermined points, which notified various sections of the convoy that they had been bombed or gunned, and the action of the persons involved and the time for such action was noted and later discussed at critique. The final decision at the critique of the results of the problems connected with this particular move was: The Red Forces suc-

ceeded in locating and destroying the inland part of the convoy, which consisted of guns, searchlights, sound locators, and prime movers. The supply train escaped detection.

Cooperative missions were carried out at the airport the first two nights, and firing and tracking for the remainder of the stay were done at Cudahy Park, south of the city along the shore line.

At 3:00 a.m. Saturday, May 25th, the first contingent of the convoy, consisting of Air Corps gas, supply and radio trucks, departed for Kewaunee, Wis., followed at 5:35 A.M., by the planes and the remainder of the joint convoy. Specified problems were again carried out in conformity with published field orders, the Air Force becoming the Red Forces with the same objectives as before against the convoy. The attacking Blue Force, which had separated into three distinct units, was theoretically totally and completely destroyed.

That evening a formal reception was tendered the officers and enlisted men by the townspeople, the enlisted men being entertained by the American Legion.

A great deal in cooperative work was accomplished at Kewaunee, the camp being located at a strategic point for ideal firing from the shore line. Missions in machine gun and 3-inch gun firing were carried out, and possibly at no place on the journey were the townspeople so enthusiastic and interested in the work of these two branches.

Camp was broken on Thursday, May 30th, and the Air Corps ground force moved out at 6:30 a.m., to establish contact with the planes at Blaney, Michigan. At 3:00 a.m. the following day, while at Blaney, a summer resort, the entire Squadron was turned out to help fight a fire which eventually destroyed the Inn.

The 61st C.A. (AA) convoy left at a later period in the day and bivouacked at Brevort, Mich., north along the lake from St. Ignace. A special problem was promulgated here for the morning of the 31st. One gun was set up and five planes were dispatched from Blaney to work out this problem. One airplane ferried Colonel Meyer over the bivouac, one laid a smoke screen, and three flew in a column of varied altitudes towing targets. The other plane and convoy departed two hours later for Cheyogan, Mich., there to join with the planes that had been working with the 61st.

The convoy crossed the Straits of Mackinac during the day of the 31st, this being the first time such a large and heavy force had been carried across a body of water by commercial carriers without interrupting regular service and without the need of strengthening the carriers. The move was completed and all units were in camp at Cheyogan

by 10:00 p.m. During the stay at Cheybohan there were no operations with the exception of the display of equipment.

On the morning of June 3rd, all units departed simultaneously for Traverse City, Mich., with no special objectives being worked out, as the Air Corps became a supporting unit of the Blue Forces. Prior to the departure the convoy, consisting of 113 pieces, lined up on the highway for aerial photographs.

No camp was pitched at Traverse City, the units being billeted in the buildings at the Fair Grounds and all missions, namely, tracking and machine gun firing, were done at Northport along the shore line.

At 6:00 a.m., June 6th, the entire command moved out for Muskegon, where intensive training was begun in earnest, the Air Corps portion consisting of night navigation, formation, tracking and towing for the 61st C.A. (AA). The 61st completed all their work on machine guns and three inch guns and record searchlight drill.

At 3:50 a.m., June 14th, the Air Corps convoy pulled into position, and ten minutes later started on the last leg of the journey to Scott Field, via Chanute Field, Rantowd, Ill.

"It is believed," says the News Letter Correspondent, "that a record was set on this march. The squadron convoy marched a distance of 473 miles in 16 hours, which is an average of $29\frac{1}{2}$ miles per hour. From Chanute Field to Scott Field the average was 38 miles per hour for a distance of 172 miles.

All things considered, this entire maneuver was a complete success, and it is believed that joint exercises of this nature should be carried out by these two arms of the service more frequently."

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SQUADRON MANEUVERS IN OREGON

Major Harold D. Smith, commanding officer of the 31st Bombardment Squadron, Hamilton Field, Calif., recently flew with Major Delmar H. Dunton to Corning and Medford, Oregon, for the purpose of selecting a camp site for the independent squadron maneuvers which his organization was scheduled to start approximately August 19th. Major Devereux M. Myers also flew a Martin B-12 Bomber on the same mission. As commanding officer of the 70th Service Squadron, Major Myers was vitally concerned that a site be selected possessing good water and sanitation. A detail of men from his Squadron was scheduled to proceed to the site selected and pitch the camp before the landing of the flyers.

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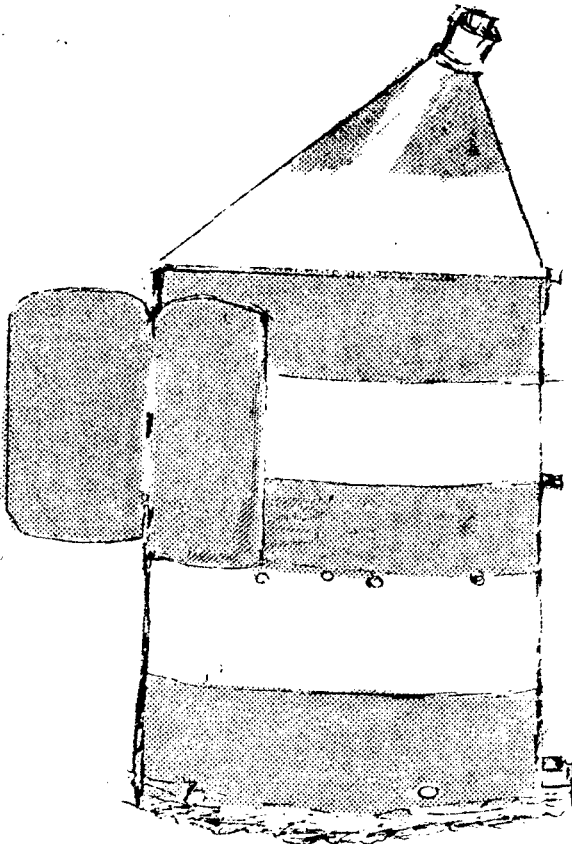
ACTIVITIES OF 20TH BOMBARDMENT SQUADRON

Operations for personnel of the 20th Bombardment Squadron, Langley Field, Va., have been very much curtailed during the month of July. However, the new Cadets assigned to the Squadron have been concentrating on instrument flying, and five have already qualified according to the provisions of Air Corps Circular Letter 50-1.

Immediately on its return from flying the West Point Cadets at Mitchel Field, N.Y., the Squadron furnished five B-6A airplanes, sixteen pilots and six enlisted men to supplement the 36th Bombardment Squadron and 59th Service Squadron in their maneuvers at Richmond, Va., from July 10th to 18th, last. From July 21st to August 3rd, the Squadron planes have been used by the Reserve officers ordered to Langley Field for two weeks' active duty.

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A NEW TYPE OF CAMERA OBSCURA



A new type of camera obscura, which resembles a sheet iron incinerator but can be used both as a camera obscura and a dark room in the field, is being tested at Hamilton Field, Calif. With this camera which is a steel turret which can

Continued on page 9.

AMATEUR RADIO STATION AT WHEELER FIELD

During the latter part of May, the Amateur Radio Station K6MEG of the 18th Pursuit Group went on the air. Good results were obtained from the start. At first only short contacts were made to get acquainted with fellow amateurs. Since then, a Radio Club has been formed, consisting of Lieut. Curtis E. Le LeMay, Corporal Bennette O'Bannon, Privates Eugene F. Bryde and Joseph H. Walsh. All hold amateur licenses. The station call letters are K6MEG.

Schedules are now being kept with W6HDV and W6GK at Los Angeles, and W6IGA in Oakland, Calif. KALHR in the Philippines may frequently be contacted upon call. Reports from stations worked show plenty of signal strength, and as time goes on and improvements are made better results are anticipated.

This station is now a member of the American Radio Relay League and has made application for Official Relay Station, and in time will try to get into the Army Amateur Relay Service. Messages are now being sent to Relay Stations on the west coast, and since June 3, 1935, 332 messages have originated from this station.

This station is a private enterprise which, in the event of an emergency, may be operated in conjunction with some of our Signal Corps equipment. Its greatest value is the training of personnel and stimulating interest in radio.

The operating hours are from 6:00 p.m. until the wee small hours of the morning, nearly every night.

"All army personnel operating amateur stations on the 40 meter band are requested to try to contact us," says the News Letter Correspondent. "Our crystal controlled frequency is 7235 kilocycles. Air Corps personnel on the mainland desiring to communicate with friends on foreign service in Hawaii may do so free through the medium of the American Radio Relay League."

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TRAINING OF RESERVES AT LANGLEY FIELD

During the period July 21 to August 3, 1935, the 49th Bombardment Squadron was engaged in the training of Air Corps Reserve officers on two weeks' active duty at Langley Field, Va. Thirty-four Reserve officers reported for duty and were immediately given a physical examination, issued flying equipment, and then checked for flying ability. These officers were "checked off" in Pursuit, Bombardment, Primary Training and Basic Training type airplanes, including airplanes equipped for instrument flying. Flying consisted of local flights, short cross-country flights and one cross-country flight of 300 miles for each

group. A few short lectures were included in the course, a particularly interesting one being given by Captain J. S. McDonnell, Air Reserve, who is Project Engineer at the Martin Aircraft Factory. It is estimated that each Reserve officer received approximately 20 hours' solo time during the course of this training.

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NEW CONSTRUCTION PROJECTS AT KELLY FIELD

An appropriation of \$524,350.00 has been received at Kelly Field, Texas, for the purposes listed below:

- \$ 68,250. for gas and oil storage and distribution.
- 52,400. for a miniature range.
- 170,000. for paved aprons and runways.
- 160,000. for improvements to landing field and building area.
- 3,000. for machine gun butts.
- 50,700. for general repairs to buildings and utilities.

Surveyors and other personnel have been at work for the past week completing the preliminary stages of construction.

"We hope," says the News Letter Correspondent, "that this is preliminary to the long-expected new construction of Kelly Field."

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CLYDE PANGBORN VISITS BOLLING FIELD

Recently, Clyde Pangborn, in his Upperco Burnelli airplane, arrived at Bolling Field, D.C., for the purpose of demonstrating his new airplane to the Assistant Secretary of War, Hon. Harry H. Woodring, and several members of Congress. This airplane is the one Mr. Pangborn intends to use on his round-the-world non-stop flight. He intends to circumnavigate the globe, refueling in the air at three different points. Altogether he will fly approximately 18,000 miles.

It is understood that the airplane has a cruising speed of about 200 miles per hour. At the present time his airplane is still equipped with a number of seats. These will be removed and gas tanks installed. It is believed this flight will be undertaken sometime this month.

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RESERVE OFFICERS IN TRAINING IN GEORGIA

Seventeen Air Corps Reserve officers residing in various Southern States spent a period of two weeks, from July 21st to August 3rd, in training as an Observation Squadron at Candler Field, Atlanta, Ga., under the command of Major James A. Meissner, of Birmingham, Ala., noted war-time pilot. A full training schedule was carried out, utilizing ten Observation and Training type planes.

Major Meissner holds the unofficial title of "Ace", being credited with 8 victories. He was awarded the D.S.C. and the Croix de Guerre.

BOATING IN THE PHILIPPINES
By Private Robert B. Gnagey

One of the first questions asked by new men upon their arrival in the Philippines is, "What can we do for diversion?" Recently the News Letter carried an article on hunting, and the present article is submitted in an effort further to enlighten the men who are contemplating a tour of duty in the Far East.

Someone remarked recently that on Sundays half of Nichols Field could be found in the vicinity of The Motorboat and Gun Club. This is almost true. Situated on the site of what was formerly Camp Tomas Claudio and housed within one of the old hangars, this club offers a number of healthful sources of recreation, diversion and generally happy week ends.

Manila Bay is an ideal spot for boating, and especially Bacoor Bay, on which the Motorboat and Gun Club is situated. Here the visitor will see a wide variety of craft. There are the swift little outboard racers, the large outboard speedsters, and the 24-foot class motor cruisers. The club basin is literally dotted with the sails of the native type sailing bancas, the sailing dinghies and the larger sailing cruisers. Frequently there are races in all classes in which there are many entries. Considerable interest is evinced in the outcome. Almost all of the boats are owned by personnel from Nichols Field.

Surf bathing is very popular, and the Boat Club maintains an ideal beach. It is not unusual to see several hundred people enjoying this sport on a Sunday morning. Aqua-planing is steadily gaining popularity. The club bancas are in continuous service, carrying bathers to and from the diving barge which is anchored about one hundred yards off shore.

While the water is the prime interest, it does not attract everyone. The rifle and pistol range claims a goodly following, too. Last year the Far Eastern Olympic shoot was conducted on this range. Many of the Air Corps personnel are steady patrons of the range, and there are some excellent records made each year. Archery has lately become quite popular, and Sunday mornings you will see many nimrods stringing their bows for a round of Archery Golf.

During the rainy season this club resembles a prosperous ship building factory. Most of the boats are taken inside the hangar for overhaul, and many men use this season to build new boats. Lumber is comparatively cheap in the Philippines, and most of the boatmen in this club have learned that it is not too difficult to build their own craft. This affords splendid pastime and healthful recreation during the incle-

ment weather.

The cost of these boats ranges from thirty dollars up to three hundred, depending upon the size and rigging. Membership is well within the means of any enlisted man. The club is an easy twenty minutes walk from Nichols Field, and half this distance is along the beach.

To the new personnel coming to the Philippines it is suggested that aquatic sports furnish excellent diversion well within their means. Many men take annual trips in their own boats to neighboring islands, Mindoro being one of the favorite cruises. A trip up the Pasig River in a motorboat is one of the thrills no one should miss. And if you are seeking adventure, a trip across Manila Bay at night will certainly give you something to write home about.

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TACTICAL SCHOOL VETERAN RETIRES

The 84th Service Squadron's veteran First Sergeant, John T. Wheatley, was retired from the Army on July 31st, at Maxwell Field, Ala., after serving the required thirty years of active service.

First Sergeant Wheatley was born in Montrose, Scotland, on May 15, 1879. He became interested in the Army at an early age and enlisted in the English Garrison Artillery, similar to our own Coast Artillery, in 1896, where he served for eight years prior to leaving for the United States. He landed at New York on Washington's Birthday, 1906, and within a few short months was back in the Army, although it was a different Army to him.

His first enlistment was with the 19th Company, Coast Artillery Corps, and he stayed with the Coast Artillery, although serving with different companies, until after the World War. He saw service in the Philippines from 1911 to 1912, and he left the United States early in 1917 for France, where he participated in four major engagements, serving with the Coast Artillery. His Victory Medal carries four bars, showing participation in the battles of Champagne-Marne, St. Mihiel, Meuse-Argonne and the Defense Sector. He returned to the United States, landing in New York again on February 4, 1919, and, following the expiration of his enlistment in the Coast Artillery that year, he reenlisted in the Quartermaster Corps, with which branch he served until 1927.

On January 11, 1927, he enlisted with the Air Corps Tactical School Detachment at Langley Field, Hampton, Va., and with his extensive Quartermaster Corps training and experience in supply, was assigned in charge of all School Supplies. When the Tactical School transferred to Maxwell Field, he accompanied it and served in his supply duties until shortly before his re-

tirement.

First Sergeant Wheatley is one of the few old-timers who has all of his Honorable Discharge certificates bearing the character "Excellent," and he has nine of them. All but three show his discharge as a noncommissioned officer.

Upon being asked what his plans were for the future, the veteran Top-kick stated he intends sailing next month for a round-the-world cruise, taking his good old time about it, and tho-

roughly enjoying life. After nearly thirty-eight years of active service in the two armies, he certainly earned his retirement. He stated that he plans on making his future home somewhere on the West Coast.

As a farewell gift, the personnel of the 84th Service Squadron tendered their veteran First Sergeant two gladstone bags and a picnic luncheon at Harriget Springs, Alabama, shortly before his retirement.

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A NEW TYPE OF CAMERA OBSCURA (Continued from page 6)

be revolved with the lens in the top at a 45 degree angle, a considerable range can be tracked on the graph paper below, approximately an area equal to the 100 foot circle in the bay. Bombs which are not dropped but signalled can be traced to an accurate certainty on the target. Checking of wind resistance in the Meteorological Bureau and with a known height makes the solution of the problem a simple one. Captain Charles G. Williamson is in charge of the 7th Bombardment Group armament at Hamilton Field since the illness of Major Lewis R.P. Reese.

An item which appeared in a recent issue of the San Francisco CHRONICLE regarding the above apparatus is as follows:

"Authorities at Hamilton Field, Marin County, have reached the end of their patience in telling those who visit the bombing base that the odd shaped structure near the landing field is not an incinerator nor is it an observatory.

This little striped turret which has aroused the curiosity of so many people is a camera obscura and is used as a basic part of the training of the army bombers.

In the little 'stack' on top of the turret, a wide angle lens is mounted. Beneath the lens a plane table is mounted.

A plate or map of the area is mounted on the plane table, the lens is swung around until the bombing planes are brought into focus, a predetermined target is marked on the map. As the plane in the air moves along the route, the operator in the turret marks its progress.

When the bomber brings the target into range, instead of releasing an expensive bomb or a heavy sandbag, as was the practice heretofore, he radios that he has fired. At that instant the operator of the camera obscura places a mark on the map, and if the bomber in the air has made the proper calculations for drift, windage, forward impetus from the plane and other extraneous factors, the mark on the map should coincide pre-

cisely with the target.

An invention of the staff at Wright Field, the camera obscura at Hamilton Field is the first to be tried by the army. If proven entirely satisfactory, this unit alone can save Uncle Sam many, many thousands of dollars annually, according to authorities.

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BOMBING BY THE 35TH PURSUIT SQUADRON

The 35th Pursuit Squadron, Langley Field, Va., in addition to regular training, such as formation, night flying, etc., has dropped 75 live bombs. The bombing was done from 1,000 feet, as it was found in earlier tests that fragments rose as high as 800 feet. Due to the higher altitude, the first few bombs were over, but accuracy increased until the bulls-eye of the bombers' high altitude range was blown away.

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STATION COMPLEMENT ASSIGNMENTS

The following-named officers of the Air Corps were, under Special Orders of the War Department recently issued, assigned to duty with the station complements at the stations as hereinafter indicated:

To Bolling Field, D.C.: Captains Charles M. Savage and Hez McClellan.

To March Field, Calif.: 1st Lieut. Ernest H. Lawson.

To Brooks Field, San Antonio, Texas: Major William C. Ocker, Captain John C. Kennedy.

To Selfridge Field, Mt. Clemens, Mich.: 2nd Lieut. Frank G. Jamison.

To Barksdale Field, Shreveport, La.: Captain Lloyd L. Harvey, 1st Lieut. Melie J. Coutlee, 2nd Lieuts. Daniel W. Jenkins and Robert M. Lee.

To Langley Field, Hampton, Va.: Colonel Charles H. Danforth, Captains Paul J. Mathis, Arthur J. Melanson, 1st Lieuts. David M. Ramsay and Edward A. Hillery.

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The new Tee is now installed at Bolling Field opposite Headquarters and Operations buildings, and the News Letter Correspondent hopes it is flashy enough to draw the attention of visiting pilots.



Anent the emergency parachute jump on July 15th, near Seligman, Arizona, of the highest ranking member of the Caterpillar Club, Major-General George E. Leach, Chief of the National Guard Bureau, accounts thereof which appeared in different newspapers differed as to exactly what transpired which necessitated the General taking to his parachute and what his feelings and reactions were during and after the jump.

Here are the actual facts on this incident, taken from the official report rendered by General Leach to the Chief of the Air Corps. It illustrates at least one instance where a superior officer took orders from a subordinate and "liked it." General Leach states in his report:

"I jumped because I was ordered to by my pilot, Captain Charles M. Cummings, A.C., after the engine failed and burst into flames. The failure occurred over mountainous terrain where it was impossible to safely land the airplane. Later investigation of the engine revealed a connecting rod had given away.

I was fully conscious of the lapse of time after jumping. I waited an appreciable time before pulling the ripcord so as to be assured of clearing the airplane and to fall far enough away so as not to interfere with the pilot whom I fully expected would jump immediately. During the fall and until after the parachute opened I experienced a sensation of darkness which I later attributed to the fact that I was unable to see, probably due to the rapid descent and the effects of the centrifugal force when suddenly stopped by the opening of the parachute. Parachute appeared to open instantly, and as I jumped at an altitude of 10,000 feet above sea level I naturally drifted a considerable distance before landing. The elevation where I landed was approximately 6,000 feet. I attempted to control the landing by pulling on the shroud lines, but apparently with little success, and I landed in a deep blind gulch which had no outlet and was about three or four hundred feet deep. The territory in which I landed was rough uninhabited country, about 45 or 50 miles east of Kingman, Arizona. I walked about five hours before reaching a shepherd's camp. He having no telephone, went on foot to the nearest ranch about six miles away and secured an auto in which I was driven to Kingman, Arizona."

Since the last summary on the stand of the Caterpillar Club, which appeared in the previous issue of the News Letter, reports on two more emergency jumps were received, making the unofficial score at this writing 718 lives saved in this country by the parachute with a total of 754 jumps, 36 of them being repeaters.

The two candidates who recently rapped for admittance into the Caterpillar Club are 2nd Lieut. Douglas M. Cairns, Air Corps, and Lieut. (jg) Frank B. Schaeede, U.S. Navy.

Lieut. Cairns was forced to "bail out" of an Attack plane on July 6, 1935, a short distance off Kepuki Point, Oahu, when he found that the control stick would not move to the left and the nose of the plane was dropping to the right. He tried to hold the ship level with the rudder, but the nose fell and the ship was in a vertical dive. Thinking the controls had jammed and realizing he had no control over the plane, he took to his 'chute, landed in the water and was picked up by a sampan.

Lieut. Schaeede, while engaged in acrobatic training, found himself in an inverted spin and an embarrassing predicament. After a struggle to right the plane, accompanied by an appreciable loss of altitude, he jumped at approximately 2,000 feet, landing uninjured in the swamp on the edge of Peridido Bay, Fla. The plane went into a straight dive and hit in the swamp, near Eleven Mile Creek, burying itself up to the tail surfaces, wings and all. An interesting side light was the search for the plane by two pilots and mechanics from Squadron One. Having seen the parachute on the ground and no sign of life, these pilots beached their planes and went helter-skelter into the swamp and underbrush in search of the pilot who had jumped. The latter had walked off in another direction and finally reached a highway and safety. The rescuing party, especially Lieut. (jg) Lord and mechanic, struggled valiantly for four hours in an attempt to reach the object of their search. Other planes in the air finally directed them out of the wilderness. Their clothing had been virtually torn off and both suffered severe scratches from the underbrush.

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HIGH ALTITUDE TEST FOR MARTIN BOMBER

Lieuts. B.R. Baldwin and J.E. Roberts, Air Reserve, and Sgt. H.J. Marth and Pvt. Wm. Haddox, all equipped with oxygen masks, soared in a Martin Bomber from Hamilton Field to a rather high elevation. Bulky fur-lined suits were also worn to combat the cold rarefied air. Guns and radio functioned perfectly on the test. This test in a 31st Bombardment Bomber was a part of the quarterly load inspection test.

BIOGRAPHIES

MAJOR BYRON Q. JONES

The first Army flyer to perform acrobatics and the first deliberately to place an airplane in a tail spin and learn how to come out of it are among the various other flying accomplishments credited to Major B. Q. Jones, veteran Army pilot, who served all but eighteen months of his total commissioned service in the aviation branch.

Born at Henrietta, New York, April 9, 1888, Major Jones attended grammar school and high school at Rochester, N.Y. and, after pursuing a course of instruction at the Massachusetts Institute of Technology, Cambridge, Mass., for six months, he received an appointment to the United States Military Academy. Following his graduation from West Point, June 12, 1912, he was commissioned a second lieutenant and assigned to the 14th Cavalry, which was then stationed on the Mexican Border.

Detailed to the Aviation Section, Signal Corps, in November, 1913, Major Jones reported for duty as a student at the Signal Corps Aviation School at San Diego, Calif., where he learned to pilot the early 30 h.p. Wright pusher plane, also the Wright C-type pushers, land and seaplanes, and the Curtiss pusher and tractor type planes.

It was in a Curtiss, Model J, 85 h.p. tractor, and in a Martin, Model T, 60 h.p. tractor that Major Jones, in the winter of 1914-15, performed his first series of acrobatics. In the spring of 1915, he established the American duration record for a solo flight of 8 hours and 53 minutes in a Martin "T" plane, using Curtiss controls and equipped with a 60 h.p. Curtiss motor. This was considered the most meritorious flight performed by any Army pilot for that year, in consequence of which he was awarded the Mackay Trophy. Along about the same time, he established a duration record of 7 hours and 5 minutes and an altitude record of 7,500 feet, for pilot and two passengers, in a Burgess tractor, powered with a 70 h.p. Renault motor.

After serving for several months at Brownsville, Texas, with the aviation detachment operating with General Funston's command, Major Jones was assigned to the 1st Aero Squadron, commanded by Captain (now Major General and Chief of the Air Corps) Benjamin D. Foulois, and he served with this organization at San Diego, Calif.; Fort Sill, Okla.; and Brownsville, Texas. While at Brownsville, he and Lieut. Thomas DeW. Milling, observer, flying over the Rio Grande, were fired upon by machine gunners on the Mexican side of the river. This is believed to be the first time any aviators were subjected to gun fire while in flight.

Following the completion of a post-graduate course in aeronautical engineering at the Massachusetts Institute of Technology, 1915-1916, Major Jones, in March, 1916, was assigned to duty in the Aviation Section, Office of the Chief Signal Officer, Washington, D.C. In June of that year, he returned to the Aviation School at San Diego where, until June of the following year, he was in charge of aviation experimental and repair shops and also served in the capacity of test pilot and instructor in aeronautical engineering. He was promoted to the grade of Captain in October, 1916.

Major Jones' first fog flying experience occurred in January, 1917, while crossing the Sierras from San Diego to Calexico enroute with other aviators to search for Major Bishop and Lieut. Robertson, who were lost in the Sonora Desert. These two Army flyers took off from San Diego on January 10th, and were not heard from until five days later. For four days they walked in the wilds of Sonora, Mexico, without food or water. They were found on January 15th, more than 32 miles south of the border, by a civilian searching party.

During the War, Major Jones, from July to October, 1917, was in command of the Signal Corps Aviation School at Mt. Clemens, Mich., proceeding from there to Washington, D.C., where, until April, 1918, he was in charge of the Training Section, Air Division, Bureau of Military Aeronautics. After several months' temporary duty overseas, he returned to the Division of Military Aeronautics and was placed in charge of the testing and proving of aeronautical equipment, on which duty he continued to be engaged following his transfer, in August, 1918, to the Engineering Division at Dayton, Ohio. He was also in command of Wilbur Wright Field, now Patterson Field. From December, 1919, to October, 1920, he was on duty as Assistant to the Chief of the Engineering Division, following which he returned to Washington and was assigned as Chief of the Requirements Division, Supply Group.

Upon the completion of a two-year tour of service in the Philippines, where he was on duty as Air Officer of the Philippine Department, as well as Commanding Officer of the 4th Composite Group, Major Jones returned to duty in Washington, and from September, 1923, to March, 1925, he served as Assistant Chief of the Supply Division, and thereafter until February 1, 1926, as Chief of the Property Requirements Section of that Division.

Following duty as student officer at the Industrial War College, Washington,

and at the Command and General Staff School, Fort Leavenworth, Kansas, he served from July, 1927, to August, 1928, as Air Officer of the 7th Corps Area, Fort Omaha, Nebraska. His graduation from the year's course at the Army War College, Washington, in June, 1929, was followed by a tour of duty for three years with the War Department General Staff. On June 1, 1932, he was transferred to Langley Field, Va., and placed in command of the 8th Pursuit Group, participating with this organization in the Command and General Staff exercises at March Field, Calif., in May and June, 1933. While at Langley Field, Major Jones was also temporarily in command of the 2nd Bombardment Wing, and early in 1935 led this organization in tactical exercises under field conditions at various localities in the 4th Corps Area.

During the operation of the Air Mail by the Army Air Corps, February to June, 1934, Major Jones commanded the Eastern Zone, with headquarters at Newark Airport, N.J., and later at Floyd Bennett Field, Brooklyn, N.Y. On March 2, 1935, he was assigned to his present duty as instructor at the Army War College.

In the World War, Major Jones held the temporary rank of Lieut.-Colonel, and he was transferred to the Air Service with the rank of Major on July 1, 1920. His total flying time to date is approximately 3,000 hours.

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LIEUT.-COLONEL RALPH ROYCE

When it comes to flying under any and all weather conditions, Lieut.-Colonel Ralph Royce, Air Corps, has amply demonstrated that wintry blasts, snow storms, sub-zero temperature, etc., hold no terrors for him. A particularly notable flight he led while commanding the First Pursuit Group at Selfridge Field, Mich., was the "Arctic Patrol" in January, 1930, an event of major importance in the history of the Air Corps. The purpose of this flight was to demonstrate the feasibility of moving Pursuit units over long distances in mid-winter and to test the suitability of flying equipment under sub-zero weather conditions. The Pursuiters in their aerial trek from Selfridge Field to Spokane, Wash., and return, encountered real Arctic weather and experienced many hardships, and the success of this expedition was attributed by them to Col. Royce's inspiring leadership at all times, his tireless energy and his unfailing cheerfulness. His leadership of this flight won for him the award of the Mackay Trophy.

In February, 1935, Col. Royce again led the First Pursuit Group on a cold weather flight, the entire month being spent in the Northern States where snow and ice prevail during the entire winter season. A total of 21 officers and 25 enlisted men participated in this

flight, and the hardships encountered were many. During their flying operations, the airmen were overtaken by several blizzards and dust storms, and at times the temperature hovered between 20 and 28 degrees below zero.

Just six months before the cold weather flight last mentioned, Colonel Royce was flying a Martin Bomber in Alaska, and no doubt felt perfectly at home. He was one of the participating pilots in the Air Corps expedition of 10 Martin B-10 Bombers from Washington, D.C. to Fairbanks, Alaska, and return, July-August, 1934.

Colonel Royce was born June 28, 1890, at Marquette, Michigan. After graduating from the Hancock Central High School, Hancock, Mich., in 1908, he received an appointment to the United States Military Academy, and upon his graduation in 1914 he was commissioned a second lieutenant and assigned to the 26th Infantry, with which regiment he served for one year.

Detailed to the Aviation Section, Signal Corps, he was on duty as a student at the Signal Corps Aviation School at San Diego, Calif., from September, 1915, to March, 1916. He received the rating of Junior Military Aviator, with the rank of 1st Lieutenant, May 16, 1916. He served as pilot with the 1st Aero Squadron while this organization was with the Punitive Expedition in Mexico and when it was stationed at its Mexican border base, from March, 1916, to April, 1917. While this squadron was stationed at Columbus, New Mexico, he served for a brief period as Commanding Officer thereof, also in the capacity of Squadron Engineer Officer, Supply Officer and Adjutant.

From May 2 to June 5, 1917, Col. Royce served as Officer in Charge of instruction at the Signal Corps Aviation School at Memphis, Tenn., and then at Chicago. He then served for a month in the Office of the Chief Signal Officer in Washington, following which he was ordered to duty overseas, in command of the 1st Aero Squadron. He retained command of this organization until May 8, 1918, in the meantime serving also as Director of the 1st Corps Aeronautical School at Amanty and Commanding Officer of the 1st Observation Group.

Colonel Royce was awarded the Croix de Guerre from the French Government, with the following citation: "Commanding the 1st American Observation Escadrille, he insisted on making the first reconnaissance above the enemy lines himself. Gives to his pilots generally an example of admirable dash and intrepidity."

Following his relief from the 1st Aero Squadron, Colonel Royce occupied various responsible positions, such as Chief of Air Service, 1st Army Corps; Chief of Air Service, 3rd Army Corps; in the Office of Chief of Training Section, Tours; and Assistant Chief of Air Service, Zone of

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Advance. He was promoted to Lieutenant-Colonel, September 12, 1918.

From October 21, 1918, to May 22, 1919, Col. Royce was attached to G-5, General Staff Headquarters at Chaumont, France. He then returned to the United States, and in July, 1919, was assigned to duty as Chief of Staff to the Air Service Officer, Southern Department, Fort Sam Houston, Texas. From February to August, 1920, he was Assistant Air Service Officer, Southern Department. His next assignment was as Commanding Officer of Carlstrom and Dorr Fields at Arcadia, Fla., and as Commandant of the Air Service Pilots' School at the first-named field. When flying training was discontinued at Carlstrom Field and the Air Corps Primary Flying School was established at Brooks Field, San Antonio, Texas, Col. Royce was assigned as Commandant thereof, and he remained at Brooks Field until his transfer, in September, 1926, to Langley Field, Va., for duty as student at the Air Corps Tactical School. His graduation therefrom the following year was followed by another year of duty as a student at the General Service School at Fort Leavenworth, Kansas.

Col. Royce assumed command of the 1st Pursuit Group at Selfridge Field, Mich., June 20, 1923. As commander of this noted Air Corps organization, he participated in the Command and Staff Exercises at Mather Field, Calif., in the Spring of 1930.

Following a tour of duty with the War Department General Staff, from May, 1930, to August, 1933, he was assigned as student at the Army War College and, upon graduation, returned to Selfridge Field and once more assumed command of the First Pursuit Group, being given the temporary rank of Lieut.-Colonel during his occupancy of this position.

During the Air Corps Maneuvers in the Spring of 1931, under the command of General Foulis, when the First Provisional Air Division comprised 692 officers, 69 Flying Cadets, 643 enlisted men and 667 airplanes, Col. Royce was placed in command of the 22nd Observation Wing (Provisional) made up of detachments from various Air Corps National Guard Squadrons. The personnel of these detachments, as may well be assumed, had never before flown together. How well Col. Royce handled the difficult task of welding together this heterogeneous outfit in order to perform its allotted role in the maneuvers of the largest air force ever gathered together in this country for such a purpose may be gathered from the letters of commendation he received from the Chief of the Air Corps and the Chief of the National Guard Bureau.

Col. Royce is rapidly nearing the 4,000-hour mark in total flying time.

LANDINGS IN RAREFIED ATMOSPHERE

Seventeen Bombers of the 7th Bombardment Group landed at Wendover, Utah, on July 22nd individually to test their ability to "three point" in the rarefied mountain air of 5,000 foot elevation. They then gathered around the "Bird O'Prey," the command ship of Lieut.-Col. Clarence L. Tinker, Group Commander, and flew to Salt Lake City, Utah, to the 1st Wing concentration under the command of Brigadier General Henry H. Arnold. Tremendous ovations greeted them everywhere.

Some 30,000 people watched the enormous Bombers roar into Denver. Governor Ed C. Johnson, Mayor Benjamin F. Stapleton and Mr. George E. Tinker, father of Col. Tinker, greeted the commander of the 7th Bombardment Group, Hamilton Field, as he climbed down from his cockpit.

Frontier days were being celebrated in Salt Lake City, and contrast pictures showing the covered wagons and the new Army Martin Bombers covered whole pages in the newspapers. The Bombers returned to Hamilton Field on the afternoon of July 25th. Mechanics worked on them the whole night. The following morning the Group flew to March Field, Calif., for a review for the GHQ Inspector.

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CADETS HANDLE THEMSELVES LIKE VETERANS

Flying Cadet Frank W. Brendle, while recently flying a B-6 Bomber from Langley Field, Va., with Flying Cadet Blaine B. Campbell as co-pilot, was forced down due to engine failure. A successful landing was made in a cultivated field near King George, Va. The Cadets availed themselves of the local hospitality until a new engine arrived the next morning at 11:30 a.m. The 59th Service Squadron dispatched a truck with crane mounted from Richmond, with the result that the plane was flown back to Langley Field the same day.

Cadets Brendle and Campbell are graduates of the July Class, Advanced Flying School, Kelly Field, and, says the News Letter Correspondent, are to be congratulated on their conduct in their first emergency while flying with a tactical unit.

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Lieut.-Colonel C.L. Tinker, Commander of the 7th Bombardment Group, Hamilton Field, Calif., spoke to the Rotarians of Petaluma, Calif., recently, on the necessity of the United States developing and maintaining an adequate air force. The best defense is an effective offense. Our air forces should be capable of striking against these potential invaders before they have an opportunity to invade, is the Argus Courier's resume of the Group Commander's talk.

ACTIVITIES OF THE 15TH OBSERVATION SQUADRON

The 15th Observation Squadron, Scott Field, Belleville, Ill., has just completed the most successful training year since its organization, May 15, 1928.

A total of approximately 6,000 hours was flown by pilots of the organization during the period July 1, 1934, to June 30, 1935. This time included every phase of aerial training for Observation pilots, both as called for by the War Department training directive, and cooperative training as directed by the Corps Area. A total of 52 pilots received training by the 15th Observation Squadron during the training year, including officers of the Air Corps, Regular Army; Air Corps Reserve officers on extended active duty, inactive Reserve officers, and enlisted pilots.

In addition, 85 officers from line organizations were given a course of 15 hours' ground instruction and two to four hours each flying time on aerial observation.

Twenty-two crew chiefs were qualified as Gunners.

The squadron as a unit spent six weeks in the field at Camp Custer, Battle Creek, Mich., cooperating in maneuvers of troops of the Sixth Corps Area. Also, during May and June of this year, the entire squadron with all equipment operated with the 61st Coast Artillery (Anti-aircraft) in joint maneuvers around Lake Michigan, covering a distance of 2,000 miles, with their own motor convoy, maintaining ten planes and twenty-three pieces of motor vehicles for a period of five weeks with the squadron's own resources.

The period from January 10th to February 16th was spent at Chapman Field, Miami, Fla., on the aerial gunnery range and, out of a total of fourteen officers firing, twelve qualified as experts.

Academic training was also carried on for both the officers and enlisted personnel in radio, engineering, and photography.

In addition to the regular routine tactical training, the 15th Observation Squadron performs a weather flight each morning at 3:30 a.m., carrying meteorological instruments up to 17,000 feet, for the Weather Bureau.

ITINERARY OF THE 15TH OBSERVATION SQUADRON Muskegon, Michigan, to Scott Field, Illinois.

	<u>Place</u>	<u>Time</u>	<u>Distance</u>	<u>Elapsed Time</u>
Departed	Muskegon County Airport	4:00 A.M.	-----	:00
Entered	Holland, Michigan	4:50 A.M.	30 Miles	:50
Entered	South Haven, Mich.	5:55 A.M.	33 "	1:05
Entered	Benton Harbor, Mich.	6:30 A.M.	23 "	:35
Entered	Route #212	7:55 A.M.	34 "	1:25
Entered	Valparaiso, Indiana	8:55 A.M.	30 "	1:00
Departed	Valparaiso, Ind. (Refueled)	9:50 A.M.	-----	:55
Entered	Rt. #45 Ill. from Rt. #24	12:40 P.M.	98 "	2:50
Arrived	Chanute Field, Illinois (Lunched and refueled planes)	1:45 P.M.	35 "	1:05
Departed	Chanute Field, Illinois	3:00 P.M.	-----	1:15
Arrived	South of Champaign, Ill. (Shell Oil Station)	3:35 P.M.	17 "	:35
Departed	South of Champaign, Ill. (Refueling trouble)	5:55 P.M.	-----	4:35
Arrived	Scott Field, Illinois	10:30 P.M.	172 "	4:35
Totals			472 "	18:30

The News Letter Correspondent believes that this march sets a new record for the Army, inasmuch as a delay of two hours was encountered at Champaign, Ill., in straightening out the procurement of gasoline. Actual time for the march was approximately 16 hours and 30 minutes.

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RECRUITS SECURED FOR HAMILTON FIELD

A steady stream of recruits has been pouring into Hamilton Field as the result of the efforts of 2nd Lieut. James E. Roberts, Air Reserve; 1st Sgt. Michael Binder, Staff Sgts. Ray C. Clemons, Delno W. Ross and Sgt. Bryan I. Doughty. Most of these neophytes are high school graduates of nearby California towns.

RETIREMENT OF TECH. SGT. McPHERTER

Technical Sergeant Chester McPheter, of the 69th Service Squadron, Hamilton Field, Calif., retired on July 31st after 30 years of active service in the U.S. Army. The last 15 years of his service had been in the Air Corps. Sgt. McPheter plans to work a ranch in Novato, California, which he has purchased.

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THE HAWAIIAN DEPARTMENT MANEUVERS
By the News Letter Correspondent

Numerous interesting incidents occurred in the 6th Squadron during the recent Hawaiian Department Maneuvers. When the 18th Composite Wing moved out of Wheeler and Luke Fields, the 6th Pursuit Squadron was split up, two flights being encamped at Haleiwa and the third flight at the Navy Mooring Mast.

Flight "C," Captain Bryant L. Boatner commanding, had a tough time of it at the Mooring Mast. The mast belongs to the Navy and is right in the middle of the old Cecil Hemp Plantation. The Navy bought the land from the Cecil's after they gave up making rope. After three days at the Mooring Mast, most of the men wished the Navy had given the land back to the Cecil's. The land is like Texas mesquite country - simply substitute Scorpions, Tarantulas and Centipedes for Rattlesnakes. The landing field is the smallest on Oahu, being about fifty feet wide and a thousand feet long. All the men in "C" Flight feel that they can land on the Navy Carriers without much trouble.

The difficult problem of camouflaging was handled very ably by Lieut. M.E. Bradley. All the ships in the squadron were camouflaged. Lieut. Bradley also used eight "IC" Pyramidal tents which he had cut up in strips and painted the color of the Hawaiian mesquite called Algeroba or Kiawe by the natives. The camouflaging was so good at both the Mooring Mast and Haleiwa that nothing shows up in photographs taken by Lieut. Fenander, 11th Photo Section, at an altitude of 3,000 feet.

When General Hugh A. Drum inspected the installations at Haleiwa, he walked around for a while and asked: "But where are the airplanes?" He had just walked not more than five feet from a plane so well hidden that he did not see it. Again, when Colonel Clark inspected the Mooring Mast, he climbed out of his ship and started in the wrong direction, the camp being so well concealed.

We used liquid oxygen in the field very successfully. The low temperature at high altitude, however, caused the water paint used as camouflage to peel off the metal parts, taking the airplane enamel with it and leaving the parts bare.

The 18th Pursuit Squadron took the field for maneuvers on June 25th, at 1:45 p.m., flying the aircraft and moving the ground echelon by motor. We at once began our work on camouflaging all material and equipment. Previous to our departure from Wheeler Field, we had completed the camouflaging of our planes, so that upon arrival in the field our main efforts were made to

hide our kitchen, pup tents for personnel, and all other equipment moved into the field. When completed, our position was most difficult to discern, either by air or ground observation. Naturally, we are proud that our efforts have been so successful. The work necessary has been a new and valuable practical experience for all from the lowest ranking private to and including the Squadron Commander.

Due to a last minute change in ration plans, the officers were forced to buy their own food, so they missed the experience of eating field rations had by the rest of the squadron. At midnight June 20th, our ration savings terminated until after the Department Maneuvers.

Another variation from our normal living was the use of pup tents, the lack of bathing and washing facilities and paradoxically to the last part the awakening from restless slumber by rain pattering into one's face.

It should be stated, however, that every one, enlisted and commissioned, took these inconveniences with a smile and carried on. Such spirit is the most pleasant of all observations. It makes one feel that no matter what happens, everything is going to be managed cheerfully and well by the 19th Pursuit Squadron.

The photographs of our position, taken from varying altitudes and angles, do not show a single one of our nine airplanes, this being due to the use of all available natural and artificial camouflage.

Our kitchen, due to the thorough cooperation of the entire squadron, was a large, airy and naturally camouflaged space, 24' by 12'. With one fairly large tree and a level area surrounding it to build on, an artificial grove of trees and bushes was built, camouflaging completely all kitchen equipment and personnel.

The olive drab and dark green paint on our planes made it comparatively easy to place them under the trees in such a manner as to make them practically invisible to aerial observation. The officers and men pitched their tents (PWP, G.I.) under the remaining unused foliage very effectively.

Constructively, we had strong points consisting of machine guns (30 and 50 caliber) and automatic rifle emplacements, backed with entanglements and sand bags. In order actually to surround our position with lines of fire from these strong points, it was necessary to constructively clear quite a large area and build trench high wire entanglements.

All our flying missions during these four days were at altitudes between 14,000 and 25,000 feet. Only one mission,

however, was flown at the highest altitude.

Most missions were to protect other types of aircraft in their missions. On several occasions, however, we came down from our high altitude and executed some damaging attacking on our ethereal enemy.

Friday, June 28th, was designated as the day for individual cooking. The entire squadron personnel, however, were much pleased when it was learned on that morning that the "war" was over and that we were to decamp at 3:00 p.m. It is difficult to work up enthusiasm for your own cooking after a rainy night.

With our new transportation, the return move was a small matter. After the spotting of trucks, fifteen minutes were used for the loading of equipment.

Needless to say, everyone was entirely happy to be once again back to more comfortable bunks and fewer mosquitoes.

The 75th Service Squadron, with the outbreak of "hostilities" in the current Department Maneuvers, fell heir to practically all jobs, other than Post Headquarters, on the field. All guard, including special airdrome defense, Transportation, Air Corps Supply and the various special duty jobs for the maintenance of the post was left almost wholly to the 75th Squadron. Although this interfered seriously with the normal function, the extra work was handled in a manner indicating the high morale of the organization.

Some very valuable experience was secured in handling liquid oxygen away from a regular airdrome, in camouflage of aircraft and installations and in refueling from five-gallon tin cans. These will be made the subject of comment for a future news letter.

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ACTIVITIES AT THE HAWAIIAN AIR DEPOT

Air Corps Supply and Engineering officers of the Hawaiian Department assembled at the Hawaiian Air Depot recently for a conference in connection with the preparation of a questionnaire to be submitted at the annual Engineering-Supply Conference at the Materiel Division. The problems of the 18th Composite Wing were discussed in great detail and many valuable suggestions for the improvement of the services were offered. The conference was split up into two groups, Captain Edwin R. Page conducting the Engineering Conference, while Captain C.P. Kane had charge of the meeting on Supply matters.

The Fiscal Year closing June 30, 1935, was one of the busiest periods in the history of the Hawaiian Air Depot. The Purchasing Section of the Depot Supply Department was particularly active. Approximately \$225,000 was spent for the local purchase of supplies, which exceeded expenditures of the preceding year by more than \$100,000. This reflects the increased activity throughout the Depot. Commencing July 1, 1935, additional funds for the hire of civilian employees within the Depot were received.

The closing of records for this Fiscal Year discloses some very interesting figures insofar as the production of the Engineering Section of the Hawaiian Air Depot is concerned. During the Fiscal Year 1932, which was the year in which the Hawaiian Air Depot was officially organized, major overhauls were completed on a total of 48 airplanes, or an average of 4 airplanes per month. During the Fiscal Year 1935, just completed, this average was stepped up to nearly 6 airplanes per month, total figures for the year showing 70 airplanes overhauled. In addition, 9

B-4A airplanes, which were overhauled at the Rockwell Air Depot, were assembled and placed in commission by this Depot during the past Fiscal Year. It is estimated that if no new equipment is received requiring assembly, approximately 90 aircraft will be overhauled during the coming Fiscal Year.

While construction of the new Hawaiian Air Depot is eagerly looked forward to, experience has indicated that it may take a number of months or years before the Depot buildings will be actually available for occupancy. While a minimum of expenditure is being made within the Depot to care for increased activity anticipated within the forthcoming Fiscal Year, it will nevertheless be necessary to provide certain additional facilities in order to care for the increased business. This includes the construction of additional bins within the Depot Supply Departments and the rearrangement of stock. This work is going forward under the direction of Captain C.P. Kane.

Construction on the new Depot test block will soon be under way. This is expected to result in a big improvement over the present installation within one of the supply warehouses. Mr. R.C. Miller, Shop Superintendent of the Depot, recently returned from an extended trip on the Mainland, during which time he visited the Materiel Division at Dayton and secured a number of excellent ideas for use in Hawaii. Included within these projects was a plan to install a modern electric time-clock system which is expected to prove of great value in the matter of maintenance of records and cost accounts.

The morale of the Depot personnel is very high and everyone is pulling together in splendid fashion, due to the leadership of Capt. Page, Depot Commander.

LIGHTER THAN AIR ACTIVITIES AT SCOTT FIELD

The tactical operations of the Ninth Airship Company at Scott Field, Belleville, Ill., during the past year have been limited by several things. In the first place, this station is the only one in the Air Corps which is equipped to erect, test, alter and deflate the lighter-than-air craft now in service in the Air Corps. Secondly, this squadron has been limited in its operations by the lack of mechanized maneuvering equipment and, lastly, the few pilots who are assigned or attached to this squadron for flying must do test work in addition to completing a minimum course of tactical flying training.

The Ninth Airship Squadron has erected and tested the automatic damper control system for the TA type airship and is now testing a similar system for the TC-11 type airship. This squadron has also made tests of the reversible propeller for the power plants of the lighter-than-air craft.

The tactical operations of the squadron will be a different story in the very near future. The erection of the TC-14 airship and the mooring mast to be used with that ship will be completed in a few days. The TC-14 airship is similar to the TC-13, now at Langley Field. The following information about the two airships may be of interest to the Air Corps personnel:

	<u>TC-13 Airship</u>	<u>TC-14 Airship</u>
Type:	Internal suspension, closed car.	Internal suspension, closed car.
Volume:	350,000 cubic feet.	357,000 cubic feet.
Length:	232.25 feet.	235 feet.
Maximum diameter:	54 feet.	54 feet.
Power Plants:	2 P & W 375 h.p. each (GIR-1340D)	2 P & W 300 h.p. each (YI-GI-985A) 1 Martin 133 h.p. (YI-330-1)
Maximum speed:	75 m.p.h.	Over 80 m.p.h.
Fuel capacity:	1340 gallons.	1340 gallons.
Cruising range:	2500 miles.	2500 miles.
Radio equipment:	Only information available from photographs. Radio compass.	Transmitter: BC-191. Dynamotor, tuning units, control boxes and junction boxes. Receiver: BC-AD-219. Dynamotor coil units, control boxes and junction boxes. Inter-phone: Six position.
Cloud car equipment:	Independent powered windlass driven by a Johnson motor.	Equipped for sub-cloud observation with car operated by windlass in con- trol car driven by power take-off from the Martin engine. Communication by phone thru the telephone cone sus- pension cable.
Sea anchor equipment:	Under construction	Under construction.

The TC-14 should prove to be a better airship than the TC-13. It is hoped and expected, says the News Letter Correspondent, that the Ninth Airship Squadron will be able to approach in tactical training and operations the enviable record of the 19th Airship Squadron at Langley Field, Va.

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TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Lieutenant-Colonel

Major Howard C. Davidson to duty as Commander, 19th Bombardment Group, Rockwell Field, 8-10

To Major

Capt. Thomas H. Chapman assigned as Chief, Inspection Branch, Procurement Section, Materiel Division, Wright Field, August 21.

Captain Rudolph W. Propst assigned as Chief, Purchase Branch, Procurement Section, Materiel Division, Wright Field, August 10.

Captain Ployer P. Hill assigned as Chief of Flying Branch, Administration Section, Materiel Division, Wright Field, August 28.

Capt. Joseph T. Morris assigned as Engineering Officer, Rockwell Air Depot, Calif., August 10.

To Major (Continued)

Capt. Burton F. Lewis assigned as Engineering Officer, Station Complement, Mitchel Field, N.Y., August 13.

To Captain

1st Lt. Roy H. Lynn assigned as Flight Commander, 31st Bomb. Sqn., Hamilton Field, 8/10.

1st Lt. William Ball assigned as Flight Commander, 31st Bomb. Sqn., Hamilton Field, 8/10.

1st Lt. Richard C. Lindsay assigned as Flt. Commander, 9th Bomb. Sqn., Hamilton Field, 8/10.

1st Lt. Edward H. Alexander assigned as Engineering and Armament Officer, 17th Attack Group, March Field, August 10.

1st Lt. John F. Wadman, assigned as Flight Commander, 73d Attack Sqn. March Field, 8/10.

To Captain (Continued)

1st Lt. Nathan B. Forrest assigned as Intelligence and Operations Officer, 73d Attack Squadron, March Field, Calif., August 10th.

1st Lt. Charles B. Overacker assigned as Flight Commander, 73d Attack Squadron, March Field, Calif., August 12th.

1st Lt. Paul B. Wurtsmith assigned as Flight Commander, 3rd Pursuit Squadron, Clark Field, P.I., August 7th.

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The following-named Air Corps officers, holding temporary increased rank, were assigned to other duties, but retain such temporary rank:

1st Lt. Jesse Auton from Engineering Officer, 73rd Attack Squadron, to Adjutant, 17th Attack Group, March Field, Calif.

Major Eugene L. Eubanks from Assistant to Chief of Staff, G-3, GHQ Air Force, to Commander, Hqrs. Squadron, GHQ Air Force, Langley Field, Va.

Captain Kirtley J. Gregg from Supply Officer, 17th Attack Group, to Intelligence and Operations Officer, 95th Attack Squadron, March Field, Calif.

1st Lt. John T. Helms from Engineering Officer, 95th Attack Squadron, to Supply Officer, 95th Attack Squadron, March Field, Calif.

Captain Minton W. Kaye from Intelligence and Operations Officer, 73d Attack Squadron, to Supply Officer, 17th Attack Group, March Field.

Captain A.J. Kerwin Malone from Flight Commander, 95th Attack Squadron, to Intelligence and Operations Officer, 34th Attack Squadron, March Field, Calif.

Major Alfred Lindeburg from Supply Officer, Station Complement, Barksdale Field, La., to Supply Officer, 3rd Wing, at that station.

1st Lt. James S. Sutton from duty with 73d Attack Squadron, to Transport Officer, 64th Service Squadron, March Field, Calif.

Major John P. Temple from Supply Officer, 3d Wing, Barksdale Field, La., to Supply Officer, Station Complement, at that station.

1st Lt. James F. Thompson, Jr., from Commander, 1st Photo Section, to Meteorological Officer, Station Complement, Brooks Field, Texas.

1st Lt. Thomas L. Thurlow from Supply Officer to Intelligence and Operations Officer, 30th Bombardment Squadron, Rockwell Field.

Major John E. Upston from Commander, Hqrs. Squadron, GHQ Air Force, to Assistant Chief of Staff, G-3, GHQ Air Force, Langley Field, Va.

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CHANGES IN STATION OF AIR CORPS OFFICERS

To Langley Field, Va.: Captain Glenn C. Salisbury for duty with Station Complement. - 2nd Lts. Eugene P. Mussett and Clifford H. Rees from Hawaiian Department to duty with GHQ Air Force - 1st Lt. Edwin G. Simenson, 50th Obs. Squadron, relieved from temporary rank upon date of departure from Hawaii.

To Edgewood Arsenal, Md.: Captain William J. Flood, from Maxwell Field, Ala., for duty with Air Corps Detachment.

To Bolling Field, D.C.: Captain Samuel C. Eaton, Jr., from Edgewood Arsenal, Md., for duty with GHQ Air Force.

To Boston, Mass.: 1st Lieut. Richard E. Cobb, from Assignment and duty at Boston Airport to duty with Organized Reserves, 1st Corps Area.

To Barksdale Field, La.: Captain George R. Bienfeng, 48th Pursuit Squadron, Chanute Field. Relieved from temporary rank August 10th. - Capt. Elmer J. Rogers, Jr., from 18th Composite Wing. Relieved from temporary rank upon date of departure from Hawaii. - 1st Lt. Leo P. Dahl, 19th Pursuit Squadron. Relieved from temporary rank upon date of departure from Hawaiian Department.

To March Field, Calif.: 2nd Lts. Robert H. Terrill and Sam H. Wiseman from Hawaii, for duty with GHQ Air Force. - 1st Lt. Donald L. Hardy, 4th Obs. Squadron, relieved from temporary rank upon date of departure from Hawaii. - 1st Lt. John L. Davidson, from Chanute Field, for duty with GHQ Air Force.

To Randolph Field, Texas: 2nd Lt. James W. Gurr from Hawaiian Department. - 2nd Lt. Daniel S. Campbell, 26th Attack Squadron, relieved from temporary rank upon date of departure from Hawaii.

To the Philippines: 1st Lieut. Shelton E. Prudhomme from Wright Field, Ohio. - Captain Thomas S. Power, 20th Bombardment Squadron, Langley Field, Va., relieved from temporary rank December 28, 1935.

To Brooks Field, Texas: 2nd Lt. Thomas C. Morgan from Hawaiian Department.

To Chanute Field, Ill.: 2nd Lt. Nicholas E. Powel from Hawaiian Department.

RETIREMENT: Lieut.-Colonel Archie W. Barry, July 31, 1935, having attained age of 64 years.

RELIEVED FROM AIR CORPS: 2nd Lieut. Donald F. Buchwald from flying training at Air Corps Training Center and to 18th Infantry at Fort Hamilton, N.Y.

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OFFICERS RELIEVED FROM TEMPORARY RANK

Major Victor H. Strahm from assignment, duty and temporary rank with the Materiel Division, Wright Field, Ohio.

Captain Douglas T. Mitchell from assignment, duty and temporary rank as Intelligence and Operations Officer, 79th Pursuit Squadron, Barksdale Field, La., and to report to Commanding Officer of that field for duty.

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Changes in the assignment to duty of the following-named officers stationed at Barksdale Field, La., were recently announced:

Captain Milo McCune and 2nd Lieut. Arthur F. Merewether assigned to duty with Station Complement.

Captain William N. Amis, 2nd Lieuts. Harry N. Burkhalter, Jr., and Felix L. Vidal assigned to duty with GHQ Air Force.

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The relief of 1st Lieut. Daniel S. Campbell from assignment, duty and temporary rank with 26th Attack Squadron, and assignment to Randolph Field, Texas, was revoked.

MARTIN TEST BOMBERS

The War Department recently released the following article to the press:

"The following information was received from the Glenn L. Martin Company:

The latest of the long line of world famous Martin Bombers was recently flown at Baltimore, Maryland, the home of The Glenn L. Martin Company, its builders. It is now being groomed for entrance in the United States Army bombardment competition to be opened August 22nd at the Engineering Division of the Air Corps at Dayton, Ohio.

The new Martin product has a wing spread of only 76 feet and a loaded weight of approximately ten tons. Consequently, it is much smaller and more compact than the other airplanes entered in the competition which will result in large Government orders for the winner. Nevertheless, the Martin ship carries the full military load required and adequate gasoline to fly non-stop distances far in excess of the specifications. This unusual performance, it is understood, is obtained by using a combination of advanced aerodynamic features, including a new high-lift arrangement on the monoplane wing. After a year of research and experiment the Martin engineers are confident that this airplane will establish a new world's record for efficient load carrying and, since one of the specifications requires that the airplane be as small as is consistent with the military requirements, the Martin Bomber will prove a formidable contender for the winning awards.

The recent flight did not include a speed test, but from observation it appears that the airplane is materially faster than the current Martin model now in quantity production. The Air Corps desires 250 miles per hour in their new bombers and the Martin engineers, although guarded in their comments, expressed satisfaction at the close of the flight.

Since the reorganization of the Air Corps last January, when all the operating forces were grouped into the GHQ Air Force, commanded by Brigadier General Frank M. Andrews, the practical qualities of military aircraft have been given primary consideration in the selection of service equipment. Ease and economy in maintenance, rugged construction, facility in loading gasoline and bombs, ability to get in and out of small rough fields and great maneuverability are essential. The Martin Company is fortunate in these respects, since the new model follows the proven practices used in previous models on which service experience has already been obtained, and the new high-lift device is said to give unexcelled take-off, landing and load carrying charac-

teristics.

Like the current Martin models now in quantity production at the Baltimore factory, the new bomber is an all metal, mid-wing monoplane with retractable landing gear. Power is supplied by two Wright Cyclone geared and supercharged engines of over 800 h.p. each, streamlined into the wing. It carries a crew of four or five men, three machine guns covering all angles of approach, a special bomb rack in which the bombs are easily loaded and discharged, and complete enclosures for both front and rear cockpits. The standard equipment includes two way radio, automatic pilot, adjustable pitch propellers and complete navigating equipment including the new radio "homing" compass.

The Martin ship is purely a bombing and fighting airplane. No compromises in design or construction have been made for any other purpose. The idea that the same airplane, or essential parts of it, may be used in a commercial model for passenger transport or mail carrying has not been considered since that would necessarily detract from the primary purpose - bombing. As a result, this airplane is strictly a war weapon of great destructive capacity and with every facility for that purpose.

Long distance bombing requires complete comfort and convenience for the flying personnel since the accomplishment of such missions is attended by intense physical strain during war time. This has been amply provided in the new bomber by inherent stability characteristics, the automatic pilot, heated cockpits, facilities for changing position in flight, easy adjustable seats, sleeping accommodations and toilet facilities.

The first Martin bomber, a biplane, was produced in 1918 and was purchased in quantity for the Air Corps during its many years of progressive development. In 1932, Martin changed to a monoplane type and, in conjunction with the use of several other advanced ideas, stepped up the bombing speeds approximately 100 m.p.h. - an improvement which forced many changes in the tactical plans for air combat. Now, Martin develops a new combination of advanced features including the high lift device which, without increasing the size of the airplane, permits loadings far in excess of those previously considered normal. Consequently, the new Martin Bomber is another distinct advance in bombing practice and a definite contribution to the national defense."

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A Douglas Amphibian has been added to the aircraft at Hamilton Field as the result of a recent flight to Rockwell Field by Major Guy Kirksey who gave in exchange for it a C-14 Fokker Transport airplane.

GENERAL ANDREWS INSPECTS MARCH FIELD

Brigadier-General Frank M. Andrews, Commanding General of the General Headquarters Air Force, from Langley Field Headquarters, visited March Field on July 31st. Arriving at 3:00 p.m. in a Martin Bomber, he was greeted by the roar of an 11-gun salute and the General's March, played by the March Field bugle and drum corps. Thirty-two enlisted men of the Station Complement in a guard of honor platoon were inspected by General Andrews, who commented favorably on their appearance. During his stay at the Southern California Air Corps station, General Andrews was the house guest of his friend of many years, General Henry H. Arnold.

General Andrews' visit was the climax of a rigid inspection of March Field's personnel and equipment by representatives of GHQ Air Force Headquarters at Langley Field, Va. These inspectors who stayed on the reservation for several days, were Lieut.-Colonel Walter R. Weaver, Air Corps; Major Russell Maxwell, Ordnance Department, and Major Ennis C. Whitehead, Air Corps, of Langley Field. So painstaking were the these inspectors that two enlisted men of the 23rd Photo Section were detailed to accompany them to photograph points which the inspectors wished to emphasize.

The visiting General was entertained several times in important social functions both at Riverside and at March Field. At Riverside he affixed his wings to the wall of the St. Francis chapel at the invitation of the Mission Inn which had dedicated this room to famous flyers here and abroad.

At the conclusion of his tour of March Field, General Andrews left for Rockwell and Hamilton Fields to hold similar inspections. He was accompanied by General Arnold, also flying in his own Martin Bomber. Preceding him to Hamilton Field by one day were Major Ray A. Dunn, Wing Executive; Lieut.-Colonel Weaver, Major Maxwell and Captain Lloyd N. Watnee.

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ITEMS FROM HERE AND THERE

Mr. T.W. Tillinghast, Sales Manager for the Pratt and Whitney Aircraft Corporation, on a recent visit to Hamilton Field, Calif., explained high altitude control of the "Hornet" engines to the pilots of the 7th Bombardment Group. He motored from Hartford, Conn., and was the guest of Lieut.-Colonel Clarence L. Tinker during his short stay.

Judge Edgar T. Zook, of San Rafael, took off from Hamilton Field, Calif., recently to visit the Idaho Maryland mine near Grass Valley, Calif. The tiny Fairchild 24 with its grey

fuselage was an unusual sight on the Army flying field.

The 35th Division Air Corps, Missouri National Guard, was encamped for two weeks recently at Camp Clark, Nevada, Mo. Commanded by Major Phil Love, of St. Louis, the division consisted of 20 officers, 95 men and seven airplanes. Originally slated to go to Fort Riley, Kansas, the recent flood damage there necessitated a change in plans.

After a reconnaissance by Lieut.-Colonel C.L. Tinker, Commanding Officer of the 7th Bombardment Group, Hamilton Field, Calif., and his staff, Point Reyes was chosen as the prospective site of a rescue post for the bomber gunnery which will take place between Bolinas and Bodega Point. A rescue craft with 4 men, including a radio operator and a cook will constitute the rescue party according to present plans.

Two Air Corps units stationed at March Field, Riverside, Calif., celebrated their natal days at Newport-Balboa, California, on August 3rd, these being the 23rd Photographic Section and the 17th Attack Group Headquarters Detachment.

A skeet shooting ground has been established at Hamilton Field, Calif., for the practice of the officers. As the skill of these officers increase, matches will be scheduled with teams from other Army posts, also with civilian teams.

Captain Walter E. Richards, Air Corps, recently reported to the Commanding General of the First Corps Area for duty as Commanding Officer of the Boston Airport, East Boston, Mass. He will also have charge of Air Corps reserve activities in this section.

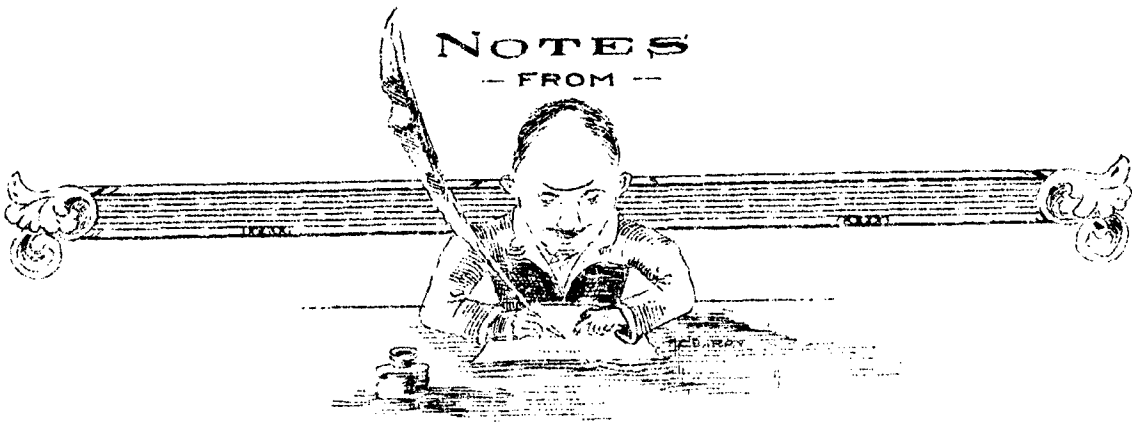
Three night demonstrations by the 62nd Coast Artillery (Anti-aircraft) regiment and the 97th Observation Squadron, Air Corps, will be given during the First Army field training exercises in the Pine Camp area of New York, the first on the night of August 20th, the second on August 25th and the third on August 28th.

The sleeve targets the Army airplanes will tow during the night firing will be the new type developed by the Air Corps, which can be towed at a speed of 200 miles an hour, or twice the speed of towing for the former type of sleeve target.



NOTES

— FROM —



AIR CORPS FIELDS

Luke Field, T.H., July 16th.

When the ST. MIHIEL pulled out on June 21st, the 50th Observation Squadron lost two of its most efficient non-coms, Staff Sgt. Coke and Sgt. Martin. The former served in the capacity of Hangar Chief for the past two years, while the latter has nursed No. 121 in sickness and in health until relieved to prepare himself for delivery aboard the above-mentioned Transport. In addition to being an able crew-chief, Sgt. Martin has conducted a column in the Army and Navy Review for some months under the caption "Aero-grams." Not once during his career as a journalist has he been called upon to defend himself on the field of honor or to erase a typographical error.

The officers' roster of the 50th Observation Squadron shows a number of changes during the last month and first few days of July. Major Peterson, formerly of the 50th and once squadron commander of this squadron, was transferred to the 65th Service Squadron on the 4th of July, and will be the new commander of this Squadron. Major Peterson received the temporary grade of Major on the same date. Captain H.G. Montgomery, formerly of the 23rd Bombardment Squadron, was transferred to the 50th on the same date, receiving his present grade of Captain on the date of his transfer. Captain Montgomery will command "C" Flight during his tour of duty with the 50th. First Lieut. Simenson, recently of the 23rd Bombardment Squadron, was transferred to the 50th on June 15th, and reported for duty upon the completion of the June Maneuvers. On the 4th of July he also received an advance in rank.

The 50th Observation Squadron was scheduled to move to Waimanalo on July 24th to undergo summer training until August 10th. Training for the officers was to consist largely of firing fixed and flexible guns on ground targets. At 5:20 a.m., "When the Sun Comes Over the Mountain," pilots and observers who appear on the flight schedule will take off and continue firing until the morning schedule is finished. In the afternoon until 4:30 p.m., enlisted men divided into teams will fire on tow targets, using ground guns.

Recent changes in hangar personnel are: Sgt. Lindale, non-com. in charge of 50th Oper-

ations; Staff Sgt. Ball, Hangar Chief, vice Staff Sgt. Coke, transferred to Mainland station. A maintenance crew has been organized by Tech. Sgt. Williams, Line Chief, consisting of Sgt. Hydock, Pvt. Nutting, Pvt. Thompson and Pvt. Goodson. These men will perform all major maintenance work on airplanes under the direct supervision of crew chiefs whose plane is undergoing repair. It is thought that this plan will facilitate maintenance work and enable hangar personnel better to organize the work to be performed.

Hawaiian Air Depot, July 16th.

Extensive maneuvers involving all branches of service in the Hawaiian Department were completed June 30, 1935. A skeleton force was maintained by the Depot Supply department for 24 hours daily to meet emergencies. The usual number of extremely unusual problems in Supply matters were experienced and effectively met, and the Supply personnel acquired much valuable experience in organization and methods of handling supplies in emergencies.

Activities of the Supply Department continue to increase, due to a heavier flying program for the coming fiscal year. This means more work in all branches.

Training programs for both Luke and Wheeler fields show a decided increase in the number of hours to be flown and, although this will not materially increase overhaul requirements on aircraft, there will be a very noticeable increase in the overhaul of engines.

Fully 75% of all planes wereⁱⁿ commission and available for assignment to missions during the annual Hawaiian Department Maneuvers just completed.

Bolling Field, D.C., July 29th.

Among officers recently transferred to duty at Bolling Field were Captains W.E. Farthing, W.A. Matheny and S.K. Robinson.

Effective July 1st, two enlisted pilots at this station, B.W. Armstrong, Jr. and C.B. Harvin, were commissioned as second lieutenants in the Air Corps, Regular Army. They were transferred to Langley Field, Va., effective July 25th.

Among officers recently transferred to Washington and to flying duty at Bolling Field are Lieut.-Colonels John F. Curry, L.F. Stone, Major H.V. Hopkins, Captains E.V. Harbeck, T.W. Blackburn, M.S. Fairchild, A.C. Kincaid, L.H. Smith and 1st Lieut. D.F. Stace.

San Antonio Air Depot, Duncan Field, Texas.

Major-General Charles R. Reynolds, Surgeon General of the Army, while in this vicinity in the course of a general tour of inspection of Medical Department activities, visited this Depot on July 25th, accompanied by Col. E.A. Dean, Surgeon, 8th Corps Area.

Colonel and Mrs. John H. Howard were complimented with a dinner party by the officers and ladies of this Depot on the evening of July 31st. They left San Antonio recently for the purpose of visiting relatives in Honolulu.

Lieut. and Mrs. Max H. Warren were warmly greeted on joining this Depot on July 22nd from France Field, Panama Canal Zone. Lieut. Warren was assigned here as Assistant Depot Supply Officer.

Langley Field, Va., August 3rd.

Second Lieuts. Joseph B. Stanley and Harry Coursey recently reported to the 49th Bombardment Squadron for duty. The former arrived from Mitchel Field and the latter from the Middletown, Pa. Air Depot.

Lieut. Robertson departed on July 23rd for service in Panama. He was recently commissioned in the Reserve following the completion of one year of active duty as a Flying Cadet.

Hamilton Field, San Rafael, Calif. Aug. 5.

Napa Chapter of DeMolay, mustering 30 members, visited Hamilton Field on July 30th from 8:00 to 10:30 p.m. Captain Wilbur Erickson, Public Relations Officer and Adjutant, explained the Bombers, machine guns and radio to the visitors, who took also an intensive interest in night flying.

Lieut.-Colonel Glenn I. Jones has been sick in quarters for several days. Major Fabian L. Pratt acted as Post Surgeon during the sickness of his senior officer.

Second Lieut. Archibald W. Lyon sailed for New York on August 3d transport for one year's course in civil engineering at the Carnegie Tech. Institute, Pittsburgh, Pa. Lt. Lyon has been on duty at Hamilton Field in the Office of the Construction Quartermaster.

Major Guy Kirksey was appointed Engineering Officer for transient craft in addition to his other duties.

Private Charles E. Fallon, radio operator of Headquarters, 7th Bombardment Group, died on July 29th of injuries sustained in an automobile accident.

Captain Edgar T. Noyes, Group Supply Officer, was appointed Acting Operations and In-

LIBRARY NOTES

Some of the more interesting Books and Documents recent added to the Air Corps Library

C 71.6 U.S. 68. The 1935 Stratosphere balloon flight of the National Geographic Society and the U.S. Army Air Corps in "Explorer II." 1935. 20p. Data compiled for the use of editors and authors writing on the subject.

C 71.7/10. Can systematic development and employment of ground defense suffice against strong attacks from the air, by Hans Brehm, Nov. 1, 1934. 13p. Trans. by Military Intelligence Division from "Luftwehr,"

614.43 M39. Epidemiology in relation to air travel, by Arthur Massey, 1933, 59p. A monograph outlining the risks taken of transporting contagious diseases by aerial transportation and a few suggestions as to methods used to prevent it.

523.72 F16. Multiple lens aerial cameras in mapping; a treatise on multiple-lens aerial cameras and their applications in mapping, 1933, 161p. Discussion prepared to meet the demands from civil and military engineers and many others for complete and correct information about multiple lens cameras.

629.13 Un3us No. 1146. French and English ideas on aerial combat, by Felix Nagel, July 9, 1935. 3cm. (Stencil U-1146, A.C.) Source of article in Militaer Wochenblatt, May 11, 1935.

629.1341 C43. Seaplane solo, by Francis C. Chichester, 1933, 314p. Story of flight from Australia to New Zealand.

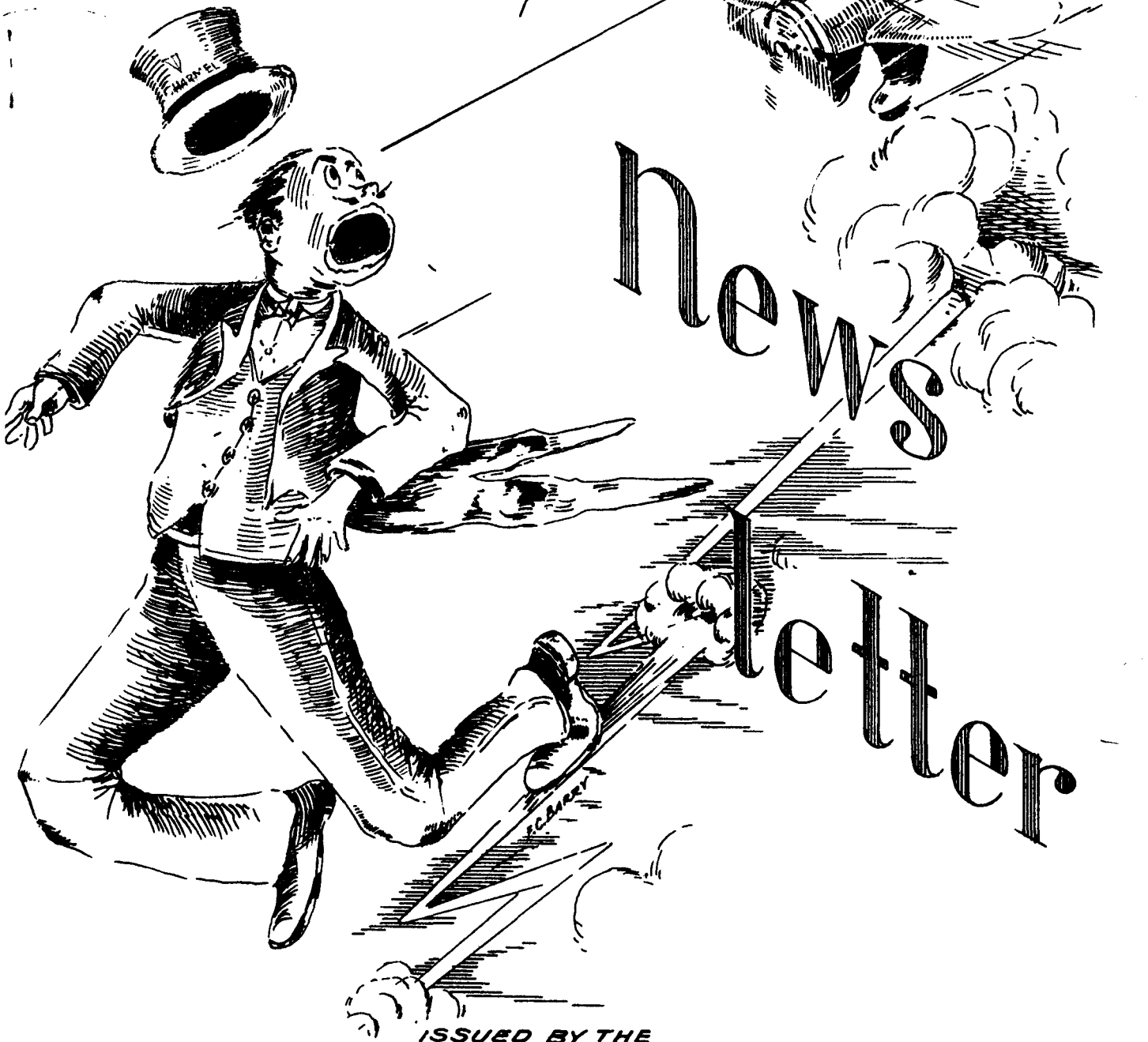
940.449 J62. Fighting planes and aces, by W.E. Johns, 1932, 90p. This is an illustrated record of the aerial operations of the European war. The victories of well known fliers are given. The author, however, does not approve of the ace system used in the war.

"Mandate from Heaven." The development of aviation in China is changing her whole future, by Wilbur Burton, from the magazine ASIA, August, 1935. This is an answer to the question asked by many of us. Will China ever unite? The writer states that it has taken the airplane to bring about the unification of Nanking in a breath taking rapidity. He also relates the part taken by Americans in bringing about the development of aviation in that country.

Intelligence Officer, 7th Bombardment Group during the temporary absence of Major Carlyle H. Ridenour who has been sick in Letterman General Hospital since July 22nd.

Captain Oliver K. Robbins, who recently completed a course at the Air Corps Tactical School, assumed command of the 69th Service Squadron. He has retained Staff Sgt. Homer L. Patterson as his first sergeant.

Air Corps



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Information Division
Air Corps

September 1, 1935

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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THE THIRD STRATOSPHERE FLIGHT

The War Department having given its approval to the cooperation of the Army Air Corps with the National Geographic Society in the Third Stratosphere Flight, orders have been requested for the participation of the necessary personnel to launch this expedition, the primary purpose of which is to penetrate the upper air strata to the utmost possible extent in order to obtain various scientific data now little known.

Needless to say, every effort will be made to insure the success of this third attempt to explore the stratosphere. The personnel assigned to navigate the stratosphere balloon on the second attempt, which was abandoned when the top of the bag blew out during the process of inflation, will carry on in the forthcoming flight. It is understood that the damage to the bag was confined to a relatively small area, also that the substitution of a new top was not an expensive problem.

Captain Albert W. Stevens, Air Corps, Commanding Officer of the Expedition, whose regular station is Wright Field, Dayton, Ohio; and Captains Orvil A. Anderson and Randolph P. Williams, Air Corps, pilots, who have been on detached service at that post since the abandonment of the second attempt, are slated to proceed to several places for the purpose of inspecting and shipping helium cylinders and supplies from Scott Field, Ill.; inspecting the balloon and checking the results of tests of balloon fabric and panels by the Goodyear Zeppelin Engineers at Akron, Ohio, and of testing meteorological and other instruments at the Bureau of Standards, Washington, D.C. They are then to proceed by air at the proper time to Rapid City, South Dakota, for the purpose of assembling the apparatus, inflating the balloon, and, finally, making the flight.

Among other Air Corps personnel de-

tailed for duty in connection with arrangements for the flight are Major Charles D. McAllister and Corporal Malvin F. Trimble, from Maxwell Field, Ala.; Captain Herbert K. Baisley from Bolling Field, D.C.; 1st Lieut. James F. Phillips, in all probability, and Mr. Louis Hegemeyer, motion picture technician, from Wright Field; Master Sergeant Grover B. Gilbert and Technical Sergeant Artie L. Revert from Chanute Field, Ill.; Master Sergeant Joseph B. Bishop, Staff Sergeant Oluf T. Jensen, Sergeant Glenn W. Money, Corporal Joseph Van Agtmael and Private, 1st Class, Louis D. Laurin from Scott Field, Ill.; Sergeant Martin Sebode, Corporal Horace R. Slutter, Privates Norman A. Bartlett and Edward D. Steel from Langley Field, Virginia, and Staff Sergeant William F. Bernheisel, Signal Corps, from Office Chief Signal Officer, Washington, D.C.

The enlisted personnel from Scott Field will be assigned the task of rigging and inflating the balloon, and those from Langley Field and Sergeant Bernheisel will set up and operate a weather station at Rapid City.

Captain Baisley and Sergeant Gilbert will be engaged in making aerial photographs incident to the flight, and of the stratosphere balloon, and Lieut. Phillips and Mr. Hegemeyer will busy themselves with securing a motion picture photographic record of the flight.

Sergeant Revert will assist in the installation of a radio and public address and loud speaker system at Rapid City, to be used to direct the inflation of the balloon.

All that can be added in conclusion is to express the hope that the third stratosphere flight will be a successful one in every way, and that the scientific data gained will measure up to the fullest expectations of the sponsors thereof.

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AERIAL PHOTOGRAPHS TAKEN AT NIGHT EQUAL THOSE TAKEN DURING DAYLIGHT

During a training flight in night aerial photography with the latest airplane night photographic equipment from an altitude of 1,500 feet at 9:30 p.m., Lieut. Hobson and Technical Sergeant Brees of the 23rd Photo Section, stationed at March Field, Riverside, Calif., made an aerial photograph of the Exposi-

tion at San Diego, Calif., that is equal to those taken during daylight hours.

These photographs demonstrate the efficiency and advancement of military photography, for during the last great war all troop movements, even the feeding of the soldiers in the trenches, was

(Continued on page 10)

PHOTOGRAPHING BOMB BURSTS FROM SAME
AIRPLANE ACCOMPLISHING THE BOMBING

The Photographic Officer of the Photo Detachment, 19th Bombardment Group, Rockwell Field, Calif., Captain Norris B. Harbold, recently submitted photographs of a type A-8 camera mount "adapter," developed and tested by this detachment for using an aerial camera vertically in the rear floor gun opening of the B-10 and B-12 airplane. This arrangement has been successfully used in photographing bomb bursts from the same airplane accomplishing the bombing.

This adapter enables reconnaissance strips to be flown, using a B-10 with full load of bombs.

Since the bomber is in a position to give the photographer the drift or crab in degrees, also the ground speed, a vertical view finder is unnecessary.

A satisfactory one-strip mosaic map of Rockwell Field was made recently, using this set up, the flying having been accomplished with a strong cross wind in evidence.

The adapter was constructed of wooden blocks and wooden braces fitted so that no holes were drilled in the airplane. Rigidity was encouraged and anchorage was established after the mount and adapter were in position by using safety wire both fore and aft from the mount adapter to the airplane structural bracing.

---oCo---

AIR CORPS EXHIBIT AT ALL-AMERICAN
AIRCRAFT SHOW

Lieut.-Colonel Ralph Royce, Air Corps, commanding Selfridge Field, Mich., received instructions to arrange an exhibit for the All-American Aircraft Show which was held at Detroit City Airport from July 20th to 28th. The exhibit consisted of one each P-26B, P-29 and YA-13 airplanes, and radio navigation equipment, and from all accounts proved to be a very interesting display.

Lieut.-Colonel Royce designated the following-named officers and noncommissioned officers to assist with the exhibit: Major James E. Parker, Captains Herbert H. Tellman, George F. Schlatter, Norman R. Burnett, 1st Lieuts. William J. Bell, Joe W. Kelly, David W. Hutchison, Clark N. Piper, Charles H. Anderson, 2nd Lieut. Frank G. Jamison, Staff Sgt. Harvey R. Davis, Sergeant Charles A. Pung, Corporals Joseph W. Kellogg and Jack E. Day.

---oCo---

TRAINING FOR 3RD CORPS AREA RESERVES

The 49th Bombardment Squadron, Langley Field, Va., with the whole-hearted cooperation of the 96th and 20th Bombardment Squadrons, the 8th Pursuit Group

and the 37th Attack Squadron, completed on August 3rd a 14-day training camp for Reserve Officers of the Third Corps Area.

The officers responsible for the camp wish to express their appreciation for the care shown in the selection of the officers sent to Langley Field for training. No small part of the credit due for the excellent showing is their's. By that is meant the fact that during the entire camp period no accidents of any kind were experienced. The source of the following remark escapes the writer, but it can bear publication and expresses very well the thought, "Nary a shock cord broken nor tail skid cracked."

During the 14-day period of training, the 35 Reserve officers flew a total of 614 hours, or approximately 18 hours per pilot. The News Letter Correspondent expresses regret that the lack of ships fitted for Instrument Flying prevented giving more instruction in blind flying, because it is realized that this branch of training is becoming increasingly important every day.

For the purpose of simplifying the flying administration problem, the camp was divided into two groups, and two senior officers, Majors Bazely and Whitehead, were placed in charge. This arrangement made it possible to retain accurate check on all the officers and keep them informed of all changes in orders and schedules, and it proved to be an excellent one.

---oCo---

COL. H. WEIR COOK COMES TO WASHINGTON

The appointment of Lieut.-Col. H. Weir Cook, of Indianapolis, as City Traffic Manager for the American Airlines in Washington, was recently announced by Mr. J. E. Smith, President of the airline.

This former Air Corps officer, who has devoted nearly 20 years to commercial and military aviation, is now a Lieutenant-Colonel in command of the 38th Division National Guard Air Corps. Holding the unofficial title of "Ace," by virtue of bringing down seven enemy aircraft during the World War, Col. Cook's record in that conflict is a brilliant one, he having been twice cited for extraordinary heroism in action in France and being awarded the Distinguished Service Cross with oak leaf clusters for gallantry in action.

---oCo---

AIR CORPS FOR ARGENTINA

According to press reports, Argentina is planning a general reorganization of her military aviation, including the expenditure of nearly \$6,000,000 for airplanes, ammunition and other equipment. The President of the South American Republic has sent two bills to Congress to establish an Air Corps as the fifth arm of the Army and to appropriate the necessary funds.

THE SCHOOL SITUATION FOR AIR CORPS OFFICERS

Before 1930 little desire for Service schooling developed among the junior Air Corps officers. Effective during that year, for some reason, a flood of applications started pouring into the War Department from these Air Corps officers, requesting and pleading that they be sent to school, and listing every conceivable sort of school from civilian courses in law, motion picture photography, and higher Finance to immediate consideration for education at the Army War College and training in Higher Command. Possibly the reason for this yearning for education has been caused by the fact that the majority of officers have now reached the age where they can clearly foresee that their usefulness is becoming somewhat limited because of the fact that they have no Air Corps specialty other than flying and have no knowledge of the problems confronting the rest of the Army. Then again it may have been caused by the thought that such a course would be excellent career insurance. At any rate, no matter what the cause, the result is that the applications continue to pour in until it is a rarity to find an officer's preference card on which no school is desired. Let us now turn to the schools themselves and examine them to see the chances of an officer's obtaining his desire for learning.

The most available school for an Air Corps officer after graduating from the Air Corps Training Center is the Air Corps Technical School. Under the present policy, only 1st Lieutenants and 2nd Lieutenants are given instruction in this school, it being the opinion that in the first years of an officer's service after serving with a tactical unit he should become proficient in some field of Air Corps Technical Training. Normally, the officer student body of this school is forty, divided into the following courses: Maintenance-Engineering-Armament, Communications and Photography. The eligibility for this school is unlimited except for the fact that an officer must express a desire to attend and be recommended by his Commanding Officer for the course. Priority, however, is normally given to the officer having two or more years' service rather than those just assigned to the Air Corps. For the School Year 1935-1936, the student body has been reduced from forty to twenty-eight, due to the personnel requirements under the reorganization of the Air Corps.

Further training along technical lines is provided at the Air Corps En-

gineering School at Wright Field, Ohio. This course normally has a class of approximately ten officers. Eligibility for this school is somewhat limited, it being the policy to select only officers who have had the proper technical education previous to their commission in the Regular Army and who are interested in the higher engineering and design problems of aircraft and aircraft engines. Priority for assignment to this school is given to those officers whose educational records show that they have the proper background to undertake this course. This priority list is revised from year to year and successful graduates of this school can expect normally a four-year detail to duty in which this education can be utilized in aircraft experimentation, procurement and maintenance.

Officers submitting applications are furnished a Questionnaire upon which their priority is based. Priority for the engineers is in large measure established upon recommendation of the Chief of the Materiel Division.

After graduation from the Air Corps Engineering School the next step in an officer's education in case he desires to be a technical specialist is a detail to attend a civilian educational institution. At the present time the Air Corps is allotted sixteen student officers per year for this form of education as follows: four at University of Michigan, one-year Engineering Course; four at Massachusetts Institute of Technology, one-year Meteorological Course; four at California Institute of Technology, one-year Meteorological Course; and four at Harvard School of Business Administration, the latter being a two-year course with two officers selected annually. The number authorized to attend these schools varies from year to year, depending upon annual appropriations and the tuition charged at each school. All tuition is paid for by the Government, without expense to the officer selected.

The Advanced Engineering Course at the University of Michigan is limited to those officers who have graduated from the Air Corps Engineering School and who have been recommended by the Chief, Materiel Division as being well qualified to pursue such a course.

The Meteorological Courses at the Massachusetts Institute of Technology and the California Institute of Technology are open to all who apply and whose basic educational qualifications show that they are fully qualified to pursue such a course. An officer must have a good mathematical education in

order to be given priority for this school.

The course in Business Administration at Harvard is limited to officers holding a university degree, and the Directive further states that it is desirable that he be a graduate of the Industrial War College; however, the latter qualification is not mandatory.

Passing from a discussion of the technical education open to an officer, let us consider the schools for tactical training. The basic school for tactical training for Air Corps officers is the Air Corps Tactical School at Maxwell Field, Alabama. At the present time the student body is limited to sixty officers per year. The limitations on eligibility for selection for this school are: (1) The officer must be above the grade of 2d Lieutenant; (2) He must have a General Average Efficiency rating of at least above average; and (3) Not to exceed 14% of the quota will be from the Field Officer grades and not to exceed 60% will be from the grade of Captain. There are at the present time 768 Air Corps officers of all grades, exclusive of 2nd Lieutenants, who have not attended this school. It may therefore appear that the opportunities to attend this school are very limited. However, since lack of physical fitness bars some officers and others desire to qualify along technical lines, there is a fair chance for all officers who attain the requisite efficiency ratings.

The following system is in effect for selecting officers for the Air Corps Tactical School. Depending on an officer's availability, all officers of the various grades are annually placed on a list in accordance with their general average efficiency rating; then within the various percentages in grade, the officers having the highest rating are given the call. It may be stated that under this system no officer has yet been chosen whose rating was not excellent or better.

Leaving the Air Corps schools we will now discuss those which are directly under the supervision of the War Department. The next school in line of higher tactical training is the Command and General Staff School at Fort Leavenworth, Kansas. The following is an extract from the Directive for this school which applied to the class selected for the 1935-1936 course:

"3. **Qualifications.** Student Officers will be selected from non-graduates of the School of the Line, the General Staff School, or the Command and General Staff School, possessing the following qualifications:

a. Who are not on the General Staff Corps Eligible List.

b. Who are above the grade of second Lieutenant.

c. Who will be less than 48 years of age on September 1, 1935. At least one-half the quota of captains, and the entire quota of first lieutenants, from the Arms, will be less than 40 years of age on the above date. This principle will be a guide to the Services.

d. Not to exceed 15 per cent of the quota of each Arm will be from the field officer grades and not to exceed 70 per cent will be from the grade of captain.

e. Who are in good physical condition.

"4. Chiefs of Arms and Services will submit, not later than December 1, 1934, lists, in numbers as above, of those officers whose War Department records indicate that they are best fitted to pursue this course. No assignment, other than foreign service, will preclude an officer from the list, but Chiefs of Arms and Services may invite attention to cases of assignment they deem of sufficient importance to warrant postponement of an officer's selection until some future year. In such cases the names of recommended alternates will be submitted."

Under the two-year course of instruction, the Air Corps had been apportioned seventeen officers per year; now that the course has been reduced to one year, it is understood that the allotment will be thirty-four officers per year beginning with the 1936-1937 class. Again it can be seen that priority for officers attending this school depends on the individual's record and as only thirty-four can attend each year, competition is bound to be keen and with 60 graduates of the Tactical School being made especially eligible each year, it behooves every officer to attempt at all times to increase his efficiency so that he may be considered as "an officer whose record indicates that he is best fitted to pursue this course".

Among the War Department schools a very important source of education is the Industrial War College. In describing the qualifications for this school, we can not hope to improve on the following extract which is quoted from the Directive for this school for the School Year 1935-1936:

"2. Students will be selected from Army officers of one of the following three groups:

a. Officers who have graduated at the Army War College, or are in the present War College Class.

V-6851, A.C.

b. Officers who have graduated at the Command and General Staff School and upon graduation were recommended for General Staff eligibility.

c. Officers who have demonstrated outstanding ability and who, in the opinion of the chief of branch, possess special qualifications for this training.

"3. Officers selected must in all cases have a general rating not below "Excellent".

In addition, students will be within the following age limits:

Lieutenants40
Captains45
Majors49
Lieut. Colonels & Colonels52

a. No officer of the Infantry, Cavalry, Field Artillery, or Coast Artillery Corps will be selected to take this course unless he is an officer of outstanding ability and has demonstrated qualifications for duty of a General Staff nature. Final selections of officers from these arms will be made by the Chief of Staff.

"4. In recommending officers for detail as students, Chiefs of Arms and Services should give consideration to the mission of the College, to the nature and scope of its curriculum, and to the best utilization of the officers' future services in the scheme of national defense as a logical result of their having had this training."

The Air Corps annual allotment for this course is nine officers and those officers who desire education along logistic and business administration lines, and who have been outstanding in such phases of Army requirements, will find it advantageous to keep in mind the qualifications leading to detail to this school and do everything possible to make themselves eligible for this wonderful course of study.

Finally, let us consider the ultimate goal of all Army officers seeking a complete military education, namely, the Army War College. As to qualifications, let us again quote from the Directive for this school for the class of 1935-1936.

"3. Qualifications. Student officers will be selected from non-graduates of the Army War College, possessing the following qualifications:

a. Who are above the grade of 1st Lieutenant.

b. Who will be less than 52 years of age on September 1, 1935.

At least one-half of the list submitted by each Arm and Service will consist of officers who will be less than 44 years of age on that date. (Where a fraction occurs, the extra

officer may be either above or below the age of 44 years in the option of the Chief of Arm or Service concerned.)

c. Who are in good physical condition.

d. Whose names are now borne on the General Staff Corps Eligible List, or, who are now graduates of, or will graduate in the 1934-1935 Class from the Army Industrial College.

"4. Graduates, Army Industrial College. In selecting officers from the procurement branches, preference will be given graduates of the Army Industrial College.

"5. Chiefs of Arms and Services will submit not later than December 15, 1934, lists of those officers whose War Department records indicate that they are best fitted to pursue this course. No assignment, other than foreign service, or the policy as to four years' duty in Washington, D.C., will preclude an officer from the list, but Chiefs of Arms and Services may invite attention to cases of assignment they deem of sufficient importance to warrant postponement of an officer's selection until some future year. In such cases the names of recommended alternates will be submitted."

At the present time, the Air Corps apportionment is nine officers annually, 30% of which, or three officers, must be graduates of the Army Industrial College. What are the numerical chances of obtaining this course? It can be easily computed that an Air Corps officer graduating from the Command and General Staff School has one chance in 5-2/3, while those graduating from the Army Industrial College have one in three.

Throughout all this narrative, we have tried to convey the impression that the chances for an officer's obtaining further education in his Army career is not a question of luck, pull, acts of Providence, or the influence of political relatives and friends, but it is the question of an officer's record. Many officers continually ask, "Why cannot I go to school? I've been asking for it for ten years." As if the act of asking was considered equivalent to being selected as a student. If an officer's record is outstanding, he will go to school; if his record is good enough, he may go to school; if his record is not good enough, he will not be considered. What's the answer to each individual's problem of trying to obtain more military education? We hope by this time that you know the solution as well as we do.

SEVENTH BOMBARDMENT GROUP, AIR CORPS
Hamilton Field, California

HISTORICAL RECORD: The 7th Bombardment Group was organized October 1, 1919, at Park Field, Tenn., as Headquarters, 1st Army Observation Group; redesignated Headquarters, 7th Group (Observation) March 14, 1921; made inactive August 30, 1921; redesignated 7th Bombardment Group Headquarters, March 24, 1923. June 1, 1928, it was reconstituted

9th Bombardment Squadron.
11th Bombardment Squadron.
31st Bombardment Squadron.
69th Service Squadron.
70th Service Squadron.
88th Observation Squadron.

BATTLE HONORS:

Lorraine
St. Mihiel
Meuse-Argonne

(winner)

DESCRIPTIVE INSIGNIA

Shield: Azure on a bend or three crosses pattee sable. The shield and bend are in the colors of the Air Corps. The bend is taken from the arms of the Province of Lorraine, while the three crosses symbolize the three battle honors of the organization.

Crest: On a wreath of the colors (or and azure) a drop bomb paleways sable piercing a cloud proper. The crest represents the duty as a bombardment group.

Motto: Mors ab alto (death from above).

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RECRUIT SENDS LETTER OF APPRECIATION

The News Letter Correspondent from Hamilton Field, Calif., sends in a copy of the following letter received at that post from a prospective applicant for enlistment as being of newsworthy interest:

Luzerne, Penna.
August 6, 1935.

Headquarters Hamilton Field,
Office of the Commanding Officer,
San Rafael, California.

Dear Sir:

Leaving New York tonight for Hamilton Field, San Rafael, Calif. Will arrive on or about August 13, 1935.

Thanking you for your courtesy for accepting me for enlistment at your station,

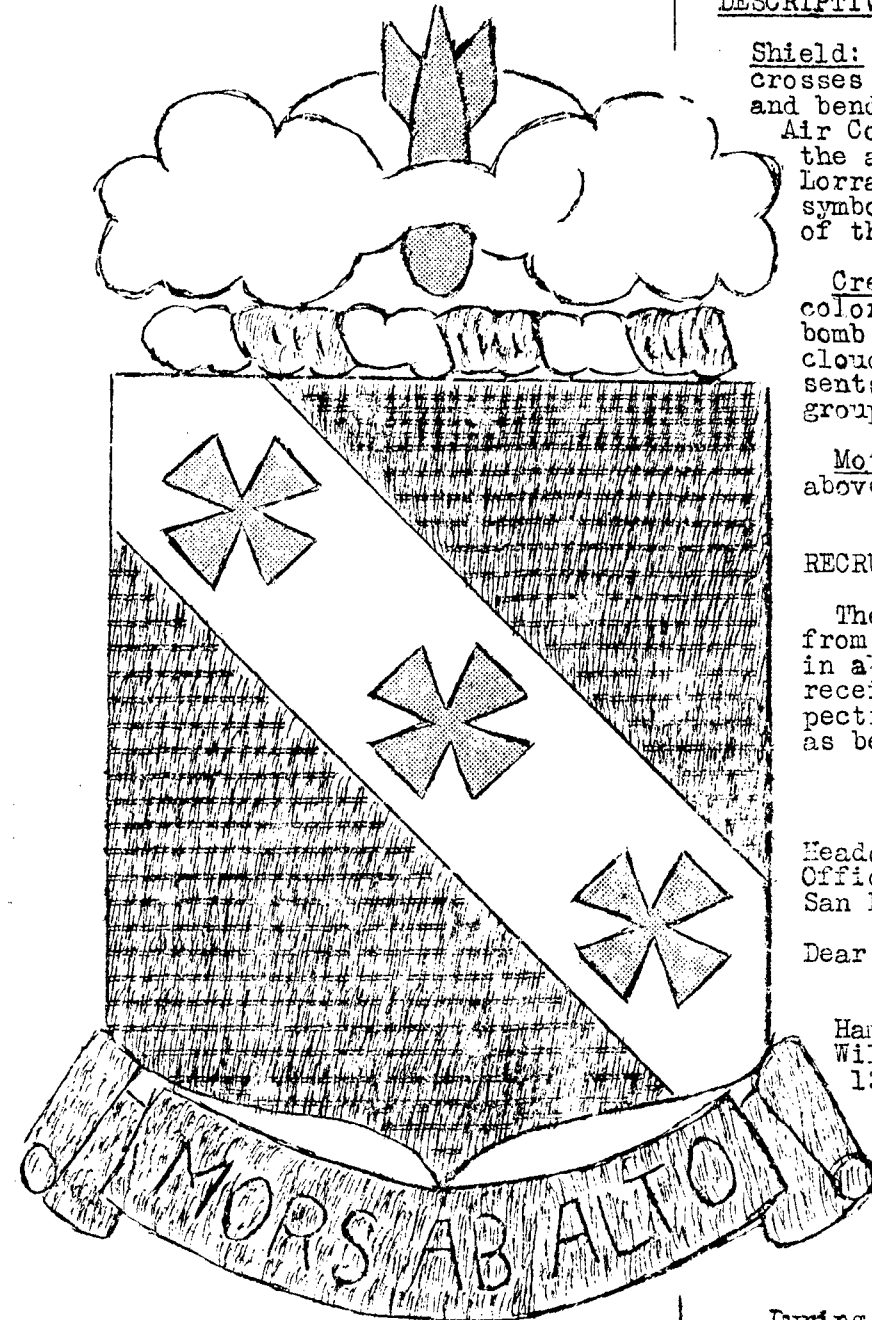
Sincerely yours,

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During the month of July, the Engineering Department of the San Antonio Air Depot overhauled 18 airplanes and 59 engines, and repaired 32 airplanes and 28 engines.

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ed and made active at Rockwell Field; March 15, 1932, it moved to March Field; December 5, 1934, it moved to Hamilton Field, California.

COMPOSITION:

7th Bombardment Group Headquarters.

LIGHTER THAN AIR ACTIVITIES AT FT. BRAGG

In a recent field exercise, the 2nd Balloon Squadron, Pope Field, Fort Bragg, N.C., far excelled the 24-hour requirement of the War Department in evacuating its home airdrome. At 10:00 a.m., July 15th, the Commanding Officer, Air Corps Troops, issued an order for the 2nd Balloon Squadron to proceed immediately to a location 20 miles distant on the Fort Bragg Reservation, prepared to conduct Artillery observation for a period of three days. At 1:15 p.m. the same date, or in just three hours and fifteen minutes, the truck train, balloon winches, and the balloon cleared the home airdrome. The truck train carried complete equipment and supplies for the three days in the field.

According to the final reports covering the Fiscal Year 1935, it was found that the Field Artillery at Fort Bragg was not making sufficient use of the Balloon Squadron. By the same plan whereby the Field Artillery supplies liaison officers to Infantry units, Air Corps officers on duty at Fort Bragg decided that it was the responsibility of the Air Corps to see that proper use was made of them by the Field Artillery. Therefore, at the recommendation of the Commanding Officer, Air Corps Troops, an Air Corps officer was appointed by Headquarters, Fort Bragg, as air liaison officer to the Field Artillery Brigade. Now, whenever a firing memorandum is issued by Headquarters, Fort Bragg, the air liaison officer interviews the regimental commanders concerned and urges them to employ either airplane or balloon observation on all firing. As a result of this system, during the month of July, 1935, the Second Balloon Squadron performed approximately three times as much artillery observation as it did during the entire Fiscal Year of 1935.

During the Fiscal Year 1935, the officers of Flight "C," 16th Observation Squadron, insofar as piloting is concerned, completed 93.5% of the requirements of the War Department Training Directive. Instrument and night flying were completed 100%. This was done despite the fact that during the greater part of the year Pope Field had only two airplanes and none regularly equipped for instrument flying. A hood was installed on one of the OI-G airplanes, and it served very well for this purpose. In addition to the amount of flying completed on the training program, the Flight performed all the cooperative missions required by Fort Bragg and maintained one airplane for tow target missions at Fort Barrancas, Florida, for 53 days. For the year, the four pilots on duty with the flight averaged over 255 hours each, pilot's time. This does not include

the many hours the officers flew as observers performing communications exercises and actual artillery observation.

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CADET McDUFF RECOMMENDED FOR THE D.F.C.

"Heroism does not go unnoticed in the Army Air Corps," remarks the News Letter Correspondent from March Field, Calif., and he then goes on to say that Flying Cadet Francis H. McDuff, the pilot who acted with such complete disregard of self on June 22nd near Banning, Calif., has been recommended by Brigadier-General Henry H. Arnold, commander of the First Wing of the GHQ Air Force, for the award of the Distinguished Flying Cross. Cadet McDuff earned this recommendation while piloting a Douglas Observation plane from March Field to Brooks Field, Texas, at the conclusion of Wing maneuvers held at Long Beach and Mines Field, Los Angeles. The recommendation reads:

"With Cadet McDuff, riding in the nose cockpit as observer, was Captain Richard I. Dugan, Air Corps, and in the rear gunner's cockpit was Tech. Sergeant John I. Giles. All three men were members of the 28th Observation Squadron, Brooks Field. Fifteen minutes after taking off while in the vicinity of Banning, Calif., the left engine began to miss badly and gasoline started pouring out of the right side of the engine over the hot exhaust stacks. With cool judgment the cadet started heading back to March Field.

The escaping gasoline became ignited, completely enveloping the left engine and wing in flames. Knowing the extreme difficulty his passengers would have in extricating themselves from the airplane due to peculiar design characteristics, Cadet McDuff, ignoring the opportunity to jump to safety and true to Air Corps traditions, held the airplane in a slow glide until both Capt. Dugan and Sgt. Giles had climbed out and jumped to safety."

By the time Cadet McDuff was able to jump, the plane was so low that he struck the ground in the first opening swing of the parachute but without injury. The airplane, then a mass of flames, crashed into a nearby mountain-side.

General Arnold stated that the circumstances under which Cadet McDuff distinguished himself in saving his flying companions furnish an outstanding example of heroism and loyalty and reflect great credit on himself and the military service.

The recommendation for the award of the Distinguished Flying Cross to Cadet McDuff was forwarded through Brigadier-General Frank M. Andrews, Commanding General of the GHQ Air Force, to the War Department.

SOUTHERN RESERVE OFFICERS IN CAMP

Twenty Reserve officers of the Fourth Corps Area learned much about the Air Corps by long hours of hard work during their fourteen days' Training Camp at the Municipal Airport, Atlanta, Ga., July 21st to August 3rd. The Reserves were directed by Captain John B. Patrick, Non-Divisional Air Corps Units Instructor, assisted by Lieut. Robert W. Stewart, to organize themselves into a provisional squadron with complete tactical and administrative responsibilities. The various squadron duties were proportioned among the trainees according to their individual abilities.

This plan was very effective. With only nine airplanes available, over 400 hours of tactical flying were accomplished. All pilots were soloed on service type airplanes. Pursuit, Observation, Attack and Bombardment missions were simulated in the two OI-E's and the six PT-3's. An O-25A, equipped for instrument flying, was used for instruction purposes. The mornings were devoted to flying and the afternoons to class work and squadron duties, with occasional lectures by instructors from the Air Corps Tactical School, Maxwell Field, Ala., which lectures aroused intense interest regarding the use of the Air Force for National Defense.

Most interesting was the General Courts Martial held one afternoon by the members of the camp to illustrate the functioning of military courts and the operation of military law. The court, following the precedent set by the members of the preceding camp, discharged the accused but fined the prosecution, Lieut. William Conway Allen, for criminal prosecution.

The officers attending the camp unanimously voted it the most interesting and profitable one they had ever attended. They were: Majors James A. Meissner, William L. Plummer, Francis F. Hughes, 1st Lieuts. Mitchell P. Borden, Bayard B. Borden, John H. Catchings, Edward C. Davis, Herbert F. DeBuys, Charlie S. Tidwell, William C. Allen, Theron B. Herndon, James S. Charles, Thomas N. Charles, Earnest H. Briscoe, Joseph H. McAnulty, James B. League, 2nd Lieuts. Joe E. Barton, John R. Kane, William T. Lovelace, Walter R. Hostettler, and Lieut.-Colonel R.H. McDonald, Medical Reserve, Flight Surgeon.

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The monthly Control Area Supply and Engineering Conference at the San Antonio Air Depot, Duncan Field, Texas, was held on August 6th, with an attendance of nine officers from Kelly, Randolph, Barksdale and Brooks Fields, and the officers of the San Antonio Air Depot.

NEW EXECUTIVE OFFICER AT MARCH FIELD

Lieut.-Colonel Hubert R. Harmon, Air Corps, an officer with a colorful and interesting career, recently reported for duty with the First Wing of the General Headquarters Air Force at March Field, Calif., and was appointed Executive Officer and Operations Officer of the First Wing. This position calls for the temporary rank of Lieut.-Colonel and Col. Harmon was advanced to this rank effective August 13, 1935.

Lieut.-Colonel Harmon served as Assistant Military Attache for Air at the American Embassy, London, England, for several years, and is an authority on European military aviation. He is a graduate of the U.S. Military Academy, and served a tour of duty there as an Instructor. Just recently he graduated from the Command and General Staff School at Fort Leavenworth, Kansas.

This is not the first time a Lieut.-Colonel Harmon has been stationed at March Field. Lieut.-Colonel Hubert Harmon's brother, Lieut.-Colonel Millard F. Harmon, was at one time Commandant of the Air Corps Primary Flying School at March Field. The latter is now stationed at Barksdale Field, La., and is in command of the 20th Pursuit Group. ✓

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NEW IDEAS ON LINK BLIND FLYING TRAINER

Sergeant Ward C. Davis of the 64th Service Squadron, March Field, Calif., has been detailed by the War Department to proceed to the Link Aviation Device Company at Binghamton, New York, to confer with officials of that concern.

Sergeant Ward's mission will include a great deal of practical work on the Link Blind Flying Trainer, manufactured by the Binghamton concern. The Veteran Air Corps noncommissioned officer, who is department chief in charge of the work at March Field, has developed many new ideas regarding the instrument which he is anxious to discuss with the manufacturers. He left San Francisco for Binghamton, via the Panama Canal, on August 3rd. He is one of the pioneers of March Field, having served at that post since it was reopened in 1927. Previously he had been a member of the 19th Pursuit Squadron at March Field in 1922.

The instrument flying Link type trainers were procured for the training of Air Corps personnel in the use of blind flying instruments. Reports on the operation of this device indicate that it tends to reduce the amount of training in the instrument flying airplane by approximately two hours.

Various Army Air Corps fields have been furnished with one or more of the Link Trainers, while others are due to receive same in the very near future.

V-6851, A.C.

SOUTHWESTERN AIRWAYS ASSUME
GREATER IMPORTANCE

The Southwestern Airways, with headquarters at Fort Sam Houston, Texas, was originally formed in 1928 from personnel of the various Air Corps organizations of the 8th Corps Area, who were placed on detached service. On March 13th of that year, Captain Thad V. Foster (then 1st Lieutenant) was assigned to duty as Control Officer, and he remained continuously on this assignment until June 15, 1935, when he was transferred to the Air Corps Tactical School at Maxwell Field, Ala., Captain Charles A. Pursley, Air Corps, succeeding him as Control Officer and as Commanding Officer of the 8th Corps Area Air Corps Detachment.

On June 1, 1932, the Air Corps Detachment, 8th Corps Area, was formed with an authorized table of organization of 61 enlisted men. At the time of the formation of the Air Corps Detachments in the other Corps Areas, the name of this organization was changed to the 8th Corps Area Air Corps Detachment.

With the removal of the Third Attack Group from Fort Crockett, Texas, the organization was increased to 64 enlisted men, and later, on July 1, 1935, to 79 enlisted men.

The Southwestern Airways operates, and the 8th Corps Area Air Corps Detachment furnishes personnel for, a total of 12 stations, and before the end of this year it is expected to assume control of Fly Field, Yuma, Arizona.

The Control Officer makes a monthly inspection of these stations, requiring a journey of approximately 3,500 miles by air, if all stations are visited, using approximately 30 flying hours per month.

With the development of the GHQ Air Force, the belief is expressed that the Southwestern Airways will be of vital importance in the moving of large flights. These various airways stations are located at approximately 200-mile intervals in the 8th Corps Area and, in addition, several stations mark and maintain a number of emergency landing fields.

The hope is expressed that within the near future the Southwestern Airways will be developed into a modern airways system, capable of servicing, housing, and clearing large numbers of planes without advance notice or arrangements.

It is the opinion that there is no other organization in the Air Corps or the Army where the duties of the personnel are so varied as those of this organization.

It is planned to establish an independent Air Corps High Frequency Radio Net and Homing Station at six of the Airways stations. This service, it is understood, will be similar to that of com-

mercial aviation companies, enabling the pilot to be in constant communication by voice or code with one of the Airways stations having this equipment.

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PARACHUTE JUMPING IN THE PHILIPPINES

During the past three months twelve men have made practice parachute jumps at Nichols Field, P.I., and there are about an equal number waiting favorable weather in which to jump.

A local club has been formed for the purpose of giving each man a certificate of accomplishment after each successful jump. This certificate is signed by the Commanding Officer and makes an ideal souvenir of the occasion.

A peculiar circumstance has arisen which makes these jumps notable. There seems to be some uncertainty of air currents in the vicinity of Nichols Field, and only two of the number who have jumped have succeeded in landing on the flying field. The majority have landed either in the adjoining rice fields or the thickets along the Paramague River. No casualties, however, have been reported other than minor scratches and bruises.

Officers and enlisted men who have made practice jumps during the past three months are enumerated below, as follows:

1st Lieuts. Carl A. Brandt and Hugh A. Parker, Air Corps.

Privates Vernon A. Cravens, John B. Smith, Allen R. McCabe and Charles B. Smith, 66th Service Squadron.

Private, 1st Class, Theodore H. Custer, 6th Photo Section, Air Corps.

Sergeant Charles M. Kinchloe, Corporals Joseph A. Toulouse, William J. Dougherty, James E. Duck and Private John E. Striplin, 28th Bombardment Squadron.

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MODIFICATION OF P-26A AIRPLANES

Beginning June 22nd, five P-26A airplanes per week have been ferried from Selfridge Field, Mt. Clemens, Mich., to the Boeing factory at Seattle, Wash., for installation of flaps. Pilots from Selfridge Field ferrying these airplanes have then flown P-26A airplanes to Barksdale Field, Shreveport, La., and then returned to Selfridge Field by transport. Since July 28th, all pilots ferrying P-26A's to the Boeing factory are returning them to Selfridge Field.

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GENERAL FOULDIS VISITS SELFRIDGE FIELD

Selfridge Field, Mich., was honored by a visit from Major-General B.D. Foulidis, Chief of the Air Corps, on July 30th. The General flew in from Bolling Field, made a brief inspection of the post activities, spent the night, and departed the next day.

V-6851, A.C.

LIEUT. GRAY PRESENTED FRANK LUKE TROPHY

With Lieut.-Colonel John H. Pirie in command, the planes of the 73rd Attack Squadron, March Field, Calif., took off early on the morning of August 8th for the American Legion convention at Winslow, Arizona. While the trip had been planned purely for air navigation purposes and for formation flying training, opportunity was afforded during the noon hour for the formal presentation of the Frank Luke Trophy to 2nd Lieut. Frederic C. Gray, Jr., of the Air Corps Reserve.

Brigadier-General Henry H. Arnold, commander of the First Wing, GHQ Air Force, had originally intended to make the flight to Winslow, but had been forced to forego his appearance in the Arizona city because of the fact that during the period of the American Legion Convention he was accompanying Brigadier-General Frank M. Andrews, Commanding General of the GHQ Air Force, on an inspection tour of the Pacific Northwest.

The Frank Luke Trophy was presented to Lieut. Gray during the noon hour following a formation flight and aerial maneuvers over the Arizona city. It was awarded for the best aerial pursuit gunnery performance of the year, Lieut. Gray's score being 1176 out of a possible 1750 points. Lieut. Gray is 24 years old and a native of Abilene, Texas, where he attended high school and the Abilene Christian College. Ten enlisted men made the trip in two air transports.

The day following the flight, the 73rd Squadron returned to March Field, pleased with the reception they had received at Winslow.

AERIAL PHOTOGRAPHY AT NIGHT

(Continued from Page 1)

carried on at night under cover of darkness. With this new improvement in night photography, enemy nocturnal movements will no longer be a subject of conjecture, for a close scrutiny of the photograph of the Exposition made by Lieut. Hobson and Sergeant Brees shows it stopped the action of automobiles going down the road as well as people walking along the streets, and sight-seeing at the Fair. These people are easily discernible to the naked eye.

FORMATION FLYING IN HAWAII

According to the News Letter Correspondent from Luke Field, T.H., the 18th Composite Wing, Air Corps, in the last few Aerial Reviews and Aloha Flights, has used the Clover Leaf formation in-

stead of the Javelin formation. He states that this type of formation seems to be better for the rough air over Honolulu and looks excellent from the ground.

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CHANGES IN PERSONNEL OF INSPECTION DIV.

Recent changes in the officer personnel of the Inspection Division, Office of the Chief of the Air Corps, are as follows:

Captain Lowell H. Smith, Chief, Inspection Division.

Captain E. V. Harbeck, Assistant Chief, Inspection Division.

Captain Oakley G. Kelly, Technical Supervisor, Fairfield Air Depot Control Area.

Captain Henry H. Reily, Technical Supervisor, Middletown Air Depot Control Area.

In addition to the above changes, one enlisted clerk has been authorized for each of the Technical Supervisors.

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PROMOTION OF AIR CORPS OFFICERS

Special Orders of the War Department, recently issued, announced the promotion of forty Air Corps officers, one to the grade of Major, one to Captain and the remaining 38 to First Lieutenant.

Captain Thomas S. Voss was promoted to Major, with rank from August 1, 1935, and 1st Lieut. James E. Parker to Captain with rank as of the same date.

Second Lieutenants promoted to First Lieutenant were Edward W. Anderson, rank from July 10, 1935; John C. Covington, rank from July 13, 1935; Winslow C. Morse, also to rank from July 13th, and the following with rank from August 1, 1935, viz: Casper P. West, William L. Kennedy, Josse Auton, John P. Ryan, Albert W. Shepherd, Robert S. Macrum, Charles L. Munroe, Jr., Hewelwyn O. Bran, William R. Morgan, Paul G. Meisenholder, John W. Egan, Emmon H. Van Luken, Robert O. Gork, William C. Mills, Herbert H. Tellman, John L. Gerhart, Harold L. Mace, Elder Patterson, Francis H. Griswold, Leon R. Brownfield, Robert W. Burns, Daniel W. Jenkins, William H. Prince, Clarence F. Hegy, James P. Newberry, Stoyte O. Ross, Joseph W. Baylor, William J. Clinch, Jr., James McK. Thompson, Gerald Hoyle, Arthur F. Merewetner, Jarred V. Crabb, Tom W. Scott, Lawrence C. Westley and John H. Davies.

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A NEW SEAPLANE DISTANCE RECORD

An Italian seaplane, the Cant Z.501, a four-seater reconnaissance and light bombing flying boat, set up a new world's record for seaplanes by flying on July 16-17 from Monfalcone, Italy, to Berbera in British Somaliland, a distance of 4,968 kilometers (3,080 miles). It looks as if the letter "t" in the model designation of this seaplane is decidedly superfluous.

B I O G R A P H I E S

COLONEL HENRY W. HARMS

Ever since he became affiliated with the Aviation Branch of the Army, Colonel Henry W. Harms' services have been, for the most part, closely associated with the technical part of it. During his career as an Air Corps officer, he has served on numerous technical boards and committees, among them being the Air Service Advisory Board, the Aeronautical Board, Ordnance Technical Committee, Division of Federal Relations of the National Research Council, Chemical Warfare Technical Committee, Joint Army and Navy Technical Board, etc. His services were constantly in demand on technical questions relating to the design and manufacture of airplanes and accessories.

Col. Harms was born at Wentworth, South Dakota, November 25, 1887. Until 1906 he attended grammar and high schools. After pursuing a course of instruction at the University of Minnesota for one year he received an appointment as cadet at the United States Military Academy. Upon graduation from West Point June 12, 1912, he was commissioned a 2nd Lieutenant and assigned to the 9th Cavalry. He served as a Cavalryman until the end of 1914, and was then detailed to the Aviation Section, Signal Corps, receiving his flying training at the Signal Corps Aviation School at San Diego, Calif. He qualified as a Junior Military Aviator on July 13, 1915, and was rated Military Aviator three years later.

Shortly following the completion of his flying training, he pursued a course in Aeronautical Engineering at the Massachusetts Institute of Technology at Cambridge, Mass. He subsequently served as a member of the 1st Aero Squadron while it was stationed at San Diego, Calif.; Fort Sill, Okla., and Brownsville, Texas. During the World War, Col. Harms served some 14 months overseas, of which five were in the Technical Department, Air Service, A.E.F., Paris, France; and nine as Officer in Charge of the Technical Division in the Office of the Aviation Officer, London, England.

Upon his return to the United States from overseas duty, he reported on February 21, 1919, to the Office of the Director of Air Service, Washington, D.C., and was assigned to the Technical Section. The following month he was transferred to the Air Service Engineering Division at McCook Field, Dayton, Ohio, for duty in the Airplane Branch. In April, 1920, he returned

to Washington, to take up his duties as Assistant Chief of the Supply Group, office of the Chief of Air Service. Assigned as Washington representative of the Air Service Engineering Division in October, 1921, he served in this capacity for two years, when he was transferred to Langley Field, Va., for duty as student at the Air Service Tactical School. Following his graduation in June, 1925, he remained at Langley Field on duty as Executive Officer of the post and later as Instructor at the Tactical School until August, 1926, when he returned to Washington to pursue the one year's course at the Army Industrial College. Upon the completion of this course in June, 1927, he was on duty for several weeks as Chief of the Information Division, Office of the Chief of the Air Corps, and was then assigned as Chief, Experimental Engineering Branch and Industrial War Plans Branch, Materiel Division, Liaison Section, Office of the Chief of the Air Corps.

In December, 1929, Col. Harms was transferred to the Philippines, and during his tour of duty in the Islands he served for the most part as Air Officer of the Philippine Department. He was also in command of Nichols Field and of the 4th Composite Group. Upon the termination of his service in the Philippines, he was assigned to the Primary Flying School at Randolph Field, Texas, where he served as Executive Officer and Assistant Commandant.

At present, he is Commandant of this so-called "West Point of the Air". By virtue of his occupancy of this important assignment, he holds the temporary rank of Colonel.

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LIEUT. COLONEL HARVEY B. S. BURWELL

An efficient and energetic officer, Lieut. Colonel Harvey B. S. Burwell, was commended on many occasions during his career as an Air Corps Officer, both by his superiors in his branch of the service, and by inspecting officers, for the superior and painstaking manner in which he carried out the many and varied duties assigned to him.

Born in Winsted, Conn., April 4, 1890, Lieut. Colonel Burwell, following his graduation from Norwich University, served as a 1st Lieutenant, 1st Cavalry, Vermont National Guard. He was appointed a 2nd Lieutenant, Regular Army, October 4, 1913, and was assigned to the 13th Cavalry. After four years as a Cavalryman, he applied for and was detailed to the Aviation Section, Signal Corps, in June, 1917, receiving his

flying training at the Signal Corps Aviation School at San Diego, Calif. He was promoted to 1st Lieutenant July 1, 1916; to Captain, May 15, 1917, and to Major, Air Service, July 1, 1920. During and after the War, he held the temporary rank of Lieutenant Colonel in the Air Service between August 20, 1918 and February 19, 1920.

Assigned to duty at Kelly Field, Texas, in July, 1917, Lieut. Colonel Burwell, at different periods, commanded the 34th, 43rd and 49th Aero Squadrons. While at this field he also performed such duties as Officer in Charge of the School for Flying Cadets, Officer in Charge of Cross-country Stage and Officer in Charge of Flying, being engaged on this latter duty from November 11, 1917, to February 28, 1918, and receiving high commendation for the excellent results achieved under his direction in turning out many efficient fliers with a minimum number of accidents.

In May, 1918, he was transferred to Ellington Field, Houston, Texas, and, after several weeks' instruction in aerial gunnery and bombing, he was assigned to Rockwell Field, Calif., as Officer in Charge of Aerial Gunnery. He remained at this post until the end of February, 1919, when he was assigned as Commanding Officer of Love Field, Dallas, Texas. While at Rockwell Field, his development of a wonderfully efficient unit of advanced pursuit aerial gunnery brought forth high commendation from the Director of Air Service.

Ordered to duty in the fall of 1920 with the Army of Occupation in Germany, Lieut. Colonel Burwell was in charge of the Flying Station and the Air Corps Detachment at Weissenhurn, Germany, until August, 1922, when he returned to the United States and was assigned to duty in the Training and War Plans Division, Office of the Chief of Air Service, Washington, D.C. In March, 1923, he was transferred to Kelly Field, where he performed vari-

ous duties, such as Wing Operations Officer, Information Officer, Wing Officer in Charge of Flying, Wing Engineering Officer, Wing Maneuvering Officer and Airways Control Officer. He was placed in command of the Third Attack Group on June 25, 1924, and developed this organization to a high state of efficiency.

Transferred from Kelly Field in August, 1925, Lieut. Colonel Burwell's duties for more than a year thereafter carried him to Rockwell Field, Washington, Mitchel Field, and the Air Corps Engineering Division at McCook Field, Dayton, Ohio, he being engaged on matters connected with supplies and equipment utilized by Attack aviation and with the inspection and maintenance of airplanes. It was through his pioneering work that the present visual inspection system of airplanes now utilized by the Air Corps was developed. After serving at McCook Field as Air Corps Inspector, from July 1, 1926, to February 23, 1927, he was assigned as Commanding Officer of Bolling Field, D.C. In February of the following year he returned to the West Coast and assumed the duty of Executive Officer of Crissy Field, Calif.

From September, 1928, to July, 1931, he was on duty as Assistant Professor of Military Science and Tactics at the University of California, Berkeley, Calif. In the fall of 1931, he was assigned as student at the Air Corps Tactical School at Langley Field, Va., and upon his graduation in June, 1932, served another year as a student officer at the Command and General Staff School at Fort Leavenworth, Kansas. After graduating from Fort Leavenworth, Lieut. Colonel Burwell assumed the duty of Air Officer, 7th Corps Area, Fort Omaha, Nebraska, where he served until his assignment on March 1, 1935, to his present duty as Assistant Chief of Staff, G-1, General Headquarters Air Force, Langley Field, Va., which position carries with it the temporary rank of Lieut. Colonel.

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PARACHUTE HAPPENINGS ACROSS THE SEA

The British aeronautical publication, **THE AEROPLANE**, records two recent exciting episodes in connection with practice parachute jumps. It goes on to say: "In Russia, where there is a national mania for parachute-jumping, Comrade Rikaloff jumped from a machine and pulled the rip-cord too early. His parachute became entangled in the tail of the airplane. He could not get himself free, so a mechanic, Comrade Evlampieff, crawled out to the tail and

dropped tools to Rikaloff, which he failed to catch. Comrade Evlampieff climbed back to the cockpit and emerged shortly afterwards with a piece of iron on the end of a wooden pole. With this crude weapon he worked for 25 minutes at the tangled silken lines. Finally Rikaloff dropped clear and was able to land safely with his emergency parachute.

An equally exciting accident occurred to Mr. Dennis Smith, a young man who had

(Continued on page 14)

CLASSES TO BE RESUMED AT AIR CORPS TECHNICAL SCHOOL

Classes are to be resumed at the Air Corps Technical School at Chamute Field, Rantoul, Ill., the first of which will get under way on September 3rd. Student officers have started to arrive from various stations over the United States, and enlisted students are soon to arrive. In addition, 250 unassigned men are being enlisted, this work having started in July, in which month 68 unassigned men were enlisted. It is contemplated that a similar number will be enlisted in August and so on each month until 250 have been enlisted. These men will be assigned to courses starting throughout the school year.

Classes are to start in all departments of the school, including the communications course, which was conducted at Fort Monmouth, N.J., the last school year. This course was offered at the Signal Corps School in New Jersey when reduced equipment and lack of room, following two disastrous fires, brought about the belief that the course could be offered better elsewhere. After the lapse of a year, this department of the School has been returned, adequate space having been arranged at Chamute Field and considerable new equipment obtained.

Funds were expended during the summer for the repair of the old buildings at this post and new equipment purchased, and it is believed that when classes are resumed in September the facilities will be better than for a long time.

In May The Adjutant General of the Army designated the classes to start at Chamute Field this fall and in 1936, some of which will not be concluded until 1937. The names of the courses, along with the starting and closing time, are as follows:

Maintenance Engineering - Armament, Regular Army Officers, September 3, 1935, to June 30, 1936.

Communications, Regular Army Officers, October 1, 1935, to June 30, 1936.

Photographic, Regular Army Officers, September 16, 1935, to June 30, 1936.

Maintenance Engineering, National Guard and Reserve Officers, April 1, 1936, to June 30, 1936.

Aircraft Armament, National Guard and Reserve Officers, September 3, 1935, to November 30, 1935.

Communications, National Guard and Reserve Officers, April 1, 1936, to June 30, 1936.

Airplane Mechanics, Regular Army Enlisted Specialists:

September 3, 1935 to May 15, 1936
 October 7, 1935 to June 19, 1936
 November 4, 1935 to July 17, 1936
 December 2, 1935 to October 16, 1936
 January 6, 1936 to November 13, 1936
 February 3, 1936 to December 11, 1936
 March 2, 1936 to January 16, 1937
 April 6, 1936 to February 20, 1937
 May 4, 1936 to March 28, 1937

Aircraft Armorers, Regular Army Enlisted Specialists:
 September 3, 1935 to February 21, 1936
 November 4, 1935 to April 24, 1936
 January 6, 1936 to June 19, 1936
 March 2, 1936 to October 16, 1936
 May 4, 1936 to December 18, 1936

Aircraft Machinists, Regular Army Enlisted Specialists:
 October 7, 1935 to March 27, 1936
 December 2, 1935 to May 22, 1936
 February 3, 1936 to July 17, 1936
 April 3, 1936 to November 20, 1936

Aircraft Welders-Sheet Metal Workers, Regular Army Enlisted Specialists:
 September 3, 1935 to February 21, 1936
 November 4, 1935 to April 24, 1936
 January 6, 1936 to June 19, 1936
 March 2, 1936 to October 16, 1936

Parachute Riggers, Regular Army Enlisted Specialists:
 September 3, 1935 to October 25, 1935
 November 4, 1935 to January 3, 1936
 January 6, 1936 to February 28, 1936
 March 2, 1936 to April 24, 1936
 May 4, 1936 to June 26, 1936

Air Corps Supply and Technical Clerks, Regular Army Enlisted Specialists:
 September 3, 1935 to January 24, 1936
 February 3, 1936 to June 19, 1936
Photographic, Regular Army Enlisted Specialists:

November 4, 1935 to July 17, 1936
 January 6, 1936 to November 13, 1936
 March 2, 1936 to January 9, 1937
 May 4, 1936 to March 28, 1937
 June 1, 1936 to April 4, 1937

Radio Mechanics and Operators, Regular Army Enlisted Specialists:
 September 3, 1935 to March 20, 1936
 October 7, 1935 to April 24, 1936
 December 2, 1935 to June 19, 1936
 January 6, 1936 to July 18, 1936
 February 3, 1936 to October 16, 1936
 March 2, 1936 to November 13, 1936
 April 6, 1936 to December 18, 1936
 May 4, 1936 to January 25, 1937
 June 1, 1936 to February 22, 1937

Airplane Instrument Inspection and Maintenance, Regular Army Enlisted Specialists:
 September 3, 1935 to October 25, 1935
 November 4, 1935 to January 3, 1936

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PURSUIT MANEUVERS AT FORT BENNING, GA.

The 35th Pursuit Squadron, Langley Field, Va., brought up to 18-ship strength by using 8 planes from the 36th Pursuit Squadron, left August 3rd for Fort Benning, Ga., to demonstrate Pursuit tactics to the West Point cadets. Landings were made at Pope Field, N.C., and Atlanta, Ga., for the purpose of refueling, and the Squadron arrived at Fort Benning in the afternoon.

On the following day the Squadron gave a 20-minute demonstration of string and vee maneuvers, followed by an attack on

a formation of A-8 Attack planes from Barksdale Field, La.

The 35th Pursuit Squadron returned to Langley Field the same day and since that time has been engaged in preparing for Field Exercises at Virginia Beach, Virginia.

Two days prior to the Pursuit demonstration, the West Point Cadets at Fort Benning witnessed a Bombing demonstration staged for their benefit, the 2nd Bombardment Group from Langley Field sending a composite Squadron to the site of the Infantry School. Each of the Bombardment Squadrons at Langley Field furnished one flight of three planes, six officers and enlisted men.

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AERIAL GUNNERY BY 4TH OBS. SQUADRON

The 4th Observation Squadron, Luke Field, T.H., spent the period from July 8th to 24th in the field training camp at Waimanalo. Front and rear gunnery missions were fired with unusual success. All of the officers, with one exception, qualified as "Expert" in both fixed and flexible guns. High score in both cases was made by Capt. Upthegrove, 951 - fixed gun and 1079 - flexible gun.

The Squadron average was: Pilots' Course - 700.04, Observers' Course - 945.07. Eight O-19's were taken to Bellows Field for use in gunnery. The period of duty at Waimanalo was enlivened by horse shoe tournaments, both singles and doubles, and daily baseball games. These activities and the good swimming facilities made the stay at the camp very enjoyable.

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PARACHUTE HAPPENINGS (Continued from Page 12)

already got himself into the limelight by jumping three times in an afternoon. On this occasion he was about to jump when the wind twisted his scarf round a strut. As a result he was almost strangled and became unconscious. His pilot, Mr. C.M. Glover, Chief Instructor of the Southend Flying Club (Eng.) stood up in the cockpit, caught Smith by the harness, cut the scarf with a knife, and held his body across the cockpit. Holding it there with his right hand, he brought the machine down safely with one hand and his knees.

Mr. Smith quickly recovered."

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CAMOUFLAGING OF AIRPLANES

The News Letter Correspondent from Wheeler Field, Hawaii, submitted a very interesting article on some valuable experience gained by the 18th Pursuit Group in the camouflaging of airplanes and ground installations during the

June maneuvers in the Hawaiian Department. The camouflage was used in connection with operations in the field and a good service test resulted. Squadrons were encouraged to exercise initiative and originality.

To conserve material during the preliminary studies, two 3-ft. model airplanes were constructed for experimental camouflage, painted with the Air Corps standard camouflage and later tried with many color combinations and arrangements. Following these experiments, the studies were transferred to full size airplanes.

The complete article will be mimeographed and distributed by the Information Division to the service.

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TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Lieut.-Colonel

Major Hubert R. Harmon, Executive and Operations Officer, 1st Wing, March Field.

To Major

Captain Russell C. MacDonald, C.O., 2nd Transport Squadron, Middletown Air Depot.
Captain John P. Richter, C.O., 3rd Transport Squadron, San Antonio Air Depot.
Captain Harold H. Carr, C.O., 4th Transport Squadron, Rockwell Field, Calif.

To Captain

1st Lieut. Francis M. Zeigler, Flight Commander, 1st Transport Squadron, Fairfield Air Depot.

1st Lieut. Samuel R. Harris, Jr., Flight Commander, 1st Transport Squadron, Wright Field, Ohio.

1st Lieut. Charles A. Bassett, Engineer Officer, 4th Transport Squadron, Rockwell Field, Calif.

1st Lieut. John T. Murtha, Jr., Supply Officer, 4th Transport Squadron, Rockwell Field, Calif.

1st Lieut. Reuben C. Hood, Jr., Adjutant 3rd Wing, Barksdale Field, La.

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The following-named officers, upon the expiration of their tour of duty in the Hawaiian Department, will proceed to the stations designated for duty:

Captain Murray C. Woodbury, 1st Lieut. Lauris Norstad to Selfridge Field, Mich.

1st Lieut. Russell H. Griffith to Chanute Field, Ill.

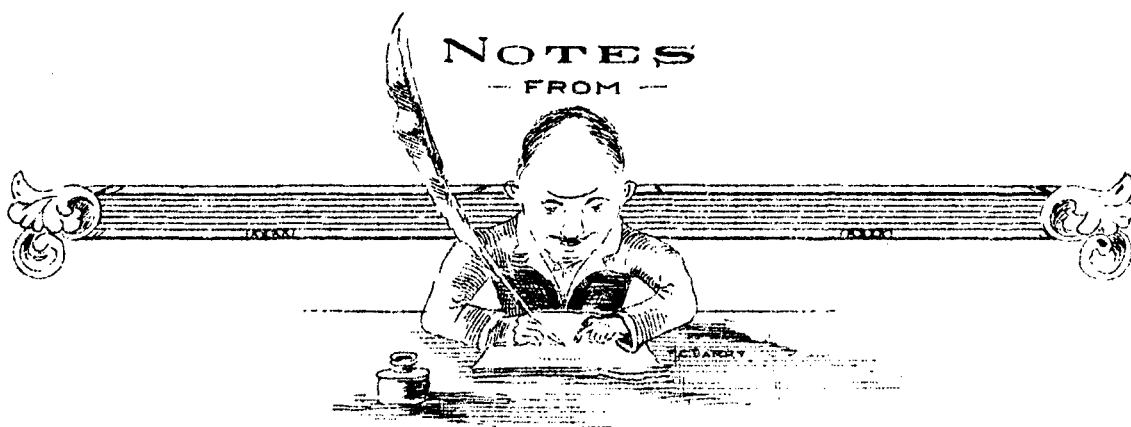
1st Lieuts. Louis A. Guenther, Robert Stunkard and Donald N. Yates to 12th Obs. Group, Brooks Field, Texas.

Lieut.-Colonel Edward L. Hoffman, Commanding Officer, Brooks Field, Texas, is under orders to proceed to Maxwell Field, Ala., for duty as student at the Air Corps Tactical School.

Orders assigning Captain Orvil A. Anderson, Kelly Field, to Maxwell Field, Ala., for duty as student at the Tactical School, have been revoked.

NOTES

— FROM —



AIR CORPS FIELDS

March Field, Riverside, Calif.

Things must be picking up for civilian aviation. The latest of the Army Air Corps Reserve pilots to drop the controls of an Army "ship" to pick up those of a commercial air liner is George C. Kruse, until lately a member of the Golden Bear outfit, the 73rd Attack Squadron. Lieut. Kruse and his young wife will be missed by the younger social set at the headquarters post of the First Wing.

Capt. A. J. Kerwin Malone, recently appointed 17th Attack Group Athletic Officer, is booming the new sport, nightball, for all it is worth. An intra-mural league was formed in the early part of the season with the "A" team of the Station Complement romping off with the championship. Another schedule was drawn for the remainder of the season to satisfy the revengeful spirit of the Attack and Service Squadrons.

A month or so ago, Capt. Malone realized the need of a post softball team for night play, so he organized one from the personnel of the squadron nines. This team, while not markedly successful, has made a fair showing and hopes for a greater percentage of victories have been raised.

Two officers from Barksdale Field, Captains Thurston H. Baxter and Manning E. Tillery, were stranded at March Field temporarily, after delivering airplanes from the Louisiana post to March Field, because of a lack of available air transportation to take them back home. They finally went home by official air transportation.

The weather may be hot in the Orange Belt, but that does not deter four Air Corps men from March Field from getting their full quota of recruits for Uncle Sam. The Recruiting quartet consists of 1st Lieut. Ernest H. Lawson, Sergeants Richard H. McLeroy, Charles D. Graw and Pvt. 1st Cl. Marcus H. Baldwin.

Chanute Field, the home of the Air Corps Technical School, is attracting its

share of March Field enlisted men these days. Men detailed to attend the Illinois institution of learning are Pvt. Elvin L. Eib, Airplane Mechanics; Pvt. Herman Feise, Radio Course; Pvt. 1st Cl. Frederick C. Stewart, Clerical Course, and Pvt. 1st Cl. Hugh A. Wennerholm, Photographic Course.

Another young soldier who will travel East to school is Pvt. Kenneth C. Stanley, who will attend the Meteorological Course at the Signal School at Fort Monmouth, New Jersey.

Five of the 40 enlisted pilots recently appointed second lieutenants in the Air Corps, Regular Army, were assigned to March Field, viz.: Lieuts. Harry Crutcher, Joseph C. Moore, Clair L. Wood, Carl Swyter and Jasper N. Bell. Lieut. Bell was attached to the 73rd Attack Squadron, and Lieut. Swyter was appointed Provost Marshall and Police and Prison Officer.

March Field's quartermaster detachment was increased in size to 39 men. 1st Lieut. Guy Hix, Air Corps, was placed in command of the Quartermaster troops of this detachment.

Hamilton Field, San Fafael, Calif.

Lieutenant Colonel Clarence L. Tinker, Air Corps, appeared before a promotion examining board at Station Hospital, Presidio of San Francisco, California, to determine his fitness for promotion.

The following named Air Corps officers appeared before a promotion examining board convened at this station to determine their fitness for promotion to the next higher grade: 1st Lieuts. Kenneth N. Walker, John G. Moore, James W. Spry, Edgar Koyes; 2nd Lieuts. Aubrey K. Dodson, Birrell Walsh, Marvin L. Harding, Millard Lewis, Edward W. Suarez.

Major W. B. Hough, Air Corps, in addition to his regular duties, was appointed Agent Finance Officer during temporary absence of 2nd Lieut. Robert E. Cron, Jr., Q.M.C., on leave of absence for a period of two months.

Captain F. L. Anderson, Jr., Air Corps, was appointed Officer in Charge of S E R A activities.

Major Guy Kirksey, Air Corps, was granted leave of absence for one month, effective August 20th.

San Antonio Air Depot, Duncan Field, Texas

Colonel and Mrs. John H. Howard departed August 7th on a two months' leave of absence in Honolulu. In Col. Howard's absence, Major Morris Derman is in temporary command of the Depot.

Captain Max F. Schneider, on leave of absence prior to transfer from the Office of the Chief of the Air Corps to Maxwell Field, Ala., was an informal visitor at this Depot on August 6th.

Captain J.P. Richter was promoted to the temporary rank of Major, as commander of the 3d Transport Squadron, this Depot, by War Department orders, effective Aug. 17.

Among recent visitors to this Depot, ferrying airplanes to or from their home stations, were Lieuts. T.A. Sims and H.H. Couch, with Mr. A.W. Ham as passenger, all of Wright Field, Ohio; Capt. V.J. Meloy and Lieut. J.L. Jackson, Fort Leavenworth, Kans.; Lieut. Col. Wm.O. Ryan and Majors R.B. Davidson, S.F. Landers and E.H. DeFord, with enlisted mechanics, Staff Sgt. A.J. Olszanowicz, Sgt. W.M. Atkinson, and Pvt. J.W. McInvale, all of Maxwell Field, Ala.; Lieuts. W.N. Allison and R.N. Read, Langley Field, Va.; Capt. Walter E. Todd, Selfridge Field, Mich., piloting a C-19, with Lieuts. C.H. Anderson and F.G. Jamison as passengers.

The following Reserve officers have been placed on active duty for training at this Depot:

Maj. Thomas H. Jarrell, Air-Res., San Antonio (Executive Assistant to the District Director, Southwest District of Texas, Federal Housing Administration), for 14 days beginning Aug. 11, this being his third tour here.

Maj. Ralph W. Stone, Air-Res., temporarily residing in San Antonio (Pilot, Pan-American Airways, Brownsville, Texas), for 10 days, effective Aug. 19 (his second tour at the Depot).

Capt. Caleb W. Waterman QM-Res., of Houston, Texas (Commerce Agent, Freight Traffic Department, Southern Pacific Lines), Aug. 18 to 21.

Lieut. J.H. Hicks and family of this Depot departed on a vacation of one month and 18 days to be spent on the Willits Ranch, Big Horn, Wyoming.

Mr. Sgt. C.P. Smith and Staff Sgt. T.K. Dorsett, pilots of the 3d Transport Squadron, this Depot, flew two transports to Barksdale Field, La., Aug. 10, where they were joined by pilots in two other transports from Wright Field, for the purpose of ferrying 51 enlisted mechanics to the 55th Pursuit Squadron at Langley Field, Va., for participation in the tactical exercises held there by the G.H.Q. Air Force. All

planes left Barksdale Field before daylight on the 11th and made it through to Langley Field the same day, except Sgt. Smith, who was detained over night at Atlanta, Ga., due to engine trouble. Sgts. Smith and Dorsett returned here the 16th.

Three additional enlisted men, Pvts. C.B. Hetherington, Wm.B. Harrison and H.L. Walker, all from the 68th Service Squadron, Kelly Field, were transferred to the new 3d Transport Squadron at the Depot during August, bringing its enlisted strength up to 15.

An interesting Golf Day was held on Sunday, August 4, by the Air Corps Golf Association, Duncan Field. Lieut. F.H. Smith playing Capt. E.H. Underhill, both of Kelly Field, won the Annual Association Championship on the 36th hole, thereby gaining the Annual Championship Cup awarded by the First State Bank of South San Antonio. In the Kickers Tournament, in which three clubs only were used, Lieut. E.S. Ligon, Kelly Field, won in the Men's Division, with Lieut. J.B. Cary, of that field as runner-up; in the Women's Division, Mrs. R.F.C. Vance, Kelly Field, was winner, with Mrs. J.R. Browne, Kelly Field, in second place, and Mrs. J.P. Richter, Duncan Field, third place. The Men's Driving Contest was won by Lieut. E.J. Timberlake, Kelly Field, with the best drive, 235 yards; Capt. W.H. Hardy, Kelly Field, was second, and Capt. L.D. Weddington, Randolph Field, third. Mrs. J.P. Richter, won the women's Putting Contest, with Mrs. J.M. Thompson, Normoyle Q.M. Depot, second, and Mrs. D.J. Ellinger, Duncan Field, third. Luncheon, served to about 60 guests, brought the occasion to an enjoyable close.

Selfridge Field, Mt. Clemens, Mich. Aug. 17th.

Having completed one year's duty as flying cadets with a tactical organization of the Air Corps at this station, Allan T. Bennett, George A. Eletcher, J. Stanley Holtner, Rodney E. Jones, and Joe G. Schneider were commissioned second lieutenants, Air Corps Reserve, as of July 1st, for station at this field.

Among the many visitors at this post during the past several weeks were: Lieut. Colonel Joseph T. McNarney, Air Corps, a staff member of Headquarters GHQ Air Force; Major Cedric W. Lewis, Signal Corps, stationed at Langley Field, Virginia; Captain Hoyt L. Prindle, Air Corps, a staff member of the 2nd Wing, GHQ Air Force; and Major Kanda of the Japanese Army.

On the night of Aug. 3d, Pvts. James P. Kennedy and Stephen Schertzer, members of the 94th Pursuit Squadron, Air Corps, and a civilian from Mount Clemens, Michigan, were seriously injured when the automobile in which they were riding, and which Pvt. Schertzer was driving, crashed into a truck without lights, about midnight. The three were taken to St. Joseph Hospital in Mount Clemens, and later Pvt. Kennedy was removed to the post hospital, where he died on the morning of

Aug. 4th, as a result of his injuries. Pvt. Schertzler is recovering.

1st Lieut. Edgar Ricon, U.S. Navy (M.C.), Miss Lydia Kaye, and Miss Opal A. Stevenson, nurses, arrived on the post August 5th for duty in connection with the Civilian Conservation Corps, and were attached to the post hospital for administrative purposes. Lieut. Ricon and Nurses Kaye and Stevenson had been stationed at Fort Wayne, Michigan.

The following officers departed on Aug. 6th in a "Condor" for Langley Field, Va., to participate in tactical maneuvers of the GHQ Air Force at Virginia Beach: Maj. James E. Parker; Capts. Frank J. Coleman, Daniel C. Doubleday; 1st Lieut. Charles H. Anderson; 2nd Lieuts. Charles D. Marhart, Lloyd H. Bidwell, John A. Way, Herman E. Hurst, Jesse Neal, Allan T. Bennett, George A. Hatcher, and Joe G. Schneider. A "Keystone" from Langley Field followed with their baggage.

1st Lieut. Maurice F. Daly and 2nd Lieut. Dyke F. Meyer, Air Corps, have been on duty with the 1st Pursuit Group for the purpose of maintaining their flying proficiency. Both officers departed the week end of Aug. 17th, for West Point, N.Y., their regular station, after having been on duty for two months with the Group.

The following Air Corps officers were recently welcomed as members of the post: 2d Lieuts. Edward S. Allee, Arnold T. Johnson, Harold L. Neely, Raymond P. Todd, Lester S. Harris; and 2d Lieuts. Air Reserve, John P. Spake, Donald E. Piehl, John S. Fauche and Edward G. Kiehle.

The Selfridge Field Baseball team, on August 18, 1935, closed a successful baseball season, with 13 victories and 7 defeats, having taken into camp such strong Michigan Class "A" teams as the Port Huron Grand Trunk, Redford A.C., Strohs Bear of Detroit, Bower Roller Bearing of Detroit, Grand Trunk of Detroit, and East Detroit Aces, by very close scores. The fliers dropped two games to the Flint, Mich., Trucking Company, last year's State champions, by the scores of 5-6 and 1-3. The Grand Trunk team of Port Huron defeated the fliers in the first game of the season 5-6 in twelve innings. The fliers later avenged this defeat by downing the Trunks 2-1 and 5-0. The Oklahoma AC of Detroit, a Class B team was defeated 11-2. In competition with service teams, the fliers defeated Fort Sheridan 16-1, and Jefferson Barracks, 4-1. They lost to Scott Field 4-6, and to Fort Hayes, Ohio, 3-6. Prior to the close of the season, the fliers won their last four games, defeating the Mt. Clemens League leaders - Rosso Sport Shop, 2-1; the Mack Cartage team, of Detroit, 3-2, and Scott Field, twice, by the same scores of 10-2.

France Field, Canal Zone, Aug. 16.

The 25th Bombardment Squadron returned to the gunnery range at Rio Hato, R. de P., in order to complete firing for record.

Major Willis R. Taylor, Operations Officer, France Field, is on leave in South America as a guest of American pilots flying the South American Air Lines.

The France Field Basket ball Squad, under the efficient coaching of Lieuts. Cousland and Epler, and the playing of the latter at center, won the Atlantic Sector championship in a three way play-off with Ft. Sherman and Ft. Randolph, and will play three games with the Pacific champions, Ft. Amador, for the Department championship.

Lt. John M. Price sailed on the U.S.A.T. Grant for detached service at the U.S. Military Academy.

Luke Field, T.H., Aug. 3.

Major Frank H. Pritchard assumed command of the Field during the temporary absence of Lt. Colonel Asa N. Duncan, who departed for two weeks' detached service at Kilauea Military Camp, Hawaii.

Lieut. D.E. Altman married - June 20th at 7:45 P.M. Wife was formerly Mildred Capener of Salt Lake City, Utah. Ceremony took place at Latter Day Saints Chapel in Honolulu.

Lieut. Chester Gilger left the 72d Bombardment Squadron to take over the duties of Group Communications Officer, relieving Capt. Harry G. Montgomery who will soon leave for his new station at Rockwell Field, Calif.

Lieut. William G. Beard was recently transferred to the 72d Bombardment Squadron from the 23d Bombardment Squadron to be Squadron Communications Officer vice Lieut. Emery S. Wetzel, who is now Squadron Engineering Officer.

At the present time the following officers are assigned or attached to the 72d Bombardment Squadron:- Major J.V. Hart; Captains Ford J. Lauer, Charles F. Born, Waldine W. Messmore, Reginald Heber, Lewis R. Parker, 1st Lieuts. Emery S. Wetzel, Chester P. Gilger, William G. Bowyer, Louis A. Guenther, John J. Hutchison, William G. Beard, 2nd Lieuts. Clifford H. Rees, James W. Gurr, William L. Travis, Travis M. Hetherington, Harry S. Bishop, Charles E. Pottenger, Cady R. Bullock and Henry R. Spicer, the two last named officers being in the Air Reserve.

Capt. Robert W. Warren is the proud father of a new recruit in the Air Corps, born July 5th.

Hawaiian Air Depot, Aug. 3.

Depot operations for the past month consisted of routine overhaul, repair work for the Fifth Composite Group, and repairs to airplane and engine equipment and accessories. The present production schedule of the Engineering Section is being successfully maintained.

The Douglas Amphibian OA-4A is expected to be back in service and ready for the Congressional Party due to arrive in this Department on Aug. 20th. The blue fuselage and the yellow surfaces cause that plane to stand out very much against the background of olive

drab in use on other planes in this Department.

There was an increase of several civilian employees during the past month including Clerks, Typists, Engine Mechanics and Aircraft Seamstresses.

Tactical Organizations are holding annual target practice at Bullows Field, Waimanalo. The Supply Department has been confronted with the problem of transporting gasoline from Luke Field to meet requirements for these exercises, because of the limited storage space at that station. This is now being successfully accomplished by the use of commercial gasoline tank trucks, as the standard servicing trucks are either out of commission, or being used at the home stations.

2nd Lieut. H.S. Bishop was assigned to the Supply Department as Assistant Supply Officer.

Among recent improvements in the Supply Department is a centralized filing unit which has been established between the office and the Shipping and Receiving Unit. This permits the consolidation of files, thereby eliminating the duplicate files of blue prints, technical orders, etc., normally carried in the Warehouse. The offices of the Warehouse Superintendent, Inspector and Shipping and Receiving Supervisor are adjacent to this Unit.

Nichols Field, P.I.

Indoor sporting interest in the Philippines centers around bowling and basketball. During the rainy season, considerable interest is taken in basketball, but the basketball enthusiasts at Nichols Field seem to be in the minority. Bowling, however, has brought fame to the Air Corps for the past three years, and there is some likelihood of repeating again this year. During the past three years Nichols Field has won nine championships including the championship of the Philippine Islands.

There are three major bowling leagues, namely, the Manila Bowling League, the Philippine Bowling Association and the Army Bowling League. Three times the Air Corps has captured top honors in all three leagues and now they are trying for the fourth consecutive year of championships.

In addition to the above named leagues, there is an inter-squadron league at Nichols Field. The 80th Service Squadron has already won the duck pin tournament and is now trying to repeat in the ten-pin league. The officers have a league of their own and also the Officers' Ladies. Even the children are given prizes for high scores.

The alleys are conveniently located in the Post Gymnasium, and are kept in excellent condition by the E. & R. There are four alleys and a good sized gallery for the spectators. Recently all four alleys were worked over, and they are now in perfect condition.

LIBRARY NOTES

Some of the more interesting Books and Documents recently added to Air Corps Library

C 20.3 U.S. 31. Organization, tactics, and reasons for the creation of the GHQ Air Forces, by Captain Edmund P. Gaines, 17p. 1935. Talk given at Charlotte, N.C.

D 52.19/19. Tailless gliders of the IXth all-union meet. Central aero-hydro-dynamic institute. Tr. B-8787. 19p. 1934. Tr. from Russian.

527 H 22. Glossary of navigation; a Vademecum for practical navigators, 3d edition, rev. and enlarged. 512p. March 1897.

629.1308 W89. Tales of the air, by R.S. Wortley. 160p. 1932. Stories of some interesting flights.

620.1341 F33. First over Everest; the Houston-Mount Everest expedition, 1933. 264p. 1934. True purpose of flight was for scientific purposes. Not a flight to break records. Results proved sensational as well as of scientific interest.

629.1341 R33. Log of aeroplane NR-893W; experiences, comments, impressions of a flight from England to China, 1931-32, by Z.S. Reynolds. 59p. 1932.

92 St8. Recollections of an airman, by L.A. Strange. 224p. n.d. Author's experiences during the World War.
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CHANGES IN STATION OF AIR CORPS OFFICERS

To Fairfield Air Depot, Ohio: Captain Russell H. Cooper from duty with 315th Obs. Sq. Hensley Field, Texas, and from further detail with Organized Reserves, 8th Corps Area.

To Hensley Field, Texas: Capt. Hansford W. Pennington for duty with Organized Reserves, 8th Corps Area. Relieved from temporary rank upon departure from Panama Canal Zone.

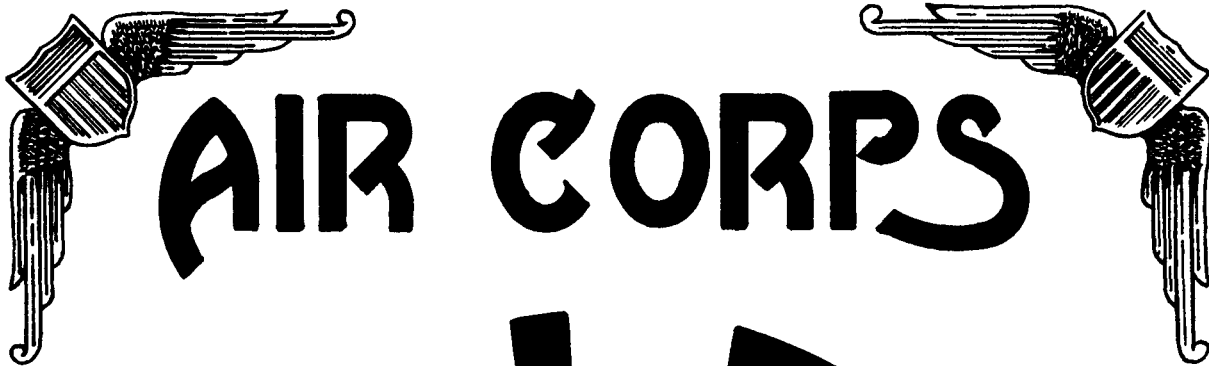
To Philippines: Captain Francis W. Zeigler from Fairfield Air Depot. Relieved from temporary rank December 31, 1935.

To Hot Springs, Ark.: Major Roderick N. Ott, Kelly Field, to Army & Navy General Hospital for observation and treatment.
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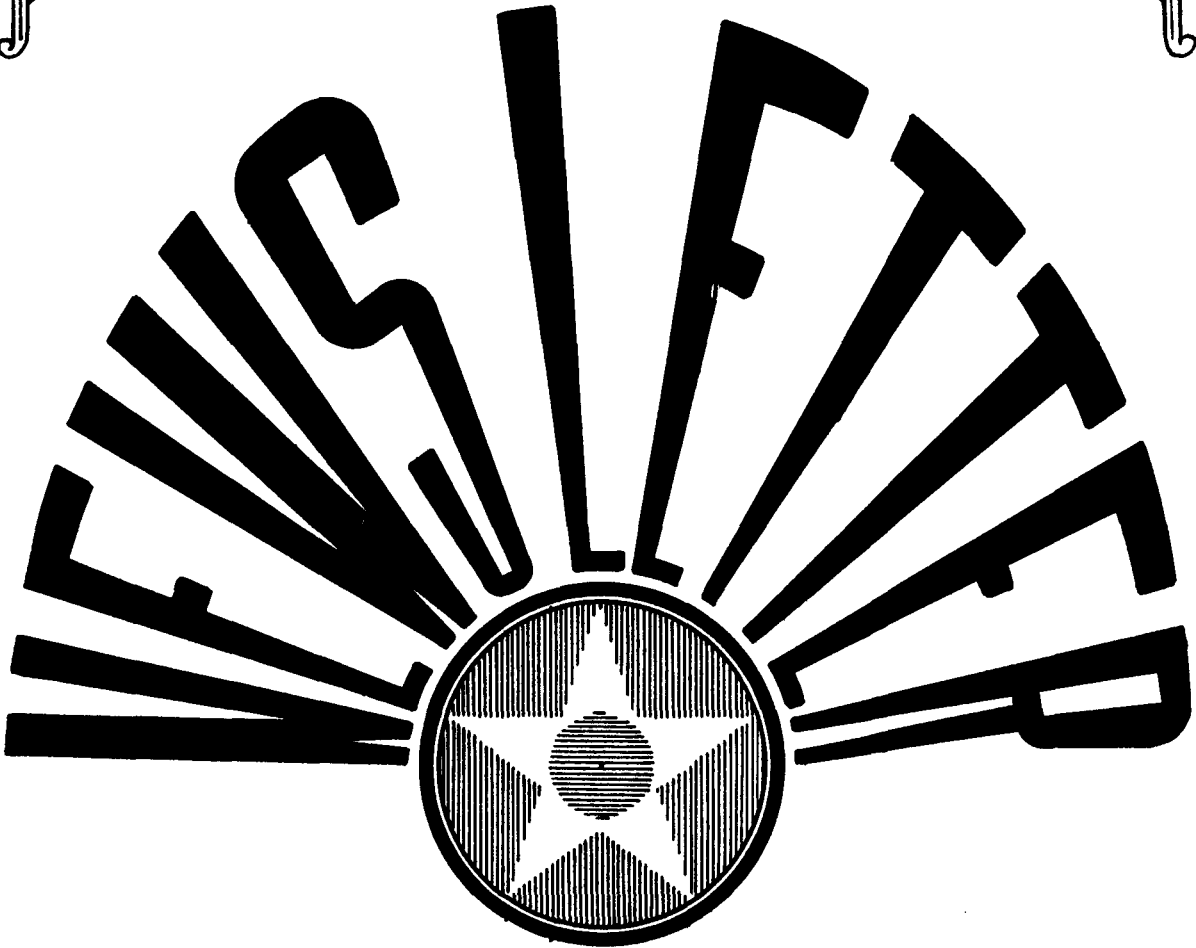
Orders assigning 1st Lieut. Carl B. McDaniel, Randolph Field, for duty as student at Air Corps Tactical School, Maxwell Field, revoked.

Second Lieuts. John B. Ackerman, Coast Artillery, and Edward J. Hale, Field Artillery, were transferred to the Air Corps August 9, 1935, the former to rank from June 10, 1932, and the latter from June 13, 1933.

Captain Edwin D. Rawlings, 12th Observation Group, Brooks Field, Texas, is under orders to proceed to Wright Field for duty. He is relieved from temporary rank, effective 9-6-35.



AIR CORPS



DUNNINGTON

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WAR DEPARTMENT WASHINGTON, D.C.
SEPTEMBER 15, 1935

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NO. 17



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Information Division
Air Corps

September 15, 1935

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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PRAISE FOR AIR CORPS TRAINING COURSE

Fourteen contact officers from the Hawaiian Division, representing Infantry, Artillery, Engineers and Tanks, completed on August 1st a 15-day course of training with the Air Corps. On the same day, another contingent of 14 officers, representing Infantry, Artillery, Tanks and Ordnance, began their course for a similar period of 15 days. The courses for these officers were carefully prepared to insure that their tour with the Air Corps at Wheeler Field, Schofield Barracks, T.H., would be both profitable and pleasant.

Practical demonstrations were the principal method of instruction, and as much actual flying was provided as the limited equipment available permitted. Every effort was made to present a true picture of our Air Corps today. At the end of the first course each contact officer made a report on the course, with comments and recommendations.

The success of this contact course may be judged from the various comments made by these officers as quoted below:

Lieut.-Colonel Thomas F. McNeill, 21st Infantry: "I was impressed with the care and the logical way in which the course was prepared. I do not see how the course could be much improved from

contact officer's standpoint. I have acquired a better perspective of the relative importance of the Air Corps, some appreciation of the magnitude of the problems that confront it, better understanding of its powers and limitations, an increased respect and sympathy for the officers who are engaged in working out these problems, and last a personally agreeable extension of my acquaintance among the officers of that branch."

Captain Frank N. Mallory, 27th Infantry: "Excellent course. Every Infantry officer should take this course."

Captain Deravan Yeuell, 19th Infantry: "The most illuminating and instructive inter-branch course I have seen, made noteworthy by the unfailing courtesy and keen interest of the instructors. Scope - excellent."

Captain J.J. Canella, 27th Infantry: "Superior. Have received more instructions and knowledge than any course taken. Well planned and so prepared to give one a general all around knowledge of the work done at Wheeler Field and Air Corps in general. Personally, the course was what I wanted, and I was interested in all phases."

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BROTHERS GALORE IN AIR CORPS ORGANIZATIONS

An item in a recent issue of "The Military Service News," of San Antonio, Texas, is to the effect that with one pair of twins, who are so identical that even their parents have to look twice to determine definitely which is which, and three more sets of brothers, the Station Complement at Brooks Field, Texas, believes that it holds the Air Corps title for brothers in the Army.

While it is possible that Brooks Field may hold this particular record

at the present time, it cannot lay claim to the all-time record which, so far as known, appears to belong to Luke Field, Hawaii. Back in 1929, in April, the News Letter called attention to the fact that a survey of the personnel records of Luke Field disclosed eight pairs of brothers serving thereat, three pairs with the 65th Service Squadron, and five pairs divided among the remaining organizations stationed at this field.

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1ST PURSUIT GROUP IN AIR RACES AT CLEVELAND

Having been authorized by the War Department to participate in the National Air Races at Cleveland, Ohio, the First Pursuit Group, Selfridge Field, Mt. Clemens, Mich., dispatched a Demonstration Flight of P-26A Pursuit airplanes to the Sixth City on the morning of August 30th.

Led by Lieut.-Colonel Ralph Royce, Commanding Officer of the First Pursuit Group, in a P-26A plane, 21 officers and 18 enlisted men proceeded to the scene of the annual American aviation classic. The pilots making the journey in the fast little P-26A's were, in addition to Lieut.-Col. Royce, Major George V-6857, A.C.

P. Tourtellot, Major Harlan T. McCormick, Captains Rudolph Fink, Morley F. Slaght, John M. Sterling, Hanlon H. Van Auken, Ernest K. Warburton, Earle E. Partridge, Norman R. Burnett, Alfred A. Kessler, Jr., Robert C. Oliver, Lee Q. Wasser, Dixon M. Allison, 1st Lieuts. William J. Bell, David W. Hutchison, and Paul W. Blanchard.

In a C-4A Transport, piloted by 1st Lieut. Ralph Read, with Captain Yantis H. Taylor as co-pilot, and which made two trips to Cleveland, the following personnel were carried: Major Irwin B. March, Medical Corps, Flight Surgeon; Captain Daniel C. Doubleday, Communications Officer and Contact Officer for Public Address System; 1st Lieut. Jarred V. Crabb, spare pilot in Demonstration Flight; Staff Sergeant Taylor C. Carr, 1st Pursuit Group Headquarters, Operations and Finance Clerk, Crew Chief of C-4A; Technical Sergeant William B. Townsend, Staff Sergeants Albert Rangel, Lionel C. Edwardes, Corporal Earl L. Kick, Crew Chiefs, and Private George H. Rainbolt, Radio Mechanic, all of the 94th Pursuit Squadron; Staff Sergeant John P. Milbourne, Crew Chief, 17th Pursuit Squadron; Staff Sergeants Ford M. Swiney, Oliver D. Edmonds, Earl S. Blesh, Sergeant Floyd M. White, Private 1st Cl. Gerald F. Hefling and Private James A. Pelling, Crew Chiefs, all of the 27th Pursuit Squadron.

Enlisted men from Selfridge Field traveling to the Cleveland Races in their own conveyances were Sergeant James D. Burrus, 1st Pursuit Group Hqrs. Crew Chief; Technical Sergeant Stanley K. Gibbins, Line Chief, Staff Sergeants Harry E. Reimenschnider, Doak Geren, and Sergeant William R. Wright, Crew Chiefs, all of the 17th Pursuit Squadron.

All personnel participating in this demonstration flight returned to Selfridge Field on the evening of September 2nd.

Touching on the flying demonstration staged by military flyers at the Air Races, Mr. C.B. Allen, Staff Correspondent of the N.Y. HERALD-TRIBUNE, stated:

"Plenty of noise and spectacular air pageantry was supplied by a group of eighteen Boeing fighters and twelve Curtiss Hell-Divers from the Marine Corps base at Quantico, Va., and a dozen Army Boeing P-26 pursuit planes from Selfridge Field, Mount Clemens, Mich., the former group commanded by Major Roy Geiger and the latter by Lieutenant Colonel Ralph Royce.

The Marine show was hailed as a brilliant triumph for this service, while the Selfridge group's performance later in the afternoon was acclaimed just as great if not a greater success. The faster and more modern low-wing mono-

plane fighters of the Army men proved capable of even more spectacular dives, zooms and serpentine twists than the sturdy biplane fighters of the Marines.

Particularly breath-taking, judging by the crowd's gasping reaction, was the 'Bursting Bomb' formation staged by the Army airmen in which three planes dive in formation from high altitude directly toward the stands, then pull up abruptly in a three-ship Immelman turn, the outside men pulling away from the leader in an aerial mushroom that gives the effect of an explosion. * * *

The Army's 'Three Men on a Flying Trapeze,' Major C.L. Chennault and Lieutenants J.H. Williamson and W.C. McDonald, from Maxwell Field, Ala., displayed their familiar aerial wares of team stunting, doing as a unit virtually all of the loops, spins, rolls and Immelmans attempted individually by other acrobatic stars."

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RETIREMENT OF TWO AIR CORPS NON-COMS.

There was an unique formation at Kelly Field, Texas, on August 31st, when two enlisted men were retired on the same date, Technical Sergeant George W. Palmer, of the 39th Observation Squadron, and Staff Sergeant Harry Kamoski of the Air Corps Advanced Flying School Detachment.

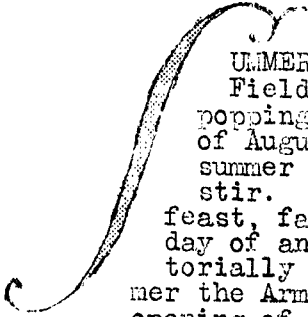
Technical Sergeant Palmer entered the service July 21, 1906, and was assigned to Troop "M," 13th Cavalry, in which branch he served until July 26, 1909. He served with the Infantry from July 27, 1909, to July 26, 1912, and from August 7, 1912, to July 31, 1919. He was a second lieutenant of Infantry from July 9, 1918, to July 31, 1919. He reenlisted in the Quartermaster Corps September 13, 1919, and served with that branch until September 12, 1923, and again with the Infantry from September 13, 1923, to January 5, 1927. On the following day he reenlisted in the Air Corps and served with that branch until his retirement. Technical Sergeant Palmer has been a non-commissioned officer in three branches of the service, and has held the grade of Technical Sergeant since March 28, 1933.

Staff Sergeant Kamoski's service dates from July 27, 1903, when he enlisted in the Cavalry, in which branch he served until February 12, 1914. Reenlisting on February 21, 1914, he served in the Quartermaster Corps until February 3, 1923, holding the grade of Sergeant, 1st Class, QMC, during the World War. He served continuously in the Air Corps since March 6, 1923, and has been a noncommissioned officer since March 6, 1926.

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With the completion of the boundary lights, Post Field, Fort Sill, Okla., is now prepared to welcome night flights. A rotating beacon, which can be seen fifty miles, operates from dark to dawn to mark the location, and the flood lights facilitate landings.

THE BOMBERS ARRIVE
By Marguerite Jacobs Heron
Materiel Division Correspondent



SUMMER routine at Wright Field was climaxed by the popping up on the calendar of August 22nd. In the usual summer this day causes no stir. It is neither holiday, feast, fast day nor the birthday of anyone so far as we editorially are aware. This summer the Army marked it for the opening of competitive bids covering new Bombardment airplanes and the closing day upon which the subject airplanes entered in the competition could arrive at Wright Field.

Now airplane competitions of types other than Bombers for purposes of making a purchase come and go, causing no great ripple in the routine of government procedure, no panting inquiries from a press-inspired public. But Bombers seem to be different. Bombers can be named - without sanction of christening, of course - "Death Angels," "Flying Demons" and "Aerial Destroyers," and though when tested down to unadorned Army B-6's, or B-9's, or B-10's they are completely dethrilled, the hint of a new one under construction sets the same old palpitations astir.

"Mystery" Bomber was the name bestowed in this most recent instance, and circular proposals had not been long in circulation when rumors began to appear in the press of its construction on the West Coast in the plant of the Boeing Company. Hints as to its behemoth size, its amazing range, and capacity began to seep forth in the good old traditional manner. Finally, as construction progressed, the manufacturers, despairing of keeping details concerning the new plane confidential, requested a War Department release, in an effort to gain control and have facts rather than rumors appear in the press. This release was made.

In the meantime, however, a Bomber constructed by the Douglas Company for entry in the same competition had been flown to Wright Field by Carl Cover, Douglas representative, and was, generally speaking, parked for weeks on the flying line, and flown repeatedly by Mr. Cover for demonstration purposes, without, for some unexplainable reason, arousing public curiosity at all. The Materiel Division, in accordance with policies governing speculation and experimental airplanes, made no publicity releases on any of these entering airplanes, but it thoroughly enjoyed the presence of the big new all-metal ship in its midst, as well as the very beautiful flying demonstrations which in Mr. Cover's skillful hands it had the opportunity of witnessing from time to

time. Just how the Douglas plane escaped the "mystery" category, we don't know.

As the closing day of the competition approached, rumor concerned itself once more with a "mystery" Bomber, manufactured this time in the East by the Glenn L. Martin Company. As in the case of the Boeing manufacturers, the Martin Company also requested a War Department release to control rumor and substitute fact for guess work, and such a release was issued on August 12th. As the closing day was near, it seemed probable that the Martin, Douglas and Boeing planes would be the sole entries, though the contest had been open to all manufacturers.

In the meantime, Materiel Division officials had a busy time explaining to an interested world that the competition would not be decided on speed races of the Bombers entered; that there would be no competing flight tests which the public could be invited to witness; that there would be no public exhibition of the airplanes, which were being brought to the field solely for the very serious business of test and appraisal, with purchase for cold government cash in view.

As the time approached for the arrival of the Western and Eastern "mystery" planes, a greater sympathy for public curiosity was felt throughout the Field, where the interest not only of flying and engineering but of clerical personnel became evident. After all, in spite of the necessarily peripatetic habits of its military personnel - who once they have served at the Division almost always forever after "belong" - the Division in its aeronautic enthusiasms is a rather close-knit family of many years' standing. Literally hundreds on the field had seen the lumbering three-story Barling lift itself in flight, and would never forget the sight. That first flight had occurred on an August 22nd in 1923. The new four-motored Boeing promised to be the largest ship designed for the Army since that time. It was said to be powered with four engines producing 2800 h.p. The Barling had mounted six motors producing 2400 h.p., and though they knew any comparison between the two planes would be merely for the purpose of pointing out tremendous progress, the "promised bigness" held its own appeal.

On August 20th, about fifteen minutes before expected, 3:47 p.m., to be exact, there was an even purr high above the Field, and by the count of four whirling propellers and a silver gleam, all knew that the new Boeing had arrived to ac-

count for itself. Circling the Field deliberately several times, the great plane came lower and finally glided smoothly in to a landing. It had made the flight of 2100 miles from Seattle to Dayton in 9 hours and 5 minutes, which meant an average well over 200 miles per hour, and its pilot, Leslie Tower, climbed from the cockpit serene, unruffled, and with no sign of having spent the day at the controls.

In flight with the whole sky as background, it would have taken a much smaller plane flying near to have brought out the realization of the Boeing's size; even brought to rest on the ground, so clean and "flowing" are the lines that one still might be fooled as to its actual bigness. As with the Douglas, the "silvery" finish of the metal contributes to the smoothness of appearance.

Late in the afternoon of August 21st, the Eastern "mystery" was flown from the plant of the Glenn L. Martin Company by Pilot William Ebel. No speed could be estimated for the flight, since storms had been circled en route, greatly slowing up the time. In appearance the new Martin generally suggests a larger B-10 which, considering the fact that the latter plane is the Army's latest standard and one of the world's most successful Bombardment airplanes, is in no sense a derogatory statement. For the new plane, however, the Martin engineers claim many new and advanced features.

Despite press announcements that the Bombers would not be on special exhibition, and that only the usual tours of visitors through the Field would be made each day, hundreds of people poured in, and dozens of inquiring telephone calls were received. One call came from

a local brokerage house, whose New York office had inquired via their private wire as to when the "big plane" was to fly. There was no doubt as to a wide public interest.

Nor to our unofficial eye were the three planes undeserving of it. Mid-wing metal monoplanes, with retractable landing gears and motors streamlined into the wing, they represent the foremost in modern engineering and aerodynamic thought.

Inspection, test, and appraisal of these planes will take some time. In fact, the Bombardment Board, consisting of Air Corps officers who will study all the data collected through Air Corps inspection and test, as well as fly the planes before submitting their recommendations for purchase to the Chief of the Air Corps, is not scheduled to meet until late in September.

The Air Corps has no official knowledge to date of any performance figures. Specification requirements, however, demand a high speed of from 200 to 250 miles per hour at 10,000 feet; an operating speed from 170 to 220 miles per hour at the same altitude; an endurance at operating speed of from six to ten hours, and a service ceiling of from 20,000 to 25,000 feet. In view of the fact that each of the manufacturers expects his entry to surpass specification requirements, besides contributing special engineering features valuable for Bombardment tactics, the competition may well be expected to advance the present very high status of Air Corps Bombardment development. Such results, at any rate, are devoutly hoped for by the Government.

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GENERAL ANDREWS GIVEN THREE AIR RECORDS

Brigadier-General Frank M. Andrews, Air Corps, commanding the GHQ Air Force, Langley Field, Va., received official credit for three new world seaplane records as the outcome of his flight on August 24th from his headquarters to Floyd Bennett Field, N.Y., to Bolling Field, D.C., and back to Langley Field. On this trip he covered the course in 3 hours, 45 minutes and 13 seconds.

The announcement by the National Aeronautic Association credits General Andrews with a new speed record for 1,000 kilometers, or 621 miles, with a pay load of 1,000 kilograms (2,200 lbs.) He automatically established records at the same time for the same speed and distance without load and with load of 500 kilograms. The General failed in an attempt to establish three additional records for 2,000 kilometers, but told officials of the National Aeronautic Association that conditions for the flight were not the best, and he feels he will be able to establish the

three 2,000-kilometer records and to better the new 1,000-kilometer marks by 10 to 15 miles per hour with more favorable conditions. He has not made definite plans for another attempt.

The three new records were established in a Martin B-12W Bombardment airplane with pontoon flotation gear in the place of the normal landing wheels. Two 1,100-lb. bombs were carried as the pay load, and the take-off was made with 2,700 lbs. of fuel.

The three former records which were eclipsed by General Andrews were established by Colonel Lindbergh in a Sikorsky Clipper ship last year. The speed then recorded was at 157.8 miles per hour. On this flight Colonel Lindbergh was assisted by Boris Sergievsky and Edwin Musick. The Sikorsky S-42 is now being used by Pan American Airways in the pioneering of trans-Pacific air transport service.

The flight by General Andrews was made at an altitude of 10,000 to 11,000 feet.

V-6857, A.C.

USE OF MASTS IN AIRSHIP OPERATIONS IN THE FIELD

By the Langley Field Correspondent

Airship operating bases with their huge hangars and elaborate installations have given the casual observer the impression that nonrigid airship operations should always be conducted within range of these bases. It is quite certain that the airship base cannot be omitted from the scheme of operations in general. Under war conditions, however, it may be assumed that airship docking facilities will be used principally for the erection or overhaul of ships and repairs to the structures requiring overhead tackle, extension ladders, and other facilities not ordinarily available in the field.

The 19th Airship Squadron at Langley Field, Va., has been active in perfecting field equipment for securing airships of the TC-13 type to stub masts in the field. A table of organization is being prepared providing for two "mast sections" and a "base section." This three-section unit of 170 enlisted men, it is said, can dispatch its two mast sections into the field at strategic points and operate its airship for approximately 500 aircraft flying hours before returning to its base for engine changes and envelope inspections. The provisional table provides a flight crew of three pilots and six enlisted men for each section. In the initial flight from the operating base to the site of the first mast, the airship is manned by the base section flight crew. Thereafter the crews are rotated in such manner that there is always a fresh crew standing by for relief.

The 19th Airship Squadron designed and built a mast which was first tested last January at Miami, Florida. It has subsequently been erected at Fort Bragg, N.C., and at Virginia Beach, Va. While at Virginia Beach the Unit Mobilization Plan for one mast section of the Squadron was service tested. This afforded excellent training in mobilization,

movement and bivouacking in the field. It is interesting to note that one hour after the movement order was issued on the morning of August 6th, the equipment and personnel were loaded and under way. Upon arrival at destination, each unit of the section proceeded with their respective phases of developing the site and in two and one-half hours were ready to receive the airship.

The mast developed is a tubular shaft guyed by six cables secured to "dead men" buried at a depth of six feet. The upright column is in two sections which, when dismantled, may be carried in a transport or bombing airplane. Another recent development consists of the tail-drag used to apply a variable load to the tail of ship, permitting of the ship being moored statically light with the car free to rotate about the mast in shifting winds. As rotation about the mast precludes the use of the standard engine mechanics stand for engine maintenance, a platform was constructed for attachment to the engine outrigger. This article is very essential part of the section's field equipment.

During the period of the maneuver the ship was moored to the portable mast for a total of fifty-two hours, and no difficulty was experienced in handling it, although strong winds and bad weather prevailed on August 7th. On another occasion while moored, the TC-13 airship withstood the thrusts of squall winds preceding a thunderstorm. The peak of the gusts was indicated at 45 m.p.h. on the ship's airspeed meter. In one broadside the tail drag, carrying a load of 1400 pounds, was lifted 18 inches from the ground. Increasing the weight of the tail drag to 1800 pounds has, it is thought, corrected this condition. The storm referred to is believed to represent the normally severe summer weather expected to be encountered in this geographical location.

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31ST BOMBARDMENT SQUADRON IN MANEUVERS AT MEDFORD, OREGON

Extensive maneuvers, with emphasis placed on Bombardment Aviation, were held at Medford, Oregon, during the period August 19th to 24th. Listed as a Squadron Tactical Exercise for the 31st Bombardment Squadron, the training objective was the successful conduct of long-range bombing operations at a distance from a given base.

Responsibility for the actual flying missions was charged to Major H.D. Smith, Air Corps, with Major D.M. Myers, Air Corps, in charge of the ground forces. Major Robert C. Murphy, Medical Corps, was Camp Surgeon. Camp was established at the Medford Airport, being inspected

toward the close of the maneuvers by Lieut.-Colonel C.L. Tinker, Commanding Officer, 7th Bombardment Group, Hamilton Field, Calif.

Whole-hearted cooperation was received from the Medford Chamber of Commerce, local citizens' committees, and the general public. The officers of the command were feted at a dinner at the Hotel Medford, while both commissioned and enlisted personnel were entertained at the wrestling matches held in the Medford Armory.

The incomparable scenic beauty of the terrain wherein Medford is situated, enhanced by such natural advantages:

as beautiful streams, jewel-like lakes, extensive wooded areas, and rugged, majestic mountain ranges, offering as they do all the numerous delights available in a huntsman's or fisherman's paradise, delighted the nimrod and enthusiastic hunters of the finny tribe among the soldiers during their leisure periods.

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AERIAL GUNNERY, ALIBIS, AND CELEBRATION OF ORGANIZATION DAY

The 50th Observation Squadron, stationed at Luke Field, T.H., reports that the completion of the annual aerial gunnery season at Bellows Field left many in doubt as to the hour, the day, the month and the year of our Lord, but most of the expatriates detailed to the summer encampment to aid in the completion of aerial gunnery on ground targets and the training of ground machine gun crews had little doubt as to the base of their operations. While the tropical sun climbed from the depths of the vast Pacific and daubed the eastern horizon with a thousand tints and shades, the drone of the little "Wasp" could be heard far overhead, its pilot patiently awaiting the light of a new day to spot that elusive little "bullseye" and record once again in the famous book of alibis another page in the history of the Squadron. On the ground, pasters in hand, the range crews awaited the signal of the pilot that the mission had been completed before rejuvenating maybe a badly shot up target or one that was hardly molested. But alas, after three weeks, with everyone sunburned and seasoned as only field soldiers are, they returned to their semi-country estate on the Island of Ford, and now conform to the regular routine duty call.

Organization Day, as celebrated by the 50th Squadron at Bellows Field on August 3rd, was highly successful, stimulated by the usual tales of various experiences. Sergeant Stine Hydok won the tissue paper drinking cup with his tale of an outfit he once belonged to. Said Sergeant Hydok: "That outfit was so tough that every man slept at attention." A good second to this story was the yarn spun by Staff Sergeant A.A. Wildman, telling how he was instrumental in designing the Clipper Ship. Staff Sergeant Kolb sang several songs, ably accompanied by Corp. Jim Pendleton, who performed on the comb and tissue paper, an instrument he mastered while a lad.

Owing to the limited number of buildings at Bellows Field, no place has been found for those whose modest scores seem to call for an explanation. Captain W.C. Sams, Operations Officer of the 50th Squadron, found a solution to this problem by tacking an "alibi" box near the Operations Office, thus eliminating the verbal groans and substituting a more silent form of weeping. Pilots and observers were not required to sign these documents, thus removing any suspicion of personal grievances and at the same time acting as a safety valve for those whose grief found little solace in locating a sympathetic listener.

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COMMENDATION FOR SERGEANT HURLEY D. JONES

The Tail-less Arrowplane, piloted by Mr. John H. Geisse, arrived on August 3rd at the U.S. Army Airdrome, Lordsburg, New Mexico, enroute to Washington, D.C. In attempting to take off, the plane hit a small ditch, washing out the landing gear. Air Corps personnel at the airdrome immediately rushed to the scene to render whatever aid was possible and, with the cooperation of the personnel at Lordsburg, Mr. Geisse was able to obtain the services of a welder for the repair of the plane, after which he continued on his journey.

The Chief of the Air Corps received the following letter from Mr. Geisse, who is Chief of the Aeronautics Development Section, Bureau of Air Commerce, Department of Commerce, which was forwarded to Sergeant Jones, through channels, and a copy filed with his record: "My dear Sir:

While enroute to Washington from Los Angeles last week, I had occasion to call upon the Army Air Corps at Lordsburg, New Mexico, for assistance

in the repair of a damaged landing gear on my plane. The treatment which I received there was most commendable, and I particularly wish to call your attention to the splendid cooperation shown by the officer in charge, Sgt. Hurley D. Jones. The Air Corps is to be congratulated upon having such a capable man in its service."

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94TH PURSUIT SQUADRON CELEBRATES BIRTHDAY

The 94th Pursuit Squadron, Air Corps, stationed at Selfridge Field, Mt. Clemens, Mich., celebrated Organization Day by attending a baseball game at Navin Field, Detroit, between the New York "Yankees" and the Detroit "Tigers" on August 19th. Although the very popular "Tigers" were defeated by a score of 7-6, the game was very exciting and enjoyed by all those who were able to attend. The Squadron then returned to Mt. Clemens and had a dinner at the Medea Hotel.

The 94th, commanded by Major Edwin J. House, A.C., was organized Aug. 20, 1917.

V-6857, A.C.

BIOGRAPHIES

LIEUT.-COLONEL JOSEPH T. McNARNEY

Lieut.-Colonel Joseph T. McNarney, Air Corps, Assistant Chief of Staff, G-4, GHQ Air Force, Langley Field, Va., was born at Emporium, Pa., August 28, 1895. He graduated from the U.S. Military Academy, June 12, 1915, was commissioned a second lieutenant and assigned to the 21st Infantry, with which organization he served until July 30, 1916. He received his promotion to first lieutenant on July 1, 1916.

His application to undergo flying training being approved, he reported to the Signal Corps Aviation School at San Diego, Calif., on July 31, 1916. Completing his flying training and receiving the rating of Junior Military Aviator on April 15, 1917, he remained at this school as an instructor in Meteorology and Radio Telegraphy until May 16, 1917, when he was assigned to duty with the 1st Aero Squadron at Columbus, New Mexico.

In August, 1917, Col. McNarney was ordered to duty overseas, and during his 21 months' service with the A.E.F. in France, he held various responsible positions at the front. From September 1, 1917, to January 10, 1918, he was on duty with the 1st Aero Squadron at Etampes, Avord and Amanty, France, and Assistant Director of the 1st Corps Aeronautical School. He was then on duty with Headquarters Air Service, GHQ, to February 1, 1918; Director of the 2nd Corps Aeronautical School to April 8th; on duty with Headquarters, Zone of Advance, to May 7th; Flight Commander with the 1st Aero Squadron, Toul Sector, to July 1st; on duty on the staff of the 4th Corps Observation Group to July 16th; Commanding Officer, Observation Group, 1st Corps, during the Chateau Thierry Offensive, to August 1st; Chief of Air Service, 3rd Corps, during the Chateau Thierry Offensive, to August 8th; on the staff of the Chief of Air Service, 1st Army, to August 17th; commanding Observation Group, 4th Corps, during the St. Mihiel Offensive, Toul Sector, to September 24th; commanding Observation Group, 5th Corps, during the Meuse-Argonne Offensive, to October 9th; Corps Air Service Commander, 6th Corps, in Toul Sector, to February 18, 1919; commanding Army Observation Group, Second Army, to April 19th; and from that date until June 6, 1919, he was on duty at General Headquarters, Paris, assisting in writing a manual on Observation.

During the course of his flying activities in France, Col. McNarney piloted DH's, Spads, Nieuports and Salmsons.

Shortly following his return to the United States, he was assigned to command Godman Field, Fort Knox, Ky., and

he remained on this duty until October 18, 1919, when he was placed in command of the flying school at Gerstner Field, Lake Charles, La. On November 9, 1920, he was transferred to Langley Field, Va., where he was stationed for the next five years as instructor at the Field Officers' School, the designation of which was later changed to the Tactical School. During the school year 1920-21, he was a student as well as instructor, and he received his graduation certificate in June, 1921. In the fall of 1925, he was assigned as student at the Command and General Staff School at Fort Leavenworth, Kansas, from which he emerged in June of the following year as an honor graduate.

Following a tour of duty of three years as a member of the War Department General Staff in the Air Section, Military Intelligence Division, Col. McNarney was a student at the Army War College and, upon his graduation, was assigned August 7, 1930, as commandant of the Primary Flying School at March Field, Riverside, Calif. Upon the transfer of this school to Randolph Field, Texas, he remained at March Field on duty for the most part as Commanding Officer of the 7th Bombardment Group. At various times he also served as Executive Officer and as Commanding Officer of the 1st Bombardment Wing.

Col. McNarney's next assignment was that of Instructor at the Army War College in August, 1933, and he remained on this duty until March, 1935, when he took over his present duties with the GHQ Air Force.

During and subsequent to the World War, he held the temporary rank of Major from July 30, 1918, to Sept. 16, 1918, and that of Lieut.-Colonel from May 22, 1919, to February 21, 1920. He was transferred to the Air Service with the regular rank of Major on July 1, 1920.

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MAJOR SHEPLER W. FITZ GERALD

Major Shepler W. FitzGerald, Air Corps, who is now serving a tour of duty as a member of the War Department General Staff, is one of the early Army flyers, affiliating himself with aviation in September, 1914, when, as a second lieutenant of the Coast Artillery Corps, he was detailed to the Aviation Section, Signal Corps, and assigned to the Signal Corps Aviation School at San Diego, Calif., for flying training.

Born at Burden, Kansas, in 1884, on November 11th, a date which has since become famous, Armistice Day has a double significance for Major Fitz Gerald. Following his graduation from George Washington University, Washington, D.C., as an LL. B., he was affiliated as an

attorney with the Cutler-Hammer Mfg. Co., of Milwaukee, Wis., during the years 1908-1909. Passing the examination for a commission in the Regular Army, he was appointed a second lieutenant, Coast Artillery Corps, December 20, 1911.

Upon the completion of his flying training at San Diego, he was, on June 2, 1915, rated a Junior Military Aviator. Three years later he was rated Military Aviator. He assisted in the organization of the 1st Aero Squadron at San Diego, and in July, 1915, was transferred to Fort Sill, Okla. In November of that year, he was transferred to the 2nd Aero Squadron and ordered to duty in the Philippines. After a brief period of duty in the Islands, he returned to the United States and, due to his experience in piloting hydro-aeroplanes, was detailed to the John Hays Hammond Laboratory on work connected with the experimental testing of pontoon equipment.

Shortly following America's entry into the War, Major Fitz Gerald was on duty for a brief period at the Signal Corps Aviation School at Mineola, L.I., New York. In July, 1917, he was ordered to Toronto, Canada, where he commanded a detachment of American flying students undergoing instruction at the Royal Flying School. In September, 1917, he was assigned to the command of the flying school at Mt. Clemens, Mich., but remained on this duty only until the following November, when he was ordered overseas.

During the course of his service with the A.E.F. in France, he was successively in command of the 2nd Corps Aeronautical School, Chatillone-Sur-Seine (the Advanced Observation School) and the Second Aviation Instruction School at Tours (the Air Service Observation Training Center in France). Later he was Air Service Commander of the First Army, where he had supervision over the observation as well as other Air Service missions. He received high commendation from the Chief of Air Service, A.E.F., for the exceptional performance of his duties as Commanding Officer of the Second Aviation Instruction Center.

Upon his return from overseas duty, Major Fitz Gerald, on May 26, 1919, was assigned to duty in the Supply Group, Office of the Director of Air Service, Washington, D.C. He also served as a member of the Joint Army and Navy Board on Aeronautics. In September of that year, he was assigned as Assistant to the Executive, Office of the Director of Air Service.

In July, 1920, he was transferred to Rockwell Field, San Diego, Calif., as Commanding Officer of the Aviation Supply and Repair Depot. Two years later, in October, 1922, he was assigned to duty at Kelly Field, Texas, where he served as Executive Officer and Direc-

tor of Attack Training. He remained at Kelly Field continuously until February, 1926, except for several months' temporary duty in 1924 as Commanding Officer of the Rockwell Depot. He then returned to Washington where, after completing the course at the Army Industrial College, he was, in July, 1926, placed on duty as Chief of the Procurement Section, Supply Division, and as Contracting Officer. In December, 1926, he was assigned to the Training and Operations Division, Office of the Chief of the Air Corps, and on July 15th of the following year was placed in command of the Air Corps Primary Flying School at Brooks Field, San Antonio, Texas.

Detailed as a student at the Air Corps Tactical School at Langley Field, Va., in the fall of 1930, Major Fitz Gerald graduated from this School in June of the following year, and was then assigned as a student at the Army War College. His graduation from the latter institution in June, 1932, was followed by his transfer to a familiar stamping ground, the Rockwell Air Depot, where he remained in command until November, 1934. He was then assigned to his present duty as a member of the War Department General Staff.

During and subsequent to the World War, Major Fitz Gerald held the temporary rank of Lieut.-Colonel from September 12, 1918, to March 29, 1920, and he was transferred to the Air Corps with the rank of Major on July 1, 1920.

One viewing the Mackay Trophy will note Major Fitz Gerald's name engraved thereon. He and the late Captain Townsend F. Dodd were awarded this Trophy in 1914 for the most meritorious Army flight in that year. With Captain Dodd piloting a Burgess Tractor plane and Major (then Lieutenant) Fitz Gerald as observer, a reconnaissance flight was made on December 23, 1914, from Los Angeles, Calif., via Santa Ana, Capistrano and Oceanside, to Delmar, Calif., and return to North Island, San Diego. The take-off from Los Angeles was made at 9:44 a.m., and the landing at North Island at 1:01 p.m.

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VULNERABILITY OF CONVOYS TO AIR ATTACK

In connection with the concentration of some 37,000 troops in the big war games at Pine Camp, N.Y., during August, newspaper reports quote Major-General Lucius R. Holbrook, commander of the second corps, as pointing out, in summing up the lessons learned from the maneuvers, that while the peacetime concentration worked out smoothly, the great truck convoys that moved the troops to the "war zone" would have made excellent air targets, and as suggesting that it might be better for the army to adopt the "rendezvous method" of moving single trucks by different roads by day and night "that to move them in large vulnerable convoys."

AUTOMATIC AIR NAVIGATION ACCOMPLISHED

Flights on August 29th at Wright Field, Dayton, Ohio, by personnel of the Equipment Branch of the Materiel Division, resulted in the successful completion of automatic radio navigation.

A Martin Bomber, equipped with a Sperry Automatic Pilot and the standard radio compass developed by the Air Corps, has been flown with additional apparatus which combines the two above devices. It is only necessary to tune in a radio station at the destination of the flight, close a few valves, and the airplane will, without aid of the human pilot, fly to the destination selected.

The radio stations used in these tests were WLW at Cincinnati, and the Dayton stations WSMK and WHIO. When the Martin Bomber reached one radio station under automatic navigation, the other radio station was tuned in and the big Bomber slowly turned and headed for its new destination without any aid from the pilot.

The development, which is being carried out at Wright Field, under the cooperative guidance of the Equipment Branch and the Aircraft Radio Laboratory, will provide for greater safety during flight under adverse weather conditions, as well as insure accurate automatic navigation over long distances.

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AIRCORPS MOTOR CONVOY RECORD CHALLENGED

Captain G.B. Devore, Infantry, D.O.L., stationed at the University of California, Berkeley, Calif., takes exception to the statement which appeared in the News Letter of August 15th in connection with the maneuvers of the 15th Observation Squadron, Scott Field, in cooperation with the 61st Coast Artillery (Anti-aircraft). In the article on the above maneuvers, the Scott Field Correspondent, pointing to the fact that the Squadron Motor Convoy on the return trip from Muskegon, Mich., to Scott Field, marched a distance of 473 miles in 16 hours and averaged 29½ miles an hour, expressed his belief that a record was set on this march.

Captain Devore, in a letter to the Scott Field Correspondent, stated:

"Your belief as to the establishment of a new record for a motor march by the army is in error despite the splendid record you did make.

In May of this year the undersigned commanded a provisional rifle company of the Second Division which made a motor march from Fort Sam Houston, Texas, to El Paso, Texas, and return.

Elapsed time for the march each way was 19 hours. Distance covered each way was 587 miles. Personnel - 115 officers and men. Incidentally at no

time did this convoy exceed 35 miles per hour. Halts were made at the end of each 75 mile run."

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MAJOR MURPHY TRANSFERRED TO FT. STEVENS

Major Robert C. Murphy, Flight Surgeon, on duty with the Air Corps at Hamilton Field, San Rafael, Calif., will sever connections with the Marin Post in mid-September, when he will comply with War Department orders directing his transfer to Fort Stevens, Oregon, colorful Army post, listed as the Harbor Defenses of the Columbia.

Says the News Letter Correspondent: "It is with a sincere feeling of deepest regret that the many friends of Major and Mrs. Murphy, of both civil and military society, contemplate the departure of this well-liked couple for their new assignment. He has had frequent occasion to address patriotic organizations, women's clubs, civic clubs and fraternal orders, displaying a comprehensive knowledge of a wide range of topics, but, as might be expected of one who has followed the flag in many foreign lands, his pet theme has usually been patriotism and love of country. For it is when you are far from home, in foreign climes, midst strange languages and customs that one appreciates the beauty of the old Red, White and Blue.

So, Major, it is Au Revoir and not Good-bye, for we have a feeling that somewhere, sometime, we shall again meet and renew old friendships."

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CHANGES IN NONCOMMISSIONED PERSONNEL

The following changes in noncommissioned officers have recently occurred:

Master Sergeant Thomas E. Richards died at Mitchel Field, N.Y., on June 13, 1935.

Master Sergeant Alfred Bernhardt was placed on the retired list at Criss Field, Calif., August 31, 1935.

The following Technical Sergeants, Air Corps, have been retired at the stations indicated:

Carl O. Miller	Mitchel Field, N.Y.
John T. Dee	Mitchel Field, N.Y.
James L. Coulbourn	Bolling Field, D.C.
Chester McPheter	Hamilton " Calif.
Charles Schmitz	Mitchel Field, N.Y.
George W. Palmer	Kelly Field, Texas.
Promoted to Master Sergeant were Tech. Sergeants Ananias Nikulaine, Panama Canal Dept., and Fletcher H. Cox, Langley Field.	
Promoted to Tech. Sergeant were Staff Sergeants Edward J. McIntire, Leland Post, John Lukowski, Kelly Field; George Burton, Victor Vicsik, Panama Canal Dept.; Carl L. Johnson, Harley J. Fogleman, March Field; Lufe Teverbaugh, Langley Field; Mark Reynolds, Scott Field; Michael E. Connolly, Hawaiian Dept.; Basil Zaphiro, Mitchel Field.	

JOBS IN COMMERCIAL AVIATION PICKING UP

An item just sent in by the Selfridge Field Correspondent, listing the names of nine Reserve officers and one Flying Cadet who were permitted to curtail their active duty tours in order to enable them to accept positions in civil life, would seem to lead to one or the other of two suppositions, perhaps both; i. e., that graduates of the Army Air Corps Training Center are very much in demand by air transport companies and that commercial aviation is well on the road to recovery and to much better things. The News Letter Correspondent adds that this list does not include those officers who have obtained employment upon the termination of their active duty tours.

Second Lieuts. Louis R. Black and Phares McFerren were relieved from active duty on May 2nd; Cecil M. Hefner, May 8th; Joe S. Irvine, May 24th; John B. Adams, May 28th; John O. Stewart, June 25th; Walter N. Pharr, June 30th; Edwin A. Warren, July 20th, Lloyd H. Bidwell, August 27th; and Flying Cadet Ansel S. Williams, July 28th.

Lieut. Black accepted employment with the Transcontinental Western Air Transport, Inc., Kansas City, Mo.; Lieut. McFerren with the Transcontinental Air Transport, Inc., Kansas City, Mo.; Lieuts. Hefner and Bidwell with the American Airlines, Inc., the former at Fort Worth, Texas, and the latter at St. Louis, Mo.; Lieut. Pharr with the same company at Chicago, Ill.; Lieut. Irvine with the Pennsylvania Airlines, Inc., Pittsburgh, Pa.; Lieuts. Adams and Stewart with the United Airlines, Inc., Chicago, Ill.; Lieut. Warren with the Transcontinental & Western Airways, Inc., Kansas City, Mo., and Flying Cadet Williams with the Law Department of the Southern Pacific Co., New York City.

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RUNWAYS BEING BUILT AT LUKE FIELD

The men of the 72nd Bombardment Squadron recently completed the first of Luke Field's runways, on which they had been working for three weeks, only to leave for their annual encampment at Bellows Field before having a chance to use it. To the 23rd Squadron went the honor of "breaking it in." The next day, the 23rd began the construction of the second runway, under the supervision of Lieut. Crickette.

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JOE PENNER SHOULD READ THIS

The Sixth Pursuit Squadron at Wheeler Field, T.H., can boast of one of the most unusual birdmen in the Air Corps in Crew Chief, Corporal C.C. Simpson.

Not content with keeping his P-12 in splendid condition, Corporal Simpson, with the aid of his son, operates a duck farm near Waialua. At the present time he has over one thousand ducks - enough to supply one to every pilot in the Air Corps. The revenue from the sale of ducks has been a material aid in the education of Private W.L. Simpson, Corporal Simpson's son, also in the 6th Pursuit Squadron, who is at present a student in the West Point Preparatory School at Schofield Barracks.

Corporal Simpson reports that not a single one of his ducks have ever made a water landing with the undercarriage down. It is to be hoped that the day will not be far distant when Corporal Simpson will take orders from his son and like it.

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CHIEF OF CHAPLAINS VISITS SELFRIDGE FIELD

Colonel Alva J. Brasted, Chief of Chaplains, who has just completed a three months' tour of inspection of all Army posts, stations, camps, and CCC camps in the northwest, southwest and on the Pacific coast, arrived at Selfridge Field, Mich., on the morning of August 22nd, and was met at the main gate by Lieut.-Colonel Ralph Royce, the post commander, who escorted him to the 17th Squadron hangar, where Colonel Brasted addressed the entire command on the increasing need for character building as a foundation of military morale in the Army.

Following the address, a luncheon was given in his honor at the Officers' Club. After the luncheon, Colonel Brasted held conferences with a number of National Guard and CCC chaplains from all over the State who had been invited to meet the Chief Chaplain as guests of Chaplain Peter J. Quim, of Selfridge Field. After the conferences, the Colonel departed for Detroit, Mich.

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CADETS EXAMINED FOR RESERVE COMMISSIONS

A Board of Officers, headed by Lieut.-Colonel Clarence L. Tinker, Air Corps; and including Major Fabian L. Pratt, Medical Corps; Captain James W. Spry and 1st Lieut. Marvin L. Harding, Air Corps, was appointed August 23rd at Hamilton Field, Calif., to conduct the examinations of Flying Cadets, Air Corps, for appointment as second lieutenants in the Air Reserve.

The fortunate cadets so honored are Norman L. Callish, Claremont, Calif.; Radcliffe C. Clausen, Los Angeles, Calif.; Roderick O. Cote, Manchester, N.H.; Charles E. Fisher, Asheville, B.C.; Fred C. Johnson, Salt Lake City, Utah; Arthur M. Keppler, Houston, Texas; Herbert E. Kneriem, Modesto, Calif., and Herbert R. Volin, Pittsfield, Mass.

ALBROOK FIELD PERSONNEL ENGAGE IN AERIAL GUNNERY PRACTICE

The target practice season is in full swing for all the troops stationed at Albrook Field, Panama Canal Zone - the 16th Pursuit Group and the 44th Observation Squadron.

Daily, at least one squadron is firing on ground targets at the Wing Gunnery Range at Rio Hato, Republic of Panama; two squadrons are firing at tow targets while another squadron is using the bombing range and the fifth organization is conducting pistol practice.

The ground target range at Rio Hato is approximately 60 miles from Albrook Field. A range detachment of two officers and twenty-two enlisted men remain at the range during the entire gunnery season, but airplanes are maintained at Albrook Field. In order to take advantage of the relatively smooth air in the early morning, all planes which are to fire on the ground targets leave Albrook Field at 6:00 o'clock in the morning, to the great discomfort and disgust of the residents of nearby posts and to a good many residents of the City of Panama as well. Normally, firing is

completed by noon, and the airplanes are returned to the station for necessary maintenance work. The system has the disadvantage of losing the smooth period in the late afternoons for firing. However, it has been found that airplanes maintained in the field during the rainy season deteriorate much more rapidly than they do in the United States, and for that reason it was decided best to give the equipment the benefit of the protection of the hangars at night, even if the gunnery work had to be prolonged into a supplemental training season.

The two tow target ranges are along the eastern shore of Panama Bay, only a few miles from the field. The bombing range is one corner of the field and the pistol range is also conveniently located.

It is estimated that all record aerial gunnery will be completed by the 16th Pursuit Group and by the 44th Observation Squadron by about the 15th of October. The pistol practice will be completed by September 30th.

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POPULAR COMMANDER LEAVES ALBROOK FIELD

Lieut.-Colonel Robert L. Walsh, Air Corps, was relieved on August 14th of command of the 16th Pursuit Group and Albrook Field, and of his temporary rank, and sailed on the U.S.A.T. GRANT for New York. After a brief leave of absence, Col. Walsh will be on duty in the Office of the Chief of the Air Corps as Chief of the Reserve Division.

The departure of Col. Walsh and his family was sincerely regretted by the entire garrison, as he had proven a most popular commander.

A few days prior to his departure, Col. Walsh was tendered a ground review of the troops of the entire garrison with the 4th Coast Artillery band from Fort Amador present for this parting trib-

ute. Lieut.-Colonel Walsh was highly pleased with the smart appearance, as well as with the precision with which the ground movements were executed.

As the U.S. Army Transport GRANT was moving through the Gatun Lake, the 16th Pursuit Group passed in an aerial review for its former commander. The review was followed by a "rat race" which was thoroughly enjoyed by all of the passengers on board the Transport.

Lieut.-Colonel Charles T. Phillips, Air Corps, Operations and Executive Officer of the 19th Composite Wing, assumed command of Albrook Field on the departure of Lieut.-Colonel Walsh.

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ONE HOSE FOR ALL PURPOSES

The ideal hose for aircraft engine installation is one that performs satisfactorily in the fuel lines, the oil line, or in the cooling system. Such a hose has become possible as a result of the progress made with synthetic substitutes for rubber. The material is to be procured and distributed to Air Corps activities at an early date, and will be suitably identified with one red and one white stripe, to announce properly its general usefulness.

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Air Corps officers at the San Antonio Air Depot promoted on August 1st were Major (temp.) Morris Berman to Major; 1st Lieuts. Joseph H. Hicks and David J. Ellinger to Captain.

PROMOTION OF SELFRIDGE FIELD OFFICERS

Officers stationed at Selfridge Field, Mt. Clemens, Mich., who were promoted, with rank as of August 1, 1935, are listed below, as follows:

Quartermaster Corps - to Major: Capt. Edward J. Maloy.

Air Corps - To Captain: 1st Lieuts. Harlan T. McCormick, Alfred A. Kessler, Jr., Leo H. Dawson, Robert C. Oliver, Earle E. Partridge, Norme D. Frost, Lee Q. Wasser.

To 1st Lieutenant: 2nd Lieuts. Hanlon H. Van Auken, Clarence F. Hegy, Morley F. Slight, Jarred V. Crabb, Minthorne W. Reed, Norman E. Burnett, Paul W. Blanchard, Jr., William J. Bell, David W. Hutchison, Charles H. Anderson, and Frank G. Jamison.

ADDITIONAL OFFICERS FOR THE AIR CORPS

Supplementing the 42 candidates who were appointed second lieutenants in the Air Corps, Regular Army, with rank from June 30, 1935, as a result of the competitive examination held on April 2-8, 1935, ten additional appointments from among those who took this examination were recently made by the War Department, Special Orders announcing their rank as of August 1, 1935, and their assignment to Air Corps stations, as follows:

To Maxwell Field, Montgomery, Ala.:

Corporal Daniel I. Moler, Middletown Air Depot, Middletown, Pa.

Private Clayton B. Claassen, Barksdale Field, Shreveport, La.

To Selfridge Field, Mt. Clemens, Mich.:

Private Eugene Brecht, Jr., March Field, Riverside, Calif.

Private Henry B. Fisher, Crissy Field, Presidio of San Francisco, Calif.

Private John O. Neal, Langley Field, Hampton, Va.

Private Harold L. Kreider, Langley Field, Hampton, Va.

Private William T. Hudnell, Jr., Langley Field, Hampton, Va.

Private Lawrence O. Brown, Patterson Field, Fairfield, Ohio.

Private Watson M. Frutchey, Boston Airport, Boston, Mass.

To Report to the Commanding General, Hawaiian Department, for assignment to duty:

Staff Sergeant Opal E. Henderson, Hawaiian Department.

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FIELD EXERCISES BY 34TH ATTACK SQUADRON

Seventeen officers and 57 enlisted personnel, under the command of Major W.R. Peck, Air Corps, spent the week of August 21st to 28th at Big Bear Lake, Calif., conducting field maneuvers.

The landing field is at an altitude of 7,000 feet and, in addition to being a narrow two-way field, the pilots found it to be something quite different from the smooth landing mat at March Field. Both day and night flights were scheduled, and much valuable experience was received in operating under full military load at high altitudes.

Machine gun attacks on ground targets and live bombing missions were conducted daily at Muroc Lake, Calif. Some 6,000 rounds of ammunition and 125 fifty-pound bombs were expended. In addition to the tactical missions, individual night navigation flights to Hamilton Field, Calif., were performed.

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The 18th Composite Wing conducted an "Aloha" Flight in honor of Postmaster General James A. Farley, who arrived in Honolulu on the MALOLO on August 8th.

GOOD LANDING; FAST ENGINE CHANGE

Lieut. Dale E. Altman, Air Reserve, of Luke Field, T.H., recently had a forced landing with a B-5A. A piston failed, breaking off the connecting rod and leaving Lieut. Altman over Fort Shafter at 2,000 feet with only one engine running. The pilot skilfully maneuvered the plane into John Rodgers Airport with no further damage to it. Corporal Allen, Privates McAllister and Taylor, under the supervision of the Flight Chief, Technical Sergeant D. P. Herb, got on the job in the afternoon, and the next morning the engine was installed and Lieut. Kennedy, Engineering Officer of the 23rd Bombardment Squadron, flew the plane back to Luke Field.

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SEARCHLIGHT PRACTICE AT MARCH FIELD

With its brand new motor equipment gleaming in the California sunshine, Battery "A" of the 63rd Coast Artillery from Fort MacArthur, Los Angeles Harbor, moved into March Field on the afternoon of August 23rd for two months of searchlight practice and battery maneuvers. The battery, comprising 126 enlisted men and commanded by 1st Lieut. Arthur B. Nicholson, is located at its former camp ground in the old CCC camp.

"Our program is far more advanced for this year than it has been at any time in the past," asserted Lieut. Nicholson upon his arrival. "As we have both old and experimental equipment, we have prepared for a busy and instructive two months at March Field.

We have brought five complete units with us, consisting of a searchlight, sound locator and comparator. In addition, we have four other sound locators we shall use in special experiments to determine altitude more correctly. The estimate method used previously was not accurate enough."

As March Field is equipped with Pursuit planes, and the principal mission of the Coast Artillery Corps is to prevent night bombing, it will be necessary to bring Bombardment planes to this station. Nine speedy Martin Bombers, the same ones that made the historic Alaskan Flight, will be flown to March Field from Rockwell Field at San Diego.

Planes used in this practice are colored black for camouflage purposes. Due to their high speed, the searchlight men will have to be on the alert and be able to move quickly.

The battery and its men are no strangers to March Field, having maneuvered there before in 1931, 1934 and early in 1935.

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FIELD TESTS BY 12TH OBSERVATION GROUP

Field tests of two types were recently carried out by the 12th Observation Group, Brooks Field, Texas, for the purpose of ascertaining the efficiency of equipment and personnel operating under conditions of war. Primarily, all missions were those which would be assigned Corps and Army Aviation during actual engagement.

Beginning August 5th, the 12th Observation Squadron, Air Corps, (C & A), with detachments from the 12th Observation Group Headquarters, Station Complement and the 62nd Service Squadron, was moved into the field, establishing a base at Schreiner Field, Kerrville, Texas, and maintaining Brooks Field as a base of supply. Communication with Brooks Field was by means of Signal Corps field radio equipment, all messages being relayed in code. Communication from plane to ground was also in code.

During the period between August 5th and 8th, missions of oblique and vertical photography, visual reconnaissance and liaison were carried out, and the Squadron was then recalled.

On August 12th, the 22nd Observation Squadron, Air Corps (C & A), with detachments from the 12th Observation Group Headquarters, Station Complement, and the 62nd Service Squadron, were moved to Schreiner Field for a similar test over the same period of time.

Work of an entirely different kind was called for when the 12th Squadron was assigned to duty with the 90th Division of Organized Reserves on their maneuvers at Camp Bullis, Texas. Both night and day reconnaissance, spotting by flares, artillery adjustment, liaison and contact by radio, and harassment of ground forces were called for. This work was done on an attack and defense problem, covering a period of two days, August 15th and 16th.

The results of both tests were highly satisfactory with regard to efficiency of personnel and equipment, and information was derived for future use in problems of a similar type. Particularly useful was the knowledge gained of the operation of a Squadron with detachments under the new organization.

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EFFECTS PRODUCED BY REDUCTION OF OXYGEN

A press release recently issued by the Navy Department records the fact that during an altitude flight by Fighting Squadron Six, of the USS SARATOGA, one of the oxygen regulators began to economize a bit and the pilot became non compos mentis in such short order that he was unable to leave the formation voluntarily before becoming not only a hazard but a menace to the rest.

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As leader of the second section he calmly crawled up and tried to sit in the skipper's lap, then lost distance quite noticeably and finally ended up by flying around in a wide left circle, gradually losing altitude. His wing men saw his shoulders heave as he bravely pulled at the nipple to coax more oxygen into his starving lungs. After descending to 18,000 feet, he regained control of his senses and responded more or less intelligently to the signals of his left wing man, who finally coaxed him back into formation.

After landing, he could not remember clearly what happened, but about a half hour later, while eating lunch, his memory started coming back. He then reported the following symptoms, which may be of interest and value:

1. Slight twitching of the fingers.
2. Twitching of muscles in the wrists.
3. Difficulty in controlling the hands.
4. Eyesight apparently O.K. but range of vision very short.
5. Feeling of annoyance when squadron commander made a turn.
6. No apparent discomfort or loss of breath.
7. No knowledge that anything was wrong.
8. No sense of hearing (had radio but did not respond to repeated calls).

The press release states in conclusion: "Evidently the time to leave the formation is when your fingers begin to twitch, for at that time you still have enough sense to get clear."

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GERMAN GLIDERS TRAVEL LONG DISTANCES

From a report which recently appeared in a German aeronautical publication on the annual soaring meet on the Wasserkuppe, in Germany, it is noted that during the first eight days of the meet a total of 323 flights was listed. The number of distance flights was remarkable, in that 140 flights were made over a distance exceeding 35 miles; 113 over 60 miles; 41 over 120 miles, 16 over 180 miles, 9 over 240 miles and 4 over 300 miles. The total distance flown was approximately 22,000 miles, more than 50 soaring planes taking part in the contests. The four gliders which covered a distance exceeding 300 miles flew in formation from the Wasserkuppe to Brunn in Czechoslovakia, 313 miles away.

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Captain James M. Gillespie, Air Corps, of the Materiel Division, Wright Field, Ohio, recently spent a week at Kelly Field, Texas, giving lectures on power plants and accessories to the students of the Advanced Flying School and to the permanent officers of the post.

V-6857, A.C.



Up to just recently, there was a welcome lull in Caterpillar Club activities, which led to the hope that the year 1935 would set a new low in the number of emergency parachute jumps made. Of late, however, seemingly to make up for the slump in Caterpillar Club initiations, business "picked up," and there were two instances where emergency jumps occurred by the wholesale, one near San Diego, Calif., on September 5th, when three men "bailed out" on orders from the pilot, Lieut.-Colonel Tinker, from a Bombardment airplane, when he found that his landing gear had gone "hay-wire," and the other instance when, during a night flight, four men were initiated at midnight, due to the fact that the fuel supply had become exhausted. The telegraphic report on this accident stated that the weather conditions were zero zero, so that it may be assumed that the pilot, faced with a situation where there was a very low ceiling and hardly any visibility remained in the air as long as he could in the hope that weather conditions would improve sufficiently to enable him to make a landing.

The emergency parachute jumps made this year, up to and including September 8th, number 39 as against 60 made during the same period in 1934.

Touching on the triple initiation into the Caterpillar Club at San Diego, the News Letter Correspondent from March Field states:

"Caterpillars of the United States Army have had three more names added to the rolls of those who have pulled the rip cord of their parachutes to save their lives. The latest entrants into the mythical aeronautical fraternity are Major Samuel E. Brown, Flight Surgeon of the First Wing of the GHQ Air Force, March Field; Sergeant John Bailey of Seventh Bombardment Group Headquarters, Hamilton Field, and Private Donald Wright of the same detachment. The three jumps occurred at 5:00 p.m. September 5th.

Lieut.-Colonel Clarence L. Tinker, Commanding Officer of the Seventh Group, was returning with 61 other airplanes of the First Wing from a mock air attack on the California Exposition Grounds. As he started to come down for a landing, he noticed that his landing gear could not be lowered.

When it became apparent that ground repairs were necessary and that further attempts to lower the landing wheels were useless, he ordered his three passengers to jump. First to trust his life to the silken apparatus was

Private Wright, the radio operator. Next to jump was Sergeant Bailey, followed by Major Brown.

Colonel Tinker contacted the ground by radio, and was advised to go to Rockwell Field where expert mechanics were available. He glided in on the belly of his plane, which suffered only very slight damages. Chief among these was the tearing off of the bomb bay doors.

Private Wright was the only one of the four who was injured. He suffered a slight head bump, but was returned to duty after the accident. Due to lack of passenger space in the Seventh Group planes, Colonel Tinker was the only one of the four who was able to find a place in a plane for the night maneuvers which took place about three hours after the near fatal mishap.

Major Brown, when interviewed after his return to terra firma, was very enthusiastic about his first parachute jump. He stated that he had often thought about making a jump during his 18 years of continuous service as a flight surgeon. He had often wondered whether he would have 'nerve' enough to make the jump. The Major had his head up when the chute opened and landed sitting down.

The courage displayed by Colonel Tinker on September 5th was thoroughly in keeping with this officer's splendid record. As a Major he was assistant military attache for air to the American Embassy in London, England, in 1926. To demonstrate the performance of one of the Embassy planes, he was piloting it over a marked course with Lieut.-Commander Robert A. Burg, of the U.S. Navy, as a passenger. When his ship caught fire, he managed to make a landing and free himself from the blazing plane. Though the plane was by now a blazing inferno, his first thought was to extricate his friend. Failing to do this, he tried from the other side and was successful in freeing the dying Commander. Lieut.-Colonel Kenyon Joyce, the Military Attache, recommended Major Tinker for the Distinguished Flying Cross.

Well known to Californians, Colonel Tinker has been Commandant of the Riverside High School R.O.T.C.; Commander of the 17th Pursuit Group at March Field, and before that the Commander of the 20th Pursuit Group at Mather Field, Sacramento. His first four years in the United States service were spent as a third and second lieutenant in the Philippine Constabulary on the Island of Panay."

The quartet who went through a midnight initiation into the Caterpillar Club and were none the worse for their experience were occupants of a B-6A Bombing plane from Langley Field, Va. The pilot was Flying Cadet Willis S. Marvin, 96th Bombardment Squadron, and the passengers, Corp. Frank B. Connor, of the 96th; Sergeant Charles A. Johns, Station Complement, Langley Field; and Private, 1st Class, Daniel C. Murdock, 2nd Bombardment Group Headquarters. The airplane crashed in a corn field and was burned completely.

Hilmer Anderson, civilian, taking his test for a private license before Department of Commerce Inspectors, was forced to "bail out" from his Hisso-powered "American Eagle" when the controls became inoperative after he brought the plane out of a left spin. "It was a great feeling of satisfaction to be sitting on my 24-ft. Russell Lobe Chute," he stated.

Private, 1st Class, George W. White, 97th Observation Squadron, Mitchel Field, N.Y., jumped on the night of August 20th from an O-1G Observation plane, piloted by 2nd Lieut. Robert M. Scherer, Air Reserve, who was on active duty at Mitchel Field, and was flying on a night mission in connection with Anti-Aircraft demonstration during the First Army maneuvers. Private White jumped and landed without injury but, for reasons unknown, Lieut. Scherer did not jump, and he lost his life in the crash of his plane near Watertown, N.Y.

Flying Cadet Lucion N. Powell, stationed with the 1st Pursuit Group, Selfridge Field, Mich., piloting a P-26A airplane, was forced to make a parachute jump on the evening of August 18th, about four miles southeast of Chelsea, Mich., when his motor failed. The terrain in the vicinity of Chelsea, although not rugged, is exceedingly broken, and in the limited time at his disposal, Cadet Powell apparently was unable to locate a suitable landing place for his P-26A.

Lieut. William J. Bell, Air Corps, who was

also initiated at night, stated in his report that when he realized he had to jump he had no misgivings. "It was simply a job I had to do," he stated. "As soon as I realized that I was clear of the ship I pulled the rip cord and received a terrific jerk as the chute opened. As soon as I realized that the chute had opened all right, I adjusted my seat and looked around the countryside. I still had the rip cord in my hand and rolled it up and put it in my jacket pocket. I had no sensation of coming down at all while I was at a higher altitude. It was very dark and I could not see the ground coming toward me until I was about 200 feet from the ground and then I seemed to be falling very rapidly. I had my back facing down wind when I landed, made a complete somersault and stood up, feeling no injuries."

Caterpillars, Silk Sailors, Sky-Hookers, or what have you, who were initiated into the mythical but nevertheless famous Caterpillar Club thus far in this calendar year, are enumerated below, as follows:

No.	Date	Name	Rank	Place of Jump
694	January	11 Charles W. Wellman	Corporal, Air Corps	Brooksville, Indiana
695	January	19 F. R. Cook	Flying Cadet, Air Corps	Cortoro, Arizona
696	March	5 Clarence D. Fields	Staff Sergeant, Air Corps	Pescado River, Panama
697	March	6 John H. Price	Sergeant, Air Corps	Near Centerville, Texas
698	March	16 A. R. Radford	Lt.-Comdr. U.S. Navy	Near Woodville, Texas
699	April	4 John F. Guilmartin	Flying Cadet, Air Corps	Colton, Calif.
700	April	5 Daniel S. Campbell	2nd Lieut. Air Corps	Pearl City, Hawaii
701	April	8 A. B. Thompson	Lieut. (JG) U.S. Navy	Ramona, Calif.
702	April	8 J. Hulme	Lieut. (JG) U.S. Navy	Ramona, Calif.
703	April	8 H. G. Holden	Seaman, 1st Cl. U.S. Navy	Ramona, Calif.
704	April	15 William C. McDonald	Sergeant, Air Corps	Ashland, Ky.
705	April	17 John W. Green	Civilian	Boston, Mass.
706	April	17 John B. Ackerman	2nd Lieut. Air Corps	Kelly Field, Texas
707	May	6 Lee Gehlbach	Civilian Test Pilot	Ravenna, Ohio.
708	May	11 Frank P. Hunter, Jr.	1st Lieut. Air Corps	Brujas Point, Panama
707*	May	17 Lee Gehlbach	Civilian Test Pilot	Dahlgren, Va.
709	May	27 William A. Matheny	1st Lieut. Air Corps	Talassee, Alabama
690*	May	30 George S. Buchanan	Flying Cadet, Air Corps	Montpelier, Indiana
710	June	13 Hilmer Anderson	Civilian	Felts Field, Spokane, Wash.
711	June	21 Hanlon H. Van Auken	Captain, Air Corps	Chesterfield, Mich.
712	June	22 John L. Giles	Tech. Sergeant, Air Corps	Banning, Calif.
713	June	22 Richard I. Dugan	Captain, Air Corps	Banning, Calif.
714	June	22 Francis H. McDuff	Flying Cadet, Air Corps	Banning, Calif.
715	June	27 Armin F. Herold	Major, Air Corps	Near Taylortown, La.
716	July	3 Frank B. Schaede	Lieut. (JG) U.S. Navy	Peridido Bay, Fla.
717	July	6 Douglas M. Cairns	2nd Lieut. Air Corps	Kaena Point, Oahu, T.H.
718	July	11 William J. Bell	1st Lieut. Air Corps	Guelph, Ontario, Canada
719	July	16 George E. Leach	Major General	Near Seligman, Arizona
720	July	23 Forrest G. Allen	1st Lieut. Air Corps	Chanute Field, Ill.
721	August	10 Fulton G. Bulloch	Staff Sgt., Air Corps	Pontiac, Ill.
722	August	18 Lucion N. Powell	Flying Cadet, Air Corps	Near Chelsea, Mich.
723	August	20 George W. White	Private, Air Corps	Watertown, New York
724	September	5 Donald Wright	Private, Air Corps	San Diego, Calif.
725	September	5 John Bailey	Sergeant, Air Corps	San Diego, Calif.
726	September	5 Samuel E. Brown	Major, Medical Corps	San Diego, Calif.
727	September	8 Frank B. Connor	Corporal, Air Corps	Enfield, Va.
728	September	8 Daniel C. Murdock	Private, Air Corps	Enfield, Va.
729	September	8 Charles A. Jones	Sergeant, Air Corps	Enfield, Va.
730	September	8 Willis S. Marvin	Flying Cadet, Air Corps	Enfield, Va.

* Jumped twice.

NOTE: Total of 730 lives saved, 36 repeater jumps; total jumps 766.

EDUCATING AMERICA TO NEEDS OF AVIATION

A nation-wide educational program to bring the public up-to-date with the needs and advancements of American aviation was recently announced by President William G. McAdoo of the National Aeronautic Association, for the period September 23-November 1, 1935. Aviation organizations throughout the country are cooperating with the N.A.A. committees in seven hundred of the larger cities to develop plans for the observance of "Air Progress."

"America must lead in the air," asserts Senator McAdoo. "The present unrest in Europe and the race for greater armaments make it imperative that the United States develop speedily a more comprehensive program for air defense."

In the commercial air transport field we face the strong competition of continental countries in our South American and Far Eastern markets. At home, we have lagged far behind other countries in educating our people to the advantages of air mail, express and passenger service. Last year, less than one-half of one per cent of our citizens traveled by air, as compared to double this number who traveled on the air lines of France and Italy.

The 'Air Progress' program of the N.A.A. will, we hope, create a better understanding and a wider acceptance of aviation in all its branches," said Senator McAdoo, "and I invite the citizens of the United States to join with us in this important work."

Plans for the observance of "Air Progress" throughout America include airport demonstrations and air tours, public meetings, national and local radio broadcasts, retail store window displays, and various other features. The Department of Commerce and other governmental agencies are cooperating in arranging the national program.

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FLYING RULES AT THE NEWARK AIRPORT

There has just been received a copy of the flying rules of what may well be termed the world's busiest airport - Newark, N.J. These rules went into effect on August 1, 1935, and are as follows:

"During the periods of unfavorable weather all air traffic will be controlled by radio.

Between the hours of sunrise and sunset when the ceiling is 800 feet or less and the visibility is $1\frac{1}{2}$ miles or less no airplane will take off from Newark Airport unless the airplane is equipped with at least a radio receiver in good working order and is in contact with the control tower.

Between the hours of sunset and sunrise when the ceiling is 1,000 feet or

less and the visibility 2 miles or less no airplane will take off from Newark Airport unless the airplane is equipped with at least a radio receiver in good working order and is in contact with the control tower.

No purely local flights (take off and landing practice or for any other purpose or purposes), will be engaged in at any time when the ceiling is 1,000 feet or less and the visibility 2 miles or less without specific authority in each instance by the control tower.

The hours of sunrise and sunset will be those hours given as such by the U.S. Weather Bureau.

Between the hours of sunrise and sunset when the ceiling is 800 feet or less and the visibility $1\frac{1}{2}$ miles or less the revolving beacon will be turned on.

Between the hours of sunset and sunrise when the ceiling is 1,000 feet or less and the visibility 2 miles or less the ceiling projector will be turned on.

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DETAILS ON CRASH OF WILEY POST'S PLANE

In connection with the distressing accident on August 15th near Point Barrow, Alaska, which resulted in the untimely death of two beloved citizens of this country who have played a considerable part in the advancement of aviation - Will Rogers principally by talking about it and Wiley Post by saying little but accomplishing much through his outstanding flying achievements - the Director of Air Commerce, Mr. Eugene Vidal, recently submitted a memorandum to the Secretary of Commerce, Mr. Roper, giving various details concerning the airplane piloted by Mr. Post, the weather conditions prevailing during the flight to Alaska and the probable causes of the accident.

Mr. Vidal goes on to say: "To date certain information regarding the accident in which Wiley Post and Will Rogers lost their lives has been secured. The details preceding the crash were obtained, directly or indirectly, from an Eskimo who saw the plane fall, Sergeant Morgan of the United States Army, located at Point Barrow, a radio report from Inspector Hall of the Bureau of Air Commerce, located in Alaska. Also, I visited personally Mr. Crosson who flew to Point Barrow from Fairbanks in order to return the bodies to this country, Inspector Reed of the Department of Commerce, who licenses the airplane at Glendale, Calif., and others who had contact with Post and Rogers either at Los Angeles or en route. As you know, I traveled to Los Angeles in order to discuss with Mr. Crosson the probable causes and any other details which might have aided us in determining such causes of this crash.

Inspector Reed, one of our representatives in Los Angeles, informed me that he had inspected at Glendale almost daily

the alterations of the original Orion 9E airplane which Post had purchased in February, 1935. Inspector Reed, as a result of his regular and frequent inspections was satisfied with every detail from a construction standpoint. He told me that as to workmanship, it was a "splendid job." Mr. Reed did not fly the airplane, but watched Post's test flights and discussed with him its flying characteristics, which, by the way, were pleasing to Post. The Department could not issue an "NC" license for the plane because of the fact that a wing from another type of plane, a Sirius, had been substituted for the regular Orion wing and a larger motor and gas tanks had been installed. The plane was granted an "R", or restricted license. Mr. Post at various times expressed satisfaction over the plane's flying characteristics, particularly its stability, balance, and ease of maneuverability.

Mr. Post substituted for his wheel landing gear a pair of pontoons at Seattle and after being joined by Will Rogers, proceeded to Alaska from that point. At Fairbanks, Alaska, Post informed Crosson of Pan American Airways that the airplane had become nose-heavy on take-offs and landings following the installation of floats, and that on take-offs, he had instructed Rogers to sit as far to the rear as possible, and also to keep the equipment and the luggage well aft.

At Fairbanks, both Post and Rogers discussed with Crosson and others their proposed flights, and it was apparent that they had no actual schedule, no set plans, and no particular reason for departures and arrivals at any place on any certain dates. Post remarked that in their flying about Alaska, under no circumstances would he fly with Rogers in or above any cloud or fog bank. His plan was to travel as safely as possible by so-called "contact flying," turning back and landing in lake or river at any time when the weather made it dangerous to proceed. It was because of this attitude or policy that their reported indifference to weather reports could not be considered careless.

Pan American Airways base personnel at Fairbanks checked the plane and the motor and declared 'everything in good order,' with the exception that a generator failure eliminated self-starting the motor, thus making it necessary to start the motor by hand. The plane had no radio equipment and Post was navigating by compass and map.

Prior to their departure from Fairbanks a weather report from Point Barrow was requested. This report hadn't been received when they were preparing to depart. Post decided that they would start out and if the weather

proved unfavorable, would land on some lake, of which there were many, or river, and wait until conditions had improved. The weather report arrived at Fairbanks at 1:30 p.m., and read 'zero-zero.' It was reported later that weather conditions improved and at the time of the arrival of Post and Rogers at the lagoon near Point Barrow that evening, our information is that the ceiling was about 200 feet, and visibility satisfactory. The temperature was reported from 40 to 45 degrees, with neither snow nor ice on either land or water. The next day when Crosson made the flight, practically the same weather conditions prevailed, according to his report.

The fliers departed from Harding Lake at about 2:00 p.m., and landed at a lagoon near Point Barrow shortly after 3:00 p.m.

The lagoon in which Post landed lies almost perpendicular to the coast line and separated from it by a flat sand bar. Since their last accurate navigation check was over 200 miles from that point, naturally, Post could not be sure on reaching the ocean whether Point Barrow was at his right or left. On seeing the huts and the native alongside the lagoon, it was very much in order for Post to land and make sure whether or not Point Barrow was to his right or left. Point Barrow does not show up at a very great distance from the air even with good visibility, so with the low ceiling, the landing and inquiry were quite logical. There could be very little accuracy in the report that Post was having trouble with either the plane or the motor, because he would not have attempted to take off from the lagoon with Rogers as a passenger if both the plane and the motor were not functioning properly. Post probably looked over his plane from the pontoons before the motor was started by hand.

The fliers landed at the lagoon, asked the native the location of Point Barrow, remaining possibly 10 minutes. The Eskimo's first story, before being pressed and possibly confused later by a number of people, was that the plane took off towards the coast line, turned to the right in the direction of Point Barrow, then plunged into the shallow water immediately after the noise from the motor had ceased. While the Eskimo reported that the plane had risen about 50 feet, it seems quite apparent that Post had climbed to a higher altitude, probably almost 200 feet, which was the lower level of the fog bank. The near perpendicular nosing-in of the plane and its turning over on its back would indicate that an altitude higher than 50 feet had been gained prior to its stalling.

It appears reasonable to believe that Post was banking the plane to the right

while still in a slight climb, since with that low ceiling he would turn in the direction of Point Barrow along the coast line immediately after gaining sufficient altitude for maneuvering. He naturally would not enter the fog bank in his last few minutes search for Point Barrow. The combination of the plane in a banking turn, with still low flying speed immediately following the take-off and climb, the motor failure and the airplane's nose heaviness, could result in such a stall. There can be only speculation as to the cause of the motor failure, the motor being buried in the mud underneath some two feet of water. We are inclined to believe that with the moisture in the air as it existed that day, and the temperature as it was reported, ice could have developed in the carburetor. Either that, or the spray from the water in taking off could have entered the scoops and in that way causing icing."

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CHANGES OF STATION OF AIR CORPS OFFICERS

To Rockwell Air Depot, Calif.: Capt. Charles M. Savage from Bolling Field.

To Barksdale Field, La.: Major Rufus B. Davidson, 54th Bombardment Squadron, Maxwell Field, Ala. Relieved from temporary rank Sept. 7, 1935 - Major Lloyd C. Blackburn, from Air Corps Tactical School, Maxwell Field, Ala. Relieved from temporary rank Sept. 7, 1935.

To Brooks Field, Texas: Lieut.-Col. Henry J.F. Miller, from duty as Air Officer, 6th Corps Area, Chicago, Ill., to assume command.

To Chicago, Ill.: Major Edmund W. Hill from duty at Advanced Flying School, Kelly Field, upon completion of present course of instruction, to Headquarters 6th Corps Area for duty with Air Corps.

To Randolph Field, Texas: Captain Benjamin B. Cassidy from Hawaiian Dept.

To Fairfield, Ohio, Air Depot: Capt. Joseph H. Hicks from San Antonio Air Depot.

Captain Henry Pascale, Air Corps, was retired August 31, 1935, for disability incident to the service.

The following-named Air Corps officers were assigned to other duties, and they were relieved from temporary rank:

1st Lieut. Millard L. Haskin from station complement, Mitchel Field, to duty with 99th Bombardment Squadron at that station, August 31, 1935.

Captain John T. Murtha from 4th Transport Squadron to 19th Bombardment Group, Rockwell Field, Calif., Sept. 3, 1935.

The following-named Air Corps enlisted men, who qualified as Flying Cadets, are under orders to proceed to Randolph Field, Texas, for flying training, re-

porting on October 10th:

Privates Myers R. Eggert, 71st Service Squadron, Barksdale Field, La.; John M. Ferris, 56th Service Squadron, Selfridge Field, Mich.; Aaron J. Foster, 39th Observation Squadron, Kelly Field, Texas; and Jack F. Todd, 47th School Squadron, Randolph Field, Texas.

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COL. JOUETT DROPS IN FOR BRIEF VISIT

Presenting all indications of being in the best of health, a familiar figure dropped in the Office of the Chief of the Air Corps the other day in the person of Lieut.-Colonel John H. Jouett, who resigned from the service over five years ago to enter the business world.

Col. Jouett just recently returned from China, and not more than a month ago the News Letter carried an article on aviation training in China conducted at the Central Aviation School at Shienchiao under the Nanking Government. It was stated in this article that, upon the expiration of Col. Jouett's contract with the Nanking Government as supervisor of this school, on June 1, 1935, he would return to the Company (the Standard Oil Company of Louisiana) which granted him three years' leave of absence to engage in this adventure in a foreign clime, a line of endeavor in which he was perfectly at home.

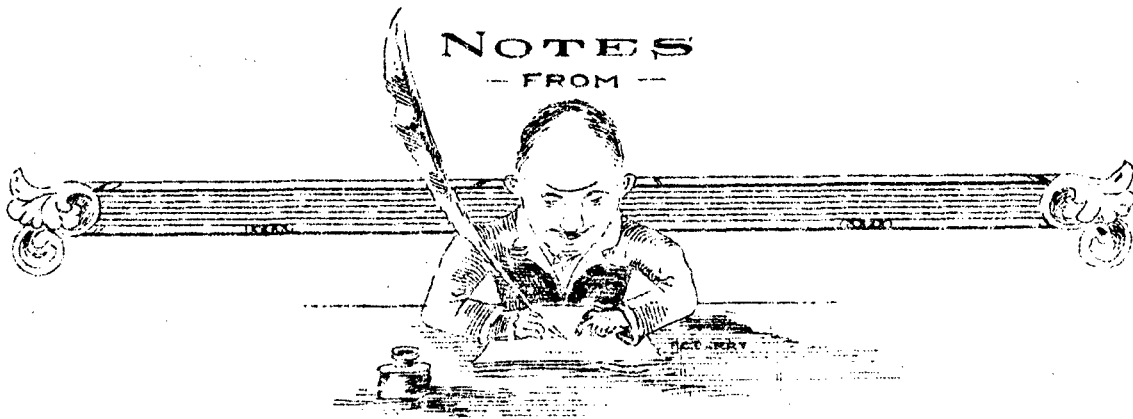
When with the Air Corps, Col. Jouett qualified both as a heavier-than-air and lighter-than-air pilot. He at one time commanded the flying school at Brooks Field. After a four-year tour of duty in the Office of the Chief of the Air Corps, during the course of which he was Chief of the Personnel Division, he was assigned to the command of the 3rd Attack Group at Fort Crockett, Galveston, Texas. Under his direction, this organization became famous for its unexcelled air discipline and the perfection it had attained in low altitude formation flying. Col. Jouett led the Group in many flights across the entire country.

He resigned from the military service on March 4, 1930, and was commissioned in the Air Reserve as a Lieutenant-Colonel.

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A Congressional Party recently made a three-day inspection of the military establishments in the San Francisco Bay area. Representatives Parks, Dockweiler, Blanton, Snyder and McMillan were guests at Hamilton Field for luncheon and inspected the installations at the aviation base, also Forts Baker and Barry. In the two following days they inspected Crissy Field, Fort Winfield Scott, the Presidio of San Francisco, Forts Mason and MacArthur, and the Letterman General Hospital. The tours of these military posts were conducted by Major-General Paul B. Malone, commanding 9th Corps Area, and his staff.

NOTES — FROM —



AIR CORPS FIELDS

Selfridge Field, Mt. Clemens, Mich., Sept. 3.

First Lieut. Norme D. Frost, Air Corps, accompanied by Staff Sergeant Paul J. Fitzpatrick, 27th Pursuit Squadron, flew to Floyd Bennett Airport, N.Y., on August 16th for the purpose of installing a radio station at that field for use in assisting Brigadier-General Frank M. Andrews in setting a record with the Martin Bomber on floats. They returned to Selfridge Field on August 26th.

Sergeant Edward White, 57th Service Squadron, was injured on August 16th when he fell head first into the propeller of a P-26A airplane which was standing on the hangar line with the motor running. His scalp was severely cut, but, in spite of the fact that the propeller was turning over quite rapidly, he was thrown clear and is now recovering from the injuries sustained in the post hospital.

Colonel Louis Brechemin, Jr., Corps Area Surgeon from Chicago, Ill., spent several hours on the post on August 24th. Accompanied by Col. Royce and Major Irwin B. March, the Post Surgeon, Colonel Brechemin inspected the station hospital to ascertain its suitability and capacity for CCC patients. At the present time there are 15 CCC patients in the station hospital. A Navy medical officer and two civilian nurses are attached to the hospital for the care of these patients.

Hamilton Field, San Rafael, Calif., Aug. 31.

Lieut.-Col. Glenn I. Jones, Medical Corps, Flight Surgeon, was on leave of absence for 7 days, beginning August 26th.

Major W.B. Hough, Air Corps, was appointed Public Relations Officer, vice Captain Wilbur Erickson, relieved.

Captain Oliver K. Robbins was appointed Acting Adjutant during the temporary absence of Captain Wilbur Erickson, on leave. Capt. Robbins was appointed Recruiting Officer, vice Captain Erickson, relieved.

Second Lieut. Kenneth R. Kreps, Air Reserve, sailed on the Transport "Republic" for Honolulu on August 22nd.

Brooks Field, San Antonio, Texas, Sept. 6.

Lieut.-Col. Henry J.F. Miller, Air Corps, formerly the Executive Officer of Brooks Field, who was transferred to the 6th Corps Area at Chicago, Ill., as Air Officer, is returning to Brooks Field to take command of the 12th Observation Group and Brooks Field. Particular pleasure is expressed at this assignment, since Col. Miller and family, while stationed at Brooks Field, were popular throughout the 8th Corps Area.

Brooks Field is losing an efficient and well liked officer in Captain Elwin W. Rawlings, who is being transferred to Wright Field, Ohio.

The personnel of the 88th Observation Squadron, L.R. Amphibian, A.C., and their families enjoyed quite an extensive picnic on August 16th at Twin Oaks, San Antonio, Texas, the celebration of the 18th anniversary of the Squadron.

The original 88th Aero Squadron was organized at Kelly Field, Texas, on August 16, 1917, from Oklahoma, Kansas and Texas boys. In October, 1917, the Squadron embarked for overseas duty and participated in all the major campaigns of the American Expeditionary Forces, including the Marne, the Vesle, the St. Mihiel and Meuse-Argonne operations. The Squadron has four enemy planes to its credit, and its losses were approximately 11 pilots and 14 observers killed in action.

The 88th Observation Squadron was transferred from Fort Sill, Okla., Nov. 4, 1931, to Brooks Field, Texas, as part of the 12th Observation Group, Air Corps.

When the new General Headquarters Air Force was organized, the 88th was re-designated as the 88th Observation Squadron, Long Range Amphibian, A.C., and attached to the 7th Bombardment Group of the First Wing, GHQ Air Force at Hamilton Field, Calif. The 88th has been under the command of Major Calvin E. Giffin, Air Corps, since March, 1932. It is now awaiting orders to be transferred to its new station - Hamilton Field.

San Antonio Air Depot, Texas, Sept. 5th.

Friends of Major and Mrs. Robert V. Ignico, Air Corps, this Depot, were saddened by the death of their youngest child, Robert V., Jr., 12 years of age, which occurred at the Station Hospital, Fort Sam Houston, Texas, on August 25th, following an illness of about two weeks. A requiem mass was offered on Monday, August 26th, in the chapel of Our Lady of the Lake College, San Antonio, by Chaplain W.D. Cleary of Fort Sam Houston; and Major and Mrs. Ignico departed the same day with the body for Washington for interment in Arlington National Cemetery. Besides the parents, a sister, Vivian, and a brother, Vincent, survive. Young Bobby Ignico had endeared himself to all at this station, who join in sorrow and extend deepest sympathy to the bereaved family.

Previous War Department orders transferring Major Norris P. Walsh, F.A. (with QMC) from this Depot to Fort Sheridan, Ill., last July, were revoked. Major Walsh, who departed July 6th with his family on a month's leave in Colorado, has been a patient in Fitzsimons General Hospital, Denver, since July 15th. He was promoted to Major of Field Artillery August 26th, with rank from August 1st.

Orders were received transferring Captain J.H. Hicks from this Depot to duty at the Fairfield, Ohio, Air Depot. He and his family have been on leave for a month and 18 days since August 12th, visiting in Wyoming, and it is contemplated that he will complete his leave and return here before proceeding to his new station.

Lieut. (JG) R.R. DeWolfe, USN, of the Naval Air Station, Pensacola, Fla., was a visitor in the Engineering Department of this Depot for several days during a cross-country tour of various aeronautical establishments, conferring on maintenance engineering matters.

Mr. A.C. Dorks, Assistant Secretary, Tenth Civil Service District, New Orleans, La., called at this Depot August 29th in the course of a visit to San Antonio in connection with Civil Service examinations.

Lieut. John F. Hardie, Air Reserve, a prominent insurance man of San Antonio, and an active pilot, is on his fourth two weeks' active duty training tour at this Depot, beginning Sept. 3d.

Captains J.H. Hicks and D.J. Ellinger were relieved from assignment and duties with the new 3rd Transport Squadron at this Depot, and reassigned to the Headquarters of the Depot to continue on their present duties therewith, effective September 1st. The following enlisted men, Privates, are the latest additions to this Squadron, making its enlisted strength now 21: J.O. Guthrie from 68th Service Sqd. August 21st, and T.G. Baker and D.T. Dillon from A.C. Advanced Flying School Detachment, August 27th, all from Kelly Field; E.F. Davidson, Jr., from Station Complement, Brooks Field, August 25th; L.J. Ashcraft (formerly with 81st Service Sqd., Kelly Field) reenlisted August 30th; J.M. Price from 53rd School Sqd., Randolph Field, September 1st.

Warrant Officer Trabold and family returned Sept. 1 from a two months' leave of absence.

Luke Field, T.H., August 16th.

Lieut. Densford, due to leave on the August 22nd Transport for his new station at Randolph Field, Texas, has been active in organizing a Luke Field Pistol team which was slated to shoot it out with the Honolulu Police Force in a match on August 17th.

Lieut. R.H. Wise, formerly a member of the 4th Observation Squadron, now traveling with Mrs. Wise in the Orient, en route to Chanute Field, Ill., reports that he is inexpensively living luxuriously in China and Japan. Friends who will see him when he comes back will see most of the Orient for, from his letters, it appears he is bringing most of it back with him.

Luke Field officers who were on 14 days' detached service at Kilauea Military Rest Camp were Lieut.-Colonel A.N. Dumcan, Major L.V. Beau, Capt. D.T. Spivey, Lieuts. E.G. Simenson, J.G. Armstrong, T.S. Moorman and F.S. Henley.

Lieut. D.N. Crickette almost missed a tree at Haleiwa Auxiliary flying field on August 1st when he hit an air bump just after taking off. He flew the plane home with a branch of the tree in the stub wing tank.

Capt. R.D. Johnston and six others from Luke and Wheeler Fields went on an overnight deep sea fishing trip to Molokai. They pulled in two fish, but the ocean did not lose in the exchange of food.

March Field, Riverside, Calif.

While the 34th Attack Squadron was engaged in a week of field maneuvers at Big Bear Lake, Calif., many of the officers' wives and families took advantage of the facilities of the new Air Corps lodge located in this vicinity and enjoyed a week's outing in the mountains with the Squadron - a decided relief from the high temperatures prevailing at March Field.

Fort Sill, Okla., September 3rd.

Lieut. H.F. Gregory, pilot, with Captain W.C. Farnum, passenger, returned August 22nd from an extended cross-country flight and reported their trip, which covered the western half of the country, to be a very interesting one, especially the northern leg from Seattle to Minneapolis.

Staff Sgt. Joseph F. Murray, pilot, with Master Sgt. Ralph J. Rumpel, aide, made a successful free balloon flight to Yukon, Okla., on August 17th, using a 35,000 cubic ft. bag.

Hawaiian Air Depot, Luke Field, T.H.

The Depot Supply Department is now up to full personnel strength, as represented by recent increases for pay of civilian employes. The activities of this Department have steadily increased in recent weeks. Many changes have been necessary to care for this increased

business, until today the place would hardly be recognized by some of the old-timers who were out here a year or more ago.

The Department is busily engaged just at this time in re-writing over 20,000 stock record cards, using the regular form prescribed for this purpose, and this work will soon be completed. Other changes have been or are being made within the office and warehouses, after which the Depot Supply Department will much more closely approximate the set-up in the Mainland depots than has heretofore been possible. A new central filing system with an up-to-date blueprint and technical order file has been established, combining two sets of similar files formerly maintained. The main warehouse has been entirely rearranged, providing space for approximately six thousand additional bins made absolutely necessary due to the increased flying program in force during the present Fiscal Year.

A new Shipping, Receiving and Warehouse Section has been added, greatly facilitating the handling of this business. One main central issue window has been established, doing away with the former method of issuing supplies from different points within the warehouses. Under the new arrangement, only Depot Supply personnel is allowed within the main warehouse.

Conditions in the Engineering Department are somewhat over-stressed at the present time, due to strenuous efforts to meet the present flying program. At present the Engineering Department is completing the overhaul of 7 ships per month. The schedule shows that by January 1st it will be necessary to put out 9 ships per month.

Funds recently received for employment of additional civilian personnel are of great assistance and, it is believed, will enable the Engineering Department to meet the required program. Serious difficulty, however, has been encountered in the employment of satisfactory personnel, due to an absolute lack of mechanically qualified personnel in this Department. It is believed that some system of employing and training apprentices through some special method of local schooling will be necessary to overcome this difficulty. A serious weakness at the present time is due to lack of space in the old depot buildings. An attempt is being made to adapt increased production to an inadequate floor space which, in itself, is the cause of a serious handicap. In addition to this, some of the old buildings are in advanced stages of deterioration. On the other hand, the thought of the development and construction of the new Hawaiian Air Depot, or the new "Hickam Field," precludes any major effort to alleviate this condition.

LIBRARY NOTES

Some of the more interesting Books and Documents recently added to the Air Corps Library

355 H 22. Modern Military Administration, Organization and Transportation, by J.C. Harding-Newman. Aldershot, Gale & Polden, Ltd. 1937. 81p. Author in the above book has confined himself to principles. He considers that details can be applied, for they are only the padding of the principles.

623.4234/W55. Machine Gunner's Pocket Manual: a reference text for officers and enlisted men of machine gun companies in the field, by Captain James E. Wharton and others. Wash. National Service Pub. Co. 1931. 230p.

623.74 H88. Protection of the Civil Population in Chemical Warfare, by F.R. Humphreys. London, St. John Ambulance Association, 1928, 36p.

629.13 Un3 No. 526. Noise from Two-Blade Propellers. Wash. National Advisory Committee for Aeronautics, 1935, 9p. (Report 526).

629.13 Un3teh No. 4109. Cold Temperature Starting Tests of Air Corps Type 1570 engines. Dayton, U.S. Army Air Corps, Materiel Division, August 24, 1934. 30p. (Technical Report No. 4109).

629.145 T46. Marching or Flying by Night without a Compass with Time Table of Direction Stars. London, Hugh Rees Ltd. 1916. 2 vols. Vol. 1. For use in Europe and North America. Vol. 2, for use in Southern Hemisphere.

940.42 R75. Related Comments on a Great Event, by K. Rowan-Pobinson. London, Williams & Morgate Ltd. 1932. 112p. Refers to British participation in the Campaign on the plains of Picardy during the World War.

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TECHNICAL INFORMATION

ENGINEERING AND NEWS



AIR CORPS MATERIEL DIVISION

Announcement has been made of the Semi-Annual Meeting of the American Society of Photogrammetry, which is to be held at Wright Field on Sept. 16 and 17. The membership of this society, which was founded last year, is composed of about 500 photogrammetric engineers, including the foremost exponents of aerial mapping and photography in the country. Colonel C.H. Birdseye, of the Geological Survey, is President; Major J.W. Bagley, Corps of Engineers, Vice President.

About fifty members are expected to attend the Wright Field Meeting. Colonel Birdseye will preside as general chairman of meetings, with Major Bagley as chairman of the technical meetings. The meeting will be opened with an address of welcome by Brigadier-General A.W. Robins, Chief of the Materiel Division. The following papers will be presented:

Aerial Photography at the Materiel Division, by Captain A.W. Stevens, Air Corps.

Flying by Photography, by Captain H.K. Baisley, Air Corps.

Mapping activities of Tennessee Valley Authority at Chattanooga, by T.P. Pendleton.

The session will also include several social meetings and discussions on "The Multiplex Aero-Projector, led by H.K. Bean, Wright Field; "The Aerocartograph," led by L.E. Caldwell, Wright Field, and other related topics.

MULTIPLEX PRINTER. A multiplex printer for making diapositives (a positive print made on glass) direct from aerial negatives obtained with standard Air Corps mapping cameras, has been loaned to the Materiel Division by the Pittsburgh District Engineer Office, Pittsburgh, Pa., for test, and will be used in connection with the mapping projects of the proposed Lake Erie-Chio River Canal to determine if this method of making contour maps will be satisfactory.

LOWER WEIGHT COTTON FABRIC. Weight requirements for airplane fabric, generally referred to as Grade A Cotton, have been standard for several years. Recent developments, however, indicate that a materiel with a lower weight and equal strength can be obtained and current procurement is being made of cotton fabric with a maximum weight of four ounces

instead of four and one-half ounces.

STANDARDIZATION OF EQUIPMENT ITEMS. Reports have been submitted regarding the standardization of the following items of equipment:

a. Panel and framework assembly, Type A-1, for use with night lighting installations.

b. Aircraft storage battery, integrally shielded, Type C-5.

c. Oxygen cylinders for holding gaseous oxygen for use in aircraft.

d. Utility switches, Types B-1B, B-6B, and B-9A, for use in voltmeter and bomb rack circuits, bomb release and blinker light circuits, and in gun and bomb control circuits.

e. Signal control switches, Type A-1, for use in the operation of signal light circuits.

f. Electric power plants, Types B-1 and B-2, for use as an auxiliary source for electric current where a minimum supply is required.

LIFE PRESERVER VEST. The Type B-3 life preserver vest is about to undergo service test. This vest is composed of two superimposed cotton fabric inverted "U"-shaped tubes containing air-tight latex bladders to which is attached a metal CO₂ cylinder holder and discharging device. Each bladder is provided with an additional mouth inflation means by a short rubber tube containing a willow valve attached at the neck opening on the vest. A fabric back and crotch strap are provided on the lower depending edges for holding the vest in position on the wearer.

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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.

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"AND I LEARNED ABOUT FLYING FROM THAT." ✓

Frequently the News Letter will publish unsigned articles on this subject with a view to providing two or three minutes of entertainment for the reader and at the same time convey some useful lesson or moral. Contributions will be gratefully received by the Office of the Chief of the Air Corps. In keeping with the policy of the majority of publications that anonymous material is not desired, each article submitted should be signed by the writer.

Any experience in your flying career, the narration of which might aid other pilots, will be a worth while contribution and may actually avert pain, disappointment and expense.

"It was about 9:00 a.m. on a gloomy day in the latter part of March several years ago that I climbed into my P-12 on the hospitable North Beach (New York City) Airport and headed for Newark. A very low ceiling with a thin ground fog was present, but I thought I could make it down over the East River. The airport manager advised against it and said 'Com' on back after you've satisfied yourself.'

It was amazing how rapidly the crossed runways on the point faded out, but anyway the Hellgate Bridge slid by just a little bit below. Lower and lower I came, and ever less and less was the visibility. Suddenly, I wanted to be somewhere else - anywhere but there. A nearly blind turn to the left was the result of my wondering about the buildings nearby. A kind Providence aided a bit and gave me a glimpse of the water. I was just a little above it and heading up the river when a steel span appeared dimly and then was gone rearward, thank goodness. Well, believe it or not, I could not find North Beach, and scooted up the Connecticut shore very low. A little rift in the general direction of Long Island lured me, and I made for it. I was 'somewhere on the Island' but lost completely when suddenly I was greatly buoyed up, for there below me appeared an old 3-motor airplane fuselage long since converted into a restaurant. It looked very familiar to me, but to save my life I could not remember where it was located.

The gilded ball of a flag pole soon passed on my level and a pair of yellow brick chimneys with their tops above me moved by at too close range.

In another moment or two, I came over an area which, except for being soft and wet, would be suitable to land upon. Here a ceiling of about 250 feet was noticed, so I circled it several times. Try as I would, I could not go in any direction, as a nearly zero-zero condition was found.

'Well, I'm all right now anyway,' thought I, 'I'll just circle for a little while, the field will be getting dryer, my plane will be getting lighter, and possibly the weather may clear up a bit.'

It was fifty-five minutes after I located this field, during which time I had circled the area countless times at about 200 feet altitude, when a small rift appeared. A few minutes' flying, and the gilded dome of the Mineola Courthouse suddenly appeared. Later the hangars at Mitchell took shape, and the P-12 slid easily down to the line.

The Operations Officer and the O.D. came out in a hurry. 'Is your name so and so? Well, thank goodness, that's that. About twenty phone calls have come in about a pilot gone cuckoo who circles constantly over an opening - always at the same height and at the same speed.'

These two worthy gentlemen were torn between two conflicting emotions. Should they allow their joy over the safe return of their favorite Pursuit ship blind them to the poor judgment of its pilot in leaving the security of North Beach?

An hour and 55 minutes for the 20 miles from that airport to Mitchell Field is a non-stop record which, so far as known, still stands - but the P-12 was ready for more."

MORAL: Make careful check before leaving. Do not be in too big a hurry to get down when conditions are yet flyable and light and fuel remain.

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SPEED RECORD FOR AMPHIBIAN TYPE PLANE ✓

At the Wayne County, Mich., airport on September 15th, Major Alexander de Seversky established a world record of 230 miles per hour with his amphibian, the same one which at Cleveland established a closed course mark of 193 miles per hour. Major and Mrs. de Seversky were guests of Major and Mrs. George P. Tourtellot at Selfridge Field.

V-6867, A.C.

NICHOLS FIELD BOMBERS VISIT IWAHIG
By the News Letter Correspondent

During the days of August 9th, 10th and 11th, five Bombers, under the leadership of Major Thomas W. Haste, Air Corps, made another of those intensely interesting flights into the Southern reaches of the Philippine Archipelago.

Leaving Nichols Field at 8:00 a.m., August 9th, the flight proceeded to San Jose, Mindoro, where a short stop was made for refueling. Proceeding therefrom, they continued to the Island of Palawan and landed on the new landing field at Iwahig, the famous Penal Colony of the Philippines, about 400 miles from Manila.

Iwahig is one of the most unique penal colonies in the world. A branch of Manila's famous Bilibid Prison, it operates under the theory that, if a so-called criminal is given a better condition in which to live than crime can furnish him, he will cease his criminal tendencies. Iwahig is a huge farm on which is maintained a large coconut plantation and a stock farm for hogs, cattle and poultry. On this farm the colonists who go there work and live very much like the members of a military organization.

There is a total of 1531 people living in Iwahig. Of this number, only 25 are civilian employees, 1250 being colonists who go there on their good behavior. The remaining 256 are wives and families of colonists who are permitted to live with their men, in separate houses. The other colonists live in big buildings like an army barracks.

There are no barred windows and no armed guards. Each man is assigned a job he can do, and he does it because if he does not perform according to regulations he will be sent back to Bilibid. Escape from the Island would be next to impossible, but even were it easy there would be little danger of these colonists trying to escape, because they live under much more favorable conditions here than they did before their incarceration. In fact, it amounts almost to tragedy when one has served his sentence and is dismissed.

The personnel of the flight were entertained royally while at the colony. A four-course meal was served, consisting of soup, barbecued pig, boiled rice with curry sauce, and boiled chicken necks. This fare is far superior to the average native peasant's meal which would be boiled rice and fish.

After the evening meal, a dance was staged for the benefit of the visitors, and the next morning a personally conducted tour was made over the farm and through the buildings of the colony.

Leaving Iwahig about noon of the 10th, the flight proceeded to San Jose, Mindoro, where the personnel remained over night, refueled and serviced the

planes. After another unique supper, a boxing match was put on for their benefit.

Soon after leaving Iwahig another interesting spot was passed when they flew over the Culion Leper Colony in Northern Palawan. This is the largest Leper Colony in the world. The planes flew low over this colony and several interesting pictures were taken. Although this flight did not land at Culion, there is a good landing field there, and a number of Air Corps officers have landed there at various times recently.

On the following morning, the flight proceeded to Nichols Field. In addition to Major Haste, the following-named officers made the trip: Captains John S. Mills, Julius T. Flock, George W. Hansen and 1st Lieut. Carl A. Brandt. Sixteen mechanics, radio operators and photographers also accompanied the flight.

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FLOOD RELIEF WORK IN THE PHILIPPINES

Exceptionally hard and unceasing rains caused serious floods in Central Luzon, isolating Clark Field and Fort Stotsenburg, and stopping all rail and motor transportation both to the south and north. For a period of about ten days the pilots of the 3rd Pursuit Squadron, Clark Field, were able to perform a real service by aiding in the inspection of the flooded areas, flying food and water to those stranded away from the post, and carrying mail, etc., from Manila to Fort Stotsenburg.

The 3rd Pursuit Squadron is well started on its training schedule, despite the handicaps of the rainy season and resulting bad weather.

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PURSUIT GROUP FIELD EXERCISES IN VIRGINIA

The 36th Pursuit Squadron at full strength participated in the 8th Pursuit Group Field Exercises recently held at Virginia Beach, Va., for a period of five days.

The squadron was organized as follows: 12 pilots regularly assigned; 3 pilots attached from the 33rd Pursuit Squadron; 3 pilots attached from the 37th Attack Squadron; 6 pilots attached from the First Pursuit Group; 4 pilots attached from the 9th Bombardment Group. The equipment comprised 7 P-12F's, 5 P-12K's, 6 P-6E's and 3 A-8's.

The Exercises consisted of the following phases: Moving the Squadron at full strength to the advanced airdrome at Virginia Beach, as part of the 8th Pursuit Group; establishing a camp in the field and performing one to three missions daily for five days, using eighteen planes on each mission; the loading of bombs and ammunition; the refueling and maintenance of airplanes and returning the organization to Langley Field.

"Special mention should be made of the V-6867, A.C.

flying done by the visitors," says the News Letter Correspondent. "Both the Selfridge and Mitchel pilots were called on to fly the Langley String Formation with practically no chance for any advance practice. The Selfridge Field pilots were assigned to the P-6E's, and after their first introduction to the new formation were right 'at home.'

The boys from Mitchel Field, though, were confronted with the double difficulty of flying an entirely new formation and trying to make an Observation ship act like a Pursuit ship. By taking advantage of their opportunity to 'cut corners,' they were always in their approximate position. Their flying, as a whole, was done in a very commendable manner."

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GENERAL FOULOIS HONORED BY INSTITUTE OF THE AERONAUTICAL SCIENCES

At a meeting on September 19th of the Council of the Institute of the Aeronautical Sciences, R.C.A. Building, Rockefeller Center, New York City, Major-General Benjamin D. Foulois, Chief of the Army Air Corps, was elected an Honorary Member of the Institute. The following citation was part of the resolution enacting this election:

"For his courageous foresight in laying the foundation of military aviation; in recognition of great personal sacrifices made in pioneering a field which has become a major factor in the national defense of all countries; for advoca-

cy of the premier position aircraft should occupy in commerce and military strategy; and for his leadership in utilizing the aeronautical sciences for the technical development of the flying equipment of the Army."

General Foulois is only the second person to be thus honored, the other being Dr. Sylvanus Albert Reed, whose contribution to the progress of aviation was the invention of the famous Reed metal propeller, in recognition of which he was awarded the Collier Trophy in 1926.

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LIEUT.-COLONEL WELSHMER LEAVES AIR CORPS TACTICAL SCHOOL

Lieut.-Colonel Robert R. Welshmer, Coast Artillery Corps, genial instructor at the Air Corps Tactical School, Maxwell Field, Ala., has received orders transferring him to the Infantry and assigning him to duty with the 8th Infantry at Fort Moultrie, South Carolina. He returned recently from leave of absence and is preparing to depart very soon for his new station.

Col. Welshmer has been stationed at Maxwell Field since September, 1931, when he was detailed as a student for the 1931-32 class at the Tactical School. Immediately upon graduation, he was detailed as an instructor and performed duties as Chief of the Fourth Section, Coast Artillery Instructor, Anti-Aircraft Artillery Instructor, Military Intelligence Instructor and instructor in Military Geography during his tour at the school.

Col. Welshmer is one of the few officers on duty with the Army who are graduates of the United States Naval Academy, from which he graduated in 1908. In addition to attending the University of Illinois for 3½ years prior to his appointment as a midshipman, he is a graduate of the following Army schools since his entry into the service:

Distinguished graduate, Coast Artillery School, class of 1916.

Coast Artillery School, Advanced Course, class of 1927.

Command and General Staff School, class of 1928.

The Air Corps Tactical School, class

of 1931-32.

During 1917, Col. Welshmer served first as an instructor in organization and first course of the Heavy Artillery School, A.E.F., and immediately upon returning to the United States in 1918, was appointed Senior Instructor and later Commandant of the Coast Artillery School. He holds the Distinguished Service Medal, received in 1918.

He was later detailed as Senior Instructor, Coast Artillery, California National Guard, from 1920 until 1922; Instructor, Command and General Staff School, 1928 until 1931, and later as instructor at the Tactical School from 1932 until his transfer.

In addition to his many details as instructor in the different schools, Col. Welshmer has served as a member of the Coast Artillery Board, as Editor of the Coast Artillery Magazines "Liaison" and the "Journal of the U.S. Artillery," and as Commanding Officer of the 63rd Coast Artillery, Anti-Aircraft.

He has made a host of friends at Maxwell Field and in Montgomery, and the best wishes of them all accompany him upon his new assignment at Fort Moultrie.

Major Benjamin F. Harmon, Coast Artillery Corps, has been detailed to replace Col. Welshmer as instructor and Chief of the Fourth Section at the Tactical School.

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The News Letter solicits pen and ink drawings of cover designs. These will be gratefully acknowledged when published.

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MARCH FIELD PERSONNEL SHOW THE WAY IN SKEET SHOOTING
By the News Letter Correspondent

Skeet shooting virtuosos of March Field completely vanquished the shotgun quintets of Hamilton and Rockwell Fields on September 5th in a Wing Championship Match held during the concentration of the First Wing at March Field. The March Field Skeeters scored 116 points out of a possible 125. Hamilton Field trailed with a tally of 87, while Rockwell Field made a close third by popping 82 discs.

The outstanding performance of the day was a perfect score of 25 hits out of 25 discs by the team captain, 2nd Lieut. Junius W. Dennison, Air Reserve. By making the highest March Field team score for the day, he won the brassard offered by the National Skeet Shooters Association for the club champion.

Runners up for the brassard were Lieut. Frederic C. Gray, Jr., and Lieut. Calvin E. Peeler with 24 each. Another high scoring Reservist was Lieut. John Hilger with 22 hits. The only regular army officer on the squad, Major Harold Albaugh, of the Medical Corps, smashed 21 of the elusive discs.

Members of the second place Hamilton Field squad were Captains Donald J. Keirn, Walter R. Agee, Donald Lyon, and 2nd Lieuts. Alexander Burton and Edward Virgin of the Air Reserve. Hamilton's chief shooter was Captain Keirn.

The Rockwell Field five comprised Lieut.-Colonel H.C. Davidson, Captains Robert Williams, Westside T. Larson, 1st Lieut. J.T. Murtha and 2nd Lieut. Dolf Muhleisen, former March Field tennis star.

Although Skeet was entirely unknown at March Field a year ago, it is now one of the major sports activities of the officers of the garrison. In twelve months, March Field skeet shooters have so improved their shooting that they have been able to win trophies all over Southern California in competition against expert civilian trap shooters. This rapid advance may be partly accounted for by the fact that the Army furnishes 50,000 rounds of ammunition a year to Air Corps officers on duty at March Field. The Army believes that skeet shooting helps to develop excellent machine gunners inasmuch as the targets are moving in both cases.

Second Lieutenant Dennison, team captain at March Field, is enthusiastic about the opportunities that skeet offers to pilots wishing to perfect themselves as aircraft machine gunners. Because targets are fired at from eight different positions, skeet shooting bears some resemblance to aerial gunnery, Lieut. Dennison stated.

Among Regular Army officers, skeet has a great number of enthusiasts.

Major Ira C. Baker, who recently left March Field for Maxwell Field, Ala., is an enthusiastic skeeter. Major Virgil Hine, who commands the 95th Attack Squadron, is one of the best shots on March Field.

Lieut. Gray has attained the highest average since the inauguration of the sport at March Field - 96%. This officer was recently awarded the Frank Luke Trophy for the best aerial pursuit gunnery performance of the year, his score being 1176 out of a possible 1750 points. Other officers with good records are Lieut. Dennison with 94%, Lieuts. Calvin S. Peeler and John Hilger with 88%, and Lieut. Roscoe Dunahoo with 82%. All of these officers have won valuable prizes in recent months by competing against crack civilian skeet shooters of Southern California.

One of March Field's star skeet marksmen, Lieut. Dennison, with one perfect score of 50 straight and nine of 25 straight, has won four prizes, one of them for finishing in second place in the Southern California Skeet Association shoot. Other leading prize winners are Lieuts. Dunahoo and Peeler with five 25 straights and one 50 straight, Lieut. Gray with four 25 straights and one 50 straight, and Lieut. Hilger, winner of two trophies.

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SERGEANT PRICE LEAVES THE AIR CORPS

Sergeant, A.M. 1st Class, John H. Price, pilot, 3rd Transport Squadron, was honorably discharged by purchase at the San Antonio Air Depot on September 6th. He has a long record of especially able and efficient service. Entering the World War as a private in the Aviation Section, Signal Corps, he soon received a commission, and served for one year and eight months as a First Lieutenant in the Air Service. After the war he joined the Marine Corps, and served from 1923 to 1926 in Haiti as a Master Sergeant. Returning to civil life, he was employed for three years as Chief Pilot of the Pan American Airways. He reentered the Army in 1930 as a Sergeant in the Air Corps at Randolph Field.

While a member of the 67th Service Squadron at that station, he was placed on detached service at the San Antonio Air Depot on June 7, 1932, as one of the first pilots of the air transport service, continuing on that duty since that date, and having been transferred to the new 3rd Transport Squadron on its organization on July 5, 1935. He has been for many years a pilot of outstanding skill, with over 6,900 pilot hours to his credit, and with only one accident in his entire career, this on March 6, 1935, when motor

trouble necessitated him taking to his parachute, as reported in the News Letter of May 15, 1935.

Sergeant Price, as a Captain in the Air Reserve, is expecting orders for active duty with the Civilian Conserva-

tion Corps in the Fourth Corps Area.

The many friends of Sergeant and Mrs. Price in the vicinity of San Antonio sincerely regret their departure and extend heartiest wishes for success in their new field.

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SUCCESSFUL TEST OF UTILIZATION OF AIRPLANES AND RADIO IN "MAN HUNT."

By Lieut. Ellsworth C. French, Washington National Guard

Two voice radio experiments of interest with the new SCR-AA-185 sets were successfully completed recently by the 41st Division Aviation, Washington National Guard, Felts Field, Spokane.

What may be a record for voice communication with the new military airplane radio sets was established in communication with the ground station of the Washington State Highway Department in Olympia, a distance of about 300 miles from Felts Field.

Perfect voice conversation was carried on between the pilot and observer with Lacey V. Murrow, Director of Highways, who operates 12 stations, 50 watts each, in various parts of the State of Washington.

Because he is himself a pilot, Director Murrow has authorized the cooperation of his highway department stations with airplanes in providing weather information. Upon leaving any airport in the State, where a highway department radio station happens to be located, contact is kept with the airplane throughout its flight, thus making it possible to secure weather information at any time.

Recent bank robberies in the vicinity of Spokane, involving the murder of bank employees, prompted Chief of Police Ira Martin, of Spokane, to ask for a radio experiment with the 41st Division Aviation and his ground station of 100 watts.

A radio problem was, therefore, worked out between four airplanes of the Squadron, the police ground station and radio prowler cars, the sheriff's radio cars and cars of the State police.

What started to be only a problem, however, turned out for a time to be a real "Man Hunt." Upon establishing communication with the police radio, "all cars and airplanes" were ordered to look for a Model A, Ford Coupe, green panel body, wanted in connection with the murder of the constable at Newport, Washington.

Within 15 minutes after the above announcement, the Ford car was picked up in Spokane by prowler car officers. The experimental radio problem continued, with the police ground station giving a description of the project automobile, so called bandit car.

The occupants of the car, Chief Martin and Police Commissioner A.B. Colburn, were supposed to have robbed a bank.

Their general departure from Spokane was given, as well as the description of their automobile.

Within 20 minutes after the announcement of their departure, one of the squadron radio planes picked up the fleeing automobile and notified the police ground station, which took command of the situation, ordering all cars and airplanes in the direction of the fleeing car.

The airplane in pursuit of the car then gave constant advice as to the location of the car as it flew above, thus keeping all airplanes and cars advised of the proper location. Soon all four airplanes were circling over the bandit car.

To make the experiment more realistic, flour sacksbombs were hurled at the automobile, one bomb striking the rear of the car and two landing in the middle of the road about 25 feet in front of it. Fixed and flexible camera guns were used to fire on the automobile, and the 116th Photo Section photographed the machine to demonstrate the clearness with which it could be seen.

Following the direction of the radio airplane, the radio-equipped automobiles, filled with officers, soon surrounded the "bandit car."

"It was a perfect demonstration and proves that we can use to a very great advantage radio-equipped airplanes in trailing bandits," reported Chief Martin. "No car could have survived the rain of bombs that fell from those airplanes, and the aerial camera gun film showed what could be done by the real machine guns."

Spokane police next want to conduct a similar experiment, this time the attempt being to keep a so-called bandit car from entering Spokane.

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Another record for hours per pilot is the goal of officers of the 41st Division Aviation, Washington National Guard.

"We are not satisfied with our accomplishment of last year, and therefore have fixed a goal for ourselves of 250 hours per pilot for the fiscal year 1936," said Capt. Claude Owen, Operations Officer of the 116th Observation Squadron. "It was not difficult for our pilots to average about 237 hours per pilot last year, and I am confident we can attain our new goal." The Squadron is seeking an additional allowance for gasoline.

V-6887, A.C.

Rifles spitting blank cartridges, Coast Artillery searchlights probing the night air for Pursuit planes and speedy Bombers, airplanes dropping love tokens in the shape of noise bombs, all were thrilling features of a night attack by air on San Diego's Exposition on the night of September 6th.

The aggressors were the Pursuit planes of the 17th Attack Group from March Field and the Martin Bombers from the Seventh Bombardment Group from Hamilton Field and the 19th Bombardment Group from Rockwell Field. Defenders of the Exposition's Grounds were the 63rd Coast Artillery from Fort MacArthur, Los Angeles Harbor, and the Provisional Company of 30th Infantry from Camp George H. Derby, Exposition Grounds.

The sham battle was the climax of

three days of mock air attacks, starting September 4th and ending September 6th. The culminating feature of the Wing concentration was the Wing Review of over 60 planes, held at Rockwell Field, Coronado, on the morning of September 7th. At the conclusion of the air parade, the Seventh Group left for Hamilton Field, under the command of Lieut.-Colonel Clarence L. Tinker, and the 17th Attack Group, commanded by Major Walter R. Peck, left for its hangars at March Field.

The mimic battles between the Coast Artillery and the Air Corps were watched closely by Major-General Paul B. Malone, Commanding General of the 9th Corps Area, who was reported as saying that he was pleased with the showing made by the Army units in both the day and night displays.

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UNITED STATES TAKES THE LEAD IN AERONAUTICAL RECORDS

According to an article in the September issue of the "National Aeronautic Magazine" by Mr. William R. Enyart, Secretary of the National Aeronautic Association Contest Board, the United States now holds 45 records in aviation, with the prospects good for securing quite a number of additional records in the very near future.

This is quite a different situation from that which existed last July. A copy of the Official Bulletin for July of the Federation Aeronautique Internationale, the world's aviation governing body, which listed a grand total of 111 aeronautical records, both heavier-than-air and lighter-than-air, gave France the lead with 45 records; the United States with 31; Italy, 21; Germany, 10; Poland, 2; and Great Britain and Spain, one each. In lighter-than-air aviation, the United States was given the lead with 10 records, followed by France with 5; Germany, 4, and Poland, 1.

In the feminine category, wherein 12 heavier-than-air records were listed, the fair sex of France held the lead with 7 records; followed by those of Sunny Italy with 3, and those of the good old U.S.A. with 2.

Mr. Enyart goes on to say that Sergievesky, Musick, et al, gave the drive of the United States for additional world's aviation records a flying start with their ten records set with the Sikorsky S-42. D.W. Tomlinson's addition of nine marks to the U.S. holdings with the TWA Douglas DC1 was a great help. He also mentions three world's records established by Benjamin King, of Washington, D.C., who flew a diminutive Aeronca Seaplane; Lieut.-Commander Stone and Lieut. Burke, of the U.S. Coast Guard, who flew Grumman Amphibians; Helen MacCloskey, flying a

Monocoupe; Art Chester in his Chester Special and Maxine Bennett in a Spartan.

It may be mentioned, incidentally, that of the ten records established by Col. Lindbergh, Boris Sergievsy and Edwin Musick in the Sikorsky S-42, three were recently surrendered to Brigadier-General Frank M. Andrews, Air Corps, as mentioned in the previous issue of the News Letter.

If the speed record of approximately 350 miles per hour, set by Howard Hughes on September 13th at Santa Ana, Calif., is confirmed by the Federation Aeronautique Internationale, America will gain another record, this one at the expense of France, for up to this time Raymond Delmottee, a Frenchman, is credited with this record - 314.319 miles an hour, made last Christmas day in a Caudron monoplane, powered with a Renault motor.

Hughes was reported to have flown in a series of six flights over a closed course: at a speed of 355 miles per hour on his first dash; 337 m.p.h. on his second; 350 h.p.h., 340, 350 and 353 m.p.h. on his third, fourth, fifth and sixth dashes, respectively. His airplane, a low-wing metal monoplane, is powered with a 14-cylinder 1,000 horsepower "Wasp" motor.

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ATTACK PILOTS IN PINE CAMP MANEUVERS

Three A-8 Attack planes of the 37th Attack Squadron, Langley Field, Va., were recently flown by Lieuts. Hale, Grussendorf and Sutherland, accompanied by Sgt. Hayes, Sgt. Mayton and Pvt. ~~Hankay~~, to Watertown, N.Y., to participate in the First Army Maneuvers held at Pine Camp. During the eight days these planes were at the scene of "hostilities," they were used to lay two smoke screens, one for the Reds and one for the Blues. Very excellent results were obtained due to the ideal weather conditions prevailing at that time.

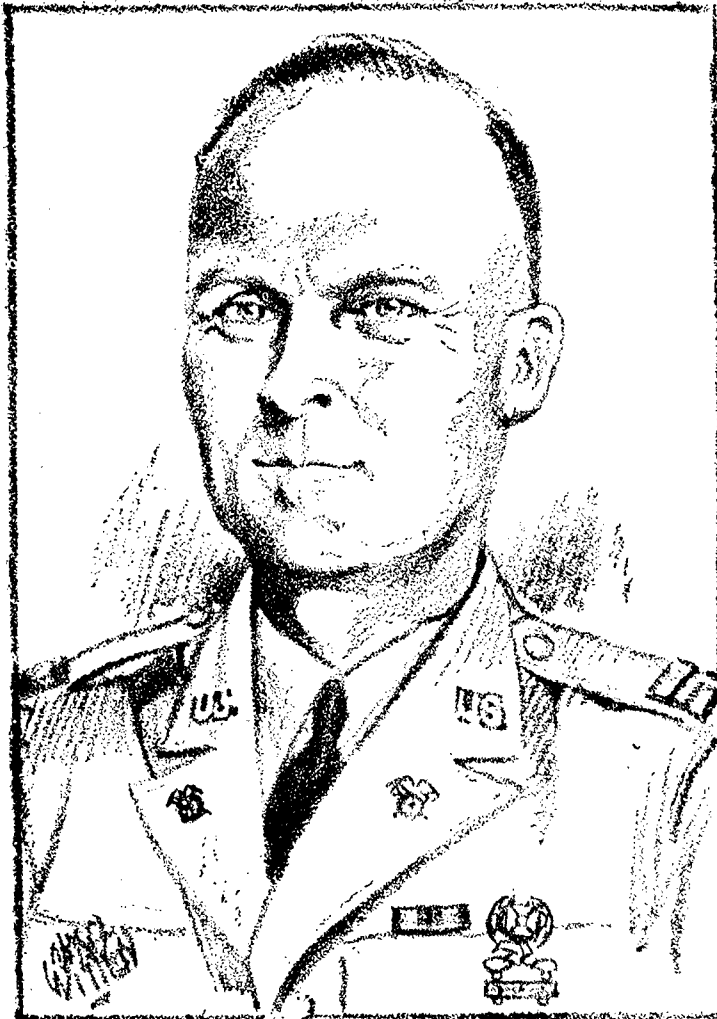
HICKAM FIELD TO BE MINIATURE CITY WHEN COMPLETED

Plans for Hickam Field, to have an area of more than 2,500 acres, and ultimately to cost more than five million dollars, were recently approved by Major-General Hugh A. Drum, Commanding General of the Hawaiian Department.

The immediate construction of the Army's great airport will involve four double hangars, one operations hangar, the necessary water, sewer and roads system, and construction of the landing mat or runway.

Upon its completion, the field will contain quarters for about 180 officers, 175 non-commissioned officers, and barracks for 1600 enlisted men. Four additional double hangars, making a total of eight, will be constructed as soon as funds become available; also a machine shop and the necessary warehouses. When the President signed the Second Deficiency Act, he made available \$4,500,000 for the Army's great flying field near Fort Kamehameha, which the War Department designated "Hickam Field," in honor of Lieut.-Colonel Horace M. Hickam, Air Corps, who was killed in an airplane accident at Fort Crockett, Texas, November 5, 1934.

It is expected that approximately two and one-half years will be consumed in the construction of the new field. The officers' quarters will be of the latest individual bungalow type, in many respects following the local architecture, and constructed to meet the climatic conditions of the Hawaiian Islands. These quarters will be modern in every respect, embodying all of the latest features and equipment. The barracks and the hangars will be of the latest design. The



Captain Howard B. Nurse, QMC, Constructing Q.M.

layout of Hickam Field will resemble a small modern city, with broad boulevards, sidewalks, street lighting system, telephone system, fire department, public school and the utilities and facilities comprising a modern progressive community.

Landscape gardeners are already at work on the site, cultivating shrubs, plants and trees.

There will be over 20 miles of paved roads, with broad tree-lined boulevards affording direct communication and vistas to focal points.

The barracks for the enlisted men will be a radical improvement over the old time buildings to which they have become accustomed. They will contain lounging and reading rooms, a modern dining room with cafeteria service, and a thoroughly up-

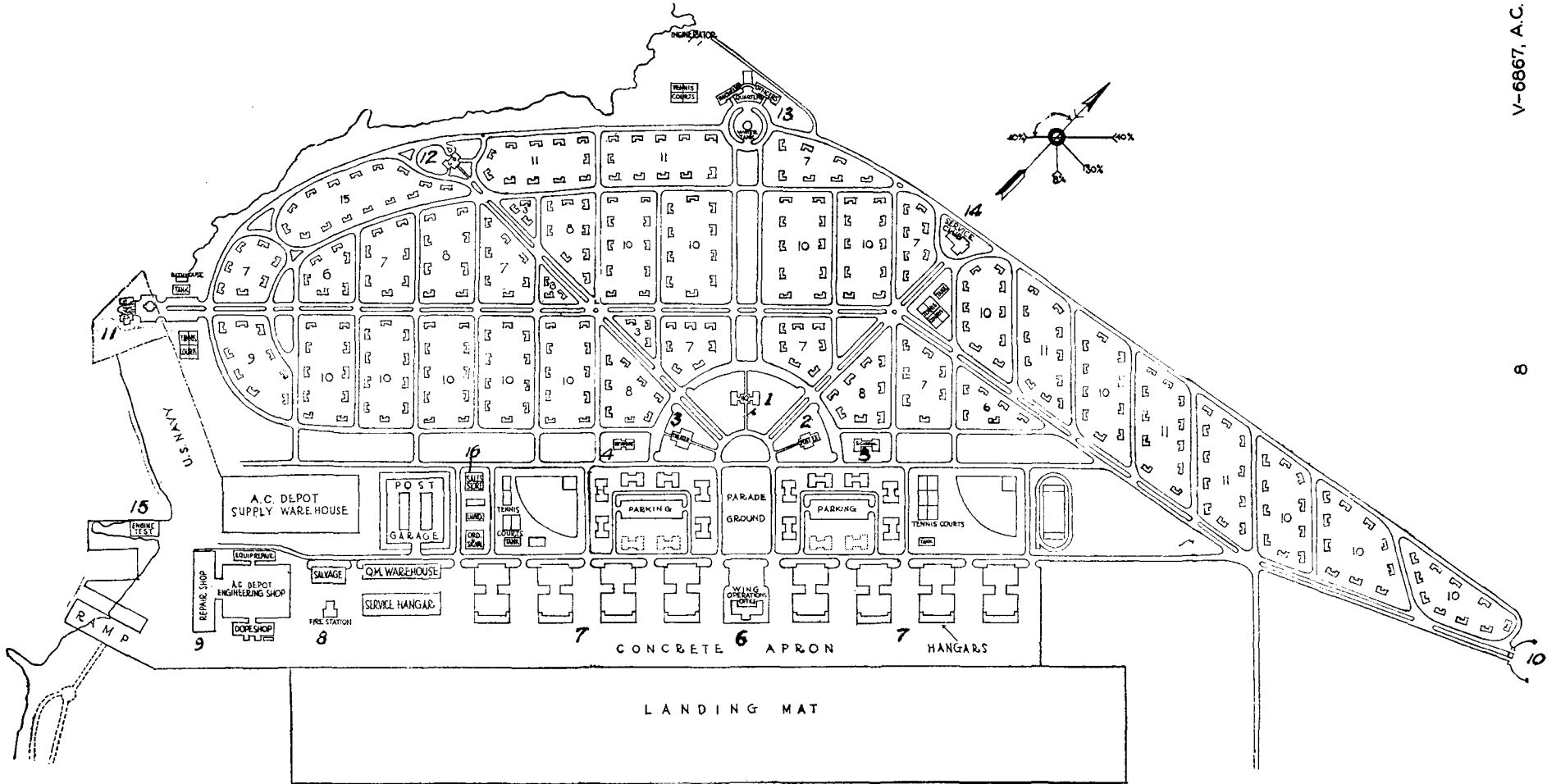
to-date kitchen, where there will be machinery for the manufacture of ice cream, and what is perhaps more important to enlisted men averse to kitchen police details, a machine for the peeling of spuds.

The Air Corps Depot will include very large steel and concrete buildings, consisting of shops for the major overhaul of airplanes, and buildings for warehousing facilities.

In the reproduction of the blue print plans for the various projects to be included in the construction of Hickam Field, it will be noted that at either side of the parade ground are the barracks for the enlisted men. Due to the reduced size of this blue print reproduction, some of the features of this big project are numbered for ease of identification, viz: 1. Post Headquarters; 2. Post Exchange; 3. Post Theatre; 4. Post Infirmary; 5. Post Schools; 6. Wing Operations Office;

V-6867, A.C.

LAYOUT OF PROPOSED MAMMOTH AIRDROME AT HICKAM FIELD WHERE WORK IS SOON TO BEGIN



7. Double Hangers; 8. Post Fire Station; 9. Repair Shops, Engineering Shops, Equipment Repair; 10. Entrance Gate; 11. Officers' Club, with Bath House and Tennis Courts; 12. Quarters of Post Commander; 13. Bachelor Officers' Quarters facing water tank with Incinerator in rear; 14. Service Club; 15. Engine Testing Shop; 16. Sales Store, Ice Plant, Post Laundry, Ordnance and Signal Property.

Major Don L. Hutchins, Air Corps, and Capt. Howard B. Nurse, Quartermaster Corps, were ordered to the Hawaiian Department last June to supervise the construction of Hickam Field.

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CAPTAIN HOWARD B. NURSE, QUARTERMASTER CORPS

One inclined to delve into the history of Army posts will find the name of Captain Howard B. Nurse, Quartermaster Corps, intimately linked with two of the most beautiful flying fields in the United States, if not in the entire world, these being the Air Corps Primary Flying School at Randolph Field, San Antonio, Texas, and Hamilton Field, San Rafael, Calif., the home of the Seventh Bombardment Group, Air Corps. Captain Nurse was the Constructing Quartermaster during the construction of Hamilton Field, and when the plans were laid for the construction of the veritable city which houses the Air Corps Primary Flying School, he was on duty in the Quartermaster General's Office, Washington, D.C., as Chief of the Design Section.

Hamilton Field, which the News Letter Correspondent from that station stated is accorded the distinction of being the most beautiful of all Air Corps posts, was designed and built by Captain Nurse on a plan which took advantage of the natural beauty of the locale. As stated in a recent article describing Hamilton Field, it is a little Spanish village just sprung from the hills, the homes, truly Spanish in character, being scattered so as to take advantage of the view of San Pablo Bay to the east and the Coast Range Mountains to the west.

And now with his task at Hamilton Field well done, Captain Nurse several months ago was sent to Hawaii to supervise the construction of the new Hickam Field.

Born December 12, 1881, in Rochester, N.Y., Captain Nurse graduated from high school in 1900, and from the Rochester Mechanics Institute in 1904. He worked in an architect's office for several years, and later, as a New York State registered architect, practiced in Rochester for ten years. During the War, he entered the second officers' training camp at Fort Niagara, N.Y. Commissioned a Captain, he was ordered to duty in the Construction Quartermaster's Division at Washington, D.C., where he served all during the war period. His division supervised the construction in all camps west of the Mississippi River and new warehousing projects. From 1919 until 1923 he was engaged

in the completion of the \$5,000,000 storage depot at Schenectady, N.Y.

Ordered to the Philippines in 1923, Captain Nurse for the next 2½ years served at Camp John Hay, at Baguio, as Post Quartermaster. Returning from the Islands in 1926, he took up his duties as Construction Quartermaster for all posts in the vicinity of New York, with headquarters in New York City. Six months later he was ordered to duty in Washington in the design and engineering branch of the Quartermaster General's Office.

His next assignment was that of Construction Quartermaster at San Antonio and vicinity, and from there proceeded to duty as Construction Quartermaster for San Francisco and vicinity, during the course of which he took over the Hamilton Field construction project.

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MAJOR DON L. HUTCHINS, AIR CORPS

Major Don L. Hutchins, Air Corps, who so ably represented the Air Corps for two years in the construction of Hamilton Field, and who is now again associated with Captain Nurse in the construction of Hickam Field, is an officer who has had experience in general engineering and construction work. He was born September 17, 1894, at Van Meter, Iowa, and was educated in the elementary schools and high school in that city. He attended the Highland Park Technical School at Des Moines, Iowa, and later studied mechanical engineering and drafting while engaged in the automobile industry.

During the War, he enlisted in the Aviation Section, Signal Corps, and served as Private and Corporal at the Army Balloon School at Fort Omaha, Nebraska, from April to October, 1917. He then pursued a course in ballooning at this school and, qualifying for the duties of a commissioned officer, was appointed a second lieutenant on February 13, 1918, and placed on active duty at Fort Omaha. Subsequently transferred to the Army Balloon School at Camp John Wise, San Antonio, Texas, he served as Assistant Flight Instructor, also as instructor in observation, panoramic drawing, drafting and engineering. In October, 1918, he was detailed as Post Engineering Officer and as Commanding Officer of the 95th Balloon Company.

In February, 1919, Major Hutchins was transferred to Akron, Ohio, to pursue a course in dirigible training. In July of that year he was transferred to Langley Field, Va., where he was placed in command of the 19th Balloon Company. Following a course in navigation at the Naval Navigation School at Pensacola, Fla., he was ordered to duty as airship officer with the 8th Balloon Company at Fort Bliss, El Paso, Texas. Later he served as Operations Officer of the 1st Airship Group. In December, 1922, he was transferred to Scott Field, Belleville, Ill. He was a member of the crew of the Airship C-2 on its transcontinental flight to the Pacific Coast and return, which flight
(Continued on page 19).

PROMOTION OF AIR CORPS OFFICERS

Special Orders of the War Department, recently issued, announced the promotion of officers of the Regular Army, with rank from August 1, 1935. A total of 4310 officers of the Regular Army received promotions - 148 Lieutenant-Colonels to Colonel; 501 Majors to Lieutenant-Colonel; 1390 Captains to Major; 1522 1st Lieutenants to Captain and 759 2nd Lieutenants to 1st Lieutenant. There were also promoted 19 officers of the Veterinary Corps (7 1st Lieutenants to Captain and 12 2nd Lieutenants to 1st Lieutenant); 4 Chaplains (1 Lieutenant-Colonel to Colonel and 3 1st Lieutenants to Captain); and 30 officers of Philippine Scouts (7 Majors to Lieutenant-Colonel, 5 Captains to Major, 16 1st Lieutenants to Captain, and 2 2nd Lieutenants to 1st Lieutenant).

Air Corps officers who received promotions are enumerated below, as follows:

To Colonel
 Lieutenant-Colonels:
 Henry Conger Knott
 Gerald Clark Brent
 Ira Longenecker
 Frank Maxwell Andrews
 Oscar Westover*
 Henry Black Claggett
 Jacob Earl Fickel
 Rush Blodgett Lincoln

To Lieutenant-Colonel
 Majors:
 Frank Dorwin Lackland
 Herbert Arthur Dague
 Harrison Henry Cocke Richards
 Ira Adelbert Eader
 Douglas Blakeshaw Netherwood
 Lewis Hyde Brereton
 Edward Lincoln Hoffman
 Hugh Johnston Knear
 Eugene Alexander Lohman
 Follett Bradley
 Shepler Ward FitzGerald
 Leslie MacDill
 Lawrence Sprague Churchill
 Clarence Leonard Tinker
 Martin Francis Scumlon
 Byron Quinby Jones
 Davenport Johnson
 Walter Glenn Kilner
 Henry William Harms
 Millard Filmore Harson, Jr.
 Fred Hughes Coleman
 John Chilton McDonnell
 Roy Messick Jones
 Percy Edgar Van Nostrand
 John Bernard Brooks
 Harold Aron Strauss
 Junius Wallace Jones
 Clinton Warden Russell
 George Edward Lovell, Jr.
 Carlyle Hilton Wash
 Howard Calhoun Davidson
 Harvey Steele Burwell

Captains to be Majors
 Thomas Watson Hestey
 Morris Berman
 Walter Bender
 Albert Michael Guidera
 James Francis Doherty
 Lynwood Benjamin Jacobs
 Frank Wilbur Wright
 Edgar Peter Sorensen
 Robert Olds
 Ross Gordon Hoyt
 William Bentley Mayer
 Richard Henry Ballard
 Ralph Hudson Wooten
 Harold Mark McClelland
 Volcott Paige Hayes
 Edmund Walton Hill
 Walter Francis Kraus
 William Eugene Farthing
 Orlo Harry Quinn
 Lester Thomas Miller
 Arthur Bee McDaniel
 Francis Murray Brady
 Arthur Edmund Easterbrook
 Warner Beardsley Gates
 Ira Clarence Eaker
 Roneyn Beck Hough, Jr.
 Frank Hitch Pritchard
 Idwal Hubert Edwards
 George Stewart Warren
 Early Edward Walters Duncan
 William Downing Wheeler
 Armin Ferdinand Herold
 Charles Addison Pursley
 George Luke Usher
 Joseph Henry Davidson
 Paul Jones Mathis
 Otto Gresham Trunk
 Gilbert Taylor Collar
 Benjamin Franklin Giles
 Edward Crews Black
 Robert Kauch
First Lieuts. to be Captains
 Augustine Francis Shea
 Nathan Ferragut Trining
 Ralph Francis Stearley
 Russell Lowell Williamson

Adolphus Rankin McConnell
 Kenneth Newton Walker
 Oscar Leslie Rogers
 Samuel Perham Mills
 Edgar Theodore Selzer
 Charles Harold Howard
 Edward Alton Hillery
 Everett Sanford Davis
 Donald Reuben Goodrich
 Harold Brand
 Julian Buckner Haddon
 Haynie McCormick
 Cornelius Emmett O'Connor
 Park Holland
 Donald Frank Stace
 Thomas Dresser White
 Lawrence Joseph Carr
 Harry Clark Wisehart
 John Ferral McBlain
 Harold Thurston McCormick
 John Lamont Davidson
 Hugo Peoples Rush
 Ernest Starkey Moon
 Arnold Hoyer Pich
 Charles Darson McAllister
 James Thorburn Curberpatch
 Don Waters Mayhue
 Edmund Clarence Langmead
 David William Goodrich
 James Milliken Bevans
 Paul Hanes Kermer
 Donald Boyer Phillips
 Cecil Elmore Archer
 Louis Meline Merrick
 Dudley Warren Watkins
 Lyman Perley Whitten
 Ray Henry Clark
 Homer Wilbur Ferguson
 Donald Wallace Norwood
 Robert William Calvert Wimsatt
 Donald Fowler Fritch
 John Sharpe Griffith
 Edmund Clayton Kessler, Jr.
 Alfred August Kessler, Jr.
 Mervin Eugene Gross
 Benjamin Wiley Chidlaw
 Orval Ray Cook
 James Wrathall Spry
 Robert Wilkins Douglass, Jr.
 Oscar Louis Beal
 Hilbert Milton Wittkop
 Townsend Griffiss
 Lee Henry Dawson
 Milton John Smith
 James Frederick Phillips
 Raymond Edward Culbertson
 Ralph Aiel Snavely
 Robert Bayd Williams
 John Wesley Warren
 Patrick Weston Timberlake
 Clyde Kenneth Rich
 Laurence Carolee Craigie
 Charles White Lawrence
 Wallace Evan Whitson
 Russell J. Minty
 James Francis Joseph Early
 Alden Rudyard Crawford
 (Continued on page 15).

* Brig. General and Assistant Chief of the Air Corps.

NIGHT AERIAL ATTACKS

By the Wheeler Field Correspondent

For a number of years it has been accepted as sound Air Corps doctrine that combat aviation can and will attack terrestrial targets at night as well as in the daytime. When the target is illuminated by a full moon, it is reasonable to expect that fair results may be obtained with present equipment, but there is little proof available to substantiate even this conservative statement. To secure some data on this important Air Corps problem, the 18th Pursuit Group at Wheeler Field recently conducted a series of training exercises involving the use of live ammunition against floating targets at night.

The 18th Pursuit Group consists of the 6th and 19th Pursuit Squadrons, the 26th Attack Squadron and the 75th Service Squadron. Its tactical flying equipment consists of P-12 and A-3 airplanes.

One of the missions of the 18th Group in an emergency might well be to repel the landing of hostile forces approaching Oahu in small boats. This mission would probably require night attacks against such boats by both Attack and Pursuit aviation, both of which have sufficient fire power to accomplish the mission, if the available fire power could be effectively applied.

Night flying conditions on Oahu present a special problem unlike those to be found anywhere on the mainland. While good weather generally prevails, the north east trade winds pile the clouds on the east side of the mountain ranges which fringe both the east and west shore. These clouds usually run up to six thousand feet and not infrequently pile up to twelve or fifteen thousand feet high. The cooling of the trade wind results in condensation and it is raining somewhere on Oahu all the time nearly every night. The thick cloud banks, the wooded mountains and the open sea surrounding the island on all sides make the majority of nights very black, indeed. The clouds, mountains and rain are a great asset to the defender who understands and uses them and a handicap to any attacker.

Major Clayton Bissell, Group Operations Officer, arranged with the Hawaiian Division for the use of the Hawaiian Division machine gun range lying over the ocean west of Waianae for a series of tests. Searchlights were procured to mark by horizontal beams the limits of the danger areas to small fishing boats from machine gun fire and to illuminate any such boats that might enter the danger zone. A crash boat was moved to Waianae to stand by in case of forced landing in the water.

A frame target six feet by eight feet

by four feet was constructed on a float and covered with target cloth. This was towed to a position about one thousand feet off shore and anchored. During the tests sea conditions were average to rough, which made the target as active as a small boat would have been and presented a target constantly moving up and down.

The nights selected for the test were moonless, partly cloudy and very dark. It was desired to secure information under the hardest conditions for operations. There was a fresh off-shore wind blowing during all tests which required airplanes to fire while flying down wind, reduced time for effective fire but was a normal condition for the locality and the condition generally to be expected along a shore line at night. Its great advantage was that it carried parachute flares out to sea and removed the fire hazard.

All attacks were made by attack aviation firing at ranges from 700 to 300 yards. Approaches were made in a slight glide. In horizontal approaches close to the water high waves hide the target and reflect light. Nothing is to be gained by flying under fifty feet above the water at night. Tracer ammunition was not used. Although the effectiveness of tracer ammunition in quickly bringing guns upon the target was fully appreciated, it was not essential, as the splashes will secure the same results.

The flares available and used for this exercise were 33 type M-8 flares from Lot No. 2027-1, which were condemned by the Chief of Ordnance and withdrawn from use for flights involving emergency landings but authorized for issue and use in flights not involving emergency night landings. Incidentally, each officer in the Pursuit squadrons released one of these flares to gain experience in releasing flares and illuminating targets for attack aviation. This proved to be valuable training, and each flare released functioned well, though there was considerable variation in the intensity of the light and the time of illumination.

After the first exercise all flares were dropped approximately over the shore line (1000 yards inshore from the target) and were carried by the wind toward the target. On one exercise in which ten flares were used the flares were dropped one for orientation and to determine exact wind direction, and velocity and then three groups of three flares each. Each group of three was dropped in approximately a straight line 90° to the line of approach - one flare of each group of three over the

line of approach and one on each side of the line of approach. The proper altitude for dropping will always depend on the velocity of the wind.

The target once illuminated should be kept under constant illumination. Before one group of flares burn out, another should have illuminated the target. If the flares go out entirely, the target, shore line and everything else is momentarily lost in the blackness that follows the intense light. After flares have been used for some minutes and then go out entirely the human eye is much less useful for several seconds than it was before any flares were dropped. All pilots were unanimous in this conclusion.

Immediately following the exercise just described, the attack rearmed and another Pursuit squadron took up the illumination for the second exercise. For this exercise fifteen flares were dropped; first, one orientation flare and then seven groups of two each. Groups of two were dropped approximately simultaneously, one on each side of the line of approach and on a line 90° to line of approach. In this exercise the target was kept constantly illuminated.

The first flare in this exercise was dropped at 9:04 P.M., and the other groups released at 9:06, 9:09, 9:12, 9:15, 9:18, 9:20 and 9:22 P.M., kept the target illuminated until 9:26 P.M., or a period of 22 minutes. In some instances groups of flares were released a little too soon and maximum time of illumination was not procured from all groups of flares. More experience in illuminating targets is desirable before drawing definite conclusions, but our exercises indicate that an 13-airplane squadron carrying two flares per plane can keep an area target one thousand yards square constantly illuminated for a period of one hour. Flares should be released on a previously determined time schedule, so that attack may plan approaches when the target will be most effectively illuminated.

After attack airplanes fell into column, it was essential for each airplane to turn sharply to the right or left after passing the target to avoid the many bullets which ricochet erratically from the turbulent water, and at this moment the pilots have difficulty picking up any objects against the black background for many seconds after their eyes leave the illuminated target.

All pilots displayed keen interest and enthusiasm in the problem, and all squadrons have requested that more training problems of this nature be conducted.

A second series of exercises was conducted to test the effectiveness of fire at night when the target was illuminated by searchlights from shore. The target and its location was substantially the

the same as in the previous exercises with flare illumination. Attack was handled in the manner previously described. Pursuit did not participate.

The beams from two shore-based searchlights were trained to intersect at the target. Horizontal beams from other shore based searchlights defined the danger area for small fishing boats. Searchlights definitely will illuminate one particular target better than the flares but are less effective for area illumination. They would be of limited value because they offer an excellent target for hostile air or ground fire, and would quickly be shot out; they are inflexible; too many searchlights would be required to cover a large area and a communications system for coordination with aircraft would be essential. In addition, the intense glare of the searchlight and the reflection of light from the airplane surfaces increases the difficulty of sighting and maneuvering before, during and after the attack. Wherever shore-based searchlights are essential and are provided for illumination for beach guns, aviation should devise proper joint tactics to employ this type of illumination, but it is believed the Air Corps should devise satisfactory illumination for night aerial operations entirely independent of shore-based searchlights.

The 18th Group will conduct another night firing exercise against waterborne targets in the near future, selecting a bright clear moonlight night and using no illumination except moonlight in order to secure information on what results may be expected by moonlight.

The 18th Group would welcome the constructive comments and experience of other Air Corps organizations who have conducted night firing or bombing exercises with various types of illumination.

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INSTRUMENT FLYING BY WASHINGTON N.G. AIRMEN

Instrument flying and perfection in the use of the new SCR-AA-185 radio sets are the chief operations with officers of the 41st Division Aviation, Washington National Guard, Felts Field, Spokane, Washington.

A schedule for instrument flying has been prepared by Major Robin A. Day, Commanding Instructor, whereby all pilots will remain under the hood until they feel capable of passing an examination for their instrument flying certificate.

Observers are being drilled in all uses of the new radio equipment, particularly in the reading of the charts relating to wave length as effecting various sets of coils, and dial settings.

Pilot and observer teams are being schooled in their united duties, and this training will continue until a satisfactory degree of efficiency has been reached.

BIOGRAPHIES

LIEUT.-COLONEL WALTER G. KILNER

Lieut.-Colonel Walter G. Kilner, Air Corps, veteran Army pilot, was born at Shelby, New York, July 8, 1888. He graduated from the United States Military Academy in June, 1912, and, after two years' service as a second lieutenant with the 3rd Infantry, he was detailed as a student at the Signal Corps Aviation School, San Diego, Calif. Upon the completion of his flying training, he passed the required tests for the rating of Junior Military Aviator. While stationed at the San Diego Flying School, he served as assistant to the Officer in Charge of Training. He was a member of the 1st Aero Squadron, and during the time this organization was attached to the Punitive Expedition into Mexico, under General Pershing, he performed reconnaissance missions in that country.

Shortly following America's entry into the World War, Col. Kilner was placed in charge of the Signal Corps Aviation School at Mineola, L.I., New York. On November 1, 1917, he sailed for duty overseas, and from the 26th of that month until May 14, 1918, he was on duty as Commanding Officer of the Third Aviation Instruction Center at Issoudun, France. When he assumed this duty, conditions were by no means satisfactory. Exhibiting a thorough grasp of the situation, working intelligently and untiringly, he succeeded in systematizing the training of American students in France, thereby making it possible to conduct same in an effective manner.

From May 15, 1918, Col. Kilner was on duty at Headquarters, Air Service, Service of Supply, until his return to the United States when, on March 13, 1919, he was assigned to duty in the Office of the Director of Air Service as a member of the Advisory Board. In addition to this duty, he was Chief of the Operations Division, Training and Operations Group, from December 17, 1920, until September 28, 1921, when he was relieved from the Advisory Board. He served as Assistant Chief of the Training and War Plans Division from November 7, 1921, until he took up his duties as a student at the Air Service Engineering School at McCook Field, Dayton, Ohio, August 28, 1922. The following year, in December, he returned to the Office of the Chief of Air Service as Assistant Chief of the Training and War Plans Division and Chief of the War Plans Section. He served in this dual capacity until July, 1924, except for a period of temporary duty at Bolling Field, D.C., from February 15 to May 9, 1924, when he was assigned as Executive

Office of the Chief of Air Service.

Following a two-year tour of duty in the Philippines, where he served as Commanding Officer of Nichols Field and of the 4th Composite Group, and as Acting Air Officer of the Philippine Department, Col. Kilner returned to duty as Executive, Office of the Chief of the Air Corps, serving in this capacity from May 22, 1930, to May 31, 1931. He was then assigned as Executive in the Office of the Assistant Secretary of War for Air, the Hon. F. Trubee Davison. This duty terminated August 17, 1933, and since that time he has been a student officer, graduating from the Industrial College in 1924; from the Air Corps Technical School, Maxwell Field, Ala., last June, and now pursuing the course at the Army War College.

During and subsequent to the World War, Col. Kilner held the temporary rank of Lieut.-Colonel from October 27, 1917, to September 14, 1918, and that of Colonel from that date until March 15, 1920, when he reverted to his regular rank of Major.

In addition to the Distinguished Service Medal, awarded him for the exceptional performance of his duties with the A.E.F. in France, Col. Kilner was decorated with the Order of St. Michael and St. George by the British Government, and the French Government made him an Officer of the Legion of Honor.

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LIEUT.-COLONEL IRA A. RADER

A native of sunny California, Lieut.-Colonel Ira A. Rader, Air Corps, was born in Mayten on June 30, 1887. He was a student at the University of California when he received an appointment as a cadet at the United States Military Academy. Upon his graduation in June, 1911, he was commissioned a 2nd Lieutenant and assigned to the 19th Infantry, serving with this regiment until April 27, 1912; with the 24th Infantry to September 1, 1914, and with the 23rd Infantry until he was detailed to the Aviation Section, Signal Corps, as a flying student. His first service as a commissioned officer was in the Philippines. Upon completing the course at the Signal Corps Aviation School at San Diego, Calif., he passed the required tests for the rating of Junior Military Aviator, and received this rating July 14, 1915.

Assigned to duty with the 1st Aero Squadron, Col. Rader served with this organization at Columbus, New Mexico, and during the time it was attached to the Punitive Expedition into Mexico where,

as pilot as well as observer, he performed many reconnaissance missions.

When the United States entered the World War, Col. Rader was assigned as Aeronautical Officer, Central Department, Chicago, Ill., where he was busily engaged examining and passing upon applicants for flying training.

Ordered to duty overseas, he joined the A.E.F. in France in November, 1917, and was placed in command of the 7th Aviation Instruction Center, the first American bombing school in the war zone. Col. Rader remained on duty in France during the greater part of the heaviest fighting and was present at the front as a member of the First Bombardment Group during the St. Mihiel and Argonne Offensives.

In October, 1918, he was relieved from duty overseas and returned to the United States to take over the command of the bombing school at Ellington Field, Houston, Texas. He served in this capacity to February 7, 1919, and as Executive Officer at Ellington Field to April 19, 1919, when he was transferred to Americus, Ga., and assigned to the command of Souther Field and the Aviation General Supply Depot. In November, 1919, he was transferred to McCook Field, Dayton, Ohio, where he attended the Air Service Engineering School and was also on duty as Assistant to the Commanding Officer of McCook Field.

From October, 1920, to August, 1922, Col. Rader was on duty as Air Officer of the 7th Corps Area. He was then transferred to duty in Washington as Chief of the Information Division, Office of the Chief of Air Service. In February, 1925, he was assigned as student at the Army Industrial College and, following his graduation, he was, for brief periods, on duty in the Training and War Plans Division, Office of the Chief of Air Service, and later in the Supply Division as Chief of the Property Requirements Section, until September, 1926, when he was assigned as student at the Air Corps Tactical School at Langley Field, Va.

During the years 1925 and 1926, Col. Rader served as Executive Officer of the Annual Machine Gun and Bombing Matches at Langley Field, Va., and was highly commended for the highly efficient performance of his duties.

After his graduation from the Air Corps Tactical School, he completed the course at the General Staff School at Fort Leavenworth, Kansas, and in September, 1928, was transferred to Fort Benning, Ga., and assigned to duty as Instructor at the Infantry School.

Since July 1, 1932, Col. Rader has been serving on the staff of the Commanding General, 4th Corps Area, as Air Officer.

37th ATTACK SQUADRON MANEUVERS WITH PURSUIT

The 37th Attack Squadron, Langley Field, Va., recently underwent a metamorphosis and became affiliated, officers, men and ships, with the full strength Pursuit Group, temporarily organized for maneuvers held at Virginia Beach, Va., for a period of five days in August. The 35th and 36th Pursuit Squadrons were brought up to the necessary strength of 28 planes each by the addition of ships from the 33rd Pursuit, 37th Attack, and a flight of O-1G's from Mitchel Field, N.Y. Thus the Squadron lost its identity for a short time, and, says the News Letter Correspondent, "some of the pilots are reported to have lost their tempers also in trying to stay in string formation behind the P-26's and P-12's."

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AUTOMATIC NAVIGATION

Automatic navigation became a reality at Wright Field, Dayton, Ohio, on August 28th, after months of tests with laboratory devices for interlocking the Sperry Gyro pilot and the Air Corps radio compass.

Developed by the Equipment Branch of the Materiel Division, the device was installed in a Martin Type B-12A airplane, and flights were made on local radio stations for several days. After the gyro pilot is engaged, the radio compass tuned to a selected radio transmitter, the airplane proceeds to a destination irrespective of its heading at the time of interlocking the gyro pilot and radio compass. On reaching the radio transmitter at destination the airplane circles, each time returning to the location of radio station until the device is disengaged.

The Martin B-12A was flown automatically to New York City on September 3rd, where a similar experimental device constructed by the Sperry Gyroscope Company was installed and tested in flights there and on the return flight to Wright Field.

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EXCHANGE OF INSTRUMENT FLYING PLANES

Two BT-2 Basic Training airplanes were recently flown from Selfridge Field, Mich., to the San Antonio Air Depot, Duncan Field, Texas, for the purpose of exchanging them for PT-3 instrument flying planes and thereby enabling the BT-2's to be released to the Air Corps Training Center.

Major Harlan T. McCormick and Captain Captain Earle E. Partridge were the pilots on the aerial journey to San Antonio, and they were accompanied by 1st Lieut. James R. Anderson, Ordnance Department, and Flying Cadet David C. Barrow, Jr., as passengers.

First Lieutenants to Captain
(Continued from Page 10).

Thomas Merritt Lowe
David Myron Schlatter
Charles Troville Myers
Leslie Page Holcomb
Wilfrid Henry Hardy
Joseph Smith
Joseph Harold Hicks
Robert Chaffee Oliver
John Maurice Weikert
William Lawrence Scott, Jr.
John George Salsman
James Michael Fitzmaurice
Hoyt Sanford Vandenberg
Stewart Warren Towle, Jr.
Walter Cornelius White
Glen Clifford Jamison
Carl Brown McDaniel
Herbert Kenneth Baisley
John Kraybill Nisley
Charles Goodwin Pearcy
Archibald Yarborough Smith
Herbert William Anderson
Albert Fox Glenn
Earle Everard Partridge
David Jerome Ellinger
Fred Arley Ingalls
Cecil Ernest Henry
Uzal Girard Ent
Joe L. Loutzenheiser
Richard Emmel Nugent
John Phillips Kirkendall
Robert Roy Selway, Jr.
John Gilbert Moore
Luther Stevens Smith
Robert Wells Harper
Howard McMath Turner
Leonard Henry Rodieck
George Hinkle Steel
Edward Higgins White
William Olmstead Eareckson
Richard Weigand Gibson
John Reynolds Hawkins
Ralph Emanuel Fisher
James Somers Stowell
Arthur LeRoy Bump, Jr.
Dennis Thurlow Crow
Cornelius Walter Cousland
Carl Joseph Crane
Howard Eugene Engler
William Donald Old
Elmer Theodore Rundquist
David Marshall Ramsay
Harold George Peterson
George Francis Schulgen
Otto Paul Weyland
Reginald Roan Gillespie
Kirtley Jameson Gregg
George Aldridge Whatley
Sheldon Brightwell Edwards
Clarence Steven Thorpe
Howard Hunt Couch
Wilfred Joseph Paul
Glenn L. Davasher
William Ludlow Fitchie
John Henry Dulligan
Walter Grant Bryte, Jr.
Russell Edward Randall

Charles Pearre Cabell
Clifford Palmer Bradley
Joseph Cyril Augustin Denniston
John Halliday McCormick
Earl Walter Barnes
Charles Henry Caldwell
Edgar Turner Noyes
James Keller De Armond
Walter Llewellyn Wheeler
Norma D. Frost
Linus Dodge Frederick
James Gordon Pratt
Milton Miles Murphy
Lee Quintus Wasser
Benjamin Thomas Starkey
Frank Gilmore Irvin
George Vernon Kolloman
Glenn Oscar Barcus

Second Lieuts. to First Lieut.

Anthony Quintus Mustoe
Douglas Thompson Mitchel
Robert Kinnaird Giovannoli
Edwin William Rawlings
Julius Kahn Lacey
Theodore Bernard Anderson
George Frank McGuire
Oliver Stanton Picher
Dyke Francis Meyer
Hugh Francis McCaffery
Minthorne Woolsey Reed
Morley Frederick Slaght
Poy Dale Butler
Berkeley Everett Nelson
Archibald Johnston Hanna
Richard August Grussendorf
John Hiatt Ives
Frederick Earl Calhoun
Carl Ralph Feldmann
Ralph Powell Swofford, Jr.
George Fletcher Schlatter
Howard Munroe McCoy
Charles William Haas
Clark Neil Piper
Aubrey Kenneth Dodson
Mark Edward Bradley, Jr.
Douglas Mitchell Kilpatrick, Jr.
Wiley Duncan Ganey
Thetus Cayce Odum
Harry Ollingsworth Geoffrey
Anthony Eugene Curcio
Morris John Lee
Marvin Lewis Harding
Birrell Walsh
David Hodge Baker
James Sylvester Sutton
Richard Churchill Hutchinson
Edwin Sanders Perrin
Neal Edwin Ausman
Troup Miller, Jr.
William Dole Eckert
Lauris Norstad
Millard Lewis
Othel Rochelle Deering
John Chelsey Kilborn
Carl Amandus Brandt
Richard Shafie Freeman
Harold Lester Smith

Norman Ray Burnett
Richard Joseph O'Keefe
Joseph Arthur Miller
Kurt Martin Landon
Gerry Leonard Mason
Hubern Paul Dellinger
Daniel Anderson Cooper
Sory Smith
Paul Wm. Blanchard, Jr.
Elwin Freestone Maugham
Daniel F. Callahan, Jr.
Marcellus Duffy
Robert Alan Stunkard
Gordon Aylesworth Blake
Joseph Francis Carroll
A. J. McVea
Julian Merritt Chappell
Donald Norton Yates
Hoyt Daniel Williams
Paul Gordon Miller
William John Bell
Ernest Moore
Royden Eugene Beebe, Jr.
Earle Wm. Hockenberry
John Edwin Barr
Louis Augustine Guenther
Milton Wylie Arnold
David Northrup Motherwell
Millard Chester Young
Henry Keppler Mooney
Robert Merrill Lee
Robert Freeman Fulton
Dean Coldwell Strother
George Frederick Hartman
Carl Wilbert Carlmark
Richard Hungerford Wise
Charles Francis Densford
John Robert Skeldon
Jacob Edward Smart
Lester LeR.H. Kunish
Robert E. L. Eaton
Carl Fillmore Damberg
Wendell W. Bowman
Joseph Buford Zimmerman
Hilbert Fred Muentner
John Autrey Feagin
Raymond Taylor Lester
John Clarence Gordon
Charles Bowman Dougher
David Wm. Hutchison
Gerald Evan Williams
Edward J. Timberlake, Jr.
John Tazewell Helms
Russell Hunter Griffith
Stanley Ronald Stewart
James H. Cunningham, Jr.
Leo Peter Dahl
Torgils Grimkel Wold
John Bavier Ackerman
Benjamin Jepson Webster
James F. Thompson, Jr.
Loren Boyd Hillsinger
John Paul McConnell
Joe William Kelly
John Morgan Price
John Joseph Hutchison
Daniel Stone Campbell
Kenneth Burton Hobson

Second Lieutenants to First Lieutenant

John Reynolds Sutherland
Donald Linwood Hardy
Charles Albert Clark, Jr.
Harvey Porter Huglin
George Dowery Campbell, Jr.
Charles Hardin Anderson
Byram Arnold Bunch
Hunter Harris, Jr.
David Hamilton Kennedy
Nicholas Earnest Powell
Andrew Meulenber
Edwin Guldlin Simenson
Sam Houston Wiseman
William Gordon Beard
Robert Haynes Terrill
Thomas Connoll Darcy
Clifford Harcourt Rees
Arnold Leon Schroeder
Eugene Porter Mussett
Edward Willis Suarez
Paul Delmont Bunker, Jr.
Robert Broussard Landry
Frank Greenleaf Jamison
Robert Lynn Carver
Romulus Wright Puryear
William Madison Garland
Thomas Charles Morgan
James Walter Gurr
Robert Lee Scott, Jr.

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MAINTENANCE PROJECTS AT SELFRIDGE FIELD

An allotment of \$79,000 was recently received by the Post Quartermaster, Selfridge Field, Mich., for repair and maintenance projects. Plans include \$39,000 for extension of the heating and electrical system, including new submarine primary cable to replace the overhead lines, a new primary house and simplification of the present system; and \$14,000 for the maintenance of buildings, grounds and utilities, including interior and exterior painting of quarters and barracks, modification of the officers' mess and bachelor officers' garages, improvement of grounds and repair of roads. Allowance for the purchase of material and labor from relief rolls is included in each project.

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AWARD OF CONTRACT FOR TRANSPORT PLANES

The Assistant Secretary of War, Hon. Harry H. Woodring, has just announced the award for the procurement of 13 two-engine transport planes and spare parts which are the equivalent of two additional planes, to the Douglas Aircraft Company, Inc., of Santa Monica, Calif. The total amount of this contract is \$1,235,500.

The circular proposal for this type of airplane was issued to the industry on August 24, 1934, with the opening date May 24, 1935. In accordance with

the normal procedure, the airplanes on which the bids were received were evaluated by means of exhaustive study and actual flight tests, conducted by a board of officers. The tests were conducted at Wright Field, Dayton, Ohio.

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PLANES FERRIED FROM BOEING FACTORY

A C-4A Transport plane from Wright Field, which was loaned to Selfridge Field, was flown on September 6th to the Boeing Aircraft Factory at Seattle, Wash., by Major Fred C. Nelson, Air Corps, with Master Sergeant Julius A. Kolb, 56th Service Squadron, as crew chief, and the following pilots as passengers: Captains Leo H. Dawson, Robert C. Oliver, Lee Q. Wasser, Paul M. Jacobs, Rudolph Fink, 1st Lieuts. Jarred V. Craab, William J. Bell, David W. Hutchison, 2nd Lieuts. Lester S. Harris and Harold L. Neely.

The ferry pilots secured at the Boeing plant ten of the modified P-26A Pursuit planes and returned to their home station via Great Falls, Montana; St. Paul, Minn. and Chicago.

Lieut. Harris was forced down at Bismarck, North Dakota, on Friday, Sept. 13th, due to a failure of the blower section. An engine was sent from Patterson Field, Fairfield, Ohio, by air, and three Selfridge Field mechanics were ferried, with the engine, to Bismarck to make the necessary installation.

Another flight in a Transport plane, the C-4A, was made to the Boeing factory on September 16th, for the purpose of securing three additional modified P-26A planes and ferrying them to Selfridge Field. Captain Ernest K. Warburton, Air Corps, piloted the C-4A, with Sergeant Harry T. Brock, 56th Service Squadron, as crew chief. The pilots who made this journey as passengers were Captain Harry H. Mills, Instructor of the Michigan National Guard Air Corps at the Wayne County Airport, Detroit, Mich.; Captain Omer C. Miergarth, Air Corps representative of the Procurement Office in Detroit, and 2nd Lieut. Arnold T. Johnson, of Selfridge Field.

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The monthly Control Area supply and engineering conference at the San Antonio Air Depot, Duncan Field, Texas, was held on September 10th, and was attended by nineteen Air Corps officers representing various stations in this Area.

During the month of August, the San Antonio Air Depot overhauled a total of 28 airplanes and 68 engines, and repaired 29 airplanes and 17 engines.

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First Lieut. John C. Kilborn, Air Corps, was detailed senior instructor of the West Point Preparatory School at Camp Bullis, Texas.

MITCHEL TROPHY RACE IN MID-OCTOBER

According to the Selfridge Field Correspondent, the date for the running of the Mitchel Trophy Race has been set for October 19th, and extensive plans are being made for this annual competition by the pilots of the First Pursuit Group.

The Race Committee and the Mt. Clemens Board of Commerce are coordinating to make this a real "visitors' day" at Selfridge Field. A number of distinguished people have been invited to witness the exhibition. The proceeds from the air show will go to the Army Relief Society and charitable organizations of Mt. Clemens.

The tentative program for the day is as follows:

10:00 A.M. - 1:00 P.M. - Arrival of visiting aircraft. Acrobatic competition for the Mt. Clemens Cadet Trophy (Open for cadets of the 1st Pursuit Group only).

12:00 Noon - 12:30 P.M. - Formation flying - Naval Reserve Unit from Grosse Ile Naval Base.

12:30 Noon - 1:00 P.M. - Formation flying - 107th Observation Squadron, Michigan National Guard.

1:05 P.M. - 1:20 P.M. - Open formation - 6 P-26A's, 94th Pursuit Squadron.

1:25 P.M. - 1:40 P.M. - "First Solo" flight by a student.

1:40 P.M. - 1:50 P.M. - Balloon bursting, 17th Pursuit Squadron.

1:50 P.M. - 2:10 P.M. Junior Birdmen Trophy Speed Dash.

2:10 P.M. - 2:25 P.M. - Bombing, 6 P-26A's, 27th Pursuit Squadron.

2:25 P.M. - 2:40 P.M. - Acrobatics, P-26A, Captain Yantis H. Taylor.

2:40 P.M. - 3:00 P.M. - Formation flying, 3rd Attack Group, Barksdale Field, La.

3:00 P.M. - 3:35 P.M. - Curtiss-Wright Trophy Race - 6 Curtiss P-6's, 8th Pursuit Group, Langley Field, Va.

3:35 P.M. - 3:50 P.M. - Mass parachute jump.

3:50 P.M. - 4:15 P.M. - Formation flying, Demonstration Squadron under Major George P. Tourtellot - 18 P-26's.

4:15 P.M. - Mitchel Trophy Race.

The Mitchel Trophy was donated by former General William Mitchel, of the Air Service, in memory of John L. Mitchell, his brother, who was killed in action during the World War. The contest for this Trophy is a strictly military event for pilots of the First Pursuit Group of the Army Air Corps, and the winner retains it in his possession until the victor of the next year's contest is announced.

Thus far, ten contests have been staged, the first in 1922, during the Air Races held at Detroit, Mich., when the winner, Lieut. D.F. Stace, averaged a speed of 148 miles per hour. There

were six competitors in this event, all piloting the MB-3 airplane.

The following year, during the International Air Races at St. Louis, Mo., the late Captain Burt F. Skeel carried off the honors, averaging a speed of 156 miles per hour.

Up to last year, the high speed record for this annual classic was held by the late Lieut. Cyrus Bettis, who in 1924, during the International Air Races at Dayton, Ohio, averaged a speed of 175.43 miles per hour.

In 1925, Lieut. Thomas K. Matthews won the Trophy with an average speed of 161.5 miles per hour. The race was held at Mitchel Field, N.Y., and the winner piloted a Curtiss PW-8 Pursuit plane.

In 1926, when the International Races were held at Philadelphia, Pa., Lieut. L.G. Ellicott, in a Curtiss P-1 Pursuit plane, averaged 160.45 miles per hour, and he held the Trophy for one year, relinquishing it to the late 1st Lieut. Irvin A. Woodring, who on October 12, 1927, at Fairfield, Ohio, when the Mitchel Trophy Race was one of the features incident to the dedication of Wright Field, averaged a speed of 158.968 miles per hour. Fifteen P-1 Pursuit planes entered the race, and there was but one minute and 23 seconds difference in the time of the first and the last plane.

Lieut. B.H. Lawson won the 1928 contest, which was held during the International Air Races at Los Angeles, Calif., his average speed being 154.743 miles per hour.

At Cleveland, Ohio, the locale of the International Air Races that year, Lieut. Paul B. Wurtsmith was the winner of the Trophy, averaging 152.17 miles per hour.

In 1930, the Mitchel Trophy Race was held at the home station of the First Pursuit Group - Selfridge Field - and 2nd Lieut. Louis A. Vaupre, winner of the contest, averaged 146.7 miles per hour.

No contest was held during the years 1931, 1932 and 1933, but last Fall, when the race was again held at Selfridge Field, Captain Fred C. Nelson eclipsed all speed records previously attained in contests for this Trophy. As a matter of fact, this was the case with all of the participants in the 1934 event. Captain Nelson averaged a speed of 216.832 miles per hour.

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Two retired Air Corps noncommissioned officers passed away recently - Staff Sgt. Harry Kamoski, who was retired August 31st at Kelly Field, Texas, where he had been stationed for 12 years, and Sergeant Arthur Eriksen, who was retired last February at Randolph Field for physical disability after 15 years' service. Sergeant Eriksen died at the Fitzsimons General Hospital. Funeral services for both of these noncommissioned officers were held in San Antonio.

TACTICAL SCHOOL LIBRARIAN RETIRES

After fifteen years of faithful service at her desk as Head Librarian of The Air Corps Tactical School, serving with the library since she herself started it at Langley Field, Va., early in 1921, Mrs. Geraldine V. Carlisle, civil service employee of the School, was officially retired from service on August 30, 1935.

When Mrs. Carlisle volunteered for the position as Head Librarian of the Tactical School Library, early in the spring of 1921, she was in the Air Corps Library in Washington and something of an authority on aeronautical writings. She was accepted for the position and journeyed to Langley Field, where the Tactical School, then the Field Officers' School, was located.

Upon assuming her duties, she found a stack of volumes on the floor of what had been selected as the Library. From some 500 volumes and a jumble of documents, she planned and completed one of the most up-to-date and complete libraries in the Air Corps today, numbering some 10,000 documents and over 8,000 books.

One of her special pets is the \$500 set of Oxford Dictionaries, consisting of 20 volumes, and which took 52 years to complete. She instituted a practical and very complete military aeronautical library, which is used extensively by both the instructors and students at the Tactical School.

Mrs. Carlisle first became interested in government work while employed as Assistant Librarian of the University of Arizona. She applied for a government position as librarian at Washington and received her appointment in May, 1918. Since that time she has been associated entirely with the Air Corps. Three years were spent in Washington in the Air Corps Library and the remaining 15 years with the Tactical School.

Every student officer attending the School, as well as every instructor at the School since 1921, has known and liked Mrs. Carlisle. If she did not have the particular volume desired, or if the document was missing from the files, it was obtained in short order, and nothing but praise has been heard concerning the condition of the School Library.

Upon the transfer of the Tactical School from Langley Field, the Library was carefully packed away under the supervision of Mrs. Carlisle's critical eye, and every book and document was transferred to Maxwell Field and replaced in a newer and more modern setting.

Mrs. Carlisle took up residence at 520 S. Perry Street, and has lived there ever since. She is fairly well known and universally respected both in Montgomery and at Maxwell Field.

The School regrets that such an effi-

cient and valued employee was forced to retire due to civil service regulations, which make it mandatory that an employee retire from further service upon reaching the retirement age. Efforts to continue Mrs. Carlisle in the Library at Maxwell Field met with no success.

Questioned regarding her future plans, Mrs. Carlisle stated she has prospects for both New York City and Washington, D.C., but is as yet undecided about the matter. The very best wishes of the personnel of Maxwell Field, as well as many officers throughout the Air Corps who knew her, will accompany Mrs. Carlisle in her future undertakings.

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RETIREMENT OF MRS. ADA DELANY COVENTRY

Exactly a month prior to the retirement of Mrs. Carlisle, Mrs. Ada Delany Coventry, Librarian of the Information Division, Office of the Chief of the Air Corps, and well known to Air Corps personnel, was retired from the government service due to the state of her health.

Mrs. Coventry was connected with the Information Division since February 17, 1919. Prior to entering the employ of the government as an index clerk in the Equipment Division of the Signal Corps, December 17, 1917, she had 13½ years of library experience. She was employed as Assistant Librarian of the Chatham Square Branch of the New York Public Library, and took special courses in her chosen line of work at Columbia University and the College of the City of New York.

Most of her service prior to her transfer to the Information Division was in the Bureau of Aircraft Production, where her knowledge of filing procedure proved of considerable value.

In building up the Library of the Information Division, Mrs. Coventry's experience proved invaluable, and the part she played in the collection and classification of books and documents on aeronautics, as well as gathering historical data and preparing statistics on the Army Air Corps since its inception, proved a great factor in enabling the Information Division adequately to take care of the demands made upon it and to answer the thousands of inquiries received from all sources for aeronautical information.

Mrs. Coventry has been in ill health for some time, and was advised to seek another climate. Efficient and ready at all times to render service, Mrs. Coventry's departure from the Information Division was greatly regretted, and those who know her sincerely hope that not ere long she will fully regain her health and again be able to take up the work she loves so well.

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A steady stream of recruits, mostly high school graduates and natives of Michigan, has been pouring into Selfridge Field for the past several months.

started from Langley Field, Va., September 14, 1922, and terminated at Ross Field, Arcadia, Calif., nine days later. Stops enroute were made at Akron, Ohio; Scott Field, Ill.; Dallas, Texas; Brooks Field, Texas, and El Paso, Texas.

During the period between July and September, 1924, Major Hutchins took the course in rigid airship training at the Naval Air Station at Lakehurst, N.J., and shortly thereafter began heavier-than-air training, graduating from the Air Corps Primary Flying School at Brooks Field, Texas, in March, 1925, and from the Advanced Flying School at Kelly Field, Texas, in the following September. He is a member of the small contingent of Air Corps officers who hold four flying ratings, those of Airplane pilot, airplane observer, airship pilot and balloon observer.

After a tour of duty in the Panama Canal Department, Major Hutchins was transferred to duty in the Office of the Chief of the Air Corps, Washington, and assigned to the Buildings and Grounds Division, where he served four years. He was then assigned to duty at the locality on the Pacific Coast now definitely known as Hamilton Field. So well did he perform his duties at this field during its construction period that the Chief of the Air Corps selected him again to cooperate with the Quartermaster Corps in another big undertaking - the construction of the new Hickam Field.

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NO ORDERS - NO EXTRA PAY FOR FLYING

A case which serves to emphasize the importance of issuing field Special Orders for enlisted men who are required to participate in regular and frequent aerial flights was recently brought to the attention of the Office of the Chief of the Air Corps. An Air Corps noncommissioned officer was a member of a flight of 4 commissioned officers and 7 enlisted men directed by an operations order to participate in squadron aviation training. During the course of this training this enlisted man sustained an injury in an airplane accident which incapacitated him for flying duty for a period of three months. He made a claim for increased pay for flying for these three months, but it was not allowed by the Comptroller General of the United States who, in a letter to the claimant, stated:

"It is not considered that you were required by orders of competent authority to participate in regular and frequent aerial flights."

Apparently no orders were issued at the field where claimant was stationed announcing that he was required to participate in regular and frequent aerial flights.

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CHANGES IN STATION OF AIR CORPS OFFICERS

To Brooks Field, Tex.: Captain Douglas Johnston from Randolph Field, Texas.

To Randolph Field, Tex., for flying training: Captain Robert R. Selway, Jr., from Scott Field, Ill.

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TEMPORARY PROMOTIONS OF AIR CORPS OFFICERS

To Major

Captain Milo McCune assigned as Engineer Officer, Station Complement, Barksdale Field, La. October 2, 1935.

Captain William R. Sweeley assigned as Commander, 41st Obs. Sqdn. Kelly Field, Oct. 2, '35.

Capt. Louie C. Mallory assigned Commander, 73d Attack Sqdn., March Field, October 2, 1935.

Capt. Hex McClellan assigned Commander, 14th Bomb. Squadron, Bolling Field, Sept. 30, 1935.

Capt. Horace S. Kenyon, Jr., assigned as Intelligence and Operations Officer, 12th Observation Group, Brooks Field, October 2, 1935.

Capt. Wm. N. Amis assigned Commander, 60th Service Sqdn., Barksdale Field, October 2, 1935.

Capt. Carlton F. Bond assigned as Intelligence and Operations Officer, 20th Pursuit Group, Barksdale Field, La., October 2, 1935.

Capt. Lester J. Maitland assigned Commander, 8th Attack Sqdn. Barksdale Field, Oct. 2, 1935.

To Captain

1st Lt. Daniel W. Jenkins assigned as Operations Officer, Station Complement, Barksdale Field, La., Sept. 28, 1935.

1st Lt. Charles Sommers assigned as Flight Commander, 41st Obs. Sqdn. Kelly Field, Oct. 2.

1st Lt. Thomas L. Bryan, Jr., assigned Flight Comdr. 40th Attack Sqdn. Kelly Field, Oct. 2.

1st Lt. Joseph W. Baylor assigned Flight Commander, 99th Bomb. Sqdn. Mitchel Field, Sept. 28.

1st Lt. Leon R. Brownfield assigned Flight Comdr. 15th Obs. Sqdn. Scott Field, Sept. 28.

1st Lt. John H. Davies assigned as Intelligence and Operations Officer, 13th Attack Squadron, Barksdale Field, October 2, 1935.

1st Lt. Samuel V. Stephenson assigned Flight Comdr. 48th Pursuit Sqdn. Chanute Field, Oct. 2.

To 1st Lieutenant

2nd Lt. Carl Swyter assigned as Signal Officer, Station Complement, March Field, Oct. 2.

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Major Carl F. Spatz was promoted to Lieut.-Colonel, with rank from Sept. 16, 1935. X

Captain Ross F. Cole was promoted to Major, with rank from September 1, 1935.

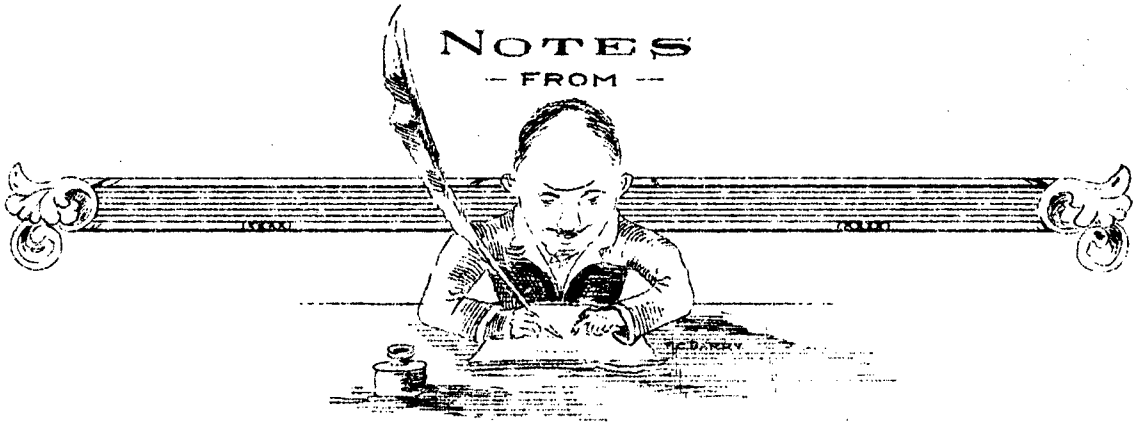
Captain Paul W. Wolf was placed on the retired list for disability incident to the service.

Major Lewis R.P. Reese was relieved from assignment, duty and temporary rank with 69th Service Squadron, Hamilton Field, Calif., and directed to proceed to his home to await retirement.

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Technical Sergeant Tony J. Odens was placed on the retired list at Barksdale Field, La., on September 30, 1935.

NOTES — FROM —



AIR CORPS FIELDS

Luke Field, T.H., Sept. 3, 1935.

72nd Bombardment Squadron: The Squadron returned to Luke Field from Bellows Field on August 23rd, completing their training in record time, firing all men authorized for record and all others on the anti-aircraft machine guns in a little over a week. Seventeen enlisted men qualified for the gun positions left vacant by men returning to the mainland. Nine officers also fired the course and qualified.

The Squadron Commander, Major John V. Hart, left on the REPUBLIC on September 3rd. We have all enjoyed working under him and hate to see him leave the Squadron. His next station will be Kelly Field, Texas.

Second Lieut. Kenneth R. Kreps joined the Squadron on Sept. 1st, as did 1st Sgt. William E. Gerton, who came from Barksdale Field.

4th Observation Squadron: Lieut. D.A. Cooper reported for duty with the 4th Observation Squadron from Monmouth, N.J., where he was a student during the past year at the Signal Corps Communications School. He relieved Lieut. Densford, who is leaving for Randolph Field, Texas, his new station. As communications officer of the Squadron, Lieut. Cooper will have the opportunity of applying his recently gained knowledge to the tactical operations thereof.

Sergeant George Woskow and Private Madison Brooks left the Squadron on the Transport REPUBLIC on Sept. 3rd, the former for his new station at Hamilton Field, Calif., and the latter for reassignment in the States.

23rd Bombardment Squadron: Lieut. David Crickette is very proud of his brand new runway now in use by the Squadron. As most of the 23rd Squadron spent a week, morning and afternoon, working on the project, his pride is shared by everybody.

On August 21st, the entire organization met at a Dutch Lunch in the Squadron Mess Hall to wish Aloha to the men leaving on the ST. MIHEL and the REPUBLIC. Lieut. Kennedy, Master Sergeant Hale, Sergeant Cox, Corporal Allen, Privates Gray, Jeffcoat, Bronczyk, Styvaert and Gutthausen gave brief farewell

speeches when called on by Master Sgt. Brown, the toastmaster.

The Squadron mourns the passing of Private Hicks G. Wilson, of Mill Spring, N.C., who died Friday night, August 23rd, in an airplane crash at Luke Field. Private Wilson has been with the organization for about a year, and had gained everybody's friendship by his quiet and unassuming manner. In the same crash, Major Liggett, pilot, and Private Costello, acting crew chief, received minor burns and scratches, while Private James Monroe was badly burned and is now in Tripler General Hospital and is doing nicely.

A very pleasant trip was enjoyed by 21 members of the Squadron on Sunday, August 25th. The itinerary included Schofield Barracks, Haleiwa Beach, Nuuanu Pali, Honolulu and back to Luke Field. Lunch was furnished by the Squadron mess. The outing was so enjoyable that it is planned to send parties out every Sunday until all members of the Squadron have enjoyed such a tour.

The organization was scheduled to leave on September 4th for the annual Gunnery Camp at Waimanalo. Men have been so anxious to go that the First Sergeant is having difficulty assigning a detail to stay at Luke and maintain area.

Hawaiian Air Depot, Luke Field, T.H.

Overhaul production in the Engineering Section during the month of August comprised 8 aircraft and 14 engines.

A Douglas OA-4A was completed and turned over to the 5th Composite Group approximately one month ahead of schedule in order to have it available for the Congressional Party which arrived on the Transport REPUBLIC on August 28th. Considerable overtime work was involved in the effort to get this airplane out, and as a result the normal production for the month was exceeded by one airplane.

Mr. H.L. Cowan, Chief Clerk of the Engineering Department, returned from the Mainland on the Transport REPUBLIC, and during his trip spent one week at the Materiel Division at Wright Field and at the Fairfield Air Depot at Patterson Field. Mr. Cowan reports that the Materiel Division was extremely cooperative in furnishing him information and assistance, and that the results of his sojourn there were very satisfactory.

Technical Sergeant E.A. Witsch, who has been connected with the Depot Supply Department since

its organization, and who during the past several years has been assistant to the Chief Clerk, has been transferred to Depot Headquarters for duty as Assistant Chief Clerk. Sgt. Witsch has had 18 years' service with the Air Corps, having enlisted in the Balloon Section of the Signal Corps at the beginning of the War. He has had a vast amount of experience in Supply and Administrative work and represents the high type of enlisted men assigned to the Hawaiian Air Depot.

In addition to his duties as Assistant Supply Officer, Lieut. E.S. Bishop has been designated as Assistant Purchasing and Contracting Officer.

An invitation for bids for 663,000 gallons of aviation gasoline for use by the Air Corps was forwarded recently to dealers represented in the Hawaiian Territory.

Wheeler Field, T.H., September 3, 1935.

Lieut.-Colonel John C. McDonnell, who with Mrs. McDonnell arrived on the Transport REPUBLIC on August 28th, assumed command of Wheeler Field on Sept. 3rd. Col. McDonnell came to Hawaii from duty as a student in the last two-year course at the Command and General Staff School at Fort Leavenworth, Kansas.

With the departure of the REPUBLIC on Sept. 3rd, Lieut.-Colonel and Mrs. Ernest Clark left Wheeler Field after a long tour of duty here. Col. Clark has commanded Wheeler Field and the 18th Pursuit Group since June 23, 1931 - four years and two months - and during this period has completed the new field and moved the Group to the splendid new Wheeler Field.

The Clarks leave a host of friends behind who wish them "bon voyage" as they depart for their new station at Selfridge Field.

Also returning on the REPUBLIC were Major and Mrs. Early Duncan. Major Duncan served at different periods during his tour as Group Executive Officer, Operations Officer and Commanding Officer of the 6th Pursuit Squadron. He goes to duty at March Field. Captain Morris R. Nelson, who served as Operations Officer of the 6th Squadron for more than a year, returned with his family enroute to Barksdale Field. Captain George H. Sparhawk, who served as Group Communications Officer and Flight Commander, 19th Squadron, during the last two years, was enroute with his family to Maxwell Field, Ala.

Just visible under their load of leis were the smiling faces of Lieuts. Benjamin J. Webster and Daniel S. Campbell, who have "shipped over" for another year of foreign service and were returning to the mainland on leave, expecting to visit many Air Corps stations. We are not sure, but it looked as if they were trying to "thumb an airplane ride east" as the Group Aloha Flight passed the transport as it nosed by Waikiki for Diamond Head.

The arrival and departure of the last two Transports resulted in many changes in the commissioned personnel of Wheeler Field. When the ST. MIHIEL arrived on August 16th, she brought the following officers and their families: 1st Lieuts. Donald D. Arnold, James E.

Briggs, Kingston E. Tibbitts and Robert E.L. Pirtle. All are now comfortably installed in Air Corps quarters. Due to the policy in the Hawaiian Department of making all Air Corps temporary rank promotions by straight seniority, all of these incoming officers will be promoted to temporary Captaincies and will command flights in the squadrons here.

Lieut. Tibbitts, who has just completed the Engineering and Armament course at the Air Corps Technical School, was assigned to the 6th Pursuit Squadron, and Lieut. Pirtle, who graduated from the last class in the Communications course at Fort Monmouth, N.J., was temporarily assigned for duty with the 75th Service Squadron. Lieut. Arnold, also a graduate of the last Communications course, and Lieut. Briggs, who came to Hawaii from the Air Corps Technical School, are on duty with the 19th Pursuit Squadron.

The pleasure of welcoming these new officers to the 18th Group was tempered by our loss of three Captains - Glenn O. Barcus, James L. Daniel and David P. Laubach. Capt. Barcus, who served as flight and squadron commander of the 19th Squadron, departed Aug. 23d on the ST. MIHIEL for duty at Langley Field. Captain Daniel left the Group S-4 assignment at Wheeler Field for duty at Barksdale Field, and Captain Laubach gave up a flight of the 19th Pursuit Squadron to take up his new duties at Mitchel Field. The Group wishes these officers and their families a pleasant tour at their new stations.

With the sailing of the REPUBLIC on Sept. 3rd, the 18th Pursuit Group lost a trio of its finest athletes in Pierre Butscher of the 75th Service Squadron, Adolph Skaane, 19th Pursuit Squadron, and George P. Hammond, 6th Pursuit Squadron. Butscher has played an essential part in the success of Wheeler Field baseball teams the past three seasons, having guarded the "hot corner" since 1933, when the Birds placed in the runner-up berth. Skaane, in the opinion of numerous followers of sports, is the greatest athlete Wheeler Field has ever known. A veteran of 8 years' service, he came to the air field in 1933. He gained wide recognition both as a baseball and basketball player. He expects to continue service with the Air Corps, and either Mitchel, Randolph or Hamilton Fields will be the fortunate station to have Wheeler Field's finest athlete in its command. Recognized as one of the finest ballhawks Schofield Barracks has ever known, Hammond, Wheeler Field's great right fielder, has been active in baseball since his arrival here over two years ago. His fine batting spurt of .500 for the first round of the 1934 baseball season at Schofield Barracks claimed its share of interest. He has worked hard off the field as well, and for his efforts gained a reserve commission in the Infantry.

The best wishes of Wheeler Field personnel are extended to all three athletes.

Middletown, Pa., Air Depot, Sept. 17th.

Brigadier-General A.W. Robins, Chief of the Materiel Division, and Major T.H. Chapman, Chief of the Inspection Branch, visited the Depot on Sept. 15th, enroute to Williamsport, Pa.

Personnel from the 2nd Transport Squadron were called to Westminster, Md., on September 6th to replace an engine in the O-1G airplane in which Private Poupitch was forced down by a broken connecting rod. No injury resulted to the pilot or airplane.

Clark Field, P.I., August 30th.

All pilots of the 3rd Pursuit Squadron completed their inspection trips to Mindanao for the purpose of inspecting landing fields and terrain. Stops were made at Iloilo, Cebu, Del Monte, Zamboanga and Tacloban.

Major C.W. Ford and Captain C.W. Davies sailed from Manila on a three weeks' trip to Bali and Java.

San Antonio Air Depot, Duncan Field, Texas.

Capt. Wm. A. Matheny, piloting an O-38F on an extended flight from Bolling Field to the West Coast, was forced down with engine Sept. 10th at Gilliland, Texas, while flying between Post Field, Okla. and Midland, Texas. Assistance was immediately sent from this Depot by dispatching civilian mechanic L.J. Milhan by air, piloted by Master Sergeant C.P. Smith, 3rd Transport Squadron, to make emergency repairs. Captain Matheny proceeded to this Depot on Sept. 11th for further repairs and continued on his journey on the 18th.

Capt. W.R. Wolfenberger and Lieut. B.S. Harrell, accompanied by Cadet Davis and Corporals Hoss and Payne, secured an XA-8 plane to ferry back to Langley Field on the 9th, by way of Barksdale Field, La., Lieut. Harrell and Cadet Davis returning to Langley Field in the transport.

Capt. C.E. Branshaw, formerly Chief Engineering Officer of this Depot for a number of years, visited the Depot recently while en route to foreign service in Hawaii. He recently completed the course at the Air Corps Tactical School.

Major N.P. Walsh, F.A. (with QMC) formerly Quartermaster at this Depot, has been ordered to proceed to Fort Sheridan, Ill., for duty. He was a patient at the Fitzsimons General Hospital, Denver, and left there on Sept. 14th to revert to leave status before joining his new station.

Selfridge Field, Mt. Clemens, Mich., Sept. 17.

Flight Lieut. J.W. Turton Jones, of the British Royal Air Force, was a recent visitor at this station. Colonel Ralph Royce, C.O., welcomed the British officer and accompanied him through the various activities of the post.

The command recently welcomed the following new members of the 1st Pursuit Group: 2nd Lieuts., Air Corps: Eugene Brecht, Jr., Henry B. Fisher, John O. Neal, Harold L. Kreider, William T. Hudnell, Jr., Lawrence O. Brown, Watson M. Frutchey; 2nd Lieuts., Air Reserve: Donald E. Meade, James B. League, Jr., Fred D. Stevers and Edward M. Wittan.

Lieut.-Colonel Ralph Royce departed in a P-26A on Sept. 16th on a training flight to Chicago to visit the 6th Corps Area Headquarters. He was also scheduled to visit Chanute Field, Scott Field and Fort Leavenworth, Kans.

Private John M. Ferris, a native of Detroit, and stationed at Selfridge Field since May, 1934, serving his first enlistment, qualified for appointment as Flying Cadet and was ordered to report to the Primary Flying School for the October class.

The C-14 Transport, with 1st Lt. Charles H. Anderson, Air Corps, as pilot on Sept. 13th, and 2nd Lt. George A. Hersam, Jr., Air Reserve, as pilot on Sept. 15th, ferried 12 students to the Quartermaster Corps Motor Transport School at Camp Holabird, Md.

Langley Field, Va., Sept. 30th.

The 33rd Pursuit Squadron is proud of the fact that three of its former personnel were commissioned in the Air Corps out of the 62 enlisted men of the Regular Army, Air Corps Reserve Officers and National Guardsmen who took the examination at this station. Second Lieuts. Edward S. Allee, John O. Neal and Harold L. Kreider, Air Corps, completing their tour of active duty with the 33d Pursuit Squadron on Feb. 18, 1935, as second lieutenants of the Air Reserve, enlisted as privates in the Regular Army in order to take the examination, and after waiting several months in deep anxiety for news of their appointment or disappointment, Lieut. Allee was notified on July 1st of his success. Lieuts. Neal and Kreider were forced to wait until August 1st before being notified that they had been granted their commissions. Upon acceptance by these officers, they were transferred to Selfridge Field, Mich., for duty. The Squadron wishes them continued success in their new assignments.

On August 27th, Major N. Longfellow was relieved of command of the 33rd Pursuit Squadron and transferred as student at the Air Corps Tactical School, Maxwell Field, Ala. In view of the fact that only officers of high efficiency ratings are sent to this school, the Squadron wishes to congratulate the Major on being chosen and to wish him success in his studies for higher command.

The 37th Attack Squadron recently lost four of its members: Major Haynes to attend the General Staff School, Ft. Leavenworth, Kansas; Lieut. Kreider to Selfridge Field, Mich.; Captain Turner to attend the Air Corps Technical School at Chanute Field, Ill., and Lieut. Read, Air Reserve, to Cleveland, Ohio, to accept a position with the Pennsylvania Air Lines, he having completed his active duty tour. Three new officers recently reported to duty with the 37th, viz: Captain Schramm, 1st Lt. McLennan, and 2nd Lt. Qualm, Air Reserve.

Plans for an organization day picnic by the 37th were interrupted by the weather, and so the basement of its barracks served as the location for an all day party.

Advanced Flying School, Kelly Field, Texas.

The class which is scheduled to report to the Advanced Flying School at noon Tuesday, October 15, 1935, consists at present of 51 flying cadets, 2 foreign officers, and 7 Regular Army officers. These students are now on the Basic Stage at Randolph Field and will probably complete their basic training on or about October 11th. The time of the incoming class for the first three days will be devoted to drawing the necessary school supplies and flying equipment, moving into new quarters, and physical examinations. Ground school will be held Friday and Saturday, October 18th and 19th, and flying training will begin on Monday, October 21st.

It is expected that the present class will graduate from the Advanced Flying School on Saturday, October 12th. The aerial review will be held as usual, weather permitting, at 8:00 a.m. This is the time that the airplanes actually pass the reviewing stand. Graduation exercises will be held at the War Department Theatre at Kelly Field at 10:00 a.m.

Air navigation flights for students of the present class were scheduled as follows:

Attack Section (4 officers, instructors; 5 officers, students; 4 cadets, students; 4 enlisted men, mechanics): Sept. 22 - Kelly Field to Fort Sill, Okla., via Abilene, Texas; 2nd day - Fort Sill to Fort Bliss, Texas, via Midland and Carlsbad, N.M.; 3rd day - Maintenance at Fort Bliss; 4th day - Fort Bliss to Kelly Field, via Marfa and Dryden, Texas.

Bombardment Section (4 officers, instructors; 10 officers, students; 11 Cadets, students; 4 enlisted men, mechanics): Sept. 26 - Kelly Field to Fort Sill, via Hensley Field, Dallas, Texas; 2nd day - Fort Sill to Fort Bliss, via Lubbock and Midland, Texas; 3rd day - Maintenance at Fort Bliss; 4th day - Fort Bliss to Kelly Field via Marfa and Dryden.

Observation Section (4 officers, instructors; 5 officers, students; 6 Cadets, students; 4 enlisted men, mechanics): Sept. 28 - Kelly Field to Fort Sill, via Abilene, Texas; 2nd day - Ft. Sill to Fort Bliss, via Lubbock and Carlsbad; 3rd day - Maintenance at Fort Bliss; 4th day - Fort Bliss to Kelly Field, via Marfa and Dryden.

Pursuit Section (4 officers, instructors; 5 officers, students; 4 Cadets, students; 4 enlisted men, mechanics): Sept. 24: Kelly Field to Fort Sill, via Hensley Field and Paris, Texas; and Hatbox Field, Okla.; 2nd day - Fort Sill to Fort Bliss, via Lubbock and Roswell, N.M.; 3rd day - Maintenance at Fort Bliss; 4th day - Fort Bliss to Kelly Field, via Marfa and Dryden.

2nd Flight, Sept. 30, 1935 (4 officers, instructors; 5 officers, students; 5 Cadets, students, 4 enlisted men, mechanics): Same itinerary as first flight.

Hamilton Field, San Rafael, Calif., Sept. 14th.

Displaying all of the presence of mind, tact and cool judgment which one expects from a vet-

eran Air Corps officer, Lieut.-Colonel C.L. Tinker, Commanding Officer, 7th Bombardment Group, used all of the above mentioned qualities in Southern California on Sept. 5th to the best interests of the service.

While approaching March Field for a landing, Col. Tinker discovered that his retractable landing gear was locked. Ordering Major Sam Brown, Medical Corps, and his crew of two to jump to safety, the Colonel instantly summarized the situation. Instead of landing the ship at March Field, with the consequent crack-up, he flew to Rockwell Field. As it was necessary to damage the ship in landing, anyway, he chose to fly to the repair depot and did so, thereby saving the government considerable cost which would have accrued from shipping the plane to San Diego from Riverside.

Advices received at Hamilton Field indicate that by October 1st the 88th Observation Squadron from Brooks Field will be on a duty status at this field.

Major Robert C. Murphy, Medical Corps, was relieved from duty at this station and assigned to Fort Stevens, Oregon, Sept. 15th.

First Lieut. Sam W. Cheyney reported for temporary duty August 31st, enroute to the Philippine Department.

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LIBRARY NOTES

Some of the more interesting Books and Documents recently added to the Air Corps Library

D 52.41 Hispano Suiza 9. Le moteur Hispano Suiza a refroidissement liquide, by societe Francaise Hispano-Suiza, 1935. 18p. English title: Hispano Suiza motor with liquid cooling, French text.

F 10 U.S. 15. March Field, by Falk Harmel, 1935, published in "Bee-Hive," Sept. 1935. An account of the history of March Field.

F 10 U.S. 42. Marine air terminals, by Aeronautical Chamber of Commerce of America, 1935. 16p. Book distributed for purpose of seeking establishment of Marine air terminals in all water-front communities.

G29.131 L54. Germany's air force, by Otto Lehmann-Russbuelst. London. George Allen & Unwin, Ltd. 1935. 160 p. An analysis of the German air force that has been built up in deliberate contravention to the Peace Treaty. A rearmament that is purely offensive. Tells of the influence that this is having on all other European countries and their people. This rearmament shows marked superiority in "War potentiality" says the author. The estimation of number of German planes are from 1750 to 2000. The author also states that there is no defense against aircraft as yet and that the only solution of this formidable force is a system of collective security.

623.74 P91. La guerra nel cielo, by Clemente Prepositi, 1930. 192p. English title: Air War. Brief history of aeronautics in war. Italian text.

629.13 Un3us No. 1150. Finders used in locating targets by bombers in the Czecho-Slovakian air force. Wash. U.S. Army Air Corps, Aug. 12, 1935. (Stencil U-1150, A.C.) 2p. Trans. B-3977.

629.144 A16. Airports and established landing fields in the United States. Ed. by Hackensack, N.J. The Airport Directory Co., 1935.

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TECHNICAL INFORMATION AND ENGINEERING NEWS
Air Corps Materiel Division

Type E-1 Computer. The Type E-1 Computer, for use by the navigator in solving dead reckoning problems, has been improved by the addition of a diagram permitting a rapid and simple solution of double drift problems. The computer incorporating this change will be known as the Type E-1A.

Sound-Proof Flying Helmets. An Engineering Section Memorandum Report, Serial No. U-54-322, was prepared September 11, 1935, covering the results of a study to determine the efficiency of different methods and materials for sound-proofing flying helmets. In the conclusions, it was stated that sound-proofing material fabricated into conventional-shaped flying helmets is not effective, due to the fact that from one-half to two-thirds of airplane sounds reach the ear from under and not through the helmets. Sealing the free edge of the conventional-shaped flying helmet around the face and neck by means of pressure to exclude sound is not practical due to the discomfort induced.

Medical Field-Equipment. A representative of the Materiel Division visited the Medical Field-Equipment Laboratory, Carlisle Barracks, Carlisle, Pa., on September 11, 1935, for the purpose of coordinating work being done by that laboratory in assembling medical field-equipment recently developed at the Materiel Division. This equipment (consisting of aeronautical first aid kit; flight-service chest; crash unit; base-group aid equipment; Arctic rescue unit, and new type Air Corps folding field litter) is now or will be available by November 1, 1935, for field service test by the Air Corps - for all units up to and including groups.

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PRACTICE FLARE LANDINGS AT CHANUTE FIELD

At the close of the flying year, 1934-35, at Chanute Field, Rantoul, Ill., all pilots, physically on duty at the station, have, during the year, each completed two practice night landings with Type M-3 or M-8 parachute flares. Conducted under the supervision of Colonel Junius W. Jones, Air Corps, Commanding, these practice night landings have been incorporated into the local flying requirements as necessary training for emergency landings to be encountered during routine night flying.

Each of the landings has been accomplished without aid of any lighting other than from the flare, all airplane lights and field lighting having been extinguished, with the exception of the airplane's running lights. It is considered that, as a result of this practice, each of the pilots, many of whom had not previously encountered opportunity to use parachute flares for night landings, will in case of necessity benefit much from the experience of having actually made two such landings. It is contemplated including this element in future local annual flying requirements.

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P E R S O N N E L N O T E S

The duty assignments of the following-named Air Corps officers, holding temporary increased rank, were changed, these officers, however, still retaining their temporary rank:

Major Paul L. Williams from duty with Air Corps Primary Flying School to duty as Director of Flying Training, Air Corps Training Center, Randolph Field, Texas.

Major John A. Laird relieved from duty with 41st Observation Squadron and assigned as Executive Officer, Air Corps Advanced Flying School, Kelly Field, Texas.

Major Claire L. Chennault relieved from Air Corps Tactical School, Maxwell Field, Ala., and assigned as Commander, 34th Service Squadron.

Major Oliver S. Ferson relieved from 60th Service Squadron, Barksdale Field, La., and assigned as Intelligence and Operations Officer, 3rd Attack Group, that station.

Major Oliver P. Gothlin, Jr., relieved from 20th Pursuit Group, Barksdale Field, La., and assigned as Commander, 77th Pursuit Squadron.

Major Walter K. Burgess from 48th Pursuit Squadron, Chanute Field, Ill., to duty as Engineering Officer, Air Corps Technical School.

Captain Donald J. Koirm relieved from 9th Bombardment Squadron, Hamilton Field, and assigned as Engineer Officer, 69th Service Squadron at that station.

Captain Wilbur Erickson relieved from duty with Station Complement, Hamilton Field, and assigned Supply Officer, 70th Service Squadron.

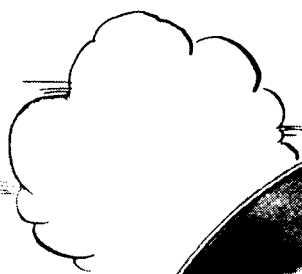
Captain Alford V.P. Anderson from 70th Service Squadron, Hamilton Field, to duty as Supply Officer, 69th Service Squadron.

No change of station involved.



NEWS LETTER

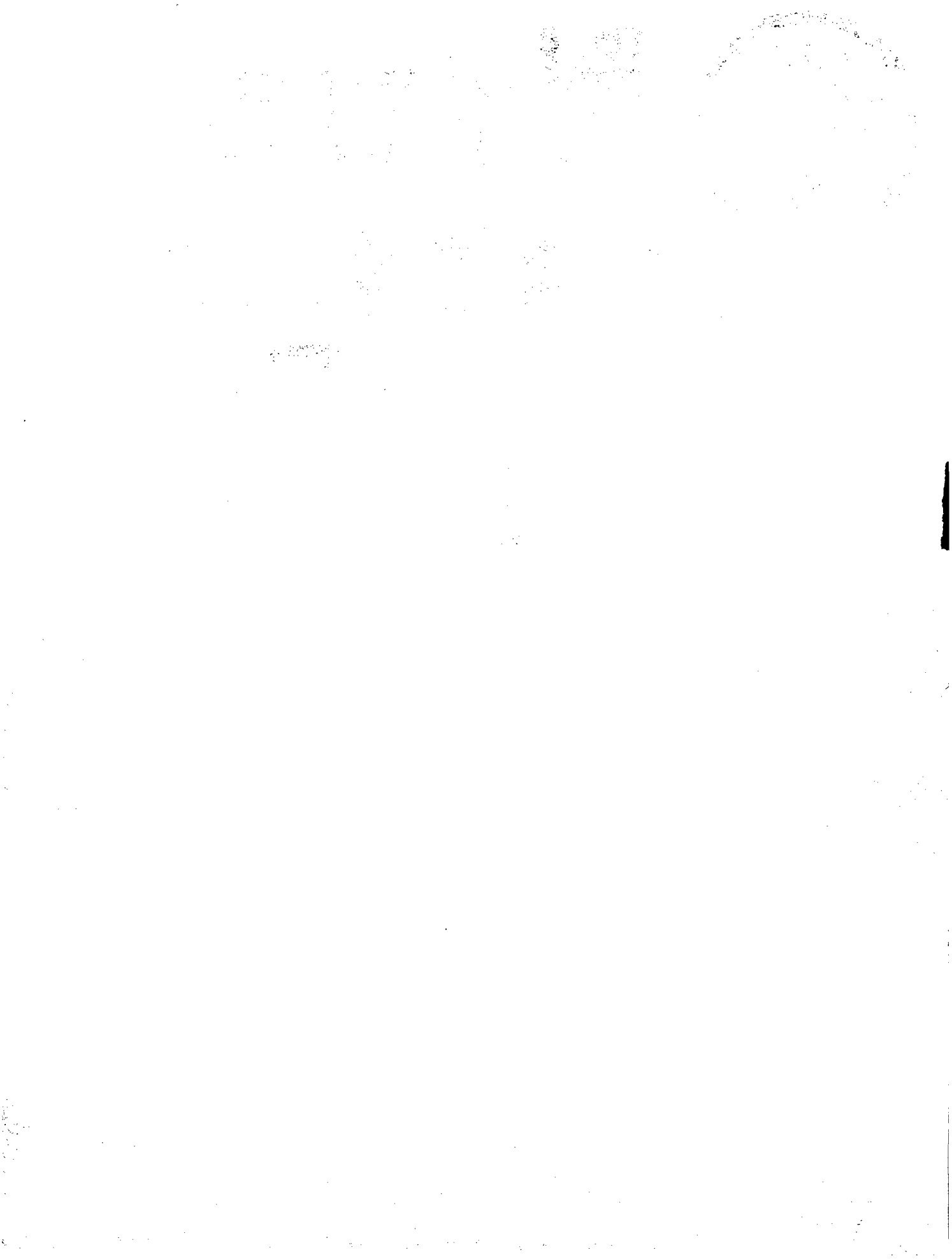
Issued by the Chief of the Air Corps
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Information Division
Air Corps

October 15, 1935

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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AIR PROGRESS IN THE UNITED STATES

By Brig.-General Oscar Westover, Acting Chief of the Air Corps

A most unusual opportunity to participate in a great national movement for the advancement of American aeronautical activity is presented to us this Fall by the National Aeronautic Association. September 23rd to November 1st has been designated as "Air Progress" Period.

During this period, unprecedented efforts are being made to acquaint the public with facts concerning the rapid development of aerial equipment essential to proper national defense, air transportation of passengers and freight, and air travel in privately-owned aircraft.

Through its many chapters located in the principal cities and towns of this country, the N.A.A. is stimulating the interest of youth through glider and model airplane activities in schools and clubs and by publications. The work of the Association in the promotion of air meets and exhibitions, and in bringing again to America the more important world air records is too well known to need amplification here. In fact, the national interest in this movement may be gauged by a glance at the names of those comprising the officers and advisory board, which reads like a "Who is Who" list. With Senator William G. McAdoo, of California, as President, and James H. Doolittle, formerly of the Army Air Corps, Vice President, leading the Association, much valuable work is bound to result.

President Roosevelt has shown the importance he attaches to the movement by issuing a proclamation to the Nation, appointing an "Air Navigation Week."

A PROCLAMATION

"WHEREAS the social and economic progress of the Nation is dependent to a large degree upon the development of transportation and communication facilities; and

WHEREAS the development of safe and rapid commercial air transportation has made notable progress during the last decade; and

WHEREAS a vital factor contributing to the outstanding accomplishments of the United States of America in this field has been, and still is, the establishment and operation of a federal airways system reaching into all sections of the United States; and

WHEREAS the National Aeronautic Association has determined upon recognition of the progress made in aviation,

and has set aside the period between September 23 and November 1, 1935, in recognition thereof;

NOW, THEREFORE, I, FRANKLIN D. ROOSEVELT, President of the United States of America, do hereby designate and proclaim the week beginning October 14, 1935, as Air Navigation Week, and I particularly urge State and municipal officials, civic and commercial organizations, school authorities, and the press to call attention to the aerial transportation achievements already accomplished, to set forth the advantages which may accrue as the result of continued development in this field, and to encourage the study of ways and means by which aerial transportation can contribute more effectively to the social and economic progress of the human race.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this twenty-sixth day of September, in the year of our Lord nineteen hundred and thirty-five, and of the Independence of the United States of America the one hundred and sixtieth."

In a letter to Army aviators, Senator McAdoo, President of the National Aeronautic Association, gives us this message:

"You are probably familiar with the National Aeronautic Association and therefore realize that it exerts a constructive influence in all phases of aviation throughout the country. We can safely say that it has assisted in bringing about the decided upward trend that has been evident in aviation activities during the past few months.

We will continue to contribute substantially to the rapid and orderly development of aviation. We have neither political affiliation nor profit motive and I feel that we are in an excellent position to render a distinct public service.

Our relations with the aviation divisions in the various government departments are extremely cordial and, therefore, on behalf of the National Aeronautic Association, I extend to you a cordial invitation to become a member."

Mutual interest in each other's organization has always existed between the Air Corps and the Association; an interest which gives every promise of growing in extent and in importance. Until November 1st the membership fee will be reduced to from \$5.00 to \$3.00 for the year, which

includes a year's subscription to the National Aeronautic Magazine, as well as full membership in the Association.

This non-political organization is the one common meeting ground of the country's armed aerial services, the Bureau of Air Commerce and other governmental agencies, aircraft manufacturers, municipal activities, and individuals interested in Aeronautics. It is believed that membership of Air Corps personnel in the N.A.A. will increase their value to the service and provide them with many pleasant professional and social contacts. The Air Corps should not only contribute heavily to the promotion of Aeronautics, but should be ever watchful for new ideas from any source which may increase the efficiency and effectiveness of our units. Membership in a local chapter is sure to broaden one's outlook and materially aid that community.

As a result of several years' personal observation and many personal contacts, and in view of the fact that the National Aeronautic Association has no political axe to grind, I feel it a privilege heartily to endorse its present "Air Progress" campaign. I hope that a large number of our personnel will support the N.A.A. not only with their membership but with their active participation in meetings and other activities. For after all, it will be only through the cooperation of our many varied air activities that a lasting leadership in military and commercial aviation will be maintained.

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GENERAL HEADQUARTERS AIR FORCE TRANSPORT

A new Douglas Transport fitted up as a Headquarters airplane for use of the staff of the General Headquarters Air Force was flown to Wright Field the latter part of September. Designed to serve as a flying office in which the staff officers could be moved as a unit, with facilities for carrying on work while in flight or at rest on the ground in whatever location feasible, the airplane, which is the standard commercial type Douglas transport, presented a most shipshape interior.

Immediately to the rear of the pilot's cockpit is a radio room with sending and receiving sets, enabling the commanding general to keep in touch with all units of the force. A locker compartment for confidential maps, dispatches or data is alongside. The commanding general's office is immediately aft of the radio room with a connecting window. This office contains a desk and two chairs, and is to be used for conferences with staff or other officers during emergency flights or maneuvers.

To the rear of the office and occupying the central section of the fuselage

are four chairs with desks on either side of a center aisle. These are for the four members of the staff heading G-1, G-2, G-3 and G-4. Desks are arranged to hold all types of stationery and writing equipment, and have extensions for the study of maps and large drawings. Furniture is of walnut. Buffet, lavatory, and ample baggage facilities are provided.

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TOUR OF UNITED STATES BY HOUSE MILITARY AFFAIRS COMMITTEE

Members of the House Military Affairs Committee are scheduled to make a tour of the United States by air for the purpose of visiting various localities in the interests of National Defense. The vehicle of transportation will be a Condor Transport airplane, which will be piloted by Captains George C. McDonald and Hez McClelland, Air Corps. An enlisted radio operator and two enlisted mechanics from Bolling Field will also accompany them.

Starting from Bolling Field on October 15th, the localities to be visited will be Chicago, Ill.; Omaha, Neb.; Cheyenne, Wyoming; Salt Lake City, Utah; Fort Lewis, Wash.; San Francisco and San Diego, Calif.; Tucson, Arizona; El Paso and San Antonio, Texas; Shreveport, La.; Montgomery, Ala.; Forts Benning and McPherson, Ga.; and Fort Bragg, N.C.

Hon. John J. McSwain, Chairman of the House Military Affairs Committee, who heads the Congressional party of inspection, will be accompanied by Congressman J. Joseph Smith, of Conn.; Matthew J. Merritt, of New York; and Mr. Robert Frazier, acting clerk of the Committee. Congressman Leslie C. Arends, of Illinois, may join the party at Scott Field, Ill., and Congressmen Sam L. Collins, John M. Costello and John F. Dockweiler, all of California, may board the plane later for part of the trip.

Senator Morris Sheppard and Congressman Thomas L. Blanton and Maury Maverick, all of Texas, may connect with the party for short trips to Texas points.

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HEAVIER-THAN-AIR TRAINING FOR AIR CORPS OFFICERS

Three Air Corps officers, each of whom hold the ratings of "Airship Pilot," "Balloon Observer" and "Airplane Observer," began heavier-than-air training at the Primary Flying School, Randolph Field, Texas, with the October 15th class.

These three officers are Major William O. Butler, who graduated in June from the Command and General Staff School, Fort Leavenworth, Kansas; Captain James F. Powell, who graduated last June from the Army Industrial College, Washington, D.C., and Captain R.R. Selway who, prior to being ordered to Randolph Field, was stationed at Scott Field, Ill.

ARMY AIRMEN AIL IN SEARCH OF LOST
COMMERCIAL PLANE

The officials of the Aerovias Nacionales have expressed to the Commanding Officer of Albrook Field, Panama Canal Zone, their deep appreciation for the response of the 16th Pursuit Group to their request for assistance in locating the Travelair Cabin plane which crashed on September 13th in the mountains north of Chame, Republic of Panama. This wreck was the worst in the history of commercial aviation in the Republic, resulting in the death of Pilot Marstrand and seven passengers.

The line operates between Panama City, David and El Volcan, Panama, on a daily schedule. On the morning of the tragedy, due to a tremendous increase in commercial business, the line was operating a double-header out of Panama for David, the two planes taking off within a minute of each other. A heavy cloud bank covered the mountain tops, and one plane went out over Panama Bay around the cloud bank, and after this detour arrived safely at David. Pilot Marstrand elected to go over the top of the cloud bank and disappeared.

At approximately noon, President Malek notified the Commanding Officer at Albrook Field that Marstrand was four hours overdue. Four patrols of two air-planes each from the 16th Pursuit Group were immediately dispatched over the route in an effort to locate the missing passenger plane, and the search continued until approximately 6:00 p.m., when two natives who had observed the crash at 7:10 in the morning, reached Bejuca, where there was a telephone, and advised government representatives of its exact location. The natives had to travel through the jungle for nearly eleven hours to make a distance of about eight miles. The following day, the 16th Pursuit Group maintained contact with the ground rescue party until it reached the scene of the wreck in the jungle and returned to the highway with the body of the pilot. All passengers were buried at the scene of the crash.

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MESSAGE IN BOTTLE TRAVELS LONG DISTANCE

On a recent air navigation flight to Jaque, Republic of Panama, Major Donald P. Muse, Air Corps, stationed at Albrook Field, Panama Canal Zone, was handed an unsealed letter by one of the natives, who requested the Major to mail it when he returned to Albrook Field. The letter was addressed to a Minneapolis girl and was written by a passenger on one of the Grace liners, enroute from Panama to San Francisco, was sealed in a bottle and thrown overboard somewhere off the coast of Costa Rica. It is interesting to note that the message traveled

over 600 miles before it was washed ashore at Jaque and picked up by a native there.

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TARGET PRACTICE FOR 23rd BOMB. SQUADRON

All the officers and 100 enlisted men of the 23rd Bombardment Squadron, stationed at Luke Field, T.H., moved to Bellows Field, Waimanalo, on September 4th, and began firing on ground targets the following day. Unfavorable weather prevented flying one morning and part of another, but most of the practice was completed in ten days. Lieut. Armstrong was the first to qualify, making a score of 698 on aerial targets and 282 on the ground. So far, Lieut. William Capp is high man with a total score of 1352 for ground and aerial targets.

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PLUNGES 3,000 FEET MINUS PARACHUTE

A grim tragedy brought a sudden termination to the life of a Hamilton Field soldier on September 19th.

Private George H. Brinkley, 22, of St. Joseph, Mo., a member of the 9th Bombardment Squadron, was riding in the nose of a Bomber piloted by Major John M. Davies in the vicinity of Point Reyes. In some inexplicable manner, Brinkley, who had removed his chute for the sake of comfort, accidentally released the lever operating the trap in the floor of the Martin B-12 Bomber. He instantly plunged 3,000 feet to his death.

Inasmuch as the soldier was not missed for a few minutes, considerable difficulty was encountered in the recovery of the body. A searching party was ordered out immediately by Lieut.-Colonel J.E. Tinker, commanding officer of Hamilton Field, but returned late at night, reporting failure. A larger party of 250 men and 2 officers was ordered out the next day, but their search proved in vain. The body was finally recovered on September 21st at 3:30 p.m., by a member of the Muir Woods CCC Camp, the men of this camp being ordered into the search by Corps Area Headquarters.

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TEST OF NEW A-2 KAPOK COATS

The new A-2 Kapok coats were issued to the 50th Observation Squadron, Luke Field, T.H., and were recently tried on by a few pilots of this organization. These coats are well ventilated for the tropics and should be much cooler than the old "smother" type. In addition to this, they are a bright yellow, a color that should be easily distinguished by rescue planes in search of those who find it necessary to bail out.

V-6876, A.C.

KELLY FIELD GRADUATES MORE ARMY FLYERS

A class of 67 flying students is scheduled to graduate on Saturday, October 12th, from the Air Corps Advanced Flying School at Kelly Field, San Antonio, Texas. Beginning with an aerial review at Kelly Field at 8:00 a.m., in which all the graduates are slated to participate, the graduation ceremonies will be resumed at ten o'clock in the War Department Theatre at that field, when diplomas will be awarded these new members of the flying fraternity, as well as the much coveted wing insignia.

A year ago, when these graduates began flying training at the Air Corps Primary Flying School at Randolph Field, they were members of a class of 142 students, comprising 63 officers of the Regular Army, 3 officers from foreign countries, and 76 flying cadets. It will thus be noted that 47% of the original class successfully completed the intensive one-year flying course at the Air Corps Training Center.

Aside from one Air Corps officers and the three foreign officers, all of whom will graduate, 30 of the 61 West Point graduates who began flying training a year ago last October, will receive their "Wings," or 49%, which is somewhat higher than the general average of approximately 45%, according to statistics compiled over a period of years in the past.

The Air Corps officer, Major Edmund W. Hill, a veteran lighter-than-air pilot, who now holds the ratings of Airship Pilot, Balloon Observer and Airplane Observer, will, through his qualification as a heavier-than-air pilot, receive a fourth rating, that of Airplane Pilot. This last-named rating will also be given to the remaining graduates.

With the exception of the three foreign student officers, who will return to their respective countries, the student officer graduates will be transferred to the Air Corps. The Flying Cadets will be assigned, under their Cadet status, to active duty with Air Corps tactical squadrons for the period of one year. Should their service during this additional year of training prove satisfactory, they will be commissioned second lieutenants in the Air Reserve and, should funds then be available, they will be given another year of active duty with Air Corps tactical squadrons, this time under their status as Reserve officers.

With seven native sons in the graduating class, Texas has the largest representation among the various States, followed by New York with six. Washington, the nation's capital, with four students, leads the various cities represented.

The Advanced Flying School graduates are listed below, as follows:

AIR CORPS

Major Edmund W. Hill New London, Conn.

OTHER BRANCHES OF THE ARMY

All Second Lieutenants

Calif. George B. Dany, CAC San Diego

D.C. Jack J. Neely, Inf. Washington

D.C.	Raymond J. Reeves, Cav.	Washington
	Hudson H. Upham	Washington
Fla.	Paul C. Ashworth, C. of E.	Summerfield
Ga.	Paul T. Hanley, Inf.	Atlanta
Ill.	John G. Benner, Inf.	Anna
Kans.	John B. Cary, C. of E.	Emporia
	William M. Gross, F.A.	Salina
Idaho	John M. Hutchison, Cav.	Coeur d'Alene
Ind.	William H. Wise	Edgewood
Minn.	Harvey T. Alness, Cav.	Bayport
Mo.	Karl W. Bauer, Inf.	Jefferson City
	William S. Stone, F.A.	St. Louis
N.H.	Wilson H. Neal, F.A.	Rochester
N.Y.	John DeP. T. Hills, Inf.	Albany
	Frank C. Norvell, F.A.	Ft. Wadsworth
	Byron E. Brugge, CAC	Ozone Park, L. I.
	Herbert M. Baker, Jr., Inf.	Warrensburg
Neb.	Richard A. Legg, Inf.	Alma
Nevada	Dale O. Smith, Inf.	Reno
Okla.	Wm. M. Canterbury, CAC	Muskogee
Oregon	Curtis D. Sluman, CAC	Portland
Penna.	Albert T. Wilson, Jr. Cav.	Easton
S.C.	Lawson S. Moseley, Jr., CAC	Greenville
Texas	John W. White, Inf.	Uvalde
Va.	Elvin S. Ligon, Jr., Inf.	Nottoway C.H.
W. Va.	Walter C. Sweeney, Jr., Inf.	
Wis.	Arno H. Luehman, Inf.	Milwaukee
Wyo.	Jack E. Shuck, CAC	Casper

FOREIGN OFFICERS

Ismail Hikmet, 1st Lieut., Turkish Army.
 Ismail Raid, 1st Lieut., Turkish Army
 Fructuoso P. Suarez, 1st Lieut., Mexican Army.

FLYING CADETS

Ala.	Theron Coulter	Eufaula
	John M. Reynolds	Mobile
	Horace A. Shepard	Mobile
Calif.	Conrad J. Herlick	Helendale
	Robert C. Love	Los Angeles
Colo.	James O. Illis	Greeley
D.C.	Robert W. Fall	Washington
Colo.	Thomas L. McKissack	Englewood
Fla.	Robert C. Paul	Watertown
Idaho	John L. Randall	Moscow
Iowa	Marion Malcolm	Iowa City
Kans.	Raleigh H. Macklin	Ottawa
Mass.	Stanley A. Zidiales	Middleboro
N.Y.	Peter H. Rerington	Watertown
N.C.	Franklin M. Cochran	Davidson
Ohio	Howard F. Nichols	Marion
N.Y.	James W. Allen	Ithaca
Okla.	Howell G. Crank	Tulsa
Oregon	Willard W. Lazarous	Corvallis
	Charles E. Bockman, Jr.	Portland
Texas	James W. Chapman	Austin
	Richard T. Kight	Claude
	William J. Moser	Dallas
	Bigham T. Kleine	San Antonio
	Herbert M. West, Jr.	San Antonio
	Cy Wilson	Longview
S. D.	Evart W. Hedlund	Beresford
Vt.	Merrill E. Thayer	Brattleboro
Wash.	Quentin T. Quick	Bellingham
	Edward A. LePenske	Toconoma
W. Va.	Graves H. Snyder	Lewisburg
Wis.	Maxwell H. Crowell	Shell Lake
Ark.	Edward L. Reid	Little Rock

CADETS TO BE COMMISSIONED IN AIR RESERVE

The Chief of the Air Corps has recommended to the War Department that 28 Flying Cadets, who graduated from the Air Corps Advanced Flying School, Kelly Field, Texas, in October, 1934, and who have just completed their year of active duty under their cadet status with Air Corps tactical units, be commissioned second lieutenants in the Air Reserve, and that they be placed on extended active duty as Reserve officers at the various Air Corps stations, as indicated below:

To Barksdale Field, La.:

Oscar K. Lawing	Little Rock, Ark.
David G. Desmond	Salem, Mass.
Francis R. Drake	Muskogee, Okla.
Charles H. Jeter	Wann, Okla.
William H. Council	Ingomar, Pa.
Gilmore V. Minnis	Hadley, Pa.
Oliver E. Ford, Jr.	Crockett, Texas
Harney Estes, Jr.	Granbury, Texas
Alexander F. Sangster	Houston, Texas

To Brooks Field, Texas:

John H. Cheatwood	Ruston, La.
Wendall P. Lester	Houston, Texas
Ben A. Mason, Jr.	Houston, Texas

To Langley Field, Va.:

Donald G. Ogden	Baton Rouge, La.
Horace Brock	Philadelphia, Pa.
Harry D. Martin	Easley, S.C.

To Mitchel Field, L.I., N.Y.:

William A. Miller	St. Louis, Mo.
Henry P. Luna	New York, N.Y.
Joseph E. Hale	Philadelphia, Pa.

To Hamilton Field, San Rafael, Calif.:

Norman L. Callish	Los Angeles, Calif.
Radcliffe C. Clausen	Los Angeles, Calif.
Herbert R. Knieriem	Modesto, Calif.
Roderick O. Cote	Manchester, N.H.
Charles E. Fisher	E. Marion, N.C.
Arthur M. Keppler	Houston, Texas
Fred C. Johnson	Salt Lake City, Utah

To Selfridge Field, Mich.:

William W. Harding	Sutton, N.D.
Albert F. Olsen	Sutton, N.D.

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ACTIVITIES OF 4TH OBSERVATION SQUADRON

During the period between September 1st and 15th, the 4th Observation Squadron, stationed at Luke Field, T.K., was engaged in various tactical training missions which consisted of Aerial Reconnaissance; Two-Way Radio Communications; Instrument Flying; Night Flying and Aerial Photography. Under the direction of Captain W.W. Messmore and 1st Lieut. Walter A. Fenander, the Photo Section has prepared an intensive and thorough schedule for Photographic missions. Following this schedule, the officers engaged in some fifteen hours of Pin-Point and Oblique Photography for this period.

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NEW COURSE AT AIR CORPS TECHNICAL SCHOOL

Under authority of the War Department, and under the supervision of the Commandant, Colonel Junius W. Jones, there will be incorporated into the Air Corps Technical School at Chanute Field, Rantoul, Ill., a new course to be presented under the name of Basic Instruction.

There has been a long felt need for such a course, which materializes with the School Year 1935-36. Its object is to provide a uniform system of basic preparation for all enlisted students entered in the Air Corps Technical School in order to fit them better for technical specialization in the various main courses for which they are sent to the school, resulting in students more highly and more uniformly qualified to take up their specialized subjects.

As a direct result, the technical departments proper receiving a student from the Basic Course will be able to confine their instruction to their respective specialization without devoting time to basic work.

The Department of Basic Instruction is being organized under the immediate direction of Captain James S. Stowell, Air Corps, who has been assigned to duty as Director of the Department.

Instructional personnel and equipment is being drawn from other departments of the Air Corps Technical School where various subjects of basic instruction have been taught. One hangar is being remodeled to suit the needs of the department for shops and classrooms, and it is expected that the department will receive its first class at the beginning of the school year, consisting of approximately 60 students.

The curriculum of the Basic Course will include, for its first year, about eight weeks, according to the needs of the individual specialization departments of the school, with the subjects of Mathematics, drafting, elementary metal work, electricity, and woodwork, as applicable to the course which the individual student will later pursue.

The addition of the Department of Basic Instruction to the Air Corps Technical School, together with the Department of Clerical Instruction, which was established in 1933, brings the total of Departments of the school to six, including the earlier established departments of Mechanics, Photography, Communications and Armament.

For the coming year it is contemplated entering in this course students who have been chosen for specialized courses, although experience may render it desirable in future years to arrange for students to be entered in Basic Instruction and, as a result of their work and adaptability demonstrated in that course, to be designated for their respective lines of specialization. In any event, the establishment of this new phase of instruction will prove invaluable in preparation of students for their various technical branches of instruction and, in addition to providing a uniform standard of basic work, will result in elimination of much duplication of instruction throughout the other departments.

"INVASION" OF IMPERIAL VALLEY CITIES

Three Imperial Valley cities will be peacefully invaded and occupied by airplanes and ground troops for a ten-day period during the middle of October. The tactical organization staging the maneuvers is the 17th Attack Group of March Field, Calif., composed of the 34th, 73rd and 95th Attack Squadrons and the 64th Service Squadron. The 17th Group will be commanded by Lieut.-Colonel John H. Pirie, Air Corps, during the field training period which will run for a period of twelve days.

Cities to suffer the thrills of the mimic occupation and over which many of the scheduled sham air battles will be held are Brawley, Imperial and Calexico, Calif. Announcement of the maneuvers was made recently at the headquarters of the First Wing of the General Headquarters Air Force at March Field by Brigadier-General Henry H. Arnold, Wing Commander.

Thirty airplanes, 40 officers and 350 enlisted men are expected to fly or ride by truck to the Southland cities. All of the enlisted men and some of the officers will be transported to the three camps by the 44 trucks and 10 motorcycles of the 64th Service Squadron, commanded by Major Orin C. Bushey.

Clerks and airplane mechanics of the 17th will not have to worry about kitchen police and other camp duties, as these functions will be performed by the men of the 64th Service Squadrons. This squadron will also have the task of setting up and tearing down the camps in the three cities.

Training activities at the camps of the Mexican border towns will consist partly of problems in unit and group navigation to points away from the valley and rendezvous exercises. Aerial machine gunnery with ground "strafing" and other forms of "attack" training, together with combat exercises in air bombing, will keep the 17th's pilots on the move during most of their 10-day stay in the Imperial Valley.

To train the officers and enlisted men of the three squadrons in field work, three camps similar to the ones proposed for the Imperial Valley were scheduled to be set up at March Field at widely separated portions of the reservation. The camps, which will be just as completely equipped as the ones used in actual field service, will be operated for one day only.

Combat and gunnery problems will take place the same day, the units operating from the temporary field camps on the Air Corps post. The bombing and aerial gunnery will take place at Muroc Dry Lake.

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RESERVE ACTIVITIES ON PACIFIC COAST

Ten hours "under the hood" was accomplished by each Reserve officer in the field with the 489th Bombardment Squadron, Air Reserve, during the 14-day encampment in July.

According to Captain John H. Gardner, Air Corps, Non-Divisional Unit Instructor, some of the officers should have received credit for R-1 (acrobatics) rather than R-28 (instrument flying) for the first few hours of their time "under the hood."

In addition to the instrument flying, each officer flew solo fifteen hours, all of which time was utilized in tactical flying.

During the first two months of the fiscal year, the Reserve officers of the 489th have accumulated approximately 375 hours of solo, a good percentage of which has been instrument flying.

The home base of the 489th is located at the King County Municipal Airport (Boeing Field). The Squadron has the use of one-half of Hangar #2. Visiting Air Corps pilots are assured hangar accommodations for their ships and a welcome from Non-Divisional Unit Instructor Captain John H. Gardner and the officers of the Squadron.

"Air Corps officers desiring to familiarize themselves with the Pacific Northwest territory, a territory that will undoubtedly be an important Air Corps base," concludes the News Letter Correspondent, "might do well to head this way when on extended cross country flight."

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AVIATION CAREER INCENTIVE TO EDUCATION

Military aeronautics is causing boys in Spokane, Wash., to consider far more favorably a college education, it was learned by Lieut. Laurie Heral, adjutant and recruiting officer for the 41st Division Aviation, Felts Field, Spokane, Wash.

It was recently announced in the local newspapers that a dozen vacancies existed in the Division Aviation.

"Plenty of boys came out to enlist," reported Lieut. Heral. "Naturally, they all wanted to go to the Army Air Corps flying school, but were advised that it was necessary for them to have two years of college education. During our early discussion it developed that many of the boys did not intend to attend college, it apparently being their belief that education is not exactly necessary to fly an airplane. In several instances parents of these same boys have expressed appreciation for what we told their sons, explaining that they are now interested in going to college."

At no time has the 41st Division Aviation found it difficult to maintain a full complement of enlisted personnel, practically all of which are high school boys.

V-6876, A.C.

TACTICAL INSPECTION OF 1st PURSUIT GROUP

Seven officers from the GHQ Air Force Headquarters at Langley Field, Va., arrived at Selfridge Field, Mich., on September 22nd to conduct a tactical inspection of the First Pursuit Group. These officers were Lieut.-Colonel Walter R. Weaver, Major Robert Olds and Captain Roland O.S. Akre, Air Corps; Lieut.-Colonel Cedric W. Lewis, Signal Corps; Lieut.-Colonel Charles C. Drake, Quartermaster Corps; Lieut.-Colonel Russell L. Maxwell and Captain John A. Wheeler, Ordnance Department.

The tactical inspection was begun on September 23rd, when a part of the 56th Service Squadron was directed to move by convoy to Pontiac to establish a camp and maintain the Group for an overnight stop, and a part of the 57th Service Squadron was directed to establish camp and maintain airplanes of the Group at "Camp Weaver" on the south side of the home airdrome.

On September 24th, the unit of the 56th Squadron detailed for duty at Pontiac, Mich., returned to the post, and another unit of that organization was dispatched to "Camp Weaver" on the home airdrome; while the unit of the 57th Service Squadron broke camp at "Camp Weaver" and another group of men from that organization was sent by convoy to Hartung Airport, Detroit, Mich., to establish a camp for the Group airplanes at that place. The latter camps were broken up during the morning, the men proceeding to their home station.

These movements proved of importance in that they indicated the equipment necessary for the establishment of a temporary camp at short notice for use of the Group; the transportation needed for such a move; and the question of efficiency of the units of the Selfridge Field command. The inspecting officers departed on the afternoon of September 25th.

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PARADE OF STARS IN NEW YORK PLANETARIUM

Air Corps officers who at one time or another may be in the vicinity of New York City, and who are interested in navigation, will find it of much interest and profit to visit the Hayden Planetarium at the American Museum of Natural History.

Equipped with an 11-ft. Zeiss-created projector, one of the finest in the world, which shows the march of the heavens through its thousands of lenses, the Planetarium in its first public showing attracted some 750 persons, who were amazed when the closing of a switch caused almost 3,000 celestial bodies to appear on its dome simultaneously.

The illumination of the synthetic sky came after Charles Hayden, whose name

the planetarium bears in commemoration of his \$150,000 gift for the projection apparatus, handed the key of the control board to Mr. F. Trubee Davison, president of the museum, and after brief dedication speeches by Mr. Davison, Dr. John H. Finley and Robert Moses, Park Commissioner.

Dr. Clyde Fisher, curator of the planetarium, stepped to the control board and explained that the projection apparatus would be set in operation with the aid of a cosmic ray detector borrowed from Columbia University. He said that this scientific detective would pick up the invisible cosmic rays as they entered the planetarium through the thick layers of steel and concrete. As the rays struck a detector tube, he said, they would cause it to ionize and break down, local currents would flow in, relays click and the switch would close.

As the curator explained the workings of the planetarium the inner surface of the white dome began to fade and in time the room was in absolute darkness. The curator's voice sounded through the blackness for a time, because it takes human eyes about ten minutes to become adjusted to such conditions. The soft click of a switch sounded, followed by a noise similar to driven rain on a tin roof. This was the reverberation of the cosmic rays and then the stars flashed out on the dome. The effect of the sudden change from utter darkness to a brilliant and cloudless firmament was reflected in the exclamation from the spectators.

The illusion of limitless space was almost perfect. In the exact center of the room was the Zeiss projector, an instrument eleven feet in height, with two gigantic knobs, the whole a delicate mechanism built with the precision of a fine watch. It sent out rays of light which upon reaching the steel screen curtain inside the dome became the stars and planets.

Although only 75 feet in diameter, the dome seemed to expand as the lights were turned down and then to melt away as the stars became visible. The skyline as viewed from a point in Central Park ran around the base of the dome at the horizon line. It was cut from steel plates, painted black and set out a short distance from the inner surface of the dome. Thus, when the projector was in motion, the moon, sun and stars seemed to rise from behind familiar buildings.

Dr. Fisher turned the control board over to Prof. Wm. H. Barton, Jr., assistant curator of the planetarium, and when the latter caused the projector to rotate in first one and then another plane, a steady whirring sound came from the instrument, and the stars, the planets, the Milky Way and all the other celestial bodies moved across the sky. The effect was puzzling and some of the spectators were inclined

to think that the entire dome was in motion.

The voice of the speaker accompanied the celestial parade, and as he talked he sent out a beam of light which caused an arrow to appear and point to the constellations or stars which entered into his explanation.

The sun, reduced in brilliance lest it eclipse the stars, rose, passed across the sky and sank behind the western horizon. A year passed in three minutes. The planets swung playfully among the stars and the moon hurried by as though anxious to show off all its phases at once.

The lecturer took the spectators on a sky-trip to the South Pole at the rate of 5,000 miles a minute. The sky rolled overhead and unfamiliar star fields appeared. At the Pole, the stars moved around at the same height above the horizon. Upon returning to New York the audience saw Donati's comet moving about and following the path it took when it appeared in 1858.

Meteors began to streak among the stars and in a few moments the great shower of 1883 was being reproduced by the man at the control board. The speaker pointed out various constellations and finally came the dawn, which to many of the spectators was the most effective illusion of the demonstration.

The black sky began to pale at the horizon and soft music sounded from somewhere in the dome. As the light increased the music swelled and the sky took on the pink tints that precede the sunrise. When full daylight maintained, persons who had witnessed the star show turned to look at each other as if to make sure if they were still on earth. On filing outside it was hard to believe it was still night after the synthetic dawn just experienced.

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AERIAL PHOTOGRAPHY BY WASHINGTON NATIONAL GUARD AIRMEN

Hours of flight over the "River-of-no-Return," photographing the famous Salmon river country in northern Idaho, is scheduled to gain recognition in the National Geographic magazine for the 41st Division Aviation, Felts Field, Spokane, Wash.

Salmon City, Idaho, the little early day gold mining town, was bubbling over with excitement recently when a party of representatives from the National Geographic magazine, the United States Geological Survey, United States Forestry Department, and Congressman D. Worth Clark, of Idaho, concentrated there to start their expedition down the Salmon and Snake Rivers to Lewiston, Idaho, where they will land late this month.

Salmon City residents had worked for months interesting the National Geographic magazine publisher in a photographic story of the famous Salmon River - Seven Devils country, probably the most rugged and scenic portion of the United States.

Representing the National Geographic magazine is Maynard Owen Williams, famed photographic explorer, and personal friend of Captain Albert W. Stevens, renowned Air Corps long-distance photographer. Mr. Williams, who wrote the recent series of articles about China, accompanied by photographs, in the National Geographic magazine, wanted aerial photographs.

Through Mr. Howard Flint, Assistant Forest Supervisor for Region No. 1, arrangements were made with the 41st Division Aviation to secure the photographs of the Snake and Salmon river country.

Not only were photographs desired for publication in the National Geographic magazine, but also for geological study by the United States Geological Survey, represented on the expedition by Drs. J.C. Reed and P.J. Shenron, of Washington, D.C.

After a landing for instructions at Salmon City, Lieuts. Claire Hartnett and Ellsworth C. French photographed 85 locations wanted by the party.

It is questionable if any country offers greater general interest than the area photographed. The Thunder Mountain, around which Zane Gray built a story, was an object of great interest.

In some places the scenic Salmon river was found in a narrow gorge between mountain ridges towering 9,000 feet high. Often groups of deer were seen drinking from the cold mountain lakes several thousand feet high.

Spots were located where a geologist could easily go wild with delight studying the many interesting formations.

Salmon river, the "River-of-no-return," gained its name not because it is particularly dangerous, but no barge ever going down the river is able to return, because of the stream current.

The expedition was well quartered on a barge eight feet wide and 30 feet long. Air mattress sleeping bags served as beds, and an abundance of food was taken aboard before the party shoved into the Salmon. The barge is in no way motor-driven, but will be boosted off the rocks by pike and poles.

During the float down stream, the 41st Division Aviation proposed another interesting experiment, that of a daily radio contact with the party. A small Forest Service radio set was established on the barge, and through this the party hopes to establish daily communication with the new military radio sets in the Douglas Observation airplanes of the Division Aviation.

INTERCHANGE OF ARMY AND NAVY AIR FIELDS

A recent announcement by the Navy Department was to the effect that the President of the United States had approved the joint recommendations of the Secretary of War and the Assistant Secretary of the Navy with regard to the interchange of existing Army and Navy air fields. Negotiations which have been under way for the past month have only just been perfected, and the following agreement was reached:

(a) The Army to turn over to the Navy, Rockwell Field; and the Navy at the same time to turn over to the Army, Sunnyvale. This exchange can be made without delay.

(b) The Army to turn over to the Navy that part of Ford Island, Pearl Harbor, T.H., now occupied by the Army, as soon as adequate facilities for the Army units so displaced can be obtained elsewhere.

(c) That metes and bounds acceptable to the Army and Navy of that part of the Anacostia Air Field (old Bolling Field) now occupied and used jointly by the Army and Navy be established, and that the station so defined shall then be turned over to the Navy.

Pending the transfer of these properties between the War and Navy Departments and having in mind the interests of National Defense, the War and Navy Departments recommended that the President issue instructions which would permit immediate action in partial fulfillment of the agreement herein submitted, as follows:

The Army to evacuate that part of North Island in the harbor of San Diego, California, now under the control of the War Department which, with the installations and facilities thereon, will thereafter be used by the Navy; it being understood that this evacuation will not include fixed harbor defense installations now located thereon.

The Navy to evacuate the Naval Air Station, Sunnyvale, Mountain View, California, which with the installations and facilities thereon, will thereafter be used by the Army; it being understood that the lighter than air hangar and operating facilities thereon are not to be dismantled unless such action later is specifically authorized by the President.

The jurisdiction over the areas of North Island and Sunnyvale to be transferred within thirty days, and the complete evacuation to be effected as soon as practicable.

The following is a short survey of Government air activities and facilities at North Island, Ford Island and Anacostia Air Fields:

Army activities transferred to the

Navy:

Anacostia, District of Columbia, land transferred to the Navy in the field now known as Old Bolling Field, which includes an area of 339.04 acres, of which 20.04 acres are now used by the Navy. The 61 buildings on the site include 11 sets of quarters.

San Diego, California, North Island. Land transferred to the Navy now used by the Army Rockwell Field, covers the area of 940.59 acres with a total of 141 buildings including 13 sets of quarters. This will be held by the Navy in addition to the 587 acres now occupied by the Naval Air Station, San Diego.

Pearl Harbor, Hawaii, Ford Island. Land transferred to the Navy now used by the Luke Field (Army) covers 240.78 acres with 116 buildings, including 22 sets of quarters. This will be used by the Navy in addition to the 96 acres used as the Fleet Air Base, Pearl Harbor.

Navy activities transferred to the Army.

Sunnyvale Naval Air Station, Sunnyvale, California, which includes 1000 acres, with 27 buildings, 9 of which are officer quarters.

North Island, San Diego, Calif., separates San Diego Bay from the open roadstead of Coronado Bay. It is flat, and though of sandy soil, forms a natural flying field. Neglecting tide lands, it comprises 1,233 acres; 666 acres are owned by the U.S. Army and form Rockwell Field, and 567 acres, owned by the U.S. Navy, are included in the U.S. Naval Air Station. The Navy's portion, on the side toward San Diego Bay, has a deep water pier for docking Naval vessels. Naval seaplanes land on and take off from the water of San Diego Bay, so that, in effect, there are four landing fields side by side and within a space of four miles: Rockwell Field, the Naval Air Station, San Diego Bay, Lindbergh Field, the latter being a very active civilian field.

North Island was first used for aviation when in 1910 the Curtiss Company started a school there, the first Naval officer student, Lieut. T.G. Ellyson, starting his course in December of that year. During the winter of 1911-1912, the Navy established a temporary flying school on the island, but in the Spring of 1912, moved it to Annapolis, and in June, 1914, to Pensacola. The Army started a school on North Island on privately-owned property on November 1, 1912, and has continued flying operations there ever since that date. A commission appointed by Act of Congress of March 4, 1915, recommended that the Government

purchase North Island for a permanent aviation school, provided it could be obtained at a reasonable cost, and otherwise that it purchase a site on Coronado Heights.

Finally, a bill for the condemnation of the entire tract known as North Island by the United States Government was passed by Congress on July 27, 1917, and the United States Government formally took possession in pursuance of Executive Order of the President of the United States on August 7, 1917.

In the early days of Aviation in the Army, Rockwell Field was used as a training school for young Army officers detailed to duty in the Aviation Section, Signal Corps. The majority of Air Corps officers of field grade who were in the service prior to the outbreak of the World War received their early flying training at this school.

During the War, Rockwell Field was utilized as a school for pursuit flying and aerial gunnery work. The field was named in honor of 2nd Lieut. Louis C. Rockwell, 10th Infantry, who was killed at College Park, Md., on September 28, 1912, in a Wright B type airplane.

Rockwell Field is intimately associated with the early history of Army aviation, for most of the activities prior to the World War were centered in this locality. The history of this field is of absorbing interest and replete with outstanding flying achievements by Army pilots prior to the War as well as subsequent thereto.

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VISIT OF LATIN-AMERICAN CIVIL AVIATION OFFICIALS

In connection with the observance of Air Navigation Week, October 14-21, 1935, various aviation activities in the United States will be visited by a delegation of civil aviation officials from Latin America.

The Air Navigation Week Committee, of which Brigadier-General Oscar Westover, Acting Chief of the Air Corps, is a member, has drawn up a tentative program for the visitors, which includes a visit to Mitchel Field on October 18th. On this date, following an inspection of the plant of the Sperry Instrument Co. in Brooklyn, N.Y., the visitors will be flown to Roosevelt Field in a Sikorsky amphibian, where they will be given a luncheon by Mayor La Guardia at the Advertisers Club. They will then visit the Aircraft Show and Exhibition at Roosevelt Field and the Army activities at Mitchel Field. The visitors will return to New York that evening for a dinner by the Radio Corporation of America and will then visit Radio City.

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VALUE OF AERIAL PHOTOGRAPHY DEMONSTRATED

Officers of the 41st Division Aviation, Washington National Guard, are going to learn exactly what will be expected of the Air Corps in case an overseas enemy invades the Pacific Northwest, as was figuratively the case in the recent Fourth Army command post exercise at Fort Lewis, Washington, where Major-General Paul B. Malone commanded the Fourth Army.

Lieut.-Colonel Alex Sabiston, of Spokane, Assistant Chief of Staff to General White, of Salem, Oregon, Commander of the 41st Division, was one of the few National Guard officers ordered to participate in the exercise.

Although an infantryman, Colonel Sabiston has a decided Air Corps complex, which prompted him to observe closely the Air Corps tactics in the exercise. It was through the use of aerial photography that Colonel Sabiston relates how he convinced some of the high command that tanks could not be used in a certain area.

"I knew the area was a logged-off area, and would not permit the use of tanks, but the tanks were sent to us," relates Colonel Sabiston. "It just so happened that I had an aerial photograph of the area in question, and when asked what we were doing with the tanks, I replied that they couldn't be used because of the stumps in the terrain. The photograph proved my contention without the slightest argument."

At officers' class in November, Colonel Sabiston will relate, with maps, the activities of the Air Corps in the exercise and how the Air Corps operated with the other arms of the service.

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ASSIGNMENT OF ADVANCED FLYING SCHOOL GRADUATES

Officers of the Regular Army, all second lieutenants, who graduated on October 12th from the Advanced Flying School at Kelly Field, San Antonio, Texas, were by Special Orders of the War Department assigned to Air Corps stations, as follows:

To Hamilton Field, San Rafael, Calif.:
Harvey T. Alness, Cav. John B. Cary, C.E.
Herbert M. Baker, Jr., Inf. Jack E. Shuck, CAC
Byron E. Brugge, CAC. Dale O. Smith, Inf.
Paul C. Ashworth, C.E.

To Parksdale Field, Shreveport, La.
Frank C. Norvell, F.A. Wm. H. Wise, Cav.

To Rockwell Field, Coronado, Calif.
George B. Dany, CAC. Wm. M. Gross, F.A.
John deP. T. Hills, Inf. Paul T. Hanley, Inf.
Arno H. Luelman, Inf. Wilson H. Neal, F.A.
Lawson S. Moseley, Jr., CAC John W. White, Inf.
Curtis D. Sluman, CAC. Wm. S. Stone, F.A.
Albert T. Wilson, Jr., Inf. Elvin F. Ligon, Jr.
Inf.

Continued on Page 13

V-6876, A.C.

B I O G R A P H I E S

LIEUT.-COLONEL LEWIS H. BRERETON

Lieut.-Colonel Lewis H. Brereton, Air Corps, an officer with a distinguished war record, who is at present on duty as an Instructor at the Command and General Staff School at Fort Leavenworth, Kansas, was born at Pittsburgh, Pa., June 21, 1890. After attending St. John's College, Annapolis, Md., he remained in Maryland's capital for four years longer as a midshipman at the U.S. Naval Academy. Graduating in June, 1911, and being commissioned an Ensign, he resigned on July 5, 1911, and the following month, on the 17th, he accepted an appointment as a second lieutenant in the Coast Artillery Corps. On Sept. 3, 1912, he was detailed to the Aviation Section, Signal Corps, and pursued a course of flying training at the Signal Corps Aviation School at San Diego, Calif., qualifying as a Military Aviator, under the old law, on March 27, 1913. He was relieved from the Signal Corps, at his own request, on July 3, 1913.

Upon his promotion to 1st Lieutenant, July 1, 1916, Col. Brereton was transferred to the 2nd Field Artillery. He was then serving a tour of duty in the Philippines. He was re-detailed to the Aviation Section, Signal Corps, while serving in the Islands and assigned to duty with the 2nd Aero Squadron.

Returning from the Philippines in March, 1917, he was assigned to duty in Washington in the Office of the Chief Signal Officer. For a brief period he was on temporary duty at the Signal Corps Aviation School at Mineola, L.I., New York, undergoing a course of flying training to enable him to qualify as a Junior Military Aviator. He received this rating on June 27, 1917.

In October, 1917, Col. Brereton was relieved from duty in Washington and ordered overseas, serving in Paris, France, with Headquarters, Air Service, Lines of Communication, in the Personnel and Supply Departments. Later he was assigned to the Third Aviation Instruction Center for additional flying training.

Placed in command on March 1, 1918, of the 12th Aero Squadron, one of the first American flying units on the front, he rapidly completed its organization while carrying out extensive operations in both the Toul and Luneville Sectors, during which time he made daily flights over the enemy lines. Ordered to the Marne, he moved his entire unit across France in 48 hours, and took part in the attack at Vaux on July 1st, flying without protection over the battlefield for over two hours in the face of extreme hostile air activity. By his conspicuous personal bravery during the most hazardous missions, he set an example

which proved a splendid inspiration to all who served under his command. Assigned as Chief of Air Service, First Army Corps, in the midst of active operations, Col. Brereton, by his energy, foresight and untiring devotion to duty, rapidly developed an office and unit which attained great success during the second battle of the Marne. Notwithstanding executive duties, he continued to seize every opportunity to perform the most hazardous missions over the enemy lines, and thus maintained the morale of his command during a most trying and critical period.

Taking command of the Corps Observation Wing immediately preceding the St. Mihiel operations, he gave untiringly and with undiminished enthusiasm his knowledge, experience and organizing ability to the development of Corps Air Service organizations throughout the First American Army. On October 26th, he became Operations Officer on the staff of the Chief of Air Service, and continued in this capacity until the cessation of hostilities, when he was appointed Chief of Staff, Headquarters, Air Service, Third Army.

For his conspicuous overseas service, Col. Brereton was awarded the Distinguished Service Cross, also the Croix de Guerre with two palms by the French Government, which further rewarded him by making him an Officer of the Legion of Honor. Other honors conferred upon him were: Commander, 1st Class, Order of Danilo, and Chevalier, Order of Albert of Belgium.

The citation accompanying the award of the Distinguished Service Cross was as follows:

"For extraordinary heroism in action over Thiaucourt, France.

Major Brereton, together with an observer, voluntarily, and pursuant to a request for special mission, left his airfield, crossed the enemy lines over Lironville, and proceeded to Thiaucourt. In spite of poor visibility, which forced them to fly at a very low altitude and in spite of intense and accurate anti-aircraft fire they maintained their flight along their course and obtained valuable information. Over Thiaucourt they were suddenly attacked by four enemy monoplane Fokkers. Manoeuvring his machine so that his observer could obtain a good field of fire, he entered into combat. His observer's guns becoming jammed, he withdrew until the jam was cleared, when he returned to the combat. His observer then becoming wounded, he coolly made a landing within friendly lines although followed down by the enemy to within twenty-five meters of the ground. By this act he made himself an inspiration and example to all the members of his command."

Upon his return to the United States in February, 1919, Col. Brereton was on duty in the Office of the Director of Air Service, Washington, as Chief of the Operations Division, Training and Operations Group, until December, 1919, when he returned to France for duty as Air Attache at the American Embassy in Paris. In August, 1922, he was assigned to duty at Kelly Field, Texas, where he served as Commanding Officer of the 10th School Group; Assistant Commandant of the Advanced Flying School; Director of Attack Training and as President of the Board on Attack Aviation. On Sept. 16, 1924, he entered upon his duties as instructor at the Air Corps Tactical School at Langley Field, Va. In June of the following year he became commanding officer of the 2nd Bombardment Group at Langley Field, and he continued on this duty until his assignment in August, 1927, as a student at the Command and General Staff School at Fort Leavenworth, Kansas. His graduation from this school in June, 1928, was followed by his assignment to duty as commanding officer of the 88th Observation Squadron at Post Field, Fort Sill, Okla.

Ordered to duty in Panama in August, 1931, Col. Brereton's duties in the Canal Zone were those of Commanding officer of France Field and the 6th Composite Group, Commanding Officer of the Panama Air Depot and Acting Air Officer of the Panama Canal Department. On July 1, 1935, he entered upon his present duty as an instructor at the Command and General Staff School at Fort Leavenworth.

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COLONEL JACOB E. FICKEL, AIR CORPS

Colonel Jacob E. Fickel, Air Corps, who now holds the responsible position of Commandant of the Advanced Flying School at Kelly Field, Texas, became interested in aviation early in his career in the Army when in 1910, as a second lieutenant of Infantry, he made flights with the noted pioneer aviators Glenn Curtiss and Charles Willard for the purpose of conducting experiments in firing guns from airplanes. These experiments were the first to be conducted in aviation history, and he was known as the first aerial gunner.

Colonel Fickel was born on January 31, 1883, at Fort Des Moines, Iowa. He was educated in the public schools of Des Moines and Des Moines College. After serving as a cadet in the U.S. Revenue Cutter Service for two years, he enlisted in the Army, serving with Company K, 27th Infantry, as private, corporal, sergeant and first sergeant from March 10, 1904, to February 28, 1907.

Passing the competitive examination for a commission, he was appointed a second lieutenant on February 11, 1907,

and was assigned to the 29th Infantry. He was promoted to 1st Lieutenant, June 1, 1911, and remained with the 29th regiment until his promotion to Captain, July 1, 1916, when he was assigned to the 31st Infantry.

Appointed a Major in the Aviation Section, Signal Corps, November 29, 1917, he was on duty in the Office of the Chief Signal Officer in Washington until December 3rd of that year, when he was ordered to Rockwell Field, San Diego, Calif., for flying instruction. He was promoted to Lieut.-Colonel, August 24, 1918. Upon the completion of his flying training, he received the rating of Junior Military Aviator, August 31, 1918.

From October 22, 1918, to January 28, 1919, Colonel Fickel was on duty as Commanding Officer of Carruthers Field, Fort Worth, Texas. He was then assigned to duty in the Office of the Director of Military Aeronautics, Washington, serving as Assistant Chief of the Finance Division and later as Chief thereof. He was also a member of the Claims Board and the Advisory Board.

Relieved from the Finance Division on September 10, 1920, he remained on duty with the Advisory Board until March 11, 1921, when he was ordered to Portland, Oregon, for duty as Comptroller of the Spruce Production Corporation. In June, 1922, he returned to Washington for duty as Chief of the Supply Division, which position he occupied until April 26, 1924.

After several months of temporary duty at Bolling Field, during the course of which he served as Commanding Officer, he entered upon his duties as student at the Air Corps Tactical School at Langley Field, Va., in October, and when he graduated in June, 1925, he remained at Langley Field in temporary command thereof until August, when he was transferred for duty as student at the Command and General Staff School, Fort Leavenworth, Kansas, emerging therefrom as an honor graduate on June 18, 1926. Returning to Washington, he was on temporary duty in the Office of the Chief of the Air Corps until October, 1926, when he was assigned to the Materiel Division, Wright Field, Dayton, Ohio, as Executive Officer, a position he occupied for the next four years except for a period of four months, April to July, 1930, when he pursued the Special Observers' Course at the Advanced Flying School, Kelly Field. He was promoted to Lieut.-Colonel on May 14, 1930.

Completing the one-year course at the Army War College in June, 1931, Colonel Fickel was again assigned to duty in Washington, this time as Chief of the Buildings and Grounds Division, Office of the Chief of the Air Corps. At various times during his four-year tenure of this position, he was also on temporary duty as Executive Officer. On March 2, 1935, he was transferred to Kelly Field, Texas, for duty as Commandant of the Advanced

Flying School, with the rank of Colonel.

He was navigator on the non-stop flight, made on February 20, 1930, from Miami, Fla., to France Field, Panama Canal Zone, a distance of 1140 miles, which was accomplished in a flying time of 11 hours and 20 minutes. The pilots were Captains Albert E. Hegenberger and Ennis J. Whitehead. This was the first time such a flight had been made in a multi-motored airplane, and only once before had it been accomplished in any type of plane.

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ACTIVITIES OF NEW JERSEY N.G. AIR CORPS

The 119th Observation Squadron, New Jersey National Guard Air Corps, finished the 1934-1935 Armory and Field Training period without accident of any nature to either personnel or equipment. Safety has been a by-word throughout the year, although more missions of all classes have been flown and additional pilot and observer personnel have been used.

Prior to a most successful and efficient field training period from a squadron standpoint, the officer personnel were given a series of war problem lectures by Captain William J. McKiernan, the Regular Army instructor. Information acquired during this course was particularly helpful to pilots and observers who have not completed the thirty series extension courses during the maneuvers.

The following pilots were commissioned as second lieutenants in the Squadron:

Horace H. Manchester - graduated from the Air Corps Training Center October 1, 1932. Served two years on active duty at Albrook Field and at Mitchel Field.

Anthony J. Ming - Transport pilot, graduate of Boeing School course in instrument flying.

Raymond W. Tucker - Transport pilot, graduate of Boeing School course in instrument flying.

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TACTICAL INSPECTION OF 12TH OBS. GROUP

Friday, September 13th, brought to an end the annual Tactical Inspection of the 12th Observation Group, Brooks Field, San Antonio, Texas, culminating in a field problem worked out in cooperation with the Second Division at Fort Sam Houston.

During the period of this inspection, all equipment and personnel were thoroughly covered by Colonel Johnson and his staff. Also, a complete check was made of all paper work. This work included inspection and operation, both indoors and in the field.

Of primary importance was the field problem, during which the 2nd Division acted as both enemy and friendly troops.

Covering a Corps front, the activity consisted of an advance to a strongly defended line, an engagement, a position by the invading army and a counter-attack by defending troops. During these maneuvers, the 12th Observation Group was in constant operation in cooperation with the defending forces, performing missions of reconnaissance, photography and air-ground liaison over the zone of action.

On the whole, the results were satisfactory as to condition of equipment, training of personnel and functioning of the unit in action during engagement.

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CADET HARDING WINS PRIZES AS RIFLEMAN

Flying Cadet William W. Harding, stationed at Selfridge Field, Mt. Clemens, Mich., attended the National Rifle Matches recently held at Camp Perry, Ohio. He competed in the small bore and thirty caliber matches and won several cash prizes and two medals. There were about three thousand individuals competing in the matches this year, and the competition was very keen, especially in the "Members Match" and the "Marine Corps Match" in which Cadet Harding competed. He states that, due to the large number of entrants, some of the matches had to be fired in the rain and some in semi darkness. Cadet Harding competed in the rifle matches of the 1932 Olympic Games and made some very high scores at that time.

Having just completed his year of active duty under his cadet status with an Air Corps tactical unit, Cadet Harding has been recommended for a commission as second lieutenant in the Air Reserve and for a tour of extended active duty with an Air Corps tactical unit under his status as a Reserve officer. He graduated from the Advanced Flying School, Kelly Field, Texas, in October, 1934, being appointed a Flying Cadet shortly following his graduation from Stanford University.

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ASSIGNMENT OF A.C.A.F.S. GRADUATES (Continued from Page 10)

To Selfridge Field, Mt. Clemens, Mich:

John G. Benner, Inf.

To Mitchel Field, L.I., New York:

John M. Hutchison, Cav.

Jack J. Neely, Inf.

To March Field, Calif.:

Karl W. Bauer, Inf.

Hudson H. Upham, Inf.

To the Philippine Department:

William M. Centerbury, C.A.C.

Richard A. Legg, Inf.

Raymond J. Reeves, Cav.

To Barksdale Field, La.

1st Lieut. Walter C. Sweeney, Jr.
Infantry

Although thirty Air Corps Reserve officers of the 369th and 861st Observation Squadrons faced the gloomy prospect of having but one primary training plane to fly at the outset of annual active duty training at Mitchel Field this year, events took a happier turn than anyone had anticipated, with the result that both groups got as much or more time in service type ships than they have had in years when the present acute shortage of flying equipment did not exist. The 369th, commanded by Major John M. Hayward, averaged approximately eighteen pilot hours per officer, the 861st about fifteen hours, exceptionally bad weather during the first week of the latter organization's tour accounting for the difference.

When the 369th was called to active duty on August 18th, maneuvers at Pine Camp, New York, were in full swing, and the 97th Observation Squadron, which normally supplies planes for reserve training at Mitchel Field, was busily engaged in the up-state war games. Consequently, it appeared improbable that airplanes would be available for this camp. However, the Second Corps Area Air Reserve Association, by making direct representation to the Office of the Chief of the Air Corps, was rewarded by having six service type airplanes assigned for the period of the camp. As a result, what had threatened to be a famine became a feast of flying time for Major Hayward's Squadron, with one airplane for every two flying officers and perfect weather prevailing throughout the entire active duty period. A gratifying number of missions were carried out in radio navigation reconnaissance, photography, cross-country, etc., and several evenings were devoted to night flying both in the vicinity of Mitchel Field and on observation trips over New York and various parts of Long Island.

The 861st Squadron, which reported for duty on September 1st, was not so lucky as its predecessor either in the number of planes at its disposal or in breaks given it by the weather man. The 97th, back home after the Pine Camp maneuvers, was able to supply only four service type planes to Major Durbin's squadron. However, this organization did make a point of seeing that the Reserve unit's planes were constantly in commission, so that by dividing his command into "A" and "B" flights and flying both mornings and afternoons, Major Durbin managed to provide one airplane for each two pilots of his command, the officers alternating in front and rear cockpits on practically every mission performed.

Except for less than an hour of re-

resher and check flights on September 3rd, there was no flying at all during the first week of this encampment until the 7th, thanks to a long siege of fog, rain and poor visibility resulting from the Florida's hurricane aftermath. Despite this handicap and the fact that the 861st had more officers than the 369th, nearly as many missions were performed, and the group had four nights of flying - a phase of aviation training in which the Second Corps Area Reserves have been given little opportunity to become proficient.

While on this subject, special tribute should be paid to Captain George S. Stead, of Norwich, New York, for the manner in which he nursed a crippled ship back to its home port after a connecting rod and other parts of the motor let go thirty miles from Mitchel Field on a night reconnaissance mission. Instead of taking to his parachute, as the circumstances easily might have warranted, he decided to stick by his plane and endeavor to reach Mitchel Field, inasmuch as the motor still was delivering partial, if somewhat rough and noisy power. Colonel Walter H. Frank, commanding officer of the post, was on hand when Stead arrived and paid ready tribute to his coolness and skill in saving a sorely needed airplane after he had inspected the ruptured and oil-smeared crankcase of the ship. Captain Akre and Major Durbin also were loud in their praise of the manner in which Captain Stead dealt with the emergency.

Both camps engaged in intensive ground training. Lectures were given by Mr. Stark (of blind-flying fame) and other technical personnel gave lectures and demonstrations on Avigation, Meteorology, Radio-communications and Chemical Warfare. Moving pictures on chemical warfare were shown. Gas mask drill and actual exposure to tear gas while wearing masks constituted an interesting and instructive phase of the ground training. The work on the ground target range consisted of firing the full preliminary and record courses with the 45 calibre automatic and the firing of flexible machine guns. Flexible camera guns were used in lieu of actual machine gunnery on towed targets, and this was considered quite satisfactory.

Inspection tours were made to the Seversky and Grumman airplane factories at Farmingdale.

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On October 2nd, Captain Albert F. Hegenberger, Air Corps, was assigned to duty as Squadron Commander of the 30th Bombardment Squadron at Rockwell Field, Coronado, Calif., with the temporary rank of Major.

BROTHERS IN ARMS

"Two brothers on a post is perhaps not so rare," says the News Letter Correspondent from Hamilton Field, Calif., and he then adds: "Three brothers on the same post is perhaps a little harder to find. But when we say that we have three brothers in the same squadron on the same post, we believe that we have achieved the ultimate in kinship for service circles.

Presenting Clarence W., Robert L. and Roger N. Allen, three boys plying the same trade in their profession and rapidly making good, too. All three boys are airplane mechanics in the 31st Bombardment Squadron stationed at Hamilton Field.

Now, what station can tie us or 'push us off the map?"

Well, according to information just received from the News Letter Correspondent from Chanute Field, Rantoul, Ill., it seems that Hamilton Field is due for a considerable amount of shoving.

The Chanute Field Correspondent submitted the following:

"It was noted in the September 15, 1935, issue of the Air Corps News Letter, under an article headed 'Brothers Galore in Air Corps Organizations,' that although the Station Complement, Brooks Field, Texas, appears to hold the record for the number of brothers serving in one organization, Luke Field, T.H., holds the record for the greatest number of brothers serving at one station. It is believed that the following information will establish a record both for organization and station.

There are seventeen sets of brothers now in the Service at Chanute Field, Rantoul, Ill., assigned to organizations as follows:

8 sets - 98th Service Squadron, A.C.
4 sets - A.C.T.S. Detachment, Air Corps
5 sets - distributed among the other organizations.

Of the eight sets of brothers now serving in the 98th Squadron, two sets consist of three brothers each. In addition to this, all eight sets of brothers in that organization are from the State of Illinois. It is believed that this is a record, not only for Air Corps organizations, but for the entire Army as well.

Following is a list of the brothers now serving at Chanute Field, listed by organizations to which assigned:

98th Service Squadron, A.C.
Rasmussen, Evan N.; Louis C.; and Wayne A.
Kavanaugh, James; William R. and Vincent A.
Huntsman, George L. and Henry D.
Pettibon, Ray D. and Dale E.
Simer, Harold E. and Roscoe L.
Webster, Ralph and William
Domonousky, George T. and Frank M.
Butler, John I. and Walter.

Air Corps Technical School Detachment

Blalock, Walter S. and Paul.
Berry, Clifford T. and William S.
Short, Charles H. and William E.
Johnson, Arthur E. and Ellis A.

Other Organizations

Davis, Harold W., 98th Service Sqdn.
Davis, John A., A.C.T.S. Detachment.
Spees, Herbert G., 98th Service Sqdn.
Spees, Allen R., Det. Q.M. Corps.
Williams, Howard H., 48th Pursuit Sqdn.
Williams, Ray D., A.C.T.S. Detachment.
Silver, Milton D., Det. Q.M. Corps.
Silver, Jack O., 48th Pursuit Squadron
Richardson, William A., 98th Service Sq.
Richardson, Arthur L., A.C.T.S. Detachment

The Air Corps Technical School Detachment also has a father and son serving therein, Staff Sergeant Peter T. Madsen and his son, Private Harold Madsen."

If any Army post can eclipse Chanute Field's record, the News Letter would be glad to hear about it.

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STUDENT FLYERS VISIT FORT SILL

Post Field, Fort Sill, Okla., was host to three student flights from the Advanced Flying School, Kelly Field, Texas, during the latter part of September.

The first flight, consisting of 17 Attack planes, arrived on Sept. 22nd, commanded by Captain J.C. Jamison, and departed the following day for Fort Bliss, Texas.

The second flight, consisting of 13 Bombers, commanded by Captain Selzer; 9 Pursuit planes, commanded by Captain Engler, and 16 Observation planes, commanded by Captain McHenry, arrived September 28th, and departed the following day for various destinations. The personnel of this flight totalled 73, but Post Field stretched its housing and messing accommodations and handled the situation in a satisfactory manner.

The third flight, commanded by Captain Smith, and accompanied by Major Knapp, consisted of 12 Pursuit planes, arrived on September 30th and cleared the following day for Fort Bliss.

Post Field recently entertained another visitor. A large and ferocious opossum invaded the hangar and attempted to stow away in one of our speedy O-19's. When persuaded that he was under age for an airplane flight he agreed to become the "Flight Mascot" until he could qualify.

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Effective October 2, 1935, Major Hume Peabody, Air Corps, was assigned to duty as Executive and Operations Officer of the 18th Composite Wing, Fort Shafter, T.H., with the temporary rank of Lieut.-Colonel during the period of this assignment. Major Peabody graduated last June from the Army War College, Washington, D.C.

CONGRESSMEN VISIT MARCH FIELD

Defenses of Southern California may soon be strengthened if the stated desires of the sub-committee on War Department expenditures of the House of Representatives Appropriations Committee are enacted into law.

This sub-committee, one of the most important as far as the Army is concerned, visited March Field on September 13th to determine the future appropriations necessary for the development of this strategically located outpost.

Comprising this legislative group were Messrs. Tilman B. Parks, of Arkansas, Chairman; Thomas L. Blanton, of Texas; Thomas S. McMillan, of South Carolina; John F. Dockweiler, of California, and J.C. Pugh, Secretary to the Committee.

Stating that the Committee came to the West Coast to answer to the call of duty to help complete coast defenses, Chairman Parks added: "We want to end war and we intend to prepare for war so that we will never have to fire a hostile shot again."

Welcomed to March Field, Riverside, Calif., with a 17-gun salute, the Congressmen were tendered a 30-plane review of the 17th Attack Group. They witnessed the flying demonstration from the reviewing balcony of post headquarters. Later they were addressed on the defense needs of the Pacific Coast by Brigadier-General Henry H. Arnold, Commanding the First Wing of the General Headquarters Air Force, at the Wing Headquarters building.

Touching on the air base facilities on the West Coast and on the enormity of the defense task facing the First Wing, General Arnold stressed the need of more airplanes of all types on the Pacific Coast.

At the conclusion of General Arnold's lecture, Chairman Parks declared that the needs of the Pacific Coast demand priority in rebuilding America's defenses and added: "We are gratified at the high efficiency of Air Corps personnel, just as we are most deeply concerned over the slow and obsolete plane situation."

A Hollywood Congressman, Representative John Costello, was present with the group as an observer from the House Military Affairs Committee.

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On October 2nd, the following-named officers were assigned to duty in the Hawaiian Department with the temporary rank of Captain:

1st Lieuts: Walter A. Fenander, Supply Officer, 75th Service Sqd.; duty as Flight Commanders - Joseph J. Ladd, 23d Bomb.; Emery S. Wetzel, 50th Obs.; Donald D. Arnold and James E. Briggs, 19th Pursuit Sqd.; duty as Intelligence and Operations Officer, 23rd Bomb. Squadron, Maurice C. Bisson; duty as Engineer and Armament Officer, 18th Pursuit Group, Kingston E. Tibbetts.

EMERGENCY LANDING TRAINING

During the past year there was developed by Colonel Junius W. Jones, Air Corps, and put into training use at Chanute Field, Rantoul, Ill., a system of emergency landing equipment to be used in aiding a pilot to make a successful landing at night when all airplane and ground electric lighting has failed, or under other conditions when it is impossible to see the ground from the air in landing.

The system consists, briefly, of two rows of kerosene torches on the ground, approximately one-quarter of a mile long and one hundred yards apart, resulting in a lighted lane in the direction of the wind, one hundred yards wide and a quarter of a mile long.

The torches or flares themselves are made of one and one-half inch wicks inserted into the closed top of cylindrical cans of capacity of about one gallon, which permits several hours' operation with one filling. The flares are placed fifty yards from each other in each line. To provide for certainty as to the direction of the wind, there is placed on the ground to one side of the lighted lane a Tee pointing into the wind, made up of five of the kerosene flares placed a few yards apart.

The principle of this method of providing a lighted runway is dual in that it shows the pilot in darkness, extreme haze or reasonable fog, where to land, and as he approaches the improvised runway in the indicated direction, the longitudinal relation of the lights give him a range depth perception as he feels for the ground until, when he is about to land, the lights are practically foreshortened into a line with his eye. In addition, the ground flares themselves provide, at night, a certain amount of localized light to aid in depth perception.

During the past year, all pilots on duty at Chanute Field have made two landings each with use of this equipment, no field lights or airplane lights other than running lights being used, and without exception they found the system practical in every way.

The torches can be placed in a relatively few minutes, by use of a crew of two trucks, with a driver and ground man to each, proceeding from the designated starting point, one hundred yards apart, in parallel, and setting the flares at fifty-yard intervals.

Standing operations orders at Chanute Field include provisions for setting out the emergency lighted runway quickly when needed, and it is contemplated that each pilot will make two practice landings annually with this system.

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NEW FLYING CLASS AT RANDOLPH FIELD

The new class at the Air Corps Primary Flying School at Randolph Field, near San Antonio, Texas, which entered upon an intensive one-year flying course on October 10th, numbers 146 students, comprising 53 officers of the Regular Army, 9 Air Corps enlisted men and one enlisted man from the Coast Artillery Corps, and 83 candidates from civil life.

Three of the student officers are members of the Air Corps, each of whom hold the flying ratings of "Balloon Observer," "Airship Pilot" and "Airplane Observer." The remaining 50 student officers are, except one, all 2nd Lt's, 47 being graduates of the June, 1935, class of the United States Military Academy, and three graduates of previous years. The ten enlisted men and 83 civilians will train under the status of Flying Cadets.

The eight months' course at Randolph Field is divided into the Primary and Basic stages, each of four months' duration. During the first four-month period the students fly the primary training plane, following which they are taught to handle the more delicate controls of the Basic Training plane, which serves as the medium of transition to the regular service type airplanes which the students fly during the last four months of their flying course at the Advanced Flying School at Kelly Field, Texas.

Those student officers who successfully complete the year's course at the Air Corps Training Center are given the rating of "Airplane Pilot". The Air Corps student officers thus add another flying rating to the three they already hold. The other student officers, holding commissions in various branches of the Army, are transferred to the Air Corps. Flying Cadets who make the grade are likewise rated "Airplane Pilots" and they are then assigned to active duty for the period of one year with Air Corps tactical squadrons under their cadet status. At the end of this second year, provided the proficiency they will have attained as military pilots warrants it, they are commissioned second lieutenants in the Air Reserve. If funds are then available, they are given another year of active duty with Air Corps tactical squadrons, this time under their status as Reserve officers.

Among the States represented in the new class, California, as is almost usually the case, leads the field with 14 students, the States of Texas and Minnesota following with 9 and 8, respectively. Among the cities represented, Los Angeles, following her customary practice, has again taken the lead with five local boys, followed by the cities of San Francisco and Detroit with 3 each.

The list of students follows:

AIR CORPS OFFICERS

Major William O. Butler
 Captain James F. Powell
 Captain R. R. Selway

MEMBERS OF 1935 WEST POINT CLASS

Kenneth P. Berquist, C.E. Crookston, Minn.
 Walter J. Bryde, F.A. Newburgh, N. Y.
 Willis F. Chapman, Sig. Corps Jackson, Miss.
 Edgar A. Clark, F.A. Kansas City, Mo.
 Noel M. Cox, Inf. Canton, Miss.

Kenneth I. Curtis, C.A. Milwaukee, Wis.
 Charles J. Daly, Inf. Pacific Grove, Calif.
 Leighton I. Davis, C.E. Lyndhurst, N. J.
 George S. Eckhardt, F.A. Viroqua, Wis.
 Richard E. Ellsworth, Cav. Erie, Pa.
 Arthur A. Fickel, F.A. Fort Sam Houston, Tex.
 Wilhelm C. Freudenthal, Cav. Worcester, Mass.
 Thomas J. Gent, Jr., Inf. Crestwood, N. Y.
 Elmer J. Gibson, F.A. Shenandoah, Pa.
 Pelham D. Glassford, Jr. Cav. Washington, D. C.
 Jack W. Hickman, C.E. McCook, Neb.
 Richard C. Hopkins, Inf. Topeka, Kans.
 Sanford W. Horstman, F.A. St. John, Kans.
 John N. Rowell, C.A.C. Margate City, N. J.
 Downs E. Ingram, F.A. McElhattan, Pa.
 Carl T. Isham, Inf. Redlands, Calif.
 George M. Jones, Inf. Memphis, Tenn.
 Samuel B. Knowles, Jr., Inf. Beechhurst, N. J.
 Ralph O. Laszley, Inf. Richmond, Ind.
 Albert A. Matyas, Cav. Brooklyn, N. Y.
 Samuel C. Mitchell, Inf. Westerleigh, N. Y.
 Orin H. Moore, Inf. Winchester, Tenn.
 Thomas C. Musgrave, Jr. Atlanta, Ga.
 George E. O'Connor, Inf. Yonkers, N. Y.
 David G. Prestnelli, F.A. Atlanta, Ga.
 Jack Roberts, Inf. New York, N. Y.
 Joseph G. Russell, Inf. Fort Worth, Texas
 Maurice M. Simons, Inf. Ft. Leavenworth, Kans.
 Leont Saxton, Inf. Lynchburg, Va.
 Albert J. Shower, C.E. Madison, Wis.
 George R. Smith, Jr., C.E. Coronado Beach, Fla.
 Robert A. Stillman, F.A. Pueblo, Colo.
 Raymond W. Sumi, F.A. Nashvauk, Minn.
 Glenn C. Thompson, Inf. Roanoke Rapids, N. C.
 James W. Totten, C.A. Fort Omaha, Neb.
 Aaron W. Tyer, Inf. Natchez, Miss.
 David C. Wallace, F.A. Richmond, Va.
 James H. Walsh, F.A. Carbondale, Pa.
 Thomas Wildes, Cav. Brooklyn, N. Y.
 James V. Wilson, F.A. Elwood City, Pa.
 John Williamson, Inf. Brooklyn, N. Y.
 Pennock H. Wollaston West Point, N. Y.

OTHER WEST POINT GRADUATES

Paul E. Ruestow, C.E. Lynbrook, N. Y.
 Ross E. Sampson, Inf. Ogden, Utah
 Herbert B. Thatcher, Inf. East Orange, N. J.
 Of the three above-named officers, Lieut. Ruestow holds the rank of 1st Lieutenant.

FLYING CADETS - CIVILIANS

Ark. Henry Gordon Barrett Little Rock
 Pat Huddleston Paragould
 Calif. Tony Olivera Chino
 Gary Wilson Long Beach
 Michael J. Coffield Los Angeles
 George H. Biggs Los Angeles
 Robert C. Orth Los Angeles
 Charles Allen Simmons Los Angeles
 Herbert Wangeman Moorpark
 Edward Bellamy McMillan San Francisco
 Jillson M. Peattie San Francisco
 Donald Lawrence Russ San Francisco
 Colo. Ben Ivan Funk Denver
 George B. Smith Denver
 William P. Curtis Gardner
 Ga. Virgil Homer Kendall, Jr. College Park
 Marion N. Pherr Gainesville
 Joseph Farson Manley Griffin
 Tom Grandling Perkinson Mariette
 William Guerin Gordon Savannah
 Idaho Robert Theodore Felton Lewiston
 Fred L. B. Miller Moscow
 Ill. Patrick William McIntyre Chicago

Ind.	Paul C. Schauer	Fort Wayne	Md.	James Osbourn Gray	Hyattsville
	Thornton Kise Myers	Lafayette		59th Service Sqdn. Langley Field, Va.	
Iowa	Billy W. Kent	Braddyville	Mich.	John Mark Ferris	Detroit
	Alban B. Ogden	Des Moines		56th Service Sqdn. Selfridge Field, Mich.	
Md.	Edward T. Klerlein, Jr.	Baltimore	Mo.	Myers R. Eggeit	Kirksville
Mass.	Dana Willard Walker	Attleboro		71st Service Sqdn. Barksdale Field, La.	
	George Richard Anderson	Worcester	N.J.	Charles K. Nelson, Jr.	Hammonton
Mich.	Raymond E. Gardner, Jr.	Albion		Boston Airport, E. Boston, Mass.	
	John P. Hackett	Detroit	Ohio	William F. Frather	Wilmington
	Oliver DeMont Loomis	Detroit		90th Attack Sqdn., Barksdale Field, La.	
	George Frederick Renney	Greenville	Calif.	Alexander P. Couch	El Centro
Minn.	Carl Theodore Renne	Bagley		Rockwell Field, Calif.	
	Jean Koke Lambert	Eveleth		COAST ARTILLERY CORPS	
	Park R. Learned, Jr.	Minneapolis	Calif.	Bourne Addison	Compton
	Peter M. Riede	Minneapolis		6th C.A., Fort Winfield Scott, Calif.	
	Jack L. Schoch, Jr.	New Ulm		---oOo---	
	Ray J. Dervey	St. Paul			
	Howard W. Gray	St. Paul			
Miss.	Baxter Orr Simpson	Byhalia			
Mo.	James W. Anderson, Jr.	Kansas City			
	Harold W. Ohlke	Kansas City			
Neb.	Ira Murrn	Flattsmouth			
	Guilford R. Montgomery	Signey			
N.J.	Vincent Romano	Bayonne			
	Gordon Chalmers	East Orange			
	Arthur W. Schmitt, Jr.	Madison			
	Charles Ulmer Hale	Newark			
N.M.	Murray F. Clark	Clovis			
N.Y.	Edwin Ferrow Smith	Bath			
	Alexander T. Kardos	New York City			
N.D.	Thomas George Worley	Janestown			
Ohio	Bailey Irving Ozer	Cleveland			
	Paul F. Roth	Cleveland			
	Frederick Walter Hower	Yellow Springs			
Okla.	William J. Kennedy	Oklahoma City			
	James Horvett McBride	Stigler			
Ore.	Frederick Greenville Huish	Portland			
	Milton E. Thompson	Portland			
Penna.	Arthur Rustan Anderson	Crafton			
	Charles Joseph Howe	Clairton			
	Harry Philip Leber, Jr.	Philadelphia			
	Edward Morgan Owen	Uniontown			
S.C.	James William Smoak	Yonges Island			
S.D.	Julius Herbert Werle	Parker			
Tenn.	John R. Kilgere	Nashville			
Texas	Robert Allan Bell	Adrian			
	Bruce Hampton Beesley	Bartlett			
	Ray Herbert Fickett	Big Lake			
	Churchill L. Scott, Jr.	Brownwood			
	Boyce F. Heil	San Antonio			
	John Joseph Toudouze	San Antonio			
	Cecil H. Childre	Westaco			
Utah	Charles Hampton Price	Salt Lake City			
Vt.	James Carpenter Averill	Brattleboro			
Wash.	Melvin Lee	Ellensburg			
	Willard Gordon Rublin	Ellensburg			
	Loring F. Stetson, Jr.	Lilliwaup			
	Kenneth G. Woodford	Seattle			
	Leonard M. Rohrbough	Tacoma			
Wyo.	Arthur Mills Hutchinson	Cheyenne			
	AIR CORPS ENLISTED MEN - PRIVATES				
Calif.	Edward N. Goddes	Los Angeles			
	Station Complement, Rockwell Field, Cal.				
	Jack F. Todd	Visalia			
	47th School Sqdn. Randolph Field, Texas				
Ark.	Aaron J. Foster	Patmos			
	39th Obs. Squadron, Kelly Field, Texas				

88TH OBSERVATION SQDN. MOVES TO HAMILTON FIELD

Thursday, September 26, 1935, witnessed the completion of the transfer of the 88th Observation Squadron, Air Corps (Long Range Amphibian) from Brooks Field, San Antonio, Texas, to its new station at Hamilton Field, San Rafael, Calif. A flight of six planes, led by Captain Robert H. Kelly, departed from Brooks Field on the above-named date via El Paso, Tucson and March Field.

The 88th Observation Squadron, under the command of Major C. E. Giffin, is a part of the 1st Wing, General Headquarters Air Force, at March Field, Calif., under the command of Brigadier General Henry H. Arnold. This Squadron, upon its arrival at Hamilton Field, was equipped with long range amphibian planes required in distance reconnaissance work, much of which will be performed on water.

The transfer of equipment and personnel was effected by truck and automobile. The move completes the reorganization of the Air Corps and solidifies the various wings of the new G.H.Q. Air Force.

The following-named officers transferred with the 88th Observation Squadron to Hamilton Field: Major C. E. Giffin, Captains Raymond Morrison, Richard I. Dugan, R.H. Kelly, Lieutenants, Air Reserve, Albert L. Palmer, William W. Pannia, Arthur J. Pierce and George E. Pierce.

Flying Cadets transferred to Hamilton Field were Arthur V. Jones, Jr., Frank N. Nightingale, William Q. Q. Rankin, Jess A. Smith, Lloyd A. Walker, Jr.

The enlisted men making the journey to their new station numbered 53, comprising 2 Master Sergeants; 2 Technical Sergeants; one First Sergeant; 8 Staff Sergeants; 2 Sergeants, AM, 1st Class; 1 Sergeant, A.M., 2nd Class; 4 Sergeants; 1 Corporal, A.M., 1st Class; 2 Corporals, A.M., 2nd Class; 4 Corporals; 9 Privates, 1st Class; 2 Privates, A.M., 2nd Class, and 15 Privates.

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WAR DEPARTMENT ORDERS

Changes of Station: To Office Chief of the Air Corps, Washington: Lieut.-Colonel Harvey S. Burwell from duty with GHQ Air Force, Langley Field, Va., to duty as GHQ Air Force Personnel Liaison Officer.

To Rockwell Field, Calif.: Captain Thomas W. Steed, end Pursuit Squadron. Relieved from temporary rank upon departure from the Philippines.

To Hamilton Field, Calif.: 1st Lieut. Leslie O. Peterson, upon completion of tour of duty in Philippines.

To Maxwell Field, Ala.: Captain John W. Monahan from duty as Assistant Military Attache for Air, London, Eng.

To London, Eng.: Lieut.-Colonel Martin F. Scanlon from duty with Station Complement, Bolling Field, D.C., to duty as Assistant Military Attache for Air, American Embassy.

To Hensley Field, Dallas, Texas: 1st Lt. Russell H. Griffith, from Hawaiian Dept., for duty with Organized Reserves. Previous orders in his case revoked.

To Chanute Field, Ill.: Captain Hansford W. Pennington, Panama Canal Dept. Previous orders revoked.

RETIREMENT: Colonel Ira Longanecker, Nov. 30, 1935, upon his own application after more than 33 years' service.

The duty assignments of the following-named Air Corps officers, holding temporary increased rank, were changed, those officers, however, still retaining their temporary rank:

Major Lionel H. Dunlap from duty with 66th Service Squadron to Commanding Officer, 28th Bombardment Squadron, Nichols Field, P.I.

Major Westside E. Larson from duty with 32d Bombardment Squadron, Rockwell Field, Calif., to duty as Intelligence and Operations Officer, 19th Bombardment Group, Rockwell Field.

Major James L. Grisham, from duty with 30th Bombardment Squadron, Rockwell Field, to duty as Commanding Officer, 32nd Bombardment Squadron, Rockwell Field.

Captain Harvey F. Dyer from assignment with 26th Attack Squadron, Wheeler Field, T.H., to duty as Adjutant, Hawaiian Air Depot, Luke Field, T.H.

Captain John E. Bodle from duty with 18th Pursuit Group, Wheeler Field, T.H., to duty as Flight Commander,

Captain Bryant L. Boatner, from duty as Flight Commander, 6th Pursuit Squadron, Wheeler Field, T.H., to duty as Intelligence and Operations Officer of that Squadron.

Captain Russell Keiller relieved from assignment as Flight Commander, 19th Pursuit Squadron, Wheeler Field, to duty as Intelligence and Operations Officer, 19th Pursuit Squadron.

Major Thomas W. Hastey was relieved from assignment and duty with the 28th Bombardment Squadron at Nichols Field, P.I.

Major Arnold H. Rich relieved from assignment, duty and temporary rank as Commanding Officer, 84th Service Sqdn., Maxwell Field.

NATIONAL GUARD AIRMEN IN CONVENTION

Five Douglas Observation airplanes from the 41st Division Aviation, Washington National Guard, Felts Field, Spokane, Wash., with a complete compliment of officers and enlisted men, will be flown on an air navigation flight to Santa Fe, New Mexico, incidentally, while there, they will attend the annual convention of the National Guard Association, October 24-26, 1935. In the flight will be Brigadier General Carlos Pennington, who commanded the Infantry troops during strike duty in Tacoma, Wash., last summer.

Local officers of the Washington National Guard Association are considering extending an invitation to the National Association to hold its 1936 convention in Spokane.

Officers of the 41st Division Aviation have pointed out that their organization has all the facilities necessary to care for Air Corps groups attending the convention, and that sufficient hotel and convention hall accommodations are available.

With the establishment of the Northern Transcontinental Airway from the Twin Cities to Seattle, Spokane is on airways from all parts of the United States.

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NECESSITY THE MOTHER OF INVENTION

A Navy pilot in an observation seaplane made a forced landing at sea, due to a broken gas line, forty miles or so from the nearest ship. The question was - What to do? A little rummaging around disclosed a first aid kit with a hollow tourniquet, plenty of adhesive tape, and elsewhere, a roll of safety wire. A piece of the tourniquet was cut off and slipped over each end of the broken line. Adhesive tape was applied, and the whole bound with safety wire. The engine was started and the airplane flown safely back to the ship.

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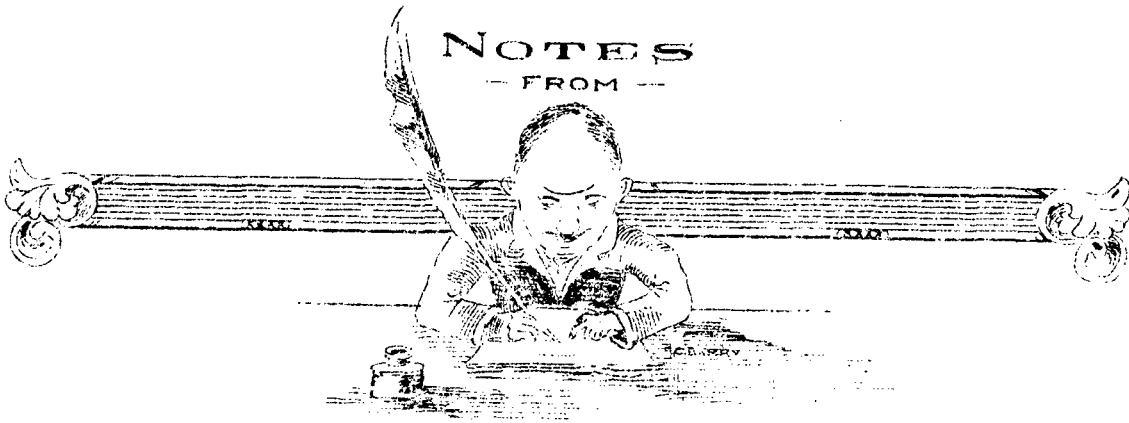
AIR DEMONSTRATION AT FORT LEAVENWORTH, KANS.

An Air Demonstration was scheduled to be held at Fort Leavenworth, Kansas, on October 12th, with Air Corps personnel from Barksdale, Langley, March and Hamilton Fields, and from Fort Leavenworth, participating, utilizing 17 Type A-12 Attack, 21 P-26 and 3 Transport planes from Barksdale Field, 13 B-6 Bombardment planes from Langley Field, 3 Martin Bombers from Hamilton Field and 3 O-19 Observation planes from Fort Leavenworth.

Events on the program were to be the spraying of Infantry troops in column; Pursuit dive bombing; Attack bombing against a dispersed Infantry battalion; Attack demonstration of parachute bombs; Pursuit attack against an Observation element; Demonstration of Bombardment tactical formations; Attack of Bombardment squadron by Pursuit squadron; Attack of modern fast Bombers by Pursuit squadron; High altitude bombing, 8,000 to 10,000 feet, by a Bombardment squadron, Demonstration of Pursuit formation and maneuverability. Personnel participating: 63 officers, 13 Flying Cadets, necessary complement of enlisted men, and 13 officers (observers).

V-6876, A.C.

NOTES — FROM —



AIR CORPS FIELDS

Hawaiian Air Depot, Luke Field, T.H., Sept. 18

Remodeling of the Main Warehouse to increase the storage space is nearing completion. Work is now beginning on the other storage hangar, commonly called the seaplane hangar. This hangar, which has been used for storage of metals and miscellaneous bulky supplies, is in very poor condition, having one side open which has been enclosed for a number of years by using engine boxes. These engine boxes will be replaced by sliding doors. A mezzanine floor will be constructed which will provide much needed additional storage space.

It is doubtful if any of the mainland depots appreciate the difficulties encountered in receiving supplies at the Hawaiian Air Depot. When a large transport shipment is received at the Pier at Fort Armstrong, all of the available trucks of the Post Quartermaster at Luke Field are sent to the Pier daily to transport these supplies to the Hawaiian Air Depot. Since hourly ferry service is available, the loading and unloading of supplies must be carried on by schedule. It requires from twenty to thirty minutes to drive the trucks from Fort Armstrong to the Coal Dock at Pearl Harbor, where they are driven on the ferry. It then requires the ferry fifteen minutes to make the trip between the Coal Dock and Luke Field. Bulky supplies are loaded on a large Quartermaster barge at the Pier at Fort Armstrong, and are brought to the dock on Ford Island. In order to cooperate with the Quartermaster and release their barge as soon as possible, it is necessary to work overtime and concentrate all help in unloading this barge. This work is usually completed within a week or ten days after the transport has docked. In the meantime, the work of uncrating these supplies is progressing in the Shipping and Receiving Department. Due to the time elapsing between transports, there are always a number of critical items for which the various Departments are waiting. Every effort is made to locate such items, and priority is given to their uncrating. This condition, however, is being greatly improved due to more careful study of requirements. Very close cooperation exists between the Depot

Supply and Engineering Departments at this Depot, and personnel from the two Departments are estimating requirements for parts and other supplies eighteen months in advance. The Quartermaster also cooperates and is often able to locate items on the floor and give them priority. It can readily be seen from the above that the Supply Department of this Depot is a very busy place when a transport arrives.

Captain Edwin R. Page, Depot Commander, has received orders to report to the Materiel Division at Wright Field, leaving this Department probably during the latter part of October. Captain Charles E. Branshaw is expected to arrive at this Depot on or about October 23rd, at which time he will assume the duties of Depot Engineering Officer.

Captain Oscar F. Carlson, who has been Chief Inspector, Test Pilot, and Assistant Engineering Officer, is under orders to proceed to Chanute Field, sailing from this Department September 30th.

This Depot follows with much interest the activities of Sir Charles Kingsford-Smith, Australia's trans-oceanic flier, who passed through Honolulu recently and who was the guest of Captain Edwin R. Page during his stopover here.

Luke Field, T.H., Sept. 17.

Captain H.G. Montgomery, flight leader of "C" Flight, 50th Observation Squadron, departed on the Lurline for Rockwell Field on Sept. 14th. He was formerly a member of the 23rd Bombardment Squadron, during which time he filled the position of Group Communications Officer. A number of friends of Captain Montgomery declared a holiday in order to wish him "Bon Voyage," "Aloha!" and to remind him "not to forget to write."

Lieut. C.W. Phillips is upholding the honor of the 50th Obs. Squadron and thereby heaping credit on himself as a member of the Luke Field Pistol Team. In the recent matches held in Punchbowl, this team won third place, and one of its members, Lieut. Densford, again won the Island Championship, an honor that is fast becoming a habit with him. Glancing back through the records of this organization and scratching Nature's "Crowning Glory" in order to arouse a

few memories of bygone days, we find that Lieut. Densford was once a member of the 50th Observation Squadron, a fact that may have little or no bearing on his shooting ability - but you know how it is: "I once shook the hand of the hand that shook the hand of the Champ."

If you should see a 44" chest on a man of normal size and spend some moments in quiet repose contemplating this unusual abnormality, remember that on August 27th Lieut. Phillips became a father of twins, a boy and a girl. The Armament Department put on a display and tacked a sign close by with these words: "Congratulations to our No. 2 boss, the Armament Department does things in a big way."

Captain Sams, 30th Obs. Squadron Operations Officer, and Lieut. Fowler, Engineering Officer, recently departed for Wheeler Field to continue the study of Celestial Navigation, a course that will continue over a period of two months.

The athletic program of the 23rd Squadron while encamped at Bellows Field included a baseball series between the officers' team, the N.C.O.'s team and the privates' team. The N.C.O.'s, winners of last year's series, were eliminated early in the series. Between the officers and the privates, each won one game, and in the play-off the Privates won by a safe margin.

Lieuts. D.A. Cooper and W.R. Boutz, recent arrivals at this station, were assigned to the 4th Squadron. Lieut. Cooper, who recently completed the Communications Course at Fort Monmouth, N.J., has appointed Communications Officer vice Lieut. Charles Densford who, after two and one-half years in the Islands, left for duty at Kelly Field. Lieut. Boutz was assigned as Squadron Mess Officer.

Albrook Field, Panama Canal Zone, Sept. 16.

Majors W.B. Gates and Burton L. Hovey took leave and returned to the States on the transport CHATEAU THIERRY, sailing from Cristobal on September 7th. They will return to the Canal Zone on this transport's next voyage south.

Major Frank O'D. Hunter and Captain David D. Graves took leave on September 16th for a hunting trip in Chile and the Argentine. They expect to return with many valuable trophies of the trip.

Capt. J.H. Wallace established a new course record for Fort Amador Golf Club when he shot the 18 holes in two strokes under par. This card was one stroke better than the old mark of 67, held by the course professional. Captain Wallace was practicing for the second set of the Atwater-Kent matches when he made the record. Captain R.S. Israel and H.M. Stout and A.C. Medinger were playing with him. The Championship card below shows that Captain Wallace shot twelve pars, four birdies, and two one-over-pars.

		The Card: - Out									
Par	4	5	3	4	5	4	3	5	3	-	36
Wallace	4	4	3	4	4	4	3	5	3	-	34

		The Card - In									
Par	4	3	3	3	3	4	4	5	3	-	32
Wallace	3	2	3	4	3	4	4	5	4	-	32

Hamilton Field, Calif., Sept. 30th.

Operations in the 31st Squadron during the next few weeks will include Camera Obscura until all pilots are qualified for bombing, over the Hamilton Field range until we run short of bombing material. At the present time, due to the activity of the Special Demonstration Squadron which is preparing for a trip to Fort Leavenworth, the range is somewhat congested, but it is hoped that in the near future this squadron will be in a position to put a few holes in the bullseye. The new type camera obscura hut, which is being used by this post for the purpose of service test, is proving successful, with the exception of the fact that during hot weather the operator swelters under the sheet metal.

Six Reserve officers stationed here will revert to inactive status on October 15th, viz: 2nd Lieuts. Noble O. Sprunger, 11th Squadron; Nathan P. Searles, 9th Squadron; Joseph P. Bohl, Duncan J. Powers, Benton R. Baldwin and James E. Roberts of the 31st Bombardment Squadron. Information gleaned from these officers during casual conversation indicates that in their civilian pursuits the accent will be on pursuit.

Effective October 5th, Major Lewis R.P. Reese was ordered to his home to await retirement.

Capt. Wilbur Erickson was appointed Adjutant of Hamilton Field, vice Captain Oliver K. Robbins, relieved Sept. 27th.

Second Lieut. J.E. Roberts, Air Reserve, recently returned from a trip to Eureka, Calif., in an effort to swell the ranks of the Regular Army via the recruiting method.

POEM BY RESERVE OFFICER

The time has come, my job expires,
I gotta find a guy what hires,
If I don't move my lazy feet,
Ten to one my kids won't eat.

If Huey'd lived, I'd get my share,
From all the guys what has to spare,
While it lasts this racket's swell,
But now it's gone, so what the _____.

The second of a series of informal smokers was held at the Post Hospital at Hamilton Field on September 20th. The guest of honor was Lieut.-Colonel C.L. Tinker, post commander. Other officers present were Lieut.-Colonel G.I. Jones, Major F.L. Pratt, Capt. J.P. Smith and Lieut. J.C. Hampson, all of the hospital staff. Other members of the Commanding Officer's staff present were Major W.B. Hough, Captain Oliver K. Robbins, Air Corps, and Capt. J.O. Rody, Quartermaster Corps. Also attending, as guests of the Post Surgeon, were Lieut.-Colonel C.C. McCornack, Medical Corps, a distinguished Medical Corps officer, who is enroute to his new station at the Letterman Gen-

eral Hospital, and Major H.A. Bishop, Medical Corps, personal physician to the Secretary of War.

Staff Sgt. Harry Kramer, Post Sergeant Major, and Corp. J.J. Moran, of the Public Relations Staff, were present as the invited guests of the enlisted staff of the hospital.

The dinner served was comparable to those prepared by the finest chefs and served by the best hostesses in this area. "Plenty of everything for everybody" was the slogan, under the attentive eyes of Sergeant Martin and a corps of able assistants. At this time may we pay tribute to those "kitchen martyrs" who prepared and served the meal.

During the dinner, several musical selections were rendered by members of the Lou Emmel Artists Troupe, the numbers ranging from the classical Quartette from Rigoletto to the latest popular numbers. After the banquet, those present were interested spectators to the efforts of one double dancing team and several solo dancers. The artists interpreted classical, aesthetic, Moorish and Oriental numbers. These advocates of the terpsichorean art were roundly applauded. As a surprise novelty number, a team composed of Privates Wm. Nitz of the Medical Department, and Ed Dayton, of the Station Complement, known as the "cowboy soldiers," played several excellent Hawaiian numbers on the Spanish steel and Hawaiian guitars.

Approximately 75 people attended, all departing well satisfied, voting the affair a huge success and offering congratulations to Colonel Jones and Sergeant Martin upon producing one of the major social events of the season.

Initiating the season's boxing program at the field, the local leather pushers presented a fast card under the guidance of Chaplain Stanley J. Reilly before a crowd estimated at 1250 people in the gladiatorial arena, for which purpose a hangar was converted. Some fast action was seen in all of the events. A feature of the occasion was a wrestling match between Art Williams of the 69th Service Sqdn. and Floyd Smith, of the 7th Bomb. Group Hqrs., the latter winning in two straight falls in 12 minutes.

Just prior to the main event, a few words of welcome and appreciation were spoken by Lieut. Colonel C.L. Tinker, Commanding Officer. Chaplain Reilly announced the entire show. Private Chausse, of the Station Complement, is the squad's trainer and instructor.

Clark Field, P. I., Sept. 5th.

Pilots of the 3rd Pursuit Squadron completed their inspection trips to Mindanao for the purpose of inspecting landing fields and terrain. Their itineraries were as follows: Major Ford and Captain Davies to Iloilo, Zamboanga, Jolo, Del Monte; Captains Steed, Wurtsmith, Lieuts. Morgan, Bowman, Morse, Parker, Barr and Zimmerman to Iloilo, Zamboanga, Del Monte, and Tacloban. The "Frice" family" in Tacloban entertained the flights in each case.

San Antonio Air Depot, Duncan Field, Texas.

Congressmen Tilman D. Parks, of Arkansas; Thomas S. McMillan, of South Carolina, and John F. Dockweiler, of California, with Mr. J.C. Pugh, Secretary of the Sub Committee on Military Appropriations, House Appropriations Committee, visited the Depot on September 23d in the course of their inspection of Army activities in San Antonio and vicinity, on their recent tour of the United States to investigate urgent construction and other needs of the Army. They were accompanied on this visit by Congressman Maury Maverick, of this district; Brigadier-General A.T. Ovenshine, commander of Fort Sam Houston, and other civil and military officials.

Colonel J. W. Jones, Commanding Officer of Chanute Field, Rantoul, Ill. and Captain G.W. Goddard, of that station, flying an O-1E, were visitors here October 1-2, to secure and ferry a BT-2A back to Chanute Field.

Lieut.-Colonel E.A. Lohman, with Cadet Moomaw as passenger and Captain N.B. Forrest with Cadet D.B. Kuhn as passenger, flew in from March Field, Calif., October 4th, in two BT-2B1's, to secure two PT-3's to ferry back to March Field.

Lieut. R.T. Aldworth, U.S.A., Retired, Superintendent of the Municipal Airport, Newark, N.J., and former noted pilot of the Air Corps, while on a brief visit to San Antonio, was a caller at the Depot on Sept. 30th, greeting old friends and talking over old times when he was on duty here.

In connection with the annual National Fire Prevention Week, October 6th to 12th, a Board of Officers was again appointed to make a thorough fire prevention inspection of the station during that period, and the Depot is planning on the same wholehearted observance of the week as it has manifested in past years.

Selfridge Field, Mt. Clemens, Mich., Oct. 1st.

A nine-hole golf course at the field was officially opened the week end of Sept. 21-22 with a dinner dance at the Officers' Club on Saturday evening, and the opening of the course to golf enthusiasts of the post on Sunday. A Kickers Tournament was started, but the arrival of Colonel Weaver and his party on Sunday afternoon for the GHQ inspection caused postponement of some of the matches, and the winner has not yet been decided.

The Softball League of Selfridge was composed this season of teams from the 17th, 27th and 94th Pursuit Squadrons, the 56th and 57th Service Squadrons; the Station Complement; Detachment, Quartermaster Corps; 1st Pursuit Group Hqrs. Detachment, and Detachment, Medical Dept. The season was divided into two rounds. The Station Complement won the Championship, taking 11 out of 12 games the first half of the season and 18 out of 20 games in the second half. The championship was decided in the last three games between the 56th and the Complement, the latter team winning two out of the three games.

Brooks Field, San Antonio, Texas, October 5.

Lieut. L.B. Hillsinger piloted the plane transporting Congressman J. Buell Snyder, of Pennsylvania, on his return trip to Washington recently. The latter was a member of the Congressional Committee on Appropriations which made an inspection of all military posts in the vicinity of San Antonio at that time.

Lieut. Francis L. Rivard, Air Reserve, also of Brooks Field, flew to Syracuse, N.Y., on September 23rd, accompanied by Colonel E.H. Malven, who was formerly stationed at Fort Sam Houston.

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LIBRARY NOTES

Some of the more interesting Books and Documents recently added to Air Corps Library

A 00 U.S. 56. Our changing national defense, by General William C. Rivers, 24p. 1935. A public hearing on the invitation of the House Committee on Military Affairs, April 4, 1935. Takes up the defense of our West Coast, the tragedy of our small regular army, out-worn promotion system, Navy promotion, the War Department, Military Academy, and the advocacy of a Department of National Defense.

C 20 4. Who's in the Army now? Strategic map. 20 p. Sept. 1935. "Fortune Magazine" gives its impression of the Army.

C 70 U.S. 29. Bringing war home, by Col. Herbert A. Dargue, 3p. June, 1935. Colonel Dargue in an article in "Capital Business" tells what might happen to any city from enemy aircraft.

629.13 Un3us No. 936. Air Corps training. 4p. Sept. 16, 1935. (Air Corps Stencil U-936, A.C.)

629.13 Un3us No. 1064. The Air Corps Training Center, 6p. Sept. 16, 1935. Air Corps Stencil U-1064, A.C.)

629.13 Un3us No. 1144. Instrument Flying, 13p. June 12, 1935. (Air Corps Stencil U-1144, A.C.)

387.7 D66. Financial policies in the aviation industry, by Paul A. Dodd, 234p. 1933. A thesis in economics presented to the faculty of the Graduate School of the University of Pennsylvania.

623.74 G79 No. 2 1Ed. Anti-gas precautions and first aid for air raid casualties. 110p. 1935. Great Britain Home Office Air Raid precautions Handbook No. 2.

629.144 M 58. Guide aerien France 1935-36. Published by Michelin. 40p. 1935. A very handy aeronautical guide book of France.

Post Field, Fort Sill, Okla., Sept. 26th.

On Wednesday, Sept. 25th, the 1st Balloon Squadron, A.C., participated in its Organization Day ceremony and festivities. The entire day was given over to the ceremony and festivities. At 9:00 a.m., Captain W.C. Farnum, commanding officer, read and commented on the organization's past history, a brief resume of which follows: Organized at Omaha, Neb., Sept. 25, 1917; served overseas from Dec. 1917, to Aug., 1919; had four balloons burned; credited with destruction by machine gun fire of two enemy planes; flew first balloon in German territory at Niederberg; rendered inactive July, 1922; reconstituted May, 1929; and has served since that date at Fort Sill.

After this ceremony a tug-of-war was voted to decide the hemp-pulling championship of the world, and two suitable teams of 15 men each were picked.

Leo J. Hackman, the newest "John" in the outfit, was the lucky man at a \$5.00 cash award in the morning, winning it when a wheel with all the names on it was spun and shot at by Capt. Farnum. Hack's name was well enough punctured to remove all doubt or argument as to who was entitled to the award.

Congregating in the new Transportation Hangar because inclement weather ruined previous plans of having the picnic at Mineral Wells, a well prepared and appropriately served "Dutch Luncheon" was enjoyed, during which we were serenaded by "Louies Hungry Seven" from the 1st F.A. Band.

Entering into a program of sports, the first event, a foot race, was won by Curly Dawson over Curly Welch. One was named Curly for his abundant curly locks and the other because not only his lack thereof but hair as well.

The next event, a three-legged race, was won at a trot by the two "Willies," Duke and Sutton. Capt. Farnum and our well proportioned "Top Kick," Johnny Hallam were so far outclassed that they never left the post, much to the chagrin of the spectators, all of whom wanted to see a most certain spill.

The next event, a Sack Race, was won by Shorty Abbott without much competition.

Giving the ladies a chance to strut their stuff by having a Prize Waltz, Sheiky Mike Michalik and his Commanding General (wife to the uninformed) won by a fluke. Mike had so much vaseline on his hair that it dazzled the judges so they couldn't see the other competitors. The \$3. prize award Mrs. Michalik pocketed quickly and handily to keep her spouse from entering any "rummy" games.

Next, a tug-of-war outside in the mud, the rain having abated, was won by Wilson and his stooges, in best two out of three pulls.

A barnyard golf game (horseshoes) was won by our retound Johnny Hallam and diminutive Johnny Seaburg mainly because they threw more ringers than anyone else.

A big treat of the afternoon, a 7-inning soft ball game, was won by Micky Murray's "Fighting Irish" team over the one managed by Frankie Clark. The game was abbreviated because the substitutes gave out due to the rapidly mounting casualty list. The score was

V-6876, A.C.

quite close? 16 to 4.

Three boxing bouts were next framed. In the first, Arky Lindgren was the winner over Kid Lammers. The second bout saw One Punch Leonard win a close decision from K.O. Decker. The last bout saw two champions, Duke, former light-heavyweight champ of Fort Sill, meet Iron Man Howard, anyweight champ of any eating contest created, pork chops a specialty. Duke won by a huge margin.

We then repaired to the Transportation Hangar and made short work of the remaining refreshments, after which all wended their respective ways home to keep the fond memory of a very enjoyable afternoon in their minds, already planning for our next picnic, to make it larger and better, and for some, to gain revenge.

We were sorry that Major Koenig was on leave and could not attend.

Cartons of cigarettes were given all winners.

TECHNICAL INFORMATION AND ENGINEERING NEWS

Air Corps Materiel Division

Testing of New Aircraft Engines.

Before an aircraft engine is approved for installation in Air Corps airplanes, it must satisfactorily complete a 150-hour, or type test. If a new model of a previously approved engine is brought out, the new model must also undergo this test before it becomes an approved engine. The following engines have recently completed the type test and are approved for service use at the ratings shown:

Curtiss Conqueror V-1570-61 - 700 h.p. at 2450 r.p.m. at sea level.

Pratt & Whitney R-1690-17 - 750 h.p. at 2250 r.p.m. at 7000 feet, normal rating, and 825 h.p. at 2500 r.p.m. military rating.

Pratt & Whitney Twin Wasp Junior R-1535-11 750 h.p. at 2500 r.p.m. at sea level.

Pratt & Whitney Twin Wasp Junior R-1535-7 725 h.p. at 2500 r.p.m. at 4000 feet.

Pratt & Whitney Junior R-985-1 - 400 h.p. at 2200 r.p.m. at sea level.

Main Carburetor Jet Replacement.

Reports received in the Materiel Division indicated scattering misses on either or both switches and in both tanks and the blowing of valves in the V-1150 engines. Thorough laboratory tests on the Type NA-Y5F carburetors have indicated this condition to be due to the needle-valve ball check being held on its seat by the pressure difference of the fuel flowing through the by-pass holes. As it is impossible to make alterations to the needle-valve seat assembly to overcome this difficulty and, inasmuch as the use of a richer main metering jet does overcome this trouble, main jet size No. 43 is being replaced with jet No. 42, and page 62, Technical Order O2-1-18 is being revised accordingly. For identification purposes, No. SLA-12145, Issue No. 2 will be changed to SLA-12145, Issue No. 3 on the specification or name plate installed on the carburetors when this change is accomplished.

Photographic Laboratories - Mitchel Field

An Engineering Section Memorandum Report, Serial No. P-54-299, was prepared September 25, 1935, to report on changes recommended with photographic laboratories at the 8th and 14th Photographic Sections, Mitchel Field, Long Island, New York, as a result of investigation by a representative of the Materiel Division.

Type B-4 Photographic Print Dryer.

Distribution and questionnaire has been furnished for service test of the Type B-4 dryer for the natural air drying of photographic prints. This dryer is provided with 17 trays, approximately 4 feet by 6 feet, which will hold approximately five hundred 8 by 10 contact prints or two hundred 15 $\frac{1}{4}$ by 16-3/8-inch transformed T-3A prints, and upon which the prints are laid during the drying process. An air compartment is provided on each side of the dryer, to which is attached a blower for the purpose of producing a circulation of air between each tray.

AIR DEMONSTRATION AT FORT LEAVENWORTH

A composite Squadron, consisting of four airplanes from each of the tactical units of the Second Bombardment Group, stationed at Langley Field, Va., performed a demonstration of Bombardment formation flying and bombing at Fort Leavenworth, Kansas, on Saturday, October 12th. Major Barney M. Giles, Commanding Officer of the 20th Bombardment Squadron, led the squadron in formation flying. Captains John H. McCormick, 96th Bombardment Squadron, and Robert F. Travis, 49th Bombardment Squadron, were flight leaders. First Lieut. Troop Miller, Jr., led the bombing team, with 1st Lieuts. Joseph A. Miller and David H. Kennedy flying wing positions. First Lieut. John R. Sutherland, in the lead ship, trained the bomb sight for the team with highly satisfactory results. Three 100-lb. and three 300-lb. bombs were dropped, all closely grouped around the bullseye.

The 1st Bombardment Wing was represented by three Martin Bombers from

Hamilton Field, Calif. The Third Attack Wing sent a number of A-12's and P-26's from Barksdale Field, La.

The demonstrations performed were very satisfactory and enlightening to the officers of the Command and General Staff School at Fort Leavenworth. The participating pilots expressed a desire to return again soon, for all had a good time, particularly at the dances given Friday and Saturday evenings by the officers of the post and the Command and General Staff School.

The flight to Fort Leavenworth was made in squadron formation in easy stages, stopping overnight at Dayton, Ohio, and Columbia, Mo. The return flight was made by single ships over various routes, giving the pilots individual training in aviation.

A special bombardment formation was put on for Movie News Reel on October 16th. The formation consisted of a composite squadron of nine airplanes, three from each of the tactical units of the 2nd Bombardment Group.

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AIR CORPS FIELD EXERCISES ON THE WEST COAST

California will be the scene of Army Air Corps peace time field exercises, November 3 - 17. All of the West Coast's Regular Army Air Corps and Coast Artillery (anti-aircraft) will participate. These problems will be held in widely scattered points in the San Joaquin Valley. Announcement of the plans for these important maneuvers were made by Brigadier-General Henry H. Arnold, Commanding General of the First Wing of the General Headquarters Air Force at his March Field headquarters.

A total of 131 Air Corps officers and 1348 enlisted men, with over 80 planes, will participate in the mimic air battles. Over 16 officers and 350 enlisted men are expected from the Coast Artillery.

"It will be assumed that an enemy force has invaded us from the South," explained General Arnold. "As we have a bombing and gunnery range at Muroc Dry Lake in the Mojave Desert, we are imagining that the 'invaders' have proceeded that far into the United States. Gunnery and bombing missions of the 1st Wing will be carried out on that basis. We expect that the value of Muroc Dry Lake as a practice area for air bombardment and ground strafing will be proved during those exercises."

Units participating in the 15-day sham battles are the 53rd Coast Artillery (Anti-aircraft) from Ft. MacArthur, Los Angeles Harbor, commanded by Lieut. Colonel Homer R. Oldfield; the First Wing Headquarters Detachment, commanded by Lieut. Glen C. Moser; 17th Attack

Group, in command of Lieut.-Colonel John H. Pirie; and the 19th Bombardment Group, led by Lieut.-Colonel Howard C. Davidson, all from March Field, Calif.; and the 7th Bombardment Group from Hamilton Field, San Rafael, Calif., commanded by Lieut.-Colonel Clarence L. Tinker. All troops will be transported by Army trucks and motorcycles.

As large Army airports, such as March and Hamilton Fields would be the first targets of enemy airplanes, the units of the First Wing and the 63rd Coast Artillery will operate from "dispersed air-dromes" in the San Joaquin Valley under conditions approximating as closely as possible those to be found in actual warfare. This will be the first of a series of semi-annual field problems to be held by the GHQ Air Force on the West Coast.

Army authorities in Washington will be represented by the Commanding General of the GHQ Air Force, Brig.-General Frank M. Andrews, and his staff. General Andrews will make a thorough inspection of the maneuver camps.

The only organization from the Presidio of San Francisco will be the 91st Observation Squadron. This unit, though not a member of the GHQ Air Force, will take part in problems for three days.

Command post of the First Wing during the entire 14 days will be at Fresno. All of the Wing's movements will be directed from that city. The officers on General Arnold's staff will be Lieut.-Colonel Hubert Harmon, Executive; Major Ray A. Dunn, Supply; Captain Eugene H. Beebe, Adjutant and Public Relations Officer;

Captain Phillip Schwartz, Ordnance Officer; Captain Lloyd M. Watnee, Communications Officer; and Captain Joe L. Loutzenheiser, Assistant Operations Officer.

Troops of the 53rd Coast Artillery to take part will be 16 officers and 350 enlisted men from Batteries "A," "B" and "E," and Headquarters Battery. On November 3rd they will move by their own motor transport from Fort MacArthur to Mojave. Maneuvers will take place at Muroc Dry Lake and other places until November 9th, when the regiment moves to Bakersfield for First Wing problems to take place there. Camp will then be broken and the return made to Fort MacArthur on November 17th and 18th.

Headquarters of the 7th Bombardment Group will be at Merced for the whole maneuver period. Col. Tinker, commanding, will have as his staff officers: Major Kenneth D. Walker, Executive; Captains E.T. Noyes, Supply; J.W. Spry, Engineering; 1st Lieut. E.W. Suarez, Adjutant and Public Relations Officer. Officers commanding the Bombardment Squadrons will be Major John M. Davies, 9th; Major Carlyle H. Ridenour, 11th; and Major Harold D. Smith, the 31st.

Squadrons of the 7th Group will be dispersed to different points in the Valley. One bombardment squadron will move to Merced, another to Visalia and the third to Coalinga.

March Field's 17th Attack Group will have its headquarters at Bakersfield. Col. Pirie's staff officers will be: Major Early Duncan, Executive; Captains Minton W. Kaye, Supply; E.W. Alexander, Engineering; Charles B. Overacker, Communications Officer; and 1st Lieut. Jesse Auton, Adjutant and Public Relations Officer. Officers who will command Attack Squadrons during the war games are Majors Walter R. Peck, 34th; Louie C. Mallory, 73rd; and Captain John F. Wadman, 95th.

All three of the 17th Attack Group's "line" squadrons will also be assigned to different posts. One will go to Tejon, another to Lost Hills and the third to Taft.

All of Lieut.-Colonel Davidson's 19th Bombardment Group will be stationed at Delano for the entire period of the maneuvers. His staff officers will be: Major Westside T. Larson, Executive; Captains Wentworth Goss, Adjutant and Public Relations Officer, and Roger V. Williams, Supply Officer. Majors Albert F. Hegenberger and James L. Grisham will command the 30th and 32nd Bombardment Squadrons, respectively. The 19th Group was transferred from Rockwell Field to March Field on October 25th.

Supply, transportation and general "service" will be the assignment of the Service Squadrons. Fresno will be serviced by the 69th Service Squadron from

Hamilton Field, commanded by Major A.G. Hamilton. Merced, 7th Group Headquarters, will be taken care of by the men of the 70th Service Squadron, also from Hamilton Field, and commanded by Major Devereux M. Myers. The 17th Attack Group at Bakersfield, Tejon, Lost Hills and Taft will be serviced by the 64th Service Squadron, in charge of Major Orin C. Bushey. The 76th Service Squadron, commanded by Major Carl W. Pyle, will be at Delano for the entire period, servicing the 19th Bombardment Group.

The only Observation Squadron in the First Wing, the 88th Observation from Hamilton Field, will be stationed at Wing Headquarters in Fresno for the maneuver period. There are six planes in the 88th.

Airplanes to be utilized in these maneuvers will be 20 Martin B-12 Bombers from the 7th Group, Hamilton Field; 39 Boeing P-12 planes from the 17th Attack Group, March Field, and 8 Martin B-10 Bombers from the 19th Bombardment Group at the same station.

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FASTER PURSUIT AIRPLANES

Commenting editorially on the John L. Mitchell Trophy Race, held at Selfridge Field, Mt. Clemens, Mich., on October 19th, which was won by Captain Karl G.E. Gimmeler, of the 1st Pursuit Group, Air Corps, who piloted a Boeing P-26A Pursuit plane at an average speed of 212.9 miles per hour over the 100-mile course, the San Antonio EXPRESS is of the opinion that the next (12th) contest for this Trophy will probably show speeds around 225 miles an hour, and adds: "It would not be surprising were Pursuit ships able to fly 100 to 150 miles at 250 miles an hour developed within the next few years. Such planes are essential to gaining air control and must be faster than Bombers, Attack or Observation ships."

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TWO MORE NEW WEATHER REPORTING STATIONS

Two new weather reporting stations, of interest to all pilots flying routes in the Third Corps Area, were established at C.C.C. Camps. These stations, operating at no expense to the government, cover what have previously been blank areas in the hourly weather map.

MSK, Skyland, Va., CCC Co. #334, Camp SWP-1, is located on top of Blue Ridge at 3500 feet altitude, about one mile south-east of Skyland Summer Camp and about 7 miles southeast of Luray. This station guards Washington and vicinity from the southwest, giving advance notice of the approach of storms from that direction. Also, Skyland is on the direct air route between Langley Field and Burgess Field or Pittsburgh.

MSH, Snow Hill, Md., CCC Co. #1318, Camp S-63, is located in woods at 20 feet altitude, about 4 miles southwest of Snow Hill V-6885, A.C.

on Maryland east shore. This station guards Washington and vicinity from the southeast, giving advance notice of fog and other dangerous weather moving in from the ocean. Also, Snow Hill is on the direct air route between Langley Field and Mitchel Field.

These stations will observe weather at the following times daily (except Saturday afternoons, Sundays and holidays): 7:40, 8:40, 9:40, 10:40 and 11:40 a.m.; 12:40, 1:40, 2:40, 3:40, and 4:40 p.m. Reports will be available at Bolling Field about 20 minutes after each observation, and will be added to the Mid-Eastern Air Corps Alert Net hourly weather broadcast.

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TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Colonel:

Lieut.-Colonel John H. Reynolds assigned as Wing Commander, 19th Composite Wing, Albrook Field, Canal Zone, October 23, 1935.

To Lieut.-Colonel:

Major Frank E. Pritchard, commander of the Hawaiian Air Depot, Luke Field, T.H., Oct. 20.

Major Henry J. F. Miller, commander, 12th Observation Group, Brooks Field, Oct. 29th.

To Major:

Captain John C. Crosthwaite, commander, 6th Pursuit Squadron, Wheeler Field, T.H., Oct. 19.

Captain Alfred A. Kessler, Jr., commander, 56th Service Sqdn. Selfridge Field, Oct. 19.

Captain Kenneth E. Walker, Intelligence and Operations Officer, 7th Bombardment Group, Hamilton Field, Calif., October 20, 1935.

Captain Edward E. Hildreth, commander, 51st Attack Sqdn., Maxwell Field, October 20, 1935.

Captain Robert T. Zane, commander, 54th Bomb. Sqdn., Maxwell Field, October 20, 1935.

Captain Byron E. Gates, Chief of Pursuit Section, Air Corps Tactical School, Maxwell Field, Ala., October 20, 1935.

Captain Harrison G. Crocker, Engineering Officer, Air Corps Tactical School, Maxwell Field, Ala., October 20, 1935.

Captain James D. Givens, Basic Stage Commander, A.C. Primary Flying School, Randolph Field, Texas, October 27, 1935.

Captain Lloyd C. Blackburn, commander, 60th Service Squadron, Barksdale Field, Oct. 29th.

To Captain:

1st Lieut. Ralph E. Koon, flight commander, 14th Bomb. Sqdn., Bolling Field, Oct. 30, 1935.

1st Lieut. George R. Bienfang, supply officer, 60th Service Squadron, Barksdale Field, La., October 29, 1935.

1st Lieut. John T. Murtha, flight commander, 32nd Bomb. Sqdn., March Field, October 20th.

1st Lieut. Carl F. Demberg, flight commander, 97th Obs. Sqdn., Mitchel Field, Oct. 20th.

1st Lieut. Clarence F. Hegy, supply officer, 57th Service Sqd. Selfridge Field, Oct. 20th.

1st Lieut. David P. Laubach, flight commander, 1st Bomb. Sqdn., Mitchel Field, Oct. 20th.

1st Lieut. Marion Huggins, Intelligence and Operations Officer, 54th Bombardment Squad-

ron, Maxwell Field, Ala., October 20, 1935.

1st Lieut. Clayton E. Hugies, Intelligence and Operations Officer, 86th Observation Squadron, Maxwell Field, Ala., October 20, 1935.

1st Lieut. Carl R. Storrie, engineer officer, 84th Service Squadron, Maxwell Field, Oct. 20.

1st Lieut. George E. Price, flight commander, 19th Pursuit Sqdn., Wheeler Field, Oct. 30th.

1st Lieut. John N. Stone, flight commander, 19th Pursuit Sqdn., Wheeler Field, Oct. 20th.

To 1st Lieutenant:

2nd Lieut. Ray W. Clifton, armament officer, 5th Bomb. Sqdn., Mitchel Field, October 20th.

2nd Lieut. Thomas F. Langben, armament officer, 1st Bomb. Sqdn., Mitchel Field, Oct. 20th.

2nd Lieut. Robert E. Jarmon, armament officer, 70th Service Sqdn., Hamilton Field, October 27, 1935.

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The duty assignments of the following-named Air Corps officers, holding temporary increased rank, were changed. No change of station involved and officers retain temporary rank:

Major Carlyle H. Eidenour from 7th Bombardment Group to commander, 11th Bombardment Squadron, Hamilton Field, Calif., Oct. 19th.

Major Warren A. Maxwell from 56th Service Squadron, Selfridge Field, to commander, 27th Pursuit Squadron, October 20, 1935.

Major Arthur G. Hamilton from 11th Bombardment Squadron to commander, 59th Service Squadron, Hamilton Field, October 20, 1935.

Captain Donald D. Arnold from 19th Pursuit Squadron to flight commander, 26th Attack Squadron, Wheeler Field, T.H., October 20, 1935.

Captain John A. Tarro, from 21st Airship Group, Scott Field, Ill., to Intelligence and Operations Officer, 9th Airship Squadron, Oct. 20.

Captain Kingston E. Tibbetts from 18th Pursuit Group, Wheeler Field, to flight commander, 6th Pursuit Squadron, October 20, 1935.

Major William N. Amis from 60th Service Squadron to commander, 90th Attack Squadron, Barksdale Field, La., October 29, 1935.

Captain Philo G. Leisenholder, from 60th Service Squadron, to flight commander, 8th Attack Squadron, Barksdale Field, October 29, 1935.

Captain Fred C. Tally from 8th Attack Squadron, to engineer officer, 60th Service Squadron, Barksdale Field, La., October 29, 1935.

1st Lieut. P. Ernest Gabel from communications officer, 25th Bombardment Squadron, to armament officer, that squadron, France Field, Oct. 26.

1st Lieut. Robin B. Epler from communications officer, 7th Observation Squadron, to supply officer, that squadron, France Field, Oct. 26th.

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The following-named officers were relieved from assignment, duty and temporary rank, and directed to report to commanding officer of field designated for duty with GHQ Air Force:

Capt. John J. Morrow, Intelligence and Operations Officer, 9th Bomb. Squadron, Hamilton Field.

Capt. Wm. C. Mills, supply officer, 60th Service Squadron, Barksdale Field, La.

Capt. Lawrence C. Westley, supply officer, 3d Attack Group, Barksdale Field, La.



AIR CORPS FIELDS

Randolph Field, Texas, October 17th.

Randolph Field entertained quite a number of distinguished visitors during the last month. On September 23rd, the post was visited by a Congressional party composed of the following members of Congress: Hon. Tilman P. Parks, Arkansas; Hon. Thomas S. McMillan, South Carolina; Hon. John S. Dackweiler, California, and Hon. Maury Maverick, Texas. A luncheon was served at the Officers' Club in honor of these distinguished guests, which was attended by a large number of the post personnel and officers and ladies from nearby Army posts.

On October 1st, we were visited by a Mexican Military Mission, headed by Lieut.-Colonel L. Alamillo Flores, and including Major A. Lozano Bernal, Captains L.R. Casillos, A.G. Falfan and F. Grayales, of the Mexican Army. The visitors were met by General Chaney and then taken on a tour of inspection of the various school activities by Lieut.-Colonel L.N. Keesling.

On October 14th and 15th, Group Captains H.G. Smart and T.E.P. Howe, of the British Royal Air Force, were here studying our training system. Group Captain Smart has charge of the British Royal Air Force training activities, while Group Captain Howe is the Air Attache to the British Embassy at Washington.

Colonel Harms, the commanding officer, returned from a month's leave on October 9th. He visited points of interest in Mexico and reported Mexico City an ideal place in which to spend a vacation.

Randolph Field captured the Army League Baseball Championship for the third successive year. At the close of the regular season, the Randolph Field Ramblers and the 9th Infantry Manchus were tied in games won and lost. In a three-game series to determine the championship, Randolph Field won the first contest by the lopsided score of 14 to 2, lost the second 7 to 3, and came back with an old fashioned ninth inning rally to capture the final game, and with it another baseball trophy for the trophy case in the Administration Building.

Immediately following the close of the baseball season, candidates were called out for football practice by Lieuts. 'Bunky' Day and

'Tut' Inlay, coaches. The 75 who reported for the first practice were cut down to a squad of 40 men by the end of the first week. Among these 40 candidates are a considerable number of young recruits, which is making competition keen among the old members of last year's team for positions on this year's eleven. Opening the season, after three weeks practice, with the St. Mary's University team, the Ramblers, although losing 20 to 0, made a very creditable showing for their first game against a foe playing their fourth game. The game was played under a broiling Texas sun before a crowd of five thousand fans.

Randolph Field will meet Texas University 'D' Squad before opening the Army League on October 30th with Kelly Field, last year's champions. High hopes are entertained for annexing this year's championship in football.

Hamilton Field, San Rafael, Calif., Oct. 14th.

The Noncommissioned Officers' Club conducted its first social event of the season on the evening of October 5th at the American Legion Hall at Petaluma. The affair took the form of a Barbecue and Dance. Refreshments were served. The dance served the dual purpose of allowing the noncommissioned officers and ladies who have been stationed here for some time to get together and talk things over, and of introducing the new arrivals from the plains of Texas, our comrades of the 88th Observation Squadron, to the older residents of the post.

Captain Donald J. Kiern, accompanied by Staff Sgts. George H. Carpenter and Delno W. Ross, proceeded by air to the Naval Proving Grounds, Dahlgren, Va., the first named to pursue a special course in bombing, and the noncommissioned officers to undergo a course of instruction in the mechanics of bomb sights.

Lieut.-Colonel C.W. Russell was appointed Post Executive, vice Major W.B. Hough, relieved.

Major W.B. Hough, Captain C.B. Stone, III, Air Corps, and 1st Lieut. Stanley J. Reilly, Chaplain, were appointed members of the Hamilton Field Recreation Committee.

Flying Cadets from the graduating class of Kelly Field who were assigned to Hamilton Field were Richard T. Kight, William J. Moser, Edward L. Reid and John M. Reynolds.

Captain Richard I. Dugan was appointed Secretary-Treasurer of the Officers' Club, vice Chaplain Stanley J. Reilly.

First Lieut. W.M. Garland, Air Corps, was appointed Assistant Post Transportation Officer, vice 2nd Lieut. J.P. Bohl, Air Reserve, relieved.

Major A.G. Hamilton was granted a month's sick leave, beginning October 9th.

Staff Sgt. George Woskow, 7th Bombardment Group Hqrs., assumed the duties of Group Sergeant Major, during the absence of Technical Sgt. Wm. J. Riley on furlough.

A.C. Tactical School, Maxwell Field, Ala.

All personnel of Maxwell Field were called upon in a recent Welfare Drive conducted in Montgomery for the various charitable organizations organized there, and a substantial amount was contributed by the officers, enlisted personnel and civilians on duty at the Tactical School.

After spending a considerable time in Walter Reed General Hospital and on sick leave, Major Benjamin F. Harmon, Coast Artillery Corps, returned to his duties at the Tactical School.

Lieut.-Col. Herbert A. Dargue, Assistant Commandant of the School, has been sick in the Post Hospital recently and is at present confined to his quarters. Captain Arnold H. Rich, commanding officer of the A.C.T.S. Detachment, is also sick in the Post Hospital at this station.

Major Thomas L. Gore, Post Flight Surgeon, is attending a two months' course in advanced Medical Field Service at Carlisle Barracks, Pa. Captain William H. Lawton, Medical Corps, is acting Post Flight Surgeon and Commanding Officer of the Medical Detachment during Major Gore's absence.

Donald S. Williams, popular Top-Kick of the 51st Attack Squadron, who served as 1st Sergeant of the A.C. Tactical School Detachment for the past year, received orders recently ordering him to a tour of foreign service in the Hawaiian Department, replacing 1st Sgt. Harry W. Alexander, A.C. Sgt. Williams has served with the Tactical School for a long time in several capacities and will be sincerely missed. Sgt. Alexander will be welcomed back at Maxwell Field by his many friends.

Captain Clayton E. Hughes was appointed E. & R. Officer and Post Athletic Officer in addition to his other duties, relieving Capt. Frank F. Everest, Jr.

Major Claire L. Chennault was transferred from command of the A.C.P.S. Detachment to the command of the 84th Service Squadron, relieving Major Arnold H. Rich, who reverted to his permanent rank of Captain, assuming the duties of commanding officer of the A.C.T.S. Detachment.

First Lieut. Edward J. Hale is the proud father of a baby girl, born at the Post Hospital on October 17th, and weighing 8½ lbs. Cigars were produced forthwith to celebrate

the arrival and, incidentally, the first in the Hale family.

All of the track men as well as the heavyweights in the squadrons made preparations for the big Track and Field meet scheduled for October 25th. The 1st Sergeants, having failed to practice for their race, made matters worse for themselves, since the Athletic Officer planned on changing their yardage from the 50 mark up to about 200 yards to see how far the over-weight participants can last. The heavyweights, preparing for the tug-o'-war, evidently worked for a lost cause, in view of the claim of the A.C.T.S. Detachment that this event was in the bag, considering the fact that they have three heavies totalling some 900 pounds.

Corporal Vey N. Helman, A.C.T.S. Detachment, and serving as School Sergeant Major for the past several years, was discharged recently and found physically unfit for reenlistment. All of the personnel of the School regret his loss and join in wishing him much success in his future endeavors.

The 51st Attack Squadron held a stag outing at Hotel Camp Dixie on beautiful Martin Lake on October 12th and 13th. Located on the north shore of Martin Lake, near Alexander City, Ala., some 50 miles from Maxwell Field, the Hotel, originally part of the Tuskegee Institute, has been used as a summer resort for a number of years. Martin Lake, Alabama's largest body of water, is surrounded by summer cottages and estates and is a most popular playground.

Nearly all of the total of 65 members of the Squadron attended. Rooms were provided and excellent meals were served. Power boats and row boats were made available by the management and were used constantly. The weather was perfect, with the mercury in the high eighties on Saturday afternoon. Conditions were favorable for swimming, but the recent cold snap had resulted in nearly everyone putting his bathing suit in moth balls.

Due to the kind cooperation of the other organizations at Maxwell Field, the 51st men on guard and hangar duty were replaced by men from other organizations.

The fact that the outing was held some distance from the station was novel and all voted that "a great time was had by all." The outing permitted the entire organization, both married and single members, to get together for 24 hours without the medium of military formations.

Captains E.E. Hildreth and Frank F. Everest, Jr., are on duty with the organization, and Staff Sergeant Louis E. Gagnon is acting First Sergeant.

Bolling Field, Anacostia, D.C., Oct. 16th.

General Andrews flew into Bolling Field on October 9th in the Air Corps' first new Douglas Transport.

Major R.L. Walsh, Captain R.C.W. Blessley, Air Corps, and Captain Merchant, Air Reserve, attended the annual convention of the Reserve Association at Louisville, Ky.

Luke Field, T.H., October 3rd.

During the course of the recent visit to Hawaii of the Congressional party, headed by the Hon. Tilman B. Parks, the Congressmen met at the Post Gym different men from the States they represented. To those who have been in Hawaii some little time, this meeting helped to recall their native State and acquaint them with the man sent to Washington to represent its interests. Some few from Arkansas were a little hazy on recollecting their birthplace, also one or two from Texas. Private Bobo, through no fault of his own, had been under the impression that Jersey was a good place to be from until the records in the orderly room pointed to the Lone Star State. I've often heard Bobo speak of Texas and the invigorating atmosphere there that builds men from odds and ends and old spare parts of humanity. According to Private Bobo, many of our best shots came from Texas. "Nawzzzer," they don't do things half way down in Texas.

On Thursday, October 3rd, the Fifth Composite Group conducted a ground inspection and Aerial Review for the Secretary of War at 11:00 a.m. The inspection party arrived by boat about 11:00 a.m., and were met by the Commanding Officer, Lt.-Col. Asa N. Duncan and staff. The inspection party were then shown around Ford Island by automobile, after which they drove to the flying line to inspect the planes and Group transportation. Leaving Luke Field for Fort Weaver by boat, the Group passed in review over the Secretary's launch in the middle of Pearl Harbor.

Wheeler Field, T.H., October 3rd.

At a parade of the entire 18th Pursuit Group on September 28th, the Group Athletic Supremacy Trophy was presented to the 6th Pursuit Squadron for the second consecutive year. When the Group had been formed, the new commander, Lieut.-Colonel John C. McDonnell, made the presentation to Captain John C. Crosthwaite, commanding the 6th.

At the same formation, 1st Lieuts. L.O. Ryan and N.E. Powel were presented with sweaters with the Group insignia as a token of appreciation of their work as coaches of the Group baseball team, which made such a creditable showing in the Schofield Baseball League during the 1935 season.

First Lieut. R.H. Griffith was presented with the trophy he won as runner-up in the Murphy Tennis Trophy Tournament.

Group personnel who received baseball awards as members of the Group baseball squad were Corp. Nixon, Pvts. 1st Cl. Jungman and Germaine, Pvts. Hammond, Soeder, Quigley, Witkus and Walsh, 6th Pursuit Squadron; Sgt. Swaner, Corp. Skaane, Pvts. Cheesman and Myers, 19th Squadron; Pvts. Ward and Hollister, 26th Squadron; Pvts. Horn, France, Butscher, Bickford and LaSeur, 75th Squadron, and Pvts. Judra and Griffith, Group Headquarters Detachment.

Hawaiian Air Depot, Luke Field, T.H., Oct. 3.

Enlisted personnel of the Hawaiian Air Depot "went over big" on the occasion of the recent Departmental Review at Schofield Barracks in honor of visiting members of Congress. Many people were of the opinion that these men, who normally spend their time behind a machine shop lathe and perform other work connected with purely Engineering and Supply matters, would be of little use on a parade ground, but these members of the so-called "Royal American Hawaiian Air Depot" more than distinguished themselves by their smart and soldierly appearance during this review. At this writing, these men are busily engaged in polishing up their brass and preparing themselves for the "Review of Reviews" to be held in honor of the Secretary of War.

The enlisted men of the Hawaiian Air Depot are sometimes called "Forgotten Men," but when the sound of the bugle is heard and the bands begin to play they are anything but forgotten and are at the forefront in the affairs of the day. Seriously speaking, this Detachment deserves considerable praise for its showing when it is considered that they have little time for practice drills. More could be said along these lines, with special reference to their loyalty and willingness to work under conditions that are, at times, most trying. Far from the glamour of the flying line, these men have performed outstanding service, working side by side with the fullest cooperation with civilian employees of the Depot.

A number of changes have taken place in the Depot Supply Department due to increased personnel strength. On the other hand, we have had several losses. Mrs. Rose L. Pulsifer, who has been employed in this Depot for the past 25 years as Assistant to the Purchasing Clerk, has resigned. Miss Faye Northrup, Air Corps employe for the past 18 years, has submitted a request for an extended leave to return to continental United States, due to ill health. Miss Northrup was transferred to this Depot from the Little Rock Depot in 1929, and has proven a most valuable employee to this organization. It is with regret that we learn of the necessity for Miss Northrup to leave, and the personnel of the entire Depot wish her Bon Voyage and a rapid recovery of her health and return to duty.

The Depot Supply Department recently received a large shipment of parts from the mainland. This freight weighed over 200,000 pounds and was unpacked and stored away in record time. This department is continuing its unusual activity of the last few months, making an effort to bring all stocks up to proper levels and reducing the number of so-called "critical items," the lack of which has materially slowed up production in the past.

Captain Oscar F. Carlson completed two years of duty with the Hawaiian Air Depot and sailed for his new station, Chanute Field, on the "Lurline," leaving Honolulu September 29th. Captain Carlson's departure is regretted by all

Depot personnel who have come in contact with him, and the crowd bidding him "Aloha" attested to the popularity of this young Air Corps officer.

Replacing Captain Carlson as Chief Inspector, Test Pilot and Assistant Engineering Officer, Captain Harvey F. Dyer was transferred to this organization from the 26th Attack Squadron at Wheeler Field and assumed his new duties on October 2nd.

Due to the vagaries of the transport schedules, production during September dropped off considerably, the final tally showing but 5 airplanes and 8 engines overhauled that month. Although a huge shipment of supplies was received in September, and another similar shipment is expected late this month, considerable anxiety is being felt because of the possible tie-up of shipments due to pending strikes of longshoremen on the West Coast. It is not known whether these strikes will involve Army transports or not, but it is a fact that material which we urgently need and on which commercial shipment has been authorized is being delayed considerably due to tie-up of freighters in San Francisco.

San Antonio Air Depot, Texas, Oct. 19th.

Colonel and Mrs. John H. Howard returned October 7th from a two months' leave of absence, during the course of which they visited Hawaii.

Captain J.H. Hicks departed for his new station October 15th with Mrs. Hicks and family. He has been stationed here since June 30, 1934, on duty as Assistant Depot Supply Officer. The Depot personnel greatly regret to see them go, and wish them all success and happiness at the Fairfield Air Depot.

Mrs. Lois Redman, widow of the late Lieut. Mark H. Redman, and hostess of the Officers' Club and the Golf Club at this station for the past five years, left the first part of October for Randolph Field, having accepted a new position as hostess at that station. Mrs. Redman will be missed from the Depot's social circle, whose cordial wishes accompany her in her new activity.

Recent visitors by air at the Depot were Capt. Wm. L. Boyd, A.C., with Lieut.-Colonel Herman Kobbe, 7th Cavalry, Fort Bliss, Texas, as passenger, Oct. 12th, for engine change in an O-25 - Majors Wm. A. Hayward and H.W. Anderson, from Chanute Field, Oct. 14, ferrying a BT-2A back to that station - Capt. D.G. Stitt, from Fort Sill, Okla., Oct. 17th to ferry back an O-19E airplane - Captain J.C.A. Denniston, Lieuts. C.B. Dougher and T.M. Melden, Jr. (Res.) from Mitchel Field, N.Y., and Capt. Wm.C. Bentley, Jr., from Langley Field, Va., Oct. 18, to ferry a PT-3 and a PT-3A to Langley Field and two PT-3's to Mitchel Field.

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On October 20th, 1st Lieut. Mills S. Savage was relieved from assignment at the Hawaiian Air Depot and placed on duty as engineer and armament officer of the 18th Pursuit Group, Wheeler Field, with the temporary rank of Capt.

1st Lieut. Lauris Norstad has been ordered to duty with the GHQ Air Force at Mitchel Field, N.Y., upon the completion of his tour of foreign service, his previous assignment having been revoked.

The following-named officers, recent graduates of the Advanced Flying School, Kelly Field, Texas, and who were assigned to duty at Rockwell Field, Coronado, Calif., received orders changing their assignment to March Field, Calif., in view of the abandonment of Rockwell Field by the Air Corps:

Second Lieutenants George B. Dany, William M. Gross, Paul T. Hanley, John deP.T. Hills, Elvin S. Ligon, Jr., Arno H. Luehman, Lawson S. Moseley, Jr., Wilson H. Neal, Curtis D. Sluman, William S. Stone, John W. White and Albert T. Wilson, Jr.

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Warrant Officer Frank Bahel was relieved from duty at Burgess Field, Uniontown, Pa., and assigned to duty with Air Corps at the Middletown Air Depot, Middletown, Pa.

Warrant Officer Thornton C. Fitzsimon was relieved from duty at Langley Field, Va., and assigned to duty with the Air Corps at Burgess Field, Uniontown, Pa.

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AVIATION DATA WANTED FOR RAINBOW DIV. HISTORY

A history is being written of the 42nd Division, better known as the "Rainbow Division," in which an effort is being made to include accounts of the service of corps and army units which were with it in its different combats. In the material now on hand there are a number of stories from the Infantry and Artillery about aviation but, as yet, nothing from the aviation to tell what they thought of the Infantry and Artillery. Besides this human interest side, it is desired to bring out the serious technical side of aviation.

Any reader of the News Letter who may be in possession of information regarding aviation incidents or missions connected with the operations of the 42nd Division will aid in a very material way this worth while effort to compile a full and complete history of this famous World War organization by sending such data to the Information Division, Office of the Chief of the Air Corps, Washington, D.C.

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AN ACKNOWLEDGMENT

The News Letter is indebted to Mrs. Marguerite Jacobs Heron and Mr. Bob Fitzgerald, both of the Technical Data Section, Material Division, Wright Field, for the assistance they rendered in the preparation of this issue - Mrs. Heron for her excellent article on the Aeronautical Museum, and Mr. Fitzgerald for the artistic cover design he drew up to go with it.

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The News Letter would appreciate hearing from Barksdale, Mitchel, Scott and Chanute Fields.

V-6885, A.C.

TECHNICAL INFORMATION AND ENGINEERING NEWS
Air Corps Materiel Division

Pilot-Compass Interlocking Relay Units.

Preliminary report on flight tests to determine characteristics of Air Corps and Sperry types of pilot-compass interlocking relay units has been prepared. The relay mechanism (designed, built and tested at the Materiel Division) which interlocks the radio compass, Type E-4, and the Sperry automatic pilot, to bring about automatic steering to a selected radio station, was initially flight tested August 28, 1935. A similar relay (designed, built and tested by the Sperry Gyroscope Company) was flight tested by representatives of the Air Corps on September 7, 1935, at Newark, New Jersey. All flight tests conducted to date have been satisfactory, although not complete. Further tests are contemplated and detail report will be made at that time.

High-Tension Ignition Cable.

The American Steel & Wire Company, Worcester, Mass., has requested permission to submit for test a sample of a recently developed type of high-tension ignition cable which, it is claimed, is more resistant to flame than the present standard type.

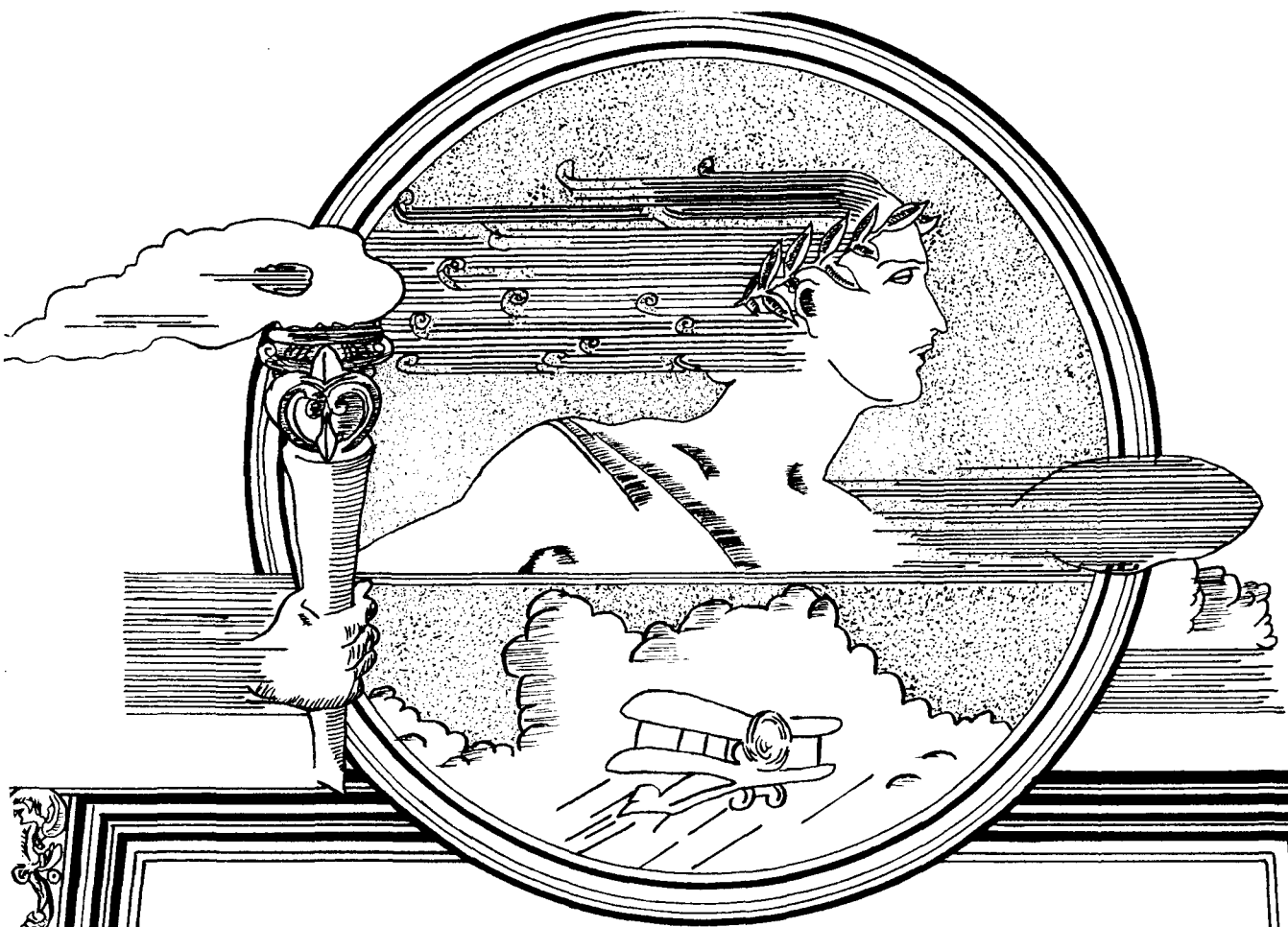
Rubberizing Winter Flying Shoes.

A representative of the Materiel Division recently visited the B.F. Goodrich Rubber Company, Akron, Ohio, with reference to rubberizing winter flying shoes. This company is developing a preparation for waterproofing sheep shearing, and is also working on a non-skid rubber sole for winter flying shoes, and will submit samples for test in the near future.

Experimental Pneumatic Raft.

A new bladder-type pneumatic raft, fabricated by Air Cruisers, Inc., New York City, is considered satisfactory for service test. This raft is composed of a rubberized duck outer tube casing, containing two latex bladders as the supporting medium, and should have a considerably longer service life than the present rubberized fabric rafts.

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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.

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THE CRASH OF THE BOEING BOMBING PLANE ✓ By the Wright Field Correspondent

On October 30th, Wright Field was the scene of one of the most serious accidents ever occurring to Air Corps equipment. The new four-motor Boeing Bombardment airplane brought to the Materiel Division on August 20th, as an entry in the Bombardment Procurement Competition, crashed upon take-off for a test flight and burned, costing the life of Major Ployer P. Hill, Chief of the Flying Branch, and injury to the others of its crew.

In the airplane at the time, in addition to Major Hill, were Lieut. Donald L. Putt, test pilot; Leslie Tower, Boeing test pilot, who had flown the big plane non-stop from Seattle to Wright Field; John Cutting, Wright Field test observer; and Mark Koogler, Wright Field mechanic. Cutting and Koogler, who were in the cabin, left the plane immediately upon landing. Somehow, Lieut. Putt managed to get out of the cockpit. Of the four survivors, Tower was the most seriously injured. His condition, though at first grave, seems favorable at present, and the progress of the others is satisfactory. Major Hill lived only for about three hours after the crash.

Occurring as the accident did directly on the field, immediate aid was possible, and it speaks well for the organization of all forces that aid was supplied without loss of time in this dire emergency. The fire department was on the scene almost immediately. The ambulances arrived before Major Hill and Mr. Tower could be gotten from the cockpit. Willing hands lent aid at great personal risk. Indeed, the caliber of bravery shown in that desperate hour was the type of which an organization may well be proud. Mr. Tower, who had been standing in the cockpit and was not strapped in, was lifted unconscious through the smashed windshield windows and a rupture in the cockpit top, and eased over the side to the ground. Lieut. R. K. Giovannoli entered the flaming cockpit and had to cut free Major Hill's shoe before he could lift him through the top where willing hands took the burden. Officers and civilians worked shoulder to shoulder, the slippery fire extinguisher fluid making every grasp difficult, every touch of clothing or hot metal meaning

a burn.

So swift had to be that aid, and so quiet about their burns have been those who escaped the need of actual hospital treatment, that the names will probably never be known of all those whose courage overcame the terror of that moment in rescue work of the most desperate kind. Lieuts. Giovannoli and L.F. Harman had to be taken to the hospital.

Among the first acts of General Robins, upon being called to the scene of the crash, was the naming of the Accident Investigation Board of four officers - Lieut.-Colonel Frank D. Lackland, Captains J. M. Gillespie, L.C. Craigie and H.C. Bogert, to determine the cause of the crash. This promptness enabled an immediate examination before the ground or plane could be greatly disturbed. Although dozens of witnesses were interviewed by the board, it was almost a week before physicians permitted those who had been in the airplane to be questioned. Since they are all seasoned test flight men, a definite determination of the cause can undoubtedly be arrived at.

The Boeing will be missed in its shining beauty on the flying line, but another Boeing can be built. Irreparable, however, is the loss of Major Hill, soldier, gentleman, and air pilot, whose years of experience in flying, cool judgment, courage, skill, and joy in his work gave him an easy and natural leadership among the test pilots whose chief he was. It is many a long day since Wright Field has known so great a pall of sorrow. It will be long before our loss is forgotten.

Major Ployer P. Hill was born in Newburyport, Mass., October 24, 1894. He attended grammar school and high school in his native city and, after pursuing an engineering course at Brown University, graduated in the year 1916, and from that time until his entry into the military service during the World War his occupation was that of civil engineer. Upon his enlistment in the Aviation Section, Signal Corps, December 4, 1917, he was sent to Cornell University, Ithaca, New York, for his ground school training. Following his graduation in April, 1918, he was on duty for a brief period of time at the Aviation Concentration Camp at Camp Dick, Dallas, Texas, and he was then transferred to

te Field, Rantoul, Ill., for flying action, which he completed in July, upon, on July 31, 1918, he was commissioned a second lieutenant. Assigned to active duty at Chanute Field, he remained there for two months and was then transferred to Ellington Field, Houston, Texas, to undergo instruction as a Bombardment pilot. At this station Major Hill performed the duties of radio officer until March, 1919, when he was transferred to duty in Washington in the Contract Section, Supply Group, Office of the Director of Air Service. In June, 1919, he was assigned to duty in the Training and Operations Group. He received his appointment as a 2nd Lieutenant in the Air Service, Regular Army, July 1, 1920, and was promoted to 1st Lieutenant the same date.

In August, 1920, Major Hill was ordered to duty with the American Army of Occupation in Germany, and from September of that year until July of the following year he was on duty as Engineer Officer of the Air Service Flying Station at Weissenthurm, Germany.

Upon his return to the United States, he was assigned to duty with the 12th Aero Squadron at El Paso, Texas. In February, 1923, he was transferred to Chanute Field, Rantoul, Ill., to undergo a course of instruction in aerial photography. He completed this course the following August and remained on duty in the Department of Photography of the Air Service Technical School at Chanute Field until June, 1924, when he returned to duty in Washington, being assigned to the Training and War Plans Division, Office of the Chief of Air Service.

In May, 1925, he was ordered to duty at Mitchel Field, New York, and he remained at this station as commanding officer of the 14th Photo Section until November, 1929, when he was ordered to duty in the Philippines, being stationed at Nichols Field.

Completing his foreign service tour in the Islands where, for the most part, he was in command of the 6th Photo Section, he returned to the United States in May, 1932, for duty at Wright Field, Dayton, Ohio. He served as test pilot and as Assistant Chief of the Planes and Engines Maintenance Unit. On July 29, 1935, he was assigned as Chief of the Flying Branch, Materiel Division, with the temporary rank of Major.

Major Hill's cheerful disposition and his unflinching courtesy at all times gained him many friends who greatly mourn his untimely demise. The Air Corps lost an efficient officer and one of its most outstanding and skillful pilots. The sincere sympathy of the Air Corps is extended to his sorrowing widow and his other relatives.

Major Hill died in the service of his country striving to advance aviation.

SMOKE SCREEN DEMONSTRATION BY 37TH ATTACK

The 37th Attack Squadron of Langley Field, Va., turned out six ships to make the trip to the Aberdeen Proving Ground on October 2nd. Aberdeen was the gathering point of the Ordnance Department, members of the Society of Mechanical Engineers and their guests in order to witness the demonstration of all the Ordnance equipment of the United States Army. All types of armament were demonstrated to the crowd of approximately 5,000 persons.

The demonstration by the A-8 Attack planes proved to be very interesting. Three ships, each having two tanks of smoke, laid down a screen while in formation, and effectively screened the entire landing field for a period of three minutes.

The offensive power of the Attack plane was displayed in the bombing and gunnery to no small degree. While in a formation of three planes, ground targets were attacked, using four guns per plane, and the strafing power of this type of plane was ably demonstrated. While on the same mission, thirty bombs of the 30-pound fragmentation type were dropped in two passes at a target from an altitude of 1,000 feet. This mission was also successfully completed, the grouping of the bombs being close and well placed.

As an additional demonstration, the 37th Attack Squadron went to Edgewood Arsenal and performed a mission for the benefit of the class of Naval officers attending the School in Chemical Warfare. One Attack plane came across the Bush River and laid a smoke screen upwind from a Navy boat. Then a plane loaded with tear gas came in through the screen and attacked the boat. Following this came two planes loaded with red dye representing mustard gas. The Naval officers on the boat were well protected with masks and other equipment, which was quite necessary, as the red dye coated the vessel and personnel very noticeably.

The Air Corps personnel making the trip consisted of Captain Schramm, Lieuts. McLennon, Grussendorf and Qualm, Flying Cadets Amspaugh and Thomas, Master Sergeant Nero, Staff Sergeants Hoahland, House, Adams and Miller, Sergeant Gott, Privates Smith, Cassel and Gangemi. Some of the enlisted men made the trip by auto

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NIGHT FIRING BY 35TH PURSUIT SQUADRON

The 35th Pursuit Squadron, Langley Field, Va., conducted night firing on October 14th, using 30 calibre and 50 calibre tracer bullets upon ground targets. Flares were used to illuminate the targets. Practice as a whole was very successful and gave the pilots experience in attacking ground forces at night.

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FLIERS DEPEND UPON "EARTHWORMS." ✓

THE ground preparations for the Stratosphere Flight suggest the dependence of flight upon the men who stay on the ground.

At 6:00 a. m., Armistice Day, in the National Geographic Society Headquarters, we are listening to a radio account from the Rapid City bowl describing the ground preparations for the third attempt at a stratosphere flight under the auspices of the Geographic Society and the Army Air Corps.

The great balloon has received about two hundred thousand cubic feet of helium, and forty thousand more are ready to be put in when the air-tight steel gondola is attached. The extensive ground preparations which have been necessary for this flight remind us that in all flying the ground installations and personnel are quite as essential as those taking the air.

The organization of the ground installations required to support the operations of an air force will never be static for any considerable period of time. Each forward step in the development of airplanes, airplane engines and plane equipment of the Air Force requires some modification, sometimes drastic, at other times minor, of the servicing equipment on the airdromes.

Major developments in the tactics and strategy of the employment of air forces usually impose changed or new requirements upon the ground personnel and equipment. In a science which develops as rapidly as flying has developed in the past two decades, the school system pertaining thereto assumes great importance. It is in the laboratory and schoolroom that many improvements in equipment, new equipment, tactics and strategy are devised. From the very nature of war tactics, there are so many limitations upon service testing of ideas that a great part of the air tactics, as developed to date, must await the test of the next war, in order for their value to be fully determined.

This being true, it is seen that we shall enter the next conflict depending upon much that has undergone only the test of the school room and the laboratory. The responsibility which rests upon these peacetime activities is therefore a grave one. The fullest and widest range of study and experimentation are required in the theory and development of tactics and equipment which cannot be fully service-tested except in the crucial test of battle.

On the other hand, to take the attitude oftentimes assumed by those who have given relatively little study to

these matters, namely, that we should hold fast to that which has been proven in battle and reject that untried by this flaming test, would, if adopted, leave us at a complete disadvantage in a conflict with those who have pressed their aeronautical development.

Realizing this, airmen have strongly and consistently resisted all efforts to force this stand-pat attitude upon them. They resolutely turn their faces toward the future and press onward to a greater and still greater progress. This resolution on the part of fliers is obtaining splendid results. It is due to this type of flier that we now have airplanes capable of a speed of 424 miles an hour; of 6,200 miles non-stop flight on one fueling; of 40,000 feet altitude, and of fifty-five tons lifting capacity.

These powers represent a tremendous advance over the airplanes which received the stern test of battle in the World War. They are a glorious monument to the vision and perseverance of intrepid airmen. They represent the best efforts of many devoted men who have cheerfully made the supreme sacrifice in furtherance of the things they believed in.

Even as this is written in the stratosphere headquarters of the National Geographic Society in Washington, we are listening to the account of the last minute checks being made by two representative airmen who are once again about to forge upward into the relatively unknown realm of the stratosphere in order that its secrets may be secured to the further advantage of flying.

Earlier in the night we learned that a twenty-foot rip had appeared in the great balloon just below the equator. Nothing daunted, Captains Stevens and Anderson directed the repair of the rip and proceeded with their preparations. Although these men had to jump to save their lives when they made their former stratosphere flight, in their singleness of purpose and devotion to the cause of science they have permitted no obstacles to interfere with their effort to make another great contribution to the knowledge of the little explored regions of the upper air.

And now aviation enthusiasts and scientific men all over the world are singing the praises of two intrepid aeronauts - Captains Stevens and Anderson - for ascending into the stratosphere to a height never before reached by man. The ceiling of the big balloon, as announced by Captain Stevens in the course of a radio conversation, was about 74,000 feet. This is almost half a mile in excess of an unofficial mark set by two Russian aeronauts in January, 1934, who lost their lives in a crash landing. The actual altitude the two Air Corps officers attained will not be known until the sealed instruments car-

ried in the stratosphere balloon are calibrated by the U.S. Bureau of Standards.

Here it can be truthfully said that patience and careful ground preparations had their reward. Weeks were spent at the stratosphere camp at Rapid City, South Dakota, awaiting a favorable opportunity to make this venture into the upper air regions. Time after time disappointment came when promises of favorable weather did not materialize, and by just one of those strange turns of fate a day most propitious in world history - Armistice Day - gave these two courageous Army airmen the opportunity they were longing for, and they made the most of it.

While the feat of reaching the highest altitude thus far recorded is a most outstanding accomplishment, the value of the scientific investigations conducted on this flight, through the use of specially conceived instruments little known to the layman, may prove such as far to exceed the expectations of even the most sanguine scientist.

The flight was a complete success, the landing perfect and all the instruments intact and containing information which will no doubt keep scientists busy for quite a while studying and evaluating it. This data may reveal hitherto unknown facts of, perhaps, a most startling nature.

One thing is certain, and that is that the world's store of knowledge will be enriched through this venturesome and extremely courageous expedition, sponsored jointly by the National Geographic Society and the Army Air Corps. Just as the Army airmen bided their time until they could give the command "hands off," so must we wait expectantly until the full import of this exploration into the stratosphere is made known.

Congratulations, Captain Stevens and Captain Anderson! Congratulations also to Captain Randolph P. Williams, ground operations officer, and all the other members of the ground crew.

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NEW DE-ICING DEVICE

A B-12A Martin Bomber at Wright Field, Dayton, Ohio, has been equipped with a new set of Goodrich De-icers of the mechanically attached type. After the airplane is prepared to receive this type De-icer, installation and removal can be accomplished in approximately half the time required for the cemented-on type. The propeller blades, out to the 30-inch station, and the spinners are covered with sheet rubber and treated with an oil solution. The rubber surfaces on the propellers will be periodically coated with castor oil to maintain the de-icing properties. This set of equipment will be tested during the winter months.

MILITARY AVIATION AND CHEMICAL WARFARE
By Lieut. Ellsworth C. French, Wash. N. G.

Military aviation may find chemical warfare to be its most serious problem in case of another national emergency officers of the 41st Division Aviation, Washington National Guard, were told by Colonel Alex Sabiston, who participated in the Fourth Army Command Post Exercise at Fort Lewis, Wash.

Colonel Sabiston, of Spokane, Infantry Assistant Chief of Staff to General White of Oregon, Commander of the 41st Division, delivered a well prepared and illustrated two-hour lecture on the Air Corps participation in the problem "as I saw it indirectly while performing my regular duties."

"It was my good fortune to be quartered with the Air Corps officers assigned to the problem," Colonel Sabiston continued, "and they were the finest group of officers with whom I have come in contact. From them I gathered much of my information for this lecture."

Toward the end of the problem Colonel Sabiston said that the "maroon" chemical warfare officer became very active through the use of gas bombs on the "blue" airdromes.

"I think the Air Corps officers were impressed with the fact that such activities might very easily put their operations out of commission for 24 hours," he said, "because they perfected a real airdrome organization."

Colonel Sabiston was interested in the fact that soon after the problem started many of the original airdrome locations were abandoned and new ones established within the range of operation of the various types of aircraft. In several instances the airdromes were moved further back into the theatre of operations.

"The pilots and observers from Crissy Field, Calif.," he said, "actually went out and photographed much of the terrain over which the problem took place, and these photographs were very valuable."

Bombardment and Observation aviation predominated throughout the problem, with Observation doing a great deal of work and providing much valuable information. The ground arms of the service apparently did not appreciate the fact that "time was necessary for the Air Corps to prepare for the various missions wanted."

An order was issued that all missions desired for the next day had to be made known at 4:00 p.m. the day before. In preparing the problem, landing fields were established from maps which apparently indicated satisfactory terrain for a landing field, while actual photographs of the area proved the proposed sites to be entirely satisfactory.

Very little voice was used in communications, code being used almost entirely. A very satisfactory system was worked out whereby code signals and frequencies were changed every five days for both ground

and air stations, and for certain units of the various organizations.

Early in the problem an enemy aircraft observation station system was established, and before the problem ended this system became almost entirely an Air Corps activity.

The Air Corps officers worked out a very splendid system whereby they could intercept enemy aircraft. It was a system of strings, each marked into 10-minute flight periods and each attached to the friendly aviation stations. By maneuvering these strings on the course of the enemy flight, as reported by the observation stations, the officers could tell in an instant where the enemy aircraft could be intercepted."

Colonel Sabiston stated that during the early days of the problem the "Blue" air force gained and maintained air supremacy because of the inferior type of aircraft supposedly used by the "Maroons." This situation changed, however, and soon the battle for "supremacy of the air" became a real engagement.

Most puzzling to officers of the 41st Division Aviation is how the "Maroon" forces landed their thousands of troops without being detected, and from whence came the "Maroon" Bombers in advance of the troops.

The field order for the problem was displayed, as were many of the maps and other orders necessary to the "Blue" Air Force operation. During the two weeks of the problem a pile of typewritten orders more than ten inches high were written.

The first order to the "Blue" Air Force was to gain air supremacy and destroy docks, transports, supplies, carriers and enemy shore bases. Pursuit was ordered to stop all enemy observation from the air.

All Department of Commerce radio communications were taken over by the Air Corps and operated in cooperation with Department of Commerce officials.

Colonel Sabiston regarded the paper given by Colonel Roy J. Kirtland, Air Corps, as the "finest of all comment after the problem was over."

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FIELD EXERCISES BY THIRD WING

The 20th Pursuit Group with its three tactical squadrons, the 55th, 77th and 79th, carried out field exercises at Tallulah, La., on October 3rd and 4th. The 71st Service Squadron, with 45 trucks, preceded the air echelon and set up temporary Headquarters.

Forty-one airplanes of the 20th Pursuit Group, plus the 90th Attack Squadron, participated in maneuvers before the Command and General Staff School at Fort Leavenworth, Kansas, from October 9th to 14th.

On October 16th and 17th, the Third Attack Group, with the 8th, 13th and 90th Attack Squadrons, performed a field maneuver at Tyler, Texas. The ground echelon with 31 pieces of motor transportation was furnished by the 60th Service Squadron which set up temporary field headquarters.

The Third Wing, GHQ Air Force, with 70 airplanes of both the 20th Pursuit Group and the Third Attack Group, occupied Shushan Airport at New Orleans, La., from October 20th to 24th. Fifty trucks were furnished by the 60th and 71st Service Squadrons as transportation for the ground echelon and for general logistical purposes, and a total of approximately 200 enlisted men participated. Gunnery practice was held over Lake Pontchartrain, and both Groups patrolled the area between New Orleans, La., and Pensacola, Fla., for the purpose of observing and repelling a mythical hostile fleet invasion from the direction of Cuba.

Shushan Airport proved itself an ideal air base, and the officials of the Airport and leading citizens of New Orleans cooperated in every way possible to make this the most satisfactory as well as the most enjoyable maneuver yet held by this Wing.

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FIRST AIRSHIP TO VISIT BARKSDALE FIELD

Some 1,000 citizens of Shreveport, La. and vicinity, witnessed on October 25th the arrival, servicing and departure of the first airship to visit Barksdale Field. The TC-13, after making a non-stop flight from Langley Field, enroute to its new base at Sunnyvale, Calif., landed at Barksdale Field at about 11:00 a.m. The airship was held on the ground by enlisted men of the 3rd Wing and of the Barksdale Field Station Complement while it was serviced with 700 gallons of gasoline and the pilot secured the latest available weather data. The airship was preceded by two Bombardment airplanes carrying the advance agent and a portable (sectionalized) mooring mast.

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JAPANESE OFFICIALS VISIT BARKSDALE FIELD

Major-General S. Ito, the directing general of engineering in Japan, accompanied by six Japanese officers and one Japanese engineer, paid a visit to Barksdale Field on November 8th. The Program in his honor included an aerial review of the Third Wing and a luncheon at the Officers' Club.

General Ito was impressed with the size of the flying field, as well as the post proper, and made the statement: "In Japan we do not have such room. I think Barksdale Field is ideal for training."

KAUAI'S "MYSTERY FOREST" PROVES MONUMENT TO FIRST U.S.-HAWAII FLIGHT PILOTS

Riddle of Strange Forest Discovered by C.C.C. Workers Solved. Was Sown from "Bird of Paradise," first Plane to Complete U.S. - Hawaii Flight

Amazed and incredulous were C.C.C. workers recently when, in the eroded and deforested areas of Kauai, northwest of Waimea Canyon, they suddenly ran upon an unknown forest of many hundreds of sturdy young trees waving their fresh green foliage like so many flags under the brilliant sun. "How on earth did these get here?" they asked, using their own more vigorous expletives.

A careful examination of the trees only served to increase the mystery, for all were of the same size, age, and kind - New Zealand Karaka - and yet there was nowhere in the locality an older tree of the species that could have claimed to be the "proud papa" of even one or two of the strange new trees, let alone the entire forest.

Here was a mystery, indeed, and only a fevered search through the letter files of the Governor of the Territory and the Commanding General of the Hawaiian Department, plus considerable peering through the windows of an uninhabited old building, eventually solved it.

The old building into which the vital peering was done stands drearily in a solitary corner of old Wheeler Field on the Schofield Military Reservation. Though it is more than amply defended by millions of defiant burrs, hardened cross-country hikers can approach, peer through the chinks in the windows, and discover in the gloomy interior - the "Bird of Paradise" - first plane successfully to negotiate the Pacific from the States to Honolulu.

It was from this plane, once courageously piloted for 2400 miles across the Pacific from Oakland, Calif., to Honolulu by Lieuts. Albert Hegenberger and Lester Maitland, and now destined for a place of permanent glory in a future military museum, that Kauai's mysterious Karaka forest was sown almost six years ago. It all came about in this way:

Along in November, 1929, reports that all was not well on the Island of Kauai came to Bruce Cartwright, then Acting President of the Board of Agriculture and Forestry. Badly eroded, the region northwest of the Waimea Canyon was sadly in need of a forest covering to keep the soil from continuing to wash into the sea. But the cut-up and inaccessible condition of the land made ordinary methods of tree planting highly impractical. The Board of Forestry was pondering the matter when it suddenly received an inspiration. It passed the inspiration on to Lawrence M. Judd, then Governor of the Territory who, in turn,

passed it on to Major-General Fox Conner, then commanding the Hawaiian Department.

"Would the Army provide an airplane from which tree-seeds could be scattered over this section of Kauai so badly in need of trees and which it was impossible to reforest in any other way?"

Never failing to forward a good purpose, the Army provided a plane - the "Bird of Paradise," which, after its historic Pacific flight (June 28-29, 1927), had been turned to Regular Army service in the Hawaiian Department. Not only had its mission become less romantic, but its name as well, for in place of the poetic designation "Bird of Paradise," it bore the prosaic title "U.S. Army Fokker C-2."

The "tree-planting" flight was made from old Wheeler Field on November 15, 1929. Seed, selected by the Forestry Board, was picked up at the Hanapepe Airport, and in the course of three flights over the area to be reforested, 1689 pounds of seed were dropped. During these trips, the plane carried the following occupants: 1st Lieut. R. E. Culbertson, pilot; 1st Lieut. J.L. Loutzenheiser, co-pilot; Corporal H.W. Pike, radio operator; Privates L. T. Chevalier and H.B. Rabalais, mechanics; and Assistant Forester A.W. Duval, who supervised the actual dropping of the seed as the plane flew over the extensive area. The section covered by the plane included the Puu-Ka-Pele Reserve, Na-Pali-Kona Reserve, and part of the Lihue-Koloa Reserve.

This, then, is the solution of the mystery of the sturdy little army of Karaka trees now growing near the Alakai Swamp on Kauai. In a letter recently received by Major-General Hugh A. Drum, present Commander of the Hawaiian Department, C.S. Judd, Territorial Forester, commenting on the aerial tree-planting venture of the "Bird of Paradise," wrote: "We are still very grateful to the U.S. Army for the helpful assistance in furnishing the Fokker plane, now out of commission, for the work of seed sowing from the air which has given the good results recorded in this letter."

"Out of commission" the "Bird of Paradise" now indeed is. Its flying days are over. It is to be placed in a museum to preserve for posterity the memory of Maitland and Hegenberger, who hold the same preeminent place in the history of Pacific Air Navigation that Lindbergh holds in that of the Atlantic. France has a monument to Lindbergh's heroic achievement. In Hawaii, until a more fitting one can be obtained, this flourishing army of Karaka trees sown by the "Bird of Paradise" will serve for

all who come upon it, by land or air, as an undedicated monument to the two heroic pioneers of America's brilliant future of air achievement in the Pacific - Maitland and Hegenberger.

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RESERVE ACTIVITIES AT RICHARDS FIELD

In his first contribution to the News Letter, the Correspondent from Richards Field, Kansas City, Mo., summarizes the activities of Reserve units thereat during the past several months.

The 430th Pursuit Squadron had their summer training at Camp Ripley, Minn., during the period August 18 to 31. Twenty-one Air Corps Reserves attended, and a total of 262;45 hours was flown. Actual training with ground troops was performed throughout the two-week period, in addition to photographic, aerial gunnery and instrument training under the hood. The 3rd Infantry, Fort Snelling, Minn., and the 80th Field Artillery, Fort Des Moines, who were on field maneuvers, and the Iowa National Guard, Camp Dodge, Iowa, who were in annual encampment, were the ground troops and furnished the tactical problems.

The 314 Observation Squadron was trained at Fort Des Moines, Iowa, and used the Municipal Airport at Des Moines as the airdrome. Eleven Reserve officers attended the camp, and training with ground troops from Fort Des Moines was conducted during the period September 29th to October 12th. The flying time during this period totalled 210:05 hours. Training included all the phases which featured that of the first camp, except aerial gunnery. The Commanding Officer of this activity desires to thank publicly the commanding officers of the various ground organizations whose interest and work on the various problems made these camps by far the most interesting ever attended by the Air Corps Reserves.

During the month of October, a total of 109 Army aircraft, carrying 76 passengers, visited Richards Field. Among these visitors were Congressman McSwain; Brig.-General Frank M. Andrews, Langley Field; Major DeFord, Maxwell Field; Captains McClellan and McDonald, of Bolling Field, also Major Beam; Majors Whitehead and Giles, Langley Field; Captains Laughinghouse, Marshall Field, and Hackett, Wright Field. The Eastern and Northern contingents of National Guard organizations, who sent representatives to the National Guard Convention, also kept the field personnel busy for a few days.

In conclusion, the News Letter Correspondent adds: "If anyone has a spare hangar laying around it could be used to a good advantage."

FIRST FORCED LANDING IN SEVEN MONTHS

The News Letter Correspondent from Luke Field, T.I., calls attention to the fact that the 72nd Bombardment Squadron at that station had its first forced landing over a period of seven months on October 11th, when Lieut. Bowyer set his Keystone Bomber down "dead stick" without a scratch after he discovered that his instrument panel began smoking. A starter switch plate was found to be loose. A new switch was installed, the wiring replaced, and the plane was ready to fly again within a very few hours.

The previous forced landing occurred seven months ago (March, 1935) at Luke Field, due to a new engine overheating.

"The personnel of the 72nd Squadron," concludes the Correspondent, "deserve special mention for their excellent work and results with such old equipment."

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CHANGES IN AIR CORPS NON-COM. PERSONNEL

Five noncommissioned officers of the Air Corps were recently placed on the retired list, viz:

Master Sergeant Charles Gail, Rockwell Field, Calif., and Technical Sergeant Tony J. Odens, Barksdale Field, La., on September 30, 1935.

Master Sergeants Stephen McAlko, March Field; Henry Wechsler, Mitchel Field, and Arthur J. Shanley, Randolph Field, on October 31, 1935.

Noncommissioned officers promoted to the grade of Master Sergeant were 1st Sergeant David H. Van Houton and Technical Sergeant Herbert Michler, Randolph Field; Technical Sergeants Benjamin J. King, Langley Field, and Don W. Whiteside, March Field.

Four Staff Sergeants were promoted to the grade of Technical Sergeant - Leonard Miramontes, Barksdale Field; William Fitzpatrick, Hawaiian Department; Richard Denington, March Field, and Henry Kirby, Brooks Field.

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CONGRESSMEN VISIT ADVANCED FLYING SCHOOL

A Congressional party, consisting of members of the House Military Affairs Committee - Messrs. John J. McSwain, of South Carolina, Chairman; J. Joseph Smith, of Connecticut, and John M. Costello, of California, recently visited Kelly Field, Texas. They were flown to San Antonio in a Curtiss "Condor" air liner, piloted by Major Hez McClellan and Captain George C. McDonald, Air Corps. Upon their arrival at Kelly Field they were greeted by Brigadier-General James E. Chaney, Commanding General of the Air Corps Training Center, and Colonel Jacob E. Fickel, Commandant of the Air Corps Advanced Flying School, who accompanied the party on a tour of inspection of

Kelly Field.

The visit of these Congressmen has again revived hope among the personnel of Kelly Field that this post will soon be rebuilt.

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WELL KNOWN FORESTRY OFFICIAL PASSES AWAY By the News Letter Correspondent

He wasn't in the Air Corps, and he wasn't a licensed commercial pilot. However, no friend of aviation will be missed more around Felts Field, Spokane, Wash., than Howard Flint, Assistant Regional Forester, No. 1, embracing western Montana, northern Idaho and a small part of eastern Washington.

It was with a feeling of real sorrow that airmen of the Washington National Guard in four planes went recently on the mission of flying over the funeral party of Mr. Flint in Missoula, Montana.

Mr. Flint, well known to many Army flyers, flew forest patrol operations for the past ten years, and probably had to his credit more photographic hours than any other person in the United States. Each summer for the past ten years he spent four months at 14,000 feet photographing national forests for the Forest Service. He had made sufficient prints to reach more than once around the world at the equator.

Mr. Flint, who organized the National Geographic Society's expedition down the Salmon River, was taken ill on the trip. It was necessary for Pilot Bob Johnson, of Missoula, to fly the sick man off from a very narrow sand bar in the Salmon River. Before Mr. Flint reached Missoula, he became unconscious in the airplane and died a short time afterward in a Missoula hospital.

In the airplane formation from Felts Field were Captain L.C. Sherman, Lieuts. Emmett Corrigan, Dale Swarta and Claire Hartnett, who flew formation over the funeral party.

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REFUELING PLANES WITH SMALL CONTAINERS By the Wheeler Field Correspondent

It is an established principle that, during field operations, aviation gasoline will be supplied in 50-gallon drums and 5-gallon tins. Tank cars on sidings at rail-heads are most vulnerable, as are the field servicing trucks. The failure of the servicing truck would ground an entire unit. The tracks made by a servicing truck would disclose the positions of airplanes to aerial observers, whereas drums and tins can be rolled or carried to the gas park positions, using different routes each time. The use of the drums and cans conserves rolling stock, as any car only partly filled with gasoline

can be loaded to its capacity with other supplies.

As a basis for future study and in order to train its own personnel as well as test different methods, each of the component tactical squadrons of the 18th Pursuit Group were required to service from 5-gallon tins for a sufficient period to become thoroughly familiar with the problems involved and the methods of meeting them.

One squadron conducted its tests in the field during the Hawaiian Joint Maneuvers when actual war conditions were simulated, and the other two later conducted their tests at Wheeler Field.

A 2½-ton Federal truck was used for transporting the 5-gallon tins of gasoline. The floor of the truck was covered with felt to eliminate static electricity and prevent sparks. By laying a platform of loose boards on top of the side seats of truck, two layers of tins could be carried therein, which made a load of 140 cans, or about 700 gallons, sufficient to refuel a Pursuit or Attack Squadron after an average mission.

In filling the tins, the gasoline was first taken from the station aqua system, then passed through a field servicing truck in order to gain the advantage of two segregations which would eliminate the slow process of filtering the gasoline at the airplane to be serviced. During all filling operations, the tins were bonded to a ground.

The 19th Pursuit Squadron conducted its refueling test in the field under simulated war conditions, the airplanes being dispersed around the airdrome. A gas park was established about 50 feet from each airplane, and the cans were covered with canvas to protect them from the weather and aerial observation. Each gas park was equipped with two spouts especially designed for this fueling operation, with a vent tube, a hose and a bonding wire. The first issue of gasoline was delivered during daylight to acquaint the supply personnel with the dispersed positions of the airplanes. Later deliveries were all made at night. It was found that with two man crews the entire squadron could be serviced with an average of 40 gallons of gasoline and two quarts of oil in 12 minutes.

The 6th Pursuit and the 26th Attack Squadrons conducted their tests at Wheeler Field. With the same equipment that was used by the 19th Pursuit, the week's test by the 6th Pursuit showed that, using three man crews, the entire squadron could be refueled simultaneously in 10 minutes at the rate of 50 gallons per airplane.

The 26th Attack Squadron found it necessary to use different equipment because of the type of plane used, and employed an 8-foot length of fabric, rubber lined standard one-inch fuel hose, with metal tubing spout on one end and an air

vent filler cap on the other. Using two man crews, it was found that all planes could be serviced simultaneously at the rate of 4.6 gallons per minute per airplane, and with 4-man crews at the rate of 5.25 gallons per minute. The refueling of oil was comparatively slow, averaging 4 quarts per minute.

As for the actual mechanics of the refueling operations, several methods were tried, and the most successful for each type of plane is here described. With the P-32 plane, the 3-man crew was found to be the best. One man moved cans from park to right front of airplane and removed adapter spout from empty cans. One man screwed the adapter into full can and handed it to the man on the airplane, at the same time snapping the bonding wire onto the new can and the other end of this wire to the outlet of the carburetor heater. The man on the airplane can stand on the lower wing and wheel or straddle the nose of the airplane just in rear of the cowling. In either position he can balance the gasoline can on the upper wing and eliminate the necessity of holding aloft the 32-pound can while it drains.

For the A-3 airplane, the best method was to place the hose metal spout in the airplane fuel tank and allowing it to remain there during the entire refueling operation. The hose was run through the upper wing hand grip and a funnel with a one-inch opening and a 12-inch bell was then inserted in the end of the hose. The upper wing hand grip held the funnel in the correct upright position. The crew chief would stand in the front cockpit and empty the tin into the funnel. The assistant crew chief would stand on the ground and hand up the full tins and receive the empties, and by using two air vent filler cap spouts he would have a full tin always ready to be poured into the funnel. During all fueling operations the tins were grounded to the airplane by snap bonding wires. A Foamite extinguisher was kept in close proximity to every airplane being fueled.

The system of refueling from tins has many advantages, the saving of time being the most important. The process would be even more satisfactory during actual war conditions when the airplanes are parked in a camouflaged trench hangar. Refueling could be speeded up by furnishing oil in gallon cans instead of 5-gallon cans, as the spout on a gallon can could be inserted in the oil tank and the can would be light enough to be held in the draining position. With the 5-gallon can, the oil must either be transferred to another container, such as a gallon measure, or one man must hold the can aloft until the tank is full.

The preparation and preservation of the tins presented a problem. It was decided that the most satisfactory solu-

tion would be to paint the exteriors of the cans in camouflage colors and, when the cans were to be stored, to coat the interiors with a solution of gasoline and oil. The painting of the exteriors in camouflage colors not only protects the surface of the tins but reduces their visibility from the air, which greatly simplifies field concealment.

A great deal can still be done to improve the technique of this method of servicing. Experience based on the use of different types of airplanes and in different weather conditions is needed. A long step forward would be made if each unit in the Air Corps were to conduct a test of servicing from tins. The reports of the different units would give a fairly comprehensive picture of all the problems it is possible to meet, and would prepare the Air Force to operate under actual war conditions.

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BRITISH FLYERS VISIT KELLY FIELD

Squadron Leader Oddie and Flight Lieutenant Barnett, of the British Royal Air Force, visited the Air Corps Advanced Flying School, Kelly Field, Texas, on October 26th. After escorting these officers to the Attack, Bombardment, Observation and Pursuit Sections, the camera obscura bombing range and the miniature range building, they were entertained at luncheon at the Cadet Mess. In addition to the Kelly Field personnel attending this luncheon, General Eckfeld and Captain Beck, of the Massachusetts National Guard, were also present.

Following the luncheon, the British officers, with the Assistant Commandant of the Advanced Flying School, the Director of Flight Training, and Chiefs of the Training Sections, held a round-table discussion of various matters pertaining to the training of students in this country and in England.

Upon their departure from this field they expressed their appreciation of the courtesies extended to them during their visit.

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AERIAL GUNNERY TRAINING AT CHAPMAN FIELD

It is contemplated that certain combat units of the GHO Air Force will be sent to Chapman Field, Miami, Fla., for aerial gunnery training during the period November 15, 1935, to March 15, 1936. Officers and enlisted men from the Second and Third Wings will participate in this training.

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AIR RACES AT MIAMI, FLA.

The 8th Annual All American Air Maneuvers will be held at the Municipal Airport at Miami, Fla., for a period of three days, December 12-14, 1935.

MILITARY AFFAIRS COMMITTEE VISITS MARCH FIELD

March Field again drew applause from a Congressional Committee when the important Military Affairs Committee of the House of Representatives visited that station on October 26th and 27th. The Committee is completing a tour of military posts in the West.

Especially enthused was Chairman John J. McSwain, of South Carolina. "This is my first visit to March Field," he declared. "I find it to be in wonderful condition. Most wonderful of all is the pride that the officers and men apparently take in their training."

Though none of the members of the Committee would commit themselves as to future appropriations for March Field, Mr. McSwain was impressed by the congested conditions existing in the enlisted men's barracks and by the need for more buildings to house them. The crowded conditions are the direct result of the recent transfer of 350 enlisted men from Rockwell Field to March Field.

Honoring the members of the Committee, an air review of March Field's planes was held shortly after the party arrived from the Griffith Park airport in Los Angeles on October 26th. The day before the Committee had inspected Air Corps installations at the Long Beach airport and coast defenses of Fort MacArthur.

Units participating in the sky parade were the 17th Attack Group, in command of Lieut.-Colonel John H. Pirie, and the 19th Bombardment Group, commanded by Lieut.-Colonel Howard C. Davidson. The 19th Bombardment Group landed immediately after the review, thus giving the 17th sky room to perform the aerial gymnastics for which it is so well known. Among the sky antics were the figure eight and the Group Lufbery Circle which have delighted Exposition visitors at San Diego since the Fair started last Spring.

In an address at Wing Headquarters which followed the Wing Review, Brigadier-General Henry E. Arnold made a strong appeal for more Pacific Coast air bases. He especially mentioned the need for one in the Pacific Northwest. The General pointed out that such a base would not only be strategic but would give outlet to March Field, now said to be quartered by 50 percent more men than can be taken care of with full training efficiency.

The need for an air base in Alaska was touched on by General Arnold. It was pointed out that establishment of an Alaskan base would establish the United States in control of the North Pacific from Alaska to Seattle to Hawaii, that is, with the provision that long range bombers be provided.

Forty million dollars would be suffi-

cient to equip the whole GHQ Air Force adequately, according to General Arnold.

Most spectacular of all the day's activities was the intricate searchlight practice and demonstration staged by Battery "A" of the 63rd Coast Artillery (anti-aircraft) from Fort MacArthur, Los Angeles, and six planes from the 19th Bombardment Group from March Field. The battery was in command of Captain Arthur B. Nicholson, C.A.C., while the 19th Bombardment Group planes were commanded by Lieut.-Colonel Howard C. Davidson.

The planes approached March Field in groups of two, one flying 100 feet above the other. They flew at a speed exceeding 200 miles an hour, making it difficult for the searchlight men to locate them. One minute later they were followed by two other planes, and one minute after by two more. The Congressmen appeared to be favorably impressed with the demonstration of skill on the part of the Coast Artillery and the Air Corps.

The Congressmen in the party were Messrs. John J. McSwain, Joseph Smith of Connecticut, John M. Costello of Hollywood, John Dockweiler of Los Angeles and Sam L. Collins, of Fullerton, Calif. The Committee was accompanied by Mr. Robert M. Frazier, Secretary.

After the speech by General Arnold, the Committee was entertained at luncheon at the Officers' Club. Among the guests was the Mayor of Riverside, Calif., Mr. E.B. Criddle.

Staying overnight at various officers' homes on the post, the Committee left for the Rockwell Air Depot on October 27th to inspect various projects there.

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AN AIR-MINDED STATE EXECUTIVE

After a few months' vacation from the air, Governor Clarence D. Martin, Commander-in-Chief of Washington National Guard troops, has again taken to the air, using ships of the 41st Division Aviation, Felts Field, Spokane.

Recently, Governor Martin found himself confronted with a heavy schedule of engagements in various parts of the State. He requested an airplane, which was piloted on a three-day trip by Lieut. E. Malstrom.

The Chief Executive of the State of Washington was taken off from a Department of Commerce Field in his home town, Cheney, and flown to Walla Walla to attend a meeting of the Pardon Board. He next visited the Grand Coulee power project on the upper Columbia River, where a C.W.A. Airport exists, and returned to Spokane. The remainder of his flight was from Spokane to Yakima.

Governor Martin has full confidence in all pilots of the 41st Division Aviation.

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B I O G R A P H I E S

LIEUT.-COLONEL WALTER R. WEAVER ✓

During the World War, a few months following his appointment as a Major in the Aviation Section, Signal Corps, Lieut.-Colonel Walter R. Weaver, Air Corps, was given the very important and most difficult assignment of organizing the Aviation Mechanics School at St. Paul, Minn. At this school instruction was given in fifteen branches of aviation mechanics to some 5,000 students. Col. Weaver began his duties as commanding officer of this school on February 14, 1918, and towards the close of the War orders had been issued directing that expansion and organization be completed so as to increase the enrollment to 10,000 students, so successful had been the operation of the school.

Born at Citadel, Charleston, S.C., February 25, 1885, Col. Weaver was educated at the Virginia Military Institute and the United States Military Academy. Upon his graduation from West Point, February 14, 1908, he was commissioned a second lieutenant and assigned to the 11th Infantry, serving with this regiment to July 1, 1910. He then served successively with the 28th, 24th, 5th, 22nd and 7th Infantry regiments. He was promoted to 1st Lieutenant of Infantry, December 4, 1915; to Captain of Infantry, May 15, 1917, and to Major, Aviation Section, Signal Corps, November 5, 1917. His first station in his new branch of the military service was at Wilbur Wright Field, Dayton, Ohio, where he reported November 22, 1917, and where he served successively as Executive Officer, Intelligence Officer and Commanding Officer.

On January 15, 1919, Col. Weaver took up his duties in the Supply Group, Office of the Director of Air Service, Washington, D.C., as Chief of the Mechanics Training Division. Later he was Chief of the Engine and Plane Maintenance Section, Supply Group, which he built up to a high state of efficiency.

In October, 1920, he began flying training at March Field, Riverside, Calif., upon the completion of which he was ordered to Kelly Field, Texas, for advanced training, qualifying as a Bombardment pilot and receiving his flying rating on April 27, 1921.

His flying training completed, Col. Weaver returned to the Supply Group, where he was assigned as Chief of the Property Requirements Division. In the period from December, 1921, to October, 1923, he commanded Mitchel Field, N.Y. and, despite many handicaps, among them shortage of commissioned personnel and lack of sufficient funds to effect needed improvements, brought the operation of this station to a state of efficiency such as to bring him commendation

from inspecting officers.

From Mitchel Field, Col. Weaver proceeded to the Boston Airport, where he was in command for several months. From February to June, 1925, he was a student at the Harvard University School of Business Administration, following which he assumed command of the Air Depot at Middletown, Pa., and served as such until May, 1927. After completing a special course of instruction in Air Corps Observation at the Advanced Flying School at Kelly Field, Texas, he took over the command of Maxwell Field, Montgomery, Ala. From January to May, 1931, he also served as Air Officer of the Fourth Corps Area.

Transferred to duty in the Office of the Chief of the Air Corps, Washington, Col. Weaver was assigned as Chief of the Plans Division January 13, 1932. From August, 1932, to June, 1933, he attended the Army Industrial College, Washington, and upon his graduation therefrom he was assigned to duty as Chief of the Information Division, Office of the Chief of the Air Corps.

In September, 1934, he was assigned to duty in New York City as Air Corps Procurement Planning Representative, and in April, 1935, he was transferred to duty with the Headquarters, GHQ Air Force, Langley Field, Va., as Chief Inspector.

During the time he was stationed at Maxwell Field, Col. Weaver, during the time of the great Mississippi River flood, in March, 1929, personally supervised flood relief activities for Southern Alabama, where the towns of Elba, Geneva, Brewton, Pollard, Keego, River Falls, Gantt, Flomation, Sparta and Castleberry had been inundated. Food and medical supplies to the extent of 27½ tons were delivered by airplanes of the 22nd Observation Squadron, Air Corps; the 106th Observation Squadron of the Alabama National Guard, and a flight of airplanes from Langley Field, Va., without a casualty.

At Maxwell Field, Col. Weaver planned and installed the finest cafeteria style mess for enlisted men in the U.S. Army, and it proved an instantaneous success. Several other Air Corps stations have adopted this mess system for enlisted men.

His principal interest in flying is in the field of Sea Frontier Defense. In Observation Aviation, his specific interest is in radio-controlled flights, he having personally directed the maneuvers of the different elements. He directed and planned a system of plane to ground contact work between the 22nd Observation Squadron planes and American Legion Posts in every section of the State of Alabama, this to be used in case of emergency, the pick-up and drop message panel system being employed.

Away from the cares and worries of offi-

cial duties, Col. Weaver has a number of hobbies to take up his spare time, his principal one being radio, in which he has performed a considerable amount of experimental work. He is the

inventor of a game called Chessair, combining the elements of flying with the conventional game of chess. With golf, his dogs and his motor boat, "he has nothing to do until tomorrow."

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LIEUT.-COLONEL WALTER H. FRANK, AIR CORPS

Lieut.-Colonel Walter H. Frank, Air Corps, became affiliated with Army aviation just 13 years ago when, as a Captain of Infantry, he accepted appointment as Major in the Aviation Section, Signal Corps, on November 4, 1917, whereupon he was assigned to duty with the Training Brigade at Kelly Field, San Antonio, Texas.

Col. Frank was born at Humphrey, N.Y., April 23, 1886. His graduation from the U.S. Military Academy on June 10, 1910, and his appointment as a second lieutenant of Infantry was followed by his assignment to duty at Plattsburgh, N.Y., where he performed company, battalion and regimental duty until August, 1913. For the next two years he was stationed at Madison Barracks, N.Y., following which he served a tour of duty for three years at Schofield Barracks, Hawaii.

Upon his return to the United States, Col. Frank was stationed on the Mexican Border for several months, and he was then assigned as student at the School of Arms, Fort Sill, Okla., where he remained until his transfer to the Aviation Section, Signal Corps. He received his promotion to 1st Lieutenant, July 1, 1916; to Captain, May 15, 1917, and to Major, October 23, 1917.

Col. Frank's stay at Kelly Field was brief, for on November 22, 1917, he entered upon his duties as Executive Officer at Ellington Field, Houston, Texas. He served as commanding officer of this post from July 19th to November 5th, 1918, in the meantime taking the regular course of flying training. He passed the required flying tests and received the rating of Junior Military Aviator, effective August 29, 1918. His administration of the Bombing and Gunnery School at Ellington Field brought him high commendation from the Director of Air Service.

In December, 1918, Col. Frank was transferred to duty in Washington and assigned as Executive of the Training

Section, Office of the Director of Air Service. From June to August, 1919, he was placed in charge of an extensive Air Service Recruiting Campaign, the success of which attested to his high executive ability. For several months he served as a member of the Advisory Board, and in November, 1919, he was detailed as a student at the Air Service Engineering School at McCook Field, Dayton, Ohio. Following his graduation therefrom on September 15, 1920, he returned to Washington and was on duty in the Office of the Chief of Air Service as Acting Executive Officer from October 10, 1920, and as Executive Officer from November 29, 1921, to September 22, 1924.

Assigned to duty as student at the Air Service Tactical School at Langley Field, Va., Col. Frank graduated therefrom in June, 1925, and from the Command and General Staff School, Fort Leavenworth, Kansas, in June of the following year. He continued his connection with school work by being then assigned as Assistant Commandant of the Air Corps Tactical School, and he performed this duty, as well as that of instructor, until his detail as a student at the Army War College in August, 1930. His graduation from this institution in June, 1931, was followed by a period of duty for four years in the Plans Division, Office of the Chief of the Air Corps.

On August 17, 1934, he was assigned to the command of Mitchel Field, L.I., New York, and of the 9th Observation Group. He was promoted to Lieut.-Colonel, January 1, 1935.

An officer of high professional attainments, Col. Frank has served in an executive capacity in various Air Corps maneuvers, and the manner in which he performed his duties brought him high commendation from his superiors. On numerous occasions he delivered lectures dealing with the tactical functions of the Air Corps, which also brought forth expressions of high praise.

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PONTIAC ENGINEERS CLUB VISITS SELFRIDGE FIELD

Members of the Pontiac Engineers Club, of Pontiac, Mich., 135 in number, visited Selfridge Field, Mt. Clemens, Mich., recently, and witnessed the routine flying training scheduled for the morning. The members of the Club were then conducted through the various

activities of the post, and had luncheon at the Officers' Club and the Post Exchange restaurant.

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Once more the News Letter invites those handy with pen or pencil to submit cover design sketches.

THE command of all the air forces of the U.S.S.R. is exercised by the Chief Air Force Administration who functions under the People's Commissariat for Defense. An Inspectorate of Civil Aviation, independent of this administration, is also directly responsible to Voroshilov.

Under the Air Force Administration are the Chiefs of the Air Districts who are in command of the air units located on the territory of each of the military districts (11 districts or regions), with the exception of the aviation schools which are subordinate to the Training Administration. These chiefs are the technical advisers of the military district commanders to whom they are attached.

From a tactical viewpoint the Air Force is organized into brigades of the autonomous Air Force, brigades of naval aviation and separate units.

Since 1931, the USSR has not furnished to the Secretariat of the League of Nations official information about the strength and composition of its Air Force. It is, nevertheless, possible to establish the existence of the following units, with the reservation of modifications which may have been made in this distribution but which will not perceptibly change the figures given below.

- (1) The Autonomous Air Force comprises 18 air brigades consisting of about 48 squadrons ("escadrilles").
- (2) The units cooperating with the Army consist of about 58 separate squadrons.
- (3) Naval aviation comprises 4 brigades consisting of about 19 groups ("escadres") as well as 18 separate squadrons insuring cooperation with the Navy.
- (4) The Air Force of the Caucasus and Volga, not organized into brigades, comprises about 5 groups and 7 separate squadrons.
- (5) A separate air wing (literally "group") consisting of 5 groups.

The total of these units is about 77 groups and 33 separate squadrons; in accordance with the missions assigned to aviation they are divided as follows:

- Pursuit units: About 26 groups and 24 separate squadrons (about 35%), approximating 1,000 airplanes.
- Bombardment units: about 31 groups and 2 separate squadrons (about 34%), approximating 400 medium and 310 heavy bombers.
- Observation units: about 22 groups and 56 separate squadrons (about 27-31%), approximating 1,000 airplanes.
- Attack units: about 4 groups and 1 separate squadron, approximating 400 airplanes.

The materiel of these units consists of about 3,000 planes in active service. The increase attained during 1934, in

relation to that of 1933, is about 45%. If the indications given recently by Tukhachevski, according to which the number of planes has increased by 330% since 1930, and the official figures published by the League of Nations, i.e., 750 Soviet airplanes as of January 1, 1931, are considered, the number of 3,000 planes seems to be near the truth. According to the figures published by the Soviet press, the number of planes which participated on May 1, 1934, in the various cities of the USSR was about 3,050, including 300 planes in the Far East.

The Special Far Eastern Army has one air brigade (4 groups and 5 separate squadrons and one naval air brigade (3 groups and 2 separate squadrons), altogether about 730 planes; these units are included in the above figures.

The location of the other brigades is as follows: 4 in the Leningrad M.D. (20 groups and 7 separate squadrons); 3 in the Moscow M.D. (10 groups and 11 separate squadrons), 3 in the White Russian M.D. (7 groups and 13 separate squadrons); 3 in the Ukrainian M.D. (7 groups and 14 separate squadrons); 4 in the Siberian M.D.; 2 in Central Asia; 1 in the Kazak Military Commissariat; and 1 in the Red Banner Caucasian Army.

The number of these units will soon be increased as the Five-Year Plan provides for a total of 5,000 planes organized into 93 groups; of these 4,000 planes are supposed to be in active service. The second five-Year Plan provides for the construction of 500 all-metal pursuit planes, 130 observation planes of a considerable range, 112 attack planes, 80 heavy bombers, and, for the Navy, 242 pursuit planes, 92 observation planes and 75 bombers. The construction of bombardment planes and large planes shows that the Soviet General Staff has adopted the doctrine of the Italian General Douhet.

A CORRECTION

On Page 7 of this issue of the News Letter, announcing changes among Air Corps noncommissioned personnel, the name of Technical Sgt. Herbert Michler is included among others promoted to the grade of Master Sergeant. In the issue of the News Letter of February 1, 1935, which contained a list of Technical and Staff Sergeants who, in the order of their standing, were eligible for promotion to the next higher grade, the name of Sergeant Michler was, through error, omitted from the list of eligibles for the grade of Master Sergeant and, instead, shown on the list of eligibles for promotion to the grade of Technical Sergeant. This noncommissioned officer has been a Technical Sergeant for some years, and his correct position should have been shown on the eligible list for Master Sergeant between the names of Sergeants Benj. J. Ping and Don W. Whiteside.

NEW CLASS REPORTS AT ADVANCED FLYING SCHOOL

A new class of students entered the Advanced Flying School, Kelly Field, Texas, for training on October 15th. This class consists of six officers of the Regular Army, 2 foreign officers, and 50 Flying Cadets, a total of 58 students.

Ground school for this class began on October 18th, and flying training on the 21st. These students were assigned to sections for training as indicated below:

Regular Officers

Capt. James B. Jordan, A.C. (O)
 2d Lt. Jerome E. Blair, II, Cav. (P)
 2d Lt. Robert N. Tyson, Inf. (P)
 2d Lt. Paul Burlingame, Jr., Inf. (B)
 2d Lt. Stanley J. Donovan, Inf. (B)
 2d Lt. Edward Flanick, F.A. (B)

Foreign Officers

Lt. Jose G.V. Ahumada (P) Mexican Army
 Capt. Jose C. Silva Muricy (O) Air Corps; Brazil

Flying Cadets

ATTACK SECTION

Robert S. Atkinson Reno, Nevada
 Glenn E. Brass Okemah, Okla.
 Nelson T. Brown Tulare, Calif.
 John H. Eakin Cambridge, Mass.
 Ryder W. Finn Hamilton Field, Calif.
 John S. Hardy Logansport, La.
 Edwin H. Hawes Victoria, Texas
 Elbert D. Reynolds Beaumont, Texas
 Roger M. Roberts Menlo Park, Calif.
 Kermit D. Stevens Portland, Ore.
 David Wade Minden, La.
 Earl Willoughby El Centro, Calif.

OBSERVATION SECTION

Robert F. Burnham Battle Creek, Mich.
 Russell L. Flolo Aberdeen, S. D.
 Bela A. Harcos Los Angeles, Calif.
 William Rethorst Piedmont, Calif.
 Robert W. Ryder Minneapolis, Minn.
 Russell T. Sutherland Champaign, Ill.
 Ernest F. Wackwitz Rockville Center, L.I., N.Y.
 Audrin R. Walker University, Ala.
 Beverly H. Warren Plainview, Texas
 John D. Whitt Austin, Texas

PURSUIT SECTION

Bertrand B. Bruce Los Angeles, Calif.
 Wilbur D. Camp Arlington, Texas
 Arch G. Campbell Fort Worth, Texas
 Chester W. Cecil, Jr. Abilene, Texas
 Wolcott A. Fariss Sacramento, Calif.
 William L. Hayes, Jr. Sacramento, Calif.
 Robert L. Johnston Bellevue, Penna.
 Ralph M. Kellogg Dover, Mass.
 Charles E. Kramer Fulton, Ky.
 Cecil P. Lessig Salina, Kans.
 Charles E. Marion Detroit, Mich.
 Robert C. Wood Haynesville, La.
 Harry B. Young Maxwell Field, Ala.

BOMBARDMENT SECTION

Kenneth G. Ames Bridgton, Me.
 Dalene E. Bailey Spokane, Wash.
 Kenneth A. Cavenah Helper, Utah
 William E. Creer Spanish Forks, Utah
 Harry L. Donicht Glencoe, Minn.

Kenneth H. Gibson March Field, Calif.
 Howard W. Helfert Sioux Falls, S. D.
 Lowell F. Johnson Lafayette, Ind.
 Charles E. Lancaster, Jr. Lexington, Ky.
 Clarence K. Longacre Williamsport, Pa.
 Robert L. Olinger Angola, Ind.
 Chris R. W. Reuter Waco, Texas
 Robert C. Sexton Los Cruces, New Mexico
 Willard E. Sherman Mt. Vernon, S.D.
 David H. Walker Sacramento, Calif.

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TEMPORARY PROMOTIONS

To Major

Captain George A. McHenry, Jr., assigned as commanding officer, 81st Service Squadron, Kelly Field, Texas, November 3, 1935.

Captain Signa A. Gilkey assigned as commanding officer, 4th Observation Squadron, Luke Field, T.H., November 7, 1935.

Captain James W. Spry assigned as commanding officer, 69th Service Squadron, Hamilton Field, Calif., November 11, 1935.

To Captain

1st Lieut. Shelton E. Prudhomme assigned as engineer officer, 66th Service Squadron, Nichols Field, P.I., November 16, 1935.

1st Lieut. Delmar T. Spivey assigned as engineer officer, 81st Service Squadron, Kelly Field, November 3, 1935.

To 1st Lieutenant

2nd Lieut. Millard L. Haskin assigned as communications officer, 99th Bombardment Squadron, Mitchel Field, N.Y., November 10, 1935.

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The duty assignments of the following-named Air Corps officers, holding temporary increased rank, were changed. No changes of station are involved, and officers retain temporary rank:

Captain Frederick L. Anderson, Jr., from duty with Station Complement to Flight Commander, 9th Bombardment Squadron, Hamilton Field.

Captain Walter R. Agee from 11th Bombardment Squadron to Flight Commander, 88th Observation Squadron, Hamilton Field, November 18, 1935.

Captain Richard I. Dugan from 88th Observation Squadron to Flight Commander, 11th Bombardment Squadron, Hamilton Field, Calif., Nov. 18, 1935.

Captain Richard C. Lindsay from 9th Bombardment Squadron to Flight Commander, 88th Observation Squadron, Hamilton Field, Calif., Nov. 18, 1935.

Captain George W. Mundy from Engineer Officer, 66th Service Squadron, to Supply Officer of this squadron, Nichols Field, P.I., Nov. 16, 1935.

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Air Corps officers who recently received permanent promotion to the rank of Major, as of November 1, 1935, were Captains George P. Johnson and Clyde V. Finter.

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Major Hez McClellan, Air Corps, is relieved from assignment, duty and temporary rank with the 14th Bombardment Squadron, Bolling Field, Nov. 18, 1935, and assigned to Wright Field, O.

V-6898, A.C.

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THE MITCHELL TROPHY RACE
By the News Letter Correspondent

The eleventh contest for the John L. Mitchell Trophy was held at Selfridge Field, Mt. Clemens, Mich., on Saturday, October 19th. The weather was ideal for the occasion and a crowd of approximately 40,000 witnessed the event. The City of Mount Clemens cooperated with the personnel of Selfridge Field in planning and advertising the races. The assistance of the Michigan State Police proved invaluable in handling the traffic. A considerable portion of the proceeds will be given to the Mount Clemens Community Fund and the Army Relief Society.

An interesting air program was staged which started at 11:00 a.m. and ended at 4:30 p.m. The final event was the John L. Mitchell Trophy Race, which was won by Captain Karl G.E. Gimmler, who averaged 212.596 miles per hour for the 100-mile course.

The ten competitors in this race used P-26A airplanes, and averaged speeds as indicated:

Captain Karl G.E. Gimmler,	212.596 mph.
1st Lt. Jarred V. Crabb,	211.930 "
Maj. Warren A. Maxwell,	211.439 "
Capt. D.C. Doubleday,	211.027 "
Capt. Lee Q. Wasser,	209.733 "
Capt. Paul M. Jacobs,	209.595 "
Capt. Norme D. Frost,	208.540 "
Capt. Earle E. Partridge,	208.400 "
Capt. Dixon M. Allison,	207.800 "
Major Edwin J. House,	206.317 "

It was necessary to place a wedge in the throttle stop to prevent excessive manifold pressure being attained, and the possible speed of the airplanes in the event was reduced accordingly.

The Junior Birdmen speed dash was won by 2nd Lieut. George A. Hatcher in a P-26A airplane, at an average speed of 244.518 m.p.h. over the mile course.

The Curtiss-Wright Trophy Race was staged by six pilots from the 8th Pursuit Group, Langley Field, using P-6E airplanes. This event was won by Lieut. C.B. Harvin at an average speed of 194 miles per hour.

All events were on schedule, with the exception of the mass parachute jump, which had to be omitted from the program in the afternoon on account of the strong wind.

Excellent air discipline was displayed by all pilots and, as a result, no accident of any kind marred the show. The interest displayed in the event by flyers, military as well as civilian, was demonstrated by the fact that 75 visiting pilots registered at the field during the day. Among the distinguished guests who attended were General Frank M. Andrews; General H.C. Pratt; General William Mitchell, the donor of the Trophy; General S.D. Embick, General A. W. Robins, Colonel Edward

Rickenbacker; Major James H. Doolittle; Mr. Gar Wood and "Hell Roaring" Jones from Miles City, Montana.

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CAUSE OF CRASH OF THE BOEING BOMBER

The findings of the Board of Officers convened at Wright Field, Dayton, Ohio, to investigate the cause of the crash on October 30, 1935, of the Boeing Aircraft Company Bombarment plane, model 299, were to the effect that the accident was not due to structural failure, or to the malfunctioning or failure of any of the four engines, the airplane control surfaces or the automatic pilot, but to the locked condition of the rudder and elevator surface controls (primarily the latter) which made it impossible for the pilot to control the airplane.

These findings were based on the locked condition of the controls after the crash; the testimony of Lieut. Donald Punt, co-pilot; of Mr. Leslie R. Tower, Boeing Aircraft Co. test pilot, as to the behavior of the airplane in the air, and the testimony of eye witnesses as to the behavior of the airplane on take off and in flight.

From the evidence submitted the Board reached the conclusion that the elevator was locked in the first hole of the quadrant on the "up elevator" side when the airplane took off, for had the elevator been in either of the "down elevator" holes on the quadrant or the extreme "up elevator" hole, it would have been impossible for the airplane to be taken off in the former case, and in the latter case the pilot could not have gotten into the seat without first releasing the controls. With the elevator in this position they are inclined at an angle of 12½ degrees.

During the take-off run the airplane could not assume an angle of attack greater than the landing angle of the airplane (7½ degrees) plus the angle of incidence of the monoplane wing to the fuselage (3 degrees) or a total angle of 10½ degrees. This would not be particularly noticeable to the pilot during the ground run.

However, as soon as the airplane left the ground, which several witnesses testified was in a tail low attitude, the elevators, with increasing power, varying as the square of the air speed (approximately 74 miles per hour at take-off), tended constantly to increase the angle of attack, until the stall was reached. The serve tab on the elevator also tended to aggravate this extreme tail heavy position, since with locked elevators, and the pilot pushing forward on the control column, the serve tabs wore up, and themselves acted as small elevators on the fixed elevator proper.

Due to the size of the airplane and the V-6398, A.C.

inherent design of the control system, it is improbable that a pilot, taking off under these conditions, would discover that the controls were locked until too late to prevent a crash.

The locked condition of the controls was due either to the possibility that no effort was made to unlock the controls prior to take-off, and as a result the controls were fully locked; the possibility that the pilot only partially depressed the locking handle and as a result the locking pin was only partially withdrawn from its hole in the face of the locking quadrant; or the possibility that the locking handle was fully depressed prior to take-off and, due to the malfunctioning of the system, did not fully disengage the locking pin. There was no evidence to show that the system had ever malfunctioned, but due to the inherent design it must be considered as a possibility.

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GUARDSMEN OBSERVE NAVY FLIGHT OPERATIONS

"Gang way for the Navy!"

And the 41st Division Aviation, Washington National Guard, Spokane, stepped aside while three airplanes from the U.S.S. SARATOGA took command of the situation on the recent Navy Day celebration.

Leading the flight from Bremerton navy yard was an Amphibian and two Navy Scout planes. Accompanying Rear Admiral T.F. Craven and his party to Spokane by train was Commander Robert Molten, Executive Officer of the SARATOGA. Commander Molten and Major Robin A. Day, commander of the 41st Division Aviation, served together in the Canal Zone, and therefore found a great deal in common as they renewed acquaintances and discussed military aviation. Particularly interesting to officers of the National Guard Squadron was the description of the airplane Carrier by pilots on the flight and the hangar demonstration of the use of the "Navy hook" in landing on deck.

It was stated that the U.S.S. RANGER, carrier, will make a cruise into northern waters this winter for the purpose of experimenting with landings and take-offs from the icy deck of the Carrier. This was said to be the most serious problem confronting Naval Aviation on the Carriers. It was stated that on an icy deck take-offs are extremely difficult, because the pilot has little control over his airplane, while the landings are easier as a result of the tail-skid "hook" which pulls down the airplane as it nears the deck.

Officers of the SARATOGA extended an invitation to officers of the 41st Division Aviation to visit the Carrier while it is in dry dock, promising to explain all the operations "aboard ship."

TEMPORARY PROMOTION OF AIR CORPS OFFICERS

To Lieutenant-Colonel

Major Edmund W. Hill assigned as Air Officer on the staff of 6th Corps Area Commander, Chicago, Ill., November 13, 1935.

To Captain

1st Lieut. Lawrence H. Douthit assigned Flight Commander, 95th Attack Squadron, March Field, November 13, 1935.

1st Lieut. Guy F. Hicks assigned Flight Commander, 34th Attack Squadron, March Field, November 13, 1935.

1st Lieut. George H. Sparhawk assigned Flight Commander, 51st Attack Squadron, Maxwell Field, Ala., November 13, 1935.

1st Lieut. John B. Ackerman assigned Flight Commander, 86th Observation Squadron, Maxwell Field, Ala., November 13, 1935.

1st Lieut. Joseph A. Bulger assigned Flight Commander, 33rd Pursuit Squadron, Langley Field, Va., November 18, 1935.

1st Lieut. Stuart G. McLerman assigned Flight Commander, 37th Attack Squadron, Langley Field, Va., November 18, 1935.

1st Lieut. Richard A. Grussendorf assigned Flight Commander, 37th Attack Squadron, Langley Field, Va., November 18, 1935.

To First Lieutenant

2nd Lieut. Edward J. Hale assigned Engineer Officer, 87th Pursuit Squadron, Maxwell Field, Ala., November 13, 1935.

2nd Lieut. Daniel I. Moler assigned Engineer Officer, 86th Observation Squadron, Maxwell Field, Ala., November 13, 1935.

2nd Lieut. Clayton B. Claasen assigned Transport Officer, 84th Service Squadron, Maxwell Field, Ala., November 13, 1935.

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Captain Edgar A. Simyer, Jr., was relieved Nov. 18, 1935, as Flight Commander, 33rd Pursuit Squadron, Langley Field, and assigned as Intelligence and Operations Officer of this squadron.

Captain Raymond Morrison was relieved from assignment and duty with the GHQ Air Force at Hamilton Field and directed to report to the Commanding Officer of that field for duty with the Station Complement.

Major Arthur G. Hamilton was relieved from assignment, duty and temporary rank with the 89th Service Squadron, Hamilton Field, and assigned as Operations Officer, Station Complement, at that field.

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ORDNANCE OFFICER VISITS BARKSDALE FIELD

Brigadier-General Edward M. Schinkle, Assistant Chief of Ordnance, arrived on November 4th at Barksdale Field, La., from Langley Field, Va., in a large Douglas Amphibian plane, after a non-stop flight of approximately seven hours.

General Schinkle spent two days at Barksdale Field inspecting those features thereof in which he was interested.

"AND I LEARNED ABOUT FLYING FROM THAT."

Frequently the News Letter will publish unsigned articles on this subject with a view to providing two or three minutes of entertainment for the reader and at the same time convey some useful lesson or moral. Contributions will be gratefully received by the Office of the Chief of the Air Corps. In keeping with the policy of the majority of publications that anonymous material is not desired, each article submitted should be signed by the writer.

Any experience in your flying career, the narration of which might aid other pilots, will be a worth while contribution and may actually avert pain, disappointment and expense.

Twelve o'clock noon, and I gazed from the cockpit of my C-38 airplane through a brown world at a thin, scarcely discernible line some seven or eight hundred feet below. It was parallel to my path of flight, because I was following it intently. It was only a country road running parallel to the Pasotex pipe line leading from Wink, Texas, to that oasis known as El Paso.

Gradually the shade of brown deepened and I knew beyond all doubt that a Texas dust storm was at hand. The little radio station in the Guadalupe Pass gave a visibility report of one-eighth of a mile, with heavy dust clouds all around. I looked again at the pipe line and suddenly craved to return to Midland, a hundred miles behind. At about the same time I decided to check my fuel supply. Dust and a reflecting gauge glass accounted for a few seconds with my eyes inside the cockpit. When I again looked below, the road and pipe line were gone. Only brown atmosphere was there. I eased down a couple of hundred feet, but did not hunt the road longer for fear I might find it. I was not experienced enough to venture down through, so I nosed her up and in the general direction of El Paso.

Ever rougher and rougher became the air, and at times it seemed as if it would be impossible to get straightened out without the use of the bank and turn indicator. But eventually everything comes to an end, and the brown clouds became thinner and thinner, and in a moment I popped out into brilliant sunlight. I glanced at the altitude meter and it registered just under 14,000 feet. I could hear the reassuring calls of the beacon from El Paso, and noted the broadcast gave a visibility of 30 miles. A moment or two later the same voice stated: "This station will be off the air until further notice."

The previous compass course was followed, and after what seemed like a long

time an old salt flat and a hill nearby became visible. A little bit later it was noted that I was from 12 to 14 miles off my course.

Eventually, El Paso came into view, and the old balloon hangar with the Army's largest sign was, indeed, a welcome sight. Somewhere in the thick dust clouds behind me was the entire range of the Guadalupe Mountains, Guadalupe Pass, radio station and all.

From this little incident I learned that one should be very careful about determining the exact course while the radio beacon is with him. My large error in navigation was probably due to drift for which I had not corrected at the proper time.

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JAPANESE OFFICERS VISIT SELLERIDGE FIELD

Eight officers of the Imperial Japanese Army, having been authorized by the War Department to visit the First Pursuit Group, Selleridge Field, Mich., arrived on the post at 10:00 a.m., October 30th. The group included Major-General S. Ito, Lt.-Cols. Y. Sakaguchi, T. Ogawa, Majors S. Yenosawa, Y. Kimura, I. Imagawa, M. Kanda, and Engineer K. Miura. Lieut.-Colonel Royce met the party at the main gate upon its arrival, and greeted the General with a salute of thirteen guns. Luncheon was served the party at the Officers' Club, after which the Japanese officers were conducted over the post and afforded the opportunity of witnessing flying training, following which they departed for Detroit.

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SUPPLIES FOR THE FIRST WING MANEUVERS

A total of 142 tons of bombs and 253,000 rounds of caliber .30 ammunition is being used in the maneuvers of the First Wing Nov. 4-17 in the San Joaquin Valley. This was disclosed by Major Ray A. Dunn, Supply Officer of the 1st Wing, who further stated: "We will use 1170 fifty-pound bombs during this maneuver and 2203 one-hundred-pound bombs. The bombing will all be done on the Maroc Dry Lake Range on the Mojave desert. Only a small charge of explosive will be used, as accuracy in making hits will be the prime consideration."

The camps are being supplied with food through the medium of the service squadrons, they in turn securing the edibles through the advanced depots at March and Hamilton Fields. It was determined that over 125,000 gallons of gasoline and 17,214 gallons of oil will be used by airplanes participating in this maneuver, the expense of which being covered by utilizing funds normally used in the home posts. No additional expenses are incurred.



AIR CORPS FIELDS

San Antonio Air Depot, Duncan Field, Texas.

Congressman John J. McSwain, of South Carolina (Chairman), and Congressmen J. Joseph Smith, of Connecticut, and John M. Costello, of California, of the House Military Affairs Committee, with their Secretary, Mr. Robert Frazier, visited this Depot on October 31st during a two-day stop in San Antonio on their recent air tour of inspection of the military stations of the United States in connection with the Army improvement program. They were accompanied on this visit by Congressman Maury Maverick, of this District; Major-General Johnson Hagood, 8th Corps Area Commander; Brigadier-General James E. Chaney, Air Corps Training Center Commander, and Mr. L.B. Clegg, Chairman of the San Antonio Chamber of Commerce Military Affairs Committee.

Captain S.L. Umstead, of Wright Field, flying a C-4, with Congressman Tilman P. Parks as passenger, was forced down at Amarillo, Texas, on October 28th, with engine trouble, and civilian mechanics Stone, Milhan and Gast, piloted by Master Sergeant C.P. Smith, were sent from this Depot by air to make the necessary repairs. Congressman Parks, of the House Appropriations Committee, was returning from his recent nation-wide air tour of inspection of military stations.

Major Benjamin F. Giles, Air Corps Instructor with the California National Guard, Los Angeles Airport, piloting an O-43A to Houston, Texas, passed through here October 30th and greeted old friends at the Depot. Major Giles was formerly Technical Supervisor of this Control Area.

Second Lieut. Ainsley E. Stuart, Air Res., of the 8th Corps Area assignment group and a resident of San Antonio, reported November 1st for a 14-day active duty training tour at this Depot. In civil life Lieut. Stuart is an aviator for the Mexican Government.

Mr. D.L. Garber, Instrument Instructor with the Sperry Gyroscope Company, Brooklyn, N.Y., arrived at the Depot on October 23rd for a visit of several days, conferring with the Depot Engineering Department on Gyroscope maintenance matters.

This Depot is making repairs to the EC-13 airship, commanded by Captain L.A. Lawson,

which landed at Brooks Field on October 26th enroute to the new Air Corps station, Moffett Field, Sunnyvale, Calif., and which sustained considerable damage in an attempted take-off from Brooks Field on the 29th. Two civilian experts are being sent from Scott Field, Ill., to supervise the repairs.

Selfridge Field, Mt. Clemens, Mich., Oct. 31.

The quarterly test of airplanes with full military load was conducted by the 1st Pursuit Group on October 30th. Upon completion of the flying mission in this connection there was a ground inspection by the Group Commander of all airplanes, with crews standing by, on the hangar line.

Having been appointed a member of the board appointed to meet at Wright Field, Ohio, to evaluate as to the utility of characteristics of certain Pursuit airplanes, Lieut.-Colonel Ralph Royce, Commanding Officer, departed from this station on October 21st for that station, returning on the 24th.

Hamilton Field, San Rafael, Calif., Oct. 31.

Keynoted by a spirit of sportsmanship and fair play, the second in the series of boxing programs, sponsored by the Hamilton Field Recreation Committee, was staged on October 25th to an appreciative and near capacity crowd of 1250 people. These programs are doing much to promote good will and understanding between the military personnel and the many civilians who attend the fights.

Meeting the Petaluma Tennis Club on the local courts on October 27th, the Hamilton Field Tennis Team won a decisive victory from the racquet wielders from the Egg City. Boasting a well balanced team and four beautiful courts for match play, the soldier team feels that it is now in a position to challenge the best in the country.

Lewis and Brosius, the number 1 and 2 players for the soldiers, played consistently steady tennis to defeat their opponents. The doubles team from the field clinched the match by winning all of their scheduled games. Overcoming the stubborn resistance of a plucky Petaluma team, the soldiers' doubles team swept on to victory due to their stormy of-

fensive playing. A return match is expected in the near future.

Private Richard E. Smith, 70th Service Squadron, died at the Station Hospital on Oct. 29th, as a result of injuries sustained when struck by an automobile near Hamilton Field.

First Lieut. Millard Lewis was appointed Supply Officer, Miscellaneous Troops.

Captain F.L. Anderson, Jr., was relieved as Post Nursery Officer and Officer in Charge of SERA activities.

Langley Field, Va., November 6th.

The personnel of the 30th Bombardment Squadron deeply regret the death of Flying Cadet Frank W. Brandle, who was fatally injured in a crash while flying a BT-21 type airplane at Smithfield, Va., on October 30th.

Flying Cadets W.E. Thayer and C.E. Boehman recently arrived at this station and were assigned to the 30th Bombardment Squadron for training.

Captain Glen O. Bensus recently reported to the 37th Attack Squadron for duty. He having been stationed in the Hawaiian Department.

Barksdale Field, Shreveport, La., Nov. 9th.

Mr. Waddell Smith, of the Lincoln Life Insurance Company of Fort Wayne, Ind., honored Barksdale Field by presenting a beautiful and very valuable "lover and rater" shot gun to the Post to be used as an annual Trophy for skeet shooting by all officers of the command. The gun remains the property of Mr. Smith and is to be returned to him or his heirs in September, 1939. The winner of the annual skeet shoot is given possession of the gun for one year, and no one can win it for two consecutive years. The contest was held on October 29th and 30th on a handicap basis. Thirteen birds out of 25 were required to qualify, and the handicap was set at one half of the distance between qualifying score and 25. The second day's shoot was between those qualifying on the first day.

On the basis of 50 targets, Colonel Gerald C. Brant and Major Roy W. Carblin were tied with scores of 43. In the shoot-off, Major Carblin scored 26 (23 plus handicap) against Colonel Brant's 24, and is announced as the 1935 winner. The scores of the first nine officers were as follows:

Name	Score	Handicap
1. Major Carblin	46	3
2. Colonel Brant	46	3
3. Lieut. Burdalter	45	5
4. Lt.-Colonel Hanson	44	5
Captain Smith	44	4
5. Major Percy	43	6
Lieut. Carver	43	4
6. Captain Baxter	42	6
Lieut. Coutlee	42	5

Sunday, November 10th, was set aside for an aerial demonstration in the expectation of raising considerable funds to be distributed between the Army Relief Fund and local Communi-

ty Chest and Red Cross Chapters. A large attendance was anticipated, as the community is very air-minded and has taken an active interest in Barksdale Field ever since it was first occupied. It was planned to include in the aerial program firing of machine guns and dropping of bombs at ground targets by both Pursuit and Attack formations, in addition to the usual features of such exhibitions. It had just been learned that General Andrews is enroute to Barksdale Field and the hope was expressed that he would be able to remain and view the demonstration.

Richards Field, Kansas City, Mo.

A hunting trip by our PO, our genial and sharp-shooting Field Manager and various others yielded several Pheasants, gobs of wet feet and plenty of bacon and eggs. The fields were so wet that our PO couldn't use his usual method of running down the birds.

Our annual Halloween Party was, for some unknown reason, not.

The active duty season being over, approximately 75 of our Reservists are very busy qualifying for promotion via the Extension School route.

In the good old days Ye Scribe remembers an outfit in good old New England that used to haze us Cowboys about our flying. How about it? Can't you all navigate these new issue pencils?

Johnny Hanson, Duke Hillman and Tony Hunter all returned safely from the Air Corps Reserve Convention.

Notice to visiting pilots who desire 40-hour checks at this station: Please arrive equipped with a good eraser so that we can erase the red diagonals from our own charts.

Kelly Field, San Antonio, Texas, November 14th.

The first game of the 1935 season in the Army Football League, 8th Corps Area, was played at Kelly Field on October 30th, between Kelly and Randolph teams. Randolph was known to have a good team, and Kelly, which won the championship last year, was on the short end of the betting. However, by playing real college football, Kelly managed to come out on top with a 14 to 0 victory. Coaches of other teams in the League are now planning to point their team for games with Kelly Field. It took Randolph's best battling to keep the score down to 14 points, as Higginbotham, et al, romped through holes opened by Kelly's extremely good forwards, including the "Methusalem of the Redskins," Corporal Sigmond Mlynosak, who has been playing army football Laraments since the World War.

Higginbotham's runs and passes were features of the game. He threw a pass to Fetleffs for the first tally in the opening quarter and passed to Lewis for the other in the second period. Randolph got going once - at the close of the second quarter, but the whistle stopped the Ramblers as they neared the Kelly goal.

The starting lineups were: Randolph - Thomas, l.e.; Becker, l.t.; Dawdy, l.g.; McDonnell, c.; Turner, r.g.; Thurman, r.t.; Gillanders, r.e.; Cloat, q.b.; Christie, l.h.; Wright, r.h.;

Lamb, f.b. Kelly Field - Cheek, l.e.; Mylaczak, l.t.; Beare, l.g.; Hallowell, c.; Flagler, r.g.; Wallace, r.t.; Detleff, r.e.; Lyons, q.b.; Jones, l.h.; Fozniak, r.h.; Higginbotham, f.t.

In the second game of the season, Nov. 2nd, at Fort San Houston, Brooks Field won from the 12th Field Artillery by a lopsided score.

The Kelly Field team is being coached by Captain Wallace E. Whitson, assisted by Lts. Edward J. Timberlake and Richard A. Legg.

The Bowling League at Kelly Field is progressing nicely, with the 40th Attack Squadron leading the way. Interest is very keen, and some of the teams now near the bottom promise to give the best of them a battle before it is all over.

Air Corps Tactical School, Maxwell Field, Ala.

On October 25th, the Air Corps Tactical School closed down activities as much as possible and joined forces at the athletic field to participate in the first Track and Field Meet held in over a year. A beautiful trophy was the reward to the organization compiling the most points of the meet. Each track event and the Kitten-Ball and Volley-Ball Leagues were allotted points for first, second, third and fourth places. All track events were completed in the morning, and at noon the 87th Pursuit Squadron was ahead of the field by several points.

The A.C.T.S. Det., working their way to the finals, were playing the 84th Bomb. Sqdn. in both the Volley Ball and Kitten Ball finals to cop the coveted Trophy, and "were out to win." The first Volley Ball game went to the 54th, but the A.C.T.S. Det. took the next three, winning 30 much needed points. The 30 points awarded the winner of the Kitten Ball game would win the Trophy for the Detachment, and win it they did, scoring six tallies against four for the 54th.

The Field Meet was declared a big success by all the personnel at Maxwell Field. Capt. Hughes, Post Athletic Officer, was awarded a vote of thanks for his untiring work, and thanks were extended all those helping to make the meet such a success.

The A.C.T.S. Det. accumulated 85 points; 54th Bomb., 61; 84th Service Sqdn., 60; 87th Pursuit, 46, and 86th Obs. Sqd., Spare Parts, and 51st Attack a lesser number. The 24th Inf. Band from Fort Benning furnished very much appreciated music throughout the Track Meet, and then assembled in Hangar #6 at 8:00 p.m., and furnished music for a dance for the enlisted personnel of the Field until midnight.

Hawaiian Air Depot, Luke Field, T.H.

The fourth birthday or Organization Day of the Depot on July 1, 1935, passed without any celebration, due to a number of reasons, chief among them being a tremendous amount of work. It was decided, however, to observe and celebrate Organization Day on October 19th with a picnic for the entire Depot at Kailua, on the

leeward side of the Island of Oahu, and to stage a program of athletic events and entertainments for the approximately 600 people expected to attend.

Since the recent reorganization of the Supply Department, all employees have "shaken down" in their new assignments, and things are going along very smoothly. It is particularly gratifying to note the close cooperation and coordination developed between the Supply and Engineering Departments. The matter of anticipating supply requirements has been worked out in a most satisfactory manner and will, it is believed, result in improved production figures.

Luke Field, T.H., October 17th.

505th Obs. Sqdn. A six-plane formation participated in the Aerial Review for the Secretary of War on October 4th.

First Lieut. Emory S. Wetzel was appointed temporary Captain Oct. 2nd, and assigned as commander of the second flight.

Flotation gear was installed on all planes preparatory to making inter-island flights on October 5th and 6th. Lieut. R.A. Stunkard was checked off as Amphibian Pilot and designated to fly the Amphibian on the squadron's inter-island flights.

The Squadron, led by Major L.V. Beau, Jr., with a 9-plane formation, took off at 8:00 a.m. October 10th for an inter-island flight to Nihoa and Kauai. After spending the night at Port Allen, the flight returned to Luke Field on the morning of the 11th.

The Communications Department has produced, under the technical supervision of Lieut. Stewart, what we believe to be the "Master Brain Child" of the season. Constructed from such material as old telegraph relays, phonograph springs, and the like, we find that a distinct note may be read from various positions while flying over Luke Field. This masterpiece is a so called "Beacon Transmitter" and we must add, with due respect to the constructive genius of the department, that it is an odd gadget, but it works, and that factor alone compensates the boys in the radio department for their hours of toil.

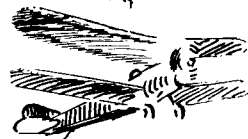
4th Obs. Squadron: The Squadron recently participated in the Departmental Review for visiting Congressmen at Schofield Barracks, T.H. All available men not needed to crew the participating ships were paraded on foot.

A flight of 12 planes, with 12 officers and 12 enlisted men, under command of Major F.H. Pritchard, made an Inter-Island flight to the Island of Maui to familiarize personnel with outlying fields, terrain, servicing facilities and discipline away from home airdrome.

The Squadron finished its course in pistol marksmanship, qualifying 50% of the men in the organization, with a good percentage of experts.

23rd Bomb. Squadron: Lieuts. Maurice C. Bissen, Operations Officer, 23rd Bombardment, and Joseph J. Ladd, leader of Flight "B," were temporarily promoted to Captain on October 1st. The Squadron led a Wing Review in honor of the Secretary of War.

AIR CORPS



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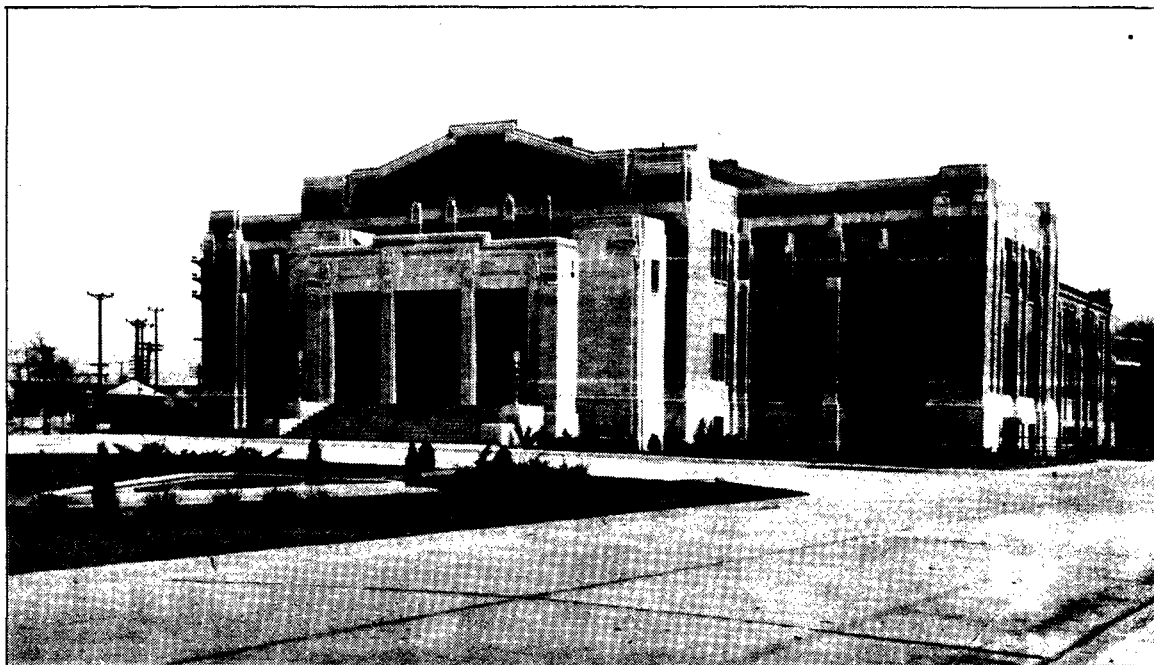


NEWS

LETTER

Issued by the Chief of the Air Corps
Washington, D. C.

November 1, 1935.



Army Aeronautical Museum, Wright Field

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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ARMY AERONAUTICAL MUSEUM AND TECHNICAL DATA BUILDING

By Marguerite Jacobs Heron



NEW STRUCTURES appear periodically about a growing Air Corps field. During the past year there has been erected at Wright Field, Dayton, Ohio, a building of dignity and beauty for the housing of the Army Aeronautical Museum

and the technical Data Branch, the latter being responsible for the editorial, library, ground photographic, moving picture, statistical, publication, and public relations functions of the Materiel Division.

Constructed of stone and buff brick, there is a hint of early Egyptian in the design of pillars and facade, although window arrangements and general construction are thoroughly modern. The war eagle, or conventional thunder bird, the Air Corps wings crossed by a propeller, the conventionalized wings with shield are used effectively in the decoration of facade and cornices.

Just inside the building is a foyer leading into the main rotunda. Color combinations, architectural design, and the materials employed conspire to give the immediate impression of an impressive, dignified, and purposeful interior. The floor is of terrazzo with brass inlays, and varying shades of color are used to accomplish effective designs. The four points of the compass are marked in circular effect beneath the dome which centers over the rotunda and extends the full two stories of the building in height.

Walls are of walnut veneer, with doors and frames of aluminum worked in appropriate patterns. All lighting fixtures are of aluminum, those on the side walls being conventionalized bombs about 5 feet in height, nose down, tails and finials to the top, with frosted glass sides. The grays touched by deep green bands of the floors, silver tones of doors and lighting fixtures, brown of walls are softened and enhanced by ceiling motifs worked out in soft grays, blending into cream and tans.

Three main apartments lead off from the rotunda. Immediately to the rear is the Army Aeronautical Museum. Above the double doors leading therein is an aluminum clock set in wings. This room,

which extends the full height of the building, with sky as well as side window lighting, measures 115 by 141 feet. A full-size Bomber, a Curtiss skeletonized Pursuit, and a wartime Nieuport take but a seemingly small amount of this space. A reduced size model of the first airplane to accomplish flight, with a figure representing that of Orville Wright lying on the wing, is but one of the hundreds of interesting items to be seen in the collection which, although not yet arranged for public visiting, has aroused intense interest of all who have been permitted a showing.

It is a large task to move a museum, involving special arrangement of hundreds of small items, special labeling of each, special stands and cases for proper preservation and display, and all this has not yet been fully accomplished. An opening day, however, may be set for the early future, as the Museum is to be of the working type of organization which will be actually completed only with the completion of the growth of Air Corps aeronautics.

To the right of the rotunda lies the Aeronautical Library, a light, delightful room for reading and study, its tables, desks, wainscoting and furnishings of walnut, its book-stacks double-decked, built for expansion to 32,000 from the 8,000 technical volumes now placed within them. To the left of the rotunda lie the administrative office and the editorial unit.

The second floor contains the document room, library office for cataloguing and other book work, and offices and class rooms of the Air Corps Engineering School. The document room, directly above the library, is fire and burglar proof - the whole building is fireproof - containing in metal filing cabinets one of the most valuable possessions of the Air Corps; namely, the collection of technical reports and documents describing the technical research and tests engaged in by engineers since the beginning of the Air Corps technical organization. Historically and as a working aid in engineering projects, the importance of these documents cannot be overestimated, and they are drawn upon freely not only by Government organizations but by designers and engineers of the industry.

The basement, which extends under the

whole building and is a half floor above ground, contains besides the statistical unit, the photographic laboratories, museum shops, storage and shipping rooms, and space for the study of research collections. This basement is light and well ventilated, with floors entirely of concrete. The photographic laboratories have the latest equipment for still and motion pictures, including sound films. A small projection auditorium with screen is provided for tryouts and the study of technical motion pictures. A series of vaults take care of stored negatives. Printing and development laboratories are strictly up to date. Photostating is also part of the work of these laboratories, and the newest of modern photostating machines have been installed.

Part of the basement will be used for exhibition of motors, of which the Museum possesses a most interesting collection, including wartime and many experimental types of later days. Other exhibits too extensive for the main exhibition hall will be shown here.

The Army Aeronautical Museum has four major functions:

It is a museum of record. Aeronautical materiel and equipment are procured, classified, and permanently preserved as record to establish definitely the dates of inventions, development and production of such items. This information is of value in connection with patent applications, etc.

It is a museum of research. Exhibits are arranged in series showing the development of each class of objects with improvements and modifications that have occurred. This affords a basis for research by experimental engineers as they are able to study the prior art, avoid duplication of effort, and analyze operating principles from the actual objects.

It is a museum of education. The exhibits are so classified as to be readily available for educational purposes, especially in connection with the Air Corps Engineering School. The exhibits are also available for study by other students of aeronautical science.

It is a museum of history, being designated as a repository for items of historical interest pertaining to military aeronautics.

The Museum Building was erected from P W A funds at a cost of approximately \$255,000, including interior decorations and furnishings. Credit must be given to Captain Dache M. Reeves, Air Corps, for the vision which gave impetus to this important project and for the enthusiasm and energy which saw it through to completion. Major F. W. Wright, Chief of Maintenance, was in direct charge of the building procedure for the Air Corps. Pretzinger and Pretzinger, Dayton, Ohio, were the architects.

The Technical Data Branch and Museum

collections had barely been moved to the new quarters when Captain Reeves was called to foreign service. Major William J. Hanlon has taken his place as Museum Director and Chief of Technical Data Branch, General Robins, the Chief of the Materiel Division, being in direct charge.

It is believed that the Museum will be a mecca for the aeronautically minded for many years to come and will grow in value and usefulness to the Air Corps as well as to the aeronautical industry.

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INTERCHANGE OF AIR FIELDS BETWEEN THE ARMY AND THE NAVY

The jurisdiction of the War Department over Rockwell Field, Coronado, Calif., terminated on October 25, 1935, when the Navy Department took over this field. On the same date the jurisdiction over the Naval Air Station at Sunnyvale, Calif., was transferred to the War Department.

As a result of this interchange of air stations, a total of 14 officers and 279 enlisted men of the 19th Bombardment Group, Air Corps, was transferred to March Field, Riverside, Calif., viz:

Headquarters, 3 officers (1 attached) and 31 enlisted men.

30th Bombardment Squadron, 5 officers and 49 enlisted men.

32nd Bombardment Squadron, 2 officers and 49 enlisted men.

76th Service Squadron, 4 officers and 150 enlisted men.

The Station Complement at Rockwell Field, consisting of 6 officers and 179 enlisted men, will be divided between Sunnyvale and March Field, as may be determined by the Commanding General of the 9th Corps Area.

The 19th Airship Squadron, consisting of 2 officers and 118 enlisted men, will be transferred from Langley Field, Va., to Sunnyvale, Calif., the two airships of this squadron being flown across the continent and the remainder of the personnel and equipment shipped by transport from Newport News, Va., on the first transport practicable consistent with the other requirements of the Quartermaster General.

The Air Depot now at Rockwell Field will remain there until such time as arrangements can be made for its accommodation at some other place. Until the Air Depot is completely evacuated, the military personnel remaining at Rockwell Field will be based for Quartermaster and medical service and supplies on Fort Rosecrans.

The Army will be permitted to make use of the flying field at Rockwell Field for flying incident to the operation of the Air Depot, under such local regulations as may be prescribed by the Navy Department or by its representative.

The fixed harbor defense installations now at Rockwell Field will not be evacuated and the Commanding Officer, Harbor Defenses of San Diego, will at all times have

free access to such installations.

All buildings, permanent and temporary, and fixtures carried on historical records will be transferred to the Department assuming jurisdiction.

The lighter-than-air hangar and operating facilities thereon at Sunnyvale will not be dismantled, unless such action later is specifically authorized by the President. The Navy will define the lighter-than-air equipment and facilities involved. The Navy will retain responsibility for the maintenance of the lighter-than-air equipment not in use by the Army, such as the movable mooring mast and the stern beam. Navy personnel, by arrangement with the Commanding Officer of Sunnyvale, will have access to the equipment for this purpose.

The evacuation of the Air Depot at Rockwell Field will be progressive but as rapid as is consistent with the continued performance of its assigned functions. During this transition period, the War Department will occupy and utilize the facilities in certain areas which have been outlined.

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MEXICAN OFFICERS VISIT KELLY FIELD

The Mexican Military Mission, consisting of Lieut.-Colonel Luis Alamillo, Major Losano Bernal, Captains Gorza, Grajalles and Cassillas, visited Kelly Field on September 30th. These officers were received at Headquarters by Lieut.-Colonel H.H.C. Richards, in behalf of Colonel Jacob E. Fickel, the Commanding Officer, who was absent on a cross-country training flight.

The officers were then taken on a tour of inspection which included the Attack, Bombardment, Observation and Pursuit Training Sections; the camera obscura bombing range, and the indoor miniature range. The class of students in the Bombardment Section demonstrated the method of practice in bombing by use of the camera obscura. The Mission was very interested in this method of training a bomber. While at the miniature range, sample problems were "fired" by flashing small lights in the vicinity of the targets, and the method of training airplane observers in the conduct of artillery fire was explained in detail. The members of the Mission were also interested in learning the number of hours required for students to familiarize themselves with the operation of types of airplanes with which the students had no previous experience.

The members of the Mission were unable to accept an invitation to lunch at the Aviation Club, due to a prior engagement with the Mexican Consul in San Antonio.

NEW WEATHER STATIONS ESTABLISHED

Mindful of the fact that the direct air route between Bolling Field, D.C. and Burgess Field, Pa., flown by many Army aircraft, is characterized by weather which is frequently unfavorable to flying, the Signal Corps has established three weather stations along this route and has arranged for more frequent and reliable weather reports from this region than have heretofore been possible.

The new stations are as follows:

MWR, Admiral Byrd Airport, Winchester, Va.; elevation 700 feet; 60 miles from Bolling Field; fair landing field, with daytime hangar and flying service; commands view of Shenandoah Valley, Blue Ridge to southeast, and eastern Allegheny outpost ridges to northwest.

MFR, Frostburg Ridge (Pig Savage Mountain), 2 miles west of Frostburg, Md. Elevation 2850 feet; 115 miles from Bolling Field, 45 miles from Burgess Field; visibility unobstructed to east and west; ridge tops to north and south about 100 feet higher than station. On clear days, observer can see Martin's Mountain, 20 miles to east, and Meadow Mountain, 12 miles to west.

MKR, Keyser Ridge, 5 miles west of Grantsville, Md. Elevation 2900 feet; 30 miles from Burgess Field. Visibility from top of garage unobstructed in all directions. On clear days observer can see, to the east, Negro Mountain (3 miles), Meadow Mountain (10 miles) and Frostburg Ridge (15 miles); to the west, Winding Ridge (5 miles) and Woodcock Hill (15 miles). One or two farm fields on the ridge top near the station could on occasion be used as emergency landing fields.

These stations will observe weather at the following times daily, including Sundays and holidays: 6:40 a.m., 7:40 a.m., 8:40 a.m., 10:40 a.m., 12:40 p.m., and 2:40 p.m. Ceilings will be estimated. Reports will be forwarded by commercial telephone to Bolling Field or Burgess Field, will be collected by radio at Bolling Field, and will be added to the Mid-Eastern Air Corps Alert Net hourly weather broadcast.

The new weather service on the Bolling-Burgess route is intended to cover only daytime flying under fair-to-good weather conditions. At night, or in really bad weather, the Washington-Frederick-McConnellsburg-Duckstown-Pittsburgh airway should be followed. This commercial airway is equipped with 24-hour teletype service and every other technical aid to flying. Its use entails only 27 extra miles of flying between Washington and Dayton.

Flights outside the hours between 6:40 a.m. and 2:40 p.m. should be routed over the Washington-Pittsburgh airway.

GRADUATION OF STUDENTS FROM ADVANCED FLYING SCHOOL

Class 23-B, consisting of 31 Regular Army officers, 3 foreign officers and 33 Flying Cadets, was graduated from the Advanced Flying School, Kelly Field, Texas, on Saturday, October 12th. The names of the students constituting this graduating class were published in the previous issue of the News Letter.

All students participated in an aerial review, which was followed by a demonstration of acrobatics by a team of three pilots from Randolph Field. This formation was led by 1st Lieut. T.J. Meyer, with 1st Lieuts. Yost and Morgan as wing men. Upon the completion of this demonstration, parachute jumps were made by three members of the Parachute Department at Kelly Field.

Graduation exercises were held at 10:00 a.m. at the War Department Theater. Colonel Jacob E. Fickel, who presided at the exercises, introduced Major-General Johnson Hagood, Commanding General of the 8th Corps Area, who made the graduation address.

Major Edmund W. Hill, the only regular Air Corps officer in the graduating class, was assigned to the Headquarters, Sixth Corps Area, Chicago, Ill. The station assignment of the other commissioned personnel of this class was published in the previous issue of the News Letter.

The Flying Cadet graduates were assigned under their cadet status to Air Corps stations, as follows:

To Hamilton Field, Calif.:

Richard T. Kight
William J. Moser
Edward L. Reid
John M. Reynolds

To Langley Field, Va.

James W. Allen
Charles E. Bockman, Jr.
James W. Chapman
James O. Ellis
Edward A. LePenske
Merrill E. Thayer

To Mitchel Field, N.Y.:

Conrad J. Herlick
John L. Randall
Peter H. Remington

To Selfridge Field, Mich.:

Franklin M. Cochran
Maxwell H. Crowell
Evert W. Hedlund
Howard F. Nichols
Quentin T. Quick

To Barksdale Field, La.:

Theron Coulter
Robert W. Hall
Bingham T. Kleine
Robert C. Love
Raleigh H. Macklin
Thomas L. McKissack
Marion Malcolm
Robert C. Paul

To Barksdale Field, La. (Cont'd):

Horace A. Shepard
Herbert M. West, Jr.
Cy Wilson

To Brooks Field, Texas:

Howell G. Crank
Willard W. Lazarus
Graves H. Snyder
Stanley A. Zidiales

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BRITISH OFFICERS VISIT KELLY FIELD

Group Captain T.E.B. Howe, Air Attache at the British Embassy in Washington, and Group Captain H. G. Smart, British Royal Air Force, visited Kelly Field on October 16th. They were received at Post Headquarters by Colonel Jacob E. Fickel, Commandant of the Advanced Flying School, and Lieut.-Colonel H.H.C. Richards, Assistant Commandant in charge of training.

Following a discussion of the training system in operation at this school, the British officers were taken on a tour of inspection of Kelly Field. After visiting the four training sections, they inspected the camera obscura bombing range and the miniature range, where the indoor practice given students in the regulation of artillery fire and cooperation with various units of the Infantry was demonstrated. A demonstration was also given on the method of familiarizing the students with the operation of bomb sights by the use of a moving carpet upon which representative topography had been painted.

The British officers stated that it was difficult to compare the system of training flying students in the Training Center with the system used in Great Britain, as the British Air Force is a separate department from the Navy and War Departments. They have a college providing a general education for their officer candidates in a similar manner to our own West Point, but since only Air Corps candidates attend that college, flying training is given in connection with their general training. They maintain a central flying school which supervises the training methods used at all of their flying training establishments.

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When it comes to downright high-powered boosting, residents of so called "Sunny California" are second to none. For instance, the News Letter Correspondent from Crissy Field, Calif., in announcing that the Commanding Officer of that field, Major Floyd E. Galloway, accompanied by Captain George H. Brown, recently departed on a long-distance navigation flight to various points in the U.S., concludes thusly: "We hope they have a nice trip and do not encounter too much snow and cold weather. We believe they prefer to fly in 'Crissy fog' in preference to the 'cold white snow.'"

AND HE LEARNED ABOUT FLYING FROM THAT

On a transcontinental ferry trip, a pilot was peacefully flying along over the western desert country, slowly gaining altitude to cross some mountains ahead, when he became aware of a trickle of gasoline flying back into the cockpit. Being over a rugged and deserted section of the country, his first reaction, in addition to trying to find out what was wrong, was to gain more altitude in case a forced landing might be in order. The higher he climbed the greater the leakage, until it was pouring back in a steady stream and wetting the pilot's legs. Spare maps were folded and stuck inside the trouser legs to prevent burns. The plane was landed at the first emergency field.

An investigation showed a leaking gas pressure gauge. The pilot crimped the

line to the gauge with a pair of pliers and took off again. Upon reaching an altitude of around 5,000 feet, the gauge commenced to leak again. At 8,000 feet it was leaking badly. Shortly after passing a range of mountains, altitude was reduced to 2,000 feet and the leak stopped.

The pilot finally determined that reduced atmospheric pressure at higher altitudes allowed the internal pressure in the gauge to force gasoline out and that at lower altitudes the outside pressure was sufficient to keep the instrument tight. By keeping the dry maps inside his trouser legs to prevent gasoline burns when flying at high altitudes and remaining at low altitudes as much as possible, the pilot continued safely to his destination.

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OVERCOMING THE WEATHER FACTOR IN TACTICAL OPERATIONS

Personnel of the 19th Bombardment Group at Rockwell Field, Coronado, Calif., believe they can add one more achievement to their credit as pioneers. Already noted for their work in the development and practical use of navigation and instrument flying, it is but fitting and proper that this Group should be the first to make real progress in overcoming the weather factor in tactical operations. While admitting that to date the problem of bombing a target that is obscured by fog is a little beyond them, they are proving daily that fog and clouds at their home field is no problem at all.

With the help of Brigadier-General Henry H. Arnold, Commanding the 1st Wing, GHQ Air Force, a bombing target has been secured at Muroc Lake on the Mojave Desert, about one hundred and seventy miles from Rockwell Field. Every morning bombing and gunnery missions are scheduled on this target and, although on many days the field is covered with the usual fog with low ceilings and poor visibility, there has not yet been a mission cancelled for weather. The stock phrase of flight schedules "weather conditions permitting" has been completely discarded.

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UNTIMELY DEATH OF LIEUT. HOYT D. WILLIAMS, AIR CORPS

Randolph Field experienced its first fatal accident to an instructor this year with the crash of Lieut. Hoyt D. Williams, Air Corps, on September 19th.

Lieut. Williams and Captain H. M. Turner, the flight commander, had been up together going through some of the maneuvers taught to students on the "A" Stage, and they crashed from about 200 feet as they were approaching Randolph Field for a landing. Lieut. Williams had just recently reported from the Panama Canal Department.

Captain Turner, although cut and bruised considerably, is again able to get around, but has not been returned to duty.

Lieut. Williams, a graduate of the June, 1931, class of the United States Military Academy, West Point, N.Y., was born in Georgia on March 3, 1907. Commissioned a second lieutenant of Field Artillery, he applied for

detail to the Air Corps and began training at the Primary Flying School at Randolph Field, Texas, with the October, 1931, class. He graduated from the Primary Flying School on June 24, 1932, and from the Advanced Flying School at Kelly Field, Texas, on October 14, 1932, being given the rating of "Airplane Pilot" effective that date. He specialized as a Bombardment pilot.

Lieut. Williams' first assignment to duty with the Air Corps was at Albrook Field, Panama Canal Zone, where he served with the 44th Observation Squadron. He qualified for the rating of "Airplane Observer" on January 22, 1934. Upon the completion of his tour of duty in Panama, he was assigned as a Flying Instructor at the Primary Flying School at Randolph Field.

The untimely death of such a promising young officer as Lieut. Williams had proved himself to be is keenly regretted and is a distinct loss to the Army Air Corps.

GUNNERY PRACTICE BY 91st OBS. SQUADRON

With the maneuvers about over, including the 4th Army maneuvers in the Northwestern part of the United States, the 91st Observation Squadron, Crissy Field, Presidio of San Francisco, Calif., completed its gunnery on ground targets with some excellent scores, and have now started with tow target gunnery over the water area just off the coast of the San Francisco peninsula. The following item from the local newspaper gives the civilian conception of tow target work:

"The pilots from Crissy Field entertained the customers at Fleishacker Park yesterday as they practiced tow target firing just off the coast. Captain L.D. Frederick was in charge of the operations, and the following pilots were alternating on ripping the bag apart which was towed behind the plane of Private Cannon: Lieutenants F.O. Dice, E. Maughan, G.L. Thomson, E.D. Avary, J.M. Schweizer and E.J. Halvorsen."

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FLYING UNDER "HOOD" ON WEST COAST

Captain L.D. Frederick, pilot, with Captain George E. Brown, observer, flew from Crissy Field, Presidio of San Francisco, Calif., to Fort Lewis, Wash., under the "hood," with intermediate stops at Medford, Oregon, each way. The total flying time was 13 hours and 30 minutes. Upon arrival at Fort Lewis on the trip North and on returning to Medford on the trip South, Captain Brown said they were both flying blind due to the immense amount of smoke in the air from the many forest fires in that section of the country.

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A WELCOME TO THE 98th OBSERVATION SQDN.

The News Letter Correspondent from Crissy Field, Calif., says:

"The 91st Observation Squadron, 'California's Own' until a short time ago, welcomes our new neighbors who have been transplanted from the burning sands of Texas to the wonderful climate of Sunny California. We wish to extend our hand across the Bay - through the fog - to welcome the 88th Observation Squadron now stationed at Hamilton Field."

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TWO GENERALS VISIT HAMILTON FIELD

Flying a bi-motored Douglas Transport, the first to be delivered to the Army Air Corps under contract with the Douglas Aircraft Company this fiscal year, Brigadier-General Frank M. Andrews, Air Corps, accompanied by Brigadier-General A.W. Robins, Air Corps, paid a

short visit to Hamilton Field on October 4th, enroute to the Douglas plant at Santa Monica, Calif., from Crissy Field.

The specific business of the Generals on the West Coast dealt with the transfer of Sunnyvale to the Army in exchange for Rockwell Field, North Island, San Diego, Calif.

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SPECIAL DEMONSTRATION SQUADRON PERFORMS

West Coast Military Aviation was exhibited to the critical eyes of the students of the Command and General Staff School, Fort Leavenworth, Kansas, following the arrival at that station of the Special Demonstration Squadron, a provisional organization, composed of some of Hamilton Field's finest pilots.

This Squadron was at the Command and General Staff School for the purpose of demonstrating tactical bombardment maneuvers to a group of officers, gathered from various branches of the Army, who, while they may not be pilots themselves, are thoroughly familiar with all the elements of military strategy.

The Squadron, equipped with Martin B-10 airplanes, the same ships which made the flight to Alaska in 1934, was under the command of Captain John G. Moore, Air Corps.

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FIRE PREVENTION WEEK AT SELFRIDGE FIELD

The week of October 6th - 13th, "Fire Prevention Week," was observed at Selfridge Field, Mt. Clemens, Mich., with a general house-cleaning, involving the removal of accumulation of trash from basements, attics and storerooms which present fire hazards, the appointment of a board of officers to inspect all buildings of the post in this connection, lectures on fire prevention, and practice of fire drill by fire squads and fire department, including simulation of actual fire conditions.

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THE NEW CLASS AT RANDOLPH FIELD

The new class of students which reported recently at the Primary Flying School at Randolph Field, Texas, began flying training on October 21st. This class is composed of 48 officers of the last West Point class, six additional Army officers, 91 Flying Cadets and three foreign officers, these latter being 1st Lieut. Mariano P. Munoz, Mexican Army, and 3rd Lieutenants Jose Francisco and Vicente B. Luna of the Philippine Constabulary.

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Brigadier-General Frank M. Andrews, commanding the 6th Air Force, landed recently at Bolling Field, D.C., in the Air Corps' first new Douglas Transport. Inspecting it inside and out, the only adjective needed, according to our correspondent, is "collared."

PITTSBURGH BECOMES POPULAR VISITING POINT FOR PILOTS
By Captain Corley P. McDarment, Air Corps

The Pittsburgh Airport is rapidly becoming one of the "hottest" ports for military aircraft. In August, the total number of planes serviced was 180; in September the number jumped to 204; and from October 1st to 17th, the number was 128. Nearly all of these were visiting planes. The gasoline consumption far exceeded the earlier estimates for this station.

Due to the limited PX service now available on teletype, arrangements have been made to clear military traffic through the radio network of Burgess Field. The new Department of Commerce regulations giving extended weather reports and special reports to airmen, curtails the amount of material that can be handled through teletype channels. Hourly broadcasts are made to Burgess Field, where the message is put on the net, or on the Burgess teletype.

Colonel C.C. McGovern, Chairman of the Allegheny County Commissioners, is making a big fight, supported by the newspapers, to force utilities companies to put their power lines underground in the vicinity of airports.

The "billiard table" surface of the County airport finally got our PT-3 airplane. But it was not the fault of the airport. It was the case of an airport being too good. The smooth surface of the port is bad medicine for planes without brakes, such as the PT. The wind makes such planes a weather vane on a smooth surface. A few days ago when Major L.T. Barry, Reserve, was flying the PT, a cross wind caught him on the ground and whirled him into a ground loop, causing a wheel to collapse, a wing to catch and - a windup of one PT.

With the washout of our one and only PT, the "defenders of Pittsburgh" have but one plane left, an O-1E. This plane is being handled like a crate of turkey eggs. The Reserves realize that, if the war should spread to America, this is the only plane they have in which to make a get-away.

Among the Pittsburgh pilots who attended the Air Reserve Convention in Louisville, October 10 - 12, with Unit Instructor, Captain Corley P. McDarment, were Major H.R. Bazley, Captain Robert E. Dake, and Lieut. Dallas B. Sherman. Captain Brent Merchant, of Washington, D.C., and one of the Corps Area delegates, checked in with the Pittsburgh Reserves at the Convention. Captain Dake placed his private airplane at the disposal of Air Reservists to attend the Convention.

It is earnestly hoped that all Army aviators visiting the Pittsburgh Airport will in time become acquainted with basic commercial flying regulations. Some of the best rules to remember are:

Circle the field to the left before landing at about 1500 feet. If there is danger, a red light will be flashed upon the pilot from the tower.

Don't make "dive landings." When diving upon a field for a landing without having circled the field, a plane can easily collide with a transport which will be coming in on a long glide.

And DON'T take off from the middle of the field. Fields are made big for a purpose. Most airplanes can take off from the middle of the Pittsburgh airport, but the management wants us to use the whole field, because a forced landing upon the field is of little consequence, whereas a forced landing in the gulch messes up the new ambulance too much. They are trying to keep this ambulance clean. Some of the boys who fly in the wide open spaces seem to forget that Pittsburgh is not just a suburb of San Antonio - not yet anyway.

And please remember that RED means DANGER, even in China and Ethiopia. A pilot landed at our airport several months ago, and when he entered the operations office he said:

"You know somebody was playing with me from that tower as I came around the field. He flashed a red light on me. Heh! Heh! Heh! But I didn't play with him. Do they do that often?"

"No," we explained, "they were trying to tell you that a transport which had the right of way was landing beneath you, and you were being warned."

"Hah! Hah! Hah! So that explains the big commotion I saw on the ground when I landed. Yowsah."

Sometimes a pilot, who has never been to Pittsburgh before, will see that large slab of concrete, the biggest in the world, which makes the airport, and he won't believe his eyes. He thinks there is something phoney about it, and he lands on the ramp that goes down to the hangars, a stunt like landing in front of the Capitol in Washington.

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AIR CORPS GENERALS VISIT CRISSY FIELD

On the morning of October 3rd, Generals Robbins, Andrews and Arnold, on an inspection tour of air fields, including Sunnyvale, landed at Crissy Field, Calif., to visit General Malone, Commanding General, Ninth Corps Area. Their itinerary called for a departure in the early afternoon, but the usual Crissy fog prevented departure until late on the morning of the 4th. During their stay, the officers of Crissy Field entertained the visiting Generals at the Pago-Pago Club. "We enjoyed their visit very much," says the News Letter Correspondent, "but must apologize for the unusual California weather."

SIXTH PHOTO SECTION IN ACTION
By 1st Lieut. Charles A. Clark, Jr.

In connection with the aerial survey being carried on of possible and emergency landing fields in the Philippine Archipelago by Major-General Frank Parker, Commanding General of the Philippine Department, the 6th Photo Section at Nichols Field, P.I., has been called upon from time to time to send photographers on these flights for the purpose of taking aerial photographs of the various landing fields under study.

This aerial survey has been in progress for some time, and it was on one of these flights that General Parker discovered the Volcano, now known as the Parker Volcano, and the Maughan Lake, which is located in Cotabato Province of Mindanao, P.I.

On another of these flights, General Parker made a trip to the Islands north of Luzon. A base was established, and an intensive aerial photographic survey was accomplished of all the Islands in the Babuyan Group and the Batan Group, landing fields and seaplane bases being established wherever possible. At Basco on the Island of Batan in the Batan Group, a very excellent landing field was established, and several flights by the 4th Composite Group have been made there since. It is believed that these flights are the first to have ever landed on the Northern Islands.

At this writing General Parker is on another of these surveys in the Southern Islands to determine whether or not there are any possible landing fields or

seaplane bases in the Tawitawi Group.

Oblique and vertical photographs of all these fields so selected and established to date have been made up in loose-leaf albums and distributed, one each to: the Commanding General; Department Air Officer; the Group Operations Officer at Nichols Field and the Operations Officer at Clark Field. Prints are also being submitted to the Information Division, Office of the Chief of the Air Corps, Washington, and to the Assistant Chief of Staff G-2, Philippine Department.

As new fields are established, photographs are taken and submitted to G-2 for classification, after which all the necessary information is entered on a data sheet, such as the location of the fields, provincial and island, the prevailing winds, length and width of field, obstructions, terrain and nearest communication and servicing facilities, etc. These data are then attached to each photograph and sent to the various activities having possession of the albums.

This aerial survey of landing fields is expected to continue for an indefinite period, as there are still several localities in the Central Islands remaining to be studied for possible landing fields.

When this aerial survey is completed, it should prove of great value to the new Commonwealth Government of the Philippines, and a word of praise is due the Army for bringing the people of the Philippines closer together through their use of these newly developed landing fields for commercial bases and eventually as military landing fields.

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QUARTERLY LOAD TEST OF TACTICAL AIRPLANES AT ROCKWELL FIELD

The 19th Bombardment Group, Rockwell Field, Calif., one of the organizations of the 1st Wing, GHQ Air Force, conducted on October 10th its regular quarterly load test of all tactical airplanes with full military load.

Under the direction of Lieut.-Colonel H.C. Davidson, Air Corps, Group Commander, the trucks and airplanes started rolling at 8:00 a.m., and in a very short time a complete field camp was established and operating on the south edge of the island. An hour after the airplanes arrived on the camp parking line, seven B-10's of the 32nd Bombardment Squadron were loaded with full machine gun armament, liquid oxygen at all stations, and nine 100-lb. bombs apiece. One other B-10 was first loaded with and dropped a 2,000-lb. bomb, and then took on its load of 100-lb. bombs. Starting at 10:00 o'clock, the B-10's roared off at five-minute intervals on a regular mission which required them first to navigate 130 miles over the

Pacific, then 90 miles across mountains and deserts. While on the first leg, all machine guns were fired. Finally arriving at the Group's bombing target at Murco Lake, on the Mojave Desert, each crew conducted bombing, flying at an altitude of 15,000 feet. On the completion of this phase and on the return to Rockwell Field, a test of the functioning of oxygen equipment was conducted at higher altitudes.

In the meantime, the 30th Squadron was required to demonstrate its ability to navigate over water by flying an amphibian over a course which took it over several of the channel islands on a two-hour flight.

Each Squadron established its own kitchen, and the noon meal was served in camp. Brigadier-General Henry H. Arnold, Wing Commander of the First Wing, arrived in a B-12 from March Field at about 9:00 o'clock, and spent the morning observing the conduct and progress of the test. He expressed himself as being much pleased with the smooth functioning of the organization.

The crews of the B-10's did not really

know when the actual test was concluded, as they took off again at 4:00 p.m., for March Field, where they flew a mission for the 63rd Coast Artillery (Anti-Aircraft). When they finally returned home to Rockwell Field, one jump ahead of the fog, they agreed they had been well tested.

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THE AIR RESERVE CONVENTION AT LOUISVILLE, KY.

The Annual Air Reserve Convention at Louisville, Ky., October 10th - 12th, was a big success, so far as conventions go. The high spirit of determination on the part of the delegates to develop an air reserve for the country and to save what is left of the organization was the dominant note of the convention. Captain A.L. Woody, of Louisville, who is also Deputy F.E.R.A. Administrator for the Kentucky District, was elected President of the Air Reserve Association for the ensuing year.

Captain Henry Beatty, Air Reserve, of Birmingham, Ala., was elected Secretary. Captains Woody and Beatty may be remembered as the Reserve officers who made such a tremendous impression upon the Military Affairs Committee last April, when they described the plight of the Air Corps Reserves. The delegates at the convention expressed a desire to cooperate in any movement by the War Department to build up an Air Corps Reserve.

Among the visitors to the convention were Brigadier-General Oscar Westover, Major Robert L. Walsh and Captain R.C.W.

Blessley, all of the Office of the Chief of the Air Corps, Washington; Captain Wendell B. McCoy, of the Tennessee National Guard, who was present as an unofficial observer, and Lieut.-Colonel Wm. B. Wright, Air Officer of the 5th Corps Area, and a Past Master of Reserve duty, who was present in an advisory capacity.

Among Regular Army unit instructors present with their delegates were Captains John B. Patrick, of Atlanta; Bushrod Hoppin, of Cincinnati; Edwin Sullivan, of Dallas, Tex.; George E. Henry of San Francisco; W.C. Richards, of Boston; Milton J. Smith, of Indianapolis; Roland O.S. Akre, of New York; William W. Welsh, of Louisville; Corley P. McDarment, of Pittsburgh; and Lewis S. Webster, of Chicago. The Reserve units of Louisville, under Captain Welsh, Unit Instructor, "threw" all the entertainment that goes with conventions, and they established a hard mark for any other convention city to shoot at.

Oklahoma City, Oklahoma, was chosen as the Convention City for the next year.

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COLONEL McCHORD LEAVES THE CANAL ZONE

Colonel William C. McChord, Air Corps, the first commander of the 19th Composite Wing, sailed from the Panama Canal Department on October 11th on the Transport ST. MHIEL, for new duties in the Office of the Chief of the Air Corps in Washington.

Colonel McChord, during the first part of his two-year tour of duty in the Canal Zone, was the Commanding Officer of Albrook Field, and he was most tireless in his efforts to cut into the jungle and develop a real Air Corps station. Although funds for the building of the project ceased to be available when the field was only half completed, the 16th Pursuit Group and the 44th Observation Squadron are now fairly comfortably housed, and more land is gradually being reclaimed from the jungle.

The flying field is mostly on made ground and is without hard surface landing strips but, due to the energetic efforts of Colonel McChord, a system of French drains was installed which permits the year round use of an area of the field which is adequate for the present type of equipment.

On March 14, 1934, the 19th Composite Wing was organized, and Colonel McChord assumed command of the new unit as well

as the duties of the Department Air Officer, relinquishing active command of Albrook Field, although he continued to occupy quarters on the post.

Prior to his sailing, Colonel McChord was tendered an aerial review of the Wing which assembled at Albrook Field on October 4th. In addition to the honor guest, a number of senior officers of the Panama Canal Department and members of the Diplomatic Corps were present for the ceremony.

On the following day, a ground review of the troops of Albrook Field was held in Colonel McChord's honor, a band from the 4th Coast Artillery having been loaned to the 16th Pursuit Group in order to make practicable this additional tribute to the popular Air Corps officer.

Colonel McChord is being succeeded as Air Officer and as Wing Commander by Lieut.-Colonel John M. Reynolds, who has already arrived in the Panama Canal Department, and will immediately assume his new duties.

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The Engineering Department of the San Antonio Air Depot, during the month of September, overhauled a total of 27 airplanes and 56 engines, and repaired 13 planes and 14 engines.

ARMY AIRMEN DESERT ROCKWELL FIELD

Rockwell Field officers and enlisted men said goodbye to their friends and acquaintances as they made preparations to leave for March Field where they will be permanently stationed. The transfer of the 19th Bombardment Group and half of the Station Complement was made in conformity with recent orders from the President directing the Army to vacate North Island in exchange for the Navy base at Sunnyvale.

As this movement of troops necessarily caused considerable re-arrangement of barracks and quarters at March Field, Major Walter Peck brought his 17th Attack Group back from the Imperial Valley on October 15th instead of October 21st, as originally planned. The 64th Service Squadron returned Thursday after transporting the 34th, 73rd and 95th Attack Squadrons back to March Field on Wednesday, October 15th. The outfits were stationed at Brawley, Imperial and Calexico.

Lieut.-Colonel Howard C. Davidson, commanding the 19th Bombardment Group, will bring 28 officers and 306 enlisted men with him. Only half of the Station Complement will make the journey, the remainder, about 100 men, going to Moffett Field, Sunnyvale.

Porches on the barracks will be utilized for sleeping quarters. Glass windows will be placed in the concrete archways of the barracks to close them in against the winter weather. Hangars one and two (concrete) have been assigned to the airplanes of the 19th Bombardment Group. A wooden hangar will be used for the Group offices.

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FLYING INSTRUCTORS ON NAVIGATION FLIGHTS

At the Primary Flying School at Randolph Field, Texas, during the two weeks' break between classes, a number of the flying instructors took advantage of the opportunity to meet the training directive requirements for cross-country work. A report from Crissy Field stated that one morning there were so many BT-2's on the line there that it looked like a Basic Training Stage. Deserving particular mention is a flight made by Lieut. Donald N. Wackwitz, who took off from Randolph Field at 6:40 p.m., October 4th, in a BT-2, and arrived at Columbus, Ohio, at 8:30 a.m. the following morning. Stops were made for fuel at Hensley Field, Dallas, Texas; Little Rock, Ark., and Louisville, Ky.

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PURSUITERS CONCENTRATE AT LANGLEY FIELD

The 1st Pursuit Group, Selfridge Field, Mich., commanded by Lieut.-Colonel Ralph Royce, departed on the morning of

October 7th for Langley Field, Va., to take part in the concentration of the 2nd Wing, GHQ Air Force, units at that place during the period October 7th to 10th, inclusive. The Group, consisting of the following personnel and airplanes, commenced taking off at 7:00 a.m., with flights departing at 15-minute intervals until all planes were off the ground.

Headquarters Flight, 6 pilots, 14 enlisted men, 5 P-26A's, 1 C-19.

17th Pursuit Squadron, 6 pilots, 11 enlisted men, 6 P-26A's.

27th Pursuit Squadron, 8 pilots, 11 enlisted men, 6 P-26A's, 1 C-4A (Wright Field), 1 C-27A (Patterson Field).

94th Pursuit Squadron, 7 pilots, 11 enlisted men, 6 P-26A's, 1 C-14.

56th Service Squadron, 4 enlisted men.

One C-4A Transport from Langley Field, one C-4A from Wright Field which made two trips, one C-14 from Selfridge Field, a C-14 and a C-24 from Langley Field and a C-19 from Selfridge Field were used to transport personnel and supplies to the point of concentration; with the C-27 from Patterson Field being used exclusively for the transportation of supplies and equipment. All commissioned personnel and flying cadets of the Group were housed in the Post Exchange building at Langley Field, the enlisted personnel being quartered with the 59th Service Squadron. Necessary ground transportation for the Group was furnished by the 2nd Bombardment Group, and gasoline and oil were secured from the supply at Langley Field.

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NEW WEATHER STATIONS IN VIRGINIA

For the convenience of pilots departing from Bolling Field, D.C., for points North, West and South, new weather stations, Kylerstown, Winchester, Skyland, Snow Hill and Warrenton, have been established, and bi-hourly weather reports come in from these stations. Areas that heretofore were blank on weather reports are now no longer so.

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MAJOR PRATT RECEIVES DISTINGUISHED HONOR

Major Fabian L. Pratt, Medical Corps, stationed at Hamilton Field, San Rafael, Calif., has, after nomination by the Surgeon General of the Army, been awarded a Fellowship in the American College of Surgeons, a distinguished honor which is the objective of all military surgeons.

The award of the Fellowship entitled Major Pratt to place the coveted letters "F.A.C.S." after his name.

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On October 16th, the Navy started to work on the North-South runway at Bolling Field, putting a new cover on that part of it which has become uneven and filled with holes.

B I O G R A P H I E S

LIEUT.-COLONEL JOHN F. CURRY

During Lieut.-Colonel Curry's career as an officer of the Army, a considerable part of his time was devoted to school activities, either in the capacity of student, instructor or Commandant. His affiliation with Army aviation activities dates back to August, 1915, when, as a 1st Lieutenant of the 15th Infantry, he was attached to the Aviation Section, Signal Corps, to undergo flying training at the Signal Corps Aviation School at San Diego, Calif.

Col. Curry was born in New York City on April 22, 1886. He attended Columbia University in that city when he received an appointment to the United States Military Academy. Graduating from West Point on February 14, 1908, he was commissioned a second lieutenant and assigned to the 5th Infantry. For four years, beginning in August, 1910, he was on duty at the Military Academy as instructor in the Department of English and History.

Promoted to 1st Lieutenant, 5th Infantry, June 6, 1914, he was stationed at Plattsburgh, N.Y., June to November, 1914, and at Empire, Panama Canal Zone, November, 1914, to July, 1915.

At the Signal Corps Aviation School at San Diego, Calif., Col. Curry completed his flying training in May, 1916, whereupon he was rated a Junior Military Aviator. He was then assigned to the 1st Aero Squadron, and served as pilot with the Punitive Expedition into Mexico under General Pershing.

From February, 1917, to July, 1917, he commanded the 6th Aero Squadron at Fort Kamehameha, T.H. and, in addition, occupied the position of Department Aeronautical Officer, Hawaiian Department. He was promoted Captain of Infantry, March 25, 1917, and, by virtue of his rating as Junior Military Aviator, which conferred one higher grade, automatically became a Major on the same date.

Relieved from duty in Hawaii and ordered to Washington, D.C., he served as Chief of the Training Section in the Office of the Chief Signal Officer from August to November, 1917, in the meantime receiving his promotion to Lieut.-Colonel, Signal Corps, on October 23, 1917. He commanded Ellington Field, Houston, Texas, from November, 1917, to March, 1918, and was on duty as Flying Officer, Southern Aviation District, during April and May, 1918. After two months' temporary duty in Washington, he sailed for overseas duty with the A.E.F., and took courses of instruction in France at Pursuit, Aerial Gunnery and Observation Schools, following which he was assigned as Chief of Staff, Army Air Service, 2nd Army, at Toul,

France. He saw service over the front lines both as pilot and as observer, and was credited with the destruction of one enemy observation balloon.

While on duty with the Army of Occupation in Germany, Col. Curry took a course of instruction at the Army Center of Artillery Instruction at Trier, Germany.

Returning to the United States in August, 1919, he served in the Office of the Director of Air Service, Washington, D.C., as a member of the Advisory Board until January, 1920, when he returned to Hawaii for a two-year tour of duty as Department Air Service Officer, upon the termination of which he was transferred to the Engineering Division at McCook Field, Dayton, Ohio. Here he pursued a course of instruction in motor overhaul and assembly until August, 1923, when he was assigned as student officer at the Air Service Engineering School.

Upon his graduation therefrom on June 30, 1924, he was assigned as Commanding Officer of McCook Field and as Commandant of the Engineering School. When the Materiel Division was established at Dayton as one of the three major activities of the new Air Corps organization and Brigadier-General William E. Gillmore placed in charge thereof, Col. Curry served in the capacity of Executive Officer thereat until August, 1927, when he was transferred to Langley Field, Va., for duty as student at the Air Corps Tactical School. His graduation therefrom in June of the following year was followed by another year as a student at the Command and General Staff School at Fort Leavenworth, Kans. He then served as an instructor at the latter school until June, 1930, when he returned to Langley Field for duty as Assistant Commandant of the Air Corps Tactical School. When this school was moved to Maxwell Field, Montgomery, Ala., Col. Curry was assigned as Commandant thereof and as Commanding Officer of the field.

In March, 1935, when the War Department, in accordance with the provisions of the Act of July 2, 1926, inaugurated the policy of conferring upon Air Corps officers rank commensurate with duties performed, Col. Curry was given the temporary rank of Colonel, effective March 4, 1935. He was relieved from duty at Maxwell Field in August, 1935, when he started upon the one-year course of instruction at the Army War College, Washington, D.C.

Colonel Curry's record as an Air Corps officer is an outstanding one, and he has been commended on various occasions by his superior officers for the very efficient manner in which he performed the duties assigned to him.

LIEUT.-COLONEL BARTON K. YOUNT

Lieut.-Colonel Barton K. Young, Air Corps, is an officer of over 28 years of commissioned service, and his affiliation with military aviation began with his appointment as a Major, Signal Corps, August 5, 1917.

Born at Troy, Ohio, January 18, 1884, he attended the public schools in that city. He was a student at Ohio State University for one year when he received an appointment to the United States Military Academy. Upon his graduation from West Point on June 14, 1907, he was commissioned a second lieutenant and assigned to the 27th Infantry. He served with this regiment in Cuba with the Army of Cuban Pacification, from September, 1907, to April, 1909. He was promoted to 1st Lieutenant, May 27, 1913. On October 1, 1914, he was transferred to the 15th Infantry, and served with his regiment in China for several years.

Promoted to Captain, September 25, 1916, he continued service with the 15th Infantry until July 5, 1917, when he was transferred to the 8th Infantry, with which organization he served one month.

Col. Yount's first assignment in the Aviation Section, Signal Corps, was as Commandant of the School of Aeronautics, Austin, Texas, October 23, 1917, to September 30, 1918, and he was highly commended by the Commanding General of the Southern Department for his efficient administration of the affairs of this ground training school for young American flyers. For two months thereafter he was in command of the Aviation Concentration Camp at Camp Dick, Dallas, Texas, following which he was ordered to Washington, D.C., for duty in the Training Section, Office of the Director of Military Aeronautics. In addition, he served as a member of the Board on Peace Organization.

Ordered to Rockwell Field, San Diego, Calif., he pursued the regular flying course from February 18 to June 3, 1919, when he was rated a Junior Military Aviator. While at San Diego he served as President of a Board of Officers to make detailed plans on an Air Staff College.

On July 31, 1919, Col. Yount assumed command of March Field, Riverside, Calif., on which duty he remained for practically two years. Returning to Washington in July, 1921, he was assigned to duty as Chief of Air Service Training in the Office of the Chief of Air Service. On December 1, 1921, he was placed in charge of the ROTC, National Guard and Organized Reserve Section of that office.

Detailed as a student at the Air Service Engineering School at McCook Field, Dayton, Ohio, he graduated from the one-

year course on August 15, 1925, and was then ordered to duty at Paris, France, as Assistant Military Attache for Aviation at the American Embassy.

While on duty in France, Col. Yount served as a delegate at several international aviation conferences. He was also a delegate at the Disarmament Conference at Geneva, Switzerland, and attended in the capacity of technical adviser the Extraordinary Session of the International Commission for Air Navigation in June, 1929.

On August 1, 1929, he joined the class of student officers undergoing the one-year course of instruction at the Air Corps Tactical School at Langley Field, Va., and, upon graduation, assumed command of Rockwell Field and the Rockwell Air Depot at Corona, Calif. While at this station he served as a member of the San Diego Joint Army and Navy Planning Committee. He received his promotion to Lieutenant-Colonel on February 29, 1931.

Placed in command of Bolling Field, D.C., on July 29, 1932, Col. Yount remained on this duty for two years, and he was then assigned as a student at the Army Industrial College. Upon the completion of the one-year course thereat, he was detailed, August 19, 1935, as a student at the Army War College, Washington, D.C.

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PERSONNEL BOARD VISITS SELFRIDGE FIELD

The War Department Personnel Board arrived at Selfridge Field, Mt. Clemens, Mich., on the afternoon of October 7th to make a study of the personnel requirements of the individual units, the First Pursuit Group, and the command as a whole in connection with the GHQ Air Force at this field. The Board comprised Colonel William S. Browning (Field Artillery) I.G.D., Washington, D.C.; Lieut.-Colonel Tollett Bradley, Air Corps, Langley Field, Va.; Major Rosenthal Bear, Air Corps, Cavalry School, Fort Riley, Kansas, and Major John S. Winslow (Field Artillery) General Staff Corps, Headquarters Sixth Corps Area, Chicago, Ill. The Board departed from Selfridge Field on the afternoon of October 9th. On Monday, October 14th, Lieut.-Colonel Ralph Royce, Commanding Officer of the First Pursuit Group, and Major Fred C. Nelson, flew to Chanute Field, Rantoul, Ill., to confer with the Board, returning the same afternoon.

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RANDOLPH FIELD GRADUATES GO TO KELLY FIELD

A class of fifty-eight students was graduated from the Basic Stage at the Primary Flying School, Randolph Field, Texas, and sent to the Advanced Flying School at Kelly Field, Texas, on October 15th. This class was composed of six Regular Army officers, two foreign officers, and fifty Flying Cadets. The foreign officers were Captain Jose C. Muricy, Brazilian Army, and 1st Lt. Jose G.V. Ahumada, Mexican Army.

The Caterpillar Club

Since the last Caterpillar Club compilation which appeared in the News Letter of September 15th, last, only two new members have executed the gesture every candidate necessarily has to make in order to become affiliated with this mythical fraternity, namely, the yanking of the parachute rip-cord. It is hoped that this welcome lull in the swelling ranks of the Order of Caterpillars is indicative of a downward trend in aviation accidents.

The two recent additions to the society of "Rip-Cord Yankers" are 2nd Lieut. William A. Hatcher, Air Reserve, stationed at March Field, Riverside, Calif., and Private William S. Decker, 52nd School Squadron, Randolph Field, Texas.

Lieut. Hatcher was forced to "bail out" on October 11th when, while flying about ten miles east of March Field, the landing oleo leg of his Pursuit plane let go, allowing the left wheel to hang $3\frac{1}{2}$ feet below the right wheel. Private Decker interpreted a signal from the pilot that he was to jump. Going over the left side of a Basic Training plane, feet first, he felt a jar as he was thrown back into the left horizontal stabilizer. He was then knocked clear of the airplane, whereupon he pulled the rip-cord, and another initiation into the Caterpillar Club passed into history.

Going over the reports on jumps which were previously mentioned in the News Letter, one from Flying Cadet Willis S. Marvin who, with his crew of three, passed through a wholesale midnight initiation near Erfield, Va., when a heavy fog closed in on all sides and he flew around until his gasoline tanks ran dry, states that after he ordered his crew overboard and when all were clear, he cut the switches, rolled up stabilizer, secured Air Corps Form #1 and jump.

"I knew I had to jump," Cadet Marvin stated and, describing a state of mind akin to that of Brother Crawford's wife, added: "I felt very unhappy but did not get rattled. I jerked the rip-cord, looked at it and thought 'that this is all there is to do,' and immediately felt the jerk of the parachute opening."

One of the crew in Cadet Marvin's plane, Corporal Frank B. Connor, 96th Bombardment Squadron, had a rather strenuous experience after he set sail for terra firma. "Knowing and understanding the conditions," he stated, "I was glad to be on my way with a parachute. Falling on my back, I could look up and watch the plane until it was clear, then I pulled the rip-cord. I could see the chute unfurl between me and a flare that had been dropped, and as the chute opened I turned several

flipflops. I stuck the rip-cord in my pocket and began rocking the chute to see how far the flare was above me. In a short time I was in fog and could see nothing. Looking down I could see tree tops. Placing my arms over my face, I slid down through the trees to an easy landing in water up to my neck. Being cold, the water felt warm and comfortable. Not being able to make my way around very well for knowing which way to start to get to dry land I found a tree that I could climb. I climbed to a limb about 25 feet from the water and stood there until daylight. I then got down and made my way out by bending small trees over and swinging from one to another, as the water was too deep to wade. The distance from the tree to the bank was about 25 yards. I walked about two miles to a farm house where I got transportation to a phone and reported in. I was then taken to a C.C.C. Camp at Hanover Court House, Va., where my clothing was dried. This section had been badly flooded."

No doubt Private Connor will long remember his cold wet night in a tree and the discomfort he suffered from getting poison ivy on his hands, face and ankles.

Private Daniel C. Murdock, of the 2nd Bombardment Group, Langley Field, another member of the crew of Cadet Marvin's plane, wrought havoc with a certain farmer's truck garden. When his parachute settled him down to terra firma, he messed up a cultivated plot of peas.

When Private Donald T. Wright, 7th Bombardment Group, Hamilton Field, Calif., "bailed out" of a Bomber at the order of the pilot, Lieut.-Colonel Clarence L. Tinker, Air Corps, when the left wheel of the retractable landing gear failed to come down and lock, he slid through the bomb bay, and after a delay of about four seconds clutched the "D" ring. He instinctively jerked the ring so hard that he struck himself on the forehead with it. The ring was knocked out of his hand, and the blow on his forehead caused a small wound which bled considerably. His enforced jump ruined his appetite for supper and a milk shake was the only food which appealed to him.

As previously reported in the News Letter, Col. Tinker flew the airplane to Rockwell Field and glided in on the ground on its belly, the damage being slight.

Major Samuel E. Brown, Medical Corps, a passenger in Lieut.-Colonel Tinker's plane, took his initiation into the Caterpillar Club in a very matter of fact way. He states in his report that his first reaction after the parachute opened was to note the time.

Sergeant John L. Bailey, another passenger in Col. Tinker's plane, stated: "Never having made a parachute jump before the feelings and reactions during and immediately after the jump were normal. There was no fear of a malfunction of parachute."

LUKE FIELD AIRMEN PARTICIPATE IN HAWAIIAN DEPARTMENT REVIEW
By the News Letter Correspondent

The Fifth Composite Group, Luke Field, T.H., took part in a Department Review both on the ground and in the air on September 2nd at the Divisional Review Field, Schofield Barracks, Honolulu, T.H., in honor of the visiting Congressional party.

Those friends and acquaintances who are used to seeing the "Luke Field Fliers" mentioned in the two downtown newspapers may discount the nomenclature after seeing the Review, when the entire Hawaiian Department staged a parade in honor of the visiting Congressmen. Those who have heretofore confined most of their time to doctoring old and ailing airplanes marched before the reviewing stand as ground troops, owing to the fact that there were not enough airplanes to go 'round. This all gave rise to such questions by amateur wise-crackers comfortably seated in the stands as: "Join the Air Corps and push a lawn mower" - "The Luke Field Fliers' cruising speed: four miles per hour" - "For 'eaven sake! Fawncy seeing you here, Charlie!" - "What! No planes!!!" - "You're gettin' a little left wing heavy there, Joe" - "Wish I wuz a little birdie er way up in the sky. I wouldn't do a single thing 'cept fly 'n fly 'n fly."

While passing the reviewing stand at the command "Eyes Right," we saw clad in the customary whites of the Islands such noted personages as Hon. Tilman B. Parks, of Arkansas; John F. Dockweiler, of California; Thomas S. McMillan, of South Carolina; Thomas L. Blanton, of Texas, J.B. Snyder, of Pennsylvania, and Major-General Hugh A. Drum, Commanding General of the Hawaiian Department. The thought came to many of us that, in spite of the magnitude of the occasion, it was still

hot and dusty. The General leaned over and said something to one of the Congressmen. He smiled and looked up and down the field; maybe he'd heard that one before, maybe not; just one of these mysteries that no one ever solves.

All of us at one time or another have wondered what the catcher says to the pitcher in a close ball game when he stalks out to the pitcher's box with a worried expression on his face and hands over the ball with some degree of reluctance. Others have glanced down in a hurried check for greasy spots and gravy stains when they've felt the piercing eyes of some stranger and heard some muffled whispers in some public place. Still others have wondered if the loud thud on the ceiling, made by the family living in the apartment above, had anything to do with the time of night and the increasing volume of red hot rhythm coming over the radio, or whether they were nailing the carpet down, or rearranging a few pictures on the wall. That is how some felt when they saw the smiles on the faces of the Congressmen. They didn't know whether it was because some lost squad had strayed away from the multitude and wandered up into the stands or whether some unfortunate soldier's wrap legging had become unfastened and the man back of him was hitch-hiking past the stand with both feet on it. Anyway, the speculations were limited only by the time it took to return to the field and the number of men who were of the opinion that something went wrong back of them.

On the day following the review, the Honolulu ADVERTISER published a photo of the Fifth Composite Group passing the reviewing stand, under which appeared the caption: "21st Infantry passing the reviewing party."

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EXPLORING THE SALMON RIVER COUNTRY IN IDAHO

Army Air Corps "Big Game" hunters, according to the News Letter Correspondent of the 41st Division Aviation, Washington National Guard, need spend only 24 hours in the rugged mountains of the Salmon River country in Idaho in order to secure their limit of deer and elk.

Lieuts. Claire Hartnett and Carl Schirmer, of the 41st Division Aviation, proved this to be true on a recent hunting trip, when they flew out two elk and a deer from the United States Forest Service landing field at Moose Creek, Idaho. They went only a short distance from the landing field to get their game, which was packed on horseback, taken to the Moose Creek ranger station, and then flown to Spokane in a commercial airplane.

Moose Creek landing field, used very extensively by the Forest Service airplanes during forest fire seasons, is in the heart of the virgin Selway Forest, accessible, aside from airplanes, to pack trains only. The airport has been used by tri-motored Fords in freighting supplies to forest rangers.

The landing field is down in the Moose Creek gorge, and the nearby towering peaks constitute part of the famous Seven Devil range of mountains. Protected from hunters, wild life in this region is often seen basking in the sunrays on the Moose Creek landing field.

It is in this general vicinity that the National Geographic Magazine Expedition down the Salmon River, the "River-of-no-Return," is drifting at this time.

Attempts to communicate with the party

by short wave radio by the 41st Division Aviation have not proved successful, probably due to the Forest Service type of crystal set used on the expedition barge. Contacts, however, have been established with Forest Service radio stations on the higher mountain peaks.

Much of the country surrounding the expedition's barge is from 5,000 to 8,000 feet above the Salmon River, which winds its way through a rich mining region.

That the expedition is progressing safely on its 354-mile drift has been established by the 41st Division Aviation, whose pilots have circled low over the barge on numerous occasions as the

party continued down the river.

On such occasions it was thought radio communication would be established, but failure is believed to have been caused by the fact that Howard Flint, U.S. Forester and party radio operator, had to be taken from the barge and flown to Missoula, Montana, hospital because of serious illness.

Dick Johnson, of Missoula, Mont., a commercial pilot, spiralled 5700 feet to a sand bar in the Salmon River to take Mr. Flint to the hospital after he had lain ill on the barge for five days.

Word of his illness, and the call for the airplane ambulance were relayed by short wave radio.

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26TH ATTACK SQUADRON MANEUVERS ON ISLAND OF MAUI

The 26th Attack Squadron, stationed at Wheeler Field, T.H., with nine A-3B airplanes and crews, left on September 23rd for an inter-island flight to the Island of Maui. One stop enroute for refueling was made on the Island of Molokai.

The purpose of the flight was to work several cooperative missions with the 299th Infantry, Hawaiian National Guard. This regiment is unique in that most of the officers and almost all the men are native Hawaiians.

This was the first opportunity the Guardsmen had had to work with the Air Corps for over two years. In all three missions were flown, the first two being attacks on deployed troops, and the third an attack on a column on the march. The time and place of the second attack was published in the Maui newspaper in order to give the civilian

residents an opportunity to witness an Air Corps demonstration. A large crowd turned out and, judging by later comment, were very favorably impressed.

On the morning of the 24th, the officers and men of the Squadron were taken by motor to the top of Haleakela, the largest extinct volcano in the world. That evening the officers were guests at a dinner dance given at the Grand Hotel by the Maui Chamber of Commerce. It is an old Hawaiian custom that these affairs begin at dusk and last until dawn, and this was no violation of tradition.

When the Attackers started homeward, a stop again was made at Homestead Field on Molokai for gas. The entire trip was most enjoyable, and the Squadron is, indeed, sorry that the Hawaiian National Guard has but one encampment period per year.

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WASHINGTON NATIONAL GUARD PILOTS QUALIFY IN INSTRUMENT FLYING

All pilots of the 41st Division Aviation, Washington National Guard, Felts Field, Spokane, Wash., have qualified in instrument flying and were issued their certificates by Major Robin A. Day, commanding officer and instructor.

Check flights started on Sunday, October 20th, at 9:30 a.m., and continued throughout the day until 5:00 p.m. Major Day, Captain Claude Owen, and Lieuts. Dale Swartz and Ray Albert Nolan were the check pilots, each devoting about two hours to every pilot of the Squadron.

Each check flight started with the pilot taking off under the hood and then going into level flight at an altitude fixed by the test pilot, who used the interphones.

Probably the greatest difficulty encountered by all pilots was in the proper execution of the 90 and 180 degree turns, the tendency being to tighten the turns. A similar experience was

witnessed in the fast turns. All phases of instrument flying were covered, including spiral climb, glides, stalls and recovery from spirals and spins. One pilot, completing "enough" spirals, became sick and found difficulty in righting the plane. Orientation proved to be the most difficult problem in the employment of the radio range beacon. Check pilots showed no mercy in their attempt to confuse the pilots. The orientation problem found its chief difficulty in the confusion as to which method is the best to employ. In every instance, however, the pilots solved the problem, some taking longer than others. All pilots expressed delight with the method advocated for instrument landings.

Major Day proposes to conduct weekly examinations on various phases of instrument flying, paying attention first to employment of the radio range beam and orientation. William A. Straith, pilot V-6885, A.C.

for the Northwest Airlines, will lecture for two periods on instructions regarding the methods of employing the Department of Commerce radio beam, Department of Commerce Aeronautical Bulletins Nos. 7, 18 and 19, and "Stark's Manual." The class periods for the entire month of November will be devoted to instrument flying.

To assist in beam flying, Lieut. Charles O. Holter, radio expert, has devised a special short antenna running from the tail assembly to the top of the vertical fin and controlled by a special switch in the pilot's cockpit. This new device has been found more satisfactory, because it eliminates noises to a greater degree.

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EIGHTEENTH PURSUIT GROUP FLIES TO HAWAII

By the Wheeler Field Correspondent

The 18th Pursuit Group, stationed at Wheeler Field, Schofield Barracks, T.H., dispatched a flight of 19 Pursuit, 6 Attack and one amphibian airplane to Hawaii for an inter-island training flight and to conduct a tactical and a communications exercise on the Island of Hawaii. The flight was entirely successful and resulted in valuable training as well as a pleasant break in the monotony of flying training on Oahu.

On September 18th, the Group assembled by squadrons at 10:50 a.m. at 8,000 feet over Makupuu Point, the most easterly point on Oahu, and proceeded by the most direct route to the western tip of Molokai, the next island of the Hawaiian Group to the east. Weather conditions were perfect for the flight, and the excellent visibility afforded all personnel a splendid opportunity to secure an excellent view of the Leper Colony on the north shore of Molokai, the extensive pineapple fields on this island, the excellent Air Corps emergency field known as "Homestead Field," and the small town of Kaunakakai, made famous by the Hawaiian song "The Cockeyed Mayor of Kaunakakai."

Proceeding generally along the north shore of Molokai, the flight then jumped the few miles of ocean to Maui and secured a good view of the north shore towns and harbors, the Hawaiian National Guard encampment and, most interesting, a wonderful view of the mighty crater of Haleakala, one of the world's largest extinct volcanoes. The Pursuit flights dipped down into the crater and secured a close-up of the waterless crater floor with its numerous cinder cones.

Flying over the top of the few miles of clouds usually found on the northeast side of Haleakala, the flight took its departure from Kaniki Head on Maui and crossed the very rough thirty miles of open ocean to Upolu Point on Hawaii. All landed there at 12:20 p.m.

The entire group refueled at Upolu Point from the two field pits. The landing field at this locality is long and narrow, lying along the sea. It is flanked on the east side by a sheer drop of 150 feet into the ocean. On the opposite side, the hills rise close to the field. In case one overshoots there is a convenient gully about

30 feet deep that will stop any plane with certainty. The entire field has two long rolls across its long axis and has a considerable slope to the sea. Temporary Air Corps buildings flank a part of the east side of the field.

The Pursuit planes and the amphibian took off at 3:00 p.m., and flew along the north shore of Hawaii to Hilo. Along this sixty-mile route can be found scenery whose beauty cannot be surpassed on earth. For much of the distance, the great volcanic mountain, Mauna Kea, flanks the course on the south and thrusts its 13,825 foot peak into the clouds. Sheer rock walls rise 800 to 1200 feet out of the most highly colored ocean to be found anywhere. Innumerable waterfalls drop hundreds of feet from one hard rock level to another. Narrow black gulches cut the rock wall at intervals and extend deep into the interior, forming small circular bays where they join the sea and wooded glens in their upper reaches. It is a sight that must be seen to be appreciated, and can be seen only from the air.

At Hilo the group used the municipal airport, which has a splendid hard, grass-covered coral surface with good approaches. There are no Air Corps activities or fuel at Hilo Airport. The Inter-Island Airways maintain a small passenger station and a hangar, and operate two regular schedules out of this field daily.

The territorial prison camp which flanks the Hilo field furnished guards for the airplanes of the group at Hilo. An interesting incident of the stop at Hilo was the discovery that the standard tie down equipment was ineffective. The standard stakes could not be driven into the coral. Efforts to do so resulted in badly bending the driving shafts without securing more than a few inches of penetration.

Awaiting the arrival of the Group at Hilo was the bus arranged for in advance to take the entire party to the Kilauea Military Camp, located on the brink of Kilauea Volcano, world's most convenient fire pit. As the party neared the volcano and saw the steam emanating from cracks in the earth, any doubt as to the activity of the volcano was dispelled.

The Rest Camp placed excellent quarters

at the disposal of the party at a nominal price. This camp is maintained by the Hawaiian Department for its military personnel for a rest and recreation camp. It is nearly a mile above sea level and provides a temperature most exhilarating after several months' service at sea level.

On the morning of September 19th, the party was taken on a sight-seeing tour through the Hawaiian National Park, maintained by the National Park Service. The trip included visits to the lava tubes; fire pit and other points of interest. The volcano was not active during the visit of the 13th Group, but the privilege of seeing the Kilauea Fire Pit was conceded by all to be a high light in their tour of foreign service.

At about noon, the Pursuit took off from Hilo and the Attack from Upolu Point and proceeded around the "Big Island" in opposite directions on a 200-mile flight, involving an interesting interception problem. The type of country flown over was for the most part arid, unpopulated, without trails, new to all pilots and very different from any over which any members of the Group had ever flown before. Great lava flows extend from high up on the slopes of Mauna Kea to the sea in huge black, desolate, fan-shaped patterns, exposing their rough, flint hard surface as a dangerous hazard to landing - beautiful but awe inspiring. Only slightly less impressive from the air is the "Great Crack" - a black gash in the earth which runs for ten miles in practically a straight line - wide and deep - mute evidence of the terrific forces at work in the making of this new land.

Pursuit made a successful interception in the vicinity of South Point. Peculiar radio conditions were encountered. With the command sets it was impossible to communicate across Mauna Kea in any direction when the aircraft on either side were below the crest. Flying above the altitude of the peak, radio communication by voice was entirely satisfactory. The difficulty was directly attributable to the terrain, as two-way voice communication was satisfactorily maintained with the command sets between Wheeler Field and aircraft over Upolu Point, 160 miles away.

Pursuit spent the night of September 19th in camp at Upolu Point, and Attack was sheltered at the Kilauea Camp.

Reuniting at Upolu Point on September 20th, the Pursuit afforded special support to the Attack on the homeward flight to Oahu. The route lay along the south shore of Maui, then over Lanai, back to Molokai and then direct to Diamond Head. A few low clouds and some rain encountered enroute offered

no appreciable difficulty, and all planes landed at Wheeler Field on schedule after a delightful and instructive flight.

Personnel making the flight included Lieut.-Colonel John C. McDonnell, Group Commander; Majors Clayton Bissell, Group Operations Officer; Samuel G. Frierson, commanding the 26th Squadron; Ray H. Clark, commanding the 19th Squadron; Captains John C. Crosthwaite, commanding the 6th Squadron; Bryant L. Boatner, John E. Bodle and Richard H. Lee, Flight Commanders; Aubrey L. Moore, Engineering Officer, 75th Service Squadron; Lieuts. Kingston E. Tibbetts, Robert E.L. Pirtle, Russell H. Griffith, Llewellyn O. Ryan, Karl Truesdell, Sidney Grubbs, Hugh H. Penland, Donald D. Arnold, James E. Briggs, George E. Price, Mills S. Savage, Thomas D. Ferguson, Robert H. Terrill and Douglas M. Cairns.

Staff Sgt. McCauley flew the amphibian. One cook, one radio operator and six mechanics were the enlisted complement carried on the flight.

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AIR PROGRESS DAY DOWN SOUTH

With more than 100 landings and take-offs at the Municipal Airport at Atlanta, Ga., not a single mishap marred the Air Progress Day program on October 18th. Sightsseers passed through the airport buildings all day, among whom were many boys and girls from grammar and high schools who showed marked interest in aviation.

A squadron of bombing planes from Maxwell Field, Ala., flew over Atlanta and landed at the airport at about 3:00 p.m., for inspection by visitors. At this time there was a parade of 30 planes over the city. At 4:00 p.m., there was a two-way short wave radio broadcast from a plane as it soared above the downtown section.

Probably the largest crowd appeared at the airport between 6:00 and 7:30 p.m., when there were four arrivals and three departures of giant airliners. The shops and terminal facilities of the Eastern and Delta airlines, the radio rooms and the weather bureau were open to the public all during the day.

Major-General George Van Horn Moseley, commanding the 4th Corps Area, spoke on aviation over the well known broadcasting station "WSB, Atlanta, Ga." at 10:15 p.m.

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On Monday, September 30th, the Fifth Composite Group, stationed at Luke Field, T.H., took part in an "Aloha Flight" in honor of the Secretary of War, Hon. George H. Dern, upon his arrival in Honolulu aboard the Cruiser U.S.S. CHESTER. The Group conducted a ground inspection and Aerial Review for the Secretary of War on October 3rd.

V-6885, A.C.

SUCCESSFUL "WAR" AT LANGLEY FIELD

By the News Letter Correspondent

The war is over. While some foreign nations are still hard at their war games, the 2nd Wing of the GHQ Air Force has temporarily ceased operations so far as defending the country from the invading "Red" Forces is concerned.

Having received word on Sunday morning, October 5th, that foreign powers had combined to war against us and that their fleet was almost within striking distance of this country, the 2nd Wing began preparations for defense for this section of the Atlantic seaboard. The 33rd Pursuit Squadron, a unit of the 2nd Wing, did its share of the fighting and came through the war with one casualty. On Tuesday evening, October 8th, after a hard day of fighting against the enemy, Captain George F. Schulgen, while engaged in combat on the Post squash court, injured his back to such an ex-

tent that he was forced temporarily to relinquish command of the squadron, and was therefore carried as a casualty on the intelligence report for the war.

But now the war is over, it being decided that we would call it a draw, and the 33rd Squadron has settled down to its regular routine. Obviously the enemy has done the same, as we have heard nothing more of him since Thursday, on which day we attacked and destroyed his air base somewhere near Virginia Beach. The 33rd hangar was the nest for eleven P-26's of the First Pursuit Group from Selfridge Field, here for the defense of their country. These boys left for their home Field on Friday with, we hope, a few pleasant memories of their war at Langley Field. Evidently, the war was a success, for we have not received word to date to do it over again.

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MILITARY AFFAIRS COMMITTEE MEMBERS VISIT SPOKANE

A C-30 Condor landed at Felts Field, Spokane, Wash., on October 15th, bringing Hon. John J. McSwain, Chairman of the House Military Affairs Committee, and his party of colleagues on an inspection of proposed sites in the Northwest for the establishment of a national air defense as provided for in the Wilcox Bill.

City, county and local military leaders welcomed the party, which arrived from Salt Lake City where, on the day previous, in company with Brigadier-General Henry H. Arnold, commanding the Pacific Coast GHQ Air Force, they inspected air base sites.

The necessity of reaching Seattle and Fort Lewis, Wash., made it impossible for the Congressional party to remain long in Spokane, but during their short stay they were shown sites for an air depot, two sites for a bombardment group, and were given instructions as to the location of three proposed bombing ranges on the Spokane-Seattle airway, about 120 miles from Spokane.

Congressman McSwain explained that his committee is without authority to either select or recommend the location of Air Corps units under the Wilcox Bill, but that the members were interested in the various sites proposed.

"Our sub-committee will make its record to the House Ways and Means Committee when Congress convenes again," Mr. McSwain stated, adding that he is looking ahead to the time when there will be underground hangars.

Landing at Felts Field was pleasant for Congressman McSwain and his party, because they were welcomed by Congressman Sam B. Hill, of Spokane, ranking member of the House Ways and Means Com-

mittee. The latter, it is recalled, introduced the bill for the establishment of an air depot at Felts Field.

At the request of the aviation and military affairs committees of the Chamber of Commerce, Major Robin A. Day, commander of the 41st Division Aviation, Washington National Guard, and Congressman Hill explained the features of the proposed sites.

Mr. Hill explained the various possibilities of the sites to the visiting Congressmen, while Major Day answered all questions relative to climate, type of soil, etc. The party were impressed with weather conditions and the weather information provided them covering the past several years. The weather information disclosed that during the last two years there were only three days when airplanes could not take off from Felts Field. It may be assumed that there was a feeling that the location of new airbases should be where weather permits a maximum amount of flying.

A zero ceiling in Seattle and a 300-ft. ceiling in Portland prevailed up to the time the party left Felts Field. Weather conditions in Snoqualmie Pass in the Cascade Mountains were none too bright at that time. At Ellensburg, Wash., the party landed for the night after finding western Washington airport cities closed in. The trip to Seattle was continued the next day. The party also found it necessary to remain at Eugene, Oregon, for two days on account of bad weather.

Supporters of an air base in the vicinity of Spokane stressed upon the party the findings of the recent Fourth Army Command Post Exercise at Fort Lewis, where it was found that "40 percent of all troops and supplies would have to pass through Spokane's railroad net in case of a national emergency in the Northwest."

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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THE STRATOSPHERE FLIGHT

ANNOUNCING during the course of a coast to coast radio broadcast on the evening of November 21st that the Contest Board of the National Aeronautic Association acted that afternoon to approve the mark of 72,395 feet above sea level as the official altitude of the Explorer II, the balloon of the National Geographic Society-Army Air Corps Stratosphere Expedition, Mr. William Enyart, Secretary of the Contest Board, stated that this figure was based upon calibration reports of the National Bureau of Standards experts who have been working on the problem since the arrival in Washington a week before of the sealed meteorograph taken while on the flight.

The Contest Board of the NAA, Mr. Enyart stated, will report the details of the flight to the Federation Aeronautique Internationale in Paris immediately, with the request that international certification be given this altitude as a new official world mark. In placing the sealed meteorograph in the Explorer II and in approving the 72,395 foot altitude, the NAA Board acted in its capacity as the representative of the FAI in the United States.

The previous official world altitude mark has been credited to Lieutenant-Commander G.W. Settle, U.S. Navy, and Major Chester L. Fordney, U.S. Marine Corps, who reached an official height of 61,236 feet in November, 1933. The Explorer II ascent betters their performance more than 11,000 feet.

Explaining the methods employed by the Bureau of Standards in testing the instruments carried by Captains Stevens and Anderson to ascertain the altitude reached by the Stratosphere Balloon, Dr. Lyman J. Briggs, Director of that Bureau, stated that in order to determine altitude it is necessary to have continuous records, both of the pressure and the temperature of the air in which the balloon is floating. The instrument used for measuring the pressure contains a hollow metal box with very thin flexible sides, which are folded or pleated like an accordion. As the air pressure on this closed box decreases the box lengthens and its movement is recorded as a curved line drawn on the smoked surface of the drum driven by a clock. A smoked surface is used

in place of ink and paper because sharper lines can be obtained and ink would freeze at these low temperatures; in fact, it is difficult enough to get the clocks to run satisfactorily at temperatures 70 degrees below zero. Three of these pressure measure instruments were carried by the stratosphere balloon flight, one suspended thirty feet below the gondola and two others on top. All these instruments agreed closely regarding the minimum pressure reached by the stratosphere balloon.

In addition to the pressure, it is necessary to know the temperature of the air all the way from the ground to the highest altitude reached. This was measured by the change in the electrical resistance of a coil of wire located on a long arm projecting from the gondola and protected from the sun's heat by a series of shields. A little fan blew a strong blast of air over the resistance coil continuously in order to bring it to the temperature of the air.

During the past week, Dr. Briggs stated, Dr. Brumbacher and his staff have been studying these instruments and comparing their performance with the laboratory studies of the same instruments made before the flight. The instruments have not changed and the records are, therefore, reliable.

Congratulating Captains Stevens and Anderson on behalf of the Trustees and members of the National Geographic Society upon their achievement in reaching the highest altitude ever attained by man, Dr. John Oliver La Gorce, Vice President of the Society, questioned Captain Stevens on several details connected with the stratosphere flight.

"Captain Stevens, being higher than man has ever been before you and Captain Anderson viewed more of the earth in one eye-full than any other person has ever seen, can you tell us how large an area was visible to you from nearly fourteen miles up?"

Captain Stevens: We could see in every direction for at least 200 miles. The earth was always in plain view underneath us.

Dr. La Gorce: What did you say to Captain Anderson at fourteen miles high, that is, do you recall the first words spoken at that altitude?

Captain Stevens: We were discussing the last reading of the thermometer showing

the gas temperature on top of the balloon. It registered zero centigrade.

Dr. La Gorce: How does it feel to be in a balloon at that great altitude?

Captain Stevens: We could tell our elevation after we passed the 40,000 foot mark only by looking at the gauges.

Dr. La Gorce: There are many questions that have been asked in the hundreds of letters received from all over the country. Were any instruments damaged in any way or did any of them fail to function properly?

Captain Stevens: No instruments were damaged, and so far all of the records that have been developed have come out good.

Q. What instruments determine the official record?

A. A meteorograph that hangs ten meters above the balloon.

Q. What is the object of taking spores that high, to see whether they live despite the intense cold or are affected by a rarified air?

A. Sunlight tends to kill the spores. However, most of the spores that were carried have survived the flight.

Q. What was the lowest temperature recorded during the entire flight?

A. A temperature of 78 degrees below zero was observed at 41,000 feet.

Supplementing Dr. La Gorce's observation that evidently it was not so cold at 72,000 feet as at 41,000 feet, Captain Stevens stated that in general the temperature decreases after one reaches the 50,000 or 60,000-foot mark. "We will know more about the real temperatures on reading the films that were obtained on the descent of the balloon when the gondola was preceding the balloon in the flight," Captain Stevens added.

Asked if he was annoyed by the clatter and the hum of the many instruments in the gondola, Captain Stevens admitted that it was disconcerting, but chiefly because it interfered at times with their radio conversation.

Brigadier-General Oscar Westover, Acting Chief of the Air Corps, addressing Captain Orvil A. Anderson and renewing his congratulations on the fine achievement which was just confirmed by the official record as to the altitude reached on the stratosphere flight, asked him if the balloon responded easily when gas was valved out or ballast released.

"I could hardly say that it responded easily," Captain Anderson replied. "It would be more nearly accurate to say that it responded as easily as could be expected of a balloon of such size to respond. It was like steering a larger ship which is harder to turn than a small ship because of its mass and momentum. It was necessary to release a great deal of gas to slow up the rise, and we had to throw out a considerable

amount of ballast to get the balloon started upwards.

Gen. Westover: What was your most anxious moment during the flight?

Capt. Anderson: That is rather easy. It was during the first minute and a half of the flight. We had just risen above the rim of the cliff that encircles our take-off ground when a rather positive down-draft of air caught us and started the gondola downward toward the tree tops. We were only about seventy-five feet above the trees, and it was rather disconcerting for a few seconds. I released about 800 pounds of ballast, which was enough to overcome this downward force and to start us rising upward.

Gen. Westover: You say you released 800 pounds of ballast. How could you do that so quickly?

Capt. Anderson: It was by means of our electrical discharging system. We had sacks of ballast hung outside of the gondola, so we could open the bottom by exploding a dynamite type electrical discharging system. I was able to dump ten of the bags in less than ten seconds. If we had not installed this system, I do not think we could have dumped ballast fast enough to have saved the bag.

Gen. Westover: What was the appearance of the earth from your height?

Capt. Anderson: Why it was I should say an extension, so to speak, of the appearance from a higher airplane flight. We could look over very large areas but visibility was not very good.

Gen. Westover: What was the appearance directly before?

Capt. Anderson: The earth seemed like a huge mass. We could see the larger rivers and a few lakes very plainly. The towns and the regions over which we drifted were pretty small and it was hard to make them out from the highest part of our flight. Later when we approached the earth, we could see highways and towns quite plainly.

Gen. Westover: At what altitude did you open your manholes on the way down?

Capt. Anderson: At about 16,000 feet.

Gen. Westover: Was there a feeling of relief at being able to breathe fresh air?

Capt. Anderson: No, sir; we hardly noticed any difference. Our air conditioning system worked so well the air was good throughout the flight.

Gen. Westover: were you able to choose your landing place?

Capt. Anderson: Within certain limits. We were fortunately over good landing terrain when we approached the earth and the ground was not bad, so we were able to make an immediate landing.

Gen. Westover: Did your radio equipment function?

Capt. Anderson: Remarkably well. There was no time when we could not speak to someone on the ground and get an answer. It gave us a marked feeling of security to be able in this way to keep in continuous

touch with those on the ground.

Gen. Westover: Was there much of a jolt in landing?

Capt. Anderson: There was no jolt at all. We sank rather slowly to the ground, and just as the gondola touched we pulled the rip cord to let the gas quickly out of the balloon, and the gondola struck so lightly that it did not burst the inflated bumper on the bottom. It rolled slowly over on the side and it was not dragged for even a foot.

Gen. Westover: From an operative point of view, did you feel that the flight was a success?

Capt. Anderson: Yes, it was in my opinion successful beyond our hopes. There was no leakage of air from the gondola, and the balloon responded well to its controls. We reached a height greater than has ever been reached by man in a balloon, and all of the instruments functioned perfectly. Finally, and most important, we were able to bring all of the instruments and the records safely to earth without injury, and we believe that these records, which will be interpreted as rapidly as possible, will prove extremely interesting and we hope valuable additions to the world's scientific knowledge.

Gen. Westover: Was the air very thin at your highest point according to your own observations?

Capt. Anderson: Our means of observing the thinness by our own observation was through the action on a fan extended on an arm which was used for rotating the balloon. This fan at the higher altitudes had no effect at all and appeared to be running in a vacuum.

Dr. La Gorce asked Captain Anderson why it was necessary to discharge so much ballast on the descent. He said that the National Geographic Society received many letters of inquiry on this point.

Captain Anderson replied that at the peak altitude of the balloon the temperature of the gas in the bag was approximately 100 degrees fahrenheit. The condition of the gas at landing would be approximately 40 degrees fahrenheit, that is, over the outside atmosphere. This difference of temperature of approximately 60 degrees represents a positive lift in that as the temperature leaves the gas it contracts and reduces in lift. By computation it was estimated that about 2600 pounds of lift would be necessary to offset this contraction of the gas on returning to the ground. This computation worked out to be approximately true.

Newspaper editorial comment on the Stratosphere Flight were very interesting and worthy of note. An editorial in the WASHINGTON POST under the heading "Our New Frontier," was as follows:
"Scientific enlightenment expected to

flow from the findings of Capts. Stevens and Anderson during their flights to the stratosphere does not explain the widespread interest in their exploit. Technicians will ponder over the balloon's instruments for new data on cosmic rays, meteorological conditions and electric currents. But the public sees something more in the flight. It may be that the public is right.

The very word "stratosphere" is new. In dictionaries published only a few years ago it is listed among the words that have just come into usage. Until Prof. Piccard went aloft in 1932 almost nothing was known of the upper reaches of atmosphere. Now this region is in the process of "being conquered." The current exploit grips our imagination, not because of any new scientific information it may bring to light, but because of the infinite possibilities opened by exploration of this new frontier.

In terms of distance the achievement may not be especially significant. These intrepid explorers got only 14 miles away from the earth. The important thing is that they did pierce that seemingly black void into which no human being has ever ventured and which our telescopes only vaguely reveal. That is a beginning. It may lead only to disappointment and destruction for those adventurous souls who will insist upon pushing ever farther into this forbidding region of the unknown. But that will not stop them. Nor will the inability of mankind to utilize the knowledge already in its possession arrest the struggle to untangle the still more baffling mysteries of the stratosphere. For beyond these first petty mileposts now established lies the universe.

Man has never been content with the nook in which he has found himself. There is no reason to suppose that he ever will be. Of course, it is idle to speculate on how far we may be able to push this new frontier outward into space. The one certainty is that man will continue to beat upon this barrier to new worlds. And after all, that may be the most important consideration."

"A vast public has watched with ever-increasing interest the stratosphere enterprise of the Army and the National Geographic Society," says the WASHINGTON STAR. "By grace of press, movies and radio, their four separate efforts to explore the upper skies have had a numerous audience. Yesterday's successful adventure especially enlisted the enthusiasm of the millions. There was a belief in a multitude of minds that Capt. Albert W. Stevens and Capt. Orvil A. Anderson would win victory at last, and the expectation was amply justified. * * * Thus, the entire voyage was an unmarred triumph for science, for the sponsoring agencies, for

the navigators and for the national spirit which prompted one trial after another in the face of difficulties and disappointments. * * * * The genius of the race, it seems, has been at work on the problem for a long time and with results indicative of still more thrilling penetration of the outer atmosphere. To Capt. Stevens and Capt. Anderson, then, and to all their predecessors, ancient and modern, a grateful salute from a myriad of admirers - people with the power to appreciate great performance!"

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TAKE YOUR CHOICE

In an interesting article on the Stratosphere Flight, wherein the biographies of both Captains Stevens and Anderson were given, one newspaper had this to say regarding the first-named:

"Tall, dark and reticent, Captain Stevens, who is unmarried, is wont to belittle his accomplishments and only on rare occasions speaks of his experiences:"

In another newspaper, the following rather startling piece of information appeared:

"It is not often that a man gets a chance to make a date with a girl from 10 miles in the air, but Capt. Stevens made a definite engagement with his wife to meet her in Washington tomorrow night. She is now in Chicago."

It is not known whether or not Capt. Stevens was interviewed concerning these two conflicting statements regarding his marital status. If he was, the chances are that his reply would have been substantially to the effect that the allegation that he is a married man is "grossly exaggerated."

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TC-13 AIRSHIP DAMAGED IN TAKE-OFF

The TC-13, second largest of Army "blimps," arrived at Brooks Field, San Antonio, Texas, on October 25th, en route from Langley Field, Va., to its new base at Sunnyvale, Calif. An advance party, flying in two Keystone Bombers, preceded the airship to make arrangements for and supervise landing and refueling at the various stopping points. This party carried a portable mast for use where hangar facilities were not available.

Unfortunately, when a take-off was attempted three days later, one of the mooring lines became fouled in the front landing wheel of the big airship, causing the wheel to give way. The ship skidded along the ground on the frame of the car, smashing the nose in and causing considerable damage. Repair work was completed on November 13th,

when the airship was test flown.

The TC-13 departed from Brooks Field at 7:30 a.m., November 19th, proceeding to its destination, via Biggs Field, El Paso, Texas, and March Field, Riverside, Calif., and arriving at Moffett Field, Sunnyvale, Calif., at 9:00 a.m., November 21st.

The personnel accompanying the airship included Captain L. A. Lawson, pilot in command; Warrant Officer R.E. Lassiter; Master Sergeants A.G. Miller and R. H. Short; Technical Sergeant R.G. Quinn; Sergeant C.A. Wheeler; Corporal M. R. Erhard; Private, 1st Class, William J. Gould, and Private E. J. Collins.

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7TH BOMBARDMENT GROUP IN MIMIC WARFARE

With the departure of the Seventh Bombardment Group for Merced, California, its temporary home for a two-week period, Hamilton Field lost the major part of its military population.

Moving out bright and early on the morning of November 3rd, the Group took with it practically every piece of mobile equipment assigned. Only such transportation as would cover the barest minimum requirements of the post proper was left behind.

All four of the tactical organizations, the 9th, 11th and 31st Bombardment and the 88th Observation Squadrons, besides the 70th Service Squadron and details from the 69th Service Squadron and the 7th Bombardment Group Headquarters, departed to take part in this major phase of mimic warfare.

Remaining behind to garrison the post, the Station Complement is performing its usual duties of administration, guard, etc. The only other troops present are those of special units and part of the 69th Service Squadron.

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INDOOR BICYCLE CORPS IN AIR CORPS DEPOT

Of interest to visitors at the San Antonio Air Depot, Duncan Field, Texas, is the fact that the interior of the Engineering Shops building is so huge that (about seven acres under one roof) that an "Indoor Bicycle Corps" is needed to carry on business between the widely separated sections of the building. Some fifteen to twenty bicycles, issued by the Post Quartermaster, are in constant use by Engineering Department employees in delivering instruments, small parts, etc., and in running errands inside of the building, which results in a very considerable saving of time.

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General orders of the War Department, recently issued, announce the award of a Life-Saving Medal to Capt. Charles Y. Banfill, Air Corps, for rescuing four boys from drowning, June 23, 1932, in Boston Harbor.

V-6909, A.C.

REPTILE JOINS GOLF FOURSOME
By the News Letter Correspondent

When a Cobra, most venomous of reptiles, raises his standard of living to the point where he chases golf balls over the Fairway in company with his two-legged contemporaries, then that popular pasttime stops being "Sugar-coated Hiking," and takes on the color of adventure.

It all happened on the 17th fairway of the Fort Stotsenburg, P.I., course, under the very eyes of Major H.L. Kraft, M.C.; Major P.D. Moulton, M.C. (A.P.); Captain T. W. Steed and Lieut. W. M. Morgan, Air Corps. As they approached a golf ball, they spied a six-foot cobra joining the foursome and attempting to reach the ball ahead of them. Needless to say, the cobra won the race, took the ball in its mouth and started off.

For the benefit of the uninitiated, it should be explained that a procedure such as this is not considered good golf etiquette, even among amateurs. Protests from the four alleged golfers and their caddies were of no avail. In fact, to quote Captain Steed (a short time later and before the story had reached unbelievable proportions) "He spread out like a newspaper, hissed and fought back at us."

Realizing the power of the press, and being unwilling to antagonize the "animated newspaper" more than necessary, our heroes retreated and formed a fifty-yard circle around the snake, making an estimate of the situation at the same time.

By a vote of 3 to 1, it was decided that Lieut. Morgan, because of his dexterity, courage, and lower rank, would be given the honor of acting as the assault echelon in the attack. Slowly and cautiously the gallant Morgan advanced, golf club poised for action, with the whole-hearted encouragement and moral support of the distantly following reserve echelons. As he approached, the cobra struck. For a brief moment it seemed that this must be the end, but NO! Morgan and his club wheeled for a quick retreat - and the dastardly deed was done.

The snake had failed to recognize the irresistableness of a golf club and in striking at Morgan came in contact with the head of the club and was instantly killed.

In an exclusive statement, made for the Air Corps News Letter, Major Moulton stated, in part: "I cannot too strongly emphasize the credit due Lieutenant Morgan in so ably assisting me in killing the cobra, thus making golf at Stotsenburg safe for women and children."

Too bad the News Letter cannot have a picture of this alleged golf-playing reptile - just for a keep-sake.

MOTORIZING NATIONAL GUARD AVIATION UNIT

Prospects of the 41st Division Aviation, Washington National Guard, Felts Field, Spokane, Wash., being motorized in time for the June annual encampment looked promising in a communication received by Major Robin A. Day, commanding officer, from Adjutant General Maurice Thompson recently.

The Adjutant General asked for an immediate estimate as to the number of trucks necessary to move the personnel and equipment across the State to Camp Murray, adjoining Fort Lewis. Major Day advised that 20 Chevrolet trucks of the type mentioned by General Thompson would be necessary.

In the assignment of trucks to the 41st Division Aviation, no additional cost for a garage will be necessary to the State, as one of the old metal hangars is still standing and will serve well as a garage for motor equipment.

If the trucks are issued before the June camp, it means a motor trip of about 400 miles across the State and over the Cascade mountains for the personnel and equipment. On such a trip, requiring at least two days for the caravan, it is likely problems will be executed between the group units and the flying personnel.

Such a problem would mean that overnight bivouacs would be held on one or more of the several improved airports across the State, thus making it possible for the flying personnel to contact their ground organizations before starting the final flight to the Fort Lewis airdrome.

At present the 41st Division Aviation has only a Chevrolet truck and ambulance, but is ~~renewing~~ renewing its request for one of the reconnaissance-type cars now in storage at the Adjutant General's headquarters.

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AMPHIBIAN AIRPLANE VERY STURDY

Brigadier-General E.M. Shinkle, Assistant to the Chief of Ordnance, on a tour by air to inspect Ordnance activities, arrived at the San Antonio Air Depot in an Air Corps OA-5A Amphibian, piloted by Major Eugene L. Eubank, Air Corps, of Langley Field, Va. While General Shinkle visited Ordnance Department activities in the vicinity of San Antonio, mechanics of the Depot worked through Wednesday night, November 6th, checking and tuning up the airplane for a take-off the following morning for Montgomery, Ala. This giant Amphibian could not be accommodated in the regular hangar at the Depot and it was necessary to house it in the Engineering Shops building, where it was an object of much interest to visitors. This ship is as sturdy as a yacht. On one V-6909, A.C.

occasion, it was said, when a forced landing compelled an overnight stay on the water, it was barely rocked by waves from a 35-mile wind.

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JAPANESE OFFICERS VISIT KELLY FIELD

A party of seven Japanese Army officers and one civilian engineer visited on November 7th the Air Corps Advanced Flying School at Kelly Field, Texas.

The visiting party included Major-General Shuiro Ito, Director General of Engineering of the Japanese Imperial Air Service; Major I. Imagawa, Lieut.-Colonels T. Ogata, Y. Sakaguchi, S. Enosawa, Major M. Kanda and Mr. K. Miura, civilian engineer. Arriving by car from Randolph Field at 2:00 p.m., accompanied by General Chaney, they were met at the entrance to Kelly Field by Colonels Fickel, Richards and Captain Burwell.

The visiting party was divided into groups, each being accompanied by an officer from the field. They then visited the Pursuit, Attack, Observation and Bombardment training sections, the camera obscura bombing range, and the indoor miniature range. A class of students was receiving instruction in the Regulation of Artillery Fire at the indoor range when the visitors arrived, and illustrative problems were "fired" for the benefit of the visitors and the method of instruction explained in detail.

It appeared that some members of the party were most interested in obtaining information on maintenance engineering practices, while other groups were obtaining such information as they could by examining the aircraft in use, training methods, tactical employment of aircraft, and administrative details, respectively.

The visitors, accompanied by General Chaney, left Kelly Field about 5:00 p.m. the same day.

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DEATH OF CAPTAIN BUCKMAN

The death on November 12th of Captain Donald Wells Buckman removed from the ranks of the Air Corps a promising young officer and a skillful Bombardment pilot. Captain Buckman was stricken by a heart attack midway between March Field, Riverside, Calif., and Bakersfield, Calif., while flying a Transport airplane, accompanied by three passengers, none of whom were aware of the pilot's condition until after he brought the plane down to safety at the Bakersfield airport. Stepping out of the plane, Captain Buckman collapsed in the arms of airport attendants. He was carried to a hangar, where he died shortly afterwards. Just prior to his

death, he said he had been seized with a pain in the region of his heart when he was over the Mojave desert.

Captain Buckman was born at Portland, Oregon, April 10, 1901. He attended grammar school and high school in that city, and was a student at the Oregon Agricultural College, Corvallis, for two years. A private and noncommissioned officer with the 162nd Infantry, Oregon National Guard, for 4½ years, and a Staff Sergeant, 321st Observation Squadron, 96th Division, Air Service, for several years, he saw service on the Mexican Border and, during the war, in France, where he was a member of the First Division machine gun battalion.

Following his appointment as a Flying Cadet and his graduation from the Advanced Flying School, Kelly Field, Texas, he was, on October 20, 1928, appointed a second lieutenant in the Air Reserve, rated "Airplane Pilot," and assigned to active duty at Langley Field, Va. Four months later he passed the examination for a commission in the Air Corps, Regular Army, and continued on duty at Langley Field with the 2nd Bombardment Group.

Completing a tour of duty in the Panama Canal Zone, Captain Buckman was transferred to March Field, Calif., where, by virtue of performing the duties of Supply Officer, he was given the temporary rank of Captain.

The Omaha STAR published the following editorial in connection with the last flight of this officer:

"TRADITIONS OF THE AIR.

Aviation from the beginning has had ideals, but gradually it also is developing traditions. Thus it may be said to be following the customary pattern of human enterprise, whereby new activities start with dreams, move forward by experiment and at last are codified in governing principles. Medicine and law, obviously, reflect that variety of steady growth. The arts, the crafts and commerce almost as definitely have grown to maturity through unnumbered centuries of time. Plain folk summarize the interplay of cause and effect when they speak of a captain remaining on the bridge of his ship the while it sinks and an engineer holding fast to the throttle in an emergency which may occur during the run of his train.

Capt. Donald Buckman, perhaps, never paused to think of such things. He had been trained in the Army, and faithfulness to duty was instinctive in his mind. So it happened that, when he suffered a heart attack in midair a hundred miles from Bakersfield landing field, he did not collapse in panic and wreck his plane in the Mojave Desert. A power which he probably did not suppose he possessed helped him to complete the trip, bring his three passengers down safely and preserve his transport machine without damage. The ordeal was fatally severe, but the man himself was greater than his suffering. He

died before assistance could be summoned, yet not before history had written his name on a page of an immortal book.

To a philosopher the incident signifies a basic value in the evolution of the human race. Age after age, it seems, work increases in noble dignity and the competent performance of any assigned task takes precedence over purely personal interest. Victory and success, of course, are expressions of the soul of man, not self-created values. But, especially when a social factor is involved, the job has an importance which transcends that of the individual responsible for it. Actors epitomize the thought in the doctrine that 'the show must go on.'

Thousands of his countrymen paid Capt. Buckman the tribute of remembering in connection with his passing the beautiful words: 'Well done, good and faithful servant.' He could ask no richer fame, no rarer homage. A universal public is grateful for his inspiring example."

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APPROVES EMERGENCY LANDING SYSTEM

The Air Corps Detachment at Fort Lewis, Washington, voices its approval of the emergency landing system developed at Chanute Field, Rantoul, Ill. This system has been used at Fort Lewis for the past two years and has proved to be quite satisfactory. The method employed and the equipment used at Fort Lewis vary somewhat from that at Chanute Field. Ordinary highway obstruction markers of the kerseene torch type are used for marking the outline of the airdrome. In addition to this, a directional "tee" of green railway fuzees is placed at the point on the airdrome where the pilot should land.

This method could be used practically anywhere in emergency.

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GROUNDING PLANES DURING ELECTRICAL STORM

A Navy Department press release records the fact that recently, as the last plane of VP Squadron Five was being towed into the hangar during an electrical storm, the man operating the dolly guide received a static charge of electricity through his person. It is further stated:

"For some time this squadron has employed a grounding scheme by attaching a tangling training chain to tail dollies as is commonly employed by the ordinary commercial gasoline truck.

It appears from investigation that the plane had built up a static charge and the moment the ground lead bounced clear of the deck as it crossed the bumpy hangar door guard tracks, the man at the dolly received the full electrical

charge. The operator, Seaman Moore, suffered no bodily harm, only the physical shock and fright which caused him to let go and to jump some six feet clear of the deck.

It is recommended that the practice of so grounding planes during electrical disturbances be adopted by all squadrons. It is observed that Pan American Airways in their operation from the Fleet Air Base ramps are very obedient in grounding their planes. They employ a ball and chain scheme similar to the round horse weight which was used by the antiquated milkman. This squadron is advised that this grounding scheme was adopted by Pan American after the loss by fire (static electricity) of a large Sikorsky on their ramp at Miami Beach."

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FIELD EXERCISES BY FORT LEWIS DETACHMENT

The Air Corps Detachment stationed at Fort Lewis, Wash., returned on October 26th from its two weeks' annual field exercise held at Salem, Oregon. The majority of the personnel, as well as equipment, were transported by air. This arrangement proved more satisfactory than trucks for this purpose.

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LANDING FIELD IMPROVEMENTS AT FT. LEWIS

The construction of a warming-up and taxi apron of concrete is under way at Fort Lewis, Washington. This project was delayed temporarily because of freezing weather, but is now nearing completion.

The landing area has been increased 300%. The field is of irregular shape and contains about 600 acres in all. Over half of this area is suitable for landings and take-offs. The rest is being levelled sufficiently to serve as a parking area in case it is desired to use the site as a base for Air Corps maneuvers. It is estimated that 300 planes of assorted types could be operated from the field efficiently. The landing area is over 300 feet across in almost any direction, and is marked by a white concrete circle. The surface is of natural gravel and is never soft. No lighting equipment is installed, but emergency equipment is satisfactory for pilots familiar with the field.

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The monthly Control Area Supply and Engineering Conference and Luncheon at the San Antonio Air Depot was held on November 5th, and was attended by Colonel J.E. Fickel, Commanding Officer of Kelly Field; Colonel Henry W. Harms, Commanding Officer of Randolph Field, and eleven other officers from various Air Corps activities, also officers of the Depot.

V-6909, A. C.

It was back in the year 1926, B.I. (Before Instruments), that I was flying in a P-1C airplane from McCook Field, Dayton, Ohio, to Bolling Field, D.C. Weather conditions were ideal all the way to Cumberland, Md., but here a great bank of clouds extended from the mountain peaks to about 8,000 feet.

On the trip from McCook Field to Cumberland I had been flying at 4,000 feet and had carefully checked my compass course. Being unable to go under the clouds from Cumberland on the course to Washington, I landed at Cumberland in order to obtain a weather report. In a few minutes the Cumberland radio station had contacted Bolling Field and obtained the weather report, which stated that at that field there were scattered clouds at 3,500 feet, whereupon I decided to take off, climb above the clouds and fly for about 45 minutes out of sight of the ground and then come down through them.

After having flown the allotted period of time, no openings were seen through the clouds as expected. Believing, however, that the ceiling still existed, I decided to glide down through and find Bolling Field or at least the City of Washington beneath me. Accordingly, the P-1 was set in a steady descent of about 100 miles per hour, and I went into the clouds at about 8,000 feet. I watched the altimeter drop gradually from 8,000 to around 2,500 feet, but I was still in the clouds.

Expecting to come out at almost any instant, I continued my glide until it was too late to make use of my parachute. Then, when my altimeter registered a negative reading, a dark spot appeared, and I came out in a little valley, about 150 feet from the ground, with the adjacent hills still in the clouds. I jerked the gun back and continued my glide straight ahead, landing on a long, narrow strip on the side of a hill and the plane coming to the end of its roll just as a haystack loomed up in front of me.

I had no idea as to where I was, and only hoped I was somewhere near Washington. Finally, a farmer appeared and told me I was near Indian Head, on the Rapidan River, which was entirely off my map. Upon asking for a map, I was informed that the nearest one to be had was in an atlas owned by a man living across the river. Inquiring as to how to get across the river, I was told that it would be necessary to ford it on horseback. I proceeded to borrow a horse and, upon inquiring as to the best place where the river could be forded, I was advised that if I permitted the horse to go his own way he would take me across, and this proved to be the case. The horse wandered

here and there on the trip across, never touching a spot above his ankles and avoiding pools on both sides from ten to twenty feet deep.

Upon arriving at the house where the map was available, and which was in a 1900 atlas, I found that Indian Head was sixty miles southwest of Washington, my destination.

I slept that night in the haystack alongside my airplane and took off the next morning for Bolling Field.

Apparently, at 8,000 feet there was a terrific wind from the northeast, of which I had no knowledge, and which had blown me sixty miles off my course in the 45 minutes I remained in the air.

Moral: Winds blow in different directions at different altitudes.

On another occasion I was on a long cross-country flight, involving "hops" of from 1100 to 1500 miles, in an airplane having six separate tanks. On one particular leg of the flight, due to weather conditions, the course was flown at altitudes varying from 1,000 to 10,000 feet, with corresponding variations in temperature.

I had used a portion of the gas from the main tank and then had switched to various smaller tanks. A few moments after I switched back to the main tank, the engine coughed and slowly died, whereupon I was forced to land, with resultant nosing over and washout of the airplane.

All gasoline that had been poured into the tanks had been strained through two pieces of chamois. I was, therefore, positive that no water had been poured into the tanks. However, an examination of the sumps of the tanks revealed considerable water. The logical conclusion is that the water formed from condensation in the tanks during flight.

Moral: If on a long flight, do not use a portion of gas out of any one tank, but use all of the gasoline out of each tank.

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INSPECTING LANDING FIELDS IN PHILIPPINES

Three groups of pilots from Clark Field, P.I., during this quarter, made visits to the Southern Islands, inspecting landing fields in Zamboanga, Del Monte, Camp Keithley, Tacloban and Iloilo.

Despite the heavy rains, the 3rd Pursuit Squadron has been able to complete over one-third of the Training Directive during the past quarter.

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During the month of October, the Engineering Department of the San Antonio Air Depot, Duncan Field, Texas, overhauled 26 airplanes and 62 engines and repaired 20 airplanes and 15 engines.

THE FIRST GORDON-BENNETT BALLOON CUP RACE
By Colonel Frank P. Lahn, Air Corps

TOWARD the end of the year 1905, James Gordon-Bennett, the well known proprietor of the New York HERALD, and one of the earliest and most generous donors of prizes for the encouragement of aerial sport, presented to the Aero Club of France, through the intermediary of Count Henri de la Valux, President of the International Aeronautic Federation, a cup valued at 2500 francs (at that time five hundred dollars). It was offered for competition in long distance free balloon contests under the rules of the International Federation. With the donation of the "Gordon-Bennett Cup" there was a condition that the Club of the pilot winning it agreed to organize a meeting and put the Trophy in competition the following year.

The first Gordon-Bennett balloon contest was organized by the Aero Club of France, and took place on September 30, 1906. The start was made from the Tuileries Gardens in the very heart of Paris. The rules of the competition allowed three balloons to be entered for each country affiliated with the International Federation, which had recently been formed and was just beginning to function. When the day arrived there were in all sixteen balloons entered, selected to represent seven clubs of leading countries of the world.

According to the regulations of the Federation, there are eight categories of spherical balloons, beginning with No. 1, holding 21,000 cubic feet of gas, up to No. 8, with a capacity of 144,000 cubic feet. For the Gordon-Bennett contest, the maximum size admitted was No. 5, about 80,000 cubic feet. The showing was especially gratifying and promising in view of the fact that ballooning as a sport was comparatively new.

Among the pilots entered were the leading aeronauts of the world, for the first time competing in an international contest. The countries represented were France, the United States, England, Belgium, Germany, Italy and Spain. One of the pilots was Santos Dumont, the well known Brazilian, but, although a contestant, he could not enter the competition for his native land, because Brazil at that time had no Aero Club and consequently was not affiliated with the Federation. The rules of the Federation allow an aeronaut of a nation not affiliated to qualify for a country whose quota of three entries is not full. Under this rule, Santos Dumont, who at the time was much in the public eye through the experiments he was making with his little di-

rigible or cigar-shaped balloon, entered for the Aero Club of America. Mr. F.S. Lahn was then the only citizen of the United States in France holding a pilot's license of the International Federation, and consequently the only aeronaut of our country eligible and available to enter the race. Previous to Mr. Santos Dumont's engagement, in order that this important contest should not take place without the flag of our country appearing at the start among those of other nations, he decided to enter as a competitor, although his sixtieth birthday had just gone by. Thus, there were two balloons of the United States engaged for the race.

In the summer of 1906 it happened that Mr. Lahn's son, Lieutenant Lahn, then a young officer of the American Army, in accordance with a custom of our War Department, was ordered to France for a course of one year at the French Cavalry School at Saumur. He had been initiated into the balloon game by his father in Paris in the summer of 1904, returned in the summer of 1905, and completed the requirements for a balloon pilot's license, which was issued to him by the French Aero Club that fall. Major James C. McCoy, one of the founders of the Aero Club of America and an officer of the Air Corps during the World War, arrived in Paris in the summer of 1906, became an enthusiast, and he and Lieut. Lahn devoted most of the summer to ballooning, at the end of which Major McCoy received his pilot's license.

Mr. Lahn then withdrew in favor of his son as a contestant in the Gordon-Bennett Race. Eleven of the sixteen competitors had ordered balloons of 80,000 cubic feet capacity built for the occasion. It was then too late to have one made for the American pilot, and there were none of sufficient capacity to be purchased, so the only alternative was to look about for a second-hand balloon, and one was found without difficulty, but it was of ten percent less lifting power than any of the others entered. Persons familiar with aerial contests realize that this is a great handicap. The larger the balloon, the more gas it holds and the greater quantity of sand ballast it carries, thus increasing the length of its life in the air and its chances for winning in a long distance competition.

There was the question of procuring a capable assistant, each aeronaut being allowed an aid, preferably one of his own country, although this is not obligatory. As there were no Americans in Europe experienced in this particular sport, Lieut. Lahn was forced to fall back on any foreigner who would be willing to go with him. Charles Levée, a

capable young French aeronaut, a friend of Lieut. Lahm's, who had made many balloon flights, including two from West Point, agreed to act as aid, but when his decision became known at the Aero Club of France there was much criticism of his action, and many arguments were offered to convince him that helping a foreigner compete against his own countrymen was an unpatriotic and not a laudable thing to do. Levée nevertheless held good, giving assurance each day that he could be depended on to go as he had agreed.

Several days before the contest, Major Henry B. Hersey, the well-known American Weather Bureau official, a former Rough Rider of 1898, who rendered important service while in command of the Army Balloon School at Omaha during the War, and who had gone to Spitzbergen two years in succession with Walter Wellman in his attempts to reach the North Pole by airship, came to see Mr. Lahm on his arrival from the north. He wanted to know if it would be possible to go as aid to the Army officer. He was informed that all arrangements were complete and it was too late to change, but Mr. Lahm said: "Major, if on the day of the race you will be at the start, there is a possibility that you may go." That was exactly what happened.

An hour before the start of the race, Mr. Levée informed Lieut. Lahm that, owing to pressure put on him, he had changed his mind and would be unable to act as his aid. Major Hersey asked only time enough to go to his hotel for his overcoat and was then ready to go.

Handicapped by a smaller balloon, besides the fact that it was not new, undoubtedly the victory of these two comparative novices in the sport may be attributed to the American energy of the pilot, the meteorological experience of his aid, and the determination of both to win - the same qualities by which we have carried off the Gordon-Bennett Trophy many times since.

The beautiful afternoon of September 30th, 1906, was drawing toward sunset, and the sixteen great balloons were ready for the exciting take-off. Their rounded forms, gilded by the setting sun, swayed gently back and forth in the light breeze with a movement similar to that of captive elephants, at the very spot around the fountain of the Tuileries Gardens from which two French aeronauts, Charles and Robert, left the ground 140 years before, on one of the earliest balloon ascensions ever made, and the first wacre, instead of heated air, gas was used to inflate. It was estimated that there were two hundred thousand people in the Gardens and the Place de la Concorde to see the take-off.

The evening before the race, the competitors were entertained at a banquet presided over by Prince Roland Bonaparte,

then President of the International Federation.

On leaving the Tuileries at 4:55 p.m., the American balloon headed south of west, then west and finally, on reaching the English Channel at 11:17 that night, the direction was north-west, which would have carried it toward Lands End. Over the water it changed to north, and the crossing was made under a full moon, the balloon in good equilibrium with little for the occupants to do but throw a little ballast when the guide rope touched the water, eat the supper they had brought with them, watch an occasional boat slip by, and finally look for signs of the English coast.

The pilot made some water anchors out of empty sand bags and hoops brought along for the purpose, to be used in case of heading out toward the Atlantic. A revolving light appeared at 2:30 a.m., which proved to be on a lightship, and at 3:30 a.m., the English shore was crossed with the lights of Chichester showing a couple of miles to the west. Soon the fog came up and the ground was hidden for several hours. At one time the sound of water, quite like the lapping of the waves on the Channel, produced quite a thrill and gave the impression that the balloon had left the shore and was out over the North Sea, but it was evidently only a little water fall. Along toward 7:00 a.m., the clouds began to break and the ground appear. The first task was to find out the balloon's location, but English farmers sleep late Sunday mornings.

The first inquiries as to the name of the country brought only one reply: "Where are you going?" Finally the answer came back: "Lants." After further shouting in unison, the name of the nearest town was heard. Then it was a simple matter to find the balloon's location on the map and keep it from then on over Stratford-on-Avon, Warwick Castle, Nottingham and Yorkshire County.

All day long the balloon was held down by valving, as an increase in altitude invariably carried it eastward, which meant the North Sea and the end of the flight. At 2:00 p.m., with the prospect of the evening condensation coming on later, it was decided to ease down from 10,000 feet to a lower level, catch the south wind and make Scotland that night. All went well for a time until suddenly the North Sea loomed up straight ahead in the haze, and it was necessary to valve hard. But the inhospitable "moors" did not appear inviting, with no habitations in sight, so after hitting the ground, the balloon was kept in the air by dint of much valving and the loss of ballast in large quantities, until the ground wind from the south carried it back to civilization. Then a turn in the coast line made it necessary to land. The light anchor did not hold and, after the first

contact, a brisk wind caused the balloon to carry on far enough for the basket to hurdle a stone wall; then the rip strip put an end to its mad career.

A good English squire, owner of the estate, came up in some wonder and grasped the situation with difficulty. It was hard for him to understand that it was a balloon and that it had come from Paris, but after it was explained that this was a balloon race, he finally understood, signed the required landing certificate, provided enough English money to get the aeronauts to York (they had only French and German money), and did everything possible to assist.

After folding the balloon and getting

it started back to Paris by express, the aeronauts took the train for York and for a long night of much needed sleep.

Lieut. Lahm was awakened in the morning by violent pounding on his door. It was Major Hersey calling out that they had won, but Charles Rolls, one of the English team, was yet unaccounted for. On arriving at the Cecil Hotel in London late that afternoon, a bulletin gave the location of all the balloons. Nine had come down in France, a couple landing immediately on crossing the Channel, and the others all landed on the east coast but quite farther south than the winning balloon.

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COMBAT FIRING BY THE 16TH PURSUIT GROUP

The 16th Pursuit Group, stationed at Albrook Field, Canal Zone, conducted on November 7th combat firing on ground targets at their gunnery range, located at Rio Hato, Republic de Panama. Major-General Harold B. Fiske, Commanding General of the Panama Canal Department, and Colonel F.H. Smith, Chief of Staff, were flown to Rio Hato to witness the exercises. Three targets, nine feet wide and twelve feet high, were placed on the range, with 100 yards interval between targets. The firing was done by three-ship elements, diving from 1,500 feet altitude and firing at approximately 1,000 foot range. Both guns were fired, and each element made six approaches, firing 150 rounds from each gun during the six approaches. All of the P-12E airplanes of the Group took part in the firing.

the best natural landing fields in the Republic, is being constantly improved, and it is expected that within the next few weeks it will be sufficiently enlarged to permit landing by elements and flights.

For the combat exercises witnessed by the Department Commander, the Group did not land, on account of the time element, but commenced firing immediately after General Fisk's airplane had been parked on the 1,400 foot line.

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LIFE-SAVING MEDAL PRESENTED CAPT. BANFILL

Elsewhere in this issue of the News Letter, mention is made of the award of a Life-Saving Medal to Captain Charles Y. Banfill, Air Corps, in recognition of his service in rescuing four boys from drowning on June 23, 1932, in Boston Harbor.

The circumstances surrounding this incident were as follows: On the date mentioned, Captain Banfill was enroute from Baltimore, Md., to Boston, Mass., on a routine cross-country flight. An unusually strong wind was blowing on that day. Crossing Dorchester Bay, at an altitude of about 3,000 feet, and heading for the Boston Airport, Captain Banfill noticed a peculiar object floating in the bay. Throttling down the engine, he made a spiral in order to examine this object more closely. As he did so, he saw something moving which looked like a boat. Getting down to within about 500 feet of the water, he saw what appeared to be a small sloop which, having capsized, was under water with the exception of about a foot of the hull, to which four persons were clinging. The water was extremely rough, and there was a 35-mile off shore breeze which was blowing the boat out to sea.

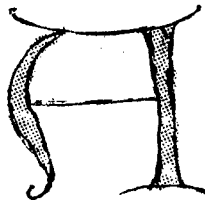
In order to attract the attention of persons on the water front with the hope.

Continued on Page 13

At the conclusion of the exercises, General Fiske expressed himself to Lieut.-Colonel Charles T. Phillips, Air Corps, the Group Commander, as highly pleased at the percentage of hits obtained. Colonel Phillips told the Department Commander that the percentage of hits was higher than that obtained on two similar exercises recently conducted by the Group, but that he had no comparative figures on results obtained in similar exercises by other organizations.

The Gunnery Range of the 16th Pursuit Group at Rio Hato, R. de P., is approximately seventy miles from Albrook Field. During the gunnery season, which lasts approximately six months, a range detail of twenty-two enlisted men is maintained there. The field, one of

"OXYGEN-WANT" AND THE PILOT ✓
By the Materiel Division Correspondent



recent Engineering Section Memorandum Report issued by the Materiel Division under the title "Effects of Oxygen-Want (Anoxemia)" by Captain Harry G. Armstrong, Medical Corps, discusses the deleterious

physical and mental effects due to the want of oxygen in the human system, in altitude flying, and is of general interest as well as of very particular interest to all flying personnel.

"Oxygen-want," Dr. Armstrong informs us, begins for certain individuals at comparatively low altitude, becomes moderately severe at 12,000 to 15,000 feet, and severe at 18,000 to 24,000 feet. That the seriousness of this want of oxygen is not generally understood by Air Corps personnel is evidenced by the frequency with which individuals fly at altitudes from 15,000 to 24,000 feet without oxygen equipment merely to see how high they can go, and also by the fact that a squadron commander recently seriously considered conducting squadron close formation training at 20,000 feet without oxygen.

It is desirable to instruct flying personnel in the dangerous results of insufficient oxygen pressure and supply to the body. Dr. Armstrong points out that in laboratory tests pilots can go from 15,000 to 17,000 feet without apparently ill effects, and that at high altitude usually no ill effects are felt at the time. Investigation, however, has proved such effects to be anything but harmless.

To understand the cause of oxygen-want at high altitudes, Dr. Armstrong writes, is to understand the fundamentals of respiration.

The atmosphere contains at all altitudes approximately 21% oxygen. At sea level with a barometric pressure of 760 mm. Hg. the oxygen exerts a partial pressure of 21% of 760, or 159 mm. Hg. It has been shown experimentally that it is the partial pressure of oxygen in the lungs and not the percentage that diffuses it through the alveolar walls and into the blood so that as the barometric pressure of the atmosphere is decreased at altitude likewise the oxygen partial pressure is decreased and the blood takes up less and less oxygen. Finally, a point is reached at which the cells of the body do not get enough oxygen and they begin to lose their ability to perform their functions. As the altitude increases, the body cells finally become damaged and unable to function at all. Unless this condition is corrected, the cells, and consequently the organism, dies.

Unfortunately, the body makes little or no attempt to compensate for oxygen-want. This is due to the fact that the carbon dioxide accumulation in the body and not the lack of oxygen is the factor which determines to a great extent the breathing rate. Thus, at 15,000 feet, where one would expect great panting from oxygen-want, only slightly increased breathing is found, since the carbon dioxide accumulation within the body is approximately the same.

It has been found that in a person acclimatized to sea level conditions an ascent to at least 4,000 or 5,000 feet is necessary before oxygen-want begins to develop. Unfortunately, the first and principal effect is an anesthesia-like reaction in which the senses are dulled, and consequently the actual suffering of the body is masked so that the victim is wholly unaware of it. However, that the body is being damaged is well demonstrated by a stay at high altitude for from 12 to 24 hours, following which an attack of mountain sickness develops that one is not likely to soon forget. The symptoms of mountain sickness consist principally of nausea, vomiting, headache, diarrhea, muscular weakness and great general depression and prostration. This may last for only two days, but has been known to exist for as long as four weeks, which is ample proof of the damage to the body cells.

As altitudes above 12,000 feet are reached, the symptoms of oxygen-want appear more quickly and are due principally to the effects on the nervous system, as at lower altitudes, the anesthesia-like effect dominates the picture and the victim is in most instances blithely ignorant of his precarious condition, although it is easily demonstrated that he is becoming more and more incapacitated as the ascent continues.

While different individuals react differently at different altitudes, it may be said that, as ascents above 12,000 to 15,000 feet are made, the average effects are as follows:

At first there is a loss of the sense of feeling and pain which, to a great extent, probably explains the absence of physical distress. At about the same time vision becomes much less acute; at altitudes around 18,000 feet the first effects on the higher mental centers become definitely established and are characterized by loss of insight and judgment, dulling of the intellect, loss of emotional stability, the development of fixed irrational ideas, the loss of muscular control and a temporary loss of memory. This becomes progressively worse with the time spent at that altitude and also as the altitude increases.

By the time 22,000 to 24,000 feet is reached there may be fits of laughing or crying, impatience, rage or other emotional disturbances, and there may be great muscular weakness or paralysis. Usually vision at this altitude is approaching zero and the hearing is affected. The muscular incoordination or paralysis usually affects the muscles of the eyes so that depth perception is lost and diplopia or double vision may occur.

There is usually a state of stupor or sleepiness with a restricted field of attention, followed by a period of exhilaration closely resembling alcoholic intoxication during which a feeling of unusual well being and high efficiency is felt although the victim is approaching unconsciousness.

At higher altitudes the system is usually overcome and unconsciousness intervenes, and if not relieved has been known to cause mania, idiocy, brain hemorrhage, paralysis, blindness, permanent loss of memory, nerve tissue destruction, dilation of the heart and is frequently followed by pneumonia.

Not only, the report goes on to state, are those physical qualities, including visual acuity, eye muscle balance, depth perception, attentiveness, good judgment, keen intellect, alertness, and emotional stability so necessary for safe flying, impaired or temporarily in abeyance, but the effects are not fully relieved on returning to lower altitudes, so no doubt many a landing accident has been the result of such conditions. Two instances are cited to illustrate these contentions.

Recently during an altitude flight a member of a squadron lost his oxygen tube and continuing the flight ran amuck among the other airplanes of the formation and escaped a crash only by the ability of the other members of the squadron to out-manuever him. During this time he was totally unaware of his actions and believed he was doing a masterful job of flying.

The second example has to do with a flight in which a pilot and passenger attempted to see how high they could go without oxygen. At about 20,000 feet the passenger noticed that the pilot had a very red sunburned neck which, as the climb continued, became very annoying to him. The sight of the red neck finally became so obnoxious to the passenger that he began to search about for a fire extinguisher or other weapon with which to kill the pilot (fixed irrational idea) and get the offending neck out of sight. Fortunately, no weapon was available and the pilot escaped probable death, although he flew at the airplane's ceiling, squashing along for over half an hour before he realized that they were unable to climb higher.

LIFE-SAVING MEDAL (Cont'd from p. 11)
of arousing such curiosity as to cause investigation to be made and rescuing parties to proceed to the spot where the imperiled youths were hanging on for their lives, Captain Banfill commenced performing antics in the air which certainly must have convinced spectators of one of two things - that here was a case of a good pilot gone wrong or else that something unusual was happening on the Bay. He started a series of dives and zooms over the Bay, gave frequent bursts of the engine and, as he put it, made a big racket. He continued this for fully twenty minutes, during the course of which his main gasoline tank ran dry, leaving him with but 35 minutes more in the air with the fuel in the emergency tank.

It was with a feeling of great relief that Captain Banfill finally spied a launch putting out from the Coast Guard Station at South Boston. He then proceeded to make a succession of circles over the spot where the capsized boat was floating, thus acting as a guiding mark for the rescuing party.

The Coast Guardsmen stated afterwards that but for the aid which the circling airplane furnished, it would have been extremely difficult, if not impossible, for them to have located the upturned boat.

Captain Banfill, at present a student at the Command and General Staff School at Fort Leavenworth, Kansas, was presented the Life-Saving Medal recently by Brigadier-General H. J. Brees, Commandant of the School.

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NEW FLIGHT INSTRUMENT

An Engineering Section, Materiel Division, Memorandum Report announces the completion of a study of the suitability of a flight instrument comprising, in one unit, improved indication of turn, bank, and climb, and stating that procurement of two experimental articles is being initiated.

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ANNIVERSARY DAY CELEBRATED

The 12th Observation Group, Brooks Field, Texas, observed the fourth anniversary of its organization on November 2nd. A general holiday was declared and an extensive schedule of entertainment provided, consisting of the customary track meet - the main event - sack races, pie eating contests, three-legged races, and the usual other events with which military personnel make merry on such occasions. Each organization comprising the Group held "open house" at noon, entertaining the families of personnel at lunch. A downpour of rain interrupted the baseball game in the afternoon between the officers and enlisted men.

B I O G R A P H I E S

LIEUT.-COLONEL JOHN D. REARDAN, AIR CORPS

Dating his association with the Air Corps since the World War, Lieut.-Colonel Reardan's first duty assignment with the air branch of the Army was with the Spruce Production Division, becoming a member of the official family which administered the gigantic project of providing the necessary amount of spruce for the aircraft building program undertaken by the United States under the stress of the war emergency. On January 15, 1918, at that time a Captain of Infantry, Col. Reardan was appointed a Major (temporary) in the Signal Corps, and from that time until July 12, 1918, he commanded the Second Provisional Regiment at Vancouver Barracks, Wash., being commended by the Director of Air Service for his executive ability in bringing this organization to a marked degree of efficiency. From July, 1918, to February, 1919, he was stationed at Newport, Oregon, commanding the Yaquina District of the Spruce Production Corporation. On March 5, 1919, reporting for duty in the Office of the Director of Air Service in Washington, he was assigned as Chief of the Inspection and Purchase Sections of the Procurement Division, and he served in this dual capacity until July 15, 1919. Thereafter he served as Chief of the Purchase Section until the end of April, 1921. For several months towards the end of the year 1920, he occupied the positions of Acting Chief of the Procurement and Inspection Divisions. In addition to performing these functions, Col. Reardan served as a member of several Boards of Officers, one of them convened for the purpose of reorganizing the Office of the Director of Air Service, another to prepare regulations to assist Chiefs of Groups to carry out their functions. He was an Air Service representative on the War Department Technical Committee and Liaison Officer between the Purchase, Storage and Traffic Division of the General Staff and the Air Service in handling technical questions.

Col. Reardan was born June 3, 1885, in Salt Creek Township, Wayne County, Ohio. He enlisted in the Army in October, 1904, and served with the 35th Company, Coast Artillery Corps, as Private, Corporal and Sergeant until his appointment as a second lieutenant of Infantry, Regular Army, on January 24, 1908. He was promoted 1st Lieutenant on February 14, 1914; Captain, February 1, 1917; Major, July 1, 1920, and Lieut.-Colonel, August 1, 1931.

He began his flying activities in May, 1921, as a student at the U.S. Balloon School at Ross Field, Arcadia, Calif., and, upon the completion of his course of instruction, August 26, 1921, he was

rated a "Balloon Observer."

From September 20, 1921, to January 15, 1922, he commanded the U.S. Balloon School at Fort Omaha, Nebraska. He was then transferred to Langley Field, Va., where he took up further lighter-than-air training at the Airship School, completing the course on June 22, 1922, and receiving the rating of "Airship Pilot." Seven years later, upon completing the course at the Air Corps Tactical School at Langley Field, Va., he received another rating, that of "Airplane Observer."

After completing the one-year course at the Command and General Staff School at Fort Leavenworth, Kansas, Colonel Reardan returned to Washington for duty in the Office of the Chief of Air Service, and for two years, from August, 1923, he occupied the position of Chief of the Procurement Section, Supply Group and, in addition, performed the functions of Contracting Officer for the Air Service and served as a member of the War Department Board on Contracts and Adjustment and the War Department Board for the standardization of war contracts.

A student at the Army War College, Washington, D.C., beginning in September, 1925, he was, upon graduating from this institution, assigned as Chief of the Air Section, War Plans Division, War Department General Staff. While on this duty he served as a member of the Joint Army and Navy Planning Committee, and was attached to the 19th Airship Company at Langley Field, Va., for flying activities.

His graduation from the one-year course at the Air Corps Tactical School at Langley Field in June, 1929, was followed by his assignment to duty at Wright Field, Dayton, Ohio, as Commanding Officer. During his two-year tenure of this position, he also served as Chief of the Administration Section, Materiel Division.

Completing the one-year course at the Naval War College at Newport, R.I., in June, 1932, he began another tour of duty with the War Department General Staff, being assigned to the War Plans Division. During the month of May, 1933, he acted as official observer at the Command and Staff Exercises of the Air Corps, which were conducted at March Field, Calif.

Upon his relief from duty with the War Department General Staff, in September, 1934, Col. Reardan was assigned to duty in the Plans Division, Office of the Chief of the Air Corps, where he remained until December 26, 1934, when he entered upon his present duties as Chief of the Information Division. So far as serving on Boards is concerned, he is far from a forgotten man, for at present he is the senior member of the War Department Special Committee on Air Bases.

LIEUT.-COLONEL ARNOLD N. KROGSTAD

Lieut.-Colonel Arnold N. Krogstad, Chief of the Personnel Division, Office of the Chief of the Air Corps, was born at Lanesboro, Minn., August 28, 1885.

Graduating from the United States Military Academy on June 11, 1909, he was commissioned a second lieutenant of Infantry, and assigned to the 22nd Infantry. He received his promotion to 1st Lieutenant on July 1, 1916; to Captain, May 15, 1917, and held the temporary rank of Major in the Aviation Section, Signal Corps, from June 13, 1918, to January 10, 1919. He was permanently commissioned a Major in the Air Service on July 1, 1920, and received his promotion to Lieutenant-Colonel on June 1, 1934.

Col. Krogstad's detail to the Aviation Section, Signal Corps, followed his 7½ years of service with Infantry. He received his flying training at the Signal Corps Aviation School at San Diego, Calif., and he received the rating of Junior Military Aviator June 15, 1917.

In the World War, his first assignment to duty in the Aviation Section of the Signal Corps was at Berkeley, Calif., where he organized and commanded the School of Military Aeronautics, University of California. From October 8 to November 10, 1917, he commanded the Provisional Battalion, comprising the 8th, 9th, 40th, 41st and 87th Aero Squadrons, at Selfridge Field, Mich. He next organized the Flying School at Rich Field, Waco, Texas, and was in command thereof until April 2, 1918, when he was transferred to duty in the Office of the Chief Signal Officer in Washington, and assigned to the Training Section. He remained on this assignment only five weeks, when he was ordered overseas for temporary duty as liaison officer in connection with the coordination of training activities and the collection of technical data. During the course of his service in France he flew over the front lines in the Nieuport type plane.

Returning to Washington in August, 1928, Col. Krogstad was again assigned to the Training Section, performing additional duty as President of a Board of Officers to select hydroplane and balloon coast defense sites. From November 5 to December 12, 1918, he was on duty in the Operations Section, Division of Military Aeronautics, following which he was transferred to Eberts Field, Loanoke, Ark., as commanding officer. Upon the abandonment of that field in the latter part of 1929, he was assigned as Commanding Officer of the Aviation General Supply Depot at Morrison, Va., where he served from December 31, 1919, to September 15, 1921.

Transferred to the Headquarters of the 2nd Corps Area at Governors Island,

New York, Col. Krogstad was on duty as Air Officer until June 18, 1923, when, being due for foreign service, he was transferred to the Hawaiian Department, where he also performed the duties of Air Officer, September 3, 1923, to October 25, 1924. In April, 1924, he assumed command of Luke Field and continued in this capacity until January, 1926, when he was transferred to Langley Field, Va.

At this post at various times he performed such duty as Wing Operations Officer, Information Officer, Airways Officer, Commanding Officer of the 2nd Bombardment Group and Commanding Officer of the post. He pursued the one-year course at the Air Corps Tactical School, and graduated in June, 1928. For a period of nearly three years thereafter he again was stationed at Governors Island, N.Y., as Air Officer of the 2nd Corps Area, following which he was assigned to his present duty as Chief of the Personnel Division, Office of the Chief of the Air Corps.

During the months of May and June, 1933, he participated in the Air Corps Command and Staff Exercises at March Field, Calif., and Seattle, Wash., serving as Assistant Chief of Staff, G-1, on the staff of Brigadier-General Oscar Westover, who was in command of these exercises.

In the operation of the Air Mail Service by the Air Corps during the early part of 1934, Col. Krogstad performed the duty of Chief of Personnel, G-1.

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PRAISE FOR AIR CORPS PHOTOGRAPHIC WORK

In a letter to the Secretary of War, under date of November 12, 1935, the Hon. Daniel C. Roper, Secretary of Commerce, stated:

"Reports from field parties of the Coast and Geodetic Survey state that the aerial photographs in North Carolina taken by Lieut. A. Y. Smith and Sergeant H.L. Hachwith, and in Florida by Lieut. J.G. Pratt and Sergeant G.H. Fisher, are remarkably uniform in scale and of excellent photographic quality. Such photographs demonstrate thorough knowledge of many factors, the neglect of any one of which would vitiate the work as well as high skill on the part of personnel executing it. The uniform excellence of the photographs also demonstrates the efficiency of the 2nd and 4th Photo Sections of the Air Corps who accomplished the laboratory work.

The compilation of maps is greatly expedited by such aerial photographs. The Coast and Geodetic Survey is accordingly grateful for the care and skill with which they were made.

It would be appreciated if you will convey my thanks to the personnel of the Air Corps concerned for their efficient cooperation with this Department."

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Richards Field, Kansas City, Mo., is still seeking a spare hangar.

The following is an extract translation of an article entitled "Colonial Aviation," by Major Vincenzo Biani appearing in the September issue of the Italian aeronautical publication "Rivista Aeronautica":

"In the various regions of Africa, the terrain is of widely differing nature. In the Sahara it is arid, without vegetation, and inhabited only near oases, which are located at very great distances from each other. As a rule the Sahara is of limited elevation, sandy or rocky, and open to observation and fire; it never rains and no clouds are to be found. In other zones, particularly in tropical and equatorial regions, mountainous formations, with altitudes attaining 4000 meters, are encountered. The mountains are covered with woods or bushes, and the valleys are inhabited by tribes living by agriculture and sheep raising. They are habitually nomad. In these regions rainfall is abundant, but limited to certain periods of the year - the rainy seasons - during which every communication is interrupted. Cloud formations are frequent, even for long periods of time.

The above shows that there are two typical regions, entirely different from each other which, however, from an aeronautical point of view, have in common a scarcity of inhabitants in comparison to the ground area, the enormous distances between the inhabited centres, and the very limited density of objectives against aerial attacks, due to the fact that the population lives in the open or in huts which may be easily abandoned.

Flight invariably presents considerable difficulty of orientation and often finds unfavorable weather conditions, both on account of high temperature and strong winds. As a rule, it must be limited to day time.

Tactical reconnaissance is relatively easy, as it may be carried out at very low altitudes without too much risk. Strategical reconnaissance, on the contrary, is very difficult on account of the various directions from which the enemy may advance, and of the enemy's ability to conceal his intentions. Practically, there is no difference between armed forces and civil population, often the troops are mixed with the civilians and march together followed by caravans and animals, so as to look like peaceful shepherds.

Bombardment must be carried out from a low altitude, and can be successful only if a large number of small bombs are employed.

Good results can be secured with machinegunning on account of the terror of the natives when planes fly very low, and the number of casualties which may

be caused by trained and bold pilots.

During a combat between friendly and enemy ground troops, machinegunning from aircraft causes a double moral effect; depressive upon the enemy, encouraging upon friendly troops. In Libya, entire caravans and large camps were thus dispersed, against which little effect could have been secured with aerial bombs, due to the fact that the troops ran away and dispersed as soon as the airplane was heard.

It cannot be objected that this form of fighting is inhuman: soldiers never believed in an humanitarian warfare, which is only a fallacious and dangerous utopia of idealists and theorists living outside of reality, particularly today when war endangers not only a dynasty or the glory of a general, but the wealth, life, the future of an entire nation. It is impossible to think of a gentle war, in any case or against any enemy. Even less when it is the case of taming the pride of barbarian populations which menace the interests and the prestige of a great nation, which has before her and before history the high mission of defending and imposing her own mission of civilization.

Civilization is a wealth which can be propagated only through hard imposition, if those who must accept it are not ripe enough to receive it spontaneously and make it their rule for internal improvement.

The African people have a very simple and primitive conception of authority. They obey those who possess strength and know how to use it. They are more inclined to accept an abuse of violence than an act of weakness.

Hence, it is indispensable to give them the precise sensation that we are stronger than they, that we have better, more numerous and more deadly arms than themselves.

In evaluating the value of the life of noncombatant people, another factor, principally moral, must be taken into account. We cannot accept the evangelic principle that all men are creatures made to the similarity of God and equally dear to His heart. Should we admit that some indigens of barbaric costumes and habits must be considered at the same level and deserving the same respect as the Europeans, we would implicitly deny the evolution of centuries, which has created an abyss between the different races of mankind, different from each other and separated, in spite of the fact that, according to the biblical law, they all come from the same origin.

Aviation consequently must be employed on a large scale, and must be entrusted with all those tasks which may terrorize the enemy, so as to defeat promptly any intention of resistance on

their part. It is well to remember at this juncture that primitive and semi-barbarian people are easily gained by enthusiasm and also by discouragement. They exaggerate every sign of fortune or misfortune and can be extremely optimistic as well as desperately discouraged. They lack the strong conscience and internal discipline which is the source of the moral strength of the civilized man, who sometimes, from a momentary reverse derives the energy, the will and the courage to react and win.

This psychological inferiority of the primitive populations must be taken into account and must be exploited by the aerial arm in order to create a favorable atmosphere for the ground troops' advance. These will find a much easier task if the country has been disorganized and frightened by a preceding, vast aerial operation, which will be then continued together with the ground operations, and will finally be transformed into a police and control organization over the occupied territories. Three phases of employment of aviation may consequently be foreseen in a colonial campaign:

1. A preliminary phase carried out by aviation only, with reconnaissance, destructive and disorganizing tasks, strategical reconnaissance and attack of all enemy objectives.
2. A phase of air-ground cooperation in support of the operating troops, including: tactical reconnaissance, liaison, bombardment, machinegunning, logistic services.
3. A phase of occupation of the gained ground, including the aeronautical organization of the occupied zones (in order not to weaken the ground forces with the organization of too many garrisons), the survey of roads of communication between the troops and the rear bases, the watching of native populations, the repression of all attempts at insurrection.

It is evident that the tasks are various and of great magnitude, and require excellent planes, well trained personnel, a perfect organization of fields and fuel servicing, and a clever commander, active and full of initiative."

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PHILIPPINE TYPHOONS

By Lieut. W. E. Steele, Air Corps

The Philippine Islands are having the usual "unusual" typhoon and rainy season. The rainy season started unusually late, being well on into July before storms of any consequence arrived. Since that date, however, the Island of Luzon has been visited by a series of typhoons and accompanying rains, causing heavy floods, property damage, and loss of lives. It all started in July,

when it seemed three separate typhoons got into an argument as to which one was to be the first typhoon of the season, and as a result Northern and Central Luzon experienced one of the heaviest rains in the history of the Islands. The duration of the three overlapping typhoons was from July 18th to August 6th, during which time the rainfall at Baguio was 120 inches and at Manila 35 inches.

During three days in August, the 2nd, 3rd and 4th, the rainfall at Baguio was 65 inches, the heaviest hourly rainfall being 3.2 inches. The resulting floods caused much property damage and the loss of several lives. The flat country in the vicinity of Mt. Arayat, from Calumpit to Villasis, was flooded with several feet of water. Many barrios were completely inundated. Railroad and highway traffic was completely paralyzed. The only mode of transportation on the streets of cities and to isolated barrios was by boncas or sampans.

Due to the sluggish drainage of the country, it was ten days before the water subsided sufficiently for normal traffic to be resumed. During this time Nichols Field maintained an air mail service to Clark Field.

Another typhoon visited us the first of October, and at the present time (October 15, 1935) the highways and railroads north of Manila are still under several feet of water.

The "new arrivals" are commencing to wonder if there is such a thing as a dry season.

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AIR DEMONSTRATION FOR RELIEF FUNDS

An announcement from March Field, Calif., was to the effect that on November 30th an air demonstration was to be staged thereat, also athletic contests, a massed band concert, an exhibition of technical equipment, etc., for the benefit of the Army Relief Society, which devotes itself to the cause of destitute widows and orphans of officers, warrant officers and enlisted men. Spectators attending the show were to be charged the sum of 25c for stickers placed on their automobiles.

It was stated that the spectators would probably get their biggest thrills out of the air review of all the combat planes of the post, together with a great variety of other aerial maneuvers and demonstrations, such as figure eights and Lufbery circles.

All of the grounds, airplanes, technical equipment and other points of interest will be open to the public, with uniformed guides from the Air Corps on hand to answer the questions of the visitors. The tactical organizations staging the aerial demonstration will be the 17th Attack Group and the 19th Bombardment Group.

NOTES

— FROM —



AIR CORPS FIELDS

Clark Field Farnanga, P.I.

A wedding of particular interest to members of the Air Corps, and other branches of the service, was that of Miss Janet Baker, daughter of Major and Mrs. Cadmus J. Baker, of Luke Field, Hawaii, and Lieut. Hugh A. Parker, Air Corps, recently held in the Post Chapel, Fort Stotsenburg, P.I. A reception and tea followed the ceremony at the quarters of Captain and Mrs. Paul B. Wurtsmith, after which Lieut. and Mrs. Parker left for a honeymoon in Baguio, Mountain Province. The new bride and groom have a host of friends who join in wishing them a long and happy life together.

Major Ford and Captain Davies just returned from an extended tour in the Netherland Indies and reported a most enjoyable trip. These officers highly recommend this tour.

Brooks Field, San Antonio, Texas.

First Lieut. Donald K. Yates reported for duty from the Hawaiian Department and was assigned as Assistant Adjutant, Post Headquarters.

Second Lieuts. Orville E. Tibbs and Fred N. Ward, Air Reserve, reported for active duty for a period of six months. Lieut. Tibbs served a tour of active duty at Brooks Field approximately two years ago, and is renewing many friendships in this area.

First Lieut. Stanley R. Stewart, who was injured in an airplane accident near Laredo, Texas, July 29th, is still confined in the Station Hospital at Fort Sam Houston, Texas.

Lieut.-Colonel Frank D. Lackland, Chief of the Field Service Section, Materiel Division, Wright Field, a recent visitor at this station, was the guest of Lieut.-Colonel and Mrs. Henry J.F. Miller. Formerly in command of Brooks Field, Colonel Lackland's visits are always the occasion for renewing his many friendships throughout the 8th Corps Area.

Master Sergeant William C. Guenther, OMC, was retired on October 31st after reaching the enviable goal of 30 years in the military service. Sergeant Guenther first enlisted at St. Louis, Mo., in May, 1898. During his eventful and varied career, he has seen ser-

vice in the Philippines; in France during the World War, and later with the Army of Occupation in Germany. His record throughout has been consistently excellent. During the celebration of Organization Day by the 12th Observation Group on November 2nd, Sergeant Guenther's retirement was formally recognized by Lieut.-Colonel Henry J.F. Miller, Commanding Officer of the Group, who addressed the personnel in Sergeant Guenther's honor.

Selfridge Field, Mt. Clemens, Mich.

The following officers and flying cadets were recently welcomed as members of the post: Major Ernest Clark, from the Hawaiian Department; 2d Lieut. John G. Benner; Flying Cadets Franklin W. Cochran, Maxwell H. Crowell, Ewart W. Hedlund, Howard F. Nichols and Quentin T. Quick.

Captain Joseph F. Routhier, Finance Department, from Chicago, Ill., reported for temporary duty during the temporary absence of Captain Harry S. Farish, who is undergoing treatment at the hospital at Fort Sheridan, Ill.

Kelly Field, San Antonio, Texas.

On November 17th, the Ninth Infantry took the Army Football League leadership by defeating the Kelly Field Flyers by a 7 to 0 score. The game was played in the Leonard Wood Stadium at Fort Sam Houston before a crowd of 5,000, who braved a dazzling rain. Peavler scored the only touchdown in the second quarter, when the Ninth battered its way 44 yards without the use of a pass. Charley Green kicked the extra point.

Air Corps Detachment, Fort Lewis, Washington.

Chairman McSwain, of the House Military Affairs Committee, and his associates, arrived at Fort Lewis on October 19th in a C-30 Condor Transport, with Captains George C. McDonald and Haz McClellan as pilots. The Congressional party was the guest of Brigadier-General Casper H. Conrad, Jr., Commanding General of Fort Lewis.

Capt. E.S. Davis ferried our BT-2A airplane to the San Antonio Air Depot for overhaul, and

returning in an O-19B, which he delivered to Pearson Field, Wash., on November 5th.

The Detachment is becoming quite active in the Post Athletic Program. A basketball team has been organized in the Detachment, with Capt. F.S. Davis as Coach and Private Jess Taylor as Team Captain. The Detachment Bowling Team is at the top of the Post Battery League at present. Two of its members, Staff Sergeant Brucher and Private Shepherd, are second and third, respectively, on the list of individual averages. In addition to basketball and bowling, detachment personnel are members of Post Football and Soccer teams.

Private R.B. Wallace joined the organization on November 3rd, having transferred here from the 15th Photo Section, Crissy Field, Calif.

San Antonio Air Depot, Duncan Field, Texas.

Lieut.-Colonel F.D. Lackland, Chief of the Field Service Section, and Major T.H. Chapman, Chief of the Inspection Branch, Procurement Section, Materiel Division, Wright Field, Ohio, were warmly greeted by old friends on an informal visit to this Depot November 13th, while on leave of absence in this vicinity. Colonel Lackland was formerly Commanding Officer and Major Chapman formerly Operations Officer of this Depot. They are enjoying a brief hunting trip in this part of the country during the deer and turkey season just opened. Major R.V. Ignico, Depot Supply Officer of the Depot, on a few days' leave, is accompanying them on the hunt.

First Lieut. J. Will Campbell, Air Reserve, of the 8th Corps Area Assignment Group, residing at Dalhart, Texas, began 14-day active duty training tour at this Depot on November 12th. In civil life Lieut. Campbell is a pilot with the United States Air Lines, working out of Cheyenne, Wyoming.

Mr. Frederick A. Heckman, Mechanical Engineer, and Mr. Erick W. Elver, Leader, Aircraft Mechanical Motors, of the civilian personnel of the Naval Air Station, Naval Operating Base, Norfolk, Va., arrived Nov. 18th for a week's visit in the Engineering Shops of the Depot, in the course of a tour of certain Army, Navy, and commercial aeronautical establishments to acquaint themselves with the latest shop methods, equipment and tools.

Capt. R.E.L. Choate, accompanied by Cadet Scott and Corporal Haybuck, in a B-6A; Capt. J.T. Sprague, with Corporal Hoss, in a C-4, and Lieut. J.H. Ives, accompanied by Private Jaster, in a B-6, all of Langley Field, Va., arrived November 2nd to deliver the Bombers for overhaul and returning in the Transport.

Captain R.C. Moffat, of the Rockwell Air Depot, ferried a PF-3 from this Depot to March Field, Calif., on November 5th.

Richards Field, Kansas City, Mo.

Our transient business continued to show a profit, there being 35 visiting planes during the past month. Among our visitors were Major

Connell and Captain Mollison, of Bolling Field; Major Burgess, Chanute Field; Captain Williams, Wright Field, and the Captains Brownfield of Scott Field. If the bad weather had only held up one more day, we could have paid our commissary bill this month.

This station has in use a Form 41, Maintenance Inspection Form Record Holder, which surpasses anything we have so far discovered. Full description and details will be furnished on request.

Hamilton Field, San Rafael, Calif.

Major John W. Davies, Captain C.B. Stone III, and 1st Lieut. Birrell Walsh were appointed members of the Air Mechanics Examining Board.

Captain A.V.F. Anderson was granted leave for one month, effective November 18th.

Captain Raymond Morrison was appointed Meteorological Officer, Assistant Post Operations Officer, Police and Prison Officer, Fire Marshal, Provost Marshal, and OIC Technical Library.

The following-named second lieutenants, assigned to the Air Corps, reported from the Advanced Flying School on November 14th: John B. Cary and Paul C. Ashworth (CE); Byron E. Brugge and Jack E. Shuck (CAC); Dale O. Smith and Herbert M. Baker, Jr. (Inf.) and Harvey T. Alness (Cav.).

41st Division Aviation, Wash. National Guard.

Lieut. Ray A. Noland was called to active duty for a tour of four months at March Field. Before going on the inactive list he served at March Field, and prior to joining the 41st Division Aviation he was instructor in instrument flying at Pearson and Boeing Fields.

Capt. Charles W. Sullivan, of Rockwell Field, Technical Inspector, accompanied by Staff Sgt. Ray Feck, spent two days at Felts Field inspecting the property of the 41st Division Aviation.

Lieut. Byron Cooper recently made a cross-country flight from Spokane to San Diego.

Major Robin A. Day, Commander of the 41st Division Aviation, delivered a Douglas O-38E to the Depot at San Diego on November 5th.

Four Douglas airplanes from the 41st Division were flown to the National Guard Convention at Santa Fe, piloted by Captain (Flight Surgeon) John Walters, Lieuts. Laurie Heral, Dale Swartz and Emmett Corrigan. The passengers were Major W.E. Patrick, of Tacoma, 146th Field Artillery; Major Edward Dohm, of Olympia, Coast Artillery; and Sergeants Wayne Fuller and Walter E. Bryon.

The most interesting part of the Air Corps meeting were the problems confronting the various National Guard Observation Squadrons. No two outfits seemed to have the same problems, some of which solutions were provided for and others remained apparently unsolved.

Particularly interesting was the Resolution calling for some sort of insurance for Guard flyers. This problem is also under discussion in the Washington National Guard Association, which hopes to secure some sort of legislation under an amendment to State Industrial Insurance Act.



NEWS LETTER

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

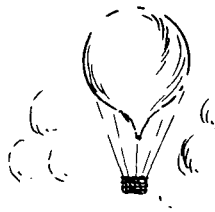
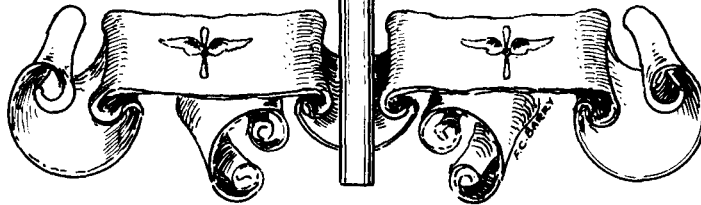


Major General
Benjamin D. Foulois
Chief of the Air Corps

Greetings
— to all —
Air Corps Personnel



Merry  Happy
Christmas New Year



B. D. Foulis

MAJOR GENERAL, AIR CORPS,
CHIEF OF THE AIR CORPS.

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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MAJOR GENERAL BENJAMIN D. FOULOIS

The interesting career of the Army's Pioneer Airman

THE War Department has announced the retirement of Major General Benjamin D. Foulois, Chief of the Air Corps, on his own application, to take effect December 31, 1935. The National Defense Act, as amended, extends to an officer holding the position of Chief of a bureau of branch the privilege of retiring with the rank accorded to the chief of the bureau, providing he has served in that capacity for the full period of four years. General Foulois completes four years as Chief of the Air Corps on December 22, 1935.

The retirement of General Foulois brings to mind the long and interesting record of service achieved by this officer during 27 years of experience in Army aviation.

Few officers who are today on the active rolls of the Army have had a more colorful career than General Foulois, pioneer military aviator, who piloted the first Army airplane almost a quarter of a century ago and is still handling the control stick of military aircraft whenever he makes a flight, and that is quite often.

The Flying General is one of very few aviators alive today who can relate their experience in piloting the early airplane of 25 years ago, which was then looked upon with wonderment and awe but which is now the subject of considerable curiosity at the National Museum.

Much water has flowed over the dam during this span of 25 years, and the transformation aviation has undergone in this period of time is truly remarkable and causes one to speculate on what the future has in store for aviation.

General Foulois is one of a comparatively few officers in the Army today who rose to the high position of general officer from the ranks. Ever since he entered the Army he actively participated in every major and minor fracas in which the United States Army was involved, from the Spanish-American War and the Philippine Insurrection up to and including the World War.

At the age of 18, when he left his home in Washington, Conn., to carve out a career for himself, he set out for the big city - as seems even now the customary case in magazine and movie stories.

Having only a limited amount of cash in his possession, he denied himself the luxury of a train ride and pedalled his bicycle the entire distance of about 110 miles to the American Metropolis. His thoughts were bent on a career aboard a Man o'War, and reaching the water front he left his bicycle upon the dock, boarded the old Navy receiving ship VERMONT, and made his ambition known to the petty officer aboard.

"So, young fellow, you want to join the Navy, eh?" queried the hardboiled noncom.

"Er - yes," answered young Foulois.

"Ever served on a ship before? Know anything about a seaman's duties?"

"No, but I think I could learn the ropes pretty quickly."

"Well, son, I'm sorry we cannot use you. Right now we need experienced men. We haven't got time to train 'em and, besides, you're too light. We need husky men. Suppose you try your luck with some of the merchantmen."

And so, as young Benjamin Foulois dejectedly left the ship, his hopes of sailing on a gallant Man o'War had gone glimmering.

This transpired not long after the sinking of the Battleship MAINE in Havana Harbor, and talk was rife of a war with Spain. Young Foulois' efforts to find a berth in the Merchant Marine also proved to be in vain, and he began to take more interest in the posters in front of an Army Recruiting Station. The oftener these posters caught his eye the more they intrigued him, and finally he found himself climbing the stairway leading to an Army Recruiting Office. When he walked down these same stairs a short time later, one might well have imagined him whistling the familiar tune: "You're in the Army now." As a matter of fact, he was not only in the Army but in a war as well.

He was a Corporal of Company G, 1st U.S. Volunteer Engineers, from July 7, 1898, to January 25, 1899, and saw service in Porto Rico during the Spanish-American War, from August to November, 1898. He then enlisted in the 19th U.S. Infantry on June 17, 1899, and shortly thereafter again found himself sailing for a distant shore, this time to the Philippines. He served with Company G of this regiment as Private, Corporal, Q.M. Sergeant and 1st Sergeant until July 8, 1901. In the mean-

time, he had undergone an examination for a commission in the Regular Army and accepted appointment as a 2nd Lieutenant of Infantry on July 9, 1901.

Lieut. Foulois' first tour in the Philippines was from August, 1899, to June, 1902, during which period he actively participated in the campaigns against the Filipinos in the Islands of Luzon, Panay and Cebu, from August, 1899, to July, 1901, and against the Lake Lanao Moros in Mindanao during the months of April, May and June, 1902. He was one of four officers of the 17th Infantry who performed the major part of the mapping and exploring of the Rio Grande Country of Mindanao in 1901 and 1902. Other duties he performed during his service in the Philippines were those of Inspector of Customs, Collector of Internal Revenue and City Treasurer of Cottobato, Mindanao, from September, 1901, to June, 1902. He commanded Company D, 17th Infantry, from July, 1901 to August, 1902.

Returning to the United States with the 17th U.S. Infantry in August, 1902, and taking station at Vancouver Barracks, Washington, Lieut. Foulois' tenure of duty in this country was of short duration, for in July of the following year he was again aboard an Army transport bound for the Philippines. His second tour in the Islands was of two years' duration, most of which time he served in Mindanao and in the Sulu Archipelago in campaigns against the Lake Lanao Moros, the Rio Grande Valley Moros and the Jolo Moros, the fiercest and most warlike tribes in the Philippines. For two months he was on a special project mapping the Island of Basilan.

In the fall of 1905, Lieut. Foulois was back in the United States, having been assigned as student officer at the Army Service School at Fort Leavenworth, Kansas. He graduated in June, 1906, from the Army School of the Line, and was slated for duty as student officer for the 1906-1907 course at the Army Signal School, but trouble was brewing in the Island of Cuba and Uncle Sam, finding it necessary to act as mediator, dispatched to the little Republic his so-called Army of Cuban Pacification. Among the troops which sailed to the troubled island was the 17th Infantry, the regiment to which Lieut. Foulois was attached. So once more Lieut. Foulois trod the decks of an ocean-going vessel, but not as a sailor. At any rate, his ambition to sail the broad seas was in some measure fulfilled.

During his service in Cuba from October, 1906, to May, 1907, Lieut. Foulois was engaged in mapping work, and was in charge of the Ciego de Avila Section of the Progressive Military Map of Cuba, which involved the mapping of approximately 1800 square miles of territory.

In the course of this work he introduced several improved methods of mapping and was commended for the thoroughness and accuracy of the work performed.

In the fall of 1907, Lieut. Foulois returned to Fort Leavenworth to pursue the one-year course at the Army Signal School. He graduated the following June, and his graduating thesis was the first recorded military article to deal with the "Tactical and Strategical Value of Aero-dynamical Flying Machines". This thesis was probably the turning point in Lieut. Foulois' military career, for it marked the beginning of his long association with military aviation. Following his graduation from Fort Leavenworth, he was detailed in the Signal Corps in July, 1908, and ordered to Washington for aviation duty.

During his first year with the Signal Corps he operated the first dirigible balloon purchased by the United States government and personally redesigned the first dirigible tent hangar in use by the U.S. Army. He was one of the first three officers in the Army detailed to operate the first military airplane purchased by the government from the Wright Brothers in 1909. This Army plane was powered with a 4-cylinder, water-cooled engine, developing about 25 horse-power. The engine, located in the center of the lower wing, energized two 8½-ft. wooden propellers, to which it was connected by means of chains. The propellers turned at about 400 r.p.m. There were no landing wheels on the airplane, and it was launched in the air from a monorail.

July 30, 1909, was a memorable day in the career of General Foulois - his first ride in an airplane! It was a warm summer day which seemed propitious for flying. A crowd lined the parade ground at Fort Myer, waiting expectantly for the flight. The spectators were not disappointed. A chorus of "Ah's" went up as the Wright machine was shoved out on the field and placed on the monorail.

"There goes Orville Wright!" ejaculated several of the spectators in unison.

"Say, soldier," queried one individual, wearing a wide brimmed straw sailor so popular in those days, of one of the enlisted men detailed to keep the crowd back, "who's that officer with Mr. Wright?"

"That's Lieut. Foulois of the Signal Corps," replied the enlisted man.

"Is he going to fly with Mr. Wright?"

"Looks that way, chief."

Sure enough, as Orville Wright climbed into the machine, sat down and commenced testing the controls, Lieut. Foulois also climbed in and sat down

beside him. Pretty soon, Orville Wright signalled for the start. The detail of enlisted men shoved the plane down the monorail, and a few moments later the machine was in the air amidst the shouts of the crowd.

This was the final trial flight of the Wright machine at Fort Myer. Orville Wright, with Lieut. Foulois as observer, flew from there to Shuler Hill, Alexandria, Va., during the course of which three world's records were broken - speed, altitude and duration cross-country.

That year, Lieut. Foulois was detailed as America's delegate to the International Congress of Aeronautics, held in France in September and October. His career as a military aviator began in January, 1910, when he was ordered to proceed to San Antonio, Texas, in charge of the first airplane (No. 1) owned and used in the service of the U.S. Army. The two other officers originally detailed with him to operate this machine had been relieved, and he himself had had less than one hour's instruction in its operation. He was instructed to proceed to Texas and "teach himself to fly".

And so the scene of Lieut. Foulois' aviation activities was shifted to San Antonio, where the climate was considered pretty healthy for flying. It proved so then as it does down to this day, the only fly in the ointment being that Army airplane No. 1 was not a healthy aircraft specimen compared to modern-day types.

There at San Antonio was Army aviation in the making, with Lieut. Foulois as Commanding Officer of eight enlisted men - truly a humble beginning for a combat branch of the service which many present-day military students consider a nation's first line of defense. One day, as Lieut. Foulois was "teaching himself how to fly", something went wrong, as usual, and the plane came down in a crash.

"Good Lord! There it goes again!" ejaculated one of the enlisted men. "That sure seems a bad one! If the Looie isn't a goner this time it's a miracle!" All eight made a rush for the spot where the machine crashed. They pulled their Commanding Officer loose from the wreckage, fear tugging at their hearts. But their C.O. was far from being through, and his none too polite language concerning a certain airplane designated as "No. 1", relieved their tense feelings. It was found that a wire of the fuselage had ripped its way into Foulois' leg. But it wasn't such a bad mess after all, for the damage to his leg as well as to sundry parts of his airplane was

speedily mended.

That Foulois mastered the art of flying goes without saying, and flying an airplane in those days was vastly more difficult and hazardous. Because of its comparatively flimsy construction and the low output of its power-plant, it was at the mercy of any strong breeze which happened to spring up and, on the score of safety, it was necessary to confine flying operations to the periods before sunrise and after sunset, when atmospheric conditions were generally calm.

General Foulois is one of a handful of pioneer aviators who taught himself to fly, and in doing so he experienced considerable grief, not because of any injuries he received in landings, but because he was incessantly engaged in making repairs to this solitary airplane owned by the Army. From January, 1910, to March, 1911, he was the United States Army's lone pilot, navigator, instructor, observer and commander in the Heavier-than-Air Division.

The government had allotted the insignificant sum of \$150.00 for the maintenance and upkeep of Airplane No. 1. This sum did not last very long, and General Foulois dug into his own pocket to the extent of approximately \$300.00, in order to keep this machine in commission.

All in all, he designed at least twenty mechanical improvements in this airplane, all of which were later incorporated in subsequent models of airplanes used by the United States Army. He also conducted numerous tests to determine the suitability of various grades of steel wire and steel cable. The results of these tests were the foundation of the present aviation steel wire and cable industry in existence in the United States.

Not only is General Foulois a pioneer aviator, but also a pioneer in radio, for in 1911, when he was assigned to aviation duty with the Maneuver Division organized at San Antonio, Texas, he designed in the spring of that year the first airplane radio receiving set ever used in the United States on an airplane. At that particular time, while on air patrol duty on the Mexican border, he broke the world's cross-country record with a passenger, whom he flew along the Rio Grande from Laredo to Eagle Pass, Texas. While with the Maneuver Division at San Antonio, he carried out the first air reconnaissance problems ever conducted with troops of the United States Army.

Lieut. Foulois departed from the scene of his trials and tribulations with the first Army airplane in the fall of 1911 and came to the nation's capital on a brand new assignment - duty in the

Division of Militia Affairs in charge of all Signal Corps and Engineer units of the Organized Militia throughout the United States. During his period of service with the Militia Division he reorganized the Signal Corps Field Companies of the entire Organized Militia and reorganized many of the Engineer units. He did not, however, neglect his flying work, and in the spring of 1912 successfully carried out numerous tests with airplane radio receiving sets. A record in radio communication of 18 miles which he succeeded in reaching was the greatest distance that had heretofore been accomplished in aviation radio. In the summer of 1912 he was on aviation duty in the Connecticut Maneuvers, carrying out daily air reconnaissance missions with the troops engaged in these maneuvers. On the final day of this mimic warfare his last reconnaissance mission resulted in furnishing the Commanding General of the Red Forces with information which enabled him so to dispose of the troops as to win in the problem by preventing the opposing troops from attaining their objective.

The famous First Aero Squadron, the first complete military air unit established in the United States Army, was personally organized, equipped and trained by Lieut. Foulois. He also personally designed the first field tent hangar ever used in the U.S. Army. This same model field tent hangar was used by the First Aero Squadron in Mexico in 1916, and during the World War large numbers of them were used in the United States and in Europe for the temporary housing of airplanes. He planned and organized the First Aero Squadron with motor trucks in 1914, and it was the first combat unit of the Army to be equipped with motor vehicles exclusively. He also personally redesigned the semi-permanent wooden hangars built at the Signal Corps Aviation School at San Diego in that year.

In July, 1915, Foulois was ordered to Fort Sill, Oklahoma, in command of the First Aero Squadron for duty with the Field Artillery School of Fire. At this time he had attained the rank of Captain. At Fort Sill, he carried out artillery air observation with artillery troops, which marked the first effort made in the United States Army toward the combined use of artillery and aviation. He personally initiated and supervised the carrying out of many practical field tests of airplane motors with a view to their more efficient development. The result of these tests later saved the lives of many of the flying officers during their service with the First Aero Squadron in the Punitive Expedition into Mexico in 1916.

The movement of aviation units from one base to another under their own power found its inception in November, 1915, when the First Aero Squadron was ordered to proceed to San Antonio, Texas, for station. On Capt. Foulois' recommendation, all the airplanes were flown to San Antonio, while the enlisted personnel and other equipment were moved over land by truck. In the total distance of 550 miles covered by the squadron airplanes, five stops were made. Only one slight mishap occurred during this movement by air, a broken tail skid, which entailed an expenditure of fifty cents to repair.

From November, 1915, to March, 1916, Captain Foulois was in command of the First Aero Squadron at San Antonio, and also was on duty as Department Aeronautical Officer of the Southern Department. He was then ordered to proceed with the Squadron to Columbus, New Mexico, for duty with the Mexican Punitive Expedition, then being organized under General Pershing, for service in pursuit of Pancho Villa.

During the operation in Mexico, he was constantly called upon to perform numerous duties outside of those regularly required of the Squadron, and this organization virtually played the role of Jack of all Trades. Although greatly handicapped by inferior and old types of airplanes, the actual flying operations carried on by the Squadron under his command were such as to cause General Pershing to state that one airplane was worth to him more than a regiment of Cavalry.

When the Punitive Expedition had pushed deeper into Mexico, and the advanced troops had been out of communication for several days, Capt. Foulois was directed to fly to Chihuahua City, approximately 60 miles distant, to ascertain if the American Consul had any news or reports on the situation.

Upon arriving at the outskirts of the city, he proceeded cautiously to the American Consulate on foot. When he reached the Consulate, he learned from the Consul that the American troops had engaged the Mexicans at Parí; that the publication of all newspapers in Chihuahua City had been suspended; that great feeling existed in the City against all foreigners and that all of them had been warned to leave the city.

After remaining in hiding that afternoon and night, Captain Foulois flew back to General Pershing's headquarters the following morning, reported the first news to him of the fight at Parí and delivered his dispatches to General Pershing. The latter, thereupon, told Captain Foulois to hold himself in readiness to return to Chihuahua City

with his answer to Consul Letcher's dispatches.

Neither of the two airplanes were then available for service, being in need of repairs, and an automobile was used. Reaching the outskirts of Chihuahua City again, he entered the town on foot, delivered General Pershing's answer to the Consul, escaped from the city without difficulty and returned safely to Headquarters.

In September, 1916, when Captain Foulois was ordered back to San Antonio, he was again assigned to duty as Department Aeronautical Officer, Southern Department. While on this duty he established the present aviation station known as Kelly Field, and also outlined plans for the establishment of aviation stations along the border from Brownsville to the Pacific Coast.

Captain Foulois went back to Washington on duty in the Aviation Section, Signal Corps, in March, 1917, and upon the declaration of war against Germany was personally charged with drawing up the plans and organization of the Air Service for this great emergency. This plan was the basis of the \$640,000,000 appropriation by Congress to develop a new industry, to construct training stations, shops, warehouses, etc., to recruit, organize and train 120,000 officers and men, to supply advanced training in the field, and finally to make operations with the troops effective. The magnitude of the task was staggering. The declaration of war with Germany found the United States with an air force, if such it could be called, of 65 officers (35 of whom were fliers), 1,087 enlisted men and 55 airplanes. In the eight years from 1909 to 1916, American aircraft manufacturers had delivered to the Army a total of 142 planes, hence the problem confronting this country in the matter of aircraft production may be appreciated when the French government presented a program to America calling for 16,500 modern airplanes in the first six months of 1918.

During the period from April to October, 1917, Foulois, in addition to his other duties, which were numerous, acted as Chairman of the Joint Army and Navy Technical Aircraft Committee of the War and Navy Departments. October, 1917, found him again aboard an ocean-going vessel, this time bound for France. This time his shoulder straps bore a silver star, he having been appointed a Brigadier-General, Signal Corps, (temporary) on the 24th of July in that year. His mission overseas was to take charge of field work in locating and organizing training stations, depots, shops, warehouses and airdromes in France, England and Italy and the

training of all personnel in these allied countries. This stupendous task was well performed.

General Foulois' service during the World War may be summarized, briefly, as follows: He was Chief of Air Service, A.E.F., from November 27, 1917, to May 29, 1918; Chief of Air Service, 1st Army, A.E.F., May 29, 1918 to July 25, 1918; Assistant Chief of Air Service, A.E.F., July 26, 1918, to June 26, 1919. He was also chairman of the Joint Army and Navy Aircraft Committee in Paris, charged with supervision of purchases made in the United States; American member of the Inter-Allied Expert Committee on Aviation which was part of the Supreme War Council, from February 21, 1918, to June 26, 1919, and held other very important posts of an associated nature.

In recognition of his services on the Inter-Allied Councils, the French Government awarded him the grade of Commandeur of the Legion d'Honneur. He was also cited in April, 1919, by the Commander-in-Chief, A.E.F., for "Exceptionally Meritorious and Conspicuous Services with the Air Service, A.E.F." and was awarded the Distinguished Service Medal.

After a term of duty in Washington in connection with the demobilization of the Air Service and salvaging of the immense amount of property which had been accumulated, he was ordered to Germany for duty as Air Attache at the American Embassy at Berlin. Returning to America on the expiration of this detail in April, 1924, he was assigned to duty as student officer at the Command and General Staff School, Fort Leavenworth, graduating therefrom in June, 1925, and shortly thereafter being assigned to duty at Mitchel Field, L.I., New York, as Commanding Officer.

In December, 1927, he was appointed Assistant Chief of the Air Corps with the rank of Brigadier General, being promoted thereto from a Lieutenant-Colonelcy, and from then, until July, 1929, he was in charge of the Training and Operations Division of the Office of the Chief of the Air Corps in Washington. For the period of one year he was on duty as Chief of the Air Corps Materiel Division at Wright Field, Dayton, Ohio, after which he returned to Washington and organized the Plans Division of the Office of the Chief of the Air Corps.

In May, 1931, General Foulois commanded the gigantic Air Corps Exercises which, it will be recalled, consisted of the assembling from the whole country and leading in maneuvers throughout the eastern section of the United States of 672 military airplanes. These exercises represented the massing and handling under one command of the greatest number of military aircraft ever assembled in

the world, and were conducted from beginning to end without a single fatal accident.

At the beginning of these Maneuvers, when the noses of these 672 airplanes were pointed towards Dayton, Ohio, the rendezvous point, General Foulois, accompanied by his staff, headed westward from Washington to take command of the combined air force. As the seven planes approached the Alleghenies, weather conditions gradually grew worse and consequently made flying increasingly hazardous, as is often the case in that locality. Several of the pilots deemed it wise either to land as soon as practicable or return to Washington to await better weather conditions along this stretch. It finally transpired that all of them did an "about face" and headed eastward, save one - the Flying General. To use the airmen's expression, he "pushed through" the "soupy" weather and assumed command of the 1st Provisional Air Brigade at the appointed date and hour. For his leadership in these Maneuvers, General Foulois was awarded the Mackay Trophy for 1931, this award being made annually for the most meritorious flight in the Army Air Corps.

With the retirement on December 19, 1931, of Major-General James E. Fechet, General Foulois was elevated to the much coveted position of Chief of the Air Corps. During General Foulois' tenure of this position a great many important projects were either initiated or completed, or both. Some of the more important major projects completed during the past four years are as follows:

1. Completion of Randolph Field, Texas, and the removal thereto for operation of the Air Corps Training Center and the Primary Flying School.

2. The completion of the physical plant at Wright Field to accommodate the operations of the Materiel Division.

3. Completion of the permanent housing and technical building projects at Barksdale, Hamilton, Mitchel, Fatterson, Langley, Selfridge, March and Maxwell Fields, and the partial completion of such projects at several other stations.

4. Development of a successful long-range, high speed Bombardment airplane.

5. The initiation of improved methods of property accountability in the Air Corps Depots and at the Materiel Division.

6. Marked improvement of aviation fuel, giving greatly increased efficiency.

7. Application of Prestone cooling to aviation engines.

8. The elimination of carburetor troubles and the improvement of power output by the use of the fuel injection system in airplane motors.

9. Organization of General Headquarters Air Force.

10. The initiation of special training of Air Corps pilots in air navigation and instrument flying.

A great many other accomplishments might be added to this list, if space permitted. The period of General Foulois' tenure of office may be summarized by the statement that at no prior period of equal length was progress in the Air Corps so rapid and accomplishment so great.

In recognition of General Foulois' numerous aviation accomplishments, the Council of the Institute of the Aeronautical Sciences, Inc., New York City, at a recent meeting, elected him an Honorary Member of the Institute, the following citation being part of the resolution enacting this election:

"For his courageous foresight in laying the foundation of military aviation; in recognition of great personal sacrifices made in pioneering a field which has become a major factor in the national defense of all countries; for advocacy of the premier position aircraft should occupy in commerce and military strategy; and for his leadership in utilizing the aeronautical sciences for the technical development of the flying equipment of the Army."

Thus far, General Foulois is only the second person to be thus honored by the Institute of Aeronautical Sciences. General Foulois is still an active pilot, who habitually pilots Army aircraft alone, over the entire country. For 26 years he has piloted military aircraft in peace and in war, the pilot of longest service as such in the United States Army, as well as in the entire world, as far as known. For that matter, few men piloted aircraft earlier than he and are still alive to pilot them today.

General Foulois enjoys the warm personal friendship of officers and enlisted men alike. His practical approach to all their problems and the careful consideration he personally gave to the many questions presented to him for solution made all feel that his every thought and effort was to secure their best interests. They experience a distinct loss in General Foulois' retirement from active duty.

ALPHABETICAL FORMATIONS IN THE AIR By the Wheeler Field Correspondent

Though youngsters on the Island of Oahu - like any others - have to go to school to learn their "A, B, C's," they know their "D's" pretty well before they get there. This general precociousness in regard to "D's" may be laid at the doorstep of the 18th Pursuit Group which has kept "D's" of all shapes and sizes and various degrees of symmetry floating about the Hawaiian heavens, off and on, all year.

Large-eyed youngsters spied their first "D" floating over Honolulu Harbor on the 19th of March, and learned from their mamas that "D" stands for "Drum." Somewhere under the floating "D" General Drum was arriving on the U.S. Army Transport REPUBLIC to take command of the Hawaiian Department. They cried out again on September 26th, when a similar "D" appeared, hovering over almost the identical spot. This time mama was stumped, but the "D" stood for Duncan - Major Early E.W. Duncan, to be exact, who was outward bound on the REPUBLIC. It was flown by the Sixth Pursuit Squadron, of which he had been the Commanding Officer.

The inevitable and noisy "D" darkened the fair face of the Hawaiian heavens again on September 30th, this time accompanied by an equally noisy "G," roaring "Aloha" to Secretary of War George H. Dern, as the U.S.S. CHESTER was steaming up the harbor. Still accompanied by the "G," it reappeared on October 4th, but with an "H" sandwiched in between to forestall further speculation upon alternative meanings by certain profane minds. In this instance the occasion was the formal review of the entire Hawaiian Department by the Secretary of War. Hardly a week had passed before it put in another appearance, paired with an "M" as the entire 18th Pursuit Group prepared to welcome ex-Chief of Staff, General Douglas MacArthur, who paused in Hawaii en route to his new post in the Philippines. At this writing, still another "D" is in prospect as an Air Corps honor to Major General Halstead Dorey, the popular Commanding General of the Hawaiian Division and of Schofield Barracks, whose retirement will become effective about "D" (for December) 3, 1935.

"Flying" initials over incoming liners together with the dropping of leis of flowers from planes to their decks is the spectacular modern contribution of the 18th Pursuit Group to the age-old and glamorous Aloha traditions of Hawaii. And this year, though "D" may still stand for "Dog" and "Duck" to children in the States, it has meant "Aloha" to everyone over here.

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SMOKY WORK BY THE 37TH ATTACK SQUADRON

The pilots and mechanics of the "Fighting 37th Attack Squadron" began to sing the popular tune "Smoke Gets In Our Eyes" after the seven-day trip to the Infantry Training School. Captains McLennan, Grussendorf and Lieut. Qualm flew three A-8's on two smoke missions per day per ship and laid approximately 20,000 pounds of F.S. smoke. The missions were a part of the day's Field Orders, and were coordinated with Infantry attacks on an imaginary enemy. Some valuable information was gained as to efficacy of smoke under different conditions of humidity, barometer pressure and temperature. The mechanics making the trip were Staff Sergeant Eyerley, Sergeant Gott and Private, 1st Class, Hankey.

Captain Grussendorf and Lieut. Qualm attacked lower Manhattan, New York, on November 6th, with more F.S. smoke. Lieut. Qualm, accompanied by mechanic, Corporal Martin, are now at Fort Riley, Kansas, doing their part to make that song, mentioned above, famous.

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A SKY PILOT IN MORE THAN ONE SENSE.

Paging the flying sky pilot! "Here," answers First Lieutenant (Chaplain) Stanley J. Reilly, spiritual adviser to over 300 men at Hamilton Field, San Rafael, Calif., Uncle Sam's brand new, \$5,000,000 Bombardment Base on the Pacific Coast.

"Be versatile," is evidently one of the mottoes of this flying Padre, for among his many diversified accomplishments stands the record of what, for a chaplain, is a considerable number of flying hours. Even at this writing, the winged parson is riding high in the clouds, somewhere between the eastern and western boundaries of these United States, enroute to the Florida Field Exercises at Chapman Field, Miami.

Chaplain Reilly, though comparatively new to the military service, having been assigned as chaplain for Hamilton Field and the 7th Bombardment Group on January 31, 1935, has already demonstrated his keen interest in flying and ready assimilation of the peculiar duties necessarily contingent upon a chaplain assigned to a flying unit by putting in what is believed to be more actual flying hours than any chaplain in the military service.

This theological eaglet will return to Hamilton Field on or about December 20th, completing a coast to coast trip by air which started on November 29th.

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The regular monthly conference and luncheon at the San Antonio Air Depot of officers of Air Corps stations in that Supply Control Area was held on December 3rd, some fifteen officers attending.

V-6923, A.C.

SUPERCHARGERS - THEIR EFFECT ON ENGINES

By the Materiel Division Correspondent

Although the supercharger of both the geared and turbo types have been in existence for a number of years, their object and operation have not been fully comprehended.

The supercharger for the internal combustion engine is being used in an effort to maintain constant horsepower delivery from aircraft engines at all altitudes and as a means of increasing sea level horsepower by using boost pressures with a corresponding decrease in engine weight per horsepower.

The purpose of a supercharger is fully or partially to restore sea level air pressure before the air enters the engine cylinders. In a broad sense, the supercharger is simply an air compressor constructed in a form suitable for use in connection with aircraft engines and designed for a capacity and compression ratio which will meet the requirements of the engine at any specified altitude. Two types of superchargers are in use at the present time, the geared centrifugal and the turbo centrifugal types. In the latter type, the power for driving is developed by utilizing the energy available in the exhaust gases, while in the case of the geared type the power is taken directly from the engine crankshaft.

In general, the purpose, irrespective of type, of all superchargers is identical. However, to differentiate the method of application, two systems are in vogue; namely, the suction and pressure type systems. These designations indicate whether the fuel is entrained in the system before or after the compressor. Whatever fuel is entrained in the air stream after the compressor, it is known as the pressure type system, and whenever the fuel is entrained in the air stream before it enters the compressor, it is known as the suction type system. A special type of fuel system is required in case of the pressure type system.

Results which may reasonably be expected from the supercharger are:

- a. Increase in power for a given engine weight.
- b. Constant power delivery irrespective of altitude.
- c. Increase in airplane ceiling by approximately 75 percent.
- d. Increase in speed proportional to constant power output and decrease in density due to altitude.
- e. Increase in maneuverability at high altitudes of all forms of aircraft powered with supercharged internal combustion engines.

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SPECIAL NOTICE: The January 1, 1936, issue of the Air Corps News Letter will be a special one devoted to the Air Corps Training Center.

CRASH TRUCK GETS \$3,000 CHRISTENING

Inadvertently given a \$3,000 christening party when a transport hoist broke and dropped it into the briny depths of San Francisco Harbor, Wheeler Field's new crash truck is undoubtedly the proudest thing on wheels. Second proudest is Pvt. Keith W. White, of the 75th Service Squadron, as he pilots its thirty feet of streamlined crimson and silver splendor past awed Lieuts. and Capts., who stare covetously from their drab little khaki-colored and none-too-up-to-date airplanes.

Each morning the new truck is taken to the post gymnasium, not for setting up exercises, but to protect its four 50-lb. Carbon Dioxide cylinders from the sun while it is "on the line". Though any one of these four tanks of pent-up CO₂ is capable of throwing any fire for a loss, they constitute only threat #1 of fire-fighting Private White's triple threat apparatus. Threat #2 comprises a Foamite container, a 500-gallon water tank, an automatic Foamite mixer and a booster pump, capable of pumping 135 gallons of water a minute. Threat #3 includes a variety of fire extinguishers together with an array of hooks, hack-saws, bolt and wire cutters, designed for nipping baby blazes in the bud.

The new truck, officially designated "Type 100 Chemical Truck", was assembled at Holabird QM Depot, Baltimore, at a total cost of \$7,500. With its eight-cylinder, 160-horsepower Lycoming motor, it is capable of 55 miles per hour.

The development of an efficient type of crash truck for use by the Air Corps was given very serious thought by the War Department. The Air Corps in cooperation with the Q.M. Corps worked on the problem for a number of years, actual tests with various types of trucks being conducted at Wright Field. Service tests were also conducted at various fields in the United States. Impressive in appearance, it is believed the new truck will be even more impressive in action and will fill a long felt need at Air Corps stations.

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BOMBING BY THE 37TH ATTACK SQUADRON

Bombing at 1,000 feet with live bombs, the 37th Attack Squadron, Langley Field, Va., has dropped close to 800 bombs with successful results. Trouble was experienced initially with duds, but at the present writing a large percentage of high order explosives are occurring. Master Sergeant Nero and his men have the loading system well perfected, and dropping one hundred bombs with four ships in two hours is not unusual.

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Due to the lack of properly equipped airplanes for making weather observations at Selfridge Field, Mich., the weather flight was discontinued on November 21st by authority of the Chief of the Air Corps.

PROMOTION OF ENLISTED MEN, AIR CORPS.

It is believed opportune at this time that a few remarks should be made on a subject which is naturally much discussed among the enlisted men of the Air Corps - promotion to the higher noncommissioned grades. First of all, it is considered appropriate to mention the large numbers of authorized noncommissioned officers in the first three grades in the Air Corps. Almost 1400 noncommissioned officers are authorized in the third grade alone. As 318 Technical Sergeants are allocated to the Air Corps, there is naturally a large eligible list for appointment to the second grade. In recent years efforts have been made to obtain a larger number of Technical Sergeants and considerable progress has been attained, so that at the present time more Technical Sergeants are authorized than Master Sergeants. At one time the reverse was the condition.

The Air Corps enlisted strength has practically doubled since the Air Corps Act of 1926. This growth, at times, has been rather rapid, and often it was necessary to organize new units with no additional grades and ratings. At other times grades and ratings were made available which did not necessarily fit then existing needs.

In the early days of the Air Corps reliance was, to a considerable extent, placed upon noncommissioned officers who had had previous experience and training in other arms and services. In each case these transfers were approved by the Air Corps officers who were responsible for the promotion of Air Corps enlisted men. It was difficult during our expansion to adopt a satisfactory uniform system of promotion to the higher grades. Few losses in such grades were then occurring by retirement. In later years, however, retirements became more numerous, and in 1932 final measures were taken toward a uniform system of promotion to Master and Technical Sergeant.

In brief, this system, with which many readers of the News Letter are familiar, is based primarily upon efficiency and total Army service. In order for noncommissioned officers to be placed on the respective eligible lists for promotion to Technical and Master Sergeant, after basic eligibility is established, they must be recommended for promotion by their commanding officers. It is well to remember that an enlisted man in the Air Corps is promoted to the grades of Corporal, Sergeant and Staff Sergeant upon the recommendation of his commanding officer. Examinations were formerly given with a view to determining the fitness of each enlisted man to be placed on the eligible list for promotion to the next higher grade. Such examinations

were conducted by various boards consisting of officers with widely different views as to marking and naturally influenced by the associated duties of those men undergoing examination. Large eligible lists resulted, and many eligibles were perhaps not fully qualified to perform the duties of the next higher grade. Even had these examinations been of real value there was no definite means of differentiating between various individuals given the same marks by different examining boards. It finally devolved upon the Office of the Chief of Air Corps to determine the order of promotion of several hundred Staff Sergeants scattered over the continental United States and in the overseas Departments on many different kinds of duties. Complete records were not available to permit the establishment of a just priority.

The present system places the responsibility for establishing lists of eligibles squarely upon the shoulders of those who should assume it, and the quality of our present and future Technical and Master Sergeants is the answer as to how their responsibilities are and will be met. The plan appears to be fundamentally sound, assuming that commanding officers exercise their proper functions in recommending their most efficient noncommissioned officers for promotion.

In this connection, it may be well to mention a matter which is perhaps being overlooked to a certain extent. This is the provision in the promotion regulations that commanding officers will give opportunity, during the five-year period required to establish eligibility, for noncommissioned officers to enlarge upon their experience, in order that when they arrive at the time for promotion they will have broadened their experience along all lines. Noncommissioned officers qualified for administrative duties should, during that period, be given the opportunity of becoming familiar with technical duties and other specialties. In other words, noncommissioned officers of the higher grades should not be limited to one trade or specialty, but should be trained and fitted for other important duties and responsibilities and should, above all, be leaders of men. Therefore, it should not necessarily be expected that each individual Master Sergeant, for instance, will be a skilled mechanic or specialist, but men of this grade in the Air Corps should be qualified to supervise and direct the work of subordinates in a manner to effect and maintain maximum efficiency, and thus they should be assigned to important and responsible duties commensurate with their grade.

It is felt that the few opponents to the present system will gradually see the wisdom and fairness of such a plan of rewarding efficiency and length of service. It tends to stimulate promotion, as few master sergeants are remaining in the service after obtaining credit for thirty years' service. The promotion of eligible Technical and First Sergeants with long service naturally creates more vacancies and results in the steady promotion of qualified Staff Sergeants to the second grade. If younger and more vigorous men received these promotions, as might generally be the case with another system, promotion to the higher grades would be blocked for many years, and likewise retirement in the higher grades would not be as frequent. Every man naturally looks forward to the time when he will reach the higher grades and remain there by loyal and efficient service and then to retire in the highest grade possible when the time arrives. It cannot be expected, however, that every noncommissioned officer will be able to retire as a Master Sergeant or Technical Sergeant.

A few of the younger and efficient noncommissioned officers have stated that, despite their personal objection to such a system whereby they must advance by length of service, they have a sense of security in the grade in which they are serving and in ultimate promotion when they reach the top of the eligible list. It encourages them to put forth their best efforts to establish and retain eligibility for promotion with a view to filling normal vacancies or a block of vacancies which might occur by the allotment of additional grades. Those men with less total Army service see and realize that the work and service of their comrades and associates of longer service are rewarded and that they, too, as they grow older and more experienced, will receive the same just rewards so long as they put forth their best efforts. It is thus felt that with the passing of each year the wisdom and fairness of the present promotion plan will be realized by those who have felt critically inclined.

A recent publication of the War Department (Circular No. 21, W.D., 1934) has caused the feeling among some that there is a conflict between the Air Corps promotion circular (No. 35-2, A.C., 1932) and the War Department circular mentioned. Such is distinctly not the case. There is no conflict between the two publications. The War Department circular in question does not authorize promotion upon completion of the service mentioned; it prohibits promotion when the service is shorter than that mentioned in the circular. Its purpose, as subsequently stated by the War Department, was to restrict, not

to extend, the practice of promotion immediately prior to retirement. The War Department has further stated with respect thereto that it does not affect any rules now existing or hereafter adopted as to length of service or proficiency qualifications necessary for promotion.

The present system of promotion in the Air Corps has resulted in the recent advancement of certain staff sergeants with long service to the grade of Technical Sergeant. Those so promoted who do not have the required service in grade for promotion to Master Sergeant should not and must not expect any waiver of the rules for promotion to Master Sergeant, any more so than they would countenance waivers toward promotion to Technical Sergeant when they were serving as Staff Sergeants. They should remember that their length of service may have been the determining factor in their advancement to the second grade. Most of these men are below fifty years of age. They usually have knowledge and experience valuable to the Air Corps, and, if qualified, may continue in the service if they so desire until the required service in the second grade is secured toward promotion to Master Sergeant.

While on the subject of the promotion of noncommissioned officers, it seems appropriate to mention that regulations recently issued by the War Department pertaining to the examination and appointment of Warrant Officers, provide that the names of successful candidates will be placed on the eligible list in order of length of service in the Army. The fact that a decision was reached to so appoint qualified candidates as Warrant Officers strengthens the conviction that the present system of promotion to the higher noncommissioned officer grades in the Air Corps based on efficiency and length of service is fair and equitable.

No doubt a number of our qualified noncommissioned officers will in the coming examinations for the warrant grade be found qualified and ultimately receive appointment. When such appointments are accepted their vacancies will be filled by qualified men from the respective eligible lists for Master and Technical Sergeant. It is logical that most of the applicants from the ranks of the Air Corps will request allocation to this arm. In the past it has been impossible to obtain an allotment of sufficient Warrant Officers to meet the needs of the Air Corps. The Five-Year Program specifically provided for an increase in officers and enlisted men, but it was not possible to obtain any increase in the authorized number of Warrant Officers. As a matter of fact, it has not been possible to obtain a sufficient number to take care of losses. Efforts will be continued, however, to obtain needed additional Warrant Officers especially with a view to continuing in the Air Corps as many as possible of those

from its ranks who will receive appointments as Warrant Officers.

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27TH PURSUIT SQDN. IN WING CONCENTRATION

Led by Major Warren A. Maxwell, the 27th Pursuit Squadron, with 28 P-26A airplanes, departed from Selfridge Field on the morning of December 2nd to participate in the Second Wing GHQ Air Force concentration at Miami, Fla. The C-24 Transport, piloted by Major Harlan T. McCormick and carrying four enlisted men, departed on Sunday, December 1st, for Miami, via Wright Field, Ohio, and Atlanta, Ga. The Pursuit planes were scheduled to take the same route. The following officer-pilots composed the Squadron: Captains Robert C. Oliver, Norme D. Frost, Lee Q. Wasser, Dixon M. Allison, Yantis H. Taylor, John M. Sterling, John F. Egan, Walter E. Todd, Karl G.E. Gimmler, Paul M. Jacobs, Rudolph Fink, Daniel C. Doubleday, Hanlon H. Van Auken, 1st Lieuts. William J. Bell, Charles H. Andersin, 2nd Lieuts. Arnold T. Johnson, Edward S. Allee, Lester S. Harris, Harold L. Neely, Eugene Brecht, Jr., Henry B. Fisher, John O. Neal, Harold L. Kreider, William T. Hudnell, Jr., Lawrence O. Brown, Watson M. Frutchey and Allan T. Bennett.

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NOTABLES PRESENT AT QUARTERLY TEST

The 18th Pursuit Group, Wheeler Field, T.H., was honored by the presence of the Honorable George H. Dern, Secretary of War; Major-General Hugh A. Drum, Commander of the Hawaiian Department; Major General Halstead Dorey, Commanding General, Hawaiian Division, and Colonel Delos C. Emmons, 18th Wing Commander, at the quarterly test and inspection of aircraft, held in the form of a tactical exercise at Wheeler Field on October 2d.

The tactical exercise of the quarterly test involved the use of targets which simulated combat conditions as nearly as possible. Bombing was conducted upon a target composed of surveyed trucks simulating an enemy ammunition train defended by anti-aircraft machine guns. Twenty-five pound fragmentation bombs were employed, being released from an altitude above 800 feet. Machine gun firing was conducted in formation against three airplane silhouette targets placed to represent a flight of attack airplanes on the ground.

The bombing was conducted by squadrons in a column of single airplanes, and the machine-gun firing from a column of three airplane elements.

A complete photographic record of the exercise was made by the 11th Photo Section, taking aerial shots of the bombs at the time of impact and of the machine

gun targets before and after firing by each squadron.

After the completion of the mission, an examination of the targets gave satisfactory evidence of the effectiveness of available equipment and type of attack employed. Fragments of the small bombs had completely cut spring shackles from the trucks, and others ripped large holes in the steel bodies and chassis, and badly cut up the engines and tanks. The machine-gun targets were practically destroyed by the forward machine-gun fire.

The firing and bombing exercise was conducted on the Schofield Barracks Combat Range near the Waianae Mountains. The surrounding mountainous terrain injected a mental hazard during the machine-gun firing which contributed to the realism of the exercise.

Despite the excellent results accomplished, the test, in the opinion of the News Letter Correspondent, conclusively proved the immediate need of more modern aircraft and additional radio equipment. As conducted at Wheeler Field, the Quarterly Tests have become a very valuable and interesting training exercise as well as a splendid test of the status of equipment.

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4TH SQDN. FLIES AROUND SOUTHERN ISLANDS

The 4th Observation Squadron, utilizing nine O-19 airplanes, accompanied by a Douglas Amphibian, left Luke Field, T.H., on the morning of November 16th for a three-day flight around the Southern Islands. Molokai was visited on the first day, landings being made at the three fields. While landing at Brant Field, the last one visited that day, a tail wheel of the Amphibian was broken during taxiing. In the course of the next five hours, while waiting for repairs to be made, the Fagan Ranch was visited and explored. The first night was spent at Upolu Point (Suiter Field) and the second at Kilauea Military Camp, where the entire party was conducted on a sight seeing tour of the craters. On November 18th, the Squadron returned to Luke Field, via Maui and Lanai. The trip covered over 600 miles, and the fact that no trouble was experienced with the airplanes speaks highly for their maintenance.

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Five Coast Artillery officers from Fort Kamehameha, T.H., took a two weeks' contact course with the 4th Observation Squadron, Luke Field. Lectures were given on the various Air Corps activities and tactics. The officers took part in various tactical missions, such as aerial gunnery, photography, infantry reconnaissance, etc.

OBTAINING CARBURETOR SETTINGS

By the Materiel Division Correspondent

When a contract is let for the procurement of engines for airplanes, tests are started at once to determine the carburetor and setting to be used for the particular type of installation. Tests are conducted at the engine manufacturer's plant under conditions which simulate the conditions of flight, in regard to load conditions and temperatures. Essentially these tests consist of determining the engine mixture strength requirements and from these data the desired fuel metering curve of the carburetor can be established.

It is then necessary to try various combinations of metering jets and air-bleeds to obtain performance from the carburetor which will furnish the correct mixture, previously determined by mixture control calibrations to the engine. When the setting in the carburetor, which meets the desired metering curve, is determined, the data obtained are forwarded to the Materiel Division for approval. If the requirements of the specification are met, the carburetor used for the test is considered the master carburetor, and an Air Corps setting designation and carburetor manufacturer's stocklist are assigned covering the carburetor and setting.

The master carburetor is then forwarded to the carburetor manufacturer where a complete calibration is made in the carburetor test chamber, using the same conditions of air flow and throttle settings as were used during the engine calibrations. The results obtained from this calibration usually conform very closely with the results obtained on the engine. From this calibration the inspection limits are established for the production carburetors of this type and setting. Throughout the flight operation range the production carburetors must be within two per cent of the master carburetor for acceptance. Production carburetors are then forwarded directly to the engine manufacturer for installation on the engine and the master carburetor is forwarded to the Materiel Division for inspection and calibration.

The carburetor is then calibrated in the carburetor test chamber under the same conditions of air flow, pressure drop, and throttle setting obtained at the engine manufacturer's plant. The results are usually very close to those obtained on the engine, and, if any unsatisfactory performance is observed, an investigation is immediately made to determine the cause.

The carburetor is then completely dismantled and inspected. Any unsatisfactory conditions are called to the attention of the engine manufacturer for cor-

rection and a check of the variables in the carburetor setting is obtained. This same information is also furnished by the carburetor manufacturer to prevent any errors in determining these settings. It is also published in a specification sheet which forms a part of Technical Order O2-1-18.

The calibration of the master carburetor is retained for comparison with the carburetors which are submitted by the service in connection with unsatisfactory reports.

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ACTIVITIES OF 4TH OBSERVATION SQUADRON

The 4th Observation Squadron, stationed at Luke Field, T.H., engaged in the month of October in various tactical training missions which consisted of Aerial Gunnery on towed and ground targets for enlisted gunners, and towed targets for Coast Artillery officers who were taking a contact course with the Air Corps. Other activities included instrument flying, aerial photography, day and night reconnaissance and radio communications.

A week's practice on the pistol range was conducted, the entire squadron participating. Eight enlisted men qualified as Expert Aerial Gunners to fill the allotment of gun positions, with Private, 1st Class, E.J. Mason obtaining high score for the course with 1075.

Numerous cooperative missions were flown with the Coast Artillery, towing targets for both anti-aircraft and machine guns. In addition, this Squadron performed two observation missions with the 35th Infantry and one communication mission with the Hawaiian Division.

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RETIREMENT OF 1ST SERGEANT FLEMING

A formation of all of Kelly Field's troops was held on the morning of November 30th, in front of the Post Operations Office, at which time 1st Sergeant John L. Fleming was formally retired. Colonel Jacob E. Fickel, the Commandant; Lieut.-Colonel H.H.C. Richards, the Assistant Commandant of the Advanced Flying School, and all organization commanders were present at the formation. Captain W.H. Hardy, the Adjutant, read the retirement order.

Sergeant Fleming entered the service on February 25, 1904, was assigned to Company C, 30th Infantry, in which branch he served until Feb. 24, 1907. For the next six years he served with the Coast Artillery. He reenlisted in the Infantry in December, 1913, served continuously therein for nearly 10 years; was with the Quartermaster Corps for over two years; reenlisted in the Air Corps July 12, 1926, and served continuously therein until his retirement.

Sgt. Fleming was congratulated on his good record.

50TH OBSERVATION TOURS HAWAIIAN ISLANDS

The 50th Observation Squadron, stationed at Luke Field, recently made a tour of the Hawaiian Islands, leaving Oahu at 8:00 a.m. on a Wednesday with seven o-19's and one OA-4A as a safety ship. The personnel consisted of Major L.V. Beau, commanding; Major J.D. Barnwell, Medical Officer; Lieuts. R.A. Stunkard, C.W. Phillips, J.C. Cochran, J.M. Chappell, J.P. Stewart, E.F. Signer, M. Bonner; Technical Sergeant W. H. Williams; Staff Sergeants A.R. Klein, S.G. Kolb and C. Langston; Corporals J.P. Pendleton and J.W. Allison; Privates R.F. Russell and Whiteside.

The first landing was made at Homestead Field, Molokai, and fifteen minutes later the flight took off for Kalaupapa, Molokai, where once again a landing was made. From this point the flight proceeded to Brant Field, Molokai; Hanna, Maui, and to Upolu Point, Hawaii, where the planes were serviced and the Radio Department acted as the culinary detail of the flight, serving a delicious lunch comprising the old standby - "Ham and -"

The Flight Commander inspected the facilities for emergency activities. This station appeared to be in excellent condition, the result of hard, earnest labor, exercised by the permanent personnel there, commanded by Sergeant Hoffert. Taking off at about 2:00 p.m., the flight, after passing many miles of scenic beauty along the coast, reached Hilo Airport, where all airplanes were staked for the night. All of the personnel were then taken by the Kilauea Military Camp bus on that long, long trail of 35 miles to the camp. It was unanimously agreed that the trip by the bus over such a narrow road and with such speed was more exciting than the flight over the channel. Private "Barney Oldfield" at the wheel must have been laboring under the impression that his passengers were out for a thrill. The overnight stay at the Military Camp was very pleasant and the men were quite comfortable, although overcoats could have been utilized to good advantage.

On Thursday morning the personnel enjoyed a personally conducted tour of the Volcano Area by Mr. Williams, Chief Forester of the Section. He disclosed many secrets of Her Majesty, Madam Pele. The tour was greatly enjoyed by all members of the party. At 11:00 a.m., after a light lunch, the return trip was started over the long, narrow trail to the Hilo Airport. Take-off was made at 1:30 p.m., but, due to inclement weather south, the flight returned to Upolo Point for the night.

Friday morning found the flight well on its way to South Point, Hawaii. After a brief inspection of the field and

its facilities, preparations were made to return to Upolo Point. It was found, however, that a magneto in an O-19 had given up the ghost, whereupon the Squadron Commander immediately dispatched the Amphibian to Oahu, where a magneto was picked up and flown back to South Point. Unmindful of sundry remarks indulged in by various members of the group, Corporal Pendleton secured the new magneto in place within 30 minutes, and the flight then proceeded to Upolo Point and remained there Friday night.

Early Saturday morning, the flight took off for Maalaea, Maui; thence to Lanai City, Lanai, and Homestead Field, Molokai, where some rare pineapples were enjoyed in their natural state before the tax is placed on them. The flight landed at Luke Field at 12:15 p.m.

This flight afforded excellent training for the participating personnel, and the entire organization is looking forward to another flight of this nature in the near future.

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RECORD MASS FLIGHT ACROSS THE CONTINENT

Flashing across the United States like migratory birds heading south for the winter, 29 Martin Bombardment planes of the 7th Bombardment Group (Provisional) made what is believed to be a record for mass flight when they landed at Vero Beach, Fla., in the elapsed time of 21 hours and 50 minutes. This record includes stops for servicing at Biggs Field, Fort Bliss, El Paso, Texas; Barksdale Field, Shreveport, La., and Maxwell Field, Montgomery, Ala.

Starting off from Marcu Field on December 1st, at 3:15 p.m., Eastern Standard Time, the planes arrived at Vero Beach the following day at 1:40 p.m., E.S.T. Although the journey presented little difficulty in the way of bad weather, the 24 hours without sleep was an unusual strain on the personnel.

The purpose of the flight was to ferry the planes to the State of Florida for participation in the exercises of the General Headquarters Air Force at Vero Beach and Miami. While in Florida the planes were scheduled to fly in spectacular exercises before thousands of spectators at the Miami National Air Races.

The nonchalance with which the press of the country accepted the flight indicated how quickly the American people are becoming accustomed to airplane feats.

No attempt was made to establish a cross-country speed record for mass flight. One of the objects of the air hegira was to demonstrate how quickly all of the modern Army airplanes on the West Coast could cross the American continent and come to the rescue in the event of an attack on the east coast by a foreign power.

O B I T U A R I E S

Major George E. Rice and 1st Lieut. Harry H. Geoffrey, Air Corps, were instantly killed in an airplane accident near Bolling Field, D.C., on the morning of December 4th. The officers were flying an O-43 Observation plane from Mitchel Field, N.Y., and were preparing to land when the plane crashed.

Major Rice was born in Basin, Wyoming, January 18, 1898. He enlisted in the 133rd Aero Squadron, Aviation Section, Signal Corps, August 23, 1917. Appointed a Flying Cadet, he took his ground school training course at the University of California, and his flying course at Chanute Field, Ill. Upon passing the required tests, he was given his R.M.A. rating and was commissioned a second lieutenant, June 26, 1918. In July, 1918, he was transferred to Camp Dick, Dallas, Texas, and the following month to Brooks Field, Texas. He served for brief periods at Dayton, Ohio, and at the Aeronautical General Supply Depot, Garden City, N.Y., and in January, 1919, he was transferred to Rockwell Field, Calif., where he served for nearly a year as personnel adjutant and officer in charge of forest patrol work. In January, 1920, he was transferred to Hawaii, where he served with the 2nd Observation Squadron at Luke Field. Later he served with the 23rd Bombardment Squadron.

Upon his return to the United States, he was assigned to duty (January, 1923) at Kelly Field, Texas, serving successively with the 41st and 43rd School Squadrons until October 11, 1927, when he was transferred to March Field, Calif. In August, 1929, he was transferred to Fort Sill, Okla., where he served with the 16th and 88th Observation Squadrons. In January, 1932, Major Rice was assigned to duty in the Panama Canal Zone, where he served with the 63rd Service Squadron and the Panama Air Depot. On November 1, 1933, he was promoted to Captain. On his return to the United States in June, 1934, he was assigned to Mitchel Field, N.Y., where he served with the 5th and 97th Observation Squadrons and the 5th Bombardment Squadron. On April 20, 1935, he was assigned to command the 97th Squadron with the temporary rank of Major.

Major Rice is survived by his widow, Mrs. Dorothy Wendell Rice, and two daughters, who reside at Mitchel Field.

Lieut. Geoffrey was born in St. Paul, Minn., December 19, 1906. Enlisting in the 3rd Infantry on June 30, 1925, he served with this regiment for one year, when he entered the U.S. Military Academy. His graduation from West Point in 1930 was followed by his appointment as a 2nd Lieutenant of Field Artillery. He served with the 18th Field Artillery

at Fort Des Moines, Iowa, from June 22, 1930, to September 30th of that year, and at Fort Snelling, Minn., to October 8, 1932, when he was detailed in the Air Corps for flying training. Upon his graduation from the Air Corps Training Center, October 14, 1933, he was assigned to the 1st Observation Squadron at Mitchel Field, where he was last stationed. From February 27 to April 30, 1934, he was on duty as air mail pilot.

Lieut. Geoffrey is survived by his widow, Mrs. Fredericka Mertens Geoffrey, and one son, residing at Mitchel Field.

Second Lieutenant Karl W. Bauer, Air Corps, died as the result of an airplane accident at Muroc, Calif., December 2, 1935.

Lieut. Bauer was born in Jefferson City, Mo., February 8, 1910. He entered the U.S. Military Academy on July 1, 1930; was graduated and commissioned second lieutenant of Infantry, June 12, 1934, and then assigned to the Air Corps for flying training. Upon the completion of his flying course and graduation from the Advanced Flying School, Kelly Field, Texas, on October 12, 1935, Lieut. Bauer was assigned to duty at March Field, Riverside, Calif. He is survived by his widow, Mrs. Marjorie D. Bauer, residing in Riverside.

Second Lieutenant Eyvind Holterman, Air Corps, flying instructor at Randolph Field, Texas, died on November 24, 1935, as the result of an airplane accident 20 miles southwest of Columbus, Texas.

A native of Norway, Lieut. Holterman was born on June 9, 1907. He received his education in San Francisco and Berkeley, Calif., attending high school and the Galt Tech., Jr., college in the first-named city, and the University of California, Berkeley, for three years, graduating in May, 1932, with the degree of Bachelor of Science.

Appointed a Flying Cadet, he completed the course at the Primary Flying School at Randolph Field, Texas, February 28, 1933, and the advanced course at Kelly Field, Texas, June 29, 1933, on which date he was rated "Airplane Pilot" and "Airplane Observer," and commissioned a second lieutenant in the Air Reserve. Lieut. Holterman was on active duty at Crissy Field, Calif., with the 91st Observation Squadron, for a period of twenty months, following which he enlisted as a Private in the Air Corps, took the examination for a commission in the Air Corps, Regular Army, and realized his ambition. Following his permanent appointment, he was assigned to duty as flying instructor at the Primary Flying School at Randolph Field. He was not married, and his nearest relative is his aunt, Miss Bergatta Hoe, of San Francisco.

The heartfelt sympathy of the Air Corps is extended to the bereaved families of these deceased officers.

PARACHUTE JUMPS

All of the drama incident to flying over the Panamanian jungles during the rainy season was vividly typified on November 20th, when the Panama Canal Department's only Amphibian airplane lost most of its right engine in the vicinity of Ocu, Republic of Panama. For what is believed to be the first time in the history of the Air Corps in the Department, communication at Albrook Field was continuous from the time the descent began.

The Amphibian, returning from a trip to the Island of Coiba, was forced to turn on account of a tropical storm along the coast line and was sailing peacefully along at an altitude of 4,100 feet, dodging in and out among the clouds, when at 10:45 a.m., Captain Frank A. Armstrong, the pilot, checked his instruments and noted that everything was functioning perfectly.

There was a sudden noise, a thud against the cowling of the pilots' cockpit, a tremendous vibration, and Captain Armstrong looked to the right over the head of Captain James H. Wallace, who had ducked down when the propeller struck the cockpit, and saw that the right propeller and part of the engine was gone.

Captain Lindsay M. Bawsel was talking over the Amphibian's 187 set to the Albrook Field Station when the engine left the airplane. He dropped his microphone, the button wedging against a seat, thus leaving the Albrook Field Station in contact with the comments of the personnel of the "Duck."

Captain Bawsel moved without delay to the rear hatch and proceeded to become a second degree member of the Caterpillar Club. A little over six years ago, on November 4, 1929, he received his first initiation at Chanute Field, Rantoul, Ill. Major R.D. Prescott, Signal Corps Reserve, followed him to the now open hatch. He didn't like the looks of the country below, so he gave way to Sergeant W.R. Tanner, who proceeded with his Caterpillar Club initiation. Calmly adjusting his leg straps, Major Prescott took another look out and spied a native hut for which he made a dive.

In the meantime, Captain Armstrong, making a wide circle, had lost only 300 feet altitude. Captain Wallace announced that he would ride the ship down with the pilot and attempted to close the open hatch, but was unable to do so.

At the ground station, listeners-in at the loud speaker had heard Captain Wallace checking the parachute jumpers as they left the airplane. In a few moments Captain Wallace announced that the ship had landed safely.

Stories of airplane accidents in Panama are far from complete, however, when all parties have reached the ground, for they may be in the jungles or a swollen river, so frantic efforts to make contact with the three jumpers were immediately inaugurated.

Lieut.-Colonel Charles T. Phillips, Command-

ing Officer of Albrook Field, immediately dispatched Major Frank O'D. Hunter, with a flight of three airplanes, to aid Captains Armstrong and Wallace in an effort to locate and gain contact with the parachute jumpers. The flight landed safely at Ocu, alongside of the "Duck," and information was secured as to the approximate position in which each jumper was believed to have gone down. Major Hunter then took off, made a brief search before a heavy rain storm came up, and was then forced to return to the field. Landing with the wind which was bringing the rain storm along, he found that the application of brakes did no good on the water-soaked turn on which he landed, and the P-12 went on its back in a gully. Major Hunter declared that the ravine was the drainage point both for the native town of Ocu and the field which was occupied normally by a large herd of cattle.

In the course of a couple of hours, Major Prescott, who is the Director of Communications for the Republic of Panama, reported in by telephone, and also gave the welcome news that he had seen Sergeant Tanner on the ground and that he was uninjured. Sergeant Tanner had landed on the opposite side of a swollen river and Major Prescott could talk to him, but they were four hours apart from the standpoint of actual contact. The search for Captain Bawsel continued until dark, when there was nothing left to do but to abandon it for the time being, despite the fact that his comrades were fearful that he had been injured during the course of the jump and was parked somewhere in the jungles with only wildcats and boa constrictors for company.

The tension was relieved at about 7:00 p.m. that night, when Captain Bawsel called Col. Phillips from the town of Santa Maria, stating that he had traveled for two hours on foot to reach a native hut, and then for seven hours on horseback to reach a telephone.

A new engine has been flown to the field at Ocu to repair the Amphibian, as the roads to that locality will probably be impassable until the wet season begins to wane. The P-12 will be surveyed and destroyed at the scene of the accident.

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While piloting a BT-231 weather observation plane, Captain Norme D. Frost, Air Corps, was forced to bail out at about 1,200 feet, due to engine failure and fear of fire. He was making daily weather observations and was about twelve miles southeast of Romeo, Michigan, about 6:00 a.m., when the accident occurred. The plane crashed into a freshly plowed corn field not far from Wolcott's Mill at Ray Center and was completely wrecked. Captain Frost drifted to earth with his parachute about a mile from the wrecked plane, landing in a hay field. He was uninjured.

Ascending to an altitude of 17,000 feet to make his daily observations, Captain Frost

V-6923, A.C.

stated that at that point he smelled smoke, but placed little importance on the fact because he believed it was caused by the carburetor. He then headed for Selfridge Field, having completed his observations, and had descended to an altitude of 1,200 feet, when he saw the oil pressure instrument suddenly register zero. Hoping to be able to reach the field and make a safe landing, Captain Frost stuck to the controls. However, the motor quickly stalled and there was nothing left for him to do but take to his parachute. The airplane was a complete loss.

This was not the first time Captain Frost yanked the ripcord of his parachute and glided down to safety, his first initiation into the Caterpillar Club occurring almost seven years ago (December 4, 1928) when he was serving a tour of duty in the Hawaiian Department. That first initiation Captain Frost will probably never forget, what with his plane being in a fast spin, everything a whirling blur; several of his fingers caught fast in the metal loop of the safety belt buckle and acting as a wedge which prevented the loop slipping through the other half of the buckle and releasing him from the plane; his final frantic, and this time successful, effort to tear his imprisoned fingers loose; his instant ejection from the plane like a rock from a catapult; his inability for several fleeting and very valuable moments to find the ripcord of his parachute in its accustomed resting place and his welcome discovery thereof up under his arm pit; his landing near the edge of a gulch and the hard jolt he received on striking the ground and falling backwards.

Other recent additions to the roster of the Caterpillar Club are set forth below, as follows:

While on a ferry flight in type SOC-1 plane from Anacostia, D.C., to San Diego, Calif., Lieut. L.C. Simpler, U.S. Navy, encountered rain and a low ceiling in the vicinity of Clanton, Ala., November 19th, and was forced to resort to his parachute when his gasoline supply became exhausted.

On October 12th, while on a weather observation flight, Captain Raphael Baez, Air Corps, stationed at Scott Field, Ill., was forced to "bail out" from an altitude of about 6,000 feet, when his gasoline supply became exhausted. He left Scott Field at 4:00 a.m. on a flight which was to have lasted an hour and thirty minutes. Encountering "soupy" weather Captain Baez attempted a landing at the Chicago airport, but the fog was so heavy that he could not find the field. He deserted his plane when about $4\frac{1}{2}$ miles north of Chillicothe and landed in a tree on a farm, a mile away from the place where his plane crashed. He was badly shaken and shocked, and suffered cuts and bruises. Extricated from the tree with the help of a farm-hand, he was able to walk with assistance and was taken to Peoria, Ill.

Corporal H. W. Fisher, of the 14th Photo Section, Mitchel Field N.Y., made a parachute jump shortly after 5:00 o'clock on November 10th from a plane flown by Sergeant G.E. Layman. A fog was encountered in the vicinity of Flemington, N.J.; and the visibility was not more than fifty feet. It appears that Sergeant Layman shouted to his companion: "Get ready, you might have to bail out." Corporal Fisher, however, thought that Sergeant Layman ordered him to jump, and over the side he went. At that time the plane was over a valley, between Croton and Quakertown, about seven miles from Flemington. Corporal Fisher missed a patch of woods and came down in a field from which he could see the lights of a farmhouse. He made his way to the home of the farmer, who took him to the state police barracks in Flemington. Fearing for the safety of Sergeant Layman, Corporal Fisher urged that a teletype alarm be sent out for the plane. A reply was received almost immediately to the effect that Sergeant Layman, emerging from the thick fog, got his bearings and landed at Mitchel Field at 5:40 p.m.

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DELAYED FIRE - PURSUIT SHIP DESTROYED

Taking off to the south from Selfridge Field on a recent training flight at 7:45 p.m., the engine of the P-26A airplane which Captain Robert C. Oliver was piloting failed at an altitude of about 300 feet. The pilot made a 180° turn, struck a gable on a building near the Jefferson Avenue bridge just south of the field, cut down a tree of eight inches in diameter, bounced over a ravine, and finally stopped right side up without injuring himself, except for a minor scratch in the palm of his hand. After getting out of the ship he had walked a short distance, but being unable to see in the darkness, he went back to the ship and secured a flashlight and then started toward the road. When about fifty yards from the airplane, it suddenly burst into flames, and what remained of the airplane was completely destroyed by fire.

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ACTIVITIES OF THE 72ND BOMBARDMENT SQUADRON

The 72nd Bombardment Squadron, Luke Field, T.H., recently completed seven cooperative missions for the troops of the Harbor Defenses of Pearl Harbor. As these missions are flown at an altitude of 10,000 feet, one would hardly believe that the airmen were stationed in the tropics after noting the amount of clothing and equipment used for these missions.

On October 28th, 29th and 30th, the Squadron completed an Inter-Island training flight to the Islands of Hawaii, Maui, Molokai and Lanai, landings being made on all of these islands. The first night was spent at Hilo, Island of Hawaii. Some of the personnel seized the opportunity to visit the Hawaiian National Park. The second night was spent at the auxiliary field at Upolu Point, Island of Hawaii. Twelve officers and 31 enlisted men participated in this flight.

BOARDS CONVENE AT WRIGHT FIELD

Various Boards have been in session at the Materiel Division, Wright Field, during the past month, namely, the Communications Board for the purpose of submitting recommendations for and approval of aircraft radio communication equipment; the Navigation Board for similar action on air navigation equipment, and a Bombardment Board convened for the purpose of taking action on the Douglas and Martin Bombardment airplanes submitted in the August 22nd Procurement Competition.

The Communications Board, called for November 19th, was composed of Major C.H. Howard, of Langley Field, Va.; Captains A.W. Marriner, Office of the Chief of the Air Corps; M.W. Stewart, Langley Field; T.H. Baxter, Barksdale Field; L.H. Watnee, March Field; L.D. Frederick, Crissy Field, and W.G. Smith, Wright Field.

The Navigation Board, called for November 22nd, was composed of Major W.T. Larson, March Field; Captains A.W. Marriner and J.S. Griffith, Office of the Chief of the Air Corps; Captain C.J. Crane, Wright Field; Lieuts. H. F. McCaffery, Langley Field, and T.L. Thurlow, March Field.

The Bombardment Board, called for December 2nd, consisted of Lieut.-Col. C.B. Oldfield, Major John Whiteley and Major E.L. Kubank, Langley Field; Lieut. Colonel H.L. George, Maxwell Field; Major W.T. Larson, March Field, and Captain F.C. Carroll, Wright Field.

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FLYING INSTRUCTOR QUICK ON THE TRIGGER

Lieut. Charles F. Densford, Air Corps, flying instructor at Kelly Field, Texas, recently won the San Antonio fall pistol championship by making a clean sweep of every match on the program. The match was conducted by the Liberty Pistol and Rifle Club. The first event consisted of 30 shots, slow fire, at 25 yards. Lieut. Densford's scores were 99, 98 and 99, or 296 out of a possible 300. In the second event, 30 shots in timed fire, his scores were 98, 98 and 95, or a total of 291 out of 300. The third event, consisting of 30 rounds rapid fire, was easily won with scores of 100, 95 and 95, or a total of 290. The last event, 30 shots at 50 yards, was won by a narrow margin, Lieut. Densford's scores being 90, 87 and 95, or a total of 272, while H.M. Cline, a civilian competitor, scored 96, 84 and 91, or a total of 271. Lieut. Densford's total score of 1149 out of a possible 1200 points is considered an exceptionally good record for match competition. He led his nearest competitor by 35 points. In 1932, Lieut. Densford won the State Championship and, continuing at this rate, should again win this year.

WAR DEPARTMENT ORDERS AFFECTING A.C. OFFICERS

CHANGES OF STATION: To Maxwell Field, Ala.: Colonel John N. Reynolds, 19th Composite Wing. Relieved from temporary rank effective upon date of departure from Panama.

To Brooks Field, Texas: Major Harold G. Peterson, 65th Service Squadron. Relieved from temporary rank upon date of departure from Hawaii. - 1st Lieut. William G. Beard from Hawaii.

To Bolling Field, D.C.: 1st Lieut. Arnold L. Schroeder from Hawaii.

To Fort Sill, Okla.: 1st Lieut. Hulian M. Chappell, from Hawaii.

To Governors Island, N.Y., for duty at Headquarters 2nd Corps Area, pending retirement, Major William D. Wheeler, from Hawaii.

PROMOTIONS: To Lieut.-Colonel, with rank from December 1, 1935: Majors Benjamin G. Weir and Ralph Royce.

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TRAINING FOR RESERVE OFFICERS AT BOSTON

The following Training Directive for Reserve Officers, which has been put into effect by Captain Walter E. Richards, Commanding Officer of the Boston Airport, East Boston, Mass., and of the First Corps Area Air Corps Detachment, has greatly stimulated interest:

Required:

- a. 200 miles air navigation.
- b. 200 miles air navigation.
- c. 250 miles air navigation.
- d. 35 hours air navigation.
- e. 5 hours instrument (under hood).
- f. 10 hours instrument (total).
- g. 2 hours night (air navigation).
- h. 10 hours night (total).
- i. 5 hours formation.
- j. 100 hours allotted.

The total flying hours completed at the Boston Airport for the Fiscal Year 1936 amounts thus far to 1,934:25, of which 933 hours are credited to Regular Army personnel and 1,001.25 hours to Air Reserve personnel.

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SELFRIDGE PERSONNEL JUDGE MODEL PLANE CONTEST

Nine Flying Cadets and nine noncommissioned officers, stationed at Selfridge Field, Mt. Clemens, Mich., acted as judges of the model airplane contest of the Junior Birdmen of America, held on November 29th at the Coliseum of the State Fair Grounds in Detroit.

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The 23rd Bombardment Squadron at Luke Field, T.R., is now flying two 2-hour periods when engaged in night flying. Using a 4-hour night and sometimes flying two nights a week, the Squadron expects to complete the fifty hours of night flying per officer called for by the Group Training Directive. Although handicapped by bad luck and lack of airplanes, the Squadron is best on the field in amount of training completed.



AIR CORPS FIELDS

Luke Field, T.H., November 23, 1935.

4th Obs. Squadron: Major Pritchard having been appointed Commanding Officer of the Hawaiian Air Depot on Oct. 21st, Captain Jack W. Wood has been acting Squadron Commander. Capt. Fay R. Upthegrove returned from Kilauea after a two weeks' stay and took over the command of the Squadron.

With the ushering in of the basketball season, the championship 4th Squadron is prepared to repeat. Led by Corp. Sadler, the team has been working hard and is rapidly approaching mid-season form. In the two indoor baseball leagues, the Squadron has not fared so well - losing all of its games.

23rd Bombardment Squadron: While taxiing on Kahuku Field, Lieut. William C. Capp hit a lava bubble, breaking the landing gear, causing the plane to fall on the lower right wing and washing it out. The plane is being taken care of by the Hawaiian Air Depot.

Several promotions were recently announced. Emerson, with the 23rd for eight years, went from Sergeant to Staff Sergeant. Corporal Charles H. Culpepper became the junior sergeant and Carl E. Young the new corporal.

The basketball team was so disconcerted by the appearance of Logan, a former 23rd star, on the 65th team, that they did not begin clicking until the last quarter. By that time the lead was too great to overcome, and the 65th won 30 to 21.

Lieut. John K. Gerhart, former engineering officer of the Squadron, was made Post Adjutant, his duties being taken over by Lieut. Byram A. Bunch, Armament Officer.

An informal Aloha party to Privts. Colton, Overmyer and Clark was given by the Squadron in the mess hall. All responded with brief speeches when called on by the Toastmaster, Master Sergeant Brockway.

After losing to the 65th Service and the 4th Observation Squadrons, the basketball team defeated the 72nd and 50th Squadrons in such a convincing manner that the second round of games promise to be real battles. The team has been hitting the basket with regularity and playing together much better than when the season started.

Bad weather prevented the Squadron making the annual trip around the outlying landing fields.

72nd Bombardment Squadron: Best wishes are extended to the new Squadron Commander, Major Idwal H. Edwards, who arrived on the last transport. Everyone hopes the Major will like his new assignment.

Langley Field, Va., December 7th.

On November 18th, the 37th Attack Squadron was happy to congratulate Captains McLennan and Grussendorf on their promotion in rank from 1st Lieutenants. From the rank of second lieutenants, Air Reserve, Allison and Gutherland changed to Privates in the Regular Army. It seems that Army flying has that grip which holds.

Flying Cadet Bennet acquired the distinguishing prefix to his name of "Eagle Eye." It is not only due to his prowess at hunting, for he did bring home a wild turkey while gunning with buckshot for a deer, but his ability to pick up camouflaged planes. When the 35th Pursuit Squadron painted their planes and covered them carefully with branches, Cadet Bennet located them and informed the Group by radio to complete the mission.

When the Eighth Pursuit Group basketball team won their seventh game on November 5th, by defeating the 59th Service Squadron 38 to 25, they clinched the Langley Field Athletic Association Intermural League title for the Pursuit Group.

A total of 12 games were to be played in carrying out the League schedule. The 19th Airship Squadron was forced to forfeit two of their games due to being transferred to the West Coast. One other team dropped out early in the season, making four games won by forfeit, one lost to the 59th Squadron and 7 won in contests. Clean sportsmanship and stiff competition were encountered in all League games. A rousing cheering section, liberally sprinkled with Pursuit Group officers, was a contributing factor in the winning of the title according to members of the team.

The Pursuit Group Squad was composed of one Flying Cadet, and enlisted men drawn from the Headquarters Detachment, 33rd, 35th, 36th and

37th Squadrons. At the completion of the schedule, the Group Commander, Lieut.-Colonel A.H. Gilkeson, Air Corps, representing the Pursuit Group team, was presented with an appropriate trophy by the Post Recreation Officer. Members of the squad included Flying Cadet Bennett, Sergeant Everett, Corporals Olson and Hollick, Privates Harvey, Stryjak, Goodman, Miller, Ackerman, Engleman and Dombrowiak.

Hamilton Field, San Rafael, Calif., Dec. 3.

Seven second lieutenants reported for duty from the Air Corps Advanced Flying School on October 23th, viz: John B. Cary (CE), 69th Service Sqdn.; Paul C. Ashworth (CE) and Harvey T. Alness (Cav.) 11th Bomb. Sqdn.; Byron E. Brugge (CAC) and Dale C. Smith (Inf.) 9th Bomb. Sqdn.; Jack E. Shuck (CAV), 31st Bomb. Sqdn.; and Herbert M. Baker, Jr. (Inf.) 70th Service Squadron.

Master Sergeant Harry Beck, formerly with the 29th Pursuit Squadron, Albrook Field, Canal Zone, was assigned to the 70th Service Squadron.

Technical Sergeant Edwin D. Thomas, 70th Service Squadron, was ordered to the Philippines as replacement for Technical Sergeant Carl G. Lantz. Sergeant Thomas sails from San Francisco on January 22nd, 1936.

The semi-annual examination to determine eligibility of applicants to hold the rating of Air Mechanic was held on December 2nd.

While fishing on the rocks at Point Bonita on the Fort Baker Military reservation on Tuesday, December 3d, Private Gerald F. Griner, 31st Bomb. Sqdn., was carried to his death on the jagged rocks when a huge wave swept him into the sea before the horrified eyes of his companions, Privates Oliver R. Kamstra and Irving W. Young. Private Griner, a native of Watertown, S.D., is survived by his mother, Mrs. Etta M. Griner of that city.

At this writing the body has not yet been recovered, and the Coast Guard is still patrolling the waters of San Francisco Bay in an effort to locate Private Griner's remains.

Selfridge Field, Mt. Clemens, Mich., Dec. 2.

Captain Oakley G. Kelly, Air Corps, of Wright Field, Dayton, Chic, with his assistant, Staff Sergeant Frank D. Blair, arrived at the station on November 18th to conduct the semi-annual technical inspection. The Technical Inspector departed on Nov. 23rd.

San Antonio Air Depot, Duncan Field, Texas.

Major F.D. Hackett and Captain E.W. Rawlings of the Field Service Section, Materiel Division, Wright Field, Ohio, flying an O-25, arrived here December 3rd to confer on engineering and depot administration matters.

Lieut. D.M. Kilpatrick, of Langley Field, ferried in a B-6A for overhaul and returned Nov. 23rd to Langley Field, ferrying a PT-3 for that station.

Returning from a cross-country flight to Brownsville, Texas, Lieut. C.S. Irvine, of

the Engineering Section, Materiel Division, was forced down with engine trouble at Kingsville, Texas, November 23rd, and was a visitor at this Depot for several days, awaiting engine change in his O-46 plane.

Lieut. (JG) J.E. Pixton, U.S. Navy, flying a Naval Fighting Land Plane from the Naval Air Station, Norfolk, Va., to his home station at San Diego, Calif., stopped at this Depot on November 23th while en route.

Mr. William Klingan, representative of the Pratt & Whitney Aircraft Co., called at the Depot on Dec. 2nd for a few days' visit, conferring on engine maintenance problems.

Boston Airport, East Boston, Mass., Dec. 9.

Recent visitors here were Major Robert Olds, Lieut. G.L. Govoni, Cadets Bennett, Pearson and Junger, from Langley Field, Va.; Major F.B. Valentine and Capt. Wenstrom from Bolling Field, D.C.; Captains T.E. Cheatle, P.T. Cullen, Howard Moore, Lieuts. H.A. Cheney, G.W. Pynchon, C.A. Gayette, F.P. Luna, Cadet Nelson and Pvt. Borden, Mitchel Field; Capt. O.R. Cook, West Point, N.Y.; Capt. C.H. Deerwester, Pvts. Camp and Joyce, Middletown Air Depot, Pa.; Capt. J. F. Early, Armstrong and Lieut. R.S. Kelsey, Wright Field, O.; Lieut. E.G. Kiehle and Cadet Dunlap, Selfridge Field, and Lieut. A.J. Hedding, U.S.N., Anacostia Naval Air Station.

Capt. R.R. Brown and W.E. Richards, of the First Corps Area Air Corps Detachment, completed their training schedule for the Fiscal Year 1936.

After a few weeks' delay, due to repairs on the C-3A, the weather flights at Boston have been resumed.

The Reserve Officers of the Detachment, during November, have flown, as follows: Hours - Majors Nestor, 1:10; Raymond, 1:00; Captains Clark, 6:50; Copland, 1:30; Crowley, 1:15; Fogg, 8:05; Holterman, 5:30; Lusk, 2:25; Nagle, 2:35; 1st Lts. Harlow, 5:05; Hopkins, :55; Ingals, :45; Newhall, 1:55; Orr, 3:00; Pearson, 4:30; Sandow, 4:30; Smith, 12:40; White, 2:25; 2nd Lts. Altenburg, 7:50; Aigeltinger, 2:40; Harrison, 4:35; Halstead, 21:05 and Tanner, :30.

Richards Field, Kansas City, Mo.

The following-named Reserve officers of the 7th Corps Area received 14 days' active duty at this station during the past month: Capt. G.T. Long, 1st Lieuts. James E. Derby, J.N. Peyton, J.C. Cox, Weldon E. Rhoades and 2nd Lt. T.A. Davis.

A total of 42 planes landed at this station in the past month. Among our visitors were Major Spry, Hamilton Field; Capt. Williams, Bolling Field; Major Connell, Bolling Field; Major Houghland, Marshall Field; Captains Craigie and Smith, Wright Field; Major Burgess, Chanute Field; and Colonel Pitts, Offutt Field.

We wonder if other stations are doing as much "boning up" for the Warrant Officers' exams. as is going on here. Our one and only applicant has been studying everything from Grimes' First Reader to Decisions of Appellate Court for 1899, and still doesn't know what it's all about. Any suggestions will be studied in the order received.

Hawaiian Air Depot.

Lieut.-Colonel Frank H. Pritchard assured command of the Depot. His predecessor, who departed for the mainland on October 29th, was given a great send-off by his many friends in the Hawaiian Department. A large delegation went down to the boat and gave Captain and Mrs. Page a typical Hawaiian "Aloha." This popular couple was well known and liked in civilian circles, as well as among Army and Navy personnel, all of whom will wish them much future success. Captain Page goes back to his old stamping ground at the Materiel Division.

A number of civilian personnel departed on the same transport for mainland leave, including Messrs. DeVelschow, Bauman and Kunz from the Engineering Section, and Miss Fay Northrop and Mr. Edgar S. Barry from the Supply Section.

Captain Charles E. Branshaw, who arrived on the CHATEAU THIERRY on October 23rd, and assumed the duty of Engineering Officer, has plunged into his work with much zest and interest. He has had many years of experience along depot engineering lines, and was formerly engineering officer at the San Antonio Depot.

The Depot was recently visited by the Inspector General and his staff for purpose of inspection.

The work of re-roofing the main Supply warehouse is progressing rapidly despite the advent of the rainy season. The completion of this much needed improvement will be a relief, as the condition of this roof was such that valuable stock was endangered during each rainfall.

The heads of both the Engineering and Supply departments are making every effort to secure additional buildings for this Depot. From information on hand, it appears that it will be approximately four years before we can move into the new depot building at Hickam Field.

The Depot supply department is expanding every day in order to provide space for proper supply levels. Large stocks of new supplies have been arriving at frequent intervals, and considerable quantities are enroute or on order. Noticeable improvement in quantities of supplies received and action taken by the various supply agencies, through which requisitions from this Depot pass, has been noted. The flow of supplies resulting from concentrated effort of all concerned is highly satisfactory. The Materiel Division, as well as the Rockwell Air Depot, cooperated with the Hawaiian Air Depot in splendid fashion in bringing stocks up to the proper levels.

A revised system of handling part shortage sheets between Engineering and Supply has been initiated with favorable results. The Engineering Section has established a central unit to handle all part shortages. This unit works very closely with the Depot Supply Section. These part shortages are given priority by the stock tracer, and immediate action is taken to obtain articles not available.

At this writing an epidemic of influenza has seized the Depot, causing considerable pilikia (Hawaiian word for trouble).

The best Hawaiian Air Depot picnic in the history of the organization was held at Kailua, Oahu, on October 19th, and was attended by over 500 people. Every kind of entertainment was offered, including games, sports, dancing and swimming. Many valuable prizes were awarded as a result of donations by Honolulu commercial concerns. This was another innovation this year, and was much appreciated, particularly by the winners of the various events.

TECHNICAL INFORMATION AND ENGINEERING NEWS

Air Corps Materiel Division

Floodlights. - Three representatives of the Westinghouse Electric & Manufacturing Co. (one from Cleveland, O.; one from Cincinnati, O., and a local representative, visited the Materiel Division regarding floodlights to be used as a substitute for the present Air Corps Type A-9B, in order to overcome the deterioration prevailing in the present Air Corps Type A-9B floodlights using glass mirrors. The Cleveland representative recommended the use of metal reflectors constructed of aluminum and treated with the Alzac process. This process, the secrets of which were originally held by the Aluminum Company of America, consists of placing a thin oxide film over the polished surface. This film prevents discoloration and makes the reflecting surface entirely impervious to heat and moisture. No special care need be taken in cleaning this type reflector, as it is not easily scratched. The Westinghouse Company will submit a sample reflector to the Materiel Division for photometric test in the near future.

Wind Cones and Danger Markers. - An Engineering Section Memorandum Report, covering the results of investigation of information received from Service activities pertaining to increasing visibility of wind cones, stated that, in view of the number of activities recommending changes in the present method of marking, a limited quantity of wind cones containing 3-inch black stripes will be procured for service test. Due to the small size of the danger markers, a combination of colors would be impractical; therefore, no changes should be made on danger cones, danger flags, markers, etc.

Wind Direction Indicators. - An Engineering Section Memorandum Report was prepared to record results of service test of Types B-5 and B-6 wind direction indicators at Randolph Field, Texas, and to provide information for reclassification of the Type B-5 as Standard and the Type B-6 as Limited Standard.

The Type B-5 indicator is tetrahedral in shape, 36 feet long, with an equilateral triangle 15 feet on a side at the leeward end, and is balanced so that the apex heads into the wind.

The Type B-6 indicator consists of a large tee, 36 feet long, with a 22-foot wing spread and a triangular fin 14 feet high, and was designed to provide a conventional tee with improved side visibility.