No

Vol. 2 D. M. A. WEEKLY NEWS LETTER C.S.1150

Air Service Washington, D.C. War Department
January 4, 1919.

PACIFIC FLIERS APPROACH WASHINGTON

The hazards of cross-country flying when the route is not known, was illustrated in the flight of the squadron of four Army planes coming North from Savannah on December 30th, when on account of engine trouble, one of the four which had come across the continent from the Pacific, had to make a forced landing. The other planes in order not to separate, followed it down. All landed safely in rough country but after making repairs, it was found that the field in which they had landed, was too small to take off from and all the planes had to be dissembled, carted out by road into a larger field and assembled again before the trip might be resumed. This job took longer than was anticipated and the delay cost them a day, but a report received by wire from the squadron commander December 31, stated that he hoped to leave for Washington early that morning.

Tillman, the town near which the planes landed, is on a straight line north towards Columbia, South Carolina, and thirty miles from Savannah from which the day's flight was started. The Pacific aero squadron probably will not reach Washington until January 3. The day's incident shows the value of the air mapping work now being done. If this route over which the squadron was flying had been previously air mapped, the pilots would have been able to "spot" a good landing field from their charts immediately, effected an easy landing, made their repairs and come on without loss of time. Good landing fields and many of them are essential to cross-country flying.

The planes made the two hundred miles along the coast between Daytona and Savannah on Saturday, December 28th, reporting landing fields all the way. Recently they have been averaging 200 miles daily in good weather.

Last reports state that bad weather holds the planes at Raleigh, North Carolina. The Commanding Officer of the Squadron said that he had encountered rain all the way north from Florida. If the weather improved today he said he would start for Washington direct and omit the Langley Field stop. He hoped to arrive in Washington on the January 3d or 4th.

PACIFIC AERO CLUB

To the Secretary A. S. C. A.:

The Pacific Aero Club extends good wishes for the New Year with the especial hope that 1919 may see the science of aviation, in which the foundation of new endeavor was laid during the time of war, bring forth amazing and gratifying results to the world in time of peace.

The above sentiment, echoed by the A. S. C. A. — Greetings !

484 AERO CONSTRUCTION SQUADRON CITED

The following citations from the Army Air Service of the First and Second Armies have been received by the 484 Aero Construction Squadron.

HEADQUARTERS AIR SERVICE SECOND ARMY
AMERICAN EXPEDITIONARY FORCES

30th November, 1918

GENERAL ORDERS No. 15.

The Army Air Service Commander, Second Army, American Expeditionary Forces, desires to record in General Orders, his appreciation of the excellent conduct and efficient cooperation always displayed by the officers and men of the 484th Aero Construction Squadron (Captain John Sloan, Commanding).

This Squadron constructed the Advanced Airdromes of Noviant-aux-Pross, Saizerais and Maconville, with exceptional speed and thoroughness, thereby contributing in a large measure to the successful operation of the other Air Service Units.

F. L. LARM
Colonel, A.S.U.S.A.

OFFICIAL:

AIR SERVICE SECOND ARMY

By

J. F. CURRY
Chief of Staff.

FROM: COMMANDING OFFICER, 484th Aero Construction Squadron.

TO: THE OFFICERS AND MEN OF THIS COMMAND.

With extreme pleasure the Squadron Commander invites attention to the above citation and hopes that the splendid performance on their part which earned for them this commendation, will serve, not-with-standing cessation of hostilities, to strengthen them and determine them to bring further credit to their organization and themselves.

JOHN SLOAN
Captain, A.S.U.S.A.
Commanding.

OFFICE
FIRST ARMY AIR SERVICE COMMANDER
AMERICAN EXPEDITIONARY FORCES

France, 5th December, 1918

GENERAL ORDERS NO. 39

E X T R A C T

The Army Air Service Commander, First Army, desires to make of record in General Orders of the First Army Air Service, his extreme satisfaction with the conduct of the officers and men of the following units:

1. 484th Aero Construction Squadron - For efficient and meritorious work in building Aerodromes for the service. The work of both officers and men was remarkable for its speed and excellence, despite the many hardships confronted.

By orders of COLONEL BILLING.

W. C. Sherman
Lt. Colonel, G.S.U.S.A.
Chief of Staff.

OFFICIAL
C. A. S. 1st Army

H. S. Sturgus
1st Lieut., A.S.U.S.A.
Adjutant.

FROM: COMMANDING OFFICER, 484th Aero Squadron, American E. F.

TO: The Officers and Men of this command

This squadron has again been cited in general orders, previously by the Second Army and now by the First Army with which we have all served so enthusiastically in the past and of which it has been our great privilege and good fortune to have been a part, in those days in the past when it was preparing for and afterwards delivering the great blows that helped get all nations free and brought credit to all Americans.

John Sloan
Captain, A.S.U.S.A.
Commanding.

CRATES FOR CONSTRUCTION WORK

During the past 6 months, the Salvage Branch has endeavored to find a method, advantageous to the Government of returning empty wing and fuselage crates to the manufacturers. The long freight haul, the flimsy character of the crates themselves and the long time they must be held at a field before a carload accummulates, made their return inadvisable except in a few instances. It is believed that the government will receive more benefit from their use in construction work at the fields than in any other way and it is recommended that the Commanding Officers take steps to use them locally, in some way which will not be wasteful and will tend to eliminate the piles of this material which are unsightly and carry a considerable fire menace.

OBSERVATION BALLOON MAKES VOYAGE

The reports from two officers taken aloft on a free ride when their balloon broke its cable at Brooks Field early in December, follow in part:

December 3, 1918

Memorandum for the Adjutant:

I was acting as pilot on December 3, 1918. At about 11:15 A.M., I ascended at 1000 feet, with Lieutenants R. W. Mackie and J. S. Eldridge. A little later we began to descend. When about 500 feet off the ground, the winch slowed down considerably and maintained that reduced speed.

When but a few feet off the ground, however the balloon went into a bad nose dive, the basket being thrown up until it almost touched the underside of the nose. At my command, the two officers crouched in the basket to avoid the possibility of being hit with the suspension bar. During this nose dive, the cable snapped and we were free.

The balloon ascended very rapidly and I began to valve at once. At 3000 feet the manometer pressure had reached about 25 mm. At exactly 7950 feet the balloon ceased to rise; I then ceased valving.

In a short time the balloon began to drop. We dropped very rapidly and at 500 feet I began to throw out sand, my flying coat and such other material as was not tangled up as a result of the nose dive. We landed about

12 kilometers from the point of ascension, in a slump of mesquit; the occupant of the basket were bounced out on the ground as the result of the rather hard landing. I did not wish to tie the rip cord around my waist as some rip panels have been known to require three men to rip them. After the occupants were thrown out the balloon rose rapidly.

The weight of Lieutenant Eldridge's body ripped his parachute off the basket as the latter rose. The ropes and bar on Lieutenant Mackie's parachute were tangled and twisted and because of this he was carried off the ground by the rising balloon. Lieutenant Mackie then climbed hand-over-hand up to the parachute case and managed to untangle the ropes there. This was accomplished at 200 feet off the ground. Instantly the parachute dropped. Lieutenant Mackie made a perfect landing. Lieutenant Eldridge suffered slight strain in the back as the result of landing; Lieutenant Mackie suffered slight ankle strain only, for the same reason; I was not at all injured.

I would recommend that balloon observers be given more than class room work in the handling of a free balloon.

HERBERT W. REID
2nd Lieut., A.S.A.

December 4, 1918

At first our trip was uneventful. We chatted together during these fifteen minutes of our flight, mostly upon balloons and parachute leaps. All of us said that we would like to have a balloon break loose. We did not think then that our wish would come true so promptly. After a few minutes the winch on the ground was started and we were started down. There was a strong wind close to the ground, but we were nearly down when the balloon gave a sudden bound away from the crew who were reaching for the guy ropes. The basket hit once on the ground and then cable broke right at the eye.

The balloon began to rise. One member of the crew became entangled in one of the guy ropes. We rose to a heighth of 50 feet before he could free himself. As the balloon bounded up I heard him hit the ground. We then realized that we were free so we waved 'Good Bye' to the men on the ground and went swiftly upward. As we went up Lieut. Reid was busy freeing the basket from all cordage and rigging. We had two sand bags, our leather coats and seats and the instruments to throw over in case of emergency. While going up we first checked up our finances and found we had $13.00 between the three of us.

Our first plan was to let the balloon go as long as we could stand it but we were all hungry as it was nearly dinner time. We thought we might get out of Texas if we struck a favorable air current. Our second plan was to let the gas out through the valve and try to land the balloon as Lieut. Reid had no parachute. We were now about 3000 feet up and ascending very fast. So having decided on the latter course Lieut. Reid commenced valving the balloon.

At 7000 feet we struck wind blowing from the West which seemed to be quite strong. We drifted to the East of Brooks Field. We were not sure whether the valve was working or not but finally could make out that the gas was escaping. We passed on up to 7800 feet and then entered into a region of calm. I was worried for fear the gas would expand more rapidly than we could let it out through the valve, but my fears were groundless. At 8000 feet altitude our ascension was checked. We remained at this height for the period of five or six minutes. Then we began to descend slowly coming back into the wind from the west. We were somewhat worried then as to whether the suspension of the basket would hold because we were held by ropes which rose to the nose of balloon, the gas being out of the rear portion, and our ballonette, useless.

We descended to an altitude of 4500 feet, when an airplane from Brooks Field reached us and circled around us during our descent. We began to drift to the East, descending at the same time. We got the ballast ready to throw overboard.

Lieut. Mackie and I put ourselves under the orders of Lieut. Reid. In coming down we seemed to descend in about the same speed as an airplane comes in a steep glide. At this time we were over some mesquite about six miles from Brooks Field The nearer we got to ground the faster we came down.

At Lieut. Reid's orders I got on the edge of the basket, knees bent, prepared to jump. Lieut. Reid was busy throwing over ballast. I felt the basket hit the mesquite so I dropped intending to land on hands and feet. The basket recoiled from the mesquite. The parachute, being still attached to my waist, (I did not have time to unsnap it when we were close to the ground and did not care to do so while we were above 500 feet) gave me a jerk, lifted me higher in the air, and turned me over so that I fell on my back from about the heighth of the mesquite trees. I was stunned so that I could not get up from the fall, From the position in which I lay I saw the basket hit the ground, and turn over once. There was a 'flurry' of arms and legs,- - and Lieut. Reid came rolling out. The balloon skidded along the Mesquite for a few seconds and then bounded into the air, carrying with it Lieut. Mackie, whose parachute was caught. I heard Lieut. Reid say "My God, he's gone up with it again", referring to Lieut. Mackie. Here I became numb for a few minutes.

Lieut. Reid came over and asked me how I was. I replied that I was alright except for a sore back for I was numb from my waist down. He told me to brace up, and then ran over in the direction of the balloon. In a few moments he returned, looking wonderfully relieved, Lieut. Mackie having made a successful parachute leap from an altitude of 200 feet. Mackie was somewhat shaken up, but otherwise alright.

The first of the pilots from Brooks Field, who had landed their ships in a nearby field came up. A medical officer came with the hospital ship, looked me over and found that I had only a wrenched back. So we cleaned up our clothes and came back to Brooks Field in one of the Government Fords.

The balloon, freed of its cargo, ascended to an enormous heighth, drifted to the Southwest, and was found some hours later about 25 miles from it point of ascension. The ride was lots of fun but I would have preferred to have gone until evening and travelled some distance considering what it cost me in the way of a sore back.

JAMES S. ELDRIDGE
2nd Lieut., RMA., A.S.A.

GEN. MARCH ANNOUNCES AIR SERVICE UNITS WITH THIRD ARMY

"I have heretofore announced the composition of the Third Army, the Army of Occupation along the German frontier, in terms of Divisions, and during the past week we cabled General Pershing to send any other auxiliary troops which actually comprised part of that army so that we might let the people of the country know where their relatives were. The following air units, outside of Divisions are serving with the Third Army:

Third Army Air Service Headquarters, First Pursuit Group, Pursuit Group, Pursuit Squadron No. 4, 4th Air Park, Headquarters Bombardment Group. Day bombing squadron 166 Headquarters Army Observation Groups, Aero Squadrons 9 and 91, Photo Sections 2 and 10, branch Intelligence office 462 D and 463 D Construction Squadrons,

Headquarters 3rd Army Corps Air Service, First Aero Squadron, 6th Photo Section, 3rd Corps Balloon Groups Reconnaissance, First Balloon Company branch intelligence office.

Fourth Corps Air Service Headquarters, 12th Aero Squadron, Photo Section Number 4, Branch Intelligence office, Balloon group headquarters, 4th Corps, 2nd Balloon Co. Army Corps, 88th Aero Squadron and 3d Balloon Company.

We have given out during the week the assignment of various units in France by General Pershing to early convoys, so they will not be repeated, but the sum total is 6,821 officers, and 168,239 men who are assigned to early convoys for return home. The number of men in the United States who have been ordered discharged which I reported last week as amounting to 900,000 has now been increased to 937,000 by the introduction of some new units. This number with the 168,239 selected by General Pershing, brings the number of men slated for discharge up to 1,105,239. The sum total of men who have actually been discharged in the United States up to date is 533,334. The number of officers who have been discharge up to December 27th is 35,409.

AIR SERVICE UNITS TO SAIL

The War Department announces that the following organizations have been assigned to early convoy.

Fourth Regiment Air Service			
Mechanics 17th Company,	3 officers	and	161 men
18th Company	3 officers	and	152 men
19th Company	1 officer	and	168 men
Air Service Casual Co. #2,	2 officers	and	185 men
162nd Aero Squadron	2 officers	and	51 men
400 Aero Squadron	7 officers	and	153 men
34th Balloon Company	11 officers	and	170 men
155th, 147th, 27th, and 95th Aero Squadrons	24 officers	and	725 men
13th, 49th and 139th Aero Squadrons	18 officers	and	545 men

The assignment of the 500 aero squadron to early convoy was an error.

483d Aero Squadron	4 officers	and	154 men
489th Aero Squadron	4 officers	and	154 men
490th Aero Squadron	4 officers	and	154 men
21st Aero Squadron	5 officers	and	152 men
30th Aero Squadron	5 officers	and	134 men
31st Aero Squadron	5 officers	and	150 men
32d Aero Squadron	5 officers	and	135 men
33d Aero Squadron	5 officers	and	143 men
37th Aero Squadron	5 officers	and	142 men
640th Aero Squadron	5 officers	and	148 men
43d Aero Squadron	4 officers	and	155 men
101st Aero Squadron	4 officers	and	150 men
257th Aero Squadron	4 officers	and	154 men
469th Aero Squadron	2 officers	and	116 men
184th Aero Squadron	2 officers	and	147 men
492nd Aero Squadron	2 officers	and	147 men

Twenty-seven Casual Air Service officers are reported as having sailed on the Niew Amsterdam, on December 27, and 45 officers on the Siboney, on December 25.

HEALTH OF AIR SERVICE

The Surgeon General issued a report on the health conditions of troops in the United States for the week ended December 20, as follows:

Influenza is again definitely on the decline. From several of the larger camps, not a single case was reported for the week.

Pneumonia admissions also are fewer than last week. Camp Lewis leads all camps in the number of new cases (108).

A few cases (24) of scarlet fever are reported from Camp Funston.

There were 323 deaths from all causes,

There were 68 deaths reported during the week from aviation stations, with a total strength of command of approximately 103,000.

Causes of Death, at Aviation camps:,

Pneumonia, 51; influenza, 4; burns, 1; apoplexy, 1; fibroma of brain, 1; cause not reported, 3; traumatism, 4; syphilis, 1; gastric ulcer, 1; and drowned, 1.

EMPLOYMENT OF AIR SERVICE MEN AFTER DISCHARGE

It is the desire of General Kenly that every effort be made to provide employment for the enlisted men of the Air Service after their discharge from the service. There is not sufficient time between the receipt of orders and actual discharge to make any progress in securing employment, so that it is desired to anticipate and make such immediate arrangements as is possible.

A complete canvass of enlisted men at each station will be made, dividing them into two classes - those who have been assured employment and those who desire assistance in securing employment.

The United States Employment Service, Department of Labor is forwarding a number of cards to be filled out by the men desiring employment. These cards will be segregated into the geographical groups and sent to the respective Federal Director of the United States Employment Service in the State nearest the point at which the man is to be ultimately discharged.

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers for acts of extraordinary heroism :

First Lieut. Rodney M. Armstrong, Air Service, pilot, 168th Aero Squadron. As pilot of a D. H. 4 plane, Lieut. Armstrong flew an Infantry contact machine over the lines of the 7th Division November 4, 1918. Owing to low clouds and rain, he crossed the line at 1,000 feet in order to enable his observer to locate the position more accurately. While on the enemy's side, he was wounded by an explosive bullet. In spite of his wound and weakness, he continued his mission, coming down to within 500 feet of the enemy's machine guns and troops, until his observer had signaled him that the mission was completed. Home address, 1012 East Eleventh Street, Winfield, Kans.

First Lieut. James F. Manning, Jr., Air Service, pilot, 49th Aero Squadron. In action near Doulcon, France, October 4, 1918, while leading a patrol of seven planes, Lieut. Manning accepted combat with 17 German machines (type Fokker) at an altitude of 1,200 meters. Through his courageous leadership and skillful maneuver of his patrol, seven of the enemy planes were shot down. Home address, Leesburg, Va.

First Lieut. Field E. Kindley, Air Service. In action near Bourlon Wood, France, September 24, 1918. Lieut. Kindley attacked seven hostile planes (type Fokker) and sent one crashing to the ground. A bronze oak leaf is awarded to Lieut. Kindley for the following act in action near Marcoing, France, September 27, 1918. Flying at a low altitude, this officer bombed the railway

at Marcoing and drove down an enemy balloon. He then attacked German troops at a low altitude and silenced a hostile machine gun, after which he shot down in flames an enemy plane (type Halberstadt) which had attacked him. Lieut. Kindley has so far destroyed seven enemy aircraft and driven down three out of control. Home address, care Bank of Gravette, Ark.

Second Lieut. Kenneth L. Porter, Air Service, 147th Aero Squadron, For extraordinary heroism in action near Chateau-Thierry, France, July 2, 1918. Lieut. Porter, with four other pilots attacked 12 enemy aircraft (type Pfalz), flying in two groups well within the enemy lines. As soon as the enemy planes were sighted Lieut. Porter maneuvered to get between them and the sun and with great difficulty gained the advantage. While three of the other American officers dived on the lower formation Lieut. Porter and Second Lieut. John H. Stevens engaged the upper formation in a bold and brilliant combat, two planes of which they crashed to the earth. Home address, 105 Green Street, Dowagiac, Mich.

Second Lieut. John H. Stevens, deceased, Air Service, 147th Aero Squadron. For extraordinary heroism in action near Chateau- Thierry, France, July 2, 1918. Lieut. Stevens, with four other pilots, attacked 12 enemy aircraft (type Pfalz) flying in two groups well within the enemy lines. As soon as the enemy planes were sighted Lieut. Stevens maneuvered to get between them and the sun, and with great difficulty gained the advantage. While three of the other American officers dived on the lower formation Lieut. Stevens and Second Lieut. Kenneth L. Porter engaged the upper formation in a bold and brilliant combat, two planes of which they crashed to the earth. Home address, Mrs. Effie Stevens, 21 State Street, Albion, N. Y.

Capt. Victor H. Strahm, Air Service, pilot, 91st Aero Squadron. For extraordinary heroism in action near Metz, France, September 13, 1918. Capt. Strahm displayed remarkable courage and skill in penetrating the enemy territory for a distance of 25 kilometers, flying at an altitude of less than 300 meters. His plane was subjected to intense fire from antiaircraft guns in the region of Metz, and he was attacked by a superior number of German planes, one of which he destroyed. He completed his mission and returned with information of great military value. Home address, Frank J. Strahm, Bowling Green, Ky.

First Lieut. Oscar B. Myers, Air Service, 147th Aero Squadron, For extraordinary heroism in action near Cierges, France, September 28, 1918. Sent on a particularly hazardous mission, he harrassed and routed enemy troops. Lieut. Myers then climbed higher to look for German planes. With two other officers he encountered nine Fokkers protecting a reconnaissance machine, flying in one of the most effective formations used by the enemy. Out maneuvering the hostile planes, the three officers succeeded in routing them. After a quick turn Lieut. Myers dived at the reconnaissance machine and crashed it to the ground in flames. Home address, S. Oscar Myers, 109 South Third Avenue, Mount Vernon, N. Y.

First Lieut. William T. Badham, Air Service, observer, 91st Aero Squadron. For extraordinary heroism in action near Nuzancy, France, October 23, 1918. This officer gave proof of exceptional bravery while on a photographic mission 25 kilometers, within the enemy lines. His plane was attacked by a formation of 30 enemy aircraft; by skillful work with his machine gun Lieut. Badham successfully repelled the attack and destroyed two German planes. At the same time he manipulated his camera and obtained photographs of great military value. Home address, H. L. Badham, Whitaker Street, Birmingham, Ala.

First Lieut. George C. Kennedy, Air Service, pilot, 91st Aero Squadron. For extraordinary heroism in action near Jametz, France, October 9, 1918. This officer gave proof of his bravery and devotion to duty when he was attacked by a superior number of aircraft. He accepted combat, destroyed one plane and drove the others off. Notwithstanding that the enemy returned and attacked again in strong numbers. Lieut. Kennedy continued his mission and enabled his observer to secure information of great military value. Home address, L. Gordon Glazier, 4 Egremont Road, Boston, Mass.

First Lieut. Benjamin L. Atwater, Air Service, observer, 99th Aero Squadron. For extraordinary heroism in action near Landres-A-St. Georges, France, October 5, 1918. Lieut. Atwater started on a photographic mission with Lieut.

Alexander pilot, over the enemy's lines, Forced back by seven enemy pursuit planes, he determined to complete his mission, and recrossed the line eight minutes later. A large group of enemy pursuit machines again attacked his plane. Disregarding his wound, he operated his machine gun with such effect that the nearest of the enemy planes was put down out of control. Home address, Mrs. Ella Atwater, mother, 152 Maple Avenue, Red Bank, N. J.

Second Lieut. William J. Brotherton, Air Service, 147th Aero Squadron; For extraordinary heroism in action near Fere-En-Tardonois, France, on August 1, 1918. An enemy Rumpler plane being reported over the airdrome, Lieut. Brotherton with another officer, ascended and soon encountered six Fokker planes that were protecting another Fokker serving as a decoy. Disregarding the enemy's superiority in numbers, he maneuvered so as to secure the advantage of the sun and dived on the decoy plane; pouring in air destructive fire, he killed the pilot and crashed the machine to the ground. Home address, C. J. Brotherton, Guthrie, Ill.

First Lieut. Lansing C. Holden, Air Service, 1st Pursuit Group. For extraordinary heroism in action near Montigny, France, October 23, 1918. Lieut. Holden was ordered to attack several German balloons, reported to be regulating effective artillery fire on our troops, After driving off an enemy plane, encountered before reaching the balloons, he soon came upon five balloons in ascension 1 kilometer apart. In attacking the first, which proved to be a decoy with a basket, his guns jammed; after clearing them he attacked the second balloon, forcing the observer to jump. His guns again jammed before he could set fire to this balloon. Moving on the third balloon at a height of only 50 meters, he set fire to it and compelled the observer to jump. He was prevented from attacking the two remaining balloons by the further jamming of his machine guns. Home address, L. C. Holden, father 888 West End Avenue, New York, N. Y.

Maj. Harold E. Hartney, Air Service, 1st Pursuit Group. For extraordinary heroism in action near Fismes, France, August 13, 1918. Maj. Hartney voluntarily accompanied a reconnaissance patrol. Realizing the importance of the mission, Maj. Hartney took command, and, although five enemy planes repeatedly made attempts to drive them back, he continued into enemy territory, returning later to our lines with important information. The cool judgment and determination displayed by Maj. Hartney furnished an inspiration to all the members of his command. Home address, Mrs. Harold E. Hartney, care of Russell Hartney, Saskatoon, Saskatchewan, Canada.

Second Lieut. Richard Wilson Steele, observer, Air Service, 166th Aero Squadron. For extraordinary heroism in action near Bois D'Barricourt, France, October 23, 1918. While on a bombing raid back of the German lines Lieut. Steele, accompanied by his pilot, was attacked by six German pursuit planes. They were forced to leave the formation in which they were traveling owing to engine trouble; the enemy began riddling their plane with machine-gun fire. Lieut. Steele fought them on all sides and is credited by members of the 11th Aero Squadron, who were flying over him several thousand feet, with having brought down one of his opponents. He was wounded twice in the leg and twice in the arm, and continued fighting, although each time he was hit he was knocked down into the observer's cockpit. At last, however, only his tail gun was in working condition, the other two having been disabled by bullets, and Lieut. Steele sank unconscious into the cockpit. Home address, William Steele, father, 426 East Euclid Avenue, Oak Park, Illinois.

First Lieut. Hugh L. Fontaine, Air Service, 49th Aero Squadron. The bronze oak leaf is awarded Lieut. Hugh L. Fontaine for extraordinary heroism in action near Champigneulle, France, October 10, 1918. While leading a patrol of three other machines Lieut. Fontaine attacked four enemy planes in the region of Champigneulle. He succeeded in shooting down two of the enemy planes in flames. The first of these he shot down in the initial attack. The second he attacked while it was endeavoring to shoot down one of our planes which had been rendered helpless by the loss of one of its wings. He dived on the attacking plane and shot it down in flames. Home address, Dr. Bryce Fontaine, stepfather, 1839 Overton Park Avenue, Memphis, Tenn.

First Lieut. Raymond P. Dillon, pilot, Air Service, 24th Aero Squadron. For extraordinary heroism in action near Mezieres, France, November 3, 1918. Lieut. Dillon exhibitied courage in the course of a long and dangerous photographic and visual reconnaissance in the region of Mezieres with two other planes of the 24th Aero Squadron. Their formation was broken by the attack of 10 enemy pursuit planes; 5 enemy planes attacked Lieut. Dillon and his observer who succeeded in shooting down two of these out of control. They then had a clear passage to their own lines, but turned back into Germany to assist a friendly plane with several hostile aircraft attacking it. They succeeded in shooting down one more of the enemy. Home address, Claude A. Dillon, brother, 5839 Prairie Avenue, Chicago, Ill.

Second Lieut. John B. Lee, 3d, Air Service, observer, F. A. 24th Aero Squadron. For extraordinary heroism in action near Mezieres, France, November 3, 1918. Lieut. Lee exhibited extreme courage in the course of a long and dangerous photographic and visual reconnaissance in the region of Mezieres with two other planes of the 24th Aero Squadron. Their formation was broken by the attack of 10 enemy pursuit planes; 5 enemy planes attacked Lieut. Lee and his pilot. With remarkable coolness Lieut. Lee succeeded in shooting down two of the planes. They then had a clear passage to their own lines but turned back into Germany to assist a friendly plane with several hostile aircraft attacking it. They succeeded in shooting down one more of the enemy. Lieut. Lee and pilot returned to our lines with information and photographs of great military value. Home address, John B. Lee, jr. father, 667 Highland Avenue, Newark, N. J.

First Lieut. George A. Goldthwaite, pilot, Air Service, 24th Aero Squadron. For extraordinary heroism in action near the Bois de Bantheville, France, October 15, 1918. In the course of a special reconnaissance to locate a hostile concentration massing for a counterattack in the vicinity of the Bois de Bantheville, Lieut. Goldthwaite and his observer flew generally at an altitude of 400 meters, at times as low as 50 meters, 5 kilometers into the enemy's lines. Antiaircraft guns riddled his plane with bullets, pierced the gasoline tank, and drenched both pilot and observer. He continued on until the enemy's concentration was located and military information of great value secured. The bravery of Lieut. Goldthwaite saved the lives of many American soldiers and brought large losses to the enemy. Home address, Mrs. Condace Goldthwaite, mother, Fifth and Garfield Streets, Marion, Ind.

First Lieut. John H. Lambert, pilot, Air Service, 91st Aero Squadron. For extraordinary heroism in action near Stenay, France, October 30, 1918. While on a photographic mission in the vicinity of Stenay, his work being seriously interfered with by the fire of a formation of enemy planes, Lieut. Lambert temporarily discontinued his mission, attacked the formation and dispersed it, destroying one plane and seriously damaging another. He then returned his objective, completed his mission, and returned with information of great military value. Home address, Mrs. Joseph F. Kelley, 45 West Eleventh Street, New York, N.Y.

Capt. Everett R. Cook, pilot, Air Service, 91st Aero Squadron. For extraordinary heroism in action near Damvillers, France, September 26, 1918. While on a photographic mission in the vicinity of Damvillers which necessitated a penetration of 20 kilometers within the enemy lines, Capt. Cook was attacked by seven enemy pursuit planes, and his plane was riddled with bullets. In spite of the attack he continued on his mission, turning only for our lines when his observer had secured photographs of great military value. In the combat one enemy aircraft was destroyed. Home address, Mrs. J. E. Cook, 232 Floyd Avenue, Toledo, Ohio.

First Lieut. John R. Cousins, Infantry, observer, 24th Aero Squadron. For extraordinary heroism in action near Conflans, France, November 2, 1918. In the course of a photographic mission of a particularyly dangerous character Lieut. Cousins and his pilot were attacked by a superior number of enemy pursuit planes. During the combat that ensued, with remarkable coolness and excellent shooting, he destroyed one of the attacking machines. Notwithstanding that the enemy aircraft continued to attack and harrass them, Lieut. Cousins and pilot reached all their objectives and returned to our lines with photographs of great

military importance. Home address, Mrs. J. A. Cousins, Whalley Avenue, Westville Conn.

First Lieutenant John H. Snyder, observer, Air Service, 1st Army. For extraordinary heroism in action September 12, 1918. While on a special mission to determine the probable enemy concentration in the back areas, Lieut. Snyder, with his pilot, in spite of almost impossible flying conditions, flew 60 kilometers over the enemy lines at a very low altitude. The unfavorable weather alone would have warranted them in turning back, but they continued on regardless of very active and accurate machine-gun and antiaircraft fire. They returned to our lines only when their mission was successfully completed. Home address, Mrs. William H. Noll, 319 North Sixth Street, Reading, Pa.

Second Lieut. Dogan H. Arthur, pilot, Air Service, 12th Aero Squadron. The bronze oak leaf is awarded Lieut. Arthur for the following acts of extraordinary heroism in action October 18 and 30, 1918, to be worn on the distinguished service cross awarded him October 3, 1918. On October 18, 1918, while on artillery reglage, Lieut. Arthur and his observer were attacked by four enemy planes. His observer's guns were jammed, but Lieut. Arthur, with splendid courage and coolness, outmaneuvered the hostile aircraft and escaped, although they followed his plane to within 25 meters of the ground, badly damaging it by machine-gun fire. On October 30, 1918, Lieut. Arthur was one of a formation of nine planes which were to take photographs in German territory. Before the lines were reached six planes dropped out, but the remaining three entered the German lines, although they observed several large formations of enemy planes in the near vicinity. When they were 12 kilometers within the German lines they were attacked by 18 enemy Fokkers. Regardless of his own safety, Lieut. Arthur engaged these planes in order to allow his companions to escape, and turned toward his own lines only when he saw them shot down. Then he fought his way home, and in the fight which ensued his observer shot down two enemy planes. Home address, W. D. Arthur, 632 East Main Street, Union, S. C.

First Lieut. Thomas M. Jervey, Ordnance, 1st Army Observation Group. For extraordinary heroism in action near Longuyón, France, Assigned to the 1st Army Observation Group, Air Service, armament officer, Lieut. Jervey volunteered as observer on a photographic mission from Ontedy to Longuyon, 25 kilometers into the enemy lines. In combat with 14 enemy aircraft which followed 1 enemy aircraft was destroyed. Lieut. Jervey, regardless of the fact that his plane was badly shot up, and that his hands were badly frozen, continued on the mission, returning only upon its successful conclusion. Home address, Mrs. Frank J. Jervey, mother, 7 Pitt Street, Charleston, S. C.

FLYING INSIGNIA

The Adjutant General of the Army has approved certain changes in Flying Insignia.

Paragraph 64 (o) Special Regulations No. 41, Uniform Regulations, 1917, is changed as follows:

"Qualified military aviators, junior military aviators, reserve military aviators, military aeronauts, junior military aeronauts, reserve military aeronauts and observers will wear insignia on the left breast above the line prescribed for badges and medals, to show their qualifications. Flying instructors of the Air Service will wear insignia on the right sleeve of the coat just above the cuff.

Paragraph 36½, Special Regulations No. 42, Uniform Specifications, 1917, is changed, and paragraph 39½ is added, as follows:

36½ INSIGNIA ON LEFT BREAST (AIR SERVICE).

Qualified officers will wear insignia on left breast as follows:

(a) Military aviators, junior military aviators and reserve military aviators. - A device of oxidized silver consisting of a pair of wings with the shield between. Device to measure 3 inches from tip to tip.

(b) Military aeronaut, junior military aeronaut and reserve military aeronaut. - A device of oxidized silver consisting of a pair of wings with a balloon between. Device to measure 3-1/8 inches from tip to tip.

(c) Observer.- An oxidized silver single wing to the left of the letter "O" in bright silver; the "O" to encircle the letters "US" in oxidized silver in relief on an oxidized silver background. The device to measure 1-7/8 inches in length.

39½ INSIGNIA ON SLEEVE (AIR SERVICE).

Flying instructors.- Gilt insignia of the same design and size as the insignia for officers of the Air Service, omitting the propeller. To be worn just above the right cuff on all coats.

Air Service
Bureau of Aircraft Production

The following assignments of Aircraft Production officers is published:

Lieut. Colonel R. M. Jones, A.S., A.P., was appointed Assistant and Executive Officer to the Acting Director of Aircraft Production on December 28, addition to his present duties as Executive Officer, he will also be charged with such activities as pertain to liaison, correspondence with the War Department and other Departments or Bureaus of the Government.

Lieut. Colonel H. C. Clark, A.S., A.P., in addition to his other duties, will take over the duties of Adviser and Assistant to the Acting Director on matters pertaining to personnel for the Bureau.

Lieut. Colonel O. Westover, A.S., A.P., is appointed Assistant to the Acting Director of Aircraft Production.

Major George F. Lyons, A.S.A.P., is hereby appointed Assistant to the Acting Director of Aircraft Production.

495th SQUADRON RETURNING

Transport Toloa sailing from Brest, December 30th, for New York, will probably arrive January 10 with the 495th Aero Construction Squadron complete 6 officers and 147 men. 8% Miscellaneous, 92% Regular Army.

The following organization has been assigned to early convoy:

142d Aero Squadron, 3 officers and 154 men.

AERIAL MAIL SERVICE

The Postmaster General's recent report discloses a program for the very wide extension of the aeroplane mail service, which has been successfully operated between Washington, Philadelphia, and New York since May 15, 1918. Though the subject of air service had previously been given considerable study

and a number of spasmodic flights with mail had been undertaken for purposes of exhibition, it was only with the establishment of this route that transportation of mail by aeroplane became a permanent and practical feature of the Postal Service.

The Aerial Mail Service was inaugurated with the cooperation of the War Department, which furnished the machines and aviators and conducted the flying and maintenance operations. This cooperation, which was of inestimable value was maintained until August 12, when the entire operation was taken over by the Post Office Department and the work performed by this department with its own equipment and personnel.

This program directs, first, the establishment of an aerial-mail service connecting the principal commercial centers of the country by a system of trunk lines and feeders, and, secondly, connecting this country with the West Indies and Central and South America. The trunk lines and feeders decided upon under this program are:

1. New York to San Francisco, with feeders from—
   (a) Chicago to St. Louis and Kansas City.
   (b) Chicago to St. Paul and Minneapolis.
   (c) Cleveland to Pittsburgh.
2. Boston to Key West, with feeders from —
   (a) Philadelphia to Pittsburgh.
   (b) Washington to Cincinnati.
   (c) Atlanta to New Orleans.
3. Key West, via Habana, to Panama.
4. Key West, via West Indies, to South America.

NOTES FROM OVER-SEAS

According to a recent issue of "Plane News", the Air Service Paper of the A. E. F., all mechanics and other technically trained enlisted men of the 3d Aviation Instruction Center, will be given an official recommendation by their commanding officers before they start home. The form of commendation after giving name, rank, organization, period of time and where employed, will precede as follows:

"Has been employed on important work in connection with Aviation Service of the Army. He is thoroughly competent (mechanic) and his services have been satisfactory in every respect. We, the undersigned, do not hesitate to recommend him for any duties of a similar nature.

"It is largely due to the splendid work and co-operation of the enlisted mechanics at this post that this school, the largest aviation training school in the world, has made such a record in flying time and number of pilots turned out as to call for special commendation from the Commander-in-Chief of the American Expeditionary Forces in France. This work has been of material value in helping win the war, as this school has contributed in a very large extent to the success of the American Air Service."

Insofar as is known this is the first movement of its kind launched in the American Expeditionary Forces.

It is understood that flying cadets overseas will be returned in Cadet Detachments, and that, as on this side, cadets who have begun flying training will be permitted to complete their training.

Captain R. S. Davis, and 2d Lieut. H. E. Shafer, have been awarded Croix de Guerre with palms.

Overseas Aero Squadron historians are now busy preparing official histories of their organizations.

An editorial from "Plane News" reads in part as follows:

AVIATORS AFTER THE WAR

After the war what about the aviators? The pilots themselves want to know, likewise all persons interested in aviation.

The "Apres la Guerre" period has not reached such a stage of develpp-ment that this can be answered definitely by any one at this time.

It is certain, however, that aviation is about to receive the biggest boom it has ever had. The war has demonstrated that piloting an aeroplane is not a fad, nor a trick known only to a few. Aviation stunts that formerly were heralded like the world's greatust circus advertises its headline act, now-a-days attract no attention — at least in the aviation atmosphere we breathe here and in other aviation centers in France, England and the U.S. * * * *

The close of the war finds the U.S. government the owner of several hundred million dollars worth of splendid aeroplanes and parts, likewise the director of the destinies of thousands of keen, clean cut, high class young athletes who have been trained to pilot these ships.

That aviation will have a tremendous vogue when we go home is indicated by the steps now being taken to map out * * * air routes between all of the principal cities in the States. This will demand many ships and pilots. But that isn't all. The war has accentuated instead of diminished, the well known desire of the U.S. for speed. Until 11:00 a.m. on Nov. 11, 1918, the motto of the nation was: "speed up." This indicates fast travelling is still in vogue. Therefore, it appears as if hundreds of the big ships will be put into the passenger service de-luxe. England is already developing its Handley- Page's for the London-Paris-Rome aerial express service. Surely the New York-Chicago-Denver-San Francisco Air Limiteds are possibilities of the immediate future, likewise the Chicago-St.Louis-San Antonio Flyer, and the Boston- Washington-New Orleans Eagle.

Aviation is soon coming into its own and the man with the high powered automobile will be "common folks." * * * *

A.E.F. SCHOOL COMMENDED

A recent order from the Chief of Training, Air Service, A.E.F. to the various schools located in France highly commended the officers and men of the 7th Aviation Instruction Center for the amount of flying time the school produces.

A copy of the letter of commendation is as follows:

Office of the Chief of Air Service
Training Section
11th November 1918.

Memorandum: All Schools

"Credit and recognition for the following record of flying at the 7th A.I.C., Clermont-Ferrand, during four consecutive days, November 6,7,8 and 9th, 1918, is due:

"The Commanding Officer, John C. McDonnell, Major, A.S.; The O.I.C. Training, John L. Glover, Capt. A.S.; The O.I.C. Engineering, George Hill,

Capt. A.S. The Instruction Staff and Headquarter's Staff and all enlisted personnel.

"1. No. of flying hours (average) per day, 165:42. 2. Total No. of airplanes, 118. 3. No. of airplanes in commission (average) per day, 71. 4. Average No. hours flown per plane in commission per day, 2:19. 5. Average No. hours flown per plane in and out commission per day, 1:23.

W. G. Kilner, Co. A.S.A.
C.T.S.

AERIAL MAIL SERVICE

The direction of the operation of the Division of Aerial Mail Service has been placed under the supervision of the superintendent of the Division of Railway Adjustments with the following supervisory personnel:

James B. Corridon, superintendent.

Louis T. Bussler, chief of the section on maintenance.

James C. Edgerton, chief of the section on flying, recently of the Air Service.

George L. Conner, chief clerk and temporarily in charge of the New York-Washington route.

A S C A

No provision for Cadet membership in the A.S.C.A. has been made, in view of the fact that no cadets were authorized or admitted to the Air Service after November 11, and that those serving as cadets on flying status became enlisted men under date of November 22.

It is regretted that the Puget Sound District of the Spruce Production Division, publishers of "On The Wing", have announced the last issue of that interesting paper. It was conceived as a soldiers' paper and published as such, without advertising for seventeen weekly issues.

NAVAL AIR STATIONS

The Naval aviation program, Secretary Daniels said, recently called for the maintenance of two principal bases, at Pensacola, Fla., and San Diego, Cal. Existing stations in Massachusetts, on Long Island, at Hampton Roads, and several coastal stations will be continued.

Notice to Field Paper Editors

If convenient please run in box form an application blank for membership in A.S.C.A., some of the papers have kindly done so already. A form follows:

APPLICATION for MEMBERSHIP
in the
AIR SERVICE CLUBS' ASSOCIATION

_____191

The Secretary,
Air Service Clubs' Association,
% Director of Military Aeronautics,
Washington, D. C.

I hereby make application for membership in the Air Service Clubs' Association and agree, when elected, to abide by the Constitution and by-laws of the Association. Enclosed find $10.00 covering the initiation fee and annual dues.

Name _____ Rank and Corps _____

Station _____ Duty _____

Home Address _____
(Fill out today and Notify Secretary at once, any change of address or status.)

HUNTING IN AIRPLANES FORBIDDEN

The Director of Military Aeronautics, has ruled against the shooting of wild fowl with machine guns from Airplanes.

The shooting of wild fowl with machine guns from airplanes is absolutely forbidden. Airplanes will not be used in any manner for hunting or shooting wild fowl . Airplane flights along the coast, or at any place where migratory wild fowl may be found, will be conducted in such a manner as to interfere as little as possible with the habits and feeding of the wild fowl.

Commanding Officers will use every means to carry out the regulations and will bring to trial any offenders that may in the future be guilty of breaking any of them.

CLASS II FLYING STOPPED

No more instruction known as "Class II Flying" will be given at Army Air Stations. All such instruction now being given will be discontinued by direction of Major General Kenly.

AIR SERVICE CLUBS' ASSOCIATION

A recent communication from Barron Field, indicates that this field is following in the footsteps of Kelly Field, which joined the A.S.C.A. en masse. Over Seventy- five officers at Barron have indicated their intention of joining the Association according to Lieut. John F. Burton, who states that probably all officers will apply for membership.

This is what should happen at all fields, for in this way the Association can gain more members in a day than it can in a month, by circularizing and letter writing. Each field should make an immediate effort to secure the membership of the officers before the demobilization orders scatter them, and their identity with the service and their personal addresses are lost.

AIR SERVICE SMOKER

All officers of the Air Service are invited to a smoker to be held at the Army and Navy Club, sixth floor, Friday, January 10, at 9 P.M. The smoker is held under the auspices of the Air Service Clubs' Association and will include a program of unusual interest to all Air Service Officers. American "Aces" will be present.

WEAR SERVICE CHEVRONS

A recent order from the Chief of Staff states that the gold, blue and silver War-service Chevrons are a part of the uniform and will be worn by all concerned as prescribed in Special Regulations.

Vol. 2 D. M. A. WEEKLY NEWS LETTER O.S.1183

Air Service Washington, D. C. War Department
January 11, 1919.

ARMY AVIATORS HONOR ROOSEVELT

Army Aviators from Hazelhurst Field, Mineola, L. I. paid a last tribute to the late Colonel Roosevelt from the air on January 6th. Soon after the death of the Colonel was reported, the commanding officer at Hazelhurst Field ordered ten Army pilots to fly to Oyster Bay and keep up an aerial patrol over the home of the ex President for twenty-four hours. At intervals floral wreaths were dropped upon the grounds at Sagamore Hill as a token of the high esteem with which the Army, and particularly the Air Service held Colonel Theodore Roosevelt.

EXPERIENCE OF A BALLOONIST

First Lieutenant W.J.B. Taylor, Observer, Balloon Corps, First Army, residence Rochester, New York, has reported to the Division of Military Aeronautics headquarters from overseas for discharge. Taylor wears the distinguished service cross awarded him in action on September 26th and October 10th for declining to discontinue making observations for the Division Commander when his balloon was attacked by enemy airplanes and refusing to abandon his records, although he could have safely jumped in his parachute.

Lieut. Taylor is one of five room-mates, at Harvard in 1917, who enlisted, three of whom have been decorated and two killed in action. The other four were: Captain Douglas Campbell, Aviator: Lt. L. A. Morgan, 328th Field Artillery; Lt. K. P. Culbert, Aerial Observer, Marine Corps, East Orange, awarded croix de guerre after death. Lt. A.K. Dunn, 76th Division, Charleston, Illinois, killed in action.

From the records it appears Taylor had several unusual experiences in parachute jumping under fire. One time he landed in a tree; another time on an army mule. This last adventure took place about the first of October near Montfaucon when the Infantry were assaulting Romagne. Taylor had been up about two hours watching the Boche Infantry digging in and fortifying machine gun nests in front of the U. S. Infantry attack. Suddenly in the midst of this observation his balloon was attacked by a single seater combat plane. The Hun pilot was so near him that he could easily distinguish the man's features. But on account of the close range and the very hot fire, Taylor did not hesitate to jump immediately. The German pilot missed the balloon in his first onslaught and turned to follow it down, as the crew below hauled it to earth. Despite the machine gun fire of the Balloon Company against him, the Hun came as low as 200 feet. His engine was finally so badly hit that he lost control and fell. The motor was cracked up but the plane was undamaged and as the Hun landed he vigorously cursed the Americans, one and all, whereupon a buck private punched him in the face. In the meantime Taylor's parachute had carried him well beyond this exciting scene into a peaceful pasture and a herd of Army mules, on one of which he landed and was rescued from the bucking, kicking animal by some artillerymen who came by just in time. Taylor said he was more concerned over his seat on the Army mule than he was about his safety in making the parachute jump.

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TRANSCONTINENTAL PLANES GET TO WASHINGTON

An airplane flight from coast to coast has just been made by four Army training planes. It is the first transcontinental airplane flight, and the four planes which left San Diego on December 4th, arrived at Bolling Field, at 3:30 P.M January 6. The total flying time was fifty hours, and the total distance covered was approximately 3610 miles air line, though deviations may have brought it up to 4000 miles. The flight was not an attempt to set or break records but was made in easy stages.

The squadron was in charge of Major Albert D. Smith, Junior Military Aviator. The other pilots were Lieuts. H. D. McLean, Robert S. Worthington, and Albert Pyle. Major James H. McKee was the attending Flight Surgeon, Sergeants Lewis and Balton were the mechanics and Lieut. James Evans was official photographer.

Primarily the trip was a sort of transcontinental reconnaissance, the fliers studying the air lanes and routes between the cities visited. Their especial mission was to pick out and map landing fields for future cross country flights.

Major Smith stated that over one Southern city they had to fly an hour before finding a suitable field in which to land. This will not happen again as they charted the field and marked it. In certain Texas cities, the enthusiastic inhabitants offered to make them fields when they heard the planes were coming and in two places did so, clearing, rolling and finishing a field for these four planes before they arrived.

On the Eastern route, coming directly from San Diego, only 20 stops were made crossing the Continent, to Jacksonville where they arrived on December 22nd, but in flying down Florida and back, and up to Washington, six more stops were made. Leaving San Diego, California, the fliers passed through the following towns and cities in their flight to Washington. Calimex, Calif; Phoenix, Ariz; Tusson, Ariz; Deming N.M.; El Paso, Texas; Marfa, Texas; Shumla, Tex.; Del Rio, Tex.; San Antonio, Tex; Houston, Tex.; Baton Rouge, La.; New Orleans, La.; Mobile, Ala.; Montgomery, Ala.; Eufaula, Ala.; Americus, Ga.; Jacksonville, Fla.; Daytona, Fla.; Kissimme, Fla.; and then Dorr Field at Arcadia. Flying back over their route to Daytona, they then made Savannah, Ga.; Tillman, Ga.; Raleigh, S.C.; Petersburg, Va.; to Anacostia or Washington, D.C.

Three of the original ships which flew from California to Washington left on Tuesday, January 7th, for Mineola, L.I. The fourth ship was practically O.K. but as the engine needed over-hauling, it was deemed advisable to take another plane for the New York trip. It was expected that a stop would have to be made between Washington and Mineola on account of the ship picked up in Washington which was not equipped with the special gas tank providing fuel for five hours flight.

It is probable that after the engines are overhauled, that the four planes with their original engines will be flown back to California by a more northern route.

PLANES VISIT ABORIGINES

Army pilots at France Field, Cristobal, Canal Zone, Panama, are required to do much of their flying over water and along the coast. A flight to the Gulf of San Blas, consuming three and one-half hours, was recently made by two R 9 hydro-airplanes.

The Gulf of San Blas is situated on the Atlantic Coast about one hundred miles southwest of France Field, The mainland and numerous islands in and around the Gulf are inhabited by Indians who are suspicious, and unfriendly and decline to trade with strangers. In view of this information it was not contemplated

stopping here but due to the overheating of one of the motors a landing was made and the machine beached on one of the most populous islands. None of these people had ever seen nor probably ever heard of a flying machine and great consternation was manifested when the ships taxied up to the village, while from all the neighboring islands there were sent numbers of small dug outs.

It is doubtful who was the most fearful on this occasion for when the begoggled pilots stepped from their machines the entire population of the island was lined up on the beach armed to the teeth. The headman very reluctantly took his place in front of this aggregation and greeted the visitors with a scowl and a machette in his left hand. One of the pilots was a new arrival in Panama and unfamiliar with the current yarns about the unfriendliness of the Indians. As soon as he stepped on the beach he rushed up and greeted the headman in a very effusive manner and fortunately his friendly smile was properly interpreted. Most of the men were half naked and the boys entirely so. The costume of the women was both picturesque and very uniform. Bare feet were in vogue, the ankles and calves wrapped with a reddish string fiber, while short red dresses of the same material and without sleeves reached to the knees. The majority of the women wore large gold rings in their ears and noses and in many instances necklaces and bracelets of attractive design made from sharks teeth. A camera was brought out but this aroused such a feeling of hostility and suspicion that it was deemed advisable to return it to the ship. Some of the small boys mustering up courage came close enough to accept cigarettes which they apparently enjoyed hugely and finally the old chief himself grudgingly accepted one.

After this the pilots were permitted to go through the village proper and by way of courtesy the chief was invited to come aboard one of the hydro-airplanes, which invitation was not accepted. Radiators were filled with salt water and after a stay of about two hours the return flight was accomplished without serious trouble.

HOMOLOGATION OF AIR RECORDS

Data on aviation records is now being collected at all Army Flying Fields and forwarded to the Homologation Committee of the Air Service Clubs' Association in order to establish present records.

The following are the events being considered for pilots alone and with passengers:

Altitude;

Duration (non-stop);

Duration (24 hours);

Distance (non-stop);

Distance (24 hours);

Speed (non-stop);
1 mile, 2 miles, 50 miles, 100, 200--1000 miles —

Speed (cross country);
50 miles, 100, 200--1000 miles —

Loops (Number);

Water Flying (Land Machines)
Distance over water
Duration over water

Climbing Time
6500 ft., 10,000 ft., 15,000 ft., 20,000 ft.

D.M.A. CANTEEN

Due to the rain, permission has been granted to have the Canteen in Room 225, second floor between the second and third wings, Bldg. D.

It is directed that the south stairway between the second and third wings be used and that as much order as possible be maintained during the rush hour.

RETURNING AIR SERVICE UNITS

The Battleship Rhode Island sailed from Brest January 2nd and is due January 13 at Newport News, with the following troops: 477th Aero Construction Squadron 4 officers and 150 men, Ft. Slocum 48 per cent, Fort Logan 10 per cent, Ft. McDowell, California, 10 per cent, miscellaneous 32 per cent; 6 casual officers classified as follows: Air Service 1, Field Artillery 1, Engineers 1, Infantry 2, Quartermaster 1.

The Battleship Virginia sailed from Brest and is due January 12 at Newport News with the following troops: 484th Aero Construction Squadron 5 officers and 145 men; Regular Army 98 per cent, miscellaneous 2 per cent and casual officer Air Service.

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

First Lieut. James A. Healy, Air Service, 147th Aero Squadron, For extraordinary heroism in action near Grandpre, France, October 30, 1918. Becoming separated from his patrol, Lieut. Healy, flying at an altitude of 600 meters, discovered an enemy plane (type Halberstadt) hiding in the sun 200 meters above him, which he attacked and sent to the ground in a spiral dive. He then engaged two other machines (type Fokker) which had been attempting to attack him. He succeeded in outmaneuvering them, and finally shot down one of the Fokkers. He returned without a drop of gasoline in his tank. Home address, Mrs. Mary A. Healey, mother, 361 Union Street, Jersey City, N. J.

First Lieut. Murray K. Guthrie, Air Service, 13th Aero Squadron. For extraordinary heroism in action near Andsvanne, France, October 1, 1918. Lieut. Guthrie was a member of an offensive patrol of four planes, which was attacked far behind the enemy's lines by six German machines. One of our pilots was forced to withdraw by the failure of his machine guns, and two others were surrounded and overpowered. Lieut. Guthrie fought the six enemy planes alone for 10 minutes and destroyed one of them. For the following act of extraordinary heroism in action near Montefaucon, France, October 4, 1918, Lieut. Guthrie is awarded one bar; When the leader of his patrol was blown to pieces by a shell, Lieut. Guthrie took command and attacked the formation of six enemy planes. Although he became separated from his companions, he succeeded in destroying one of his opponents.

For the following act of extraordinary heroism in action near Fontaine, France, November 4, 1918. Lieut. Guthrie is awarded one bar; as flight commander, Lieut. Guthrie led his formation of six planes to the attack of seven enemy planes (type Fokker), six of the enemy were destroyed, one of which was sent down by this officer. Immediately following this combat he attacked and drove off four hostile machines (type, Fokker), which were about to attack one of our balloons. Home address, K. R. Guthrie,, father, care of A.T. & N. Railway, Mobile, Ala.

First Lieut. Lloyd A. Hamilton (deceased), 17th Aero Squadron. For extraordinary heroism in action at Varssenuere, Belgium, August 13, 1918. Leading a low bombing attack on a German aerodrome 30 miles behind the line, Lieut. Hamilton destroyed the hangars on the north side of the aerodrome and then attacked a row of enemy machines, flying as low as 20 feet from the ground despite intense machine-gun fire, and setting fire to three of the German planes. He then turned and fired bursts through the windows of the chateau in which the German pilots were quartered, 26 of whom were afterwards reported killed. Next of kin, Rev. John A. Hamilton, father, 25 Buell Street, Burlington, Vt.

First Lieut. Louis G. Bernheimer, Air Service, pilot, 88th Aero Squadron, For the following act of extraordinary heroism in action near Tailley, France, November 2, 1918: Lieut. Bernheimer and First Lieut. Ralph P. Bagby, observer, on their own initiative went on a reconnaissance mission, flying 15 kilometers behind the German lines, securing valuable information on the condition of the bridges across the Meuse River and enemy activity in the back areas and harassing enemy troops. Home address, Sidney Bernheimer, father, 138 East Seventy-Second Street, New York City.

First Lieut. Frank Ordiscoll Hunter, Air Service, 130th Aero Pursuit Squadron. For the following act of extraordinary heroism in action near Verneville, France, September 17, 1918: Leading a patrol of three planes, Lieut. Hunter attacked eight enemy machines. He then returned to the flight and succeeded in destroying another and driving off the others. Home address, John H. Hunter, father, 216 East Gaston Street, Savannah, Ga.

CAPTAIN LYSTER CITED

A general order of the First Army, Air Service, A.E.F. dated France, December 3d, 1918, publishes an extract as follows:

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The Air Service Commander, First Army, cites the following officer for exceptional devotion to duty:-

I. Par. 3. Captain Henry L. Lyster, A.S.U.S.A., as Adjutant of the 1st Pursuit Group. His meritorious work and conduct, helping to form the 1st Pursuit Group, is worthy of the highest commendation. During all the successful operations of this Group, which was formed in the Toul Sector and contributed in every offensive thereafter, this officer showed such skill and good management so as to assist greatly in the success achieved by the 1st Pursuit Group.

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THE OCCUPATION OF METZ

A letter from Capt. Henry L. Lyster, A.S.,A.E.F., on the occupation of Metz follows in part:

On Tuesday, November 19, 1918, we left our airdrome and proceeded by motor to Metz. The route lay through the St. Mihiel district, crossing the trenches and no man's land, through St. Mihiel and up the main highway through the center of the salient where the American troops met in September when they cut off the German retreat. I had previously been over this part of the country the day after the evacuation of St. Mihiel when our lines extended North and South, not far from Vignuelles. At that time we had gone over to witness some balloon straffing from the Heights of St. Maurice, which was being carried on by the First Pursuit Group. Now the lines have all retired and we pushed through the country which only a day or two before, had been occupied by the Germans.

Here and there on either side of the road, we would see airplanes which had crashed, some German and some American. We stopped the car and got out to examine them, and if American to take the number, in order, if possible, to identify them. We finally pushed over the border line of the Department of Mourthe-Moselle, into Lorraine. As we went through the various villages be-decked with flags, here and there, in addition to the French colors,was a British or American Flag, the latter showing they were made quickly as there were no stars on the blue fields. The inhabitants of the various villages would all turn out as we went through, shouting, "Vive la France" even though they were very German in appearance. In many places I saw old men and women far past sixty years, who had undoubtedly lived in the same little villages as French subjects prior to 1870. They all came to the door or stopped their work to wave and shout "Vive la France". We saw hardly any other automobiles and seemed to be almost the first to come through on that particular route.

Soon we could hear the guns of the forts surrounding Metz and we knew the French General was probably preparing to enter the city. It was a beautiful day without a cloud in the sky, and, as we passed over the hills and by the outer works, one could see the City of Metz as it lay in the valley with the Moselle River winding around through it.

When we got into the heart of the town, we found the French Troops were just starting their triumphant march through the city. Parking our car we went to the square between the famous Metz Cathedral and the Hotel de Ville (Municipal Building). The streets and square were packed and it made a most interesting picture as we watched the line continually going across the square and around through a narrow street at one end of the Cathedral. Infantry, artillery, cavalry, lancers; all dressed in their uniform for the field, with the artistic, steel helmet of the French. As one looked over the heads of the crowds and saw the lancers with their steel helmets and lances upright going by on horseback with the ancient cathedral for a background, it made a medieval picture, one that might have been taken from a history of the 15th or 16th century.

We mingled with the crowd and I do not believe there were over a dozen American Officers and men in the town. Many had the tri-color cockade, whether their sympathies were that way or not. We, in our aviator's coats with fur collars and overseas caps, were immediately spotted and people came up to us to ask if it was our squadrons that had bombed Metz. We were able to "get from under" by explaining that our squadrons were "Chasse" or Pursuit.

The parade lasted about two and one-half hours, following a line through the narrow streets of the city and diagonally across the Parado Platz or square between the Cathedral and the Hotel de Ville. The side near the Cathedral was crowded with sight-seers as were the windows of the buildings at each end of the square. The square was also filled with people, leaving only a narrow lane, through which the troops marched, guarded by cavalry and lancers to hold the crowd back. We noticed that the windows of the Hotel de Ville were filled with young women dressed in the national costume of Lorraine, including a large white muslin hat with a high crown, upon which they wore the tri-color cockade, and a colored silk shawl over their shoulders. We had decided to stay over night and took rooms at the Hotel d'Europe, which had a large inner court yard where we parked our automobile.

It was getting dark, which it does here now about four o'clock, as we went over to the Hotel de Ville and upstairs where there was a reception going on. Numerous civilians, all wearing the tri-color cockade were greeting and talking with the French Officers. Major Hartney and I slipped in through a side door where we were immediately surrounded by a large number of young women dressed in the national costume, who were serving sparkling Moselle to the guests. A number of civilians immediately came forward, crying "Vive l'Amerique" and"Vive le President Wilson", to which we of course immediately responded with "Vive la France" and "Vive la Lorraine". In order that the "Entente Cordiale" might be carried on, I asked two or three of the young ladies if they would not like to go to dinner. At first they thought it was impossible, but on consulting a French Officer, who was covered with Medals, he said he thought it ought to be done and asked to join our party. After numerous consultations one of the young ladies came over to

me and said they would all like to go but that they must ask their "Papas and Mammas",so where the party was to have been a party of six it grew to one of 20, including six French Officers and four American. We started out, each one with a young lady on his arm, and crossed the Market Place.

The French Major, whose hair was just beginning to turn gray above the ears, led the way. The first place at which we stopped was the Cafe Central, kept by the Mother of one of the young women. It was crowded with civilians and French soldiers, and as our party marched up through the aisle, they all rose to their feet shouting "Vive l'Amerique" although there were only two American Officers in the party. The permission of the mother was obtained after she had speech with the French Officer. We then went to another place which proved to be a large apartment house. Going up two flights of stairs, we marched into a very handsome dining room, evidently just set for the family dinner. After another speech by the French Major, permission was also obtained here, and so on until we had wandered all over town to ten different houses, marching and riding between each place and singing the Marsellaise en route. We finally ended up at the Hotel where we had a large table reserved, and there we had a very fine dinner, numerous healths being drunk to Lorraine, the Ladies of Lorraine,to America and France.

The French Commandant whom we placed at the head of the table, was feeling in fine feather, after four years of war, The Medal of the Legion of Honor with the Rosette, the Croix de Guerre with numerous palm leaves and the three wound stripes, showed what he had been through, After forty-seven years, Lorraine and Metz had come back to France, and he was there to see it. In the midst of the dinner Nungaesser, the famous French Aviator with forty-two victories to his credit, came into the dining room amidst the cheers of the crowd. He was immediately brought to our table, introduced and invited to dinner. He is a fine looking man and his breast was covered with medals. He could not stay to dinner, but after making a little speech he said that he wished the honor of kissing the ladies of Lorraine. After a response by our French Commandant, permission was given and he went around the table kissing each one on both cheeks.After he had departed, I asked the French Officers if we were to be beaten by Nungaesser. They indignantly allowed we were not and so amidst the cheers of the rest of the dining room we all followed suit. After we had taken the young ladies home, they were all between the ages of about seventeen and twenty-one, we joined,in the celebration of the populace in the streets, and it was after one o'clock before we retired.

Most of the shopkeepers had German names. We found very good shops there and they suddenly started a large trade in the sale of Iron Crosses, probably much larger than they had enjoyed during the German Occupation. One could hear German spoken on the streets but if they addressed us they used French. Some of the young women whose sympathies were undoubtedly strongly allied, told me that they were delighted when they heard the shells from the American guns falling on the outskirts of Metz. I think the merchants and also a great many of the civilians are sorry that the Americans had not occupied it instead of the French, as their reputations as good spenders had evidently reached Metz with the news of the signing of the Armistice. It was to be expected, however, that both Metz and Strasbourg would be entered by the French upon which goals they had had their eyes for nearly half a century.

That night, we witnessed the tearing down of the equestrian statue of William II by the populace of Metz joined by the French soldiers. As we went by late that evening, we could see the statue standing with the head of the former Emperor on the pavement. The Statue of Frederick the III had been pulled down during the day.

The next morning we started back, going in the direction of Toul, where we had business, and inspecting our old Airdrome, northeast of Toul, where we had spent several months in the Spring. We took the road up the beautiful Moselle Valley, along the east bank of the river, crossing it at Pont-a-Mousson. It was very interesting passing through many of the towns and villages which had formerly been within the enemy lines and over which our aviators had flown so often when we were operating in the Toul Sector. Here were places which though mere specks

on the map, had figured in operations reports, as having had a combat here or brought down an enemy plane there, or near which one of our own aviators was last seen; Jouy, Pagny, Lorroy, Champey, and Pont-a-Mousson itself. The latter was barely within our lines and had always been subjected to heavy enemy fire, both by artillery and aircraft. The bridges across the Moselle at this place had all been blown to pieces and we crossed on a temporary wooden span. There was hardly a square foot of the old bridge wall that had not been spattered by fragments of shells or aerial bombs. Continuing southwest after stopping at the Gencoult Airdrome, where the First Pursuit Group had first commenced operations (near Toul), we then turned northwest through Commercy and passed some of the old trenches which had been evacuated two months before, returning to our present airdrome before noon. The sight of the recovery of the Capital of Lorraine by the French after forty-seven years was, to us, one of the most interesting episodes of the war and one that will long be remembered.

MAJOR MARR'S DECORATION FOLLOWS HIM FROM OVERSEAS

A letter received at the Division of Military Aeronautics recently from the overseas Air Service enclosed a Croix de Guerre awarded to Major Kenneth Marr, Commander of the 94th Squadron.

The citation which accompanied the medal stated that with the approval of the Commander General of the American Expeditionary Forces in France, the Marshall of France, Commander in chief of the French Armies of the East, cited in an order of the Army Corps as follows: "Captain Kenneth Marr, Commander of American Squadron 94th., excellent Squadron Commander of legiondary bravery, has been a beautiful example to his entire unit. Previously cited."

TEMPORARY RANK

PRESS STATEMENT BY THE SECRETARY OF WAR, JANUARY 6, 1919

"The problem presented by temporary rank of Army Officers is one which will of course have to be dealt with. The War Department has not yet undertaken to suggest what it thinks wisest about it. We have an anomalous situation; a very large number of men in the Regular Army have been promoted from lieutenants to captains, and captains to colonels, and so forth, and after a man has been doing duty with troops in war as a colonel it is pretty hard to revert back to a lower rank. The problem of how to stabilize rank is a serious one and one that cannot be solved until Congress decides what to do about the bill for the Army. If Congress provides for an army of a half million men (and all Members I have talked with seem to be favorable) that would provide a much larger number of places for colonels, majors, captains, etc. So far as I know it will take care of all the Regular Army men.

"An effort will be made to use all the present permanent officers and then fill in with those officers best qualified who are now in the temporary army and have signified their desire to stay in the Military Establishment."

Replying to a question regarding absent without leave cases in New York, the Secretary of War said:

"I was speaking to General Shanks yesterday in New York, and he told me that the situation there was somewhat difficult; that because of the relaxed pressure due to the termination of hostilities a great many of the younger officers felt that the bars were down and that they did not have to secure permits to be out, that many of them were absent without leave, and that there was a general relaxation in discipline. I told him I was quite sure that his own view was a wise one, and that demobilization must be an orderly demobilization, and that it is just as incumbent upon these officers to obey the military regulations during the period of

demobilization as during the period of mobilization. We must insist upon the proper observance of duty by these officers."

ONE FATAL ACCIDENT IN WEEK

Only one fatality was reported from the flying fields for the week ended December 28. This occurred at Hazlehurst Field, Mineola, Long Island, N. Y.

DISCHARGED

Among the officers who have recently been discharged from the Air Service in the R.M.A. are the following:

2nd. Lieut. Frank H. Carter,
Captain Adelbert Ames, Jr.
1st. Lieut. Edwin E. Weiss
2nd. Lieut. Norman Dunning
1st. Lieut. James N. Bobbitt
2nd. Lieut. William T. Nelson
2nd. Lieut. Joseph P. Annin
1st. Lieut. Wm. E. Dean
2nd. Lieut. Percival Gilbert
2nd. Lieut. Hermon L. Underhill
2nd. Lieut. Eppa H. Willis
2nd. Lieut. Herbert R. Shepard
2nd. Lieut. Alanson W. Aird
2nd. Lieut. Aubrey Drury
1st. Lieut. Henry L. Taylor
2nd. Lieut. George F. French
2nd. Lieut. Charles King
1st. Lieut. Paul D. Weathers
2nd. Lieut. John C. Rowland
2nd. Lieut. William E. Lewis
Major Roger Amory
1st. Lieut. George D. Taylor
Captain Hamilton H. Salmon
2nd. Lieut. Willis F. Geib
2nd. Lieut. William H. Spurgin
1st. Lieut. William L. Shaffer
1st. Lieut. Jefferson W. Davis
Captain Hayward H. Kendall
2nd. Lieut. Walter G. Eagle

NEW R.M.A.s

The following Officers of the Air Service have recently been rated as Reserve Military Aviators:

Capt. Jacob S. Schlussel,
2nd. Lieut. Stanton T. Smith
1st. Lieut. James C. Fair
2nd. Lieut. Ferris F. Hamilton
2nd. Lieut. Russell F. Swift
2nd. Lieut. Henry C. Fisk, jr
2nd. Lieut. C.J. Fuller
1st. Lieut. Sydney H. MacBey
2nd. Lieut. Wm. L. Fancher
2nd. Lieut. Hugh F. Porter

CITED FOR DISTINGUISHED SERVICE

First Lieut. Ralph P. Bagby, Field Artillery, observer, 88th Aero Squadron. For extraordinary heroism in action near Tailley, France, November 4 1918. Lieut. Bagby and First Lieut. Louis G. Bernheimer, pilot, on their own initiative went on a reconnaissance mission, flying 50 kilometers behind the German lines, securing valuable information as to the condition of the bridges across the Meuse River and enemy activity in the back areas and also harassing enemy troops. Home address, R. J. Bagby, father, New Haven, Mo.

HONORED BY PERSHING FOR HEROISM

The commander in chief, in the name of the President, has awarded the distinguished service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

First Lieut. James A. McDevitt, Air Service, United States Army. For repeated acts of extraordinary heroism in action near Ruisy, France, September 15 and October 5 and 6, 1918. On September 15, 1918, while performing an important mission Lieut. McDevitt's balloon was attacked and riddled by an enemy plane firing incendiary bullets. He stuck to his post and gathered valuable information. On October 5 he was again attacked by several planes and the basket was set afire by incendiary bullets. While descending he was fired upon and his parachute was hit many times; he, nevertheless, insisted upon returning to the air. On October 6 he was attacked and his balloon was riddled with bullets. Again, on the same day, he was attacked by several enemy planes; he remained with his balloon until it came down in flames; he then resumed his post in a new balloon. Home Address, Mrs. James McDevitt, mother, 1114 Yale Avenue, Cincinnati, Ohio.

First Lieut. Rodney M. Armstrong, Air Service, pilot, 168th Aero Squadron. For extraordinary heroism in action November 4, 1918. As pilot of a D. H. 4 plane, Lieut. Armstrong flew an Infantry contact machine over the lines of the 7th Division November 4, 1918. Owing to low clouds and rain, he crossed the line at 1,000 feet in order to enable his observer to locate the position more accurately. While on the enemy's side he was wounded by an explosive bullet. In spite of his wound and weakness, he continued his mission, coming down to within 500 feet of the enemy's machine guns and troops, until his observer had signaled him that the mission was completed. Home address, Mrs. R.M. Armstrong, wife, 1012 East Eleventh Street, Winfield, Kans.

First Lieut. James F. Manning, Jr., Air Service, pilot, 49th Aero Squadron. For extraordinary heroism in action near Doulcon, France, October 4, 1918. While leading a patrol of seven planes, Lieut. Manning accepted combat with 17 German machines (type Fokker) at an altitude of 1,200 meters, Through his courageous leadership and skillful maneuver of his patrol, seven of the enemy planes were shot down. Home address, J. F. Manning, father, Leesburg, Va.

First Lieut. Field E. Kindley, Air Service. For extraordinary heroism in action near Bourlon Wood, France, September 24, 1918. Lieut. Kindley attacked formation of seven hostile planes (type Fokker) and sent one crashing to the ground. A bronze oak leaf is awarded to Lieut. Kindley for the following act of extraordinary heroism in action near Marcoing, France, September 27, 1918. Flying at a low altitude, this officer bombed the railway at Marcoing and drove down an enemy balloon. He then attacked German troops at a low altitude and silenced a hostile machine gun, after which he shot down in flames an enemy plane (type Halberstadt) which had attacked him. Lieut. Kindley has so far destroyed seven enemy aircraft and driven down three out of control. Home address, Utzer Kindley, cousin, care Bank of Gravette, Ark.

Second Lieut. Kenneth L. Porter, Air Service, 147th Aero Squadron. For extraordinary heroism in action near Chateau-Thierry, France, July 2, 1918.

Lieut. Porter, with four other pilots attacked 12 enemy aircraft (type Pfalz), flying in two groups well within the enemy lines. As soon as the enemy planes were sighted, Lieut. Porter maneuvered to get between them and the sun and with great difficulty gained the advantage. While three of the other American officers dived on the lower formation Lieut. Porter and Second Lieut. John H. Stevens engaged the upper formation in a bold and brilliant combat, two planes of which they crashed to the earth. Home address, Mrs. Harriet Porter, mother, 105 Green Street, Dowagiac, Mich.

Second Lieut. John H. Stevens, deceased, Air Service, 147th Aero Squadron For extraordinary heroism in action near Chateau-Thierry, France, July 2, 1918. Lieut.Stevens, with four other pilots, attacked 12 enemy aircraft (type Pfalz) flying in two groups well within the enemy lines. As soon as the enemy planes were sighted Lieut. Stevens maneuvered to get between them and the sun, and with great difficulty gained the advantage. While three of the other American officers dived on the lower formation Lieut. Stevens and Second Lieut. Kenneth L. Porter engaged the upper formation in a bold and brilliant combat, two planes of which they crashed to the earth. Home address, Mrs. Effie Stevens, 21 State Street, Albion, N. Y.

Capt. Victor H. Strahm, Air Service, pilot, 91st Aero Squadron. For extraordinary heroism in action near Metz, France, September 13, 1918. Capt. Strahm displayed remarkable courage and skill in penetrating the enemy territory for a distance of 25 kilometers, flying at an altitude of less than 300 meters. His plane was subjected to intense fire from antiaircraft guns in the region of Metz, and he was attacked by a superior number of German planes, one of which he destroyed. He completed his mission and returned with information of great military value. Home address, Frank J. Strahm, Bowling Green, Ky.

First Lieut. Oscar B. Myers, Air Service, 147th Aero Squadron. For extraordinary heroism in action near Cierges, France, September 28, 1918. Sent on a particularly hazardous mission, he harrassed and routed enemy troops. Lieut. Myers then climbed higher to look for German planes. With two other officers he encountered nine Fokkers protecting a reconnaissance machine, flying in one of the most effective formations used by the enemy. Out maneuvering the hostile planes, the the three officers succeeded in routing them. After a quick turn Lieut. Myers dived at the reconnaissance machine and crashed it to the ground in flames. Home address, S. Oscar Myers, 109 South Third Avenue, Mount Vernon, N. Y.

First Lieut. William T. Badham, Air Service, observer, 91st Aero Squadron. For extraordinary heroism in action near Nuzancy, France, October 23, 1918. This officer gave proof of exceptional bravery while on a photographic mission 25 kilometers within the enemy lines. His plane was attacked by a formation of 30 enemy aircraft; by skillful work with his machine gun Lieut. Badham successfully repelled the attack and destroyed two German planes. At the same time he manipulated his camera and obtained photographs of great military value. Home address, H. L. Badham, Whitaker Street, Birmingham, Ala.

First Lieut. George C. Kennedy, Air Service, pilot 91st Aero Squadron. For extraordinary heroism in action near Jametz, France, October 9, 1918. This officer gave proof of his bravery and devotion to duty when he was attacked by a superior number of aircraft. He accepted combat, destroyed one plane and drove the others off. Notwithstanding that the enemy returned and attacked again in strong numbers, Lieut. Kennedy continued his mission and enabled his observer to secure information of great military value. Home address, L. Gordon Glazier, 4 Egremont Road, Boston, Mass.

First Lieut. Benjamin L. Atwater, Air Service, observer, 99th Aero Squadron. For extraordinary heroism in action near Landres-A-St. Georges, France, October 5, 1918. Lieut. Atwater started on a photographic mission with Lieut. Alexander pilot, over the enemy's lines. Forced back by seven enemy pursuit planes, he determined to complete his mission, and recrossed the line eight minutes later. A large group of enemy pursuit machines again attacked his plane. Disregarding his wound, he operated his machine gun with such effect that the nearest of the enemy planes was put down out of control. Home address, Mrs. Ella C. Atwater, mother, 152 Maple Avenue, Red Bank, N. J.

Second Lieut. William J. Brotherton, Air Service, 147th Aero Squadron. For extraordinary heroism in action near Fere-En-Tardonois, France, on August 1, 1918. An enemy Rumpler plane being reported over the airdrome, Lieut. Brotherton with another officer, ascended and soon encountered six Fokker planes that were protecting another Fokker serving as a decoy. Disregarding the enemy's superiority in numbers, he maneuvered so as to secure the advantage of the sun and dived on the decoy plane; pouring in air destructive fire, he killed the pilot and crashed the machine to the ground. Home address, C. J. Brotherton, Guthrie, Ill.

First Lieut. Lansing C. Holden, Air Service, 1st Pursuit Group. For extraordinary heroism in action near Montigny, France, October 23, 1918. Lieut. Holden was ordered to attack several German balloons, reported to be regulating effective artillery fire on our troops. After driving off an enemy plane, encountered before reaching the balloons, he soon came upon five balloons in ascension 1 kilometer apart. In attacking the first, which proved to be a decoy with a basket, his guns jammed; after clearing them he attacked the second balloon, forcing the observer to jump. His guns again jammed before he could set fire to this balloon. Moving on the third balloon at a height of only 50 meters, he set fire to it and compelled the observer to jump. He was prevented from attacking the two remaining balloons by the further jamming of his machine guns. Home address, L. C. Holden, father, 888 West End Avenue, New York, N.Y.

Maj. Harold E. Hartney, Air Service, 1st Pursuit Group. For extraordinary heroism in action near Fismes, France, August 13, 1918. Maj. Hartney voluntarily accompanied a reconnaissance patrol. Realizing the importance of the mission, Maj. Hartney took command, and, although five enemy planes repeatedly made attempts to drive them back, he continued into enemy territory, returning later to our lines with important information. The cool judgment and determination displayed by Maj. Hartney furnished an inspiration to all the members of his command. Home address, Mrs. Harold E. Hartney, care of Russell Hartney, Saskatoon, Saskatchewan, Canada.

Second Lieut. Richard Wilson Steele, observer, Air Service, 166th Aero Squadron. For extraordinary heroism in action near Bois D'Barricourt, France, October 23, 1918. While on a bombing raid back of the German lines Lieut. Steele, accompanied by his pilot, was attacked by six German pursuit planes. They were forced to leave the formation in which they were traveling owing to engine trouble; the enemy began riddling their plane with machine-gun fire. Lieut. Steele fought them on all sides and is credited by members of the 11th Aero Squadron, who were flying over him several thousand feet, with having brought down one of his opponents. He was wounded twice in the leg and twice in the arm, and continued fighting, although each time he was hit he was knocked down into the observer's cockpit. At last, however, only his tail gun was in working condition, the other two having been disabled by bullets, and Lieut. Steele sank unconscious into the cockpit. Home address, William Steele, father, 426 East Euclid Avenue, Oak Park, Ill.

First Lieut. Hugh L. Fontaine, Air Service, 49th Aero Squadron. The bronze oak leaf is awarded Lieut. Hugh L. Fontaine for extraordinary heroism in action near Champigneulle, France, October 10, 1918. While leading a patrol of three other machines Lieut. Fontaine attacked four enemy planes in the region of Champigneulle. He succeeded in shooting down two of the enemy planes in flames. The first of these he shot down in the initial attack. The second he attacked while it was endeavoring to shoot down one of our planes which had been rendered helpless by the loss of one of its wings. He dived on the attacking plane and shot it down in flames. Home address, Dr. Bryce Fontaine, stepfather, 1839 Overton Park Avenue, Memphis, Tenn.

First Lieut. Raymond P. Dillon, pilot, 24th Aero Squadron. For extraordinary heroism in action near Mezieres, France, November 3, 1918. Lieut. Dillon exhibited courage in the course of a long and dangerous photographic and visual reconnaissance in the region of Mezieres with two other planes of the 24th Aero Squadron. Their formation was broken by the attack of 10 enemy pursuit planes; 5 enemy planes attacked Lieut. Dillon and his observer, who succeeded in shooting down two of these out of control. They then had a clear passage to

their own lines, but turned back into Germany to assist a friendly plane with several hostile aircraft attacking it. They succeeded in shooting down one mo of the enemy. Home address, Claude A. Dillon, brother, 5839 Prairie Avenue, Chicago, Ill.

Second Lieut. John B. Lee, 3d, observer, F. A. 24th Aero Squadron, extraordinary heroism in action near Mezieres, France, November 3, 1918. Lieut. Lee exhibited extreme courage in the course of a long and dangerous photographic and visual reconnoissance in the region of Mezieres with two other planes of the 24th Aero Squadron. Their formation was broken by the attack of 10 enemy pursuit planes; 5 enemy planes attacked Lieut. Lee and his pilot, With remarkable coolness Lieut. Lee succeeded in shooting down two of the planes. They then had a clear passage to their own lines, but turned back into Germany to assist a friendly plane with several hostile aircraft attacking it. They succeeded in shooting down one more of the enemy. Lieut. Lee and pilot returned to our lines with information and photographs of great military value. Home address, John B. Lee, jr. father, 667 Highland Avenue, Newark, N. J.

Second Lieut. Dogan H. Arthur, pilot, Air Service, 12th Aero Squadron. The bronze oak leaf is awarded Lieut. Arthur for the following acts of extraordinary heroism in action October 18 and 30, 1918, to be worn on the distinguished-service cross awarded him October 3, 1918. On October 18, 1918, while on artillery reglage, Lieut. Arthur and his observer were attacked by four enemy planes. His observer's guns were jammed, but Lieut. Arthur, with splendid courage and coolness, outmaneuvered the hostile aircraft and escaped, although they followed his plane to within 25 meters of the ground, badly damaging it by machine-gun fire. On October 30, 1918. Lieut. Arthur was one of a formation of nine planes which were to take photographs in German territory. Before the lines were reached six planes dropped out, but the remaining three entered the German lines, although they observed several large formations of enemy planes in the near vicinity. When they were 12 kilometers within the German lines they were attacked by 18 enemy Fokkers. Regardless of his own safety, Lieut. Arthur engaged these planes in order to allow his companions to escape, and turned toward his own lines only when he saw them shot down. Then he fought his way home, and in the fight which ensued his observer shot down two enemy planes. Home address, W. D. Arthur, 632 East Main Street, Union, S.C.

First Lieut. Thomas M. Jervey, Ordnance, 1st Army Observation Group. For extraordinary heroism in action near Longuyon, France, Assigned to the 1st Army Observation Group, Air Service, armament officer, Lieut. Jervey volunteered as observer on a photographic mission from Ontedy to Longuyon, 25 kilometers, into the enemy lines. In combat with 14 enemy aircraft which followed 1 enemy aircraft was destroyed. Lieut. Jervey, regardless of the fact that his plane was badly shot up, and that his hands were badly frozen, continued on the mission, returning only upon its successful conclusion. Home address, Mrs. Frank J. Jervey, mother, 7 Pitt Street, Charleston, S. C.

First Lieut. George A. Goldthwaite, pilot, Air Service, 24th Aero Squadron, For extraordinary heroism in action near the Bois de Bantheville, France, October 15, 1918. In the course of a special reconnoissance to locate a hostile concentration massing for a counterattack in the vicinity of the Bois de Bantheville, Lieut. Goldthwaite and his observer flew generally at an altitude of 400 meters, at times as low as 50 meters, 5 kilometers into the enemy's lines. Antiaircraft guns riddled his plane with bullets, pierced the gasoline tank, and drenched both pilot and observer, He continued on until the enemy's concentration was located and military information of great value secured. The bravery of Lieut. Goldthwaite saved the lives of many American soldiers and brought large losses to the enemy. Home address, Mrs. Condace Goldthwaite, mother, Fifth and Garfield Streets, Marion, Ind.

First Lieut. John H. Lambert, pilot, 91st Aero Squadron. For extraordinary heroism in action near Stenay, France, October 30, 1918. While on a photographic mission in the vicinity of Stenay, his work being seriously interfered with by the fire of a formation of enemy planes, Lieut. Lambert temporarily discontinued his mission, attacked the formation and dispersed it,

destroying one plane and seriously damaging another. He then returned his objective, completed his mission, and returned with information of great mili[illegible] value. Home address, Mrs. Joseph F. Kelley, 45 West Eleventh Street, New York, N. Y.

Capt. Everett R. Cook, pilot, Air Service, 91st Aero Squadron, For extraordinary heroism in action near Damvillers, France, September 26, 1918. While on a photographic mission in the vicinity of Damvillers which necessitated a penetration of 20 kilometers within the enemy lines, Capt. Cook was attacked by seven enemy pursuit planes, and his plane was riddled with bullets. In spite of the attack he continued on his mission, turning only for our lines when his observer had secured photographs of great military value. In the combat one enemy aircraft was destroyed. Home address, Mrs. J. E. Cook, 232 Floyd Avenue, Toledo, Ohio.

First Lieut. John R. Cousins, Infantry, observer, 24th Aero Squadron. For extraordinary heroism in action near Conflans, France, November 2, 1918. In the course of a photographic mission of a particularly dangerous character Lieut. Cousins and his pilot were attacked by a superior number of enemy pursuit planes. During the combat that ensued, with remarkable coolness and excellent shooting, he destroyed one of the attacking machines. Notwithstanding that the enemy aircraft continued to attack and harass them, Lieut. Cousins and pilot reached all their objectives and returned to our lines with photographs of great military importance. Home address, Mrs. J. A. Cousins, Whalley Avenue, Westville, Conn.

First Lieut. John H. Snyder, observer, Air Service, 1st Army. For extraordinary heroism in action September 12, 1918. While on a special mission to determine the probable enemy concentration in the back areas, Lieut. Snyder, with his pilot, in spite of almost impossible flying conditions, flew 60 kilometers over the enemy lines at a very low altitude. The unfavorable weather alone would have warranted them in turning back, but they continued on regardless of very active and accurate machine-gun and antiaircraft fire. They returned to our lines only when their mission was successfully completed. Home address, Mrs. William H. Noll, 319 North Sixth Street, Reading, Pa.

AMERICAN "ACES"

A list of sixty-three American Officers who have been credited with bringing down five or more enemy planes at the Front has just been received at the D.M.A. The list is headed by Captain Rickenbacker who is credited with twenty-six victories in the air. The complete list will be printed in the next issue of the Weekly News-Letter.

D.M.A. DISPENSARY

Some idea of the number of the emergency medical cases and the regular dispensary work in the D.M.A. Emergency Room alone may be had from the attached figures, compiled by Miss Julia Eppers, Army Nurse's Corps. A total of 10,903 cases were treated.

	Report-Emergency Room- Air Service						
1918	MEDICAL	SURGICAL	INOCULATIONS FOR PNEUMONIA	MISCELLANEOUS	MONTHLY TOTALS	MALE	FEMALE
pril	134	127	0	48	309	18	243
ay	254	518	0	184	956	142	630
une	204	157	0	120	481	123	238
uly	157	227	0	64	448	159	225
ugust	448	292	0	91	831	261	479
ept.	881	360	0	80	1321	278	963
ctober	1310	293	1316	224	3143	369	1234
ovember	1233	490	30	167	1920	406	1317
ecember	1092	281	0	121	1494	342	1031
otals	5713	2745	1346	1099	10,903	2098	6360

Julia Eppers A.N.C.

AIR SERVICE SMOKER

The Air Service Clubs' Association held a very successful membership smoker at the Army and Navy Club, on Friday, January 10th. Nearly four hundred members of the Air Service were present and many signified their intention of joining the Association.

The guests of the evening were, Major General C. T. Menoher, lately appointed Chief of the Army Air Service, Captain N. E. Irwin of the Naval Aviation Service, Lt. Colonel Wm. Thaw, Major Charles J. Biddle, Captain Ray Bridgman, and Lt. J. O. Donaldson, four of America's recently returned "Aces". Festivities of the evening were opened by Colonel W. E. Gillmore, who as chairman of the smoker committee, presented Major General William L. Kenly, President of the Association. General Kenly, in his inimitable way, pledged the services of the Air Service Clubs' Association to aviation and the Military and Naval Service of the United States. He extended the hearty welcome of the American Air Service in general and the Association in particular, to the new chief, Major General Menoher, who replied most fittingly and explained briefly the operations of the Air Service of the A.E.F. in cooperation with general military activities.

Lt. Colonel Thaw, who came to Washington to attend the smoker, regretted what he called an inherent inability to make a speech but Major C. J. Biddle favored the officers present with some reminiscences of friends of his at the front, and cited many instances of an unusual sort which he could vouch for. One of his most interesting remarks was to the effect that something should be done in the way of providing our aviators with parachutes, so successfully operated by German pilots.

Lt. J. O. Donaldson a recently returned aviator who had been captured and imprisoned in Germany, related a thrilling series of experiences encountered by himself and his companion, Lt. R. A. Anderson, who also escaped from prison.

Interpersed with the talk of these lately returned officers, moving pictures taken from the air by the Film and Picture Branch, of the Division of Military Aeronautics, were shown under the direction of Captain L.E. Rubel.

Following the general program and during the time refreshments were served, many groups formed around the "Aces" and the officers who had not been so fortunate as to go overseas, listened attentively to the bits of thrilling stories which they were able to draw from their more fortunate fellow officers.

Among the several guests were: Major La Garcia and several naval flying officers; Commander Towers, Lt. Com Chevalier, Major Cunningham, Marine Corps, Lt. Emmonds and several other fliers.

Vol. 2 D. No. 22102 LETTER O.S.1216
Air Service Washington, D.C. War Department
January 18, 1919

AIR SERVICE HISTORIES

Special efforts are being made to secure the histories of every aero squadron that has been in the American Expeditionary Forces for use in the history of the Air Service. Lieut. H. W. Heintz, A.S. has been detailed to the Aeronautical Information Branch of the Executive Section, D.M.A. to carry out this work in the United States. The original copies of the Squadron histories will be kept in the Aeronautical Information Branch at Washington, carbon copies being forwarded to the Information Section, Air Service, A.E.F..

TWO BALLOONISTS WHO DIDN'T JUMP

Out of about sixty men who went overseas to enter the Balloon Service with First Lieut. J. A. Smith, Reserve Military Aeronaut only two completed their observation service aloft without having to take a parachute jump. Lieut. Smith who is of Newark,, N. J. and saw service on the Mexican Border in the Artillery before going overseas, says he was one of the two and the other was Lieut. B. L. Breed of Vermont. Lt. Smith nevertheless says he has great confidence in parachutes, and that he has reason to as he saw over sixty successful jumps.

Although his balloon was never shot down by an enemy plane, it was nevertheless under fire from German artillery, on the fourth day of the San Mihiel drive, two Boche 210's taking turns shooting at him. The first shell went over and hit between two small hospital buildings, blowing them all to pieces. "This was one instance of the Germans shelling a hospital unintentionally," said Lt. Smith, "for the next shell burst in the air just back of the balloon and thus I discovered that the fire was being directed at my balloon and not the Red Cross Building." The commander of the company on the ground realized it too and had the balloon moved. This was done by running the winch along the ground and letting out some more cable. Presently the shells began going under and farther back of the balloon and finally they stopped after about 15 or 20 had been fired.

"Just to show that luck is the leading factor in determining who of the observers had to jump" Lieut. Smith said, "while I have been up for practically a whole day at a time, 13 and a half hours, without being attacked, Lieut. Reeves an aviator who had transferred to the Balloon Service, was up only a few minutes when he was forced to take to the "shute". "His balloon burned as he went down," he continued,"and in three and a half hours observing this man had to jump three times."

AMERICAN "ACES"

A cable received at the War Department, Washington, D.C., January 8, 1919, gives the following 63 names of American officers who gained 5 or more air victories. The number following each officer's name shows the victories credited to him. It is possible that a few more names will be added and that the figures herein may be subject to slight revision.

Captain Edward V. Rickenbacker 26, 1st Lieut. Frank Luke Jr., 18, Maj. Victor Raoul Lufbery 17, 1st Lieut. David E. Putnam 12, Capt. Reed G. Landis 12, 1st Lieut. Fields Kinley 10, 1st Lieut. George A. Vaughn 10, 1st Lieut. Jacques Michael Swaab 10, 1st Lieut. Thomas G. Cassady 9, 1st Lieut. Chester E.

Wright 9, 1st Lieut. William P. Erwin 9, Capt. Elliott W. Springs 9, 1st Lieut. Henry Clay 8, Maj. James A. Meissner 8, Capt. Hamilton Coolidge 8, Capt. G Defrees Larner 8, 1st Lieut. Frank O. D. Hunter 8, 1st Lieut. Paul E. Baer 8, 1st Lieut. William Wallace White 8, 2nd Lieut. Clinton Jones 8, Capt. Reid M. Chambers 7, 1st Lieut. Harvey Cook 7, 1st Lieut. Lansing C. Holden 7, 1st Lieut. Karl J. Schoen 7, 1st Lieut. Wendel A Robertson 7, 1st Lieut. Leslie J. Rummel 7, 1st Lieut. Lloyd A Hamilton 7, 1st Lieut. Jesse O. Creech 6, 2nd Lieut. Howard Burdick 6, 1st Lieut. Clayton L. Bissel 6, Maj. Harold E. Hartney 6, Capt. Douglas Campbell 6, Capt. Jerry Cox Vasconcelles 6, Capt. Edgar Gardner Tobin 6, 1st Lieut. E. P. Curtis 6, 1st Lieut. Summer Sewell 6, 1st Lieut. Ralph A. O'Neill 6, 1st Lieut. Donald Hudson 6, 1st Lieut. Murray K. Guthrie 6, 1st Lieut. William H. Stdvall 6, 1st Lieut. James D. Beane 6, 1st Lieut. Arthur R. Brooks 6, 1st Lieut. Robert O. Lindsay 6, 1st Lieut. Martinus Stenseth 6, 2nd Lieut. Frank K. Hays 6, 1st Lieut. Howard C. Klotts 5, Lieut. Col. William Thaw 5, Maj. David McK Peterson 5, Capt. H. R. Buckley 5, Maj. Charles J. Biddle 5, 1st Lieut. James Knowles 5, 1st Lieut. James A. Healey 5, 1st Lieut. Innes Potter 5, 1st Lieut. Francis M. Symonds 5, 1st Lieut. Joseph Fritz Wehner 5, 1st Lieut. John J. Seerley 5, 1st Lieut. Edward M. Haight 5, 1st Lieut. Harold H. George 5, 1st Lieut. George W. Furlow 5, 1st Lieut. Arthur E. Easterbrook 5, 1st Lieut. Byrne V. Baucom 5, 2nd Lieut. Harold McArthur 5, and 2nd Lieut. J. Sidney Owens 5."

(Signed) "Harbord."

ILLUSTRATED LECTURES ON AVIATION

The Film and Picture Branch of the Executive Section has arranged three lectures on Aviation illustrated by lantern slides, and will be glad to lend both the notes and slides to anyone wishing to deliver public lectures.

The subjects are: "Wings of the Army", "Aces in the Making", and "Bombs for the Boches".

The lectures themselves are exceptionally interesting, having been prepared with a great deal of care by C. R. Thompson, the noted lecture writer, and the slides are the product of the Photographic Laboratory of the D.M.A.

To obtain their use, one need only write to the Film and Picture Branch stating the date for which they are wanted, together with a statement that they will be returned promptly after use, charges paid.

The Film and Picture Branch is also preparing sets of motion pictures dealing with the duties and activities of the Division of Military Aeronautics, which will be available when completed in the same manner as the lectures.

PROMOTION OF ENLISTED MEN

Promotions of enlisted men of the Air Service will be made as usual. Enlisted men may be promoted or appointed to noncommissioned grades by any field officer of the Air Service under whose direct command they may be serving.

Recommendations for the appointment of Master Electricians will continue to be made to the D.M.A.; however, recommendations for promotion to that grade should only be made in the case of those men who are to continue in the service.

INSURANCE

Approximately four million officers and men of the Army and Navy are now insured with the United States Government for a grand total of almost thirty-seven billion dollars.

You owe it to yourself and to your family to hold on to Uncle Sam's insurance. It is the strongest, safest, and cheapest life insurance ever written.

For your protection Uncle Sam has established the greatest life insurance company in the world — a company as mighty, as generous, and as democratic as the United States Government itself.

The privilege of continuing your Government insurance is given to you. If you permit the insurance to lapse, you will never be able to regain it. But if you keep up your present insurance—by the regular payment of premiums —you will be able to change it into a standard Government policy without medical examination. The Government will write ordinary life insurance, twenty-payment life, endowment maturing at age 62, and other usual forms of insurance. This will be Government insurance— at Government rates.

AIR SERVICE CLUBS' ASSOCIATION

Although officers in the flying services of the Army, Navy and Marine Corps have always been eligible as members of the A. S. C. A., recent developments indicate that a large number of Naval and Marine Corps flying officers will shortly join the Association. In order that the Association name shall be more indicative of the nature of the organization it has been recommended that it be changed to the Army and Navy Air Service Association.

At a special meeting of the Board of Control of the Association, held on January 15, at which representatives of Naval Aviation were present, it was voted to call a special meeting of the Association for February 15, 1919, at which time two amendments to the constitution will be submitted with the approval of the Board of Control. These amendments will comprise the recommended change in name, and authority for the Board of Control to appoint temporary officers or members of the Board, to take the place of officers or members who have resigned.

The Naval Officers present were Commander Towers and Lieut. Commander Billinger, U.S.N. and Major Cunningham U.S.M.C., who composed a committee selected at a meeting of a number of Naval and Marine Corps aviation officers. Commander Towers reported that it was the sense of the meeting that, individually, the officers believed that the Naval and Marine flying officers should affiliate with the Association.

At the February meeting it is intended that the details of the affiliation be carried out and that everything be done to make the Association a representative national flying institution.

A. S. C. A.- MEMBERSHIP CAMPAIGN

January 10, 1919

Major S. S. Hanks,
Kelly Field,
San Antonio, Texas.

My dear Sir:

I wish to congratulate you, and through you the members of the Committees at Kelly Field, upon the success in securing the large enrollment

of members in the Air Service Clubs' Association. This work was handled in a particularly able manner.

It was resolved at a recent meeting of the Board of Control of the Clubs' Association, to place upon the minutes of the meeting an expression of appreciation of what had been thus accomplished, and to notify you, as Chairman, accordingly.

Very truly yours,

W. L. Kenly
Major General, U. S. A.
President, Air Service Clubs' Association.

FLYING FATALITIES

Reports from the Statistical Section show that two men were killed in flying accidents or died from injuries received, during the week ending January 2, 1919.

Major Fayette O. Kirby, a passenger died on December 30th, from injuries received at Kelly Field, the preceding day.

Sergt Gardner B. Haskell, a passenger, was killed in a fall at Barron Field on December 27, 1918.

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following named officers and soldiers for the acts of extraordinary heroism described after their names:

Sergt. (First Class) Fred C. Graveline, 20th Aero Squadron, first day bombardment group (A.S. No. 20083). For repeated acts of extraordinary heroism in action near Villers-Devant-Dum, France, and Mouzon, France, September 29 and November 5, 1918. Volunteering to act as observer and aerial gunner because of the shortage of officer observers. Sergt. Graveline started on seventeen bombing missions, successfully reaching his objective on fourteen of these expeditions, shooting down two enemy aircraft. On two occasions, while flying in the rear of his formation he drove off superior numbers of German machines. Home address, Mrs. Josephine Graveline, wife, 537 Main Street, Springfield, Mass.

Capt. Christopher W. Ford, Air Service, 103d Aero Pursuit Squadron. For repeated acts of extraordinary heroism in action near Rheims, France, March 27, 1918, and near Armentieres, France, May 21, 1918. Near Rheims on March 27 Capt. Ford, while on a patrol with two other pilots, led his formation in an attack on eight enemy planes. After 20 minutes of fighting the American formation shot down three German machines, of which one was destroyed by this officer. Near Armentieres on May 21 he again led a patrol of six planes in attacking 20 enemy aircraft. The attack resulted in 10 individual combats. Capt. Ford shot down one hostile plane and with his patrol, routed the others. Home address, Mrs. Harriet Chuff, aunt, 462 West One hundred and thirty-first Street, New York City, N. Y.

First Lieut. Edward B. Cutter (deceased), 19th Aero Squadron. For extraordinary heroism in action near Cunel, France, October 21, 1918. Responding to an urgent request for a plane to penetrate the enemy lines to ascertain whether or not the enemy was preparing a counterattack, Lieut. Cutter immediately volunteered for the mission. Obliged to fly at a very low altitude on account of the unfavorable weather conditions, he was under terrific fire of the enemy at all times, by skilful dodging he managed to cross the enemy lines. His plane

was seen to suddenly lurch and crash the short distance to the ground, both he and his observer being killed. Home address, Mrs. Mary S. Cutter, mother, Anoka, Minn.

First Lieut. James A. Healy, Air Service, 147th Aero Squadron. For extraordinary heroism in action near Grandpre, France, October 30, 1918. Becoming separated from his patrol, Lieut. Healy, flying at an altitude of 600 meters, discovered an enemy plane (type Halberstadt) hiding in the sun 200 meters, above him, which he attacked and sent to the ground in a spiral dive. He then engaged two other machines (type Fokker) which had been attempting to attack him. He succeeded in outmaneuvering them, and finally shot down one of the Fokkers. He returned without a drop of gasoline in his tank. Home address, Mrs. Mary A. Healy, mother, 361 Union Street, Jersey City, N. J.

First Lieut. Murray K. Guthrie, Air Service, 13th Aero Squadron. For extraordinary heroism in action near Andsvanne, France, October 1, 1918. Lieut. Guthrie was a member of an offensive patrol of four planes, which was attacked far behind the enemy's lines by six German machines. One of our pilots was forced to withdraw by the failure of his machine guns, and two others were surrounded and overpowered. Lieut. Guthrie fought the six enemy planes alone for 10 minutes and destroyed one of them. For the following act of extraordinary heroism in action near Montefaucon, France, October 4, 1918, Lieut. Guthrie is awarded one bar: When the leader of his patrol was blown to pieces by a shell, Lieut. Guthrie took command and attacked the formation of six enemy planes. Although he became separated from his companions, he succeeded in destroying one of his opponents.

For the following act of extraordinary heroism in action near Fontaine, France, November 4, 1918. Lieut. Guthrie is awarded one bar; as flight commander, Lieut. Guthrie led his formation of six planes to the attack of seven enemy planes (type Fokker), six of the enemy were destroyed, one of which was sent down by this officer. Immediately following this combat he attacked and drove off four hostile machines (type Fokker), which were about to attack one of our balloons. Home address, K. R. Guthrie, father, care of A. T. & N. Railway, Mobile, Ala.

First Lieut. Lloyd A. Hamilton (deceased), 17th Aero Squadron. For extraordinary heroism in action at Varssenuere, Belgium, August 13, 1918. Leading a low bombing attack on a German aerodrome 30 miles behind the line, Lieut. Hamilton destroyed the hangars on the north side of the aerodrome and then attacked a row of enemy machines, flying as low as 20 feet from the ground despite intense machine-gun fire, and setting fire to three of the German planes. He then turned and fired bursts through the windows of the chateau in which the German pilots were quartered, 26 of whom were afterwards reported killed. Next of kin, Rev. John A. Hamilton, father, 25 Buell Street, Burlington, Vt.

First Lieut. Louis G. Bernheimer, Air Service, pilot, 88th Aero Squadron. For the following act of extraordinary heroism in action near Tailley, France, November 2, 1918: Lieut. Bernheimer and First Lieut. Ralph P. Bagby, observer, on their own initiative went on a reconnaissance mission, flying 15 kilometers behind the German lines, securing valuable information on the condition of the bridges across the Meuse River and enemy activity in the back areas and harrassing enemy troops. Home address, Sidney Bernheimer, father, 138 East Seventy-second Street, New York City.

First Lieut. Frank Ordiscoll Hunter, Air Service, 130th Aero Pursuit Squadron. For the following act of extraordinary heroism in action near Verneville, France, September 17, 1918: Leading a patrol of three planes, Lieut. Hunter attacked eight enemy machines. He then returned to the flight and succeeded in destroying another and driving off the others. Home address, John H. Hunter, father, 216 East Gaston Street, Savannah, Ga.

First Lieut. Ralph P. Bagby, Field Artillery, observer, 88th Aero Squadron. For extraordinary heroism in action near Tailley, France, November 2, 1918. Lieut. Bagby and First Lieut. Louis G. Bernheimer, pilot, on their own initiative went on a reconnaissance mission, flying 50 kilometers behind the German lines, securing valuable information as to the condition of the bridges across the Meuse River and enemy activity in the back areas and also harassing

enemy troops. Home address, R. J. Bagby, father, New Haven, Mo.

PLANS FOR AIR SERVICE

The suggested bill presented by Secretary Baker to Congress for the American Army on January 16, included 1, 923 officers and 21,853 men for the Air Service, specified as follows.

1 Major General	515 Master Signal Electricians
1 Brig. General	2,282 Sergts. 1st. Class
22 Colonels	1,737 Sergeants
45 Lieut. Cols.	134 Mess "
126 Majors	2,485 Corporals
438 Captains	134 Buglers 1st. Cl.
396 First Lieuts.	2,738 Wagoners
594 Second Lieuts.	584 Cooks
	4,366 Pvts. 1st. Cl.
	134 Buglers
	6,744 Privates
1,923 Officers	21,853 Enlisted Men

The Secretary of War reported to the Press January 16, 1919, as follows:

The Bill presented to the House Committee on Military Affairs today is the result of the study made by the General Staff for the creation of an army of five hundred thousand men divided into such organizations and arms as have been shown by our experience in this war to be appropriate. Under the law as it now is, the present army is in process of demobilization. Some provision is therefore necessary to authorize a regular army for the transition period and until the situation growing out of this war is sufficiently clarified to enable the United States to determine the permanent military policy which will have a proper relation to its needs and obligations. No effort is made in this bill to treat the question of universal training or service but merely to produce an army deemed adequate to meet obligations and needs which can now be foreseen.

In addition to this, the bill provides for the legalization of the present relations and organization in the General Staff in order to preserve what we have built up as the result of experience and growth. The present organization of the War Department is of course a wide departure from the organization which existed before we went into the war and it is wiser to keep what we have than to go back to the beginning and start over at some future time. It is a part of the purpose of this bill to enable the government to officer the newly constituted regular army by retaining in the service officers of proved ability who have come in either from the national guard or from civil life during the war and who desire to make the army a permanent career. The principle of promotion by selection rather than by strict seniority is introduced above the grade of captain. During the war of course promotion has been by selection and our experience shows it to be both a wise and a just method of promotion.

COLONEL DEEDS EXONERATED

In a lengthy report the Judge Advocate General approved the findings of a board of review which made a thorough investigation of the case of Colonel E. A. Deeds, of the Aircraft Board, and recommended that he be not tried by Court Martial on any of the grounds suggested in the Hughes' report.

This report is approved by the Secretary of War in the following letter:

January 16, 1919

Chairman, Committee on Military Affairs,
House of Representatives.

My dear Sir:

Upon the submission to the President of the report of Honorable Charles E. Hughes, and the report of the Attorney General covering the Aircraft investigation, I directed that the specific recommendations contained in these reports be extracted for my consideration and for such action by me as might be required in the premises. These extracts were referred to the Judge Advocate General of the Army directing a thorough and comprehensive inquiry into the allegations affecting the conduct of Colonel Deeds. He was directed, not only to review all evidence taken by Judge Hughes, which the Attorney General kindly made available, but to secure all other facts obtainable in this case.

The Judge Advocate General committed the matter to a board of review consisting of officers of high ability and character wholly disassociated from any previous business or personal relations either with Colonel Deeds or with any matters affecting aircraft production. This board carefully and systematically examined all of this evidence and obtained all possible additional facts and its conclusions are, therefore, based upon fuller inquiry than was found possible within the time and opportunities at the disposal of Judge Hughes, and this examination is in effect the accomplishment of the thorough inquiry which Judge Hughes had in mind when he suggested that these transactionsbe examined by a Court Martial. The purpose of Judge Hughes' suggestion is therefore accomplished.

This record undoubtedly shows that Colonel Deeds, absorbed in the activities of Aircraft Production, neglected to give his personal attention to transactions affecting his personal financial affairs, and this neglect on his part gave rise to appearances which required painstaking investigation in order to show their true character.

The unanimous report of this board of review, approved by the Acting Judge Advocate General, recommends that Colonel Deeds be not tried by Court Martial on any of the grounds suggested, and this recommendation has been approved by me.

Colonel Deeds was one of a large group of men who came to Washington at great personal and pecuniary sacrifice to render service to the Government in the great emergency caused by our participation in the War.

My duty as Secretary of War with regard to any public servant under my jurisdiction is clearly to bring about proper punishment for wrong-doing and equally clearly to protect those public servants whose conduct is faithful and upright against embarrassment, humiliation or loss.

Very wide publicity has been attached to the acts of Colonel Deeds as a member of the Aircraft board. Whether it will ever be possible to overtake the judgments which have been formed upon partial information on this subject, I do not know; but this Department will make every effort to secure the widest publicity for the action now taken and for the grounds upon which it rests. To carry this into efect, I am therefore transmitting to your Committee for its information, and with the request for its publication in the Record, if the proprieties of the situation permit, a copy of the report of the Judge Advocate General. Similar copies are being furnished the Chairman, Committee on Military Affairs, United States Senate, the Attorney General and Colonel Deeds.

Inasmuch as the purpose of Judge Hughes' suggestion has been accomplished, I have directed that all the records in this case be filed in the War Department and that this matter be considered as closed.

Cordially yours,

NEWTON D. BAKER,
Secretary of War.

MONUMENT TO AVIATORS

Officers of the Division of Military Aeronautics will co-operate with the Interior Department in erecting a memorial to aviators killed in the War.

The following named officers are constituted a Board, to meet at the call of the President, for the purpose of assisting and cooperating with the Secretary of the Interior and Mr. George B. Dorr in the matter of the erection of a monument in the Sieur de Monts National Park to the aviators who have died during the war:

Major General W. L. Kenly, A.S.A.
Colonel F. R. Kenney, A.S.A.
Colonel Arthur Woods, A.S.A., and
Captain Grover O'Neill, A.S.A.

AERO UNITS ENROUTE

Following organizations have been assigned to early convoy:

17th Aero Squadron	4 officers	154 men
148th Aero Squadron	4 officers	154 men
657th Aero Squadron	2 officers	149 men
636th Aero Squadron	3 officers	147 men
474th Aero Squadron	7 officers	460 men
12th Balloon Company	6 officers	174 men
102d Balloon Company	8 officers	170 men

R. M. A.'s

The following named officers have been rated as Reserve Military Aviators, the date set after their respective names:

Major Charles Herrick, Hammond, A.S.A.	January 8, 1919
Captain L. E. McQuitty, A.S.A.	January 6, 1919
Captain Raymond Wilcox Smith, A.S.A.	January 8, 1919
Captain Brady Walter Warner, A.S.A.	January 8, 1919
1st Lieut. Paul Royal Corner, A.S.A.	January 8, 1919
1st Lieut. Harry Walker Colmery, A.S.A.	January 8, 1919
1st Lieut. Forrest Smith Emery, A.S.A.	January 8, 1919
1st Lieut. Joseph S. Pliska, A.S.A.	January 8, 1919
1st Lieut. Eben Stanley, A.S.A.	January 8, 1919
1st Lieut. Albert Hector Torongo, A.S.A.	January 8, 1919
1st Lieut. A. W. Vanaman, A.S.A.	January 6, 1919
2nd Lieut. Clyde M. Allen, A.S.A.	January 7, 1919
2nd Lieut. Charles Clark Bowen, A.S.A.	January 8, 1919
2nd Lieut. Otto F. Burney, A.S.A.	January 6, 1919
2nd Lieut. John S. Childs, A.S.A.	January 9, 1919
2nd Lieut. C. F. Cocke, A.S.A.	January 8, 1919
2nd Lieut. Elmer Fred Degon, A.S.A.	January 8, 1919
2nd Lieut. Wallis A. Frederick, A.S.(M.A.)	January 6, 1919
2nd Lieut. Taylor Nathan House, A.S.A.	January 8, 1919
2nd Lieut. John Prescott Hoyt, A.S.A.	January 8, 1919
2nd Lieut. Ellis A. Noland, Jr., A.S.M.A.	January 9, 1919
2nd Lieut. Mark H. Redman, A.S.A.	January 6, 1919
2nd Lieut. Watkins Wendell Reynolds, A.S.A.	January 8, 1919
2nd Lieut. Frederick H. Winston, A.S.(M.A.)	January 6, 1919
Captain R. S. Porter, A.S.A.	December 3, 1918
Captain R. H. Torrey, A.S.A.	December 3, 1918

Captain Frank F. Bell, A.S.A.	January 10, 1919
1st Lieut. Harmar D. Denny, Jr., A.S.A.	January 10, 1919
2nd Lieut. John C. Bennett, A.S.A.	January 10, 1919
2nd Lieut. J. F. Dworschak, A.S.A.	January 10, 1919
2nd Lieut. H. A. Gulley, A.S.A.	January 11, 1919
2nd Lieut. George K. Rice, A.S.A.	January 10, 1919

OFFICERS HONORABLY DISCHARGED

The following Officers of the D.M.A. have been honorably discharged from the Service of the Government.

Ralph C. Cook	Second Lieutenant,	A.S.A.
Edward A. Robinson	Captain,	"
Hartwell L. Hall	Second Lieutenant,	"
Robert L. Warfield,	" "	"
James M. Magee	Captain,	"
Edward A. Stinson	First Lieutenant,	"
William J. R. Taylor,	First Lieutenant,	"
Ward Bowers Fletcher,	Second Lieutenant,	A.S.M.A.
Roy P. Crany	First Lieutenant,	A.S.A.
James A. Higgs, Jr.	" "	"
Duncan Langdon,	" "	F.A.
Roger Tuckerman,	Second Lieutenant,	A.S.A.
Henry A. McAleenan	" "	"
Roy L. Helstrom,	" "	"
Lawrence G. Gianniny,	" "	"
Wm. R. Gregory,	" "	"
Edward R. Spiegel,	Captain,	"
E. Hubert Litchfield,	Major,	"
Charles F. Mills,	Second Lieutenant,	A.S.S.C.
Pendleton Howard,	" "	A.S.A.
Michael A. Kiely,	First Lieutenant,	"
Harry H. Singletary,	Second Lieutenant,	"
Ralph Earle,	1st Lieutenant,	"
Edwin C. Smith,	Second Lieutenant,	"
Theodore Sizer,	First Lieutenant,	"
Nathaniel P. Davis,	Second Lieutenant,	"
William G. Boggs,	" "	"
Philip E. Chase,	" "	"
William Bernard,	First Lieutenant,	"
Edwin M. Eustis,	Second Lieutenant,	A.S.S.C.
Robert W. Pringle,	Second Lieutenant,	A.S.M.A.
George H. Hannun,	First Lieutenant,	A.S.A.
Horace L. Stevenson,	" "	"
Harry A. Irwin,	Second Lieutenant,	"
David G. Logg,	First Lieutenant,	A.S.M.A.
Lewis H. Mahony,	Second Lieutenant,	A.S.A.
Royal W. King,	Captain,	"
Ray C. Bridgman,	"	"
Hyland P. Stewart,	Second Lieutenant,	"
George D. Riedel,	" "	"
James M. Mason,	First Lieutenant,	Inf.
Anton Pieron	Second Lieutenant,	A.S.S.C.

PHONES FROM AIR TO GENERAL KENLY'S DESK

A conversation was held Thursday morning, January 16, between Major General W. L. Kenly, Director of Military Aeronautics, seated before the ordinary desk telephone in his office, and Lieutenant Lucas of the Air Service, piloting a radio-equipped airplane. This communication involved the use of the telephone

lines of the Chesapeake and Potomac system in combination with airplane radio. The connection between the line and wireless systems was made at the local radio station at Bolling Field, where apparatus was connected in such manner that speech originating in either system would be automatically transmitted over the other.

General Kenly, Colonel F. R. Kenney and Colonel C. C. Culver, were among the Air Service Officers present in the office of the Director, and each talked with Lieutenant Lucas who was piloting an airplane from Bolling Field. General Kenly's office 'phone was used and connected through in the ordinary manner with the branch line running to the radio hut at Bolling Field. At this point the conversation was automatically transferred to the radio system, by means of which it reached Lieutenant Lucas, the connection between the two systems being effected by means of apparatus and circuits designed and installed by members of the radio branch of the Air Service, under the supervision of Colonel Culver.

The airplane radio telephone has been in use for something over a year and air fleets are being commanded by the voice of their commanders at several flying fields over the country, During the last summer, communications have been made at some of the fields in which conversation from the pilot in the air has been automatically transferred to land lines on the field with success, and conversation starting over land lines has been automatically transferred to radio, and by this means reaching the pilot in the air. The conversation yesterday morning, however, was the first official demonstration of a two-way conversation direct between a person using a line telephone and an aviator in flight.

It will be recalled that a wonderful achievement in long range radio telephony was realized in 1915 by radio telephone engineers of the American Telegraph and Telephone Company and Naval engineers at the Arlington radio station. It will also be recalled that by means of the successful coupling of the radio and wire telephone systems Secretary Daniels talked from his office with a war-ship at sea, using the two systems in automatic combination. This recent demonstration at the D.M.A. applied this principle to aircraft.

The great degree of efficiency that has been reached in the development of transcontinental wire telephony makes it possible for a telephonic conversation to be carried on between New York and San Francisco with the same ease as between two points in the same city. By substituting a transcontinental line for General Kenly's branch line the element of distance is practically eliminated and conversation made possible between an airplane in flight and any point reached by an efficient telephone circuit, and it becomes a mere matter of detail and team work to have an airplane in the air over Washington in conversation with a man in his office in San Francisco, or with an airplane in flight over San Francisco, using the transcontinental telephone line to eliminate the three thousand miles of distance.

BALLOONISTS GO THROUGH BARRAGE

A party of balloonists from Washington experienced near Aberdeen, Md., yesterday all the thrills of flying at the front. Due to change in wind currents and lack of appreciation of the balloonists' situation by the officers at Aberdeen, the balloon, while near the ground, passed through a heavy barrage of different size shells being fired by the test batteries at this proving ground.

The balloon was piloted by A. Leo Stevens, a well known balloonist and had as passengers, Capt. W. L. Saunders, Captain W. P. Fuller, all of the D.M.A., Captain H. W. Treat, and 2d Lt. A. F. Jaquith, of Aircraft Production, all of whom are safe back home today after their unusual experience.

The balloon left the Polo grounds at 11.25 A.M., passed in a Northeasterly direction over Camp Mead, A little later they passed somewhat to the East of Baltimore and crossed the Patapsco river, Moving thence over the West shore of Chesapeake Bay, they approached Aberdeen Proving Ground about 1:45 and heard heavy firing at their front. Trying to learn the cause and to be as carefu. as possible, they descended to within about 300 feet above the ground, which was unsuitable for landing. They shouted to people on the ground, asked that the authorities of the proving ground be requested to cease firing until they passed over, but they were assured that it was perfectly safe.

The wind at this time was blowing very strong, and heading them toward the bay. A few minutes later they noticed that the ground below was full of shell craters and they suddenly observed several shells exploding just beneath them. The detonations shook the basket as though it had struck an obstacle. In order to escape the bursting shells they immediately threw ballast over the side and the balloon mounted suddenly. They finally reached an elevation of 5000 feet. And passed out of the danger zone, as an Easterly current took them across the Delaware river and over Southern New Jersey.

A landing was made at 5:00 P.M. about twenty miles northwest of Atlantic City at Camp Amatol. While they did not know it then, the balloonists had literally jumped out of the frying pan into the fire for it was discovered later that their landing place was the storing station for the Atlantic Loading Company and they were informed that they had landed among vast stores of T.N.T. The buildings over which they had just skimmed and among which they had landed, were literally packed with this high powered explosive, but a second time they escaped without an accident. After the balloon was packed for shipment to Washington the party returned by automobiles and trains.

THE 11th BALLOON COMPANY AT THE FRONT

First Lieut. Charles E. Barber, Commanding Officer of the 11th Balloon Company, A.E.F., has recently reported to the Director of Military Aeronautics. Lieut. Barber was recalled to serve here as an instructor at one of the southern camps.

The 11th Balloon Company saw continuous service from the day last August when it went to the front from the Toul Sector. It operated during the St. Mihiel drive that began September 12th, and the battle of the Argonne, September 26th.

Looking back over those days, Lieut. Barber finds two days standing out conspicuously in his memory. One of these was at St. Mihiel with the 11th Balloon Company at the Pontau Mousson and word coming over the wire from the observer in the balloon that the Germans had started a box barrage about seven kilometers away. Word was sent to the Intelligence Section of the 90th Division both by telegraph and by motorcycle, and a counter barrage was started at once by the artillery, that prevented the enemy from coming over and carrying out their plan. The Commanding Officer of the 90th Division expressed his appreciation of the service. This, said Lieut. Barber, was only one instance showing the increasing confidence of the artillery in the balloons. A second day that stands out in the annals of the Balloon Company was one marked by four parachute jumps. The German planes were attacking from all sides, —coming over in one continuous procession, — and two observers had twice to abandon their balloon.

"But we lost only one balloon during the whole of our service", said Lieut. Barber, "and that one we carried through the St. Mihiel campaign and through the Argonne. It had 64 bullet holes in it when it burned on October 6th."

"All the balloon equipment used by the A.E.F. in France was American made," said Lieut. Barber," except the winches — motors and tractors — which were supplied by the French and were very powerful, very effective, never once failing expectations."

There were 21 Balloon Companies in all. At St. Mihiel four or five of these were French, the rest American. At the Argonne there were three French Balloon Companies. These were east of Verdun. All the Balloon Companies west of Verdun were American. Looking over the battle front about six balloons at a time would be visible , easily seen when spread over Grand Pré. The balloons were put up usually, about four kilometers from the German lines and from one to three kilometers from the Allied artillery headquarters. At Chateau Thierry, however, they were sent up closer to the German lines.

"What bothered the balloon observers most were the mists of France," said Lieut. Barber — "flashes of sunlight and blue sky, and then hours of low gray fog frustrating the best efforts of the balloon, shutting out swiftly what often promised to be an observation of great strategical importance."

Lieut. Barber went over with the 33rd Aero Squadron, but, being commissioned in the Balloon Division, was sent to the Balloon School at Camp de Souge, near Bordeaux, which had been enlarged by absorbing the American Balloon School formerly at Marigny.

"HONOR THE UNIFORM"

The War Department publishes the following general order:

Order of the Secretary of War.-- The following order of the Secretary of War is published to the Army for the information and guidance of all concerned:

"Through hearty cooperation and discipline of the officers and men of the Army, the country has acquired a new respect for the uniform. You men have maintained your high standards, not only by soldierly conduct in the camps and bravery in the trenches, but in your regard for civilian ideals when on leave or furlough, and in this you have established a record new to all armies. I confidently expect you to maintain your standards throughout the trying days of demobilization, when the tendency to throw off army discipline and restraints will be strong. I am counting on you by your own acts and by your influence to keep up the record of which you and I and our whole country are so proud.

Newton D. Baker,
Secretary of War."

By order of the Secretary of War:

PEYTON C. MARCH,
General, Chief of Staff.

SERVICE BADGES

The War Department authorizes the publication of the following general order:

General Order)
)
No. 8)

Medals for service in the National Guard during the War with Spain and on the Mexican border. - Section 111, General Orders, No. 77, War Department, 1918, is rescinded and the following substituted therefor:

A bronze medal with suitable device and ribbon will be issued to any officer or enlisted man of the National Guard who, under orders of the President, served not less than 90 days in the war with Spain.

A bronze medal with suitable device and ribbon will be issued to any officer or enlisted man of the National Guard who, under orders of the President,

served on the Mexican border in the years 1916 and 1917. This medal will not be issued to anyone who is eligible to receive the Mexican service badge prescribed in section IV, General Orders, No. 155, War Department, 1917.

Neither of these medals will be presented to any officer or enlisted man not now in the National Guard unless he quitted it in an honorable status. In case of death of a man who would have been entitled to such medals, the medals may be presented to his family. Application for these medals will be made to The Adjutant General of the Army through military channels. The application should give the full name and address of the applicant, the rank held, and the organization in which he served during the war with Spain or upon the Mexican border.

(300.42, A.G.O)

By order of the Secretary of War:

PEYTON C. MARCH,
General, Chief of Staff.

Official:
P. C. HARRIS
The Adjutant General.

Vol. I. D. M. A. WEEKLY NEWS LETTER O.S.1244

Air Service Washington, D.C. War Department
January 25, 1919.

CIVILIANS TO FLY

Army and Navy Board on Aeronautic Cognizance has removed restrictions of civilian flying and will grant permits to all qualified civilians who apply under the President's Proclamation of February 28, 1918.

Until the action of the Joint Army and Navy Board on Aeronautic Cognizance, civilians were only permitted to fly experimental machines and then only under permits from the Board.

Applications from civilian pilots should be addressed to the Joint Army and Navy Board on Aeronautic Cognizance, Building "D", 6th and B Sts., N.W., Washington, D.C. Lieut. L. G. Haugen, A.S.A., Secy.

SEEKING PHOTOGRAPHS OF AVIATORS

The Director of Military Aeronautics desires to have photographs of the officers named below, who were killed in airplane accidents, and for whom fields of the Air Service have been named. So far it has been impossible to get in touch with any relatives or friends of these men, all of whom died several years ago and whose records in the War Department are incomplete.

Accordingly, it is desired, if this comes to the attention of anyone acquainted with these men or with their families, that the necessary information be furnished this office, attention Personnel Section, in order that an effort may be made to procure photographs.

Lieut. Moss L. Love (Cavalry)
Lieut. Joseph D. Park (Cavalry)
Lieut. Lewis C. Rockwell (Infantry)
Lieut. Lewis W. Hazelhurst, Jr. (Signal Corps) and
Lieut. Eric L. Ellington (Cavalry)

Five of the Army Flying Fields have been named after these officers.

DISTINGUISHED SERVICE MEDALS

Upon the recommendation of General Pershing Distinguished Service Medals have been awareded to the following officers for exceptionally meritorious and distinguished services in positions of great responsibility:

Major General Mason M. Patrick, United States Army. For exceptionally meritorious and distinguished services. He displayed much ability and devotion to duty as director of construction and forestry, and, later, as Chief of the Air Service of the American Expeditionary Forces, he perfected and ably administered the organization of this important department.

Major General Charles T. Menoher, United States Army. For exceptionally meritorious and distinguished service. In command of the 42nd Division from Chateau Thierry to the conclusion of the Argonne-Meuse offensive, including the Baccarat Sector, Rheims, Vesles and St. Mihiel Salient, this officer, with his division, participated in all of those important engagements. The reputation of a fighting unit of the 42nd Division is in no small measure due to the soldierly qualities and the military leadership of this officer. (Now Director of Air Service

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

Maj. K. P. Littauer, Air Service, United States Army. For repeated acts of heroism in action near Conflans, France, September 14, 1918, and near Doulcon, France, October 30, 1918. Maj. Littauer volunteered on a mission to protect a photographic plane for another squadron on September 14 and continued toward the objective at Conflans after three other protecting planes had failed to start. In an encounter with five enemy pursuit planes, he completely protected the photographic plane by skilful manoeuvering, although his observer was wounded and his machine seriously damaged. On October 30, Maj. Littauer, on duty as chief of air service of the Third Army Corps, volunteered and made an important reconnaissance of enemy machine-gun emplacements at a low altitude near Doulcon. Home address, Alfred Littauer, father, One Hundred and Fifth Avenue, New York, N. Y.

Second Lieut. James M. Richardson, Air Service (pilot), 1st Aero Squadron. For extraordinary heroism in action near Grandpré, France, October 6, 1918. Lieut. Richardson undertook an infantry contact patrol mission under weather conditions which necessitated flying at an altitude of only 100 meters. Near the front lines machine guns opened an effective fire on his plane and he was wounded in the foot, but he continued on the mission until the front lines of the American troops were located and his observer had written out a report for the division commander. Home address, Miss Emma Richardson, sister, Devalle Bluff, Ark.

First Lieut. John F. Michener, Air Service (pilot), 1st Aero Squadron. For extraordinary heroism in action near Varennes, France, October 4, 1918. Lieut. Michener was assigned the mission of locating the front lines of our troops at a time when dense mist and low clouds compelled him to fly at an altitude of only 100 meters. His observer's signal rockets drew fire from an advanced hostile machine-gun battery and Lieut. Michener was wounded in the leg. Despite his wound he continued the mission until the position of our troops was ascertained. He was then compelled to land on shell-torn ground behind the lines, the plane being completely wrecked. Home address, Mrs. A. R. Michener, mother, Erie, Pa.

Capt. John Mitchell, deceased, Air Service, 95th Aero Squadron. For extraordinary heroism in action near Beaumont, France, May 27, 1918. Seeing three enemy planes flying east over Apremont at 2,500 meters. Capt. Mitchell unhesitatingly attacked the three machines, which were in close formation, despite the fact that a fourth, hovering above, threatened to close in and join the enemy formation. He succeeded in shooting down the enemy machine, which proved to be a biplane returning from an important mission. Home address, Walter J. Mitchell, Manchester, Mass.

First Lieut. Asher E. Kelty, deceased, Air Service, 91st Aero Squadron. For extraordinary heroism in action near Crepion, France, September 26, 1918. In the course of a photographic mission Lieut. Kelty, with his observer, was obliged to penetrate a heavy enemy antiaircraft barrage, realizing that obtaining the location of the artillery objectives was of the greatest importance. When a shell struck his machine, his observer was instantly killed and his machine so badly wrecked that it plunged to the earth, thereby causing his death. Next of kin, Mrs. Cora B. Kelty, 1 South Main Street, Rice Lake, Wis.

Second Lieut. Francis B. Lowry, deceased, observer, C. A. C., 91st Aero Squadron. For extraordinary heroism in action near Crepion, France, September 26, 1918. On September 26, while on a very important photographic mission, Lieut. Lowry, with Lieut. Kelty (pilot), realized the importance of the mission and chose to continue their course through a harassing antiaircraft barrage. A shell made a direct hit on the plane, brought it down in fragments, and instantly killed Lieut. Lowry. Next of kin, Walter R. Lowry, 946 Corona Street, Denver, Colo.

AIR SERVICE FIELDS UNDER CONTROL OF TRAINING SECTION
In operation January 20, 1919

ACTIVE FLYING FIELDS	LOCATION	COMMANDING OFFICERS
Barron Field,	Everman, Texas,	Lt. Col. Thomas C. Turner
Carlstrom Field,	Arcadia, Florida,	Major Horace M. Hickam.
Ellington Field,	Houston, Texas,	Lt. Col. Ira A. Rader.
Kelly Field,	San Antonio, Texas,	Colonel Henry C. Pratt.
Love Field,	Dallas, Texas,	Major Albert L. Sneed.
March Field,	Riverside, Calif.,	Major John P. C. Bartholf.
Park Field,	Millington, Tenn.,	Major John W. Simons, Jr.
Post Field,	Ft. Sill, Okla.,	Lt. Col. Richard B. Barnitz.
Rockwell Field,	San Diego, Calif.	Lt. Col. H.B.S. Burwell.
INACTIVE FIELDS		
Bolling Field,	Anacostia, D. C.	Lt. Col. Ralph Hartz.
Brooks Field,	San Antonio, Texas,	Major John B. Brooks.
Call Field,	Wichita Falls, Texas,	Major James R. Alfonte.
Carruthers Field,	Benbrook, Texas,	Lt. Col. Jacob E. Fickel.
Chanute Field,	Rantoul, Ill.,	Lt. Col. Ira Longanecker.
Chapman Field,	Miami, Florida,	Major Jacob H. Rudolph.
Dorr Field,	Arcadia, Florida,	Major Horace M. Hickam.
Eberts Field,	Lonoke, Arkansas,	Lt. Col. Thomas Duncan.
Gerstner, Field,	Lake Charles, La.,	Lt. Col. William C. McChord.
Mather Field,	Sacramento, Calif.,	Major Walter W. Wynne.
Payne Field,	West Point, Miss.,	Major Ralph P. Cousins.
Rich Field,	Waco, Texas,	Major John G. Whitesides.
Selfridge Field,	Mt. Clemens, Mich.,	Major Frank D. Lackland.
Scott Field,	Belleville, Ill.,	Major Henry Abbey.
Souther Field,	Americus, Georgia,	Lt. Col. Frederick T. Dickman.
Taliaferro Field,	Hicks, Texas,	Major Theodore C. McCauley.
Taylor Field,	Montgomery, Ala.,	Lt. Col. Seth W. Cook.
Camp Dick, (Cadet Gunnery Camp)	Dallas, Texas,	1st Lt Ormsby McCammon, Acting.
Langley Field,	Hampton, Virginia,	Major Clinton W. Howard.
Wilbur Wright Field, (Armorers School)	Fairfield, Ohio,	Lt. Col. Henry C.K. Muhlenberg.
PROVISIONAL WINGS		
1st Provisional Wing, (Active)	Hazelhurst, L.I.,	Lt. Col. Millard F. Harmon, Jr.
Brindley Field, "	Commack, L.I.,	Major H.H.C. Richards,
Henry J. Damm Field, "	Babylon, L.I.,	Major E. Lyons.
Hazelhurst Field, "	Mineola, L.I.,	Lt. Col. Millard F. Harmon, Jr.
Lufbery Field, "	Wantaugh, L.I.,	1st Lt. W.B. Maurice.
Mitchell Field, "	Mineola, L. I.,	Major H. M. Clark.
Roosevelt Field, "	Mineola, L. I.,	Major Richard D. Gile.
2nd Provisional Wing, (Inactive)	Park Place, Texas,	Major Roy S. Brown.
GROUND SCHOOLS		
Schools of Military Aeronautics:		
University of California,	Berkeley, Calif.,	Major Chas. B. Crane.
#Cornell University,	Ithaca, N.Y.,	Major Harral Mulliken.
#University of Illinois,	Urbana, Illinois,	Capt. Frank C. Hendry.
University of Texas,	Austin, Texas,	Capt. Herbert G. Knight.

#Discontinued training preparatory to being closed.

TWO FATAL ACCIDENTS

The following fatalities occurred at flying fields, in the United States during the week ended January 11, 1919:

Names	Place at which fatality occurred	Number of fatalities
Herbert A. Collins, cadet 1/6/19	Park Field, Millington, Tenn.	1
Martin H. Schleiper, cadet 1/10/19	Carruthers Field, Benbrook, Texas	1
	Total	2

2172 hours per fatality

173,760 miles per fatality (at 80 M.P.H)

SPURS

According to a change in Special Regulations No. 41, Uniform Regulations, 1917, spurs will always be worn with boots whether mounted or dismounted, with the following exceptions:

(a) Aviators will not wear spurs when flying.
(b) Spurs will not be worn with field boots by officers when on dismounted duty.

KEEP RAZOR, TOOTHBRUSH, ETC.

The War Department publishes the following circular:

"The Secretary of War directs that 1 razor, safety, Gillete; 1comb; 1 brush, shaving; 1 brush, tooth; 1 mirror, steel; 2 towels, when issued to an enlisted man, will be considered as his personal property, and he is hereby authorized, upon being discharged from the service, to retain them permanently in his possession. These articles will not be taken up by any Government agency except when abandoned by the soldier and unclaimed.

SHIPMENT OF AIRPLANES

The studies carried on by Bureau of Industrial Research recount a saving of space in airplane shipment as follows:

The studies which were made in reduction of space necessary in which to ship airplanes resulted in the cutting of the size of the boxes needed for a single machine 50 per cent. This would mean that with limited transportation facilities double the number of planes could be shipped in a single trip across the ocean. In one instance alone 50 carloads of freight were so repacked as to require the space of only 15 with its proportionate saving in cargo space.

To the work of the Bureau of Industrial Research of the Purchase, Storage and Traffic Division is due the conservation of space in thousands of freight cars and at least a million ship tons. Credit is also due the bureau for reduction in losses due to faulty and defective packing. As a result of the

TWENTY-FIFTH

A cartoon of a masked headsman with an ax is the insignia used by the Twenty-fifth Aero Squadron.

The Twenty-fifth Aero Squadron was a Pursuit Squadron. It was assigned to the Fourth Pursuit Group, Second Army on October 22, 1918, and reached the Front at Toul two days later. It was engaged in the operations of the Argonne-Meuse second offensive. It had been operating but a few days when the armistice was declared, and had not received confirmation for any victories. Neither had it suffered any casualties.

TWENTY-SEVENTH

The 27th Aero Squadron insignia comprises another form of the American eagle, superimposed upon a large round spot.

The Twenty-seventh Aero Squadron was a Pursuit Squadron. It was assigned to the First Pursuit Group, First Army on April 30,1918, and reached the Front on June 1st at Toul. This Squadron was engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel, and the Argonne-Meuse first and second offensives. The Twenty-seventh carried out 314 patrols and war missions, engaged in 230 combats, and received official confirmation for 54 victories. In all it suffered 22 casualties, consisting of 8 killed, 4 wounded, 7 prisoners, and 3 missing. It ceased operations December 5, 1918.

TWENTY-EIGHTH

The 28th Aero Squadron insignia is that of a painted American Indian looking to the left. Its headdress includes a single feather.

The Twenty-eighth Aero Squadron was a Pursuit Squadron. It was assigned to the Third Pursuit Group, First Army on August 22, 1918, having reached the Front at Vaucouleurs July 15th. This squadron was engaged in the operations in the Toul Sector, St. Mihiel and the Argonne-Meuse first and second offensives. It ceased operations April 10, 1919. It had made 128 patrols and bombing raids into Germany, fought 29 combats and received official confirmation for 15 victories. It suffered six casualties, consisting of 1 killed, 1 wounded, 2 prisoners and 2 missing.

FORTY-FIRST

The Forty-first Aero Squadron is represented by an oval inclosing a scene in an African desert, a camel appearing in the foreground. This is superimposed upon the numeral V, showing that the squadron was one of the fifth Pursuit Group.

The Forty-First Aero Squadron was a Pursuit Squadron. It was assigned to the 5th Pursuit Group, Second Army on October 29, 1918. It did not function on the Western Front before the armistice. It was ordered demobilized on May 11, 1919.

FORTY-NINTH

The Forty-ninth Aero Squadron is depicted by a snarling wolf's head within a circle.

The Forty-Ninth Aero Squadron was a Pursuit Squadron. It was assigned to the First Army on August 14, 1918, having reached the Front at Toul Airdrome on August 2nd. It was engaged in the operations in the Toul Sector, St. Mihiel, and the Argonne-Meuse first and second offensives. It accomplished 161 patrols and war missions, fought 53 combats and received official confirmation for 24 victories. It ceased operations on December 5, 1918. It suffered 6 casualties, consisting of 3 killed, 1 prisoner and 2 missing.

FIFTIETH

The Fiftieth Aero Squadron insignia is a silhouette cartoon of a Dutch woman similar to the one in "Dutch Cleanser" advertisement.

The Fiftieth Aero Squadron was a Corps Observation Squadron. It was assigned to the Fifth Corps Observation Group, First Army on August 14, 1918, and reached the front at Bicqueley near Toul on September 8th. It engaged in the operations at St. Mihiel and the Argonne-Meuse first and second offensives. It ceased operations April 1, 1919. This squadron made many reconnaissances over the lines, taking many pictures and gathering much useful information, during the accomplishment of which it fought off many German attacks and was credited with one victory. It suffered nine casualties, consisting of 5 killed, 2 wounded, and 2 prisoners.

EIGHTY-FIFTH

Winged Cupid with a campaign hat sitting on the top of the world is the insignia selected to represent the 85th Squadron.

The Eighty-fifth Aero Squadron was an Army Observation Squadron. It reached the Front at the Toul Airdrome on October 24, 1918 and the next day was assigned to the Fourth Corps Observation Group, First Army. This squadron took part in the Second Argonne-Meuse offensive. It accomplished several missions over the lines in the few remaining days before the armistice, but was not accredited with any victories nor did it suffer any casualties. It was finally ordered to be demobilized May 11, 1919.

EIGHTY-EIGHTH

The 88th Aero Squadron insignia is a bucking broncho, ridden by a cow boy, all within a circle.

The Eighty-eighth Aero Squadron was a Corps Observation Squadron. It was assigned to the First Corps on May 29, 1918 and on June 1 reached the front at Toul. It was engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel, and the Argonne-Meuse first and second offensives. This squadron accomplished many reconnaissances over the lines, taking many pictures, locating machine gun nests and batteries and gathered military information of greatest value. It received official credit for four enemy planes brought down. The squadron suffered fourteen casualties, consisting of 6 killed and 8 wounded.

NINETIETH - Insignia: - Pair of bones: the lucky number, seven, is uppermost.

The Ninetieth Aero Squadron was a Corps Observation Squadron. It was assigned to the Third Corps Observation Group on June 11, 1918 and two days later reached the front at Ourches. It took part in the operations in the Toul Sector, St. Mihiel and the Argonne-Meuse first and second offensives. This squadron carried out many reconnaissances, fought 23 combats and received official confirmation for 7 victories. It suffered 3 casualties, consisting of 2 killed and one wounded. It was ordered demobilized on December 19, 1918.

NINETY-FIRST

The 91st Aero Squadron shows a mounted knight in pursuit of the winged devil whose blood he has already drawn by the lance.

The Ninety-first Aero Squadron was an Army Observation Squadron. It was assigned to the First Army Corps on May 7, 1918 and May 24th reached the front at Gondreville. It was engaged in the operations in the Toul Sector, at St. Mihiel and the Argonne-Meuse first and second offensives. The Ninety-first accomplished many war missions, fought 104 combats, and received credit for bringing down 21 German machines. It suffered 28 casualties, consisting of 10 killed, 8 wounded, 9 prisoners and 1 missing. The Ninety-first was ordered demobilized April 7, 1919.

NINETY-THIRD

The Ninety-third Aero Squadron is represented by an Indian head similar to that of the 28th, but in the reverse direction and bearing two feathers instead of one.

The Ninety-third was a Pursuit Squadron. It was assigned to the Third Pursuit Group, First Pursuit Wing, first Army and reached the Front at Vaucouleurs about July 28, 1918. It was engaged in the operations in the Toul Sector, at St. Mihiel, and the Argonne-Meuse first and second offensives. It took part in 157 war missions, fought 64 combats and received official confirmation for 32 enemy planes brought down. The Ninety-third suffered 8 casualties, consisting of 2 killed, 1 wounded, and 5 prisoners. This squadron ceased to function December 11, 1918.

NINETY-FOURTH

The 94th Aero Squadron insignia is the well-known "hat in the ring".

The Ninety-fourth Aero Squadron was a Pursuit Squadron. It was assigned to the First Army Corps on April 9, 1918, having reached the front at Epiez on April 1st. This squadron was engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel, and the Argonne-Meuse first and second offensives. The squadron accomplished 304 patrols and war missions, fought 114 combats and brought down 64 enemy planes which were officially confirmed. It ceased operations on April 7, 1919. It had suffered 18 casualties, consisting of 10 killed, 4 wounded, and 4 taken prisoners.

A continuation of Release No. 4, November 18, giving insignia descriptions with brief histories of various Aero Squadrons:

NINETY-FIFTH

The 95th shows the familiar kicking mule, poised on its front feet, ready to deliver a blow.

The Ninety-fifth Aero Squadron was a Pursuit Squadron. It was assigned to the First Army Corps on May 29, 1919, having reached the Front at Amanty on May 18th. This squadron was engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel, and the Argonne-Muese, fought 230 combats, and was officially accredited with having brought down 47 enemy airplanes. It suffered 21 casualties, consisting of 6 killed, 4 wounded, 10 taken prisoners and 1 missing. It was ordered demobilized December 5, 1918.

NINETY-SIXTH

The 96th, a bombardment squadron, is represented by the head and shoulders of a red devil, who prepares to launch an aerial bomb. This figure is placed on a white triangular shaped background.

The Ninety-sixth Aero Squadron was a Day Bombardment Squadron. It was assigned to the First Day Bombardment Group, First Army on May 29, 1918, having reached the front at Amanty on May 18th. It was engaged in the operations in the Toul Sector, at St. Mihiel, and the Argonne-Muese first and second offensives. This squadron made many bombing raids into Germany destroying a great amount of enemy property and gathering much valuable information. It fought 19 combats, and was officially accredited with 14 enemy airplanes. The squadron suffered 41 casualties, consisting of 12 killed, 12 wounded, 15 taken prisoners and 2 missing. It ceased operations December 11, 1918.

NINETY-NINTH

A conventional American bison in silhouette is the insignia of the 99th Aero Squadron.

The Ninety-ninth Aero Squadron was a Corps Observation Squadron. It was assigned to the Fifth Corps Observation Group June 12, 1918, having reached the Front on May 31st, at Amanty. This squadron was engaged in the operations in the Toul Sector, at St. Mihiel and the Argonne-Muese first and second offensives. The squadron performed many reconnaissances and war missions into German territory, fought eighteen combats and received official confirmation for three victories. It suffered 13 casualties, consisting of 6 killed, and 7 wounded. It ceased operations February 13, 1919.

ONE HUNDREDTH

The 100th Squadron shows the devil riding on an aerial bomb in flight.

The One Hundredth Aero Squadron was a Day Bombardment Squadron. It was assigned to the Second Day Bombardment Group, Second Army on October 26, 1918, having been on the Front since July 20, 1918 with the Royal Air Force. It was engaged in British operations. This squadron accomplished many raids into Germany without suffering any losses. It is not given official credit for any enemy planes brought down. It ceased operations on April 8, 1919.

ONE HUNDRED AND THIRD

The 103rd Squadron was represented by another Indian head with a large war bonnet decorated with a swastika.

The One Hundred Third Squadron was a Pursuit Squadron. It was assigned to the Second Pursuit Group, First Army June 30, 1918. From February 18, 1918 until July 4, 1918, this Squadron had served with the French army as the Lafayette Escadrille. After joining the American Army it was engaged in the operations at St. Mihiel and the Argonne-Muese first and second offensives. This squadron carried out many war missions, fought 327 combats and was officially accredited with 51 victories. It suffered 15 casualties, consisting of 6 killed, 3 wounded, 4 taken prisoners and 2 missing in action. It ceased operations December 11, 1918.

ONE HUNDRED AND FOURTH - Insignia: Figure of winged sphinx, placed in a large circle.

The One Hundred Fourth Aero Squadron was a Corps Observation Squadron. It was assigned to the Fifth Corps Observation Group, First Army August 7, 1918, and reached the Front at Souilly on September 8, 1918. It was engaged in the operations at St. Mihiel and the Argonne-Meuse first and second offensives. This squadron made many reconnaissances over the lines, fought 25 combats, was officially accredited with one victory and suffered four casualties, consisting of 2 killed, 1 wounded and 1 taken prisoner. The squadron ceased operations December 19, 1918.

ONE HUNDRED AND THIRTY-FIFTH

The 135th represents the Statue of Liberty with the rising sun as a background.

The One Hundred Thirty Fifth Aero Squadron was a Corps Observation Squadron. It was assigned to the Fourth Corps Observation Group July 28, 1918, and reached the Front at Ourches two days later. The squadron was engaged in the operations at the Toul Sector, at St. Mihiel and the Argonne-Meuse first and second offensives. This organization made many reconnaissances into German territory, gaining valuable information, fought many combats and was officially accredited with having brought down 8 enemy aircraft. It ceased operations February 5, 1919. The Squadron suffered 7 casualties, consisting of 5 killed and 2 wounded.

ONE HUNDRED THIRTY-EIGHTH

A charging goat under full speed about to pass through the numeral V is the insignia of the 138th Squadron.

The One Hundred Thirty-Eighth Aero Squadron was a Pursuit Squadron. It was assigned to the Fifth Pursuit Group, 2nd Army on October 28, 1918, but due to the signing of the Armistice a few days later, it did not function on the front.

ONE HUNDRED THIRTY-NINTH

The 139th was represented by an outline figure of flying Mercury.

The One Hundred Thirty-ninth Aero Squadron was a Pursuit Squadron. It was assigned to the 1st Army on June 12, 1918 and reached the front at Toul on June 30 following. This squadron was engaged in operations in the Toul Sector, at St. Mihiel and the Argonne-Muese, first and second offensives. This squadron accomplished 160 patrols and various other war missions, fought 80 combats and received confirmation for 34 victories. It suffered eight casualties, consisting of three killed, two wounded, one taken prisoner and two missing. It ceased operations December 11, 1918.

ONE HUNDRED FORTY-FIRST - Insignia: Great Bengal tiger playing with a German helmet and iron cross.

The One Hundred Forty First Aero Squadron was a Pursuit Squadron. It was assigned to the Fourth Pursuit Group, 2nd Army on October 18, 1918, and the next day reached the front at Toul. This Squadron was engaged in the Argonne-Meuse first and second offensives. It accomplished many patrols and war missions into German territory, gaining a great deal of valuable military information. It received official confirmation for bringing down two enemy aircraft. The squadron suffered no casualties before the Armistice and ceased operations May 11, 1919.

ONE HUNDRED FORTY-SEVENTH

A cartoon of a rat terrier is used to represent the 147th Aero Squadron.

The One Hundred Forty Seventh Aero Squadron was a Pursuit Squadron. It was assigned to the first Army on May 29, 1918 and reached the front at Toul on June 1st. The Squadron was engaged in operations in the Toul Sector, at Chateau Thierry, St. Mihiel and the Argonne-Meuse first and second offensives. This squadron accomplished many patrols and raids over German territory, fought 102 combats and received official confirmation for 31 victories. It suffered 8 casualties, consisting of 7 killed and one missing. Ceased operations on December 5, 1918.

ONE HUNDRED FORTY-EIGHTH

The head of Liberty in a circle was the insignia of the 148th Aero Squadron.

The One Hundred Forty-Eighth Squadron was a Pursuit Squadron. It was assigned to the 4th Pursuit Group, 2nd Army, November 4, 1918. This squadron had previously been assigned with the Royal Air Force July 20, 1918 and had taken part in British operations up until it had been assigned to the 2nd Army. This squadron had accomplished many patrols over the enemy lines and fought 107 combats and received official confirmation for 71 victories. The squadron suffered 11 casualties, consisting of 3 killed, 3 wounded, 4 taken prisoner and one missing. It ceased operations on December 11, 1918.

ONE HUNDRED FIFTY-FIFTH

The 155th Squadron had for its insignia the head of a large arrow pointed upward.

The Hundred Fifty-fifth Aero Squadron was a night bombardment squadron. It was assigned to the first Army on November 9, 1918, but owing to the Armistice being signed two days later, it never functioned on the front. It ceased operations December 4, 1918.

ONE HUNDRED SIXTY-SECOND

The insignia of the 162nd is a silhouette map of the United States.

ONE HUNDRED SIXTY-THIRD

The One Hundred Sixty-third shows the silhouette of a cat with one eye closed standing on a bomb.

The One Hundred Sixty-third Aero Squadron was a Day Bombardment Squadron, and was assigned to the second Day Bombardment Group, 2nd Army, October 27, 1918, reaching the front 3 days later at Ourches. It engaged in the operation of the Argonne-Meuse, first and second offensives. It accomplished several war missions during this period of activity, but never received official confirmation for any victories, neither did it suffer any casualties. It finally ceased operations April 8, 1919.

ONE HUNDRED SIXTY-FIRST

Insignia: A grinning clown with a cap and ruff.

ONE HUNDRED SIXTY-SIXTH

Insignia: - Includes the sun with a pair of wings made of the American flag. In the foreground is a map of Europe, with Germany distinctly marked, while a hand, armed with an aerial bomb, hovers over it ready to drop the bomb.

The One Hundred Sixty-sixth Aero Squadron was a Day Bombardment Squadron. It was assigned to the First Day Bombardment Group, 1st Army, September 20, 1918 and reached the front at Maulan about September 25. This squadron engaged in operations in the Argonne Meuse, 1st and 2nd Offensives. It accomplished 11 war missions and bombing raids into German territory, fought off many German attacks and received official confirmation for six victories. It suffered 4 casualties, consisting of one killed and three wounded. It ceased operations April 7, 1919.

ONE HUNDRED SIXTY-EIGHTH

Insignia: - A winged skull in a circle.

The One Hundred Sixty-eighth Aero Squadron was a Corps Observation Squadron. It was assigned to the 4th Corps Observation Group, 1st Army on September 30, 1918, and reached the front at Toul October 5, following. It was engaged in operations of the Argonne-Meuse, 1st and 2nd offensives. It accomplished many war missions and reconnaissances over the German lines gaining much valuable military information, fought several combats and received official confirmation for two victories. It suffered no casualties and ceased operations May 11, 1919.

ONE HUNDRED SIXTY-NINTH

Insignia: - An unusual hieroglyphic somewhat similar to the monogram CB.

efforts of its experts, millions of dollars were saved in packing materials and many more millions of invaluable tonnage and cargo space for the use of the Army.

R. O. T. C.

A recent report of the Committee on Education and Special Training shows that the educational institutions of this country are ready and eager to cooperate with the War Department in the training of reserve officers for the Army. Requests for the privilege of establishing units of the Reserve Officers' Training Corps have been received from more than three hundred and fifty institutions, including practically all the larger universities and colleges as well as many of the smaller schools and high schools. About two hundred and fifty of these schools have been authorized to maintain these schools, and officers are being assigned as Professors of Military Science and Tactics.

Special emphasis is to be placed upon the theoretical military work during the school year. Field Artillery, Coast Artillery, Chemical Warfare, Ordnance, Engineer, Quartermaster, Motor Transport, Aviation and Signal Corps units are to be established in the schools qualified to do such work, and the corps of the Army interested will detail the most efficient men to direct the work. The special equipment needed will be furnished by the Government. However, it is not intended that this work shall create a highly specialized program for the schools, but that it shall be supplementary to the regular courses in the various fields.

Another line of effort in the R. O. T. C. work will be a program to keep every young man physically fit for service at all time. It is generally admitted that the physical program for our schools has been too highly specialized and restricted and, while it is recognized that the men that have been on athletic teams as a rule were highly qualified for officers so far as physique is concerned, an effort will be made to increase the number of physically trained men. The fact that thirty per cent of the young men that took the physical examination for the Army failed to qualify for military service has focused attention upon this subject.

The summer camp is another phase of the work that is already attracting attention. Special manoeuvres for the members of the Reserve Officers' Training Corps will be held during the coming summer vacation period. Infantry students will be sent to several of the big cantonments; Field Artillery students, Coast Artillery students, Ordnance students and Signal Corps students, etc., will be sent to special schools for the particular work which they are doing. The proposed summer manoeuvres will continue for a period of six weeks, to begin at the opening of the summer vacation. Transportation to and from the camps, and subsistence, uniforms, etc., while there, will be furnished by the Government.

ARMY MEN WHO SERVED NATION AT HOME PRAISED BY SECRETARY OF WAR

Secretary of War Baker at the presentation of distinguished service medals, Saturday, January 18, 1919; said in part:

The distinguished service medal was instituted for the purpose of conferring public recognition and permanent recognition upon men who in this great emergency have served the country with conspicuous ability and success in places of great responsibility. The distinguished service cross, of course, is the award given to those whose conspicuous gallantry in action has attracted the attention of the commander in chief of the military forces. But the distinguished medal in our Army stands for the other side to some extent, of the work, all of it military in character, all of it indispensable to the success of the Army in the field and of the national cause.

ONE HUNDRED SEVENTY-FOURTH

Insignia: - A black alley cat on a fence, silhouetted against the moon.

ONE HUNDRED EIGHTY-FIFTH

Insignia: - A silhouette of a bat within a circle.

The One Hundred Eighty-fifth Aero Squadron was a Night Pursuit Squadron. It was assigned to the First Pursuit Group, First Army October 5, 1918, and reached the front at Rembercourt, three days later. It participated in the Argonne Meuse 1st and 2d offensives. The squadron accomplished several night patrols into Germany, suffered only one casualty, one pilot being taken prisoner, and never received confirmation for any victories. It ceased operations on April 10, 1919.

ONE HUNDRED EIGHTY-SIXTH

Insignia: - Not reported.

This Squadron was an Army Observation Squadron. It was assigned to the First Army Observation Group, 1st Army, October 27, 1918, and reached the front at Souilly two days later. It participated in the operation of the Argonne-Meuse two offensives. Up to the signing of the Armistice it had suffered no casualties and had never received confirmation for any victories. On April 10, 1919, it was assigned to the Army of Occupation.

TWO HUNDRED THIRTEENTH

Insignia: - The head of an American Indian facing the right withtwo feathers in his scalp lock.

The 213th Squadron was a Pursuit Squadron. It was assigned to the 1st Army on August 4, 1918 having reached the front at Vaucouleurs July 26, preceding. It was engaged in operations in the Toul Sector at St. Mihiel and in the Argonne first and second offensives. This squadron made 148 raids into German territory, fought 38 combats and received official confirmation for 16 victories. It suffered ten casualties, consisting of two killed, three wounded, four taken prisoners and one missing. It ceased operations on April 10, 1919.

TWO HUNDRED FORTY-EIGHTH

Insignia: - A black cat wearing a broad grin and decorated with a large bow tie made of an American flag.

The 248th Aero Squadron was a Corps Observation Squadron. It was assigned to the 7th Corps Observation Group, 1st Army on September 10, 1918, and reached the front at Luxeuil on September 19th following. It was engaged in operations in the Vosges Sector.

TWO HUNDRED FIFTY-EIGHTH

Insignia: Reproduction of a lion, apparently carved out of stone.

The 258th Squadron was a Corps Observation Squadron. It was assigned to the 7th Corps Observation Group September 10, 1918, and reached the Front at Luxeuil September 19th. This squadron was engaged in the operations in the Vosges Sector. It was finally assigned to the Army of Occupation on April 10, 1919. During its activity on the Western Front it did not suffer any casualties, nor gain any victories which received official confirmation.

TWO HUNDRED SEVENTY-EIGHTH

Insignia: - Not reported.

The 278th Aero Squadron was an Army Observation Squadron. It was assigned to the 7th Corps Observation Group, 2d Army, October 29, 1918. It reached the front at Toul November 10th; this squadron did not function on the Western Front and was finally ordered demobilized May 11, 1919.

THREE HUNDRED FIFTY-FOURTH

Insignia: - A witch mounted on a broom stick supplied with model airplane equipment

The 354th Aero Squadron was a Corps Observation Squadron. It was assigned to the 6th Corps Observation Group, 2d Army, October 21st, 1918 and reached the front at Saizerais four days later. It was engaged in the Argonne-Meuse 1st and 2d offensives. This squadron made several reconnaissances over the German lines and gained a great deal of valuable military information. It neither gained any official victories nor suffered any casualties, and was finally ordered demobilized May 11, 1919.

THREE HUNDRED SEVENTIETH
Insignia: - A triangle with a star in the center.

FOUR HUNDRED EIGHTY-SIXTH
Insignia: - A large star or comet, with six smaller stars in its wake.

SIX HUNDRED THIRTY-EIGHTH
Insignia: A half-starved cat super-imposed on the Numeral V, signifying the Fifth Pursuit Group.

The Six Hundred Thirty Eighth Aero Squadron was a Pursuit Squadron, and was assigned to the 5th Pursuit Group, 2nd Army on October 28, 1918. It did not function on the front before the Armistice and was finally ordered demobilized on May 11, 1919.

ELEVEN HUNDRED AND FIFTH
Insignia: - A winged elephant.

TWENTIETH
Insignia: - An Anarchist, ready to throw bombs.

EIGHTY-NINTH
Insignia: - The front view of an American eagle in full flight.

NEW R.M.A.

Second Lieutenant JAMES F. ARMSTRONG, Air Service, Aeronautics, having completed the required tests, is hereby rated as a Reserve Military Aviator, to date from October 9, 1919.

In the November 18th issue of the Air Service News Letter, the names of the winners of the recent Transcontinental Race were given with the exception of the elapsed time, which reads as follows:

WINNERS ON ELAPSED TIME - EAST TO WEST

	PILOT	PASSENGER	TYPE OF MACH.	TIME, Days.	Hrs.	Min.	Sec.
1	1st Lt. Belvin W.Maynard	Sgt. W. E. Klein	DH-4	3	6	48	7
2	2nd Lt. Alexander Pearson,	" Royal Atkinson	DH-4	4	4	23	-
3	Capt. John O. Donaldson	None	SE-5	4	4	51	3
4	Capt. H. C. Drayton	2nd Lt. L. J. Sweeley	DH-4	4	7	25	29
5	2nd Lt. E. H. Manzelman	CSM M.C. Goodnough	DH-4	4	9	35	50
6*	Capt. Harry Smith	Capt. T. W. Allen	DH-4	4	11	28	58
7	2nd Lt. L. S. Webster	Sgt. Chas. Tindell	DH-4	4	12	13	8
8	Lt. Col. T. S. Bowen	Capt. D. H. Young	DH-(B)	5	5	12	54
9	2nd Lt. H. W. Sheridan	2nd Lt. F. W. Nelson	DH-4	6	-	7	50
10	Lt. Col. J.N. Reynolds	1st Lt. R. B. Bagby	DH-4	6	1	30	55
11	2nd Lt. S. W. Torney	Sgt. E. R. Vanatta	DH-4	7	4	28	36
12*	1st Lt. J. T. Roulott	ME Orville W. Haynes	DH-4	7	8	55	7
13	2nd Lt. Wm. C. F. Brown	Corp. Elmer J. Robbins	DH-4	7	9	38	17
14	Major Edwin B. Lyon	2nd Lt. H. B. Chandler	DH-4	7	23	26	35
15	1st Lt. H. H. George	Sgt. Lee N. Parrish	DH-4	8	1	39	25
16	2nd Lt. J. B. Wright	Sgt. B. Coleman	DH-4	8	2	49	51
17	2nd Lt. T. Hynes	2nd Lt. T. K. Mathews	DH-4	8	3	42	17
18	Lt. Col.H.E.Hartney	None	Fokker	8	7	35	46
19	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4	9	1	-	57
20	1st Lt. G. H. Gale	2nd Lt. W. E. Richards	DH-4	9	4	37	-
21	Capt. Felix Steinle	Sgt. H. Myers	DH-4	9	6	20	-
22	2nd Lt. L. V. Beau, Jr.	Pvt. J. J. McVeigh	DH-4	9	7	6	50
23	1st Lt. R. L. Maughan	None	Spad	9	7	8	5
24'	1st Lt. G. B. Newman	Capt. H. H. Page	DH-4	11	4	17	-
25'	2nd Lt. Fred C. Nelson	1st Lt. Sam M. Lunt	DH-4	12	2	12	-
26'	2nd Lt. J. B. Machle	Sgt. J. D. McClure	DH-4	12	5	28	-

* Disqualified for not circling landing field.
' Disqualified - away from Control Stop for over 48 hours.

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WINNERS ON ELAPSED TIME - WEST TO EAST

1	Major C. Spatz	Sgt. E. Tanner	DH-B	3	8	41	30
2	2nd Lt. E. C. Keil	" F. McKee	DH-4	3	8	44	10
3	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH-B	4	-	57	42
4	2nd Lt. H. E. Queen	ME L. E. Bishop	DH-4	4	3	48	23
5	2nd Lt. R. S. Worthington	None	SE-5	4	4	22	3
6	Major J. C. P. Bartholf	None	SE-5	5	7	24	3
7	1st Lt. J. P. Richter	2nd Lt. J.B. Patrick	DH-4	9	6	15	25

WINNERS ON ELAPSED TIME

Roundtrip

	PILOT	PASSENGER	TYPE OF MACH	TIME Das.	Hrs.	Mins.	Sec.
1	1st Lt. Belvin W. Maynard	Sgt. W.E. Klein	DH-4	9	4	26	5
2	Capt. John O. Donaldson	None	SE-5	10	-	15	8
3	Capt. L. H. Smith	1st Lt. F.W. Ruggles	DH-B	11	-	51	53
4	2nd Lt. Alexander Pearson, Jr.	Sgt. Royal Atkinson	DH-4	12	-	44	30
5	2nd Lt. H. E. Manzelman	CSM M.C. Goodnough	DH-4	12	4	13	50
6	Lt. Col. Reynolds-Lt. Bagby	Sgt. L.N. Parrish	DH-4	20	3	33	-
7	Lt. Col. H. E. Hartney	None	Fokker	20	6	24	-
8	2nd Lt. R.S. Worthington	None	SE-5	20	7	14	-

Completed roundtrip but not within time limit.

9	1st Lt. D.B. Gish	Sgt. Pomeroy	DH-4
10	Capt. Felix Steinle	Sgt. H. Myhres	DH-4

Lt. Franklin 319.1

AIR SERVICE NEWS LETTER

No. 16

Information Group
Air Service

DECEMBER 3, 1919

Building D
Washington, D.C.

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

8TH BALLOON COMPANY GOES TO EL PASO, TEXAS

The 8th Balloon Company, under command of 1st Lieut. Byron T. Burt, one of the winners of the recent Army and Navy Balloon Race, has left Brooks Field for Camp Birnie, El Paso, Texas, and will organize the first Army Airship station on the border. As soon as the hangar which is now being constructed, is completed, one of the twin-engine airships recently acquired by the Army will be placed in service and extensive experiments conducted in border patrol work. The results of the work at this station will be watched with very keen interest as the establishment of additional stations on the border is dependent upon the success of this initial station. This is the first opportunity the Army has had for operating airships, (dirigible balloons), over country which approximates the terrain that will be found in Mexico.

BOY MECHANICS FOR THE ROYAL AIR FORCE

The Air Ministry has recently instituted a new scheme to secure the entry of well educated boys for a systematic Course of Training as skilled craftsmen for service with the Royal Air Force.

Under this scheme, boys will be entered between the ages of 15 and 16 years for a period of 10 years colour service followed by 2 years service in the Reserve. During the first three years they will undergo a course of Educational and Workshop training at the end of which, those who have passed the requisite tests will be promoted forthwith to the rank of Leading Aircraftsmen in one or other of the skilled trades.

To give scope to the more capable and ambitious boys, and to ensure that the Air Force shall secure the full benefit of their ability, a certain number of those who show most promise during their training will be chosen for an additional six months course of higher instruction, being promoted at once to the rank of Corporal. From among these, some may be selected for the grant of a commission, and will proceed to the Cadet College for training as Flying Officers with the Cadets entered by open competition.

There will also be opportunities for promotion to a Commission at a later stage to those who show their suitability during their service in the ranks.

In order that the opportunity of competing for entry into the Royal Air Force under these conditions may be brought within the reach of the largest possible number of boys, two distinct methods of admission are being arranged.

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(1) open competitive examinations, (2) examinations limited to candidates nominated as in every way suitable by the Local Education Authority of their district. A limited number of Candidates with Service claims may also be admitted on the nomination of the Air Council subject to their passing a qualifying test only.

The first examination under the scheme, will be one for boys nominated by their Local Education Authority, and will take place in December. Full particulars in regard to the arrangements of the grant of nominations for this examination have been circulated to the Local Education Authorities throughout the country, many of whom have already promised their support. As nominations must reach the Air Ministry not later than November 22nd, prospective candidates should communicate with their Local Education Authority without delay. Boys who are successful in this examination will enter the Training Centre early in February 1920.

During the war it was not possible to give enlisted boys more than a few months training, neither was it feasible to confine the entry only to boys of sufficient intellectual attainments to ensure that they would benefit by a long apprenticeship in R.A.F. technical trades.

The scheme which forms the subject of this communique constitutes an entire departure from the methods imposed by war conditions, and is designed to meet the requirements of the R.A.F. as organized on a permanent basis.

Training Centres are consequently being re-organized to deal with this new entry, and the machinery of education, both general and vocational is being largely increased and developed for the same purpose.

REGARDING AN AERIAL TRIP TO ALASKA

Steps are being taken by Training and Operations Group, Air Service, to ascertain the feasibility of an airplane freight to Alaska. Three routes have been outlined and are now being considered. The following valuable data, which might be of interest has been received from J.W. Tyrrell of Hamilton, Canada, most noted explorer, who has traveled extensively in the sub-artics of Canada, and, who probably more than any other person, can give valuable advice on the subject.

"It is at least partly due to my supposed intimate knowledge of our North country, that I am an officer in the Guides of the Canadian Militia; and the proposed enterprise would seem to me to be exceedingly venturesome if not a dangerous undertaking, although not perhaps more so than many others which have of recent years been successfully accomplished.

"For many reasons the Summer season would of course appear to be the most suitable time for attempting an aerial trip to Alaska or any district in the Artics; but from my personal knowledge of the North country, which does not exceed beyond Dawson City, I believe it would be difficult during the Summer season to obtain suitable landing places. The country from Edmonton to the north is mostly covered with timber, although there are some prairie sections along the Peace River and at a few other points, but for the most part, areas which are not covered with timber are composed of fields of broken jagged rocks, upon which it would be impossible for an Air machine to land in safety. On the other hand the winter season in the North country is so beset by darkness, and stormy weather, that I would consider a successful air journey to the Artic extremely hazardous if not altogether impossible.

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There is however at least one month in the year, which offers favorable conditions to your project, and that is the month of April. By the first of April the storms of the winter season have passed and the North country enjoys a condition of continuous day-light and by that time the weather has become comparatively mild, but the condition of the ice on the lakes and ponds is in an ideal condition to afford innumerable safe landing places.

"By the first of April the snow covering the ice has either greatly settled or entirely disappeared, leaving a hard even surface of ice upon the lakes, ponds and rivers. The rivers however have a tendency to break up much earlier than the lakes, and besides at swift sections of the streams, the ice is often treacherous and unsafe even throughout the Winter, and for these reasons the lakes would afford much safer landing places than the rivers, although with care they might also be made use of for such purposes.

"As to your route of travel, I presume one of the chief considerations would be the possibilities of obtaining your necessary supplies of high grade gasoline. There would, of course, be other important factors, requiring careful consideration, as well, but after my very brief consideration of the matter, I would think your route by way of Edmonton, the Grand Trunk Pacific and Pacific Coast, the most desirable.

"If necessary for your purpose, to use a specially high grade of gasoline, you could easily have that sent in advance by winter freight, to several points upon such route as you might select.

"It would be well however to give this matter very careful attention, as I learned from experience on one of my own northern journeys. On that occasion, I had arranged with the Hudson's Bay Company to deposit by boat in the Summer season, six thousand pounds of supplies at Old Fort Reliance at the Northeastern extremity of Great Slave Lake; but upon arriving at Fort Resolution, on the first of April, four hundred miles short of the above mentioned starting point, I found all of my supplies held up at that place, and it was left for me to take them to Fort Reliance over the ice as best as I could. This I succeeded in doing by securing all the train dogs available and constructing long dog-sleds capable of carrying over one thousand pounds each."

CASUALTIES IN THE GERMAN AIR SERVICE

According to reports received from Germany the following are losses of German Air Service during the War:

	Officers	Enlisted Men
Battle	2857	3047
Training	584	1378
Total	3441	4425

The number of enlisted men named as casualties is due to the fact that German pilots were not all commissioned.

LT. COLONEL H. E. HARTNEY RECEIVED ITALIAN SILVER MEDAL

FOR MILITARY VALOR

Lt. Colonel H. E. Hartney, A.S.A. received the Italian Silver Medal for Military Valor. The following citation accompanied the Medal:

"Number of Order 26.

Office of the General Secretary.

His Majesty the King by his Decree of February 2, 1918, in accordance with the Royal Decree of March 26, 1833, of His own Nation: has awarded the Silver Medal for Military Valor to Captain Harold Evans Hartney (General list and R.F.C. 2nd Army, English Army).

The Secretary of State for Military Affairs therefore issues the present document in attestation of the conferring of this distinctive honor.

Rome, Nov. 23, 1918.

The Minister,

J. Zupelli.

Recorded at the "Corte dei Conti" (Court of Accounts)

April 6, 1918.

Register No. 82 War, A.M. Fogs. 288.

Cowassi"

NEW AIRPLANE PILOTS

Under the provisions of Paragraph 1584½, Army Regulations, the following named officers having completed the required tests are rated as Airplane pilots effective the dates set after their respective names:

2nd Lieutenant Samuel P. Mills, A.S.A.	August 5, 1919
2nd Lieutenant Joseph T. Morris, A.S.A.	August 26, 1919
2nd Lieutenant John E. Upston, A.S.A.	October 30, 1919

Frederick Bowne, Jr., formerly 1st Lieutenant Air Service, Aeronautics, having completed the required tests before the date of his separation from the service by honorable discharge, October 27, 1919, is rated as an Airplane Pilot effective October 27, 1919.

Roland G. Blake, formerly Captain Air Service, Aeronautics, having completed the required tests before the date of his separation from the service by honorable discharge October 27, 1919, is rated as an Airplane Pilot, effective October 27, 1919.

Alexander G. Sillars, formerly Second Lieutenant, Air Service Aeronautics, having completed the required tests before the date of his separation from the service by honorable discharge, July 26, 1919, is rated as an Airplane Pilot, effective July 22, 1919.

NO PROVISION MADE FOR REAPPOINTMENTS IN 18,000 OFFICERS BILL

The War Department has announced that there will be no reappointments made under the provision of the 18,000 officers' bill at the present time and it is doubtful if any will be made at any time.

AERIAL PHOTOGRAPHS TAKEN OF CAMP GORDON

At the request of the General Staff of the Army, Aerial Photographic Section #7, under the direction of Captain A.W. Stevens, are taking photographs of Camp Gordon, Atlanta, Ga.

The Section consists of one officer and twenty men and a special pilot and special observer, Captain Stevens being the special observer.

AIR SERVICE ARTILLERY RADIO BOARD

For the purpose of recommending methods and policy of training officers of Field Artillery and Coast Artillery in the conduct of artillery fire from air-craft by means of radiophone and radio, a Board of officers was appointed recently consisting of the following:

Colonel James Prentice, Air Service,
Colonel William P. Wilson, Coast Artillery,
Lieut. Colonel Daniel W. Hand, Field Artillery,
Lieut. Colonel Follett Bradley, Field Artillery,
Lieut. Colonel Lewis H. Brereton, Air Service,
Captain O.E. Marvel, Air Service.

This Board of Officers since the date of its appointment, has made recommendations at the following camps, etc.:

Fort Sill, Okla.
El Paso, Texas.
Langley Field, Va.
Fort Storey, Va.
Washington, D.C.

BETTER LIAISON BETWEEN CAVALRY AND AIR SERVICE NEEDED

During the past Summer some Mexicans came into the United States in the vicinity of Fort Hancock, Texas, about 30 miles below El Paso, and either stole or purchased some horses and mules. These were taken across the border illegally during the night and the movement was detected by cavalry patrol who reported it to the border guard. In the morning a strong cavalry patrol was sent out in pursuit. They crossed the Rio Grande River and proceeded along the road, which showed symptoms of recent passage of horses. An airplane

assisted in the pursuit, acting independently. The airplane detected a large group of horses and Mexicans near the mountains in a corrall. After reconnoitering the position, the aviator attempted to notify the cavalry.

These troops consisted mostly of new men who were unfamiliar with the use of the airplane in cavalry contact. His signals were not comprehended and the aviator then proceeded to a cavalry picket station on the American side, and after landing, borrowed a horse, swam the river and chased the cavalry to tell them about his find. After notifying them of the whereabouts of the Mexicans he proceeded with great haste back to his airplane and taking to the air went back to the vicinity of the mysterious corrall. The Mexicans apparently had seen him while circling above on the first trip and had turned the horses loose and were driving them away so as not to be implicated. These parties were scattering but the aviator pursued a group of three, whom he saw hurrying along the road on horseback. When they saw him coming they ran under a large cottonwood tree near a spring and kept the tree between themselves and the aviator, who wished to give them a good close scrutiny and if he found they were bandits to shoot at them. He was unable to give further information about them or to hit any of them and finally on account of lack of gasoline had to go back to El Paso and land.

This case illustrates the great service an airplane can render cavalry troops in pursuit of bandits and recovery of stolen live stock. The Balloon and Airship Division, who conducted scores of balloon flights from San Antonio, many of which flew over the border region, had called attention to the extremely clear atmosphere of this country and the ease with which obscure objects and activities may be seen by aironauts. Some aironauts reported that they could see jack rabbits, burros, isolated cattle and prospectors who were digging holes in the mountain sides; flocks of sheep, cattle and horses were very easily seen at enormous distances on account of the fine white dust which they kick up. At present an airship is being installed at El Paso with a view to supplementing airplane observers with airship observers. There are so few good landing fields in the desert on account of the sand and small bushes that the use of the airplane over some large stretches of territory can only be effected at very high altitudes. At night it is expected the airship will be able to shut off its power while using microphones for listening. Upon hearing sounds which justify the measure they can drop illuminating flares. It will thus be seen that both night and day the lot of the bandit and cattle rustler is hard. Territory about 50 miles on each side of the border is badly denuded of live stock due to the fact that half-starved people take every possible opportunity to steal sheep, goats and cattle.

This incident forcibly illustrates the necessity of having better liaison between the air service and the cavalry.

BRITISH COMMERCIAL AIRCRAFT COMPANIES DESIRE TO OBTAIN LIBERTY MOTORS

According to a report received from England a number of commercial Aircraft Companies in England are very desirous of obtaining Liberty motors in a moderate quantity for utilization in their commercial types of airplanes. It is apparently impossible at the present time for such companies to obtain any Libert Motors through the British Air Ministry, and it is believed that if arrangements could be made to establish an agency for Liberty Motors in England there would be a considerable demand for them.

For the same class of work for which the Rolls Royce Eagle VIII, the Napier Lion or other engines of this type are used, the Liberty motor is very highly considered, and many of the Commercial Aircraft Companies in England like it fully as well as the Rolls-Royce; and it is found that in general the Liberty motor is very well thought of all over England.

The Rolls-Royce engine is so costly and so difficult to obtain in sufficient quantities that the Commercial Aircraft Companies cannot seriously think of employing it. The Napier Lion is more expensive than the Rolls-Royce and it is believed that neither of these engines will be materially reduced in price for a considerable time to come. The Rolls-Royce Co. has the reputation of deliberately keeping their prices high for reasons of their own, and it is said that the Napier Co. do not wish to reduce the prices of their engines below that of Rolls-Royce.

Among the Companies that have specially signified their desirability of obtaining Liberty Motors may be mentioned The British Aerial Transport Co., Ltd. and the Westland Aircraft Engineering Co., Ltd.

CHANGES BEING MADE IN D.H. -4 AIRPLANES

American DH-4 airplanes are now being remodeled and changed in certain ways, which remodeled plane will be called D.H.-4B. The remodeling will be done by various plane manufacturers and built to conform to specifications given out by the Air Service, Engineering Department. In all cases the work will be subject to Air Service inspectors, and will be of the finest materials available.

After the modifications are completed the planes will be completely assembled by the contractors and engines installed, the engine and its accessories and controls in proper working order and the wing sections assembled in order to verify attachment and proper adjustment, the airplanes shall be delivered to the Government F.O.B. cars at the contractors factory and shipped with the fuselage mounted on the landing gear and wing sections assembled with the exception that the interplane struts will be removed. While at the contractor's plant the new DH4B planes will be renumbered to conform to a new series. One of the first ten remodeled airplanes of each manufacturer will be completely assembled by the contractor and tested by the Government to determine that the new installations, etc, are correct.

The changes which the remodeling of the DH4's into the DH4B's will effect are such that the remodeled machine will resemble in a great many respects the DH9. Gasoline tanks will be moved forward and located approximately at the present pilot's position and pilot's seat moved back so that he sits close to or directly in front of the observer, occupying the space now occupied by the gasoline tank. The controls will be considerably remodeled and improved including a new stick in the observer's cockpit. There will also be erected a new fire wall between the engine and gasoline tank. The instrument board in the pilot's cockpit will be relocated as well as some of the engine accessories and other equipment, i.e. storage battery, oxygen apparatus, radio equipment, etc. These

V-1310-A.S.

When we think of war we usually think of the battlefront, and in this war we usually think of the trench, and its dangers are known to us all. The other side, however, does not come in for as ready appreciation and as full comprehension, and therefore I am particularly glad on this occasion to have an opportunity of saying a word about the other side. There is no rivalry of merit between the soldiers who were obliged to perform their services here and the soldiers who performed theirs abroad. They were all soldiers, and the first maxim of the soldier's calling is that he does his duty to the best of his ability where those charged with the responsibility of final direction designate his duty to lie. That errors are made in those designations goes without saying, and it may very easily be that some men went abroad who might better have served at home, and that served at home who could have served abroad with greater skill, but in the exercise of as impartial and uncolored judgment as was possible in the War Department, the best interest of the Nation was always the guiding principles, and as the result of our judgment a very large number of officers of the Regular Army of large experience were designated to do duties in this country. I, perhaps more than anybody else, am qualified to speak with authority of the splendid spirit with which those orders were accepted, the superb energy, skill and devotion with which those duties were performed.

It perhaps might be thought appropriate for me to congratulate you gentlemen upon having these medals awarded to you, but I can not quite find it in my heart to do this. I congratulate your Government upon having been able to find among soldiers and civilians the group of men whom I now face, and I trust that each of you, as you look back on the perspective of your years, will find what I know to be the truth, that throughout this emergency, with no thought of self, with all thought of the cause, with no wavering of energy, and with but a single idea in mind, that of faithfully serving the Nation of which you were soldiers, whether military man or civilians, you did your best.

Among all the great group of soldiers — 3,700,000 of them— and all the great group of civilians— many millions of them—who have been working and co-operating to achieve this great result, this very small group so far, and the few which have preceded it, have been selected for this distinction. The terms of the law require that the medal shall be limited in its award to those who have held positions of great responsibility. Therefore, the number who can wear this medal will be relatively small, but I hope the existence of the medal, and the fact that it is worn will be a constant reminder to our people everywhere not only that a few have been found to wear it, but that it was possible to recognize you as exemplars of types of men who in the highest degree exhibited the spirit which was common throughout the entire country, for in this war we have had a unanimity of national impulse and a universality of action on the part of both military and civilian people of our country that is perhaps one of the greatest gains, one of the great permanent moral assets that our Nation will get out of this war as a compensation for its very heavy costs. I congratulate you all; I congratulate the Army and the country of which you are, respectively, soldiers and citizens; I trust that these medals will always be worn by you when the occasion is suitable, and that when worn they may mark you as having been elected to that body of men who have served well in a high cause, not only for your own country and generation, but for civilization itself and mankind.

AIR SERVICE, MEDICAL

Three interesting and instructive publications on the medical side of flying prepared by members of the Air Service Medical, are now in press.

The first of these pamphlets will appear under the title "The Air Service, Medical Manual." It will comprise four chapters concerning the conservation of human material, as well as the conservation of machines as developed in practice in the U.S. Air Service. The development of the "Trouble-shooter" of the flier as compared to the trouble-shooter of engines and machines was developed in the person of the "flight surgeon."

alterations will necessitate certain additions and rearrangements of truss wires and reinforcements at various points in the fuselage.

Due to the change of position of the pilot the fixed Marlin guns will be moved back considerable distance in order that he may operate them from his new position. The cowling over the gasoline tank and around the pilot's and observer's seats will be changed to conform to the new seating arrangement. Other than the changes noted and those structural changes necessary to support the same the DH4B's will not differ from the DH4's.

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NINE OF AMERICA'S "ACES" STILL WITH THE AIR SERVICE

A recent statistical report shows that at the present time there is attached to the Air Service nine of America's 68 "Aces". These officers are credited with five or more victories. The list of nine includes the following:

Captain Field E. Kindley, who is a native of Gravette, Ark, was attached to the 148th Aero Squadron. Captain Kindley worked with the British and is credited with twelve victories. He was decorated with the Distinguished Service Cross with Oak Leaf, also the Distinguished Flying Cross.

Captain J. O. Donaldson, a native of Washington, D.C., and who saw service with the R.A.F. is credited with eight victories. He was also decorated with the Distinguished Flying Cross.

Major Reed M. Chambers, who is credited with 7 victories, was attached to the 94th Aero Squadron and has been decorated with the Distinguished Service Cross and Croix de Guerre.

Captain H. Weir Cook, a native of Toledo, Ohio, was attached to the 94th Aero Squadron. He was decorated with the Distinguished Service Cross with Oak Leaf and has seven victories to his credit.

Captain Martinus E. Sténseth, Twin Valley, Minn., was attached to the 28th Aero Squadron and is credited with 6 victories.

Captain James A. Healy, who was decorated with the Distinguished Service Cross with Oak Leaf and Croix de Guerre with three Palms, is a native of Jersey City, N.J. Captain Healy was attached to the 147th Aero Squadron and has five victories to his credit. He is at present on duty in the office of the Director of Air Service.

Captain Clayton L. Bissel, a native of Kane, Pa., was attached to the 148th Aero Squadron. He was decorated with the Distinguished Flying Cross and has five victories to his credit.

Captain Arthur R. Brooks, of Framingham, Mass., was decorated with the Distinguished Service Cross and has five victories to his credit. He was attached to the 22nd and 139th Aero Squadrons.

1st Lieut. Harold H. George, a native of Niagara Falls, N.Y., was attached to the 139th Aero Squadron. He was decorated with the Distinguished Service Cross and has five victories to his credit.

Vol. III AIR SERVICE NEWS LETTER No. 17

Information Group Air Service DECEMBER 13, 1919 Building D Washington, D.C.

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

WHY THE RECENT TRANSCONTINENTAL RACE WAS INAUGURATED.

Brig. General William Mitchell, Chief of Training and Operations, in a recent report gave the following reasons for the inauguration of the recent Transcontinental Race:

It requires very little consideration on the part of even the most casual observer of things aeronautical to determine the reason for holding the New York-San Francisco reliability test. In many ways it can be compared to a field maneuver carried out by any one of the army services, but it was calculated to yield a far greater profit to the Air Service and to the cause of aeronautics in general than any field maneuver ever did before.

To appreciate fully what this test meant at this particular time, one should make a brief survey of the Air Service as it stood at the outset of this test, depleted of a great percentage of its most valued personnel, cumbered with piles of obsolete motors, planes and materials, and scattered to the four corners of the nation in widely separated, deserted flying fields. To determine just what could be done by this war remnant of an aeronautical machine, the Director of Air Service saw fit to set up before this organization a small problem much in the same way as one prepares a small problem in tactics for a maneuver, and that problem was the Air Service reliability test.

Accordingly, the conduct of the test fell to the lot of the Training Department. It was to be an examination of the personnel efficiency, a close scrutiny of the existing mode of organization and administration, a precursory but penetrating survey of the supply system as it stood, its distribution and control, a test of American methods and communications, a sweeping experiment of machines, motors and instruments, far-reaching exploration into new fields of air travel, with its attendant search for landing fields and research into things meteorological, insofar as concerns navigators of the air.

Over and above all this, and unlike any ordinary tactical scheme, it was estimated, and this was certainly justified by facts, that it would awaken a new interest in aviation in this country, reveal to the world not only the possibilities, but the problems thereof, and the immensity of the task which lies before those whose duty it is to master and develop this new and powerful arm of national defense, which promises to equal in importance the land and sea forces. Thus, in one problem, the Director hoped to train and test personnel and gain information that would lead to further development.

Every consideration was given to the season of the year, and after consultation with the Chief of the Weather Bureau it was decided that the first three weeks of October would present as good weather as would be experienced at any time for six or eight months. Aviation will not stand in development a delay of six months in this country, and there was no alternative other than to issue hurriedly the necessary instructions and carry out the scheme during the first three weeks in October.

NEW AIRPLANE PILOTS

Under the provisions of Paragraph 1584½, Army Regulations, the following officers having completed the required tests are rated as Airplane Pilots, effective as of dates set after their respective names:

Captain Harry T. Wood, Cavalry,	October 6, 1919
First Lieut. Edwin E. Aldrin, Coast Artillery Corps,	September 6, 1919
2nd Lieut. John D. Goodrich, A.S.A.	October 10, 1919.

FILMS TO BE USED IN CONJUNCTION WITH VOCATIONAL TRAINING

The Mechanical Instruction Branch of Training and Operations Group, Air Service, recently received from England films showing divers instructions in connection with airplanes, machine guns, etc. These films are to be used for instructional purposes and will be circulated to all Air Service Stations in conjunction with Vocational Training. They include the following:

Theory of Flight (3 parts)
Dope and Fabric
Repairing - Different stitches used in sewing rents in wing covering; proper application of patches, etc.
Cable splicing
LeRhone Motor 120 HP. General description, carburetion and oiling system.
Lewis Machine Gun
The Ring Sight
The use of the camera, L Type.

ENGINE RULES FOR PILOTS

The following engine rules are furnished Air Service pilots and are published in the News Letter for the interest of all concerned outside of the Service:

In order that an engine may give a maximum length of service two things are essential - first, that it never be suddenly accelerated or decelerated, and second, that it never be allowed to race in the air.

In reference to the first point, sudden acceleration or deceleration of the engine causes sudden changes in temperature which result in warping of parts. Especially is this true of valves, and the majority of valve trouble is started this way. A very slight warpage of the valve will cause the valve to burn and a missing cylinder results. The extent of this trouble varies with different engines and is very common with the Hispano-Suiza. Sudden changes in temperature also set up strains in other parts which weaken them and may result in a permanent injury.

With this in mind all pilots, on starting an engine, should warm it up gradually. It should be idle just fast enough to keep all cylinders firing until the temperature is at least 60 deg. cent. In cold weather it may be necessary to run a little faster, but it must be remembered that when the engine is cold the oil is thick and there is danger of cavitation in the oil line if the engine is speeded up. When the engine is thorougly warmed up it may be gradually opened wide for a short time to insure that it is working properly, but continued running with open throttle on the ground will cause overheating.

The Army Air Service has recently issued an order whereby all officers and enlisted men on flying status including observers, "Heavier or lighter than Air" service, will be subjected to a physical re-examination in January and July of each year. The physical standards of the examination are covered in Form #609 and were prescribed by the War Department as far back as 1914. The wisdom of having a strict physical examination for pilots is approved by everyone.

The War Department has recently informed the Director of Air Service that flying officers who are required to take this special examination twice a year will be excused from the annual physical examination required of all other Army officers.

In the Surgeon General's report just published a statement appears in which our British colleagues report that during the first year of the war 60 percent of all the air casualties were due, not to faulty planes or enemy fire, but to the physical unfitness of the fliers. The second year this was reduced to 30 percent and the third year to 12 percent. This reduction in fatalities was accredited to a more careful selection of the candidates, a system of classification, and, to the medical care of the flier.

Our observations in this country support the above figures in every way and it is with a view to keeping the fliers of the Air Service in good physical condition in order to safeguard their lives and prevent destruction of valuable Government property that they are subjected to a semi annual physical examination.

Special attention is called to the provisions made in Paragraph 9, Order #52, ODAS, for officers and enlisted men who are required to make frequent and regular flights, but who are physically or otherwise disqualified to pilot a ship. While they will not be allowed under any circumstances to take flying training or act as pilots, the provisions of Paragraph 1269½, Army Regulations, governs the questions of increased compensation. They will receive their flying pay while on this status even though disqualified to pilot a ship.

The Medical Division is particularly anxious to have all Air Service officers cooperate in every way in carrying out these physical examinations as nothing can be more important in building up the Air Service than the maintenance of a high physical standard.

FRENCH AIR LOSSES

According to a report received from Paris the official statistics of the losses of the French Flying Corps have just been published for the first time.

From August 4, 1914, to November 11, 1918, the losses in the army zones were 1,945 pilots and observers killed, 1,461 missing, whose death may be regarded as certain, and 2,922 wounded. Outside the army zones, 1,927 pilots and observers were killed, bringing the total losses in killed and wounded up to 7,767. As the full strength on December 1, 1918 was 12,919 men, the war losses represent 61 percent, which is believed to be the greatest proportion of losses in any arm of any of the Allied armies.

Lt. Franklin 319.1

Vol. III AIR SERVICE NEWS LETTER No. 18 #2

Information Group
Air Service

DECEMBER 19, 1919

Building D
Washington, D.C.

Weekly News Letter

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

PHYSICAL EXAMINATIONS FOR FLYERS

At the International Air Navigation Convention of the Allied and Associated Powers, held recently, certain medical requirements for air navigation were agreed upon. The requirements are such that every candidate before obtaining a license as a pilot, navigator or engineer of aircraft engaged in public transport will present himself for examination by specially qualified medical men (flight surgeons), appointed by or acting under the authority of the contracting State. Medical supervision, both for the selection and the maintenance of efficiency, shall be based upon the following requirements of mental and physical fitness:-

"(a) Good family and personal history, with particular reference to nervous stability. Absence of any mental, moral or physical defect which will interfere with flying efficiency.

(b) The minimum age for pilots and navigators engaged in public transport shall be nineteen (19) years.

(c) General Surgical Examination.- The Aeronaut must neither suffer from any wound, injury or operation nor possess any abnormality, congenital or otherwise, which will interfere with the efficient and safe handling of aircraft.

(d) General Medical Examination.- The aeronaut must not suffer from any disease or disability which renders him liable suddenly to become incompetent in the management of aircraft. He must possess heart, lungs, kidneys, and nervous system capable of withstanding the effects of altitude and also the effects of prolonged flight.

(e) Eye Examination.- The aeronaut must possess a degree of visual acuity compatible with the efficient performance of his duties. No pilot or navigator shall have more than two (2) dioptres of latent hypermetrophia; muscle balance must be good and commensurate with the refraction. He must have a good field of vision in each eye and must possess normal colour perception.

(f) Ear Examination.- The middle ear must be healthy. The aeronaut must possess a degree of auditory acuity compatible with the efficient performance of his duties.

(g) The vestibular mechanism must be intact and neither unduly hypersensitive or hypersensitive.

(h) Nose and throat Examination.- The aeronaut must possess free nasal air entry on either side and not suffer from serious acute or chronic affections of the upper respiratory tract."

Ely

EXTRACT

from

FIFTH ANNUAL REPORT

of the

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS,

Submitted to Congress
December 2, 1919.

The science and art of aeronautics made wonderful progress during the war, due to the stimulus of necessity. Over 11,000 aviators were trained in this country, with a loss of 264 lives in training, and more than 13,000 airplanes were constructed in the United States. There were great delays, however, in getting an effective air force into action during the war, due primarily to the general lack of preparation for war, but particularly due to the lack of a proper scientific and technical foundation before the war.

From the lessons of the war, we know that aeronautics will be the first arm of defense and of offense to come into action in future wars. Victory will sharply incline to the side that establishes superiority in the air, though its other forces may be relatively weaker than the enemy's. It follows that serious losses in industry, personnel, supplies, and communication can easily be inflicted on the enemy, and a decided superiority in the air, once attained will be difficult to overcome.

Several European nations are making strenuous efforts and comparatively huge peace-time expenditures to develop aeronautics and to maintain a trained reserve personnel. In America we have a force of reserve military aviators, but our peace-time expenditures for the maintenance of an aircraft industry and the further development of aeronautics are small. The committee invites the attention of the Congress to the need for providing encouragement for the development of commercial aviation, as well as military aviation, and to the need for more liberal support of scientific research and experimental work in aeronautics. There are many practical problems involved in the development of aeronautics commercially, and the commercial development, aside from being its own reward, will be a distinct military asset in time of war, and should therefore be encouraged and guided as far as practicable by the Government. In this connection the remarkable record of the Air Mail Service is encouraging. In the first place the Post Office Department sought and obtained the advice of the National Advisory Committee for Aeronautics, and through it obtained material assistance from other agencies of the Government, particularly the Signal Corps of the Army. Its continued independent development should be encouraged.

To summarize the more immediate and important matters, the committee strongly recommends to the Congress:

First, That liberal support be given to the estimates and programs for the development of military, naval and postal air services;

Second, That greater support be given to the National Advisory Committee for Aeronautics in its program for the continuous scientific study of the problems of flight. This is particularly desirable because of the great increase in the number and importance of the problems to be solved and the reduced volume of experimental work conducted by other agencies since the signing of the armistice. Greater direct support of scientific research and experimental work in aeronautics becomes a necessity in view of the limited appropriations for the Army and Navy Air Services, and the consequently limited encouragement and limited ability of the aircraft industry to conduct experimental and development work.

Third, That special steps be taken at once through the proper governmental channels to encourage foreign trade in aircraft. The committee suggests that it may be advisable to send a special aeronautical mission to South American countries to create markets for American aircraft and to interest and advise the commercial attaches of the Department of Commerce and the consular agents of the State Department as to the possibilities of aeronautics in those countries and the ability of the American aircraft manufacturers to meet the needs.

Fourth, That every practicable encouragement be given by the Federal Government to the establishment of landing fields in and by municipalities generally, and as near the centers of activity as possible. The committee especially suggests that the War Department be authorized to cooperate with the various municipalities at least to the extent of aiding in the lay-out and marking of the fields and the placing of at least one hangar on each field.

Fifth, That legislation be enacted for the regulation of civil aerial navigation, of the issuance of licenses to pilots, of inspection of aircraft, of uses of landing fields, etc., that the enforcement of regulations be placed under the Department of Commerce, and that, pending enactment of definite regulations by Congress, a board of representatives of various Government departments and of this committee be authorized to prepare such regulations for the approval of the Secretary of Commerce. The committee believes that air navigation should be regulated in much the same manner as marine navigation, and recommends the above as purely temporary legislation.

Sixth, That a continuing program for the construction of aircraft for the various governmental services be authorized, so as to assure, through the apportionment of relatively small orders among manufacturers of aircraft, the existence of a nucleus of an aircraft industry capable of expansion to meet military needs in an emergency.

GENERAL PERSHING VISITS CAMP BRAGG AND POPE FIELD

General John J. Pershing and his staff visited and inspected Camp Bragg and Pope Field, Fayetteville, N.C. on Friday, December 6, 1919. General Pershing arrived about nine o'clock and together with Major General Wm. S. McNair, the Commanding Officer at Camp Bragg, inspected the artillery and air service units, making an extensive survey of the range. Three Curtiss H's, and a DeHaviland-4 were placed on the line for the General's inspection. Lieut. Harris S. Bigelow, R.M.A., A.S.A. flew a JN4H during the time the General was at Pope Field.

WILD DUCK NOT UNDULY DISTURBED BY AIRPLANES

Sportsmen and others interested in wild fowl, particularly wild duck, are unduly exercised and alarmed in regard to wild fowl being disturbed by airplanes. Lt. Col. H. M. Hickam, while he was in command for several months at Dorr and Carlstrom Fields, flew regularly at least twice a day over a swamp where wild duck of several different descriptions used. In order to flush these duck, Col. Hickam found it necessary to fly within 50 or 100 feet of the water, and on flushing them they immediately flew down and landed in approximately the same place, notwithstanding the fact that there was an abundance of water within three or four miles where they might have gone.

Before the prohibition of hunting wild fowl from airplanes, it was a practice of Colonel Hickam's to take an airplane on Sundays and fly out to locate wild duck. He did this by flying down low over the swamps and when he had flushed a bunch of duck would land in the vicinity and go back to shoot them. He always found the duck in the same place notwithstanding the fact that many other airplanes flew over the route daily.

As an instance of the effect of airplanes on wild duck, he attempted on several occasions to herd a flock of Teal numbering about 500 over a blind. He chased this flock of duck for approximately half an hour without being able to get them over the blind, and without driving them away from a bend in a long slough. Finally, he landed about half a mile away, and on his way back to the blind, these duck flew over him and he fired one shot at them, whereupon the whole bunch left and flew about 15 miles away. This same incident was repeated on several different occasions.

In view of the past experiences of Colonel Hickam it may be stated that wild duck are not disturbed unduly by any number of airplanes. An airplane which flies over 1000 feet above the water will not flush duck or other wild fowl.

LT. COLONEL H. E. HARTNEY SPEAKS AT AVIATOR'S CLUB MEETING

The Aviator's Club of Pennsylvania, an organization composed of 300 fliers most of them ex-service men and having headquarters in Philadelphia, held an organization meeting in Philadelphia on Thursday, December 11, at which the Director of Air Service was represented by Lt. Colonel H. E. Hartney, The Navy was represented by Commander Geo. C. Westervelt and Commander Patrick N. Bellinger of the NC-3. The meeting took the form of a cabaret smoker and steps were taken to form a club on sound financial basis, having for its main object the development of aviation with the indirect purpose of forming a source of supply of pilots for the country in case of need.

While the Air Service is not in a position at the present time to lend material aid to organizations of this nature, by sending a representative, it hoped to encourage associations of this kind in their laudable efforts to foster aviation and solve its many problems.

This Club hopes to establish in the very near future a combined seaplane and airplane station within two miles of the center of the city of Philadelphia and to erect a large and appropriate club house in the immediate vicinity. Speeches, distinctly aviation, were delivered by Lawrence D. Driggs, President of the American Flying Club, Commander Geo. C. Westervelt and Commander P. N. Bellinger, Edward James Cattell, City Statistician of Philadelphia, and Lt. Colonel H. E. Hartney. Captain Collins, President of the Club, ably conducted the ceremonies and himself exemplified the spirit which animates each and every member of this new enthusiastic association.

THE "LOENING KITTEN"

A plane at the Naval Air Station, Anacostia, D.C. has been the source of much comment since its arrival at this station. It is a monoplane and is called the "Loening Kitten". It has a wing spread of only ten feet and length of eight feet overall. It is equipped with a three cylinder radial Anzani 45 horsepower motor. Up to the present time the "Loening Kitten" has not been flown.

MOSAIC MORE ACCURATE THAN SURVEY

Colonel H. E. Eames, Infantry officer at Camp Benning gave special praise to the work performed by the Photographic unit of the Air Service in charge of Captain A. W. Stevens, in making a mosaic of Camp Benning, Columbus, Ga. Colonel Eames stated that the accuracy of the mosaic of Camp Benning was astonishing and he was unable to discover any material error in the scale and not as much error as exists in certain parts of the topographical survey, and that he considered as a whole, the mosaic much more accurate than any survey could be unless the survey was made at great expense of both time and money. Colonel Eames also stated that the quickness with which the work was done, its accuracy, and its complete usefulness for this service, reflect credit on the pilots performing the work, as well as the Air Service.

PILOT MORTALITY STATISTICS

The following figures are taken either direct from data on file or are derived from such information. There should be considered when reviewing these statistics, that conditions during the years included have been abnormal, that training has been carried on under most exacting conditions, with constantly growing need of acceleration of output, with resources strained to the utmost and under great difficulties incident to the provision of suitable accommodations and with a shortage of suitable training equipment.

While these figures afford some indication of the position in the future, they cannot be taken as a criterion of the course of events in time of peace.

Short flights constitutethe greater portion of one's training. There is, thus, a disproportionate number of take-offs and landings to hours flown when compared with cross-country flying of any kind.

		Pilot Radio Fatalities to hours flown
U. S. Air Mail	1919	1:2528
U. S. Air Forest Patrol	1919	1:2872
U. S. Pilot Training in America	1918	1:2934
U. S. " " " A.E.F.	1918	1:1145 **
British " "	1918	1:811
French " " 1914-	1918	1:2680 *
Italian " "	1918	1:881
Swiss " "	1918	1:770 ***

* Preliminary only.

** If comparison of A.E.F. ratio is made with U.S. ratio, it should be considered that in the A.E.F. the advanced and specialized training was done on Service airplanes of high speed and greater danger than the airplanes used in the U.S.

*** Preliminary only.

CHANGE OF STATIONS.

1. Orders have been requested of the Adjutant General for the following named field officers to change station as follows since November 29, 1919.

Major George H. Brett, A.S.A., from Aviation General Supply Depot, Morrison, Virginia, to Washington, D. C.

December 3, 1919.

Major Arnold N. Krogstad, A.S.A., from Eberts Field, Lonoke, Arkansas, to Aviation General Supply Depot, Morrison, Virginia, to assume command.

December 5, 1919.

Major Thomas J. Hanley, A.S.A., from Carruthers Field, Benbrook, Texas, to Langley Field, Hampton, Virginia.

December 12, 1919.

Lieut. Colonel Henry B. Clagett, A.S.A., from Kelly Field, San Antonio, Texas, to Charleston, S.C., for duty as Department Air Service Officer.

Lieut. Colonel Herbert A. Dargue, A.S.A., from Charleston, S.C., to Dayton, Ohio.

The second publication is more general in character and also more extensive. It is issued under the title,"Air Service, Medical," and comprises 500 pages of text with 275 full-page illustrations. It is a story on the general standpoint of the medical aspect of aviation from Langley's experiments to the Aeronautical achievements,of the present day. It is the doctor who makes flying safer, through selection,,classification and maintenance of the fliers. Under the last sub-division are explained the duties of the physical director and nutrition officer.

The third publication is more technical and deals with the internal working of the medical research laboratory established for the Air Service at Mineola, L.I. It is actually a manual of the Air Service Medical Laboratory and recounts and describes the tests and experiments developed and conducted for the safety of the flier.

CIVILIAN FLYING APPLICATIONS

The Joint Army and Navy Board on Aeronautic Cognizance announces that permits for flying are now granted to qualified civilians who apply according to the requirements of the President's Proclamation of February 28, 1918. All applications should be addressed to the Joint Army and Navy Board on Aeronautic Cognizance, 6th and B Sts., N. W., Washington, D. C.

In making an application for a flying license the civilian is requested to forward a copy of his or her certificate or license showing that the individual is qualified as a pilot.

The application must be supplemented with full information as to the nature of the aerial project contemplated: the financial backing; the means to be taken to insure the reliability of motors and the upkeep of planes; types and condition of planes, and the number of hours each has been flown. The number of mechanics to be employed should also be stated.

In short a complete detailed report is desired, and standard forms of application are furnished upon request to the Secretary, Lieut. L. G. Haugen, Division of Military Aeronautics.

TESTS OF EXPERIMENTAL AIRPLANES

The following regulations were authorized by General Kenly, January 14, 1919.

1. The Chief of the Technical Section is charged with the responsibility for all tests of experimental airplanes at Air Service Fields.

2. Requests by private enterprise for permission to conduct UNOFFICIAL TESTS of experimental airplanes at Air Service Fields may be granted under the following conditions:

(a) Such tests will be conducted at McCook Field, Dayton, Ohio unless otherwise permitted by the Director of Military Aeronautics.

(b) Such tests will be entirely at the owner's risk and expense and he shall supply the pilot therefor. No Air Service pilot will be permitted to engage in these tests.

(c) Flight Tests will be permitted only after a Technical examination by a representative of the Technical Section, If, in the opinion of this officer, the airplane is unsafe to fly, no flight will be permitted at an Air Service Field.

CORRESPONDING RANKS IN ARMY AND NAVY

UNITED STATES

ARMY	NAVY
----------	Admiral of the Fleet
General	Admiral
Lieutenant General	Vice Admiral
Major General	Rear Admiral
Brigadier General	----------
Colonel	Captain
Lieutenant Colonel	Commander
Major	Lieutenant Commander
Captain	Lieutenant
First Lieutenant	Lieutenant Junior Grade
2d Lieutenant	Ensign

GREAT BRITAIN

ROYAL AIR FORCE	ARMY	NAVY
Marshall of the Air	Field Marshall	Admiral of the Fleet
Air Chief Marshall	General	Admiral
Air Marshall	Lieutenant General	Vice Admiral
Air Vice Marshall	Major General	Rear Admiral
Air Commodore	Brigadier General	Commodore
Group Captain	Colonel	Captain - 3 years
Wing Commander	Lieutenant Colonel	Captain - under 3 years
Squadron Leader	Major	Lieutenant - 8 years
Flight Lieutenant	Captain	Lieutenant - under 8 years
Flying Officer	First Lieutenant	Sub-Lieutenant
Pilot Officer	Second Lieutenant	----------

UNITED STATES

ARMY	NAVY
----------	Admiral of the Fleet
General	Admiral
Lieutenant General	Vice Admiral
Major General	Rear Admiral
Brigadier General	----------
Colonel	Captain
Lieutenant Colonel	Commander
Major	Lieutenant Commander
Captain	Lieutenant
First Lieutenant	Lieutenant Junior Grade
Second Lieutenant	Ensign
----------	----------

FRANCE

ARMY	NAVY
----------	Amiralissime
Marechal	Amiral
General de Corps d'Armee	Vice Amiral
General de Division	Contre Amiral
General de Brigade	----------
Colonel	Capitaine de Vaisseau
Lieutenant Colonel	Capitaine de fregate
Commandant	Capitaine de Corvette
Capitaine	Lieutenant de Vaisseau
Lieutenant	Enseigne de Vaisseau-1
Sous-Lieutenant	Enseign de Vaisseau-2
----------	Aspirant de Marine

V-1344 A.S.

CORRESPONDING RANKS IN ARMY AND NAVY

UNITED STATES	ITALY
ARMY	ARMY
General	Generale
Lieutenant General	Tenente Generale
Major General	Maggior Generale
Brigadier General	Brigadier Generale
Colonel	Colonnello
Lieutenant Colonel	Tenento Colonnello
Major	Maggiore
Captain	Capitano
First Lieutenant	Tenente
Second Lieutenant	Sottentenente

Lt. Franklin 319.1 Weekly Press Letter #2

Vol. IV AIR SERVICE NEWS LETTER
Information Group
Air Service December 26,1919 Bulletin D
Washington, D. C.

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

THE AIR MAIL SERVICE

The fiftieth anniversary of aerial mail transport falls in September, 1920, for it was in 1870, that letters were carried out of beleaguered Paris by free balloons. In 1911 demonstrations of airplane mail service were made in India, England and the United States.

The first aircraft mail service in the United States was conducted at the aviation meeting at Nassau Boulevard, L.I., during the week of September 23-30,1911. Earle L. Ovington, with a Queen monoplane, Indian-engined, was duly appointed an air mail carrier and covered a set route between regularly established post offices for a period of seven days. Postmaster General Frank Hitchcock arranged a municipal collection system on the Nassau Boulevard grounds and an inspector saw to the stamping in a tent. The trips were made between Nassau Boulevard and the Post Office at Mineola. 32,415 post cards and 3,993 letters and 1,062 circulars were carried.

Since the first demonstration many other such exhibitions have been given at meets during ensuing years.

Airplane Mail Service under the United States Post Office has been in operation daily except Sunday between New York and Washington for over eighteen months; and between New York and Chicago daily for over six months. Today the Mail Service of the Post Office Department of the United States has planes in the air daily, covering a total of 1906 miles of territory and carrying an aggregate of 2,100 pounds of mail.

The Post Office Department inaugurated the present Aerial Mail Transportation Service on May 15, 1918. The Service was originally conducted by the War Department in connection with its work of training aviators for the war. The service continued under military direction until August 10,1918, when it was taken over by the Post Office Department and operated by an entirely civilian organization.

At the time of the establishment of the Aerial Mail Service only a few Curtiss JN4H Army training planes with a capacity of 200 pounds or less, were being used. The signing of the armistice and the cessation of hostilities caused to be made available to the Post Office Department quite a number of DH4 planes, which made it possible to increase the mail route to 400 pounds. However, as these planes were originally designed for war purposes, it was decided to modify them and the aeronautical engineers in the Post Office Service coordinated with manufacturing establishments and developed a strong and powerful plane which can still maintain all the excellent flying qualities of the DH4 machine. The changes constituted a greatly strengthened landing gear, fuselage reenforcement, a transposition of cockpit and cargo compartments.

It was found, however, that in order to insure reliability in performance of scheduled trips and to provide for larger mail dispatches, it required largerand multi-motored ships. The Department promptly set about to design and has constructed 14 multi-motored aeroplanes upon plans evolved by its own engineers, and embodying suggestions from manufacturers and other aeronautical sources. Six of these are of the Martin bomber type, 4 of Thomas-Morse construction and 4 under construction by the L.W.F.Engineering Company.

On November 8, 1919, the first of the 14 specially constructed 'planes, with a mail carrying capacity of 1500 pounds, was delivered to the Post Office Department and flown on its trial trip with 1000 pounds of letters from Cleveland to New York,

An interesting feature in connection with the Airplane Mail Service is the fact that on May 15,1919, the anniversary of the inauguration of the service, the two airplanes that took to the air on this anniversary, one leaving Washington and one leaving New York were the same that carried the mail a year before and had been constantly in the service with the same motors. In addition to the six 'planes with which the service was inaugurated and which were in operation on June 30, 1919, there were 42 planes in service on the two routes in operation on that date, namely, between Washington and New York, and Cleveland and Chicago-48 in all. On December 1st there were 30 planes in service.

AIR MAIL STATISTICS'

CHICAGO - CLEVELAND

* Total cost operation - - -	$19,819.02
Cost per mile, average	.61
Cost per ton - mile - - -	- - - - - -
Cost per flying hour - - -	52.88
Cost per mile, overhead - - -	.17
Cost per mile, flying	.20
Cost per mile, maintenance	.24
Lbs. mail carried - - - -	29,936
Miles flown - - - -	32,342
Time in air - - - -	360 H. 39 M.
Average speed m.p.h. - - - -	87
Miles per gal. gasoline - -	2,56
No. trips possible - - - -	99
No. trips made - - - -	95
% Performance - - - -	96
Forced landings - - - -	0
Mech. troubles - - - -	0
Weather - - - -	0
Other causes - - - -	0
Falls, total No. - - - -	1
Fatal - - - -	1
Wounded - - - -	0
No. planes operated - - - -	15

* Costs include: Gas, Grease and Oil, Office Force, Operation of Motorcycles and Trucks; Rent, Light, Fuel, Power, Telephone and Water; Miscellaneous, Pilots, Mechanics and Helpers, Repairs and Accessories, Interest on Investment, Departmental Overhead Charge.

U. S. Air Mail Statistics.

NEW YORK - WASHINGTON.

	Totals and Averages 1918-9
*Total cost oper'n	$160,188.32
‡Cost per mile, avge	.87
Cost per ton-mile	------
Cost per flying hour	63.06
Cost per mile overhead	.28
Cost per mile, flying	.20
Cost per mile, maintenance	.39
Lbs. mail carried	218,073
Miles flown	184,034
Time in air	2528h 38m
Avge speed, mph	72
Miles per gal. gasoline	4.08
No. trips possible	1,374
No. trips made	1,268
% Performance	92
Forced landings	104
Mech. troubles	41
Weather	63
Other causes	0
Falls, total no.	**** 2
Fatal	1
Wounded	1
No. Planes operated	22

*Costs include: Gas, Grease and oil, office force, operation of motorcycles and trucks; rent, light, fuel, power, telephone and water; miscellaneous, pilots, mechanics and helpers, repairs and accessories, interest on investment, departmental overhead charge.

**** Of these, one was a fatality which resulted from an applicant endeavoring to demonstrate his ability to fly one of the air mail 'planes.

‡ Obtained by dividing miles flown into total cost of operation.

	NEW YORK - WASHINGTON				CLEVELAND - CHICAGO	
	From May 15, 1918 To Dec. 31, 1918.		From May 15, 1918 to June 30, 1919.		From May 15, 1919 to June 30, 1919.	
	Total	Average per mile	Total	Average per mile	Total	Average per mile
Gasoline	$6,772.65	.066	$13,704.15	.074	$3,423.99	.105
Grease and oil	1,499.46	.014	3,284.19	.018	461.71	.014
Office force	2,344.50	.022	7,413.14	.041	1,522.87	.47
Motorcycles and trucks	4,565.69	.044	10,218.40	.055	728.88	.023
Rent, Fuel, Light Power, Telephone, Water.	2,751.19	.026	5,652.55	.031	562.80	.017
Miscellaneous	5,524.31	.053	17,148.64	.093	2,429.21	.075
Pilots	9,808.83	.095	19,932.17	.108	2,679.45	.082
Mechanics and helpers	15,063.47	.146	32,221.61	.175	2,839.53	.087
Repairs and accessories	14,041.41	.136	22,824.33	.124	2,534.01	.078
Interest on investment	7,285.30	.071	14,182.96	.077	1,267.50	.039
Departmental overhead charge	6,959.78	.067	13,606.18	.074	1,369.07	.043
Total	$76,616.59	.74	$160,188.32	.87	$19,819.02	.61

AIR SERVICE, A. E. F.

*Casualties by Types.

U. S. Air Service Flying Personnel with American, British, French and Italian Armies.

(Cumulative from first casualty to Nov. 11, 1918)

	BATTLE CASUALTIES					OTHER CASUALTIES		
Month 1918	Killed in Action	Wounded in Action	Missing	Prisoner	Interned	Killed by Accident	Injured by Accident	TOTAL
March	3	0	0	0	0	1	0	4
April	4	0	1	0	0	2	1	8
May	17	4	1	4	0	5	2	33
June	22	13	4	9	1	10	7	66
July	45	28	7	37	1	12	9	139
August	73	46	11	56	1	19	13	219
September	146	82	26	105	3	27	18	407
October	196	118	27	129	3	42	23	538
Nov.1st to 11th	208	130	28	145	3	45	25	584

*Does not include those who died of disease.

AERIAL MAIL AND AERIAL RACE IN JAPAN

The project for the aerial transportation of mail in Japan, which has been under consideration for some time, was first announced to start on October 4th. On account of rain, however, the start was postponed not less than four times. Finally, on October 22d, the flight to Osaka from Tokyo, was accomplished, two contestants making the whole flight, and one being forced to land while still 40 miles distant from his goal.

There were two civilian entrants -- Mr. Toyotaro Yamagata and Mr. Yozo Sato. Mr. Yamagata made the trip in four hours thirty-one minutes, for the air line distance of approximately 270 miles.

Mr. Sato is fairly well known as a civilian aviator, but has not the reputation of Mr. Yamagata. A short description of Mr. Sato's plane is given:

V-1364 A.S.

"Nakajima" two-passenger, single-panel-biplane tractor of approximately 36 feet spread and 6 foot chord. Top plane does not overhang but both planes have a very slight dihedral. No stagger on the lower plane. Nacelle projects about six feet in front of wings, and engine is mounted very high on Nacelle, thus giving very poor visibility. Usual rudder and elevator. Strutting and bracing very badly done. This plane mounts a 150 H.P. 6-cylinder Hall-Scott, in good condition. Practically a new plane and a new engine. This ship gives the impression of having too wide a span for its size.

Mr. Sato made the flight in 3 hours 31 minutes, the best time of the three; this entitles him to a prize of Yen 3,000 plus Yen 250 for each 30 minutes under 6 hours, or a total of Yen 3,625. Each of the contestants carried 66 pounds of mail.

Lieutenant Midzuta, who flew a combat machine, attempted to make the flight from Tokyo to Osaka, with mail, on October 22nd, 1919, but owing to losing his way, was forced to descend at Wayayama, 40 miles from Osaka. He landed without injury. His time was 4 hours from Tokyo to Wakayama, about 240 miles airline.

JAPANESE ATTACHE DELIGHTED WITH U.S. AIR SERVICE.

On Friday December 12, Brooks Field was paid a visit by Major Shosuke Tokagi, Assistant Military Attache of the Japanese Government, at Washington, D.C. He had spent the two preceding weeks studying the Air Service of the Southern Department in San Antonio. While at Brooks Field Major Tokagi was given a flight in a captive balloon which he greatly appreciated. He expressed great admiration of the work done by the Air Service of the United States.

AIRCRAFT IN FOREST SERVICE.

At the conclusion of the last six months of 1919, the systematic use of the airplane forest fire patrol has proved beyond question its effectiveness as an aid in discovering and locating forest fires. So definitely has the enormous monetary value of aerial reconnaissance in conservation work been demonstrated that the new year sees a great extension of the work for the future. Airplanes are as necessary now to the Forest Service as boats to the navy.

To get some idea of the necessity of the new aerial service we should look for a moment into the unpatrolled territory and see how great the loss has been. The value of just three of the great National Forests is estimated at $62,280,000. Department of Agriculture statistics show that on an average for eight years (1910-1917, 5313 fires in the various forest burned 1,163,756 acres of timber, representing a loss of $3,758,356 annually. From 1915 to 1917, 2873 fires occurred in State and private forest, burning 8,052,945 acres at a loss of $9,875,000, not including the great Minnesota fire. Is this not sufficient argument for watchfulness?

For the period of three months from June to August inclusive 745 flights were made. From June to October airplane patrol covered 202,009 miles, discovering 442 fires. Twenty-seven of these were reported in advance of the regular forest patrol and were entirely independent of them.

The airplane patrol system has many advantages over ground observance. A man in the air can easily discern certain portions of the forest which are very unaccessible and seldom if ever visited by the regular patrols. In the case of deep canyons where smoke drifts in from adjacent fire areas, and obscures the view of the man on the ground, the airman is able to see above and around the smoke and readily detects the origin of the fire. In addition to locating fires the airplane has been of greatest assistance in actually fighting them. At a sufficient altitude above the ground an experienced man who knows how to fight fires is able to direct his forces with much greater result than if he were there himself.

In taxiing the throttle should never be suddenly opened or closed unless it is absolutely essential. In taking off, the same is true. It is not necessary to suddenly push the throttle open. Take it easy - the results are far more satisfactory.

In the air, unless you are actually engaged in stunting, the engine should be partly throttled. The airplane will handle better, the life of the engine will be lengthened, and the cruising radius will be increased. The Hispano-Suiza and the Liberty are high compression engines and designed for full throttle only at high altitudes. Never let the engine race - keep the nose up or throttle the engine. In stunting, throttle whenever the engine races - don't go into a glide or slip with the engine full on.

When you close the throttle, close it slowly. If the throttle is jerked closed the valves which are running at a cherry red heat will cool suddenly and a warpage will result.

Another source of trouble is that of fouling of plugs, and it is almost entirely the fault of the pilot. However well the engine may be adjusted, abuse in the air can result in fouled plugs. In a glide the engine must be kept warm. It should not be allowed to go below 70 deg. cent., and the throttle should be repeatedly opened to clear out the cylinders. When the engine is allowed to cool to too low a temperature, contraction of the pistons allows too much oil to be "pumped" into the combustion chambers and the plugs will be fouled. The temperature may be kept up by the use of shutters if they are available, and by the proper adjustment of idling speed.

Another point to be remembered in allowing the engine to cool too much is that the carburetors are adjusted to use the least possible amount of fuel when the engine is well warmed up. With this adjustment a cold engine will not respond rapidly to the throttle, and will not be available in close quarters when power may suddenly be required.

A common mistake made in starting an engine is that of flooding. In cold weather it may be necessary to prime the engine, but this should not be overdone as it is easier to overcome too lean a mixture than one too rich. The Liberty may be primed by the use of the Lunkenheimer primer on the dash and the Hispano-Suiza through priming cocks on the manifold. The charge should be taken into the engine with the throttle nearly closed, and no time should be lost between the taking in of the charge and its ignition, as only a short time in a cold engine is sufficient to cause the "fog" of the gasoline in the intake pipes and cylinders to condense. The propeller should be "placed" quickly and the pilot should be ready to turn the starting magneto as soon as "clear" has been called. If the engine is flooded it may best be cleared by turning the propeller backward.

In conclusion, it is desired to emphasize the fact that the engine's performance and length of life depend largely on the pilot. If the engine is running all right when you take it, and an airplane should never be taken with the engine missing or failing to turn up to its proper r.p.m., it will continue to do so except in exceptional cases, if you handle it properly. Many of the pilots used Curtiss OX-5 engines in their training, and make the mistake of thinking that other engines should give the same performance. They do not stop to think that the Curtiss OX-5 was designed to stand abuse, while in the design of such engines as the Hispano-Suiza and the Liberty, performance was given the greatest weight. Failure to obtain good performance from the latter engines is a perfect indication that the pilot does not understand them.

From his point of view he is able to take in the whole situation instantly and inform his men just how far the fire has gone, how serious it is and how best to arrest its progress, or how much importance one section bears to the rest of the fire. A third great advantage of the airplane over the ground observer is in economy of time. There have been instances during the past year where in thirty minutes the airman has located and reported certain fires which would have required four or five hours for a man on horseback. Three hundred thousand acres were covered by one patrol twice a day, an impossible record for a ranger from even the highest lookout point. It is claimed that an altitude of 5,000 feet gives an effective operating radius of not less than thirty miles.

It should also be mentioned that the aerial forest patrol not only benefits the National Forests of the United States but also the private forests adjacent to them. Again, airplanes flying over forest areas are a constant reminder to the inhabitants that the United States Government is maintaining vigilance over its forests and is always on the lookout for unextinguished camp fires etc. There have been recent instances of reports where offenders have actually telephoned to the forest lookouts reporting fires started by their own carelessness before report was made by any patrol, either in the air or on the ground.

One of the greatest handicaps to aerial forest patrol has been the scarcity of landing fields. Up to date there have been available only a few established at the Air Service stations in the section of the country concerned, a few established by various villages and cities within the area and others by the Forest Service. But even with this, up to August 24th there had been only six forced landings with one fatality which occurred in southern California during a heavy fog on June 1st. The success of the airplane forest fire patrol is remarkable, considering the fact that it was started as an experiment and that this is the first season of the service. The cooperation between the Air Service and the Forest Service has been excellent and the benefits have been self evident.

The wireless telephone proved to be of great assistance to the service. With it installed as a part of the airplane's equipment and at various ground stations it is no longer necessary for the observers to be radio- telegraph operators. Its use enable the rangers and patrolmen at the different stations to be in direct communication with the aerial observer. It is expected that the airplanes in this service will be remodelled. Their endurance should be no less than 500 miles. Since the Army Air Service already has the necessary equipment on hand the expense may be considered negligible.

THE BEGINNING OF FOREST PATROLS - 1915

The first mention of the airplane for aerial forest fire patrol, so far as is known, was made in 1909, at a meeting of Forest Supervisors held in El Paso, Texas. But the first actual use of aircraft was apparently made in Wisconsin in 1915. At that time Mr. L. A. Vilas, who owned a Curtiss 4 passenger flying boat, equipped with a Curtiss 8 cylinder U type 100 H.P. motor, made daily flights from Big Trout Lake over some of Wisconsin's State Forests. At an altitude of 1000 feet he was able to view about 40 miles in every direction. He would fly from his post, locate the fires and then return to his original base and report to the state forestry officials.

On March 24, 1919, the Secretary of War, complying with a request from the Secretary of Agriculture to institute experiments in the use of airplanes in cooperation with the Forest Service, authorized the Director of Air Service to detail equipment and personnel and to cooperate with the Forest Service in the establishment of experimental patrols.

On June 1, 1919 the first organized and sustained airplane forest fire patrol was inaugurated. The Army Air Service with Air Service personnel and equipment and at Air Service expense inaugurated the aerial forest fire patrol in California. The general aim in addition to giving the aviators training, practice and experience, was discerning

with what success forest fires might be (1) discovered, (2) located and (3) reported. Six patrol routes covering National Forest areas of high value in California were mapped out, and twice each day six Curtiss airplanes covered the better part of 6,000,000 acres of rough mountainous, heavily timbered country. The average non-stop run was 160 miles, the average round trip 320 miles. Many fires were discovered, located and reported in advance of the regular Forest Service detection organization. And in addition to performing these duties the regular fire patrol proved of great value in reporting the progress of the fire. As first planned the patrol observers were to communicate by radio to the base station and from there by telephone to the ground patrols of the forest service. The experiments and service proved to be of such value that the Director of Air Service authorized the Department Air Service Officer, Western Department at San Francisco, on July 13, 1919, to use as many planes from Mather Field as he deemed necessary for the Oregon region and later gave permission for additional stations at Redding, Fresno, Arcadia, and Mather Field.

Due to the fact that the aerial forest patrol was begun as experiment and not started in earnest until recently, operations were not as extensive as they would have been had more preparation for the plan of operation been made. However, the states of Oregon and California and the National Forests within their borders were well covered and great protection offered. In the state of Oregon, the first reconnaissances were made with the plane patrolling north from Eugene along the eastern border of the forest, stopping at Salem and then on up to Portland, returning to Eugene, making the same stop. The distance from Eugene to Portland is approximately 150 miles. From Eugene these patrols operated south to Medford, stopping at Roseburg, going south on the eastern side of the forest and back on the western side, the distance from Eugene to Ashland being some 150 miles. These routes were later changed when better plane service became available so that the planes went directly north to Portland from Eugene and south to Ashland, going on alternate sides of the forest on their outward and homeward trips alternately.

In the state of California, the southern forests were patrolled from Rockwell field at San Diego with planes operating out to Riverside and making a northerly route and back to Riverside and San Diego, the distance from San Diego to Riverside flown being approximately 160 miles. Later this patrol was changed so that the planes operated from March Field at Riverside one going south to San Diego in the morning and back to Riverside, in the afternoon, making a grand circuit of the forests, including Warner's Hot Springs and covering a distance of approximately 360 miles. Another patrol going out in the morning from Riverside and returning in the afternoon covered about the same distance, making a northerly route around the most northern part of the southern California forests, including Santa Barbara. The Central and Northern California patrols consisted of patrols operating from Mather Field at Sacramento, one patrol going south to La Grange, the other north to Oroville in the morning and back to Sacramento in the afternoon. These patrols covered a route of some 150 miles from Sacramento, north to Oroville and 150 miles from Sacramento south to La Grange. Later, patrols established by the authority of the Director of Air Service and with a larger number of machines, and finally with De Havilands, operated from bases at Redding, Fresno and Santa Barbara. The patrol from Fresno went north to La Grange and south to Bakersfield, the two Air Distances as flown, being approximately 200 miles each. The new patrols from Sacramento operated north to Red Bluff and south to La Grange, each patrol covering a much larger territory than the original patrols, this time the air route from Red Bluff to Sacramento being about 200 miles. Out of Reading, one patrol covered a loop south then west and north to Alturas, and then south again patrolling the northwestern section of the California forests, and covering a distance of more than 350 miles. The other patrols went north to Eureka on the eastern side of the western coast forest and south on the western side of Lakeport and back to Redding, making a loop nearly 500 miles.

3. OFFICIAL TESTS of experimental planes will be authorized only at McCook Field, Dayton, Ohio, and under the following conditions:

(a) The owners of such airplanes must submit two models - one for destruction test and one for performance test.

(b) Tests will be at Government expense and the flight test will be made by an Army pilot detailed by the Chief of the Technical Section.

(c) Flight Tests will be permitted only after a technical examination and sand-test by a representative of the Technical Section, If, in the opinion of this officer, the airplane is unsafe to fly, no flight will be permitted at an Air Service Field.

4. Pilots inexperienced in flying experimental airplanes will not be permitted to fly such planes until after they have been placed "in production."

5. Commanding Officers at Flying Fields will be held strictly responsible that no flights are made at their fields in violation of the foregoing instructions.

ARMY PERSONNEL EXHIBIT

So much interest has been shown in the Exhibit of Army Personnel Work being held in Room 530, State, War & Navy Building, Washington, D. C., that it has been decided to continue it until January 31. A feature of this exhibit is the showing of how the Army finds out what men can do best and how it uses that ability. Trade tests are demonstrated and illustrated by photographs and models and the results of Army personnel work in the present war are shown. The illustration of how officers' ratings are summarized and used is graphic and full of interest.

SCHROEDER MAKES ALTITUDE RECORD

Major R. W. Schroeder, Air Service the holder of the American altitude record, established a new record for monoplane altitude on Saturday, January 18, at Dayton, Ohio.

According to a telegram just received from the Chief of the Technical Section, Division of Military Aeronautics, McCook Field, Dayton, Ohio, the Loening monoplane climbed to nineteen thousand, five hundred feet, with three passengers totaling four hundred, seventy pounds. The pilot was Major R. W. Schroeder, the Observer, Lieut. George V. Elsy, and mechanician, K. A. Craig. The previous altitude record for a monoplane with three passengers is understood to be about 16,000 feet.

A report from Mr. Loening gives the time as thirty-nine minutes, which would average approximately 500 feet per minute.

The plane piloted by Major Schroeder was the two-seated Loening monoplane built by Grover C. Loening of Long Island City, N. Y. The power plant is an eight cylinder Hispano Suiza engine, which has driven the monoplane as fast as 145 miles per hour.

The 484th Aero Squadron from overseas arrived in Washington on January 23d, and has been quartered in barracks in East Potomac Park.

The airship has also proved its effectiveness in patrolling forest fires. Ross Field Balloon School contributed great aid in protecting the valleys of California. For the period of six months from June, 1919 to November 28, 1919, twelve hundred two hours and fifty three minutes were spent in observation of forest fires over the Angeles forests. The section assigned to this section was from the Arroyo Seco to San Dimas Canyon, a distance of about thirty miles. The forest timber and outlying district protected by the observation was valued at approximately $25,000,000. Ross Field maintained a fire truck completely equipped with apparatus and a detail of experienced men were sent to help fight fire reported by the balloon observer.

The splendid work done by the balloon observers from Ross Field has, on several occasions, been commended by the Forester and by the District Forester.

During the month of June when the Secretary of Agriculture was in California, and on one occasion when he passed near Arcadia, his attention was called to the observation balloon which was on the job. The Secretary was greatly impressed with the service which the observation balloons were rendering and commended the Commanding Officer at Arcadia for the valuable co-operative work which they were doing.

ACES BEFORE HOUSE SUB-COMMITTEE.

On December 12, 1919 five American "aces" were called before the House Sub-committee to give their views concerning the future development of aviation. They testified in favor of a co-ordination of all aerial activities. The group included Major Charles J. Biddle, Philadelphia; Captain F. E. Kindley; Gravette, Arkansas; Major J. A. Meissner, Birmingham, Alabama and Captain J. A. Healy, Washington.

Motorized Field Artillery Regiment.

At Post Field, Fort Sill, Okla.

The Director of Air Service, has asked that the Commanding Officer and those Air Service officers stationed at Fort Sill in accommodating the Motorized Field Artillery which is to be transferred to that station cooperate to the greatest extent possible and that arrangements and all subsequent dealings be such that there will not be alone cooperation but actual accommodation. The Air Service has been assured a mutual degree of cooperation and coordination and this attitude on the part of the Air Service should not be confined to the Commanding Officer and his Staff, but should prevail throughout the Command in order that not alone the officer but the enlisted personnel of both branches of the Service may be drawn into a closer and more fraternal association which will be helpful to both.

PANAMA PHOTOGRAPHIC SECTION, AIR SERVICE,

PERFORMS REMARKABLE FEAT.

A splendid example of what the Photographic Sections of our Air Service can do is shown by what the section stationed at Panama did on December 4th, 1919. When the United States Army Transport, "Northern Pacific" was approaching the entrance to the Panama Canal bearing the Secretary of War Baker and his party, they were met out at sea by a squadron of De Havillands from France Field and escorted to the Gatun Locks. One of the planes, piloted by Lieut. Charles B. Austin, and Photographer Lieut. Dayton A. Watson, took pictures of the Transport and flew immediately to France Field. The plates were developed and prints made from them. Lieuts. Austin and Watson then took the pictures and flew out to the "Northern Pacific" and dropped them on the deck of the ship as a gift for the Secretary and his party. The total time from taking the pictures at sea, returning to France Field, landing, developing and printing the pictures, taking off again and dropping the finished prints on the deck of the ship as it reached Gatun Locks was just fifty three (53) minutes.

TRANSCONTINENTAL RELIABILITY TEST.

In reply to so many requests asking for the relative standing of the contestants of the transcontinental reliability test, the Director of Air Service has deemed it advisable to devise as fair a scheme as possible of bringing them together allotting points. While any system, comparing various types of airplanes flying at different times and under different conditions will at best be defective; it is felt that the following scheme based upon the complete round trip and allowing three points for first, two for second and one for third plane, is as good as can be worked out. The scheme is as follows:

(a) Completed round trip within specified time:

Pilot			Observer.	
1st Belvin W. Maynard,	1st Lieut.	18.-	W.E.Kline, M.E.	DH-4 Liberty Motor.
2nd Alex. Pearson,Jr.,	2nd Lieut.	14.-	R. Atkinson, Sgt.	DH-4 Liberty Motor
3rd R.S. Worthington,	2nd Lieut.	12.-	Single Seater(150H.P.)	SE-5 His. Su. "
4th J.O. Donaldson,	Captain	11.-	Single Seater(180 H.P.)	SE-5 " " "
5th Lowell H. Smith	Captain	9.-	Tanner, Sgt.	DH-4 Liberty Motor
6th H. E. Hartney	Lt. Col.	8.-	Single Seater(160 H.P.)	Fokker D7 Mercedes
7th E.H. Manzelman,	2nd Lieut.	2.-	M.C. Goodnough,C.S.Mech.	DH-4 Liberty Motor
8th R.B. Bagby	1st Lieut.	0.-	L.N. Parrish, Sgt.	DH-4 Liberty Motor

(b) Completed round trip but not within specified time:

9th D.B. Gish	1st Lieut.	0.-	G.C.Pomeroy, Sgt.	DH-4 Liberty Motor
10th F. Steinle	Captain	0.-	H. Myhres, Sgt.	DH-4 Liberty Motor

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	Lapsed Time			Speed test-Flying time.			Speed test-DH-4 class			Speed test-SE-5 class.			Speed test Fokker Class.	
	East to West	West to East	Round trip.	East to West	West to East	Round trip	East to West	West to East	Round trip	East to West	West to East	Round trip	East to West.	Round trip
1st Lt. B.W. Maynard	3		3	3			3		1					
2d Lt. Pearson	2			1		3	1		3					
Capt. L. H. Smith		1	1			2			2					
2d Lt. R. S. Worthington					3	1					3	3		
Capt. J. O. Donaldson	1		2							3		2		
Lt. Col. H.E.Hartney													3	3
2d Lt. E. H. Manzelman														

	Handicap			Endurance	Total
	East to West	West to East	Round Trip		
1st Lt. B. W. Maynard	3		2		18
2d Lt. Pearson	1		3		14
Capt. L.H. Smith		3			9
2d Lt. R.S.Worthington		2			12
Capt. J.O.Donaldson				3	11
Lt. Col. H. E. Hartney			1	1	8
2d Lt. E.H. Manzelman				2	2

VOL. I- NO. 2. OFFICIAL USE ONLY

AIR SERVICE NEWS LETTER

Information Group
Air Service

OCTOBER 17, 1919

Building D
Washington, D.C.

ACTIVITIES OF TRAINING DIVISION FOR WEEK ENDING OCTOBER 11, 1919.

There are a number of inquiries from Field Commanders in reference to the future training policy, in view of the fact that letters are being returned to them with the indorsement that no more training will be started until the regular Pilots Schools are functioning. The idea, of course, is that all men be given the same training, i.e., that training be uniform, and that it will be possible to give a much better course by giving it at a regular training school. It is contemplated shortly to ask Field Commanders for recommendations for men to be sent to these Pilots Schools. These men will come from the enlisted and commissioned personnel of the fields, principally the enlisted personnel, and Field Commanders should be prepared to make these recommendations. It is not desired to stop any training which has already been started, but only that no other training commence, and simply means a delay in carrying out the training program. At present, this matter is in the hands of the Advisory Board, and a decision is expected very soon.

Certain flying tests and flying recommendations are being compiled by the Advisory Board, and they deal principally with the new J.M.A. and M.A. tests, and a general policy on these matters.

General Order has been issued by The Adjutant General and which has probably been received by all fields, giving general information for the reorganization on the basis of 18,000 emergency officers. The Air Service list contains 180 non-flying officers and 1,024 flying officers. Attention is called to the first page of this memorandum which states that substitution may be made when officers on the retention list are discharged. All Regular officers holding emergency rank are to be discharged on October 31st, and promotions made on November 1st to fill vacancies on the new organizational basis. Rumor from the General Staff states that it is thought that the Majorities will go down about through the class of 1913, the Lieutenant Colonelcies through the class of 1906, and the Colonelcies through the classes of 1901 or '02.

The following information is furnished as being of interest to Air Service Commanding Officers:-

BORDER SITUATION

Assignment, Personnel & Planes

The following is the status of units scheduled for Border operations and those marked with an asterisk are now actively engaged in Border operations.

	Com.	Enl.	Planes On Hand	Avail.
Bombardment Group				
Headquarters, El Paso	7	50	0	0
11th Aero Squadron, Flight A, at Marfa	10	41	7	5 *
" " " Less Flight A, El Paso	19	100	9	6 *
96th " " Flight A, at Douglas	9	49	6	5 *
" " " Less Flight A, El Paso	17	105	8	5 *
Detach. 55th Telegraphic Battalion		No Report		
Photographic Section		"	"	
Headquarters, Kelly	1	1	0	0
20th Aero Squadron, at Kelly	24	131	14	14
166th " " " "	21	138	14	14
Surveillance Group				
Headquarters, Kelly	9	22	0	0
8th Aero Squadron, Flight A, at McAllen	15	60	10	5 *
" " " Less Flight A, Larado	12	65	10	7 *
90th " " Flight A, at Eagle Pass	11	35	10	8 *
" " " Less Flight A, Kelly	13	74	11	11
104th " " at Kelly	17	86		
464th Construction, at Eagle Pass	7	112		
9th Aero Squadron, at San Diego	29	132	12	9 *
5th Air Park Company, at Kelly	10	148		
Pursuit Group				
Headquarters, Kelly	8	42	0	0
27th Aero Squadron, Kelly	3	112	0	0
94th " " "	2	113	0	0
95th " " "	3	114	0	0
147th " " "	3	109	0	0
Total of all Units---	250	1839	111	89
Total number of units actually operating on border ----------	132	587	72	50

Weekly Patrol of Atlantic Coast between Hazelhurst Field and Langley Field

A project was drawn up and submitted to Lt. Colonel Brereton on October 4th, concerning the organization of a bi-weekly patrol of the Atlantic Coast between Langley Field and Hazelhurst Field, same leaving Langley on Mondays and Thursdays at 9 A.M. and returning from Hazelhurst Field on Tuesdays and Fridays at 1 P.M.

Patrol of Pacific Coast between Seattle and Alaska

A project is being worked up for the patrol of the Pacific Coast between Seattle, Washington and Alaska. The project will also include the patrolling of the Pacific Coast of Alaska.

Patrol between Brownsville, Texas and Panama along the Gulf and between San Diego and Panama along the Pacific Coast.

A project is being worked up covering the patrol of above territory.

Airplane Carriers

A project is being drawn up concerning the equipment of a plane or airship of approximately 10,000 tons for carrying one group of observation squadrons and the necessary air park, motor repair machinery, operation equipment, supplies etc., for movement of tactical units in connection with the Expeditionary Forces.

The Ordnance Department now has five hundred (500) modifications for the Mark-V release gears for adapting same to carry the Mark-II-B. Requisition is being placed and same will be shipped to San Antonio very shortly.

Troop Movement

Orders were issued on September 27th by the Adjutant General directing the movement of the 12th Aero Squadron from Scott Field to Kelly Field.

The 91st Aero Squadron, consisting two enlisted men departed from Rockwell Field on October 1st enroute to Mather Field.

Orders were issued on October 1st by the Adjutant General directing the movement of the 1st Aero Squadron, consisting approximately of seven officers and fifty-five enlisted men from Park Field to Hazelhurst Field.

Training in Tactical Units

"Programs of Air Service Training" have been forwarded to all tactical units during the week, also letters calling attention to those chapters particularly relative to their type of work. Instructions were issued to immediately institute a program of training in the units and requests were made for bi-monthly reports of this training to be submitted to the Department Air Service Officer, who in turn will forward same to this office. Complete information on this tactical training will be kept in this Section for reference and for the purpose of analyzing same.

Request forwarded October 11th for the movement of the 1st Observation Group, including 1st Lieut. Ray L. Makin, and approximately ten (10) enlisted men from Park Field to Langley Field.

One 1st Lieutenant Air Service, one 1st Lieutenant Medical Corps and three enlisted men of the medical corps, departed with the 12th Aero Squadron, consisting of one hundred six (106) enlisted men and a detachment of one hundred fourteen (114) enlisted men from Scott Field at 9 p.m. October 10th enroute to Kelly Field, San Antonio, Texas, in compliance with a letter from the Adjutant General, dated September 27th.

PROJECTS

Patrol between United States and Alasaka.

A project was worked up October 6th on the patrol of the Pacific Coast between the United States and Alaska, and also one including the Pacific Coast of Alaska. This project will not be used at present, but a new project is being worked up for carrying mail and small packages between the United States and Alaska during the "closed season" along the Pacific Coast.

PERSONNEL

The index of all officers in the Air Service has been started in this Division and preparation is being made for the allocation of officer personnel on the 12088 basis.

A form was drawn up in this office and forwarded to the Administrative Executive for circulation in order that all officers now in the Air Service may submit information regarding their training and experience since entering the Air Service. This information is essential in properly stationing these officers with reference to future tactical operations.

A few requests for transfer were forwarded to the Personnel Division, but efforts are being made to minimize the number of such requests until such time as we have the above information for judging officers before change of station.

PATROL, LANGLEY AND HAZELHURST

A letter was forwarded the Commanding Officer of Langley Field directing him to inaugurate a patrol between Langley Field and Hazelhurst. A form of report was drawn up and forwarded to Information Group for stencil. When copies are received in this Division, same will be forwarded to Langley Field and Hazelhurst Field in order that these patrols are properly reported to this office.

FLIGHT FOR GENERAL SERVICE SCHOOL, FORT LEAVENWORTH.

A letter was received from General Staff authorizing the sending of an Air Service officer to Fort Leavenworth, for the purpose of supervising the preparation of the flight at that point and of taking charge of the arrangements for the accommodation of the flight which is to be transferred from Post Field. This officer will work under the direction of Col. Naiden who is now at the General Service School.

A telegram was forwarded the Commanding Officer of Post Field, requesting the name of an officer who is competent to take care of this work at Fort Leavenworth, the officer to be chosen from among those assigned to the flight destined for transfer.

ADDITIONAL PERSONNEL FOR CAMPS BRAGG AND KNOX.

A memorandum was forwarded, this date, to the Administrative Executive based on information from the Chief of Field Artillery which stated that they would require a balloon company and an observation squadron at each of the two stations throughout the year. It being necessary for the Artillery to have this personnel throughout the year, recommendations were forwarded for the authorization by the General Staff of 264 enlisted men and 62 officers additional to the present authorized personnel of the Air Service.

EQUIPMENT FOR D.A.S.O. WESTERN DEPARTMENT.

Recommendations were forwarded the Supply Group for furnishing the D.A.S.O. Western Department, San Francisco.

1 Expeditionary hangar
1 Service type plane (LePere or DeH-4) with necessary spares.
1 Curtis (JN-4-H or JN-6-H) with necessary spares.
1 Pursuit plane (Spad, Fokker of SE-5) with necessary spares and supplies.

(a) The Service type plane (LePere or DH-4) and the Pursuit plane are furnished for the purpose of giving the officers at the Department Air Service Office an opportunity to fly the planes for which they are trained.

(b) The Curtis plane should have three (3) to four (4) hour gasoline capacity, and is furnished for the purpose of making a trip out from the office for the inspection of new fields and because of its ease in landing it is especially recommended, altho the officers are now required to be instructed on service type of planes.

OPERATIONS REPORTS

Letters and forms were forwarded to the following units for the purpose of directing the Commanding Officers of same to submit weekly Operations Reports to this office:

SURVEILLANCE	OBSERVATION	BOMBARDMENT
8th-B Flight - Laredo	12th- Kelly	11th - A Flight - Marfa
" A " McAllen	88th- Langley	" - B " El Paso
90th A " Eagle Pass	99th- Bolling	20th Kelly
" B " Kelly	135th- Post	96th A Flight - Douglas
104th Kelly	258th-Aberdeen	" B " El Paso
COAST DEFENSE	1st -Hazelhurst	166th Kelly
2nd - Rockwell	9th -Rockwell	
3rd - Philippines	10th -Bolling	
4th - Hazelhurst		
5th - "		
6th - Hawaii		
91st- Mather.		

V-1067
A.S.

REPORT OF COMMITTEE ON POWER PLANTS FOR AIRCRAFT

Month of August, 1919

Submitted to Executive Committee

National Advisory Committee for Aeronautics.

In Three Parts:

Part 1 - Work on Research Authorizations at Engine Dynamometer Laboratory, Langley Field: (Work Not Started)

Part 2 - Work on Research Authorizations at Power Plants Section, Bureau of Standards:

Part 3 - Other Power Plant work Not financed by National Advisory Committee for Aeronautics.

Respectfully submitted,

COMMITTEE ON POWER PLANTS
FOR AIRCRAFT

S. W. Stratton

Chairman.

MONTHLY REPORT, COMMITTEE ON POWER PLANTS FOR AIRCRAFT

Month of August, 1919.

WORK ON RESEARCH AUTHORIZATIONS AT POWER PLANTS SECTION, BUREAU OF STANDARDS.

Progress during the past month has been made under the following research authorizations.

No. 11, "Supercharging conditions for Liberty Engine".

The installation of a Liberty 12 Aircraft Engine has been started in one of the new altitude chamber units for this work. Actual observations cannot be expected for at least another month.

No. 12, "Effects of Pulsating Flow".

No work has, as yet, been started on this problem.

No. 13, "Relation between Rate of Combustion and pressure distribution".

A start has been made in the mounting of the manually operated diaphragm indicator on the one cylinder Liberty engine in which the rate of flame propagation is being measured. No observations for the circulation of the rate of combustion and pressure distributions have as yet been made.

No. 14. "Study of Indicated Horsepower under Altitude Conditions".

Owing to the fact that the diaphragm indicator has as yet not been mounted for use in the altitude chamber, the work on this problem has been limited to the study of "friction horsepower", as measured when motoring the engine with the dynamometer. "Friction" runs have been made on the Liberty 12 and the Hispano 300 H.P. at several altitudes and engine speeds, as well as under ground conditions. The frictional losses in a Hispano-Suiza 180 have been studied in connection with tests on lubricating oils for aviation engines under ground conditions. The results of these experiments on the friction horsepower of engines are being collected in report form.

Part 2 - Power Plants Report.

No. 15. "Study of Pressure Cycles in Engine Cylinders and Manifolds".

Indicator diagrams have been taken on one cylinder of a Waukesha engine fitted with an auxiliary poppet valve near the bottom dead center. These diagrams have shown that the actual pressure cycle of the engine was very little affected by the addition of the valve, although extravagant claims were made for the effect of this valve on the gas cycles. No pressure time diagrams have been made of manifolds.

No. 16, "A Study of Relations between Air to Fuel Ratio and Maximum Economy and Maximum Power at Full and part Throttle".

No work has as yet been started on this problem.

No. 17. "Altitude Compensation of Aircraft Carburetors".

No work has as yet been started on this problem.

No. 18. "Supercharger Performance (one type only)".

No work has as yet been started on this problem.

No. 19, "Effect of Compression Ratio on Altitude Performance".

No work has as yet been started on this problem.

No. 20, "Ignition Systems".

A critical examination has been made of two of the German Boche ignition systems fitted to the German motor trucks brought to this country by the Motor Transport Corps.

No. 21, "Auxiliary Spark Gap".

No work has as yet been started on this problem.

No. 22, "Effects of Spark Intensity".

No work has as yet been started on this problem.

No. 23, "Test of Spark Plugs".

Tests have been made on a spark plug submitted by the Radd Spark Plug Company. This plug was specially designed to fire under difficult conditions and was fitted with a third electrode, called a "teaser". The sparking voltage with impulse wave form was found to be lower when the third electrode was functioning than when it was inoperative. Engine tests have been completed on several plugs of the Ponset type with electrodes drilled in order to allow the free exchange of gas and oil between the main volume of the cylinder and the region surrounding the tip of the porcelain. The plugs with drilled electrodes contain unburned oil after use. The cement in the plugs with undrilled electrodes was melted during use.

No. 24, "Tests of Radiator Core Construction".

Three samples of the Fedders radiator core have been received but as yet have not been tested.

No. 25, "Effects of Intake Air Temperature on Performance of Liberty Engine".

No work has been done on this problem during this month.

No. 26, "Air Cooled Engine Cylinders".

The study of the air cooling of engine cylinders has been continued and the results to date have been incorporated in a preliminary report which may be ready for publication next month. The results of the work indicate a limit to the size of cylinder cooled with steel or iron fins. A comparison of copper and aluminum as metals for use in fins seems to show an advantage for aluminum from the point of view of weight.

No. 27, "General Analysis of Problems Involved in Operations of Engines at Various Altitudes".

The work on the general analysis on the operation of engines at various altitudes has been continued throughout the month. The data taken during the last two years has been studied in the light of recent information and a preliminary report on one of the factors involved, volumetric efficiency, is in preparation.

No. 28, "Development of High Speed Engine Indicators".

The design in the integrated indicator has been compared with the diaphragm indicator, as well as the maximum pressure check valve indicator, and the results of this work put in tentative form for a report. The design of the indicator has been shown to be unsatisfactory because of gas leakage at the valve, the diagrams showing too low readings at high pressures and readings too high at low pressure. A complete redesign of the valve will be necessary before satisfactory results can be obtained. The recording mechanism for the diaphragm indicator has been completed but not tested out. A description of the diaphragm indicator has been completed but not as yet edited for publication.

No. 29, "Rates of Flame Propagation".

A series of some 150 observations has been made on the effect of turbulence in the engine cylinder, and of the effect of spark advance. The results show no effect from turbulence and an increase in the rate of flame propagation with an increase in spark advance. The concurrence of the observations has been of the order of magnitude of 5 per cent. The observations so far have been with only one fuel and a constant mixture ratio.

Part 3.

MONTHLY REPORT, COMMITTEE ON POWER PLANTS FOR AIRCRAFT

Month of August, 1919.

OTHER POWER PLANT WORK NOT FINANCED BY NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

The results of lubricating oil tests in a Hispano-Suiza 180 H.P. aircraft engine show that with a good grade of Pennsylvania paraffin base oil the rate of oil consumption is greater than the rate of oil deterioration;

THE FLIGHT SURGEON IN MOVIES

A moving picture scenario from the Air Service, Medical is now being shown at all the flying fields by Captain Harry W. Lyman.

The story carries the aviator through from his original application for examination and his entrance into the service, to his active participation with the army at the front. It is a story full of army episode and human interest. Its particular "punch" is in showing the Flight Surgeon as the trouble-shooter of the human machine.

EN ROUTE HOME

The Battleship New Jersey sailed from Brest January 15th and is due at Newport News January 27th, with the following troops:

480th Aero Squadron, Camp Meade,	4 officers	152 men
481st Aero Squadron, Ft. Slocum	3 officers	154 men

The cruiser Frederick sailed from Brest January 17 and is due at New York January 29 with the following troops:

466th Aero Squadron, Regular Army	4 officers	153 men
492nd Aero Squadron, Camp Meade;	2 officers	152 men

Following organizations have been assigned to early convoy:

90th Aero Squadron	24 officers	148 men
104th Aero Squadron	10 officers	176 men
17th Balloon Co.	9 officers	174 men
18th Balloon Co.	8 officers	174 men

The Battleship Connecticut sailed from Brest January 20th and is due at Newport News February 1st with the following troops:

162nd Aero Squadron, Camp Meade,	2 officers	148 men
490th Aero Squadron, Camp Meade,	4 officers	151 men

HONORABLY DISCHARGED

The following officers have been honorably discharged from the Service of the United States.

Earl Z. Giblon,	First Lieutenant, A.S.A.P.
Oliver M. Smart,	Second Lieutenant, A.S.A.
Lee A. Christy,	Captain, A.S.A.
Fred E. Kunkel,	Second Lieutenant, A.S.A.
James Barnes	Major, A.S.A.
Ord Preston,	Captain, A.S.A.
Sumner B. Emerson,	Second Lieutenant, A.S.A.
Augustus J. P. Gallagher,	First Lieutenant, A.S.A.
Roderick Tower,	Captain, A.S.A.
Levin Rank,	2nd Lieutenant, A.S.A.
John Levi Clark,	First Lieutenant, A.S.A.
Ned V. Tanner,	" " "
Quilla Coleman Duke,	" " "
Percy J. Ebbott	Captain, A.S.M.A.
Jesse I. Memefee,	Second Lieutenant, A.S.A.

that the gasoline absorption was less than 2-1/2 percent; that the most marked change in the oil was the loss of light ends or spindle stock.

A 300 Hispano-Suiza engine, shipped from McCook Field, has been tested in the altitude chamber under ground conditions and under altitude conditions at from 5000 ft. to 25,000 ft. The results show, among other things, a lack of sufficient adjustment in the carburetor for flight above 20,000 ft.

REPORT OF COMMITTEE ON MATERIALS FOR AIRCRAFT

Month of August, 1919.

Submitted to Executive Committee
National Advisory Committee for Aeronautics

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1. The Aeronautical Physics Section of the Bureau of Standards reports on the work in progress for your Committee as follows:

Stable Zenith Instrument.

Stable Zenith Instrument No. 4, designed especially for use in airplanes, is now under construction in the instrument shops of the Bureau of Standards. The construction is about 60% completed. The instrument is designed primarily for recording the inclination of the fore-and-aft axis of the airplane to the vertical in the free-flight investigations of the N.A.C.A. It is believed that the instrument will also have an important application in mapping by means of airplane photography, as well as a military application in bomb-dropping and in other cases where a stabilized sight or its equivalent is required.

Parker Biplane.

Tests are now in progress on the Parker biplane combination consisting of one stream-line wing and one wing of a standard section. The wind-tunnel tests of lift, drag, and center of pressure of model having a stream-line section have been completed. The models of the standard section are not yet available for test.

VOL. 1 - No. 3 OFFICIAL USE ONLY - NOT FOR PRESS USE

AIR SERVICE NEWS LETTER

Information Group
Air Service

October 25, 1919

Building D
Washington, D.C.

ACTIVITIES OF TRAINING AND OPERATIONS GROUP

The following information is furnished as being of interest to Air Service Commanding Officers:

BORDER SITUATION

Assignment, Personnel & Planes

The following is the status of units scheduled for Border Operations and those marked with an asterisk are now actively engaged in Border operations:

	Com.	Enl.	Planes On hand	Planes Avail.
Bombardment Group				
Headquarters, El Paso	9	0	0	0
11th Aero Squadron, Flight A, at Marfa	10	41	6	5*
" " " Less Flight A, at El Paso	18	98	9	7*
96th " " Flight A, at Douglas	9	48	6	4*
" " " Less Flight A, at El Paso	15	99	8	6*
Detach. 55th Telegraphic Battalion	3	6		
Photographic Section	0	7		
Headquarters, Kelly	6	26		
20th Aero Squadron, at Kelly	20	116	14	14
166th " " " "	20	119	14	13
Surveillance Group				
Headquarters, at Kelly	4	43	0	0
8th Aero Squadron, Flight A, at McAllen	11	53	10	5*
" " " Less Flight A, at Laredo	10	64	9	7*
12th " " at Kelly	9	106		
90th " " Flight A, at Eagle Pass	12	35	10	8*
" " " Less Flight A, at Kelly	8	96	11	4
464th Construction Company, at Eagle Pass	6	111		
9th Aero Squadron, at San Diego	31	132	12	11*
5th Air Park Company, at Kelly	8	141	26	6
Pursuit Group				
Headquarters, Kelly	7	47		
27th Aero Squadron, at Kelly	4	143	25	4
94th " " " "	4	137	22	5
95th " " " "	5	143	22	4
147th " " " "	5	141	22	4
Total of all units - - - - - -	234	1952	224	70
" No. of " actually operating on Border -	116	570	70	53

Troop Movements

Flight A. of the 9th Aero Squadron, consisting of eleven (11) officers and forty (40) enlisted men, left Rockwell Field, October 14th, for Calexico, California for the purpose of photographing the mountains between that point and Yuma and conducted the Border patrol as well. The B. Flight remains at Rockwell to patrol from Rockwell to Jacumba.

Operations

The plane in which Lieutenants Peterson and Davis were lost on August 10th was returned to El Paso - no parts missing - plane being salvaged.

Equipment

Canteen forwarded to the Supply Group recommending the purchase of six (6) canteens similar to the one now being used by Major Ocker in the "Honeymoon Express" be forwarded to the D.A.S.O., Southern Department, for trial on the Border.

PROJECTS

Patrol - Langley Field to Hazelhurst Field

On October 13th Captain Clearton H. Reynolds, Commanding Officer, 88th Aero Squadron, at Langley Field, was in conference with the Chief of the Field Operations Section regarding necessary maps for the patrol and necessary authority for reconstructing DeHaviland-4's to have 4-hour fuel capacity. A memorandum was written the Supply Group, Property

DISTRIBUTION OF MODIFIED DE HAVILAND-4 AIRPLANES(Designated De Haviland-4-B Planes)

On October 15th a memorandum was forwarded to the Supply Group recommending the distribution of the new De Haviland-4-B airplanes, as follows:

For Border at San Antonio	125
" Coast Defense at Langley Field	50
" Forest Patrol and Border at Rockwell	25
" " " at Mather Field	25

There are now sixty-four (64) completed at the factory of one of the contractors and these should be shipped immediately to the Border.

STATUS OF LIBERTY MOTORS ON HAND

Basing an estimate on twenty-three (23) squadrons of thirteen (13) Liberty motored planes each with the necessary additional planes for D.A.S.O.'s reserve units and schools, it was found that 500 planes will be kept in active operation this year. With 100% spares in motors, this will mean 1,000 motors in active operation. With 100% replacements (1,000 motors) it will bring the total to 2,000 motors and it is recommended that based on this recommendation 2,000 motors be held in reserve, thus making a total of 4,000 motors for the 23 squadron status

Based on active operations on the Border, the 16 observation squadrons of 19 planes each, and 8 bombardment squadrons of 19 planes each, it is found that, following the above course of estimating, 3,648 planes would be necessary, this including the reserve.

CO-OPERATION WITH ARTILLERY AT LANGLEY FIELD

On October 15th a memorandum was prepared for Major Kirby covering the present status of Air Service units at Langley Field and the proposed work of same in connection with the firing of the heavy artillery guns and howitzers at Fortress Monroe.

ACTIVITIES IN THE CANAL ZONE

Two photographic and co-operation flights were made to assist the Coast Artillery and the Engineer Corps in the construction of a military road thru unexplored country.

The area explored is located about twenty-five miles southwest of Balboa on the coast of Panama, and comprises about thirty-five square miles. This country is a blank on all maps and as far as is known, no white man has ever made any records of it.

KELLY FIELD ACTIVITIES

The following is a Consolidated report of the activities of the various departments of training for the week ending October 10, 1919.

AERO MOTOR DEPARTMENT.

(A) Liberty Motor Intensive Training Class in first week of intensive training. One Enlisted Man added to this class this week. A class of (21) Enlisted Men on Liberty Motor Special Training was started October 6, (5) more Enlisted Men were added October 7, making a total of (26) Enlisted Men in this class. Hispano-Suiza intensive training is in its fifth week. (21) Enlisted Men are to Graduate this date. (5) Hispano-Suiza Motors are being torn down and re-

paired by students. (3) Instructors are added to the roster of this department.

(B) In the Magneto Laboratory a class of (26) Enlisted Men was given instruction in Liberty ignition. (2) Liberty six volt batteries were overhauled, re-flushed, and re-charged. (2) Berling magnetos were overhauled and re-tested, (1) Automatic switch was installed in the pump house. (1) Bosh SEV was overhauled and tested. (1) 60 amp. Willard 6 volt battery was re-flushed and re-charged. (1) 2 volt Willard torn down and overhauled.

(C) Class of (8) Enlisted Men and (1) Officer given intensive training in Liberty-Zenith Carburetors. The Claudel Carburetor, from one of the Hispano-Suiza Motors, (French Manufacture) was dis-assembled to observe principles of operation. A retort to determine heat points of various oils was completed.

AIRPLANE DEPARTMENT.

(D) (9) Students were assigned to this department Oct. 8, 1919. By order of the Commanding Officer. They will be given the regular Airplane Course. These men are now taking preliminary wood work.

(E) Previous to this time the Department was divided, half of the men were assisting the Engineering Department in the rigging of the SE5 and Le Pere Airplanes recently received at the school and half were re-tipping propellers and doing necessary wood work on Airplanes.

FLYING DEPARTMENT.

(F) Two Officers from Kelly Field #2 are assigned to this department to complete the regular R.M.A. instruction.

(G) Due to inclement weather there has been no instruction this week.

(H) Four Officers were checked off on DeHaviland Planes.

FIELD AND HANGAR DIVISION.

(I) The ships being in Flying condition, there has been little work in the Hangar. The men have been unloading and storing Fokkers in Hangar #12.

(J) One of the Le Pere Planes was tested by Major Stratemeyer and found to be in good condition.

GENERAL

(K) Interesting exhibitions of wrestling and boxing in which A.S.M.S. men took part were held during the week at Kelly #2. Regular Foot Ball practice is progressing.

(L) A general policing of the whole field takes place each Saturday Morning.

FATALITIES IN TRANSCONTINENTAL RACE

Seventy-four (74) airplanes were entered for the transcontinental reliability test. Five (5) airplanes were involved in accidents that resulted fatally to one or more of the occupants. Two (2) airplanes entered in the contest were wrecked and fatalities occurred prior to the start of the test.

Four (4) of the accidents recounted below were due to stalling close to the ground and inevitable slip of the wing, which could not be righted before

the plane crashed to the ground. Bad flying weather and errors in judgment are also supplementary reasons for the accidents.

A number of minor accidents occurred in which there were no fatalities or serious injuries to passengers. Several airplanes were forced to land on account of snow, rain and fog. In several instances these landings on strange fields resulted in damage to the airplane and minor injuries to the occupants. Some airplanes were wrecked on the regular airdrome when wheels or axles gave way, but in general no injuries to aviators resulted.

October 8th, 1919

Major D. H. Crissey and Sgt. 1st Class V. Thomas were killed at Salt Lake City as a result of a crash in a DH-4 airplane. Major Crissey was piloting and stalled his airplane when gliding into the field; he slipped off on a wing from an altitude of about 150 feet, the airplane striking the ground engine first. Major Crissey was crushed between the engine and gas tank, and his passenger was killed by the shock.

October 8 th, 1919

Sgt. W. H. Nevitt, passenger in a DH-4 Bluebird, was killed at Deposit, New York. Colonel Brant was piloting and was forced to land on account of a broken oil lead. On the last turn into the field the motor cut out entirely and the airplane slipped and crashed to the ground. Sgt. Nevitt had both arms and a leg broken. Colonel Brant was only slightly injured. Final report on the accident has not been made, but it is believed that Sgt. Nevitt was riding in the front seat between engine and gas tank.

October 9th, 1919

1st Lt. E. V. Wales, flying from the west in transcontinental test, during a snow storm between Rawlins and Cheyenne, flew into a canyon of Elk Mountain. His only chance of safety was to turn back as the mountain was too high to cross in straight climb. He stalled on his turn and the ship slipped off and crashed before he could recover flying speed in the new direction. Ship was a total wreck, but Lt. Goldsborough, riding in rear cock pit, was not seriously injured. Lt. Wales was in front seat between engine and gas tank.

October 10th, 1919.

M.S.E. Worth C. McClure was killed in DH-4 when riding as a passenger with Major A.L. Sneed in transcontinental reliability test. Sgt. McClure, on approaching the field at Buffalo, got out of cock pit and slid back on fuselage for purpose of weighting machine and bringing it to a quick stop. The airplane landed heavily on its wheels and Sgt. McClure was thrown from the fuselage and was killed by the shock of striking the ground. If Sgt. McClure had not attempted to climb out of cock pit no fatality would have occurred.

October 15th, 1919

2nd Lieutenant French Kirby and S. C. Miller were both killed in DH-4 airplane near Evanston, Wyoming, during transcontinental test. No one connected with the Air Service witnessed the accident, but ranchers in the neighbor hood state that apparently the motor stopped when plane was up several thousand feet because it was seen to descend in spirals until within about two hundred (200) feet of the ground. Reports would indicate that the ship stalled and slipped on the wing and could not be righted before reaching the ground. The ship struck the nose on and Lieutenant Kirby was killed instantly and Lieutenant Miller died in a few hours.

Prior to the start of the transcontinental test, two prospective contestants on their way to New York were victims of fatal airplane accidents.

October 4th, 1919

Major Patrick Frissell enroute from Dayton, Ohio to Mineola in a DH-4 was forced to land at Middletown, N.Y., in order to get his bearings. A ground haze had arisen and Major Frissell, not knowing where he was, landed in this section of New York state which affords but few landing fields, and the plane turned over on the rough ground and Major Frissell was crushed between the engine and gas tank. His passenger in the rear seat was badly shaken up.

October 5th, 1919

Colonel T. F. Dodd enroute from Langley Field to Hazelhurst in a DH-4 for the purpose of entering the transcontinental test, was killed at Bustleton, Pa., when he crashed into a tree on the Postal Mail Field at that place. Colonel Dodd had remained overnight at Bustleton. On the day of the accident he took off for New York, but returned and landed on account of foggy weather. He overshot the field in landing and presumably did not see the tree on the edge of the field, as he hit same dead center and going at high speed. The gas tank, directly behind him, held his body in position while the motor was driven back and the front of the cock pit gave way and pinned him against the gas tank. Death was caused by shock and strangulation. The mechanic riding with Colonel Dodd received only a shake up.

AERIAL PHOTOGRAPHIC WORK AT CAMP BENNING, GA.

By direction of the War Plans Division of the General Staff, the making of an aerial photographic mosaic of Camp Benning, Columbus, Ga., has been started and is now under way. The mosaic will cover an area of about two hundred square miles and will be used by the Corps of Engineers in making a "plan directeur" map of the Camp. In addition to the photographs which will compose the mosaic, detailed aerial views will be made of the various military works on the Reservation which will be used as illustrations in connection with the instruction to be given officers on photographic interpretation, camouflage and kindred subjects.

A mobile field photographic unit was especially organized at Langley Field for these photographic operations at Camp Benning. The Unit is under command of Captain Albert W. Stevens, A.S.A., and includes Aerial Photographic Section No. 7, of which Second Lieutenant Winfield S. Hamlin is the Officer in Charge. A landing field has been established at the Camp and the Unit is equipped with two photographic DH-4 planes, portable tent hangars, and a photographic motor truck and darkroom trailer. It is interesting to note that the DH-4s have been rebuilt at McCook Field to better meet photographic requirements. The fuselage of the plane has been deepened and the dual control and interfering cross wires have been removed. By reason of these changes a camera can be installed in front of the observer and another behind him. The cameras are inserted and removed through the movable cowl on the top of the fuselage. The type of camera being used is the new K-1 automatic film camera, 18 x 24 cm. in size, fitted for both ten and twenty inch lenses. As soon as one roll of film is exposed, the second camera is started and operates while the observer changes the film in the first. In this manner the photography is uninterrupted throughout the flight and the number of pictures taken depends solely on the flying time of which the ship is capable.

The flying is being done by Second Lieutenant Lewis McSpaden, an experienced photographic pilot, and Captain Stevens is performing the work of the photographic observer. It is believed that the adaptation of the plane to photographic requirements, the carrying of two cameras and the use of film enabling a large number of exposures to be made without interruption will enable this photographic expedition to complete the work with a greater degree of accuracy and a higher standard of efficiency than has heretofore been possible.

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VOL. 1 - No. 4 AIR SERVICE NEWS LETTER

Information Group
Air Service

October 31, 1919

Building D
Washington, D.C.

JUST HOW GASOLINE FUNCTIONS IN AIRPLANE ENGINE

Revised by: J. L. Kulp, A.M.E.

An exposition of what gasoline is, told for the benefit of the oil man whose training is practical rather than technical, of how it functions in a airplane motor engine and what may be expected as regards its future supply, is to be found in the accompanying article prepared by J. L. Kulp, a technical engineer connected with the Air Service.

Believing, however, that, in the series of questions brought up by Mr. Kulp and answered by himself in the course of the article, there are many points in connection with motor fuel that the average oil man is called on to answer in his dealings with the Engineer Officer, it has been deemed worthy of publishing here.

The following eight popular questions regarding gasoline, often asked of an oil man by the field personnel, are answered in this article by a technical expert with the Air Service.

1. What is Gasoline?
2. How does gasoline function and what do we expect it to do in an airplane engine?
3. What substitutes are there for gasoline; and why has gasoline not been replaced by a substitute?
4. What causes the dilution of lubricating oil and how can it be prevented?
5. Is gasoline of today the same as the gasoline of seven or eight years ago?
6. What is the limit to which the "lowering" of quality can proceed?
7. What part will kerosene play: why does it not come into favor with the help of modern re-heating and vaporizing devices?
8. What will be the airplane fuel of the future?

The problems that arise out of the motor fuel situation are twofold in character, namely, technical and economical. Both present formidable fronts to the automotive engineer and to the petroleum refiner, and both have been solved, so far, by gasoline in a way that has been in general, quite satisfactory. And unless there are radical and unforseen changes made either in the economic situation with regard to the production of other fuels for motors or in the construction of the automotive engines, gasoline will continue to propel the majority of the world's airplanes and internal combustion engines. This conclusion is dictated by and based upon the experiences of the past ten years, for within that time Americans, not to consider European scientists and engineers have given their best thought to the solution of both phases of a situation which they foresaw was destined to affect the social, commercial and, as the war proved, political aspects of the world's activities.

It is the purpose in writing the present article to discuss briefly the more common motor fuel questions of the day, some of which are big and broad in scope, and some more specific and technical.

What is Gasoline?

Gasoline is essentially a product of petroleum. It is composed of hydrocarbon compounds, containing usually from 83 percent to 86 percent of carbon, the remainder being hydrogen. Spread in thin layers it is completely volatile in a time within the patience of the average observer. When agitated with air it is vaporized readily in sufficient quantities to form an explosive mixture. Ignited at the surface in an open container or when spilled on the ground it will burn fiercely, but without any danger of explosion. It is not explosive except when mixed with air in definite proportions (1.5 percent to 6 percent) and such mixture brought in contact with a hot electric spark, match flame or similar flame of high temperature.

All gasolines are mixtures of the so-called hydrocarbon compounds of which there may be present several distinctly different families. For example, they may be saturated compounds, that is, compounds containing the maximum percentage of hydrogen; such are the paraffine compounds; or unsaturated compounds as the ethylene and acetylene hydrocarbons; or ring compounds of which benzol is the parent member; or cyclic hydrocarbons, common particularly to Russian oils. To a degree the free burning qualities of gasoline are dependent on the proportion of hydrogen contained, as also is the caloric or heat value. This may be appreciated on consideration of the facts that carbon alone has a heat value of 14,220 heat units per pound compared to 62,032 units per pound for hydrogen. At the same time incomplete combustion may result in the deposition of carbon in the form of soot, coke or sludge; but hydrogen, being a gas, if liberated and unburned, passes out freely in the exhaust.

Compounds belonging to the same family have in general the same chemical characteristics, but the members of one family, are very different chemically from members of other families. Paraffine or saturated, straight chain hydrocarbons, for example, are not easily oxidized or affected by acids or ordinary chemical reagents. On the other hand, unsaturated and ring compounds are readily attacked by reagents especially sulphuric acid. Physically, however, all the compounds are different, even members of the same families; different in specific gravity(gravity) viscosity or fluidity, flash or boiling point and also in their commercially less important properties.

Since gasoline is composed of many compounds and since these compounds have different boiling points, gravities, etc., it is readily seen that the mixture will have no fixed boiling point, as for single substances like water, alcohol, or the individual hydrocarbons, but that gasoline will have a boiling "range" starting at about the boiling point of the most volatile constituent and ending near the boiling point of the heaviest, or least volatile constituent. The term "about" is used because in solutions of different compounds, as in gasoline, the behavior, with respect to boiling, of any compound is influenced by all the other compounds.

There are several commercial grades of gasolines, each made of groups of different compounds, altho sometimes these groups considerably overlap. Use determines the grades, which vary from the so-called petroleum spirit of 88 degrees gasoline, being less than .65 as heavy as water, tho 86°, 74-76°, 68-70°, 64-66°, and so on to motor gasoline, which is made according to boiling point or volatility specifications and in which gravity is a secondary consideration. The properties that gasoline should possess to constitute a good airplane gasoline are determined by what it must do.

How does gasoline function? What do we expect it to do in the airplane engine?

What do we expect airplane gasoline to do? Gasoline, to behave entirely satisfactorily in the airplane must possess properties which enable it to do two things.

First, mix readily (quickly and freely) with air, in the carburetor, in a finely divided (vapor) state, making such a mixture to prevent its subsequent deposition as dew in the manifold or cylinders of the car. The mixture with air should be homogeneous and so proportioned as to be explosive. It is the property of gasoline to form explosive mixtures readily, even in very small quantities as $\frac{1}{2}$ percent, that enables us to start easily in cold weather when all liquid fuels are difficult to vaporize. Fuels, therefore, which are required in larger proportions with air are initially troublesome.

Second, burn quickly, simply, and completely. We give gasoline but about 1/400 part of a second in which to burn in the airplane engine. If combustion is slower than this power is lost and an accompanying "knock" rapidly depreciates the bearings. The fuel must burn in a straight forward way without complicated or secondary reactions, otherwise we have again the "knock", this time brought about by the very high pressures resulting from these secondary reactions, and quite rapid destruction of the motor ensues. And it must burn completely, otherwise we again have loss of power, poor economy, bad odor to the exhaust and possibly a fouling of spark plugs, exhaust valves and muffler by carbon.

The whole matter of gasoline consumption in the airplane engine is very like that of food by human beings, our food must be thoroughly masticated-chewed up-by the teeth, if it is to produce best results. This is the "carburetion" process with us; bad teeth or careless chewing are like bad carburetor design or operation and poor results (indigestion or poor combustion) follow. Poor food, like tough, woody beets or asparagus, which cannot be thoroughly chewed and therefore give poor results, is like poor gasoline or motor fuel which even a good and perfect gasoline carburetor cannot break up finely enough. With such fuels results are unsatisfactory. Now the other end of the process is the digestion of the good in the stomach, comparable to the combustion of the gasoline vapor in the engine cylinder. Food requires time to digest, gasoline to burn; food requires digestive fluids, gasoline requires proper air mixture and ignition temperature (hot spark). As there are two essential technical differences between foods, namely nutritive value and readiness of assimilation, so with gasoline we have differences (usually unimportant) in heat valves, and very real differences in their readiness of assimilation (speed of combustion, or flame propagation). Recall that if the fuel does not burn in 1/200 of a second, power is lost and if it contains components which do not unite readily with oxygen without large excesses of air, combustion is poor and power is lost. We must have good mastication (carburetion) and good digestion (combustion) for good results.

<u>What substitutes are there for gasoline, and why has gasoline not been replaced by a substitute?</u>

There are none. That is, there is no fuel for the 40,000 airplane engines in this country comparable to gasoline. Kerosene is hard to "masticate" in the carburetor (and even with pre-heating devices gives rise to undesirable deposits) and difficult to "digest" in the cylinders, causing a "knock" the result of intermediate reactions. Alcohol is not the fuel because, first, we have very little of it; and, secondly, its proper use requires compression pressures greatly in excess of those common to the airplane engine. The supply of benzol is very limited-indeed the amount available is but about 5 per cent of our yearly consumption of gasoline; furthermore, it has been shown that engines using pure benzol or association compounds must be operated at a maximum power to get economical and carbon-free results. Pilots commonly do not use over 40 per cent of the power of their engines. Coal gas, naphthalene and other substances have been discussed as gasoline substitutes but none is to be seriously considered at this time.

There are no substitutes for gasoline ! Nothing to be found in enormous quantities (nearly three billion gallons per annum); nothing to start motor so quickly, to burn so completely, to be so concentrated and so universally available. Other fuels may have in this or that direction, some minor advantage over gasoline, but for the present day airplane engine, gasoline will take the highest average on a fair and complete examination.

WHAT CAUSES DILUTION OF LUBRICATING OIL AND HOW CAN IT BE PREVENTED

In the first place the dilution of lubricating oil in the motor is a change which takes place in many airplane engines and its causes are known. It is not a myth, or the results of occult influences or other strange processes and it is apt to lead to serious results.

It is not due to the formation of water by the burning of poor gasolines !

The dilution or thinning of lubricating oil is primarily due to the admixture of raw gasoline, liquid products of the partial combustion of gasoline or other light petroleum distillates getting into and decreasing the viscosity (body) of the oil. A secondary cause may be the decomposition of part of the lubricating oil which is brought in contact with the very hot under sides of the pistons; which process, however, while producting gas and light oils which would thin the lubricant, also forms coke or other carbonaceous products which tend to thicken (gum up) the oil .

Dilution of the lubricant is a serious matter in that it jeopardizes the bearings. In the beginning the refiner selects for the lubricant, a viscosity high enough to withstand the terrific pounds which the cylinder explosions bring upon the bearings. Usually this viscosity is ample, with a good margin of safety. However, as the dilution, from whatever cause, of the lubricant proceeds this factor of safety is gradually decreased until we approach the point of insufficiency of "body" to protect the bearings. (This point is seldom reached in practice. Bearing destruction usually follows, not from lack of viscosity, but from lack of oil of any body, due to insufficiency of supply in crank case or supply tank, or stoppage in the circulation due to dirt, carbon, or clogging the oil ducts. This last named is the primary reason for the need of regular and periodic cleansing of the lubricating system.)

Lubricating oil acts toward gasoline very much as a sponge acts towards water. It absorbs it. Consequently we must aim to keep gasoline or other light petroleum distillates away from our engine's lubricating oil. And the dilution of oil by gasoline is a two-fold loss, for besides depreciating the lubricant, the gasoline is wasted. It comes from the fuel tank via the carburetor as does the remainder of the fuel and is the result of incomplete combustion in the cylinder. It may be because the mixture is too rich, or the fuel has "heavy ends" hard to burn, or the fuel is not "speedy" enough for the engine, or the "choke" was held open too long or too frequently thus letting into the cylinder large quantities of raw gasoline. In all events this diluting medium most likely came from the engine cylinders and slipped down past the piston rings into the crank case. It thins the oil, it lowers its flash and fire points and makes itself generally undesirable, even to the extent, we understand, of causing on rare occasions, explosions in the crank case.

The remedy for this trouble, or for excessive trouble in this direction (for we may always expect a little admixture of the two materials), is to be found in a judicious use of the lubricants, not too much with splash feed system; a careful attention to the gasoline and air mixture, not rich; and a selection of gasoline which will be readily and completely "assimilated."

V-1140

A.S.

E. Lester Jones,	Colonel, A.S.A.
Carl A. Miller	Captain, A.S.A.
John H. McCawley,	Captain, A.S.A.
Edmunds Easters,	First Lieutenant, A.S.A.
William D. Irvine,	First Lieutenant, A.S.A.
Donald G. Keeble,	Captain, A.S.A.
Victor B. Caldwell,	Second Lieutenant, A.S.A.
Van Winkle Todd,	First Lieutenant, A.S.A.
James Moore,	Second Lieutenant, A.S.A.

MORE R. M. A.'s

The following officers have been rated as Reserve Military Aviators:

1st Lieut. Carl B. Fry, A.S.A.	January 17, 1919
2nd Lieut. William E. Vogelback, A.S.A.	January 16, 1919
2nd Lieut. Frederick H. Winston, A.S.A.	January 17, 1919
2nd Lieut. Francis J. Winter, A.S.A.	January 16, 1919
2nd Lieut. Claude R. Conklin, A.S.(M.A.)	January 14, 1919
2nd Lieut. Douglas M. Fraser, A.S.(M.A.)	January 13, 1919
2nd Lieut. Francis Jordan Winter, A.S.(M.A.)	January 14, 1919
2nd Lieut. Walter Lee Isom, A.S.(M.A.)	January 13, 1919
2nd Lieut. J. O. Stoddart, A.S.(M.A.)	January 11, 1919
Captain Sylvanus C. Coon, A.S.A.	January 14, 1919
1st Lieut. Adam Truello, A.S.A.	January 18, 1919
2nd Lieut. Marston Campbell, Jr., A.S.A.	January 18, 1919

Col. Joseph C. Morrow, Jr., M.A. and Col. Walter G. Kilner, J.M.A. reported at the D.M.A. from overseas on January 23d.

The following aero organizations have been assigned to early convoy:

11th Aero Squadron
20th Aero Squadron
161st Aero Squadron
169th Aero Squadron
248th Aero Squadron
655th Aero Squadron
656th Aero Squadron
487th Aero Squadron
494th Aero Squadron and
Air Service Casual Co. No. 3

GERMANS FEARED NIGHT BOMBING

Lieut. Van Winkle Todd, of the 103d Aero Squadron, who has just returned from overseas where he was captured and confined by the Germans, reports that when he was made a prisoner, the Germans were almost in a panic due to the work of the Independent Air Force which was doing admirable work. "As far as I could learn", said the Lieutenant, "the night work was very much more effective and the German Intelligence men seemed to fear it, whereas they spoke with contempt of the day bombing".

Lieut. Todd was flying in a Spad formation of three planes, led by Lieut. now Captain Tobin, on August 11th, 1918, between San Mihiel and Beney,

Is gasoline today the same as the gasoline of 7 or 8 years ago?

Gasoline for internal combustion is not the same today as seven or eight years ago. Why this question is ever asked by the field personnel or by any individual is very strange because the answer seems self-evident.

But the result obtained in airplane engines by the gasoline of today is essentially the same as the result of seven or eight years ago, and better. Surer starting, more uniform generation of power, equal or greater power, equal or greater distance traveled on the same amount of fuel and to some degree a lesser hazard in the handling and storage of the product.

Gasoline of the earlier days of motoring was very apt to be straight distillate from the petroleum crude; today, gasoline is a composite of those crude distillates and associated hydrocarbons derived from the natural gas fields, from special distillation processes or from other sources, which have supplied hydrocarbons suitable for admixture with the foregoing. If it were necessary to have, today, gasoline just the same in every respect as that of 1910, one of two things is sure; several million motor cars now in use would not have been made, or many millions of people who now regularly use motor cars would have spasmodic enjoyment of the automobile because of shortage of the fuel supply and a necessarily much higher price. The "greatest good to the greatest number" has been the rule in the manufacture and distribution of motor gasoline. You may find an analogous case in the answer to the question, "How many hides has a cow?" or to the question, "What if everyone demanded sirloin?"

What is the limit to which the lowering of quality can proceed?

Is the end in sight? Have we really reached a technical crisis in the utilization of present-day airplane gasolines in the present-day airplane motor? Who knows ! Nearly every need, up to this time, for improvement in carburetion or ignition has been met by the automotive industries; and every need for greater supply of satisfactory fuel has been met by refiners. And still the end of car manufacture (or its equivalent, the demand for gasoline) is not in sight. In the preceding discussions on "substitutes" the disadvantages of kerosene as a motor fuel were pointed out. Later we shall see that household needs demand that kerosene be not drawn upon for other uses. It is hardly likely, therefore, that much more of the heavier distillates of crude oil coming immediately after the gasolines can be drawn upon the motor fuel without the assistance of some radical change in engine construction, which is not in prospect. Theoretical considerations and practical demonstrations both point to a need for compounds boiling under certain fairly well-defined limits. We may expect, therefore, no material changes in the average boiling point of good airplane motor gasoline.

The increase in output to meet increases in demand, then, may not come directly from the distillation of crude oil; in this important respect there can be little "lowering" of quality or change of grade. Having by years of practical and nation-wide experience reached a reasonable standard of quality it behooves us now to case about to determine how, by additions of allied hydrocarbons scientifically blended, by more careful husbanding of the best petroleum distillates in process of manufacture and by the employment, universally and on a large scale, of special processes for the conversion of high boiling compounds into low boiling compounds, the supply may be increased in proportion to the demand. At all events there is no cause at present for alarm. As the need is made evident it will be filled. Our mechanical facilities for the production of essential compounds are today being used only to a small fraction of our powers, and as more gasoline is needed, more gasoline will be made.

WHAT PART WILL KEROSENE PLAY?

Kerosene is a splendid fuel for many purposes. It is clean, of reasonable odor, concentrated, a gallon being equal in heat value to about 250 cubic feet of gas; it can be made to give light or heat at will; it has numerous miscellaneous uses making it of frequent service; it is comparatively safe to handle and store, its distribution is universal. But kerosene is sluggish in combustion and for the technical reasons discussed under the section on substitutes is unsuited for high speed engine work. Besides, the annual production of kerosene is but approximately one-half of the gasoline production, so that inspite of improvements, in engine design or in pre-heating, vaporizing or other auxiliary devices the assistance of kerosene may be looked upon as only temporarily helping in the solution of the motor fuel problem. Furthermore, it must be appreciated that a very great market exists for kerosene, both at home and abroad-a demand which must be supplied if the comfort and well-being of the peoples of the earth are to be considered.

What will be the motor fuel of the future?

It is perhaps impossible to predict (and foolish to try to predict) what fuel motors in the future will burn. So long as high speed engines are employed (and we must employ them if we want light powerful engines) we must have high speed fuels. This means gasoline, for other petroleum fuels, tho thoro combustion, if given time, are sluggish. But leaving aside technical difficulties we see that if all the coal produced annually in the United States were to be coked (a big assumption) the total production of benzol would not supply half our needs for motor fuel. And to make sufficient alcohol to approach our output of gasoline, the production of alcohol would have to be increased over twenty-five times. We must have gasoline. Note the point ! Gasoline will be needed. The airplane motor engine specification for fuel calls for hydrocarbons containing much hydrogen, and to give thoro carburetion, a complete combustion and efficient utilization, reasonably low boiling material will be needed and made. Compression pressures demand it, for pre-ignition must be avoided, and high combustion temperatures must be maintained; engine speeds demand it, for flame propagation must be nearly instantaneous; multi-cylinder engines demand it, for manifold distribution of fuel without condensation is essential; and the quick start, smooth operation and freedom from auxiliary tanks and accessories demand it.

The gasoline engine, in the aggregate, is the most powerful mechanism in the world. Its reputation has been hard and well earned. It is the gasoline engine, Gasoline is its proper fuel.

ACTIVITIES OF TRAINING AND OPERATIONS GROUP.

The following information is furnished as being of interest to Air Service Commanding Officers:

BORDER SITUATION

Assignment, Personnel & Planes

The following is the status scheduled for Border Operations and those marked with an asterisk are now actively engaged in Border Operations

	Com.	Enl.	Planes On hand	Planes Avail.
Bombardment Group				
Headquarters, El Paso	7	0	0	0
11th Aero Squadron, Flight A, at Marfa	8	41	6	5 *
" " " Less Flight A, at El Paso	11	98	9	5 *
96th " " Flight A, at Douglas	9	48	6	3 *
" " " Less Flight A, at El Paso	14	100	7	5 *
Detach. 55th Telegraphic Battalion	2	6		
Photographic Section	1	6		
Headquarters at Kelly	4	26		
20th Aero Squadron, at Kelly	22	118	14	14
166th " " " "	19	119	14	12
Surveillance Group				
Headquarters, at Kelly	5	35	0	0
8th Aero Squadron, Flight A, at McAllen	11	53	11	7 *
" " " Less Flight A, at Laredo	10	63	9	7 *
12th " " at Kelly	10	104	8	
90th " " Flight A, at Eagle Pass	12	35	10	10 *
" " " Less Flight A, at Kelly	10	92	11	4 *
464th Construction Company, at Eagle Pass	6	111		
9th Aero Squadron, at San Diego	26	132	13	10 *
5th Air Park Company, at Kelly	26	170	26	6
Pursuit Group				
Headquarters, Kelly	3	46	0	0
27th Aero Squadron, at Kelly	5	132	23	7
94th " " " "	4	130	23	18
95th " " " "	5	132	22	5
147th " " " "	6	124	22	5
Total of all units ----------	238	1357	234	123
" No. of " actually operating on Border -----	103	570	71	52

Troop Movement

464th Construction Company, consisting of 5 officers and 2 men, leaving Eagle Pass, Texas, by truck at 9:00 A.M., October 25, for Sanderson, Texas.

Equipment

Letter received from the D.A.S.O., Southern Department, dated October 16th, requesting that three (3) lighting sets in storage at Columbus, New Mexico, be sent to Douglas, Marfa and Laredo was referred to Captain Darby, of the Materiel Section, who stated that the necessary orders transferring this material would be issued by them.

PERSONNEL

A number of requests for transfer orders were submitted to the Administrative Group, Personnel Division, during the week.

DISTRIBUTION OF DE HAVILAND-4's

Memorandum submitted to Lt. Colonel Sherman regarding the distribution of De Haviland-4's which are to be modified into the new De Haviland-4-B's, is as follows:

10 completed DeH-4-B-1 were entered into the transcontinental race and 2 of these were crashed; there is no report on the condition of the other 8.

65 DeH-4-B are in an advance state of completion at the L.W.F. factory.

Of the remaining 225, the Aero-Marine, Callaudet and Thomas Morse Companies have 75 each. Progress on these is not known.

It was intended to distribute these planes as follows:

For Border at San Antonio	170
For Coast Defense at Langley Field	60
For Forest Patrol and Border duty at Rockwell Field	35
For Forest Patrol at Mather	25

CANCELLATION OF FLIGHT FOR GENERAL SERVICE SCHOOL, FT. LEAVENWORTH

A telegram was received in this office from the Commanding Officer, Fort Leavenworth, dated October 25th; advising that the observation flight destined for duty here this Fall, cannot be used due to lack of labor and consequent impossibility to prepare aviation field in time to meet with school schedule. Preparation of the field will continue in order to have it in shape for use next Spring.

The Adjutant General of the Army, attention War Plans Division, Washington, D.C. was also advised of this cancellation by the Commanding Officer, Fort Leavenworth.

TROOP MOVEMENTS

On October 20th, 1 officer and 10 enlisted men, Headquarters Group, were transferred from Park Field, Millington, Tenn., to Langley Field, Hampton, Va.

A. F. Herold,
1st Lieut. A.S.A.,
Act'g Chief, Field Operations
Section.

ACTIVITIES AT KELLY FIELD

The following is a report of the activities of the various Departments of Training for the week ending October 18, 1919:

MOTOR DEPARTMENT

(a) Third week Liberty Motor Intensive Training Class #2. Second week Liberty Motor Special Training Class #2. Sixth week Hispano-Suiza Intensive Training Class with (26) students to graduate this date. Two Instructors added to the roster of this Department. One 200 Hispano Motor set on test block for instruction.

(b) In the Magneto Laboratory one Clerget Magneto was completely overhauled and tested. Four DeDion magnetos were torn down. Four LaMigicienne Magnetos and four S-E-V- Bosh Magnetos torn down. One DeDion magneto was rebuilt and tested. Two La Migicienne magnetos were re-built and tested. Two twelve volt Willard and three eight volt Liberty Batteries were completely re-flushed and charged. Five Eisman magnetos were set up. The connections with the light board re-sorted and fitted.

AIRPLANE DEPARTMENT

(c) Class of (7) men in rigging completed work in, fuselage alignment, wire work, and started motor installation. This class will start rigging DeHaviland ships next week all primary work being completed. Plans are completed for the replacement of some of the more obsolete models of Airplanes in this Department by DeHaviland and SE5 Planes. This will complete the materials on hand so that instruction can be given on any type of ship. One Fokker DE VII has been added to this Department for instruction on foreign types of Airplanes. The rigging Hangars will be re-arranged to give greater efficiency in Instruction.

FLYING DEPARTMENT

(d) A course has been mapped out for instruction of Enlisted Flying Instructors. Five Enlisted Men who have proved themselves specially qualified have been enrolled in this course. Due to inclement weather there has been no flying this week.

FIELD AND HANGAR

(e) The work on the hangar doors is temporarily held up because of lack of canvas. One LePere has been set up and tested and work on the other is stopped because of lack of parts. On Oct. 2 two ships left on a cross country flight (Official) A.S.M.S. ship #47506 had a forced landing which damaged wings and fuselage so that ship was dropped.

VOL. 1 - No. 5

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

November 7, 1919

Building D
Washington, D. C.

November 3, 1919.

BORDER SITUATION

Assignment, Personnel and Planes

The following is the status scheduled for Border Operations and those marked with an asterisk are now actively engaged in Border Operations:

	Com.	Enl.	Planes On hand	Planes Avail.
Bombardment Group				
Headquarters, at El Paso	6	0	0	0
11th Aero Squadron, Flight A, at Marfa	8	41	6	6*
" " " Less Flight A, at El Paso	20	98	9	9*
96th " " Flight A, at Douglas	9	48	6	4*
" " " Less Flight A, at El Paso	20	98	9	8*
Detach. 55th Telegraphic Battalion	2	6		
Photographic Section	1	7		
Headquarters, at Kelly	3	26		
20th Aero Squadron, at Kelly	23	109	14	13
166th " " " "	21	113	14	10
Surveillance Group				
Headquarters, at Kelly	4	33		
8th Aero Squadron, Flight A, at McAllen	11	53	8	7*
" " " Less Flight A, at Laredo	10	63	9	5*
12th " " at Kelly	10	90	16	0
90th " " Flight A, at Eagle Pass	10	35	10	4*
" " " Less Flight A, at Kelly	7	77	11	10
104th " " at Kelly	14	117	21	19
1st Wing Headquarters, at Kelly	5	46	3	3
464th Construction Company, at Sanderson(no report)				
9th Aero Squadron, at San Diego	27	132	13	10*
5th Air Park Company, at Kelly	8	166	26	6
Pursuit Group				
Headquarters, at Kelly	7	39	0	0
27th Aero Squadron, at Kelly	4	122	23	4
94th " " " "	4	119	23	5
95th " " " "	5	125	22	5
147th " " " "	6	117	22	5
Total of all units ----------	245	1880	265	133
Total Number of units actually operating on Border--------	115	568	70	43

PERSONNEL

During the week only such transfers and travel orders were requested as were absolutely necessary for the good of the service, owing to the limited appropriation for mileage in this quarter.

TROOP MOVEMENTS

Requests forwarded October 31st for the movement of records, without personnel, of the 2nd Aero Park Company from Ellington Field to Kelly Field.

OPERATIONS REPORTS

Bolling Field has been directed to submit one (1) report for the entire activities of the 10th and 99th Aero Squadrons, owing to the fact that the squadrons at this station are not operating as independent units.

PATROL FROM LANGLEY FIELD TO HAZELHURST FIELD

Equipment - Requests have been made that the Engineering Department at Langley Field be authorized to make changes in four (4) ships each of the 55th and 88th Aero Squadrons to increase their gasoline capacity so they may have a 4-hour radius of flight. These ships are to be used on patrols from Langley Field to Hazelhurst Field (non-stop).

DISTRIBUTION OF MODIFIED DE HAVILAND-4 PLANES

Letters were forwarded October 30th, as follows:

(a) To Aero Marine Plane and Motor Company of Keyport, N. J., instructing them to ship seventy-five (75) airplanes from their factory to the Supply Officer at Kelly Field.

(b) To the L. W. F. Engineering Corporation at College Park, N.Y., instructing them to ship the remaining sixty-four (64) airplanes to the Supply Officer at Kelly Field. The other eleven (11) airplanes have already been delivered to the Supply Officer at Hazelhurst Field.

(c) To the Gallaudet Airplane Corporation at East Greenwich, R.I., instructing them to ship airplanes, as follows:

9	to	Supply	Officer,	Hazelhurst Field, Mineola, L.I.
15	"	"	"	Rockwell Field, San Diego, California.
20	"	"	"	Post Field, Fort Sill, Oklahoma.
20	"	"	"	Langley Field, Hampton, Va.
11	"	"	"	Bolling Field, Uniontown, D. C.

HISTORY OF FIELDS

A letter was written to each of the fields, coming under the jurisdiction of the Operations Division, requesting that a history of the field activities since its inauguration, together with any souvenir publications which may have been issued, be sent to this office.

INSPECTION OF MUNICIPAL LANDING FIELD AT WINSTON-SALEM, N. C.

A report has been made on inspection of the landing field at Winston-Salem, N.C., and the talk between the representatives of the Board of Trade of that City and an Air Service Officer regarding the future possibilities for such a field.

PROJECTS

The following projects were assigned to this Section on October 31st, and preliminary work is now being carried on:

(a) Training of Air Service personnel in Air Service units during the months of December, January and February (this Winter).

(b) Training of ground troops (Infantry, Artillery and Cavalry) to be covered in school courses at the different airdromes in the Spring and Summer of 1920.

(c) Detailed instructions prepared for Air Service units as to the operations reports and other information that should be prepared in tactical units. Plans are to be drawn up for the forwarding of specifications of a standard operations room.

V-1173
A S

DISTRIBUTION OF PAMPHLETS

Such pamphlets are being forwarded the 1st, 5th, 9th, 50th and 135th Aero Squadrons as to bring their file of pamphlets up to date. These pamphlets are being forwarded by the Information Group (as per a request from this Section) to the above squadrons by mail.

EQUIPMENT FOR EDUCATIONAL INSTITUTIONS

A copy of a Bill before Congress circulated thru this office to-day, same having been before the House, October 29th, and covered recommendations of Secretary of War Baker for such changes in Article 56 of H. R. 7123, which is identical to S-3676, as to allow the furnishing of equipment to any educational institution having a course in Aeronautical training approved by the Secretary of War.

DISTRIBUTION OF DE HAVILAND-4's

The distribution of De Haviland-4's which are to be modified into the new De Haviland-4-B's, is as follows:

10 completed DeH-4-B-1 were entered into the transcontinental race and 2 of these were crashed; there is no report on the condition of the other 8.

65 DeH-4-B are in an advance state of completion at the L.W.F. factory.

Of the remaining 225, the Aero-Marine, Gallaudet and Thomas-Morse Companies have 75 each. Progress on these is not known.

It is intended to distribute these planes as follows:

U.S.B-1 (long distance reconnaissance)
110 gal. gasoline capacity, Hazelhurst Field 10

U.S. B 84 gal. gasoline capacity, Kelly Field.....175

U.S. B 84 gal. gasoline capacity, Hazelhurst Field. 10

U.S. B 84 gal. gasoline capacity, Rockwell Field.. 15

U.S. B 84 gal. gasoline capacity, Post Field..... 20

U.S. B 84 gal. gasoline capacity, Mather Field.... 15

U.S. B 84 gal. gasoline capacity, Langley Field... 20

U.S. B 84 gal. gasoline capacity, Bolling Field... 15

U.S. B 84 gal. gasoline capacity, Aberdeen..... 10

Unallotted..... 10

TOTAL..... 300

CANCELLATION OF FLIGHT FOR GENERAL SERVICE SCHOOL, FT. LEAVENWORTH

A telegram was received in this office from the Commanding Officer, Fort Leavenworth, dated October 23rd, advising that the observation flight destined for duty there this fall, cannot be used due to lack of labor and consequent impossibility to prepare aviation field in time to meet with school schedule. Preparation of the field will continue in order to have it in shape for use next spring.

The Adjutant General of the Army, attention War Plane Division, Washington, D. C. was also advised of this cancellation by the Commanding Officer, Fort Leavenworth.

TROOP MOVEMENTS

On October 20th, 1 officer and 10 enlisted men, Headquarters Group, were transferred from Park Field, Millington, Tenn., to Langley Field, Hampton, Va.

Several vacuum food containers were ordered to the border for practical tests and report.

ACTIVITIES OF KELLY FIELD

1. The following is a report of the activities of the various Departments of Training for the week ending October 25, 1919:

MOTOR DEPARTMENT

(a) Progress of classes,
Third week Liberty Motor Intensive Training Class #2,
Third week Liberty Motor Special Training Class #2
First week Liberty Motor Intensive Training Class #3,
First week Hispano-Suiza Intensive Training Class #2,

(b) One Liberty Motor is being tested for the Flying Department.

(c) In the Carburetor Laboratory Theoretical instruction was given to Special Liberty Motor Class #2, lecture included Carburetor troubles, care and adjustment of the Zenith Aeronautical Carburetor and the proper care and adjustment of Carburetors in general under Field conditions.

(d) In the Magneto Laboratory two Exide batteries were repaired and fully charged, eight Liberty batteries were repaired and six were charged, one Exide battery was partly repaired. A Westinghouse rectifier was repaired.

AIRPLANE DEPARTMENT

(e) Class of seven men in Airplanes to graduate this week from a short course in Airplanes. These men have been rigging DeHaviland 4 Airplanes and are completing the installation of the Liberty Motor.

(f) A Fokker Landing gear and axle plane is being repaired in the Wing Repair and Fabric Department.

(g) Three propellers are being re-tipped in the Propeller Department.

(h) Several Standard, Thomas Morse, and Curtiss JN4A ships were stored in order to make room for more DeHaviland and SE5 planes in preparation for specialized courses.

V-1173, A.S.

(i) Curriculums are being drawn up in preparation for the classes that are expected November 1, 1919.

FIELD AND HANGAR DIVISION

(j) Work on Hangars is still held up on account of the lack of canvas.

(k) Motors in LePere and one JN4D are being changed.

(l) On Oct. 22 a Fokker was tested out by Lieut. Davis but ship was not put in commission.

(m) On Oct. 22 JN4H in which Lieut. Hyndshaw was carrying Sgt. McGonnigal as a passenger crashed. The motor cut out when the ship was about seventy-five feet in the air. On account of the condition of the field ship is being torn down on the field. The ship will be dropped and motor put in reserve.

and he succeeded in shooting down a biplane machine only to have his own controls shot away and fall, out of control. He was captured and held for over three months. According to his report, the Germans expressed admiration for our aviators' personal bravery but felt they were inexperienced and rash.

THE A. S. C. A.

Colonel W. A. Bishop, R. A. F. will be entertained at a luncheon party by the Board of Control of the Air Service Clubs' Association, Tuesday, January 28th, at the Army and Navy Club. Colonel Bishop, has received the Victoria Cross, the Distinguished Service Order, the Military Cross, and the Distinguished Flying Cross, and is credited with 72 official air victories by the British Air Service.

MAJOR BIDDLE SPEAKS

Major Chas. J. Biddle, A.S.A., recently commander of the 4th Pursuit Group, A.E.F. delivered a lecture before the National Geographic Society in Washington, January 24th. Following the Major's interesting accounts of the operations of the American Air Service at the front, new moving pictures taken by the Signal Corps in France, were shown, including a picture of "Captain" Biddle and his old Squadron the 13th.

GENERAL LEE RETURNS HOME

Brigadier General Charles Frederick Lee, R. A.F., Chief of the British Aviation Mission, sails for England on the "Adriatic", February 8th. Following his service with the British Expeditionary Force in 1914, 1915 and 1916, General Lee returned to England to command the Training Brigade, R. F. C. He joined the British Mission to the United States on November 30, 1917, as officer commanding the Aviation Mission. His home is Grove Hall, Knottingley, Yorks, England.

VOL. 1 - No. 6

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

November 15, 1919

Building D
Washington, D.C.

ACTIVITIES OF TRAINING AND OPERATIONS GROUP

The following information is furnished as being of interest to Air Service Commanding Officers:

BORDER SITUATION

Assignment, Personnel and Planes

The following is the status scheduled for Border Operations and those marked with an asterisk are now actively engaged in Border Operations:

	Com.	Enl.	Planes On hand	Planes Avail
1st Wing Headquarters, at Kelly	5	46	3	3
Bombardment Group				
Headquarters, at El Paso	5	0	7	0
11th Aero Squadron, Flight A, at Marfa	8	41	6	6*
(Note: 1 observer and 48 enlisted men of 104th Aero Squadron attached)				
11th Aero Squadron, Less Flight A, at El Paso				
96th " " Flight A, at Douglas	9	47	6	5*
" " " Less Flight A, at El Paso	17	108	7	5*
Detach. 55th Telegraphic Battalion, El Paso	1	7		
1st Photographic Section, El Paso	1	7		
Headquarters, at Kelly	4	26	0	0
20th Aero Squadron, at Kelly	16	112	14	12
166th " " " "	19	112	14	10
Surveillance Group				
Headquarters, at Kelly	3	24	0	0
8th Aero Squadron, Flight A, at McAllen	12	54	8	7*
" " " Less Flight A, at El Paso	11	63	9	7*
12th " " at Kelly	11	91	16	0
90th " " Flight A, at Eagle Pass	11	38	10	8*
" " " Less Flight A, at Kelly	9	64	11	10
104th " " Flight A, at El Paso	3	51		
" " " Flight B, at Marfa	9	49	6	6
464th Construction Company, at Sanderson	4	105		
9th Aero Squadron, at San Diego	26	132	14	12*
5th Air Park Company, at Kelly Field	7	164	26	6
Pursuit Group				
Headquarters, at Kelly	5	43		
27th Aero Squadron, at Kelly	5	120	23	4
94th " " " "	6	117	22	5
95th " " " "	5	123	22	5
147th " " " "	7	114	22	5
Total of all units - - - - - - -	219	1858	240	110
Total number of units actually operating on Border - - - - - - - - - - -	94	483	60	50

Cause of 1st Lieut. George W. Puryear's death

1st Lieut. George W. Puryear, A.S., A., R.M.A., was almost immediately killed in airplane accident at Calexico, Calif. Oct. 20th. Plane flown, DH-4 O 32333. Plane totally demolished. Lieut. Puryear was engaged on border patrol duty for this Squadron and had accompanied the second plane of the day's patrol to Calexico with the payrolls for Flight "A". On take-off of return trip, motor cut-out. Lieut. Puryear attempted to regain the field but could not complete the maneuver on account of low altitude and loss of forward speed. Plane struck on left wing and nose and rolled over on to right wing and was completely demolished.

Progress on Lower California Border Mosaic

Five rolls of the Lower California Border of Mexico map has been taken of the Mexican territory about Calexico.

Replacement of 11th Aero Squadron on Border Patrol

Arrangements completed for "B" flight, 104th Aero Squadron, replacing "B" flight of 11th Aero Squadron at El Paso, and "A" flight of 104th Aero Squadron replacing "A" flight of the 11th Aero Squadron at Marfa.

Headquarters, 1st Surveillance Group to El Paso

The Headquarters of the 1st Surveillance Group will move from Kelly Field to El Paso where it will be in charge of Major Walton.

Flight for Sanderson

An airdrome has been selected at Sanderson and the "B" Flight of the 90th Aero Squadron will be sent there to occupy same upon completion of the work of the 464th Construction Company at that point. This fills the gap of our patrol system between Eagle Pass and Marfa.

Landing Field at Camp Stanley

A plot of ground has been inspected at Camp Stanley and permission received for the use of same. The 464th Construction Company upon its completion of the work at Sanderson will proceed to Camp Stanley for the preparation of this field.

Landing Field at Fort Ringgold

Instructions have been issued to let a contract for enlarging the field at Fort Ringgold. The field should be ready about the middle of November and liaison work with the troops at that point may then be expeditiously carried out.

Observers' Schools

Observers' Schools are now established and in operation at McAllen, Laredo, Marfa, El Paso and Douglas.

Liaison Schools

A Liaison School at McAllen is being conducted with men from McAllen, Brownsville, Sam Fordyce and Ft. Ringgold attending.

Liaison exercises are being performed at Laredo with the 37th Infantry.

Liaison school continues operation at Eagle Pass.

Six (6) successful Infantry exercises and one (1) successful Cavalry exercises have been carried out at Douglas in the past month.

PHOTOGRAPHY AT CAMP BENNING, GA.

A telegram of October 31st from Captain A.W. Stevens at Camp Benning advised that the apparatus is working entirely satisfactory at that point and twenty (20) per cent vertical photographs of Camp Benning have been completed, in spite of rain and cloudy weather.

A detailed report and sample photographs were mailed this office on October 31st.

TROOP MOVEMENTS

464th Construction Company, consisting of five officers and one hundred five enlisted men, arrived at Sanderson November 4th, and started to work building camp.

Headquarters, and 104th Aero Squadron, Flight "A", consisting of three officers and fifty-one enlisted men, enroute November 6th, to El Paso, Texas.

104th Aero Squadron, Flight "B", consisting of one officer and forty-seven enlisted men enroute November 6th, to Marfa, Texas.

Headquarters and "A" Flight of the 104th Aero Squadron, consisting of three officers and fifty-one enlisted men, arrived at Ft. Bliss, Texas, from San Antonio, Texas, November 6, 1919.

Information received in this office that the Adjutant General ordered the movement of the 2nd Air Park from Ellington Field to Kelly Field by letter of November 4th.

2nd Aero Squadron is scheduled to sail from San Francisco to Manil on transport sailing December 5, 1919.

LANDING FIELDS IN VICINITY OF CAMP UPTON AND CAMP DIX

The D.A.S.O., Eastern Department, reported on November 3rd that aerial photographs and contour maps had been obtained for possible landing fields in the vicinity of Camp Upton and that a report will be made on same on November 6th. A similar investigation in the vicinity of Camp Dix is now under way and a report will be submitted within a few days.

Letter of November 6th from D.A.S.O., Eastern Department, advises only one (1) field available in vicinity of Camp Upton, which is located at Smith's Point L.I. An aerial mosaic of this field and the surrounding country has been made, and supplementary ground photographs are to be forwarded to this office with recommendations and statements as to the facilit

PAMPHLETS

Request made for 200 mimeographed copies of each of the following pamphlets:

Pamphlet No. 2: "Liaison of Artillery"
Pamphlet No. 4: "Air Service Liaison"
Pamphlet No. 5: "Liaison with Infantry"
Pamphlet No. 7: "Regulations for Operations Officers"

It was further requested of the Information Group that in order to ultimately furnish each officer of the Air Service with copies of these pamphlets and to have same on file of each Air Service station, 2,000 copies of each of the above pamphlets be printed in a size similar to the "Provisional Drill Regulations in Infantry" so as to allow the carrying of same in the pocket of the officers' blouse.

PATROL - LANGLEY TO HAZELHURST

Memorandum of November 6th from Supply Group advises that the Commanding Officer at Langley Field has been directed to make changes in four (4) airplanes each of the 88th and 50th Aero Squadrons in order to give them 4-hour fuel capacity for making continuous flight between Langley Field and Hazelhurst Field.

RETENTION OF HANGARS IN SUPPLY

The following recommendations were sent to the Supply Group, this date, as to the hangars to be retained by the Air Service:

	Quantity	Type	Weight
(a)	100	RE-7 Light Portable Tent Hangar, 60 ft. front	1,000 lbs.
(b)	118	English Bessonneau Wood and canvas hangars, Type H, 79 x 66 ft.	8½ tons
(c)	200 Frames	(Alban-Richards wood and canvas hangars, (Type A, 72 x 41 ft.	7 tons
(d)	400 Covers	(For same.	
(e)	98	Alban-Richards wood and canvas hangar, Type B, 130 x 60 ft.	20½ tons

This estimate is based on the number on hand at present and is made on the basis of requirements for the initial equipment of any expeditionary force which might be sent from this Country.

KELLY FIELD ACTIVITIES

1. The following is a consolidated report of the activities of th various departments of Training for the week ending November 1, 1919:

MOTOR DEPARTMENT

(a) Report of classes-

(1) 5th week intensive training, Liberty Motor Class No.
(2) 4th Week Special Training, Liberty Motor Class No. 2.
(3) 2nd Week Intensive Training, Liberty Motor Class No.
(4) 2nd Week Intensive Training, Hispano Suiza Class No.
(5) 1 Officer and 5 Enlisted Men, Intensive Training. Liberty Motor Class No. 2 to be graduated this date.
(6) 50 Enlisted Men of the Hispano Suiza Class No. 2, to be transferred to the Airplane Department this date.

(b) In the Carburetor Laboratory 28 students were given 14 hour instruction in Carburetion, including the origin of oils and gasoline, grade used and reasons therefore.

(c) In the Magneto Laboratory Class of 15 Enlisted Men were giv instruction and examination on the "Dixie" 800 Magneto.

(2) Class of 1 Officer and 8 Enlisted Men given instructi in probable troubles encountered in Liberty Ignition.

(3) 1-6 volt 15 amp. hr. Willard Battery fully recharged flushed.

(4) 1-6 volt 60 amp. hr. Exide Battery fully recharged an flushed.

(5) 1-6 volt 50 amp. hr. Willard Battery fully recharged flushed.

(6) 4 Liberty Batteries fully recharged and flushed.
(7) 1 24 volt Willard Battery torn down and rebuilt.
(8) 1 Dixie Magneto completely overhauled and tested.

AIRPLANE DEPARTMENT

(d) In the propeller department a Fokker Propeller has been checked and varnished.

Three propellers are being copper tipped for the flying Department.

Instructors not required on other duty are rigging an SE5A for the Flying Department.

A number of work benches from Hangar No. 8 were stored in preparation for students that are expected November 3, 1919.

FIELD AND HANGAR DIVISION.

(e) The work on the Hangars is temporarily held up because the canvas for the doors is not the right size.

(f) New motors are being installed in LePere No. 42145 and Curtiss JN4D No. 47509.

(g) On Oct. 24, the JN4D in which Lieut. Corbett was carrying Sgt. McComas as passenger was forced to land on account of the jets in the carburetor becoming clogged. The propeller was damaged and a few holes torn in the fabric on lower wings. A new propeller has been fitted and the ship is now in flying condition.

(h) About nineteen hours flying time has been done by Officers getting in their time.

GENERAL

(i) Preparations are being made for the instruction of the students expected here in the near future.

VOL. 1 - No. 7

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AIR SERVICE NEWS LETTER

Information Group
Air Service

November 22, 1919

Building D
Washington, D.C.

ACTIVITIES OF TRAINING DIVISION NOVEMBER 15, 1919

BORDER SITUATION

Assignment, Personnel and Planes

The following is the status scheduled for Border Operations and those marked with an asterisk are now actively engaged in Border Operations:

	Com.	Enl.	Planes On hand	Planes Avail.
1st Wing Headquarters, at Kelly	5	48	3	3
Bombardment Group				
Headquarters, at El Paso	5	0	7	0*
11th Aero Squadron, Flight A, at Kelly	4	124	6	6*
" " " Less Flight A, at El Paso	5	4	9	8*
96th " " Flight A, at Douglas	10	47	8	7*
" " " Less Flight A, at El Paso	11	102	7	5*
Detach. 55th Telegraphic Battalion, at El Paso	1	7		*
1st Photographic Section, at El Paso	1	11		*
Headquarters, at Kelly	4	11		
20th Aero Squadron, at Kelly	8	120	14	13
166th " " " "	18	121	14	12
Surveillance Group				
Headquarters, at Kelly	3	18		
8th Aero Squadron, Flight A, at McAllen	13	64	9	7*
" " " Less Flight A, at Laredo	11	63	9	6*
12th " " at Kelly	13	114	16	0
90th " " Flight A, at Eagle Pass	11	47	10	6*
" " " Less Flight A, at Kelly	9	63	11	10
104th " " Flight A, at El Paso	11	50		*
" " " Less Flight A, at Marfa	10	59	9	9*
464th Construction Company, at Sanderson	4	107		
9th Aero Squadron, at San Diego	26	132	12	12*
2nd Air Park Company, at Kelly		1		
5th " " " " "	7	163	36	7
Pursuit Group				
Headquarters, at Kelly	5	44		
27th Aero Squadron, at Kelly	6	122	23	4
94th " " " "	6	118	22	5
95th " " " "	5	123	22	5
147th " " " "	6	117	22	5
Total of all units	218	2000	269	130
Total no. of units actually operating on Border-	119	710	86	66

Troop Movement

One (1) Captain, two (2) Lieutenants, A.S., twenty-three (23) enlisted men, A.S., of the 12th Aero Squadron, and one (1) enlisted man of the Medical Corps Detachment, from Scott Field, Belleville, Ill., November 6th, P.M., and November 7th, enroute to Kelly Field, in compliance with letter from A.G.O., dated September 27th.

Headquarters of the 11th Aero Squadron, with four (4) officers and eighty-seven (87) enlisted men left Fort Bliss, Texas, at 10:00 A.M., November 7th, enroute to San Antonio, Texas, arriving at their destination November 10th.

The records of the 2nd Air Park and one (1) enlisted man, assigned to same, arrived at Kelly Field from Langley Field on November 12th. This unit is authorized as a permanent unit in the Air Service.

NOTE: See page four(4) for Operations.

Radio Communication on Border.

The D.A.S.O., Southern Department, in a letter to General Mitchell, under date of October 22nd, outlined plans for the establishment of radio communication from Brownsville to Yuma. The completion of the station at Sanderson will make the communication over this territory possible and with the exception of two (2) ships being sent to Tuscon, all stations will be regular border patrol stations.

Hospital Ships for Border

A telegraphic request has been received from the D.A.S.O., Southern Department, for authority to rebuild not more than four (4) De-Haviland-4 planes into hospital ships. Specifications and plans were requested and the matter was approved in this office and forwarded to the Medical Division of the Administrative Group for comment and recommendation.

A letter was prepared in this office on November 13th approving request of the D.A.S.O., Southern Department, for authority to rebuild as hospital ships four (4) DeHaviland-4 planes. The Officer in Charge of Medical Research Laboratory at Mitchell Field, Mineola, L.I., has been collecting plans for airplane ambulances from various Air Service Stations, with a view of selecting the best plans and forwarding them with recommendations to this office. He has been communicated with and instructed to send, at once, to the D.A.S.O., Southern Department, any plans he may have received for the conversion of the De Haviland-4 planes into airplane ambulances.

On November 14th a second letter was prepared for the D.A.S.O., Southern Department, similar to the one of November 13th, but granting approval only on condition that plans as chosen in the Southern Department, are approved by our Technical Section.

Authority is being withheld from the D.A.S.O., Southern Department, for the rebuilding of four (4) DeHaviland-4 planes as hospital ships pending the information from Mitchell Field as to any plans which have been laid for the adaption of the De Haviland-4 for this hospital work. A report is expected in the Medical Division of the Administrative Group on this situation today.

Acetylene Flood Lights

A letter was forwarded to the D.A.S.O., Southern Department, on November 10th, notifying him that a number of portable acetylene lights (Milbourne Carbide), are on hand and available should he wish some in his Department. He was directed to inform us as to the number of lights intended for each field, and to advise us of any experience he may have had with these lights at the fields previous to the present date.

Transportation

A copy has just been received in this office of a letter of September 26th, from the Adjutant General's Office, regarding motor transportation for the Air Service, in which a stated policy is given under "Border Situation".

Transportation is allowed as was allotted in the 1918 (A.E.F.) Tables of Organization, "Series F". A certain amount of authority is granted Department Commanders for the assignment of additional equipment, where circumstances require same.

For extraordinary emergencies, transportation should be obtained by temporary loans from the Department Motor Transport Corps. In the letter was given the normal allowance for the different Air Service units authorized by the General Staff.

LONG DISTANCE SQUADRON AT HAZELHURST FIELD

The recommendations of Colonel Archie Miller of Hazelhurst Field, are being studied in this office, with a view of incorporating them in final form with the project being drawn up in this office, same having to conform with the available ships authorized for this unit. There are, at present, only four (4) Martin Bombers and six (6) DeHaviland-4 planes available, which will decrease the size of the units to two (2) flights, and at the same time, decrease the commissioned and enlisted personnel.

LONG DISTANCE SQUADRON AT MITCHEL FIELD

The 1st Aero Squadron, stationed at Mitchel Field, is to be used as the "Long Distance Squadron", having as equipment, four (4) Martin Bombers and six (6) DeHaviland-4 airplanes.

Letter written Commanding Officer of Mitchel Field, giving instructions for the organization of the "Long Distance Squadron", and includes a 9-weeks' schedule of training for same, which will be started immediately upon the organization and equipment of the 1st Aero Squadron, which is designated for this work. These instructions will probably be forwarded on November 15th.

FOREST PATROL

Major A. D. Smith completed a 14-day inspection trip October 18th, upon which he covered the forest area of the states of Washington, Idaho, Montana and Wyoming - a total distance of approximately 2400 miles was covered in 23 hours and 55 minutes, flying time, during which, sixteen (16) localities were visited, including Yellowstone National Park. A DeHaviland-4 was used and an average altitude was 12,000 feet, with the exception, when crossing Yellowstone Park, where the altitude was 15,000 feet.

THE 91ST AERO SQUADRON

The organization of the 91st Aero Squadron is progressing rapidly at Mather Field. Major W. A. Robertson has arrived to command same and efforts will be made to make this unit entirely mobile.

ALLIED FLYERS CLUB AT BERKELEY, CALIFORNIA.

This Club has been organized by former Army and Navy Aviators and its members include fifty-one (51) pilots, who are officers in the Reserve Corps, thirteen (13) pilots who have signified their intention of joining the Reserve and thirteen (13) Naval Officers who are desirous of joining the Army Reserve.

LONG RANGE COAST ARTILLERY OBSERVATION AT FORT STORY, VIRGINIA.

Observation of firing at 22,000 yards with 14-inch railway guns began October 28th, with the use of Powers Artillery Spotter.

Further observation made October 29th and 30th.

It has been found possible to install receiving apparatus on the DeHaviland-4 airplane giving satisfactory results under unfavorable conditions for receiving messages from a distance of nearly 30 miles, even though the airplane was going away from the sending station. It is expected that, under favorable conditions, messages with the present apparatus can be received at a distance of at least 50 miles.

Further problems will be fired with 12-inch Howitzers and 8-inch guns. Two (2) days of good weather will complete the work.

Lieut. Paul K. Yost, who is in charge of this work, recommends that goniometric stations be located at Langley Field for the purpose of further instruction and practice of the flying personnel at that point.

ORDNANCE RESEARCH AT McCOOK FIELD

Research work on the 2.95" cannon, for airplane use, has been transferred to McCook Field in order that suitable ship for its mounting may be constructed. This cannon was tried out in August, 1918, and has not had any further testing since that date. It was forwarded to McCook Field on October 27, 1919, where Captain Skinner of Ordnance Department is to take charge of the development.

ACTIVITIES IN HAWAII

Numerous flights were made in reconnaissance of landing field and message dropping field during October in order that same might be available for the October maneuvers which started October 15th and were scheduled to last two (2) weeks.

ACTIVITIES IN PANAMA

Photographic work in connection with the Department of Engineers surveys continues. Numerous reconnaissance flights were made in October for the purpose of locating landing fields for maneuvers and emergency.

BORDER SITUATION (CONT'D)

Operations

Telegrams sent Department Air Service Officers, Southern and Western Departments, advising them to cut down their telegraphic operation reports, leaving out the matters dealing with materiel and personnel.

In connection with the above abbreviation of telegrams, letters were forwarded to the Southern and Western Departments giving them a code to be used in order that their daily telegraphic reports may be as short as possible.

KELLY FIELD ACTIVITIES

1. The following is a consolidated report of the activities of the various departments of Training for the week ending November 8, 1919:

AERO MOTOR DEPARTMENT

(a) Training of Students,

5th week Special Training, Liberty Motor Class No. 2.

3rd week Intensive Training, Liberty Motor Class No. 3.

3rd Week Intensive Training, Hispano-Suiza Class No. 3.

(b) Carburetor Laboratory,
8 Students given course of 14 hours each in Carburetion, including the method of obtaining gasoline and Lubricating oils, with the refining process for each.

(c) Magneto Laboratory,
51 Batteries transferred from Hangar No, 6 to Laboratory.
2 Berling Magnetos completely overhauled and tested.
6 - 6 volt Exide Batteries fully re-flushed and charged.
5 school magnetos overhauled for instruction work.
4 Dixie magnetos (800) overhauled and tested.
Class of 8 students given 14 hours instruction on Liberty Ignition.

AIRPLANE DEPARTMENT

(c) 51 Students admitted November 3, 1919 are being given a condensed course in wood work, fabric propellers, and rigging and general maintenance of Airplanes.

(1st week of three week course)
Instructors in wire and metal work and rigging are completing preparations for instruction of students, to begin Monday November 10, 1919.
(d) Propeller Department,
One SE5 propeller copper tipped and checked. Completed Nov. 5, 1919. Returned for checking with hub. Being held to re-bore hub.
One Fokker Propeller tracked. Completed Nov. 6, 1919.
One Fokker propeller tracked. Completed Nov. 5, returned for Copper tipping Nov. 6, 1919.
One Hispano Model E propeller, and one SE5 propeller being held to complete copper tipping.

ENGINEERING DEPARTMENT

(e) The work on the Hangars is still held up on account of the canvas for the doors not being the right size.
A new motor is being installed in JN4D No. 47493.
On Nov. 3, 1919, the JN4D No. 47491 in which Lieut. Engle was carrying Private B. Lawf as passenger was forced to land on account of carburetor trouble. When ship was examined after crash the sediment plugs in carburetor were found missing. The ship was about 50% damaged.
On Nov. 5, 1919 the JN6HG in No. 45163 in which Lieut. Minter was carrying Lieut. Stromme as passenger was forced to land on account of the motor cutting out. Wings, rudder and propeller were badly damaged. The motor will be sent to the Motor Dept. for testing.

GENERAL.

(f) Reorganization of Training Department and the separation of the Engineering and Flying Departments from the Training Department is now in effect. More efficient work can be done by all departments due to this reorganization as it permits them to specialize completely in their own work. Efficiency in administration is promoted by this change.
(g) The football team is now practicing at Kelly Field No. 2. Teams from both fields will constitute a main team for the post.

(h) General inspection of the entire field was held on Wednesday, November 5, 1919. Activities of all departments were stopped in the morning. The inspection was held by the Commanding General of the Southern Department.

ITALIAN SERVICE RIBBONS

Forty-eight officers of the Air Service and one officer of the Medical Reserve Corps detailed to the Air Service have been authorized by the Italian Minister of War to wear the Italian Service Ribbon, instituted by Royal Decree 641 May 21, 1918, according to a communication from the Chief of the Air Service, A.E.F. The officers named have returned to the United States and so their official certificates from the Italian Government have been sent to the Division of Military Aeronautics for distribution.

The names and home addresses of the officers follow:

CAPTAINS

Edmund A. Kruss, San Diego, Calif.
Oliver B. Kiel, (Medical Reserve Corps) No address

SECOND LIEUTENANTS

Paul H. Cresswell, Cedarville, Ohio.
William J. Flynn, Detroit, Mich.
Hugh J. Gaffney, Jersey City, N.J.
Richard Goodman, Philadelphia, Pa.
William M. Malcom, Hartford, Conn.
Thomas J. Mitchie, (No address)
Raymond W. T. Ricker, New Durham, N.H.
Herman Schmidt, 2813 N.Cap.Washington, D. C.
Horace S. Stevens, (No address)
John A. Posy, "
Lawrence D. Messner, Wilkinsburg, ?
Lawrence J. Joseph, Galveston, Texas.
John W. Cannn, (No address)

FIRST LIEUTENANTS

Lawrence,N. Campbell, Owatonna, Minn.
Wallace H. Carpenter, Duluth, Minn.
Robert P. Clarke, Jr., Sewickley, Pa.
Leman O. Conley, Penn Yan, N. Y.
Frederick G. Dodge, Genesee, N. Y.
Ross R. Dunn, Noblesville, Indiana.
Horace Drever, Philadelphia, Pa.
Thomas F. Fielder, Spartansburg, S. C.
Bicknell Hall, Jr., Taunton, Mass.
George S. McKey, (MacKey) Chicago, Ill.
Edward B. Mayer, Iowa City, Iowa.
Edward M. Malley, Greensburg, Pa.
Willard S. McKay, Plainfield, N. J.
Edward M. Ogden, Rochester, N. Y.
Charles P. Penney, Buffalo, N. Y.
David S. Pruitt, Bethany Beach, Del.
Earl D. Rankk, Overbrook, Pa.
Samuel S. Robinson, No address.
Lawrence G. Sherman, Brattleboro, Vt. (D.C.
Horace L. Stevenson,157 U St.,Washington,
Oliver H. Stout, Indianapolis, Ind.
Verlie Van Zele, Genesee, Ill.
Paul J. Wedel, Jersey City, N. J.
George O. Wright, Fort Valley, Ga.
Linus V. Windnagle, Portland, Oregon.
William P. Young, Clearfield, Pa.
Clarence M. Young, Des Moines, Iowa.
Walter T. Mayer, (Meyer) Columbus, Ohio.
Walter M. Boadway, Princeton,, N. J.
Lester B. Cowgill (No address)
Hugh D. Stier (Stark) Pittsburgh, Pa.
George N. Nyland, (Hyland) Philadelphia, Pa.
John N. Devoe, (No address)
Frank C. Cox. "

(l) Civilian Instructors added to this school during the past week. There are at present nine in the Aero Motor and Airplane Departments. These men are being selected from the best Enlisted Instructors in this school who have been previously discharged.

(j) Officers in this school are systematically diversifying their flying on several types of ships thereby increasing their general value to the Air Service.

VOL. 1 - No. 8

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

November 29, 1919

Building D
Washington, D.C.

ACTIVITIES OF TRAINING DIVISION

BORDER SITUATION:

Troop Movements:

By indorsement, the Adjutant General ordered on November 15th, a movement of, approximately, 194 enlisted men and all medical officers and enlisted men of the medical department now at Chanute Field, Rantoul, Illinois, to Kelly Field, San Antonio, Texas, for assignment to duty.

Move of Flight "B" of the 9th Aero Squadron

The Commanding General, Western Department, ordered a move of Flight "B" with squadron headquarters, from Rockwell Field to March Field, for the purpose of investigating the mobility of the unit. The move was ordered for November 15th.

Hospital Ships for Border.

After extensive co-operation in the matter of hospital ships to be modeled from the DH-4 airplane, a letter was prepared and sent to the Executive for signature, including the following points:

(a) DH-4 is not a suitable ship to be used as hospital ship.
(b) The Curtiss Training Plane is more adaptable to this type of duty, and authority is given the Department Air Service, Southern Department, to plan for the use of Curtiss Planes in this work, providing such plans as he may choose are satisfactory to the Technical Section, and approved by the Technical Section, before he starts changing any ships.
(c) A Summary of experience throughout the United States in the matter of using Curtiss Planes as Hospital Ships, was given as an extract from a report of the Medical Research Laboratory at Mitchel Field.

OPERATIONS:

Daily Telegraphic Reports reduced, and now are sent exclusive of data concerning the personnel and equipment, while full daily reports are being made on a "Special Delivery" form.

Observers and Liaison Schools are being conducted in practically all of the Border Units now in active tactical operation.

Operations Report No. 4, of November 15th, from the 96th Aero Squadron, reports that a problem with the 82nd Field Artillery failed, due to the fact that an officer furnished by the Artillery, to act as observer, quit working in the middle of the problem, apparently, from the report, due to no special reason or cause.

Resulting from a letter from the Adjutant General, regarding aviators crossing the Border, instructions were forwarded the D.A.S. Officers of the Southern and Western Departments, cautioning them to check all compasses and to furnish the flying personnel with proper maps in an effort to minimize the chance of aviators crossing the Border.

PATROL - LANGLEY TO MITCHEL FIELD:

Letters, such as our letter of October 7th, directing operations of this nature, shall be known as "Orders of Operation", commencing with letter of October 7th, and letter forwarded November 17th revising somewhat instructions of the letter of October 7th, and the latter known as "Orders of Operation No. 2", changes made as follows:

(a) Two planes will be used on every patrol.

(b) Patrols leave Langley on Mondays and Thursdays at 10 A.M. instead of "9 A.M."

(c) Weather Bureau can furnish telegraphic reports of weather conditions at 8 A.M. each day at:

Sandy Hook,
Atlantic City,
Delaware Breakwater,
Norfolk.

Instructions sent Mitchel Field in "Orders of Operation No. 3" on November 17th, directing a weekly patrol of two planes to Langley Field, leaving Mitchel Field on Wednesdays at 10 A.M. and returning from Langley Field on Thursdays at 1 P.M.

VOCATIONAL TRAINING IN UNITS:

A regular school is being conducted at Bolling Field, attendance compulsory, with approximately forty (40) students from the enlisted men who are being taken away from their regular work and placed in the shops during the course. It is planned to rotate the personnel of the school until all the personnel has been thru this course and considered as trained mechanics. No educational work is being carried on at present. Same was specified as being voluntary and none of the enlisted personnel chose to request same.

At Aberdeen, vocational training and educational training are both voluntary, and work is being conducted there at night, devoting three (3) nights, of 2-hours each, per week to the work. A representative of the Inspector General's Department visited Aberdeen and was satisfied with their method of carrying on this work.

It was found that all instructions for this work had been contained in General Orders and Bulletins from the General Staff, the latter being for the purpose of reference in carrying on the work; all requirements as to instruction being included in the General Orders. A request has been made an the Information Group for this material and a report will be submitted in the near future.

WINTER TRAINING & TACTICAL UNITS

Preliminary draft of Instructions, Curriculum and Schedule of Winter Training in tactical units for December, January, February and March, of this winter, prepared. This requires three hours of work per day, five days each week.

MAIL SERVICE TO ALASKA

Project prepared for the establishment of "Mail and Small Package Service between Seattle, Washington and Alaska.

A preliminary on the Aerial Mail Route for Alaska was forwarded from the D.A.S.O., Western Department and will be studied in conjunction with the project, in this office.

CROSS-COUNTRY RECONNAISSANCE EFFICIENCY TEST

Efficiency test was conducted from San Francisco on Armistice Day, of six Liberty-motored planes, each flying in a different direction from San Francisco to points, all of which were the same distance, and made the return the same day.

Pilots to fly a compass course to the town, circle the railroad station, fire Very Pistol and return to San Francisco.

In determining the order of finishing in the race, this formula of flying was used:

Distance in miles, divided by time in minutes, multiplying by 25, divided by the number of gallons of gasoline consumed, This gave the comparative figures ranging from 193 per cent where 13.6 gallons per hr. were used, to 114 per cent where 27.4 gallons per hour were used.
The formula from which the performer's percentage was obtained, was designed to require the pilot to fly at the most efficient speed of the motor.
No one flew under 1500 R.P.M.
It is believed the test is a good one to demonstrate the pilot's ability to navigate a straight course, and at the same time to fly his motor at the most economical speed.

CRITICISM OF OPERATIONS REPORTS

This continues in an effort to have all Operations Reports as complete as possible in giving us the desired information for our records.

WATER HEATERS FOR AIRPLANE COOLING SYSTEM

A memorandum forwarded to Technical Section requesting a design of a portable water heater, of 30 to 50 gallon capacity, to be equipped with pump for filling radiators with warm water, in cold weather.

STANDARD OPERATIONS ROOM

General specifications for an operations room being drawn up in this office, now about 30 per cent complete.

4th AERO TO HAWAII

Letter forwarded November 20th, to the A.G.O. requesting orders for the 4th Aero Squadron to Hawaii, on the January 4th Transport, the organization to consist of, approximately, ten (10) officers and one hundred twenty (120) men.

It has recently come to the attention of the Mechanical Instruction Branch that Materiel Division, Supply Group, has for disposal surplus airplane materiel from Overseas and from the Air Service Fields in the United States which can be utilized as excellent materiel at the Air Service Mechanics School. This materiel which includes the latest type planes and which would ordinarily be salvaged, will effect a great saving in procuring up-to-the-minute instructional equipment at the Mechanics School, Kelly Field.

VOL. I - No. 9

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

December 6, 1919

Building D
Washington, D.C.

ACTIVITIES OF OPERATIONS DIVISION

BORDER SITUATION

Troop Movement

Pursuant to instructions, War Department, A.G.O., November 15th, 17 enlisted men and 4 medical detachment, left Selfridge Field at 12:35 P.M., November 21st, enroute to Kelly Field. It is expected that they will arrive on, or before, November 27th.

Hospital Ships for Border

Engineering Division, notified that they should expect plans to be submitted from the Southern Department for their approval, in order that the Southern Department may rebuild some DH-4's, or Curtiss planes, into hospital ships.

Military Maps for Border

Letters forwarded the Department Air Service Officers of the Southern and Western Departments, Nov. 26th, requesting the status of Military Maps on the Border, both as to what has been accomplished and what is contemplated on the subject.

WINTER TRAINING IN TACTICAL UNITS

Instructions are being written to the different fields, exclusive of Border Units, directing the installation of a course of training in the units for the months of December, January, February and March.

STANDARD OPERATIONS ROOM

Specifications for standard Operations Room prepared November 26th and submitted for criticism.

PATROL BETWEEN LANGLEY FIELD AND MITCHEL FIELD

Two (2) DH-4's were ready to depart from Mitchel Field for Langley Field at 10:00 A.M., on Wednesday, November 26th, for the pioneer trip of the weekly patrol to be established between these two (2) fields; same was held up on account of the weather.

Memorandum written on November 25th requesting the Information Group to arrange for Weather Bureau Reports at Sandy Hook, Atlantic City, Delaware Breakwater and Norfolk, each morning at 8:00 A.M., the same to be submitted to the Commanding Officers at Langley Field and Mitchel Field.

CRITICISM OF OPERATION REPORTS

Criticism was offered in the form of letters written to Commanding Officers, this week, bringing out the errors in the manner in which operation reports are being prepared for this office. It is hoped that these reports will be coming in in a satisfactory manner in the very near future, altho some time is required to educate the personnel in all the units as to the manner of preparing these reports.

V-1297
A.S.

ASSIGNMENT OF FIELDS

Resulting from information prepared in this Section, the following requests were sent out to the Administrative Group by the Chief of this Division, on November 28th:

Attached is the latest information this Group has on the status of fields. It is requested that a new order be issued on this subject, and the designation of the following fields changed from inactive to active:

Mitchel Field	McCook Field
Godman Field	Pope Field
Mather Field	

Request that the following fields be changed from active to inactive:

Selfridge Field	Park Field

Request that the following fields now under Training be designated as noted:

Rockwell Field to Aviation Repair Depot, Supply Group.

Tactical units, Rockwell Field to Operations

Kelly Field #2 to Operations

Mitchel Field to Operations.

PARACHUTES

This Section has been advised that there are 411 parachutes ready for shipment to the Air Service and the information was forwarded to Lieut. Kendall for action, recommending that they be distributed as follows:

300 to San Antonio (For Border service)
111 to Fairfield, Ohio (For distribution in tactical units on Border)

WATER HEATERS

Resulting from memorandum submitted regarding oil and water heaters, a memorandum was submitted recommending that a small 2-wheel water heater, of approximately 50-gallon capacity be used without arrangements for heating oil, owing to the fact that the oil is kept warm by the small flameless heaters that we now have.

RADIATOR AND ENGINE HEATERS

Last September the distribution of Catalyptic Heaters was commenced to the end there should be

400 at San Antonio, Texas
100 at Fairfield, Ohio
100 at Middletown, Pa.

These heaters are available for all Air Service Commanding Officers at points as noted, should the climatic conditions at their stations require same.

FIRING MANUAL

A firing manual is being compiled in this office.

MUNICIPAL LANDING FIELDS

Specifications for municipal landing fields are being revised. There was a little discontent on the part of individuals who had contributed considerable time and effort towards establishing municipal fields, on account of the classification assigned their fields, which, in the average case, was "Emergency". Of course, these individuals thought they should be "First Class", and in every case they were disappointed at the name "Emergency". Efforts are being made to give them a different application with approximately the same classification.

INTERNATIONAL RADIO BOARD REPORTS

The International Radio Board reports (Paris), are bing inspected to determine the changes in code that have to be used. Cooperation in this work is being carried on with the Navy, Post Office, Bureau of Standards and Signal Corps.

VOL. 1 No. 10

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

DECEMBER 13, 1919.

Building D
Washington, D.C.

BORDER SITUATION

Troop Movements

Information Headquarters and Flight "B" of the 90th Aero Squadron arrived at Sanderson, November 29th.

"A" Flight of the 166th Aero Squadron has been ordered to proceed overland to Ellington Field, to be used in adjustment. It was expected that same would arrive at Ellington Field on December 3rd.

Operations

Arrangements have been made with the Coast Artillery at Galveston, for adjustment by airplane at the Fall target practice which begins about December 10th.

From examination of past operation reports, an estimate was submitted verbally to the Engines-Planes & Maintenance Section, Supply Group, that under the present conditions five (5) hours of flying, per day, per flight, was an average for the units on the Border; or, on the same basis, ten (10) hours of flying, per day, per squadron, was an estimate.

Instructions have been issued for the D.A.S.O., Southern Department, to receive his reports from the stations by telegraph and forward us a concise code report by telegraph and a full written report by letter each day.

General Report

A general report on the status of organization, personnel and equipment of Border units was prepared during the week and expected to be ready for submitting in final form to Colonel Milling, this date.

Hospital Ships for Border

Authority has been granted to send a competent Engineer Officer from McCook Field to Kelly Field to supervise the rebuilding of DH-4 planes.

Memorandum has been sent to the Chief of the Engineering Division requesting he designate the Officer.

Emergency Rations

In answer to a memorandum from the Director of Air Service in regard to emergency rations purchased by the Air Service, it is recommended that we obtain sufficient quantity for the present Border Operations, to carry two (2) for each person in the plane.

COAST ARTILLERY FIRING OF ROCKWELL FIELD UNIT WITH ARTILLERY AT FORT ROSECRANS

Note the following report from 2nd Aero Squadron regarding same:

"The following is a summary of a Reglage with Coast Artillery Corps, at Fort Rosecrans. There were three (3) problems as outlined:

(a) First problem; Anchored target, with artillery laying their first shot for both direction and range with data computed from shore station; then used corrections of aerial observer. Problem successful but conducted very slowly, ten to twenty minutes between the volleys.

(b) Second problem: Firing on moving target towed by tug. Very slowly conducted from ground. Ten to twenty minutes between volleys. Impossible to regulate fire from air in such manner. In regulating fire on moving target from the air, battery must fire rapidly and at the command of the observer.

(c) Third Problem: Target anchored, aerial observer gave battery direction and range upon which battery fired first volley with this data. Then made corrections as directed by aerial observer. Got on target very quickly, altho fire was conducted very slowly from ground.

According to the Commanding Officer of Fort Rosecrans, these were the most successful Coast Artillery Corps sheets yet completed in the United States.

Used a DH-4 equipped with both sending and receiving radio sets. Receiving set worked well part of the time."

TRAINING IN TACTICAL UNITS

"Instructions", the "Curriculum" and the "Schedule" of tactical training in units have been forwarded to the following:

9th	Aero	at	Rockwell	Field,
91st	"	"	Mather	"
135th	"	"	Post	"
5th	"	"	Mitchel	"
50th	"	"	Langley	"
88th	"	"	"	"
C.O.	"	of	"	"
6th	"	at	Hawaii	
7th	"	"	Panama	
2nd	"	"	Philippines	
3rd	"	"	"	

Instructions

Preparation for gunnery course in Canal Zone are practically completed, and all flying officers there will be required to take the course; upon completion of same will be given a certain amount of practice each month.

Training

Tactical training of personnel is now running on schedule at McAllen, Laredo, Marfa, Douglas and Kelly Fields.

The 1st Pursuit Group is having daily exercises in formation flying, acrobatics, and "dead-stick" landings. They have fifty-three (53) planes equipped with fifty-three (53) Top Lewis Guns now and are starting aerial gunnery practice; but no report has been received on this as yet.

12th Aero Squadron is still engaged in training enlisted men and getting their ships ready for active service.

SPECIFICATIONS FOR OPERATIONS ROOMS

The specification for operations rooms being prepared in final form in preparation for submitting same to the Information Group to be circulated as an annex to the pamphlet on "Duties of the Operations Officers".

TACTICAL SQUADRONS AT TRAINING FIELDS

A preliminary draft of the method of handling correspondence between the Operations Division and Tactical Squadrons at Training Fields, prepared.

ASSIGNMENT OF FIELDS

The following memorandum sent out December 6th for approval, regarding assignment of fields:

"It is recommended that Orders No. 39, Office, D.A.S., dated September 2, 1919, be amended as follows:

PARK FIELD - From Operations Division to Temporary Storage Depot.
MITCHEL FIELD - To Operations Division.
GODMAN FIELD - From Miscellaneous to Operations Division.
POPE FIELD - From Miscellaneous to Operations Division.
KELLY FIELD #2 - From Training Division to Operations Division.
ROCKWELL FIELD - From Training Division to Operations Division.

It is further requested that the order announcing stations as "active" and "inactive" be amended, to place the following fields on an active status:-

MITCHEL FIELD
McCOOK FIELD
GODMAN FIELD
MATHER FIELD
POPE FIELD

and the following on an inactive status:-

SELFRIDGE FIELD
PARK FIELD

TROOP MOVEMENTS

Orders have been received by the 4th Aero Squadron for its transfer to Hawaii on January 4th, 1920, transport.

ol. I. D. M. A. WEEKLY NEWS LETTER OS 1279

ir Service Washington, D.C. War Department
February 1, 1919

RESTRICTIONS ON AIRPLANE EXHIBITIONS WITHDRAWN

President Wilson has issued, under date of December 16, 1918, a proclamation revoking the proclamation of January 1, 1918, which imposed restrictions upon private airplane exhibitions in the United States.

The proclamation follows:

"BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

" A PROCLAMATION

"Whereas on the 1st day of January, 1918, a proclamation was issued forbidding the exposition of aircraft in the United States or its possessions; and
"Whereas, the reasons requiring such prohibition have ceased:
"Now, therefore, I, Woodrow Wilson, President of the United States, do hereby repeal and annul the said proclamation, and do remove the prohibition therein imposed upon private aeroplane exhibitions.
"In witness whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.
"Done this 16th day of December, in the year of our Lord 1918, and of the independence of the United States of America the 142d.

"WOODROW WILSON.

"By the President:
"Robert Lansing,
"Secretary of State."

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The International Aeronautical Exposition will be held at Madison Square Garden and the 69th Regiment Armory, New York from March 1 to 15.

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GENERAL MENOHER DESIGNED A BRIGADIER

On January 27th, the Senate confirmed the promotion of Charles T. Menoher, Temporary, Major General, National Army, as Brigadier General, Regular Army, General Menoher was announced as Director of Air Service on December 21, 1918.

99TH SQUADRON

The following report was recently forwarded to the D.M.A.

AMERICAN EXPEDITIONARY FORCES
AMERICAN AIR SERVICE
FIFTH CORPS OBSERVATION GROUP

HEADQUARTERS
99TH AERO. OBS. SQDN.
22 November, 1918

SPECIAL ORDER
NO. 61

Now that the enemy has capitulated, it is desired to call attention to the splendid work played by the officers and men of this organization in both the St. Mihiel and Argonne-Meuse offensives.

CLAY PIGEON TRAPS

This office is advised by the Materiel Section that there are now thirty-seven (37) clay pigeon traps in the Air Service - seventeen (17) of which are at the Depot at San Antonio, eight (8) at Hazelhurst, and the rest distributed among the Schools - one, or two at each; and four (4) in the Philippine Islands.

WORK ON SCHEDULE

The following work is being prepared, or is being contemplated:

(a) Study of Mexican situation. (This is a continued study of current information and a portion of the requested data is to be completed, about December 15th.

(b) Revision or additional information to be inserted in telegraphic code to handle specific data of operations reports. (Expected to be completed about December 12th.)

(c) Handling of correspondence for tactical squadrons stationed at training fields.

(d) Standard Operations Report - revision of old forms - more detailed instruction to be sent tactical units. (No priority on this work but it should be out about January 1st.)

(e) Project to survey proposed air route to Alaska. (Preliminary project has been received from the D.A.S.O., Western Department. Letters have been written by the D.A.S.O., Western Department to different towns along the Pacific Coast, requesting information bearing upon such a survey, and the project will not be worked up in this office until receipt of this information.)

(f) Plans of employment for Air Service troops with ground troops, in the nature of exercises for next Spring and Summer. (This will require quite a bit of study and will be completed about February 1st to the 15th.

(g) Revision of the peace and war footing tables of organization, and the compilation of a fire manual are being continued.

(h) Project for forest fire patrols for the year 1920 is being drawn up.

(i) Revision of specifications for municipal landing fields and the project for municipal landing fields, maps and pamphlets, are being continued.

(j) Reports of Commanding Officers offering suggestions on proposed changes on cross-country flight rules issued by this Office, are being received and given due consideration, towards the end of adopting a satisfactory set of rules.

(k) Considerable work is being done on the revision of estimates for combined Air Service.

(l) Project for all cantonments, and Hawaii and the Philippines are still receiving attention.

(m) Work is being continued on the inspection of the International Radio Board reports (Paris). Changes in codes that have to be used. Cooperation is being carried on in connection with the Navy, Post Office, Bureau of Standards, and the Signal Corps.

VOL. 1 - No. 11

OFFICIAL USE ONLY
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AIR SERVICE NEWS LETTER

Information Group
Air Service

December 22, 1919

Building D
Washington, D. C.

ACTIVITIES OF OPERATIONS DIVISION

BORDER SITUATION

Troop Movements

Flight "A" of the 166th Aero Squadron arrived at Ellington Field about December 5th for the purpose of co-operating with the Coast Artillery target practice at Galveston.

Flight "B" of the 9th Aero Squadron, consisting of 12 officers and 69 enlisted men, arrived December 11th at Rockwell Field at 4:30 P.M. by motor truck train from March Field. Five (5) officers arrived by plane at 2 P.M. December 10th.

Training Activities on the Border

Comprehensive reports are being received weekly from the Southern Department, covering tactical training and activities of that Department as requested from this office.

It is found that very extensive instructions are being carried on both for the Air Service Personnel and for the Ground Troops, as regards Air Service matters.

A 5-day Liaison School was scheduled for McAllen which included an extensive exercise with Ground Troops.

The work carried out in the Bombardment Group during the week ending November 29th, included blackboard firing of ten (10) hours and panel exercises from the air for fifteen (15) hours, in preparation for co-operation with Coast Artillery at Galveston.

The Bombardment Group is also carrying out many practice missions and receiving ground instruction on all Air Service subjects.

The 1st Pursuit Group is receiving extensive training in flying; such practice as "dead-stick" landings to a mark and target practice at silhouettes of the plane on the ground. Every opportunity is being taken to give Pursuit Group formation flying, altho a shortage of pilots assigned to the Group prevents much formation work.

The attitude toward training as taken by the Executive in the Southern Department, is of the highest order, and very satisfactory results should be obtained.

Military Maps for Border

Information has been received from the Western Department as to the military maps available for the portion of the Border which will be patrolled by the Western Department units. A map of Southern California has been forwarded this office.

Mobility of Flight "A" and Headquarters of 9th Aero Squadron

The recent test move of Flight "A" and Headquarters of 9th Aero Squadron from Rockwell Field to March Field, proved that two (2) 3/4-ton Ford trucks would be insufficient for a peace-time organization of an Aero Squadron, as one was insufficient for this flight. As two (2) such trucks are authorized, it is recommended by Colonel Arnold and the Supply Group has noted, that two (2) additional trailers (4-wheel) of 1½-ton capacity, carrying 500 gallons, should be added to the tables of organization for units operating on the Border, for such long distances are traveled between filling stations.

STANDARD OPERATIONS ROOM

Specifications for the "Operations Room" were forwarded, December 8th, with the request that 200 mimeographed copies be made and that it be considered an annex or supplement to Pamphlet No. 7, dealing with "Duties of the Operations Officer".

PHOTOGRAPHY AT CAMP BENNING

A letter from Lieut. Colonel H. E. Eames, Infantry, of December 4th, praises the work of Captain Albert W. Stephens, A.S., on the Mosaic on the Rifle Range at Camp Benning. He states that much time and money was saved by his work and same proved to have "astonishing" accuracy - that it was a great credit to Captain Stephens, his pilot and the Air Service.

CLAY PIGEONS AND TRAPS

An estimate submitted to the Supply Group, stating that 10,000,000 clay pigeons will be used in the Air Service, on a 48,000 basis in the next two (2) years. This arrived at from assuming that each Air Service Officer would shoot 25 pigeons per week.

From a distribution of traps received in this office, memorandum was sent to Supply Group requesting that traps be forwarded Langley, Mather, Rockwell and Post Fields. There still remains 15 at San Antonio for distribution among the Border units.

PATROL - Langley and Mitchel Fields

The first reports of this patrol received from Mitchel Field, December 11th, covering patrol of two (2) planes which left that field for Langley Field on December 3rd, returning December 4th.

Owing to a shortage of Observers, "M.S.E.'s" are being used and are turning in these reports in a very satisfactory manner.

This patrol is making intermediate stops at Aberdeen for gas owing to the lack of long distance ships at present, and an emergency stop was made by one (1) of the ships at Fort Howard, with one (1) intermediate stop at Aberdeen.

A distance of 365 miles is being covered in about 3 hours 50 minutes. This time will be shortened materially when the large capacity ships are used.

CLOSED FIELDS

Carruthers Field

It is wished to notify all fliers that Carruthers Field has no longer proper facilities to handle aircraft, and those who have occasion to land in that vicinity, should do so at Barron Field.

In the St. Mihiel offensive, in spite of the unfavorable flying weather and a reduced personnel, this organization during the 12 days, September 8-19 incl., made a total of -109 sorties, with time of 91 hours, averaging 7 hours 35 minutes per day. During this time an average of 17 planes was kept available out of a total of 22.

During the Argonne-Meuse offensive this organization made a total of 308 sorties with total time of 375 hours 27 minutes, making an average, excluding the days when flying was impossible, of 9 hours 25 minutes per day. During this time an average of 15 planes were always available out of 16.

A noticeable increase in efficiency will be observed from the fact that during the St. Mihiel offensive an average of 17 planes out of a total of 22 kept in commission; while during the Argonne-Meuse offensive the remarkable record of an average of 15 available out of a total of 16 planes was made. This increase in efficiency is due, not only to the greater experience over the lines of the flying personnel, but also to the increased earnest and willing endeavor of the mechanicians and entire enlisted personnel of the Squadron.

The record of the Squadron is an enviable one, and should be the pride of every one in the organization.

The Squadron Commander wishes to express his heartfelt thanks to the organization, individually and as a whole, for the excellent record made in the service of its Country.

BY ORDER OF CAPTAIN POWELL:

Edgar J. Driscoll
2nd Lt., A.S., U.S.A.
Adjutant.

DINNER FOR RICKENBACKER

The Contest Board of the American Automobile Association will announce a banquet in honor of Capt. Edward V. Rickenbacker, who is credited with bringing down 26 Bosche planes, on Monday, February 3, 1919. The banquet will be held at the Waldorf-Astoria, New York, and will be limited to 1,000 guests.

ARMY SALVAGE

During the month of December, 1918, the Salvage Division reclaimed and returned to stock for reissue 1,382,397 articles of government issued clothing and equipment at the various camps and cantonments throughout the United States. This amount included 1,185,344 articles repaired by government shops and 197,053 articles repaired by contract.

AIRPLANE AND ENGINE REPAIR

The following is from the "Fly Leaf" of March Field:

All flying officers of this field are now being required to pass examinations in motor and airplane repair as well as cross-country flying. The first class will have finished its course this afternoon.

"SMOKES"

Ninety-five percent of the members of the American Expeditionary Forces use tobacco in some form. It is a part of the regular daily ration but the quantity allowed is not sufficient for the average tobacco user. However, every soldier may buy at the canteens the most popular brands of cigars, cigarettes and smoking tobacco in unlimited quantities and at prices considerably lower than they are sold in the United States.

THRILLING AIR BATTLES

During the last weeks of the allied offensive, prior to the cessation of hostilities, squadrons of de Haviland 9's from both British and American air forces were bombing military objectives in the German towns back of the Hun lines every day and night, despite the opposition put up by the German air squadrons and antiaircraft batteries. This was particularly true in the neighborhood of Saarbrucken, Kaiserslautern, Treves, and Mannheim. Here the British and American planes often had to fight their way 100 miles to their objective through squadron after squadron of fighting Hun machines; and then, after dropping their bombs, have had to fight their way back the whole 100 miles to their own lines.

Recent reports received at the headquarters of the Division of Military Aeronautics, at Washington, tell of 12 De Haviland 9's attached to the Independent force of the British R.A.F. sent over the lines in two formations at 11,000 feet to bomb the factory at Mannheim at a distance of well over 100 miles from the aerodrome. This necessitated a trip, out and back and allowing for divergence to follow routes and pick up bearings, of from 250 to 260 miles. About 5 miles beyond the line eight enemy scouts determinedly attacked the formation. The leader, however, proceeded to Mannheim, being all the time attacked by enemy aircraft which continued to be reinforced. Over the objective, 15 more enemy machines came and attacked the formation with determination while the bombs were being dropped. Notwithstanding the presence of the enemy machines, 16 bombs were dropped with good effect; a large number of these bombs were heavyweights. Seven direct hits on the factory were obtained and four fires were caused. In addition, another factory a short distance away was also hit and set on fire. The report, continuing, said:

"Just after leaving the target to return home, the enemy machines came right into our formation, and one of them succeeded in hitting the radiator of one of our machines. This caused the engine to 'seize up', and the pilot proceeded to spiral downward. The whole formation followed him from 12,000 to 6,000 feet down to prevent him from being further attacked by the enemy machines, and a determined fight followed between the De Haviland 9's and the enemy scouts. As a result of this fight, which lasted about 20 minutes (and 100 miles over German territory), a number of enemy machines were shot down and were seen to crash. When the fight was over only five of our machines were left in the air, and by extraordinary bad luck, all the experienced pilots went down. The pilots of the remaining five machines were all new, and to many of them this was their first raid. One pilot, who had only four raids to his credit at this time, realized the situation and got his observer to tie a white handkerchief to the Lewis gun, indicating that he was their leader, and having collected the formation brought them safely back to the aerodrome. Had it not been for this pilot's presence of mind, some of these five machines would never have got back. For this act he was awarded the Distinguished Flying Cross.

"A few days later, while a formation of De Haviland 9's was attacking the railway station at Metz, the pilot saw a machine (which had apparently dropped out of another squadron's formation unnoticed) 6,000 feet below, being heavily attacked by a number of enemy air craft and firing red lights for assistance. One pilot immediately dived into these scouts and took this straggling machine up in his formation and escorted it safely back to the lines.

"The next day while carrying out bombing raid operations in conjunction with the First American Army in the St. Mihiel salient, one of the squadron's formation got slightly separated from the other machines over Metz. Fifteen enemy scouts immediately attacked the formation and in the first burst wounded three of the observers so that they were unable to fire their guns, and put a bullet in the radiator of one of the machines which was leading the raid, and also through the engine of another. These two machines were then attacked by seven enemy scout each.

"Although the engines were 'seizing up', the pilots kept them going and prevented the enemy scouts from getting a steady aim on their machines by banking, stalling, 'S' turning, and spinning, and in this way fought their way to the lines — a distance of 12 miles. One Hun was very close on the tail of one of our machines, and when he stalled and zoomed up underneath to fire from his forward gun our observer shot him down and he was seen to crash on the ground."

AERO CLUB OF THE NORTHWEST

Seattle, Washington,

January 16
1 9 1 9

Air Service Clubs Association,
Division of Military Aeronautics,
Washington, D. C.

Dear Sir:

The president is Mr. W. E. Boeing, of the Boeing Airplane Company of this city and the membership includes many of the most prominent business men of the Northwest. An effort is now being made to include aviators from the Northwest as members. We would be pleased to have the following resolution published in the weekly news letter:

ALL MEN IN THE AVIATION SERVICE OF THE UNITED STATES, BOTH ARMY AND NAVY, WHO HAVE WON THEIR WINGS, ARE ELIGIBLE TO SPECIAL MEMBERSHIP IN THE AERO CLUB OF THE NORTHWEST.

We urge all men so qualified to communicate with us for mutual benefit. We are endeavoring to compile a list of Northwestern men in the Air Service, and will greatly appreciate any cooperation you may be able to furnish.

At the present time, our main activity is toward the establishment of landing fields in this territory and collection of data for air maps. On request we shall be glad to send you our monthly bulletin, which we began with the January issue.

Any cooperation you may give us will be greatly appreciated. We should be able to do much work of mutual benefit.

Very truly yours,

F. M. CROWE
Corresponding Secretary.

DEVELOPMENT OF AIRPLANE FABRICS

The following statement descriptive of the development of airplane fabrics is authorized by the United States Bureau of Standards:

The design of heavier-than-air machines during their early stages of development was arrived at by cut-and-try methods. The wings of such machines were covered with plain cotton fabric, much the same as an ordinary sheeting material, coated with a beeswax compound or some form of glue. The wing surfaces were then rubbed and polished to present a surface having a comparatively low skin friction. Such a covering was not very strong and sagged very materially when subjected to pressure and then exposed to weather.

As the application of science produced planes which were capable of much higher speeds, smaller wing surfaces, and a consequently increased loading per square foot of wing surface, it became necessary to cover them with a material having a high strength and a low weight.

It was generally known that flax spun into yarns and subsequently woven into fabrics produced a very tough material having little stretch and the property of withstanding shocks with very little permanent set.

Accordingly unbleached linen fabric was used to cover the wings of planes and found to be very satisfactory. The structure of the linen fabric is that of an ordinary fine linen sheeting. No attempts had been made to study the requirements of the covering material or to design a fabric meeting those requirements which might possibly be lighter and more resistant than the linen fabrics.

During the present crisis it became evident that the available supply of linen would not suffice the demands of the military programs of the countries at war, and it became necessary to find materials which could be used in place of the satisfactory linen.

As early as January, 1916, at the request of the National Advisory Committee of Aeronautics, the Bureau of Standards started investigating the possibilities of substituting cotton for linen airplane fabrics, and found that the general consensus of opinion among airplane manufacturers and investigators here and abroad was that the use of cotton fabric for wing coverings was out of the question, as many experiments had already been made to substantiate these opinions.

However, the bureau was certain that not all the possibilities of structure of fabric had been considered, and it began an investigation to study the stresses in a fabric on a plane and to thoroughly determine by actual measurement the properties of the linen in a cotton fabric suited for the purpose.

The difficulties experienced in the experiments on cotton fabrics previous to the time of our investigations were: (a) Low strength per unit of weight; (b) low tearing resistance; (c) little shrinkage upon application of dope; (d) little tendency to retain what little shrinkage they had after doping.

It was not until March 18, 1917, that the Bureau of Standards was in a position to issue instructions covering the construction of cotton fabrics for the experimental fabrics which proved to be quite successful. These instructions were sent to the various fine-goods cotton mills and were supplemented by visits of the bureau's textile experts to the mills.

At the mills the bureau's textile men sat down with the practical men and evolved the present cotton airplane fabrics. At this point it is desired to mention the name of Mr. Ricketson, agent of the Ponemah Mills, as he did much to make cotton fabrics a success.

The first fabrics of this series were received at the Bureau of Standards on or about the 1st of April, 1917, and as the series progressed it suggested changes, and during the early part of May, 1917, a fabric had successfully passed its laboratory standards. The next important problem was to determine the actual performance of these fabrics. To this end samples were placed on Army planes at Langley Field and Navy Planes at Pensacola during August, 1917. Similar fabrics were later sent by the Signal Corps to the Canadian Aeroplane Co., of Toronto, Canada, and they were placed on planes the middle of October, 1917.

The results of the service tests demonstrated that the fabrics were satisfactory and that service results could be reliably predicted in the laboratory.

It was not until August that the military authorities were becoming concerned with the scarcity of linen, and on or about the 23d of August the Joint Army and Navy Aircraft Board called the Bureau of Standards into a conference regarding cotton fabrics for airplanes, and the bureau was able to say with a great degree of certainty that it had a fabric ready for their needs.

On August 24, 1917, a conference held between the military authorities and representatives of the Bureau of Standards resulted in the Signal Corps Equipment Division ordering that the bureau supply the necessary specifications covering the purchase of 500,000 yards of airplane cotton fabric. The specifications were transmitted by the Bureau of Standards on September 5, 1917, covering the fabrics now known as Grade A and Grade B as used by the Signal Corps and Navy. A few days later the bureau supplied the necessary information regarding the apparatus and methods of testing and inspection.

During April, 1918, the Signal Corps submitted samples which the Bureau of Standards understood to be the result of these investigations. They dealt with the use of the various cottons and the experiments were very valuable.

At the time the Bureau of Standards was making its field tests at Langley the Italian Aviation Mission was there. One of their planes was covered with a cotton fabric which they had used successfully on the battle front, and the members of that mission offered the opinion that the fabrics of the bureau were better than their own successful fabric. It is a peculiar thing that upon analysis this fabric differed slightly from our own as far as thread count and yarn number were concerned. Here were two people working on the same problems on opposite sides of the water, and having no information regarding each other's work, and the results were practically the same.

Recently the standard fabrics were submitted to the English airplane authorities, and their comments were to the effect that the results were astonishingly successful. Since that time the English have adopted the standard grade A fabric.

.....

PRESS INTERVIEW BY THE CHIEF OF STAFF,
January 25, 1919.

Some misunderstanding of an order that has been issued by the War Department concerning the Divisional insignia which are worn on the sleeves of men who have served with Divisions in France has arisen. These insignia are very different in character, and the Department has taken the ground that every man who belongs to a Division which is to be demobilized, whether he comes over individually, or whether he comes across with his Division, will be allowed to retain the insignia which he wore in France to indicate the Division to which he belonged. The order as issued said that these men would be allowed to retain such insignia up to the time of their demobilization for the reason that the War Department has no control over them after demobilization. When they are discharged they become civilians, and can wear the uniform by law, and can wear anything on it they please, so the idea of the Department was not to prohibit the use of these Divisional insignia after the men get out of the service, but the phraseology was simply misunderstood because the question was also up as to whether Regular officers and soldiers who return to their own units should keep on wearing the insignia. This was decided by saying that such people when they returned to their own units should wear the Regular Army uniform, but all Divisions raised from the National Guard or National Army will be allowed to retain their insignia.

The War Department during the week has suspended the war limits of punishment for officers and enlisted men serving at home. During the war sentences of great severity were imposed for serious offenses like desertion or

absence without leave. Conditions in the United States having returned practically to normal we have stopped in the United States and the Philippine Islands war punishments for military offenses. This merely means that we revert in the United States proper and the Philippines to the general order which the President issued before the war, in which he indicated the maximum limits of punishment in times of peace. Conditions in Archangel, Siberia and in France where we still have an Army of Occupation are war-time conditions and this does not apply to them. And, of course, this does not apply to persons who are serving sentences at the present time. The only way in which a man can be affected whose sentence has been approved is by the exercise of clemency by the President. .....

We now have fairly complete reports of the strength of all Allied forces on the Western Front at the time of the armistice, and we find from these reports that the United States force had passed the force of Great Britain in strength, and was the second force in strength on November 11th. These figures which I am going to give you are the "ration strength", meaning that they include every man who had to be fed -combatant, non-combatant, medical men, services of supply men, etc. The French on November 1st had 2,559,000; the United States on November 11th had 1,950,100 - on the Western Front; the British, including the Portugese who were serving with them, 1,718,000; and the Belgian and Italian forces, on the Western Front, amounted to about 200,000.

The discharge of officers and men has been proceeding during the last week so that on January twenty-fourth 57,366 officers and 858,187 men were discharged. These figures include incomplete reports for the past week which are supposed to get in complete tonight. There have been ordered for discharge in classes which I will give to the stenographer 1,300,900. The British demobilization has been speeded up, and from November 11th to January 19th, 12,759 officers, and all other ranks 611,950 were discharged.

CASUALTIES

Cable advices from General Pershing indicate that the long and tedious check of battle casualty reports has at length been completed by the Central Records Office in France. Individual additions resulting from the identification of missing men or from the triple check of all organization and hospital records, instituted by the direction of the Secretary of War, may of course be expected, and will be promptly reported -- as will deaths from illness or accident. In general, however, the lists of those who died in action or received serious injuries, as reported to the families of officers and soldiers, and to the press, stands complete.

In the meantime the War Department is engaged upon a check of the original records sent for the purpose from France, in order to report both to the families and to the public, as a matter of record and appreciation, the men who have received (and recovered from) relatively slight injuries on the field of battle.

As a further means of keeping the families and friends of our soldiers informed as to their welfare, General Pershing has issued instructions requiring each soldier to send to his next of kin in the United States a card showing the date, the soldier's station, his organization and the state of his health. Special cards are being printed for this purpose and will shortly be on their way across the Atlantic.

MAKING THEM WRITE

In order to relieve the anxiety of relatives and friends of patients from overseas who are now being admitted to Army hospitals in this country, Surgeon General M. W. Ireland has directed that postcards be printed with blanks

to be filled in with the name, present location, nature of wound or disease and condition of the patient. These cards are to be mailed promptly to those concerned upon the admission to a hospital, transfer from a hospital, or discharge of a patient from overseas.

CANDY AND CHEWING GUM

That the sweet tooth of the Army overseas has not been neglected is shown by figures from the Subsistence Division as to the amount of candy provided for the American Expeditionary Forces. Up to the signing of the Armistice 7,615,595 pounds of candy had been shipped overseas and since that time orders have gone through for 21,000,000 pounds of the best candy made, 12,000,000 pounds of which are now on the way to France. This great increase in the shipment of candy is due to the introduction of the "candy ration", which gives each man in our overseas Army one-half pound of candy every ten days. 3,495,000 pounds were required to take care of the first allotment. The increased shipments also cover very large purchases for the various canteens in France.

CITED FOR DISTINGUISHED SERVICE

RELEASED FOR MORNING NEWSPAPERS OF WEDNESDAY, FEBRUARY 5, 1919

The commander in chief, in the name of the President, has awarded the distinguished service cross to the following named officers and soldiers for the acts of extraordinary heroism set forth after their names:

First Lieut. Robert Lindsay, 139th Aero Squadron. For extraordinary heroism in action near Bantheville, France, October 27, 1918. In company with two other planes, Lieut. Lindsay attacked three enemy planes (Fokker type) at an altitude of 3,000 meters, and after a sharp fight brought down one of them. While engaged with the two remaining machines, eight more planes (Fokker type) came at him from straight ahead. He flew straight through their formation, gained an advantageous position, and brought down another plane before he withdrew from the combat. Home address, N. H. Lindsay, mother, Madison, N.C.

First Lieut. James O. Beane, 22d Aero Squadron. For extraordinary heroism in action near Bantheville, France, October 29, 1918. When Lieut. Beane's patrol was attacked by eight planes (Fokker type) he dived into their midst in order to divert their attention from the other machines of his group and shot down one of the Fokkers in flames. Four other Fokkers then joined in the battle, one of which was also destroyed by this officer. Home address, Wilfred Wheeler, 81 Ludbury Road, Concord, Mass.

First Lieut. Josiah Pegues, 95th Aero Squadron. For extraordinary heroism in action near Dun-sur-Meuse, France, November 5, 1918. On account of heavy clouds and mist, Lieut. Pegues became detached from his formation. While endeavoring to find it he came upon eight hostile planes, which were maneuvering to attack four of our planes. With great courage and skill he passed through the formation and attacking its leader, dispersed the formation, preventing further attack. Home address, S. F. Pegues, father, 643 Woodlawn Avenue, Chicago, Ill.

Capt. Reed Chambers, 94th Aero Squadron. For extraordinary heroism in action near the Bois de la Cote, Lemont, France, October 21, 1918. Capt. Chambers is awarded a bar, to be worn with the distinguished-service cross awarded him November 8, 1918. While on a voluntary patrol, Capt. Chambers encountered five enemy planes (Fokker type), harassing our Infantry at an altitude of 300 meters. Attacking them without hesitation, he shot down two of them and drove off the others. Home address, J. S. Chambers, father, Fort Huachuca, Ariz.

First Lieut. Sheldon V. Clarke, Balloon Section. For extraordinary heroism in action near Raulecourt, France, August 28 and September 26, 1918. While making a general surveillance of enemy territory on August 23, and September 26, 1918, Lieut. Clarke was attacked by enemy planes. On both occasions he remained at his post and directed the fire by telephone until his balloon had been set on fire. On August 28 he assisted a passenger to descend, and did not jump himself until the other's parachute had opened. On both occasions he reascended as soon as another balloon could be obtained. Home address, Virgin A. Clarke, mother, 39 East Third Street, Williamsport, Pa.

First Lieut. Harlow P. Neibling, Field Artillery, For repeated acts of extraordinary heroism in action at Brouville, France, September 2, 1918, and near Fort Dummar, France, September 26, 1918. While Lieut. Neibling was making an aerial reconnaissance from a balloon, he was repeatedly attacked by enemy planes, two of which dived at the balloon and opened fire with incendiary bullets. With great coolness he fired at one of them with his pistol and took a picture of the plane with his camera. When the balloon took fire he was forced to jump, but he took two more pictures on the way down in spite of being fired upon. He reascended as soon as a new balloon could be inflated. On September 26 this officer was again attacked while conducting a reglage, but hanging from the basket with one arm he fired his pistol at one of the enemy planes and jumped only when his balloon burst into flames. He immediately continued his mission in another balloon. Home address, Mrs. Elizabeth Noo, mother, 1819 Lyndale Avenue, South Minneapolis, Minn.

First Lieut. Sumner Sewall, 15th Aero Squadron. For repeated acts of extraordinary heroism in action near Menil-la-Tour, France, June 3, 1918, and near Landres-St. Georges, France, October 13, 1918. On June 3 Lieut. Sewall with two other pilots attacked a formation of six hostile planes. Though his companions were forced to withdraw because of jammed guns, he continued in the fight for 15 minutes and succeeded in sending one of his adversaries down in flames. On October 18, while on a voluntary patrol, this officer saw an American observation plane being attacked by a German machine (Fokker type), accompanied by eight other hostile planes. He immediately attacked and destroyed the Fokker and was in turn attacked by the other eight planes. By skillful manoeuvering he evaded them and escorted the observation plane back to our lines. Home address, W. D. Sewall, father, 1142 Washington Street, Bath, Me.

First Lieut. George C. Carroll, For extraordinary heroism in action near Fort Dumarr, France, September 26, 1918. Lieut. Carroll had ascended in a balloon to a height of 1 kilometer on a reglage mission, when he was attacked by enemy planes; but he refused to leave his post and fired on the planes with his pistol while incendiary bullets were striking his basket and balloon. He was finally forced to jump when his balloon burst into flames, but he reascended as soon as a new balloon could be inflated. On three other occasions Lieut. Carroll also gave proof of exceptional courage by remaining in his balloon in the face of aeroplane attacks, jumping only when his balloon took fire and immediately reascending when a new balloon could be inflated. Home address, Harry S. Carroll, father, Garrett, Ind.

First Lieut. Harold H. George, 139th Aero Squadron. For extraordinary heroism in action near Bantheville, France, October 27, 1918. Lieut. George displayed great courage in attacking a formation of four enemy planes (Fokker type), destroying two of them in a terrific fight and driving the other two back to their own territory. Home address, William H. George, brother, 210 East Tenth Street, New York, N. Y.

First Lieut. Percy Rivington Pyne, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Dun-sur-Meuse, France, October 23, 1918. While protecting three planes on a photographic mission, Lieut. Pyne attacked and drove off five enemy machines (Fokker type). Later another German formation of seven (Fokker type) was encountered, but despite the odds Lieut. Pyne swung up into the midst of the enemy and scattered them, diving on one of the Fokkers and sending it crashing to the ground. Home address, Percy R. Pyne, father, 680 Park Avenue, New York City.

First Lieut. George R. Nixon, Field Artillery. For repeated acts of extraordinary heroism in action near Domevre-en-Haye, France, August 29, 1918, and near Malan-court, France, September 28, 1918. On August 28 Lieut. Nixon was locating active enemy batteries from his balloon and was attacked several times by enemy planes, but refused to descend until one had set fire to the balloon. On September 28, while he was on a reglage mission, five enemy planes fired at him. He remained in the basket until the balloon was a mass of flames, and one of the enemy aviators followed him to the ground firing at him. Despite his narrow escape, he immediately reascended. Home address, Mrs. George E. Nixon, wife, 748 South Harvard Boulevard, Los Angeles, Cal.

First Lieut. William Thomas Ponder, Aviation Section, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Fontaines, France, October 23, 1918. Having been separated from his patrol, Lieut. Ponder observed and went to the assistance of an allied plane which was being attacked by 30 of the enemy. Lieut. Ponder destroyed one enemy plane and so demoralized the remaining that both he and his comrade were able to return to their lines. Home address, W. P. Ponder, father, Mangum, Okla.

First Lieut. John J. Quinn, 139th Aero Squadron. For extraordinary heroism in action near Bantheville, France, October 23, 1918. While patrolling the lines, Lieut. Quinn, with one other pilot, sighted and attacked four enemy machines (Fokker type). Several additional enemy planes joined the first four, and, notwithstanding his great odds, he sent one machine crashing to the earth. Motor trouble forced him to drive straight through the enemy formation, and, although followed and his machine badly damaged, he was able to outmaneuver and escape from his adversaries. Home address, August N. J. Quinn, father, 407 Post Office Building, Philadelphia, Pa.

First Lieut. Russell L. Maughan, Aviation Section, 139th Aero Squadron. For extraordinary heroism in action near Sommerance, France, October 27, 1918. Accompanied by two other planes, Lieut. Maughan was patrolling our lines when he saw slightly below him an enemy plane (Fokker type). When he started an attack upon it he was attacked from behind by four more of the enemy. By several well-directed shots he sent one of his opponents to the earth, and, although the forces of the enemy were again increased by seven planes, he so skillfully maneuvered that he was able to escape toward his lines. While returning he attacked and brought down an enemy plane which was diving on our trenches. Home address, Peter W. Maughan, father, Logan, Utah.

First Lieut. William J. Hoover, Aviation Section, 27th Aero Squadron. For extraordinary heroism in action near Verdilly, France, July 2, 1918. On the morning of July 2 his flight patrol encountered the famous Eichthofen circus. Lieut. Hoover was simultaneously attacked by three of the enemy and cut off from his comrades. By skillfully maneuvering he avoided the effects of their concentrated fire and fearlessly attacked the three. Although his machine was seriously damaged, he killed one of the enemy pilots and destroyed his plane, drove down another, apparently out of control, and chased the third far into his own lines. He then continued the patrol until shortage of gasoline forced him to return. Home address, Mrs. William J. Hoover, Hartsville, S. C.

First Lieut. Hermon C. Rorison, Aviation Section, 22d Aero Squadron. For extraordinary heroism in action near Beaumont, France, November 3, 1918. While on a bombing mission with five other pilots, Lieut. Rorison's patrol was attacked by 18 enemy planes (Fokker type). Three of his comrades were immediately shot down, but he continued in the fight for 30 minutes and destroyed two Fokkers, which were attacking the other two members of his patrol. With his plane badly damaged and himself wounded, he succeeded in shooting down another Fokker just before one of his guns was put out of action. By skillfully maneuvering he shook off the rest of the Fokkers and reached his lines, 15 miles away, in safety. Home address, Charles G. Chadbourn, uncle, Wilmington, N.C.

RED CROSS SERVICE

According to a letter from the Adjutant General to Department Commanders and Chiefs of Bureaus:

"THE AMERICAN RED CROSS
needs able, intelligent active men for its service in the Camps, in the Hospitals and on Transports, Red Cross is prepared to pay reasonable compensation for such service. Any Officer discharged from the service of the United States who might desire service with the Red Cross is asked to get in touch immediately with the Field Director of the Red Cross at the Camp or with the Department of Military Relief at Washington or the nearest Red Cross Division Headquarters".

TARGET PRACTICE

The War Department has announced its policy of resuming the firing of the regular courses of Small Arms for all troops where facilities exist and no large expenditure of funds is necessary. It is understood that small arms firing practice will soon be undertaken at the camps, fields and stations of the Air Service where practicable.

FLYING FOR DISCHARGED AVIATORS

The Division of Military Aeronautics has announced that members of the Officers' Reserve Corps who are R.M.A.'s, may be authorized upon application, at the discretion and at the convenience of the commanding officers to make flights in Army airplanes. It is pointed out, however, that cross-country flights should not be permitted and that the regular training of pilots should not be interfered with.

A scheme providing for the use of ships by Reserve Officers is in preparation, as part of the permanent organization of the Air Service, but cannot be put into effect at the present time.

PRAISES AMERICAN FLIERS

Lt. Edmund A. Clune A.S.A., who studied the British system of training men said that he visited the 17th. and 148th. American Squadrons which were brigaded with the British.

"I was particularly impressed with the American pilots brigaded with the British in France. A better set of aviators both as men and Americans was never at any front," remarked Lieut. Clune.

PROMOTIONS

In accordance with the provisions of a Resolution of the Senate, dated January 3, 1919, Secretary Baker replied as follows:-

"Appointments to any commissioned grade in the United States Army have been made, and can properly be made, only when vacancies exist. Immediately upon

the conclusion of the armistice, November 11, 1918, the demobilization of the temporary army was begun and has been proceeding with great rapidity. From and after that date, therefore, instead of there being any vacancies in any grade, there has been a surplus of officers in every grade which it has been necessary to reduce by discharge. To increase the surplus by further appointments would have been unjustifiable, and such appointments were therefore discontinued. As it is necessary to continue the discharge of officers at the rate of more than 1,000 a day, it is not contemplated to resume appointments.

"In connection with the suggestion which is frequently made, that commissions be conferred upon those persons who had been recommended for them prior to the signing of the armistice in order that on their discharge they may carry with them into civil life the title of a higher rank, the Department has consistently adhered to the views that a military office, like any other, should be conferred only with a view to the performance of the duties pertaining to it, and that when there is no expectation that a person will perform the duties of an office, civil or military, appointment to such office can with difficulty be justified. No change in this policy is contemplated.

"There is a certain class of military office, however, to which no present duties are attached, but whose purpose is to place the holder in such a position that under certain circumstances the Government may require his services. I refer to the Officers' Reserve Corps. Appointment in this corps is properly conferred upon those from whom no immediate services are required, and such appointment carries with it office, rank and title in the United States Army. Immediately after the conclusion of the armistice I directed that a commission in the Officers' Reserve Corps be offered to every enlisted man who had been properly recommended, during the war, as qualified for such commission. I further directed that in every case where an officer had been duly recommended for promotion he be offered a reserve commission with the rank for which recommended. Under the present law appointments in the Officers' Reserve Corps are restricted to certain grades and certain limitations are imposed as to the age of appointees, I expect to transmit to Congress in the near future my recommendations for amendment of this law, which will make it possible to offer to every officer who has served in the war a reserve commission in the grade for which he has been found qualified.

"The matter may briefly be summed up as follows: The demobilization of the Army makes it impossible to employ any additional officers on active duty, but on the contrary necessitates the discharge of many already in the service. For officers not on active duty, but held in reserve, the need will always exist in time of peace. The War Department, therefore, discontinued the appointment of officers for active duty, but offers to every man who has been found qualified for it, a commission in the United States Army with inactive status."

Respectfully,

NEWTON D. BAKER,
Secretary of War.

HAVE YOU INVENTED ANYTHING

In order to complete the records of the War Department with reference to inventions and patents, the Bureau of Aircraft Production requests each officer, enlisted man or employee who has since his connection with the Bureau made any invention or applied for any patent. A form headed Military Inventions is available upon application at the Patents Department, Finance Division, Bureau of Aircraft Production.

RETURNING TROOPS

The 483d and the 489th Aero Squadrons are en route to the United States on board the Battleship Vermont, and are due to arrive at Newport News, February 5th. The two squadrons include 6 officers and 311 men.

Casual Air Service officers are returning home on several ships but they are unidentified.

The 4th and 5th Balloon Companies and 485th Aero Squadron, are scheduled for early return to this country.

ROCKWELL FIELD

Rockwell Field, San Diego, Calif., is to stage an aerial show on February 1st.

The tentative program, which is under the direction of Capt. M. Hill, with Lieut. T. G. Canty assisting, includes practically every form of amusement or thrill which can attract a sightseer. Trick night flying, including bombing raids; an aerial combat between two aces who have just returned from France and who will personate an American and German flier in mortal combat; scores of airplanes in every formation and evolution; a full afternoon's program of athletic events on the grounds; a cabaret with all the latest entertainment features; a balloon ascension and parachute drop; dancing for the light-footed, and, last but not least, the throwing open of Rockwell field to the inspection of the visitors, giving an opportunity for San Diegans to see every activity of this famous flying field, with hangars, machine shops, schools, various types of machines and motors, including the Liberty motor — all these will be offered in one 12-hour period of amusement, instruction and entertainment.

The night flying, which is intended to be a unique exposition of the possibilities of airplanes in working in the dark, will begin at 9 p. m. and last for three hours, but with no interruption of the cabaret and dancing features in prospect.

A 50-mile race among American, French and British motored combat airplanes will be one of the features of the "Flying Circus". Each of the racing planes will be piloted by a crack military airman.

The types of planes that will be used in the first aerial sweepstakes to be held in this country since 1914 will be a De Haviland, equipped with a Liberty motor; a Thomas-Morse scout plane fitted with an Hispano-Suiza engine, and a British Spad equipped with La Rhone motor.

The "Flying Circus" from the standpoint of both amusement and educational value, will eclipse, it is predicted, anything of its kind ever seen in the west. There will be six military and naval bands. Other features will be night and day barrage firing by a battery of field guns from Camp Kearny, the shell falling into the sea off Point Loma so that spectators can obtain an idea of tactical value of a barrage in relation to infantry attack; an aerial combat between two famous American aces in which Lewis and Marlin machine guns with blank cartridges will be brought into action; stunt flying by a squadron of crack pilots; night flying, including the bombing of Berlin by a night bombing squadron; broncho busting by troopers stationed at the Camp Kearny remount station; cabaret open air dancing, and many other features that will keep the spectators thrilled and interested from noon until midnight.

Lectures will be given by skilled mechanicians on the Liberty motor and the various types of aircraft used at Rockwell, Ream and East fields, Each of the squadrons stationed at San Diego's trinity of aviation fields are to be given a hangar or booth in which they will produce special amusement features.

A feature which alone is expected to attract thousands of out-of-town visitors is the attack of a squadron of combat airplanes on spherical balloons towed by fast airplanes which will dodge and maneuver as if they were in actual battle.

KELLY FIELD HISTORY

In the Kelly Field Eagle it is reported that a history of the Field, together with pictures and personal items, will be issued within a short time. Lieut. H. D. Kroll is in charge of this souvenir book which is to be known as "Kelly Field in the Great World War."

NEW R. M. A.'s

The following named officers are rated as Reserve Military Aviators:

2nd Lieut. Robert W. Catlin, A.S.A.	January 20, 1919
2nd Lieut. Richard C. Sogge, A.S.A.	January 20, 1919
2nd Lieut. Ernest W. Force, A.S.A.	January 21, 1919
2nd Lieut. Arnold B. Henderson, A.S.A.	January 21, 1919
2nd Lieut. Edmund Pincoffs, A.S.A.	January 22, 1919

HONORABLY DISCHARGED

The following officers are honorably discharged from the Service of the United States:

Leigh Sypher	Major, A.S.A.
Charles R. Preston,	Second Lieutenant, A.S.A.
Lawrence G. Washburn,	Second Lieutenant, A.S.A.
Lewis D. Ticknor,	Captain, A.S.A.
Paul E. Munger,	Second Lieutenant, A.S.A.
Cyrus W. Merrell,	First Lieutenant, A.S.A.
John Henry Bauer,	First Lieutenant, A.S.M.A.
Robert R. Thompson,	Second Lieutenant, A.S.A.
Charles W. Reed,	First Lieutenant, A.S.A.
Clifford B. Harmon,	Captain, A.S.A.
McDonald Lovell,	Second Lieutenant, A.S.A.
William H. Hamilton,	Second Lieutenant, A.S.A.
George R. Galbraith,	First Lieutenant, A.S.A.
Bert L. Breed,	First Lieutenant, A.S.A.

A.S.C.A. LUNCHEON

The Board of Control of the Air Service Clubs' Association entertained at luncheon, Tuesday January 28th, Col. W. A. Bishop, England's leading "Ace", General Charles T. Menoher, Director of the Air Service, and Lieutenant J. O. Donaldson, a flier who escaped from Germany. The party was held in the private dining room of the Army and Navy Club and proved to be a very happy affair. The only speaker was General Kenly who, in welcoming Britain's Ace, proposed a toast to Colonel Bishop and stated that no reply was necessary as the party

was to hear him speak that afternoon. Colonel Bishop was apparantly relieved that he did not have to speak, but joined in the general conversation with seeming enjoyment.

Those present at the Luncheon were: Colonel Bishop, General Menoher, General Kenly, Colonels Crabtree, Davis, Fuller, Edgar and Gilmore, Lieut. Cols. Castle, Harmon and Brown, Captain Findley, and Lieutenants Donaldson and Butman. Brig. General Charles F. Lee, Chief of the British Aviation Mission was unable to be present.

ADVANTAGES IN THE AIR SERVICE FOR ENLISTED MEN

Following the announcement by the War Department that enlisted men might remain temporarily in the military service, upon their own request, it is of interest to know just what advantages are offered to the enlisted men of the Air Service.

RETENTION OF ENLISTED MEN IN THE SERVICE

There are many things to be considered in the Air Service. The most important thing is the apparent disparity between pay of civilians and pay of enlisted men in the Army. At the first glance everything seems to be in favor of the civilian, when as a matter of fact if the question was analyzed closely, the average pay of the enlisted man is much greater than that, of a civilian.

One point that seems to have been overlooked entirely is the question of retirement pay. An enlisted man usually, before retirement, obtains the grade of Master Electrician. After 30 years service his retirement pay amounts to $90 a month, or $1080 a year. This is equal to an annuity of $1,000 a year, which in the open market would cost a man fifty years of age, $15,000. In other words, an enlisted man is putting by $500 a year for each of the thirty years that he serves. This may be considered a part of what he earns, and should be included as a part of his salary.

The following tables of pay, figuring the ordinary expenses of the civilian, which has to be deducted from his salary, are interesting:

	Master Electrician	Sgt. 1st Cl.	Sergeant
Room & Board @ $40 a month per year,	$480	$480	$480
Clothes for year	170	170	170
Saved for "Annuity" per year	500	500	500
Base Pay, per year	900	540	360
	2050	1690	1510
50% increase as Aviation Mechanician or for Flying status;	450	270	180
	2500	1960	1680

From information received from the Department of Labor, the average pay of the civilian from twenty to twenty-five years of age is $885 per annum. This takes into consideration the amount of time which he is unemployed on account of holidays, change in position, etc. From the above it will be seen that the comparison is all in favor of the Air Service.

In addition to the question of salary, the following points are of interest:

Liberal allowances of furloughs in time of peace,
Free medical attention,
Excellent chance to travel,

Free amusements and athletic facilities,
Separate quarters for non-commissioned officers,
Commissary privileges to married men, and
4% interest paid on all deposits by the Government.

FATALITIES AT FLYING FIELDS

The War Department issued the statement of four fatalities which occurred at flying fields, in the United States during the week ending January 18, 1919, as follows:

Carruthers Field, Benbrook, Texas ----------3
Post Field, Fort Sill, Okla. ----------1

The three men killed in flying accidents at Carruthers Field were: 2d Lieut. John D. Garbutt, pilot 1-13-19, Sergt. Lee R. Quinn, passenger, 1-13-19 and Private Ralph G. McIlwain, passenger, 1-13-19.

Cadet Harry T. Milne, Jr., pilot was killed at Post Field, January 14, 1919.

Each fatality represents 1,358 hours of flying, or approximately 108,640 miles of air travel per fatality.

Sergt. Walter W. Fleming, passenger and 1st. Lieut. Harley H. Pope, pilot, were killed in an accident near Fayetteville, N.C., January 7, 1919.

AIR SERVICE BILL IN HOUSE

Maj. Lyon, of the Aircraft Service, explained the aviation plans of the War Department for the next fiscal year. They call for the use of about one-fifth of the airplanes now owned by the department. He said that in the proposed Army of 500,000 men the aircraft program called for 2,000 officers and 22,000 men and this force is expected to operate 1,000 planes with an equal number in reserve for replacement.

AMERICAN AVIATORS RELEASED BY GERMANY

The following are reported released from German prison camps and are now in territory occupied by allies:

Drew, Chas. W., Lieutenant, Mrs. S. E. Drew, mother, 246 West Seymour Street, Philadelphia, Pa.

Winslow, Alan, lieutenant, William Herman Winslow, father, River Forest, Illinois.

Holder, Paul L., aviator, J. M. Holder, 1018 West Seventh Street, Hastings, Nebr.

Reported released from Altdam:

Buffum, Thomas, aviator, J. W. Ashwell, 1406 Watching Avenue, Plainfield, New Jersey.

THE RADIO TELEPHONE AND THE AIRPLANE

There has been a great deal of publicity given during the last few months to the successful adaptation of the radio telephone to airplanes. Numerous demonstrations of the successful accomplishment of Voice Control Flying have been given at Washington and other places. It is the desire of Colonel Culver that full credit be given to all who had any part in the development, design or manufacture of the apparatus which has made the accomplishment possible. The airplane radio telephone cannot in any sense be termed an invention. It is the adaptation of certain principles to a new field, and the efforts of so many entered into the development, design and manufacture of this apparatus that no one person should be given credit for the entire accomplishment.

In order that full credit will be given where due, it is desired that publicity be given the fact that the technical skill and engineering resourcefulness of a number of civilian engineers, particularly those comprising the engineering staff of the American Telephone and Telegraph Company as well as that of various members of the military establishment, all combined to make possible the present success of airplane radio Telephony.

A brief history of chronological development of voice control of airplanes in flight follows:

Communication established by radio telegraph from an airplane in flight to the ground, by H. M. Horton, (now Captain, Air Service,) and Lt. C. C. Culver (now Colonel, Air Service,) in August, 1910. Captain Horton built the transmitting set and Colonel Culver the receiving set. This communication was accomplished at an aeronautical meet at Sheepshead Bay.

In October, 1910, the idea of giving command by voice to a fleet in the air was first conceived by Col. Samuel Reber and Col. Culver while on duty at the International Aviators Tournament at Belmont Park.

In August, 1915, Col. Culver was detailed to the Aviation School, San Diego, California, for the purpose of working on the general program of radio for airplanes, with the development of apparatus to permit of the giving of vocal commands by the commander of an air fleet as the ultimate goal. Development work on this continued through 1915.

In 1916, telegraph apparatus was designed and built, whereby communication was established from airplane to ground over distances up to 140 miles. Means were devised by which reception of radio messages could be accomplished in the airplane in the noise of the motor. On September 2, 1916, a message was transmitted from one airplane to another in flight. About this time development of a radio telephone set for airplanes was undertaken.

In 1917, development continued at San Diego, California, until Col. Culver was ordered to Washington, in March. In February, 1917, a trial of the radio telephone set resulted in transmission of the human voice from airplane to ground. Colonel Culver continued on development work and study of the requirements which the apparatus should meet, being assisted, in the latter by foreign officers on duty in this country.

May 22, 1917, General George O. Squier, Chief Signal Officer, brought into conference, Col. Rees of the Royal Flying Corps, Dr. F. B. Jewett, of the Western Electric Company, and Colonel C. C. Culver, U.S.A. At this conference the problems were discussed of air radio telephone communication, and before it was laid propositions for development of apparatus.

In order to bring these problems in concrete form before the best radio telephone engineers in the country, a memorandum was given Dr. Jewett on this date (May 22) covering the general requirements of an Air radio telephone set, and requesting that he submit this problem to his engineers.

Development work on both radio telegraph and telephone was continued. In July, 1917, the Radio Development Section of the Signal Corps was organized, Lt. Col. Slaughter being placed in charge. Colonel Culver continued his work with this section on radio pertaining to the Air Service.

On August 22, 1917, while on a visit to Langley Field, Secretary of War, Baker, and the Chief of Staff, General Hugh L. Scott, were given a demonstration of telephonic communication from an airplane in flight to the ground, by Col. Culver.

In October, 1917, Col. Culver went abroad, taking with him sets of the various types of apparatus, in order to demonstrate to the officers of the U.S. and allied forces the entire practicability of the idea.

In 1918, since the return of Col. Culver under the immediate supervision and with the whole-hearted support of Major General Kenly, there has been continuous progress made in the working out of tactical problems through the use of the wireless telephone and the development of its application to various air service activities.

It was endeavored to make clear that the extent to which this apparatus was used on the front in France was something regarding which there is no definite information in this country. Quantity shipments of this apparatus began in August, 1918, but to what extent it was actually used at the front is now known here.

Feb 8 missing

ol. I. D. M. A. WEEKLY NEWS LETTER OS 1311

ir Service Washington, D. C. War Department
February 8, 1919.

This sheet is intended primarily for the Flying Field newspapers, and eads of Air Service Posts, Stations, and Sections but will be sent to such daily ews papers and periodicals as may desire it.

PROMOTIONS

On January 30th, 1919 the Secretary of War authorized the publication of the following statement in regard to promotions in the Army:

WAR DEPARTMENT
Washington

January 25, 1919

EMORANDUM FOR THE CHIEF OF STAFF:

1. Please cable General Pershing that he is authorized to make such promotions among officers of the line, up to and including the grade of colonel, as will give the officers who in his judgment deserve it, rank equal to the command exercised by them. Under this authority, General Pershing will make those proportions which are appropriate in an organized army, to fill vacancies existing or arising. Surplus officers in the various grades will be returned to the United States. It is not intended hereby to authorize promotions merely as a reward for past service, the policy of the Department being that recommendations for such promotions should be carefully noted, in order that Reserve Commissions at the recommended grade may be issued on discharge, in accordance with the policy previously announced.

The authority here granted will authorize General Pershing to fill vacancies in organizations by promotion, rather than by transfer, where in his judgment that course is wise.

General Pershing is also authorized to make such promotions in the Medical, Chaplain, and other corps of the Army as are within the tables of organizations and are necessary to confer rank commensurate with authority exercised or work to be done under such tables.

2. With regard to the Army in the United States, the same policy will be observed; promotions will be made where necessary to give men rank appropriate to the command exercised by them, and in the staff corps of the Army where appropriate to the work remaining to be done by such corps.

3. I especially desire it to be understood by General Pershing as to the American Expeditionary Force, and by the personnel officers with regard to the Army in the United States, that this relaxation of the rule with regard to promotion does not invite a departure from the principle hitherto established that promotion can not be made merely as a reward for past service, however meritorious. The rule is relaxed only to permit the army which remains undemobilized to be treated as a living organization, with such promotions as would be normal in times of peace to fill vacancies existing or as they may arise.

NEWTON D. BAKER
Secretary of War.

DEFINES REGULAR AND FREQUENT FLIGHTS

Existing orders interpret "regular and frequent participation in aerial flights" as not less than four flights per month for a total of at least four hours. All officers signing pay vouchers covering flying pay will add the words "embracing not less than four flights per month for a total of at least four hours".

RATINGS FOR DISTINGUISHED FLYING OFFICERS

General Kenly has appointed a board of Officers to pass upon the qualifications and merits of flying officers who have distinguished themselves in action. The board will eventually review the records of all flying officers who were in action with a view to awarding them such ratings as their achievements and abilities may warrant. To date only the pursuit or fighting pilots have received any recognition; this was in the form of a list of sixty three fliers who have been credited with the shooting down of five or more enemy aircraft, a list which is not complete or up to date.

The new board will not only consider the fighting pilots and observers but the officers who were on other details just as dangerous, tedious and requiring an even greater amount of practice and skill, though not as spectacular. The work of the pilots and observers in the Day and Night Bombardment Squadrons, the Observation and Reconnaissance Squadrons and Balloon Companies which included artillery control and photograph work will now be reviewed and appropriate awards made, in the form of ratings as Junior, and Military Aviators with increase in flying pay.

The board consists of Col. Townsend F. Dodd, Lt. Col. E. F. Castle, Major Horace H. Hickam and Lieut. Sidney T. Thomas all of the Army Air Service, Division of Military Aeronautics.

NO CIVILIAN JOY RIDES

The Director of Military Aeronautics has announced that civilians will not be permitted to make flights or take joy rides in Army airplanes without authority from the Secretary of War. Paragraph 1586 Army Regulations provide that:

"Flights in Air Service equipment for other than training or war purposes will be made only upon the express authority of the Chief of Air Service, and no person in the military service is authorized to permit other than the following to be carried as passengers in such equipment: Heads of the executive and judicial branches of the Government, members of the Senate and House of Representatives, officers and enlisted men in the Army, Navy, and Marine Corps, and members and employees of the Air Service."

General Kenly directs that no exceptions will be made to the above regulation by the Division of Military Aeronautics. Civilians who desire to take trips must first get authority from the Secretary of War before presenting themselves to the Commanding Officers of flying fields or the Division of Military Aeronautics with requests for flights. Applications for flights will not be forwarded to the Secretary of War through the Division of Military Aeronautics.

RECOLLECTIONS OF AN "ACE"

Captain Reed G. Landis, son of Judge Kenesaw M. Landis of Chicago, recently commanding officer of the 25th American Pursuit Squadron, with twelve enemy aircraft to his credit, left Washington Wednesday morning for Princeton, N.J. to attend the funeral services of the late Captain Hobert Baker, also of the American Air Service. Captain Landis landed in New York on February 3, with Captain E. V. Rickenbacker and other American Aces and reported February 4, to the Director of Military Aeronautics, where he received orders detailing him to Chicago.

In his report on his active service Captain Landis tells briefly of the biggest "Dog Fight" - 60 planes - which he ever saw or took part in. He was with the British, attached to the 40th Squadron and flying a S.E. 5 Scout plane over Douai on August 8th, 1918, when ordered with the squadron to go over the German lines and escort a day bombing squadron home. In the course of the fight the British squadron, numbering twenty-five planes, accounted for between thirty and thirty-five Hun planes, of which Captain Landis got at least one. "We either 'crashed' or chased away all the Huns", said the Captain, "and didn't lose a plane." "Altogether it was a good day". Immediately after the general engagement Captain Landis attacked a balloon, but seeing a German two-seated plane below it, he attacked that instead and shot it down, following which he at once attacked the balloon and destroyed that, thus securing two enemy planes and a balloon in twelve minutes. This activity and the destruction of other planes at various times brought him the British Distinguished Flying Cross with the following citation:-

"For conspicuous gallantry and devotion to duty. He has carried out numerous offensive patrols with marked determination and dash, and has on all occasions engaged the enemy with marked skill and an entire disregard of personal danger."

Captain Landis, who was in the advertising business before the war, first saw service on the Mexican Border with the 1st Illinois Cavalry, and soon after his discharge enlisted in the Air Service. Following his preliminary training at the ground school at Champaign, Illinois, he was picked with a number of other cadets and sent to England in August, 1917 for his flying. There he was attached to the Royal Flying Corps, now the Royal Air Force, and received his commission as a First Lieutenant in March, 1918. His first active service was on the Merville-Arras front, with the 40th British Squadron. Soon after his arrival, he got his first Hun which was seen to go down in flames on the front near Armiens. On this occasion just as the German crashed, his own engine stopped, but by diving practically vertically, Captain Landis succeeded in "cranking" his engine, an Hispano Suiza, in the air and pulled out of his difficulty without further trouble.

The most exciting action which he recalls was while on an airdrome raid, in which the planes dropped their bombs and then descended to within about ten feet of the German hangars and shot them up with their guns. On this occasion Captain Landis chased a narrow-guage railway train for some distance raking it with his machine-gun fire as it dashed madly away from him, the tiny engine and cars swaying from side to side and barely negotiating the curves of the road while the engineer opened the throttle wide. "That chase seemed awfully funny", said the Captain, "but the end was funnier, for the little locomotive finally exploded and the whole train piled up like a train of toy cars."

Captain Landis recounts his experiences one night on another airdrome raid, in chasing a Hun officer clad in pink pajamas all over the airdrome before he got him, and he explains how harrowing it must have been to the Hun, by relating experience of his own when a brother officer, aloft in a plane playfully chased him over the flying field. Although the American had no gun, Landis says, it was an exasperating game.

This young aviator received his commission as a Captain in September, 1918, and was given command of the 25th American Aero Squadron where he served in a pursuit group under Major C. J. Biddle. He testified to the efficiency of the German airplane parachutes. Once when he had shot up a German triplane, the wings fell off but the pilot calmly took to a parachute and landed safely.

On the recent list of American Aces, Captain Landis stands fifth with twelve enemy machines to his credit, but as the veterans Luke, Lufbery and Putnam are dead, Landis stands second to Rickenbacker in point of enemy planes and balloons brought down by living pilots.

In the course of a flight, six miles in enemy territory, he experienced one narrow escape and fell in a tail spin about 12,000 feet before he could gain control of his plane.

"Flying at 18,000 feet over the lines, on the watch for a Hun photograph plane which was cooperating with some long range guns in an attempt to destroy our airdrome", said Captain Landis, "I finally caught sight of the enemy plane coming up and got between him and the sun." When I dived with the sun at my back, he couldn't see me and I managed to get in a good burst of fire. Down he went in a spin. My difficulties were just beginning, however, for as I made a quick turn, two Lewis-gun ammunition drums fell out of their racks and caught in my rudder bar, jamming the rudder and I fell into a spin myself, following the Hun. The two drums persisted in sticking under the rudder bar and I was forced to put my head inside the cock-pit and exert all my strength before I could get them loose. All the time I was spinning toward the earth and in my efforts to dislodge the second drum I also got my boot caught under the bar and nearly dislocated my ankle when I extricated my foot from the boot. I finally regained control of the machine a few feet from the ground - just in time, for it was being badly shot up by the Germans. I then winged my way back to my base in safety, uninjured except for a strained leg which nearly froze out of the boot."

AIR SERVICE SICK AND WOUNDED

Sick and wounded men of the Air Service flying personnel, on arrival at ports of debarkation, will be sent to U.S.A. General Hospital No. 2, at Fort McHenry, Baltimore, Maryland; or if already convalescent, to the Air Service Depot, Garden City, Long Island, according to instructions issued by Surgeon General M. W. Ireland to all Port of Debarkation surgeons and Debarkation Hospitals, February 3d.

Flying personnel patients, arriving at General Hospitals, when already convalescent, will be sent direct either to the Military Convalescent Hospital, Cooperstown, New York, or to the Air Service Depot at Garden City, Transfer history will be sent with the patient in all cases for presentation to the Medical Board at the Air Service Depot, Garden City, to determine the patient's fitness for future flying service, either in the Regular Service or in the Reserve.

TRANS CONTINENTAL FLIGHT RETURNS

The squadron of airplanes which completed the first transcontinental flight in New York City, January 7, left Washington Wednesday, February 5th on the return trip to the Pacific Coast. The party is commanded by Major Albert D. Smith, and includes Lieutenants Robert S. Worthington, H. D. McLean and Albert F. Kyle, pilots, and Maj. James H. McKee, surgeon; Lieut. John W. Evans, photographer, and two master electricians. The return flight is being made in the same four training airplanes which carried the party east. Although they have already flown 4,500 miles under extraordinarily severe conditions, three of the four original motors, American built, remain in the ships.

The transcontinental flight was made from Rockwell Field, San Diego to New York City in 55 hours flying time, and it is Major Smith's hope to reduce this time considerably. It took the squadron thirty-five days to complete the first trip and it is the present plan to spend as few nights as possible en route. On its first trip the squadron proved, by a series of short flights, that it was possible to span the continent and at the same time gather map-making material. On the return, an effort will be made to utilize the information gathered, thereby establishing a shorter, quicker but absolutely safe aerial route from New York to San Diego, via the Atlantic and Gulf coasts.

This transcontinental flight was designed to establish the feasibility of aerial navigation between the Atlantic and Pacific Coasts. Major Smith made certain, on the flight east, that the entire squadron, complete in personnel and equipment, should make the entire journey. His trip demonstrated the fact that mechanical flight over great distances is a certainty, that it is safe and that the entire country is deeply interested in aeronautics. The party gathered information and took photographs which are to be utilized in the work of mapping the skies.

In connection with the return flight of Major Smith's squadron, the Division of Military Aeronautics has made public information illustrating the difference between pioneering in aerial navigation and surveying and construction preparatory to land transportation.

The four airplanes in Major Smith's squadron cost about $12,000 each, a total of $48,000. Between San Diego and New York City four propellers had to be replaced and there were other repairs which came to an estimated total of $1,500. Each plane consumed fifteen gallons of gasoline an hour, making a total of 3,290 gallons for the four planes for the fifty-five flying hours. This fuel cost an average of 50 cents a gallon, making the 'gas' cost $1,645. One-half gallon of oil was consumed each hour, or a total of 110 gallons, costing $82.50. For the thirty-five days the eight men were on the way they paid a total of $1,120 for board and lodging. It is estimated that each motor depreciated one-fifth and each plane one-tenth. The motor that was removed was not taken out because of deficiency, but to save time. Therefore the depreciation on the motors may be reasonably estimated at $480 and the depreciation on the planes at $4,000. The total cost for this pioneer flight was $8,827.50, or an average of $2.00 a mile for four ships and eight men. This is remarkably low when the time is considered and when it is remembered that the squadron literally blazed a trail through the air. It took the place of the railroad pioneers, the surveyors, the right of way appraisers, the track layers, the communication constructors. The aerial right of way that has been mapped from coast to coast will be open to all future flyers when the maps and data are complete. There will be no maintenance. That is one great virtue of aerial navigation, in so far as the routes are concerned.

The return flight would have been started earlier last month had not Major Smith, the commanding officer, been taken with the influenza in New York and confined in a hospital for two weeks. One passenger not listed coming East, is "Flu" a police dog pup purchased by Major Smith in New York. A cabin for "Flu" was built in the end of the fuselage of his plane by Major Smith.

DIVISIONAL INSIGNIA

By order of the Secretary of War, officers and enlisted men returning from France as casuals for the purpose of discharge, will be permitted to wear insignia indicating the tactical division, Army corps or Army with which they served overseas. This applies not only to those who are to be immediately discharged but also to those retained in hospitals pending discharge.

Officers and enlisted men returning as casuals not for discharge but for active duty in this country will be required to remove such insignia.

Units returning from overseas for the purpose of demobilization will be permitted to wear divisional, Army corps or Army insignia until demobilized. Units returned for station in this country, which are not to be demobilized will be required to remove such insignia.

ABSTRACT OF PRESS INTERVIEW BY GENERAL MARCH, FEBRUARY 1, 1919

The United States passed the million mark in demobilization during the last week, the figures being, officers 61,237, enlisted men 952,411, a total of 1,013,648. Among these officers, it may be of interest to the people to know that we have discharged or ordered out of Washington 2,444 officers. Orders have been issued for the discharge of approximately 1,396,000 men; of these 1,243,000 are troops in the United States, and 153,000 overseas troops returned to the United States .....

The question has come up as to the number of officers who were discharged who have applied for and accepted commissions in the Officers' Reserve Corps, making them available for any future service, and you will be interested to know that the number of officers taken in the Officers' Reserve Corps already, without having heard from France, is 10,706. These have been divided among all the grades possible in the Reserve Corps. All of these officers were trained in this war, passed through training schools or otherwise, and afford a great reserve of strength for the Officers' Corps of the Army when it is brought into the service.

The number of officers who have applied for appointment in the Regular Army under the scheme which we have for demobilization is, on this side, 4,293.....

STRENGTH OF ALLIED AND GERMAN ARMIES

The War Department authorizes the following statements:

Figures reported by the Statistics Branch, General Staff, A. E. F., give the rifle strength of the Allied and the German Armies on the western front from April 1 to November 1, 1918, by months, as follows:

	Allies	German
Apr. 1	1,245,000	1,569,000
May 1	1,343,000	1,600,000
June 1	1,496,000	1,639,000
July 1	1,556,000	1,412,000
Aug. 1	1,672,000	1,395,000
Sept. 1	1,682,000	1,339,000
Oct. 1	1,594,000	1,223,000
Nov. 1	1,485,000	866,000

By "rifle strength" is meant the "number of men standing in the trench ready to go over with the bayonet." There are 12,250 rifles in an American division.

TOTAL AMERICAN FORCE WAS 3,703,273

The Statistics Branch, General Staff, War Department, has prepared the following summary of all forces in the Army at the time of its greatest strength, November 11, 1918, the figures being corrected up to January 22, 1919:

	Officers	Men	Total
Army personnel in Europe	80,842	1,868,474	1,949,316
At sea, en route to Europe	1,162	21,072	22,234
Total	82,004	1,889,546	1,971,550
Marines (on duty with Army in Europe)	1,002	31,383	32,385
Total, including Marines	83,006	1,920,929	2,003,935
Siberian expedition	298	8,806	9,104
Total A.E.F. in Europe and Siberia	83,304	1,929,735	2,013,039
In United States	104,155	1,530,344	1,634,499
Insular possessions, Alaska, etc	1,977	53,758	55,735
Grand total in Army excluding marines	188,434	3,482,454	3,670,888
Grand total in Army including marines	189,436	3,513,837	3,703,273

FLIGHT TO HISTORIC SPOT

Army Aviators at France Field near Cristobal Canal Zone, report that by far the most interesting cross-water flight in that vicinity is to Puerto Bello, formerly a city of fabulous wealth and of the greatest commercial importance in the Americas'. Situated only 25 miles, N.E. of France Field, this headquarters of the old Spanish conquistadores, is frequently visited by flying boats and hydroplanes from France Field.

Columbus was the first of the early explorers to visit this port and, with the coming of de Avila and Balboa, and the conquest of Peru in 1535 it became the Atlantic terminus of all trade. So vast were the shipments of silver and gold that the Spanish who controlled this trade, strongly fortified this port against piratical attacks. Finally the English buccaneer Morgan with great energy and daring captured and sacked Puerto Bello and partially demolished the fortifications. From then on this city gradually sank into oblivion and all that remains of its former glory is a small fishing hamlet and the delightful old ruins of Fort San Geroniuno. The ravages of time and weather have made little impression on the sturdy stone construction; the high walls and lofty watch towers are a lasting tribute to 16th century architecture. Visiting pilots are fascinated by the dark underground dungeons, implements of torture and old Spanish guns still in their emplacements.

On the first flight made to this village the entire population turned out and when beached the pilots had great difficulty in keeping onlookers from clambering all over the machines. Two old negroes standing near the tip of one of the wings had a long argument in mongrel Spanish over the construction of the panels. One of them finally became exasperated and poked his cane through the fabric to support his contention much to the distress of the pilots. Over fifty percent of the people are pro-german as is evidenced by the fact that numbers of the houses have "Prussia" painted above the door.

WEARING OF UNIFORM BY DISCHARGED SOLDIERS

Present law authorizes a discharged officer or soldier to wear his uniform from the place of discharge to his home, within three months of the date of his discharge from the service. Thereafter the officer may wear his uniform only upon occasions of ceremony.

The enlisted man must return his uniform within four months of date of discharge; but can wear it only as stated above.

An act is now before Congress, which if passed, will authorize enlisted men to keep the uniform which they are permitted to wear home, and to wear that particular uniform, only, provided some distinctive mark or insignia, to be issued by the War Department, shall be worn.

It will thus be clearly seen that neither under existing or proposed law will a discharged soldier be permitted to wear uniforms made by civilian or other tailors. They may legally wear only the particular uniform which they have been permitted to retain.

Commanding officers of camps, posts and stations will give the widest publicity to this information, both among the soldiers of their commands and in the local press. No person will be permitted to solicit orders for, or deliver uniforms to soldiers about to be discharged. Persons or concerns persisting in selling uniforms to such soldiers, after having been warned not to do so, will not be permitted to come on or do business on the reservation.
(421, A.G.O.)

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

Second Lieut. Horace L. Borden, Signal Corps. For extraordinary heroism in action October 29, 1918. While carrying out a difficult contact mission without the protection of friendly planes, Lieut. Borden was attacked by three hostile machines, which he succeeded in driving off. He secured the information he sought, but while attempting to fire a signal rocket it exploded, setting the machine on fire. Lieut. Borden crawled back on the fuselage of the machine and extinguished the flames with his bare hands. Although suffering real pain he refused to be sent to the rear for treatment but remained on duty with his squadron. Home address, Alfred H. Borden, Aquideick Branch, Newport, R. I.

First Lieut. Livingston Gilson Irving, Aviation Section, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Bantheville, France, October 10, 1918. Accompanied by another pilot, Lieut. Irving attacked an enemy formation of 11 planes, four of which were above him. In spite of the great odds, he dived into the lower formation, and after a sharp combat destroyed one plane, and with the aid of his companion forced a second plane to earth. Home address, S. C. Irving, father,, 1322 Shattuck Avenue, Berkeley, Cal.

Second Lieut. Sigbert A. G. Norris, Aviation Section, observer, 11th Aero Squadron. For extraordinary heroism in action near Dun-sur-Meuse, France, September 26, 1918. Deeming it impossible to catch their own formation, Lieut. Norris, with Lieut. William Waring, pilot, attached themselves to a formation from the 20th Squadron and engaged in a 35-minute fight with 30 enemy aircraft. Five of the 20th Squadron were lost and the observer of one of the remaining planes seriously wounded. The wounded man had fallen in a position which had made the control of the machine difficult. Lieut. Norris immediately motioned for his pilot to take a position between the enemy formation and the crippled companion, in order to protect it and continued to fight off the enemy planes until our lines were crossed. Home address, C. R. Freeman, friend, 489 Fifth Avenue, New York, N.Y.

First Lieut. William W. Waring, deceased, Aviation Section, pilot. For extraordinary heroism in action near Dun-sur-Meuse, France, September 26, 1918. Deeming it impossible to catch their own formation, Lieut. Waring with Lieut. Sigbert Norris, observer, attached themselves to a formation from the

[illegible]th Squadron and engaged in a 35-minute fight with 30 enemy aircraft. Five of this squadron were lost and the observer of one of the three remaining planes seriously wounded. The wounded man had fallen in a position which made the control of the machine difficult. Lieut. Wering immediately placed his machine between the enemy formation and the crippled companion in order to protect it, and continued to fly in this place until our lines were crossed and the enemy scouts driven off. Home address, Mrs. Lucy T. Wering, mother, Franklinville, Cattaraugus County, N. Y.

Capt. Charles G. Grey, Aviation Section, 213th Aero Pursuit Squadron. For extraordinary heroism in action near Montmedy, France, November 4, 1918. While leading a patrol of three machines, Capt. Grey observed a formation of our bombing planes hard pressed by 12 of the enemy. He attacked the leadingenemy machine without hesitation., thereby attracting the enemy's fire and allowing the bombing machines to escape undamaged. Home address, Walter C. Grey, father, 217 West Lake Street, Chicago, Ill.

First Lieut. Byron T. Burt, Jr., Aviation Section, observer Balloon Section. For repeated acts of heroism in action near Gricourt, France, August [illegible] - 11; near Sommedieue, France, September 16, and near Avocourt, France, October [illegible] 1918. On each of these occasions, Lieut. Burt remained with his balloon, making important observations of the enemy's positions and directing our artillery fire, until his balloon was set on fire by incendiary bullets from enemy aircraft. On one occasion he refused to jump until his companion a student observer, was safely away. Home address, Mrs. Byron T. Burt, 108 West Seventy-Third Street, New York, N. Y.

Second Lieut. Glen A. Preston, observer, Artillery, 99th Aero Squadron. For extraordinary heroism in action near Dunel, France, October 5, 1918. While on a photographic mission, Lieut. Preston and his pilot were attacked by seven enemy planes (Fokker type) and driven back to our own lines. They almost immediately returned to the same locality without the protection of battle planes and continued to take photographs until attacked by five machines (Pfalz type). They opened fire on this formation and brought down two of them and drove the others away, and then returned with photographs of great importance. Home address, Mrs. Perry O. Davidson, mother, Hope, Ind.

First Lieut. James C. McKay, aviation section, 49th Aero Squadron. For extraordinary heroism in action near Doulcon, France, October 4, 1918. When a patrol of 7 planes attacked a group of 17 enemy planes (Fokker type) Lieut. McKay remained above to protect from that direction. Without regard to his own danger he attacked alone 3 more enemy planes which dived into the combat and, pressing the attack, succeeded in breaking up their formation and shooting down 1 of the enemy planes. Home address, Mrs. James R. McKay, wife, 725 - Wheaton Avenue, Wheaton, Ill.

First Lieut. Donald Hudson, aviation section, 27th Aero Squadron. For extraordinary heroism in action near Fère-en-Tardenois, France, in August, 1918. A protection patrol of which Lieut. Hudson was a member was attacked by a large formation of enemy planes. He was separated from the formation and forced to a low altitude by four enemy planes (Fokker type) He shot down one, drove off the other three, and started to our lines with a damaged machine, but was attacked by two planes. He shot down both of these planes and by great perseverance and determination, succeeded in reaching our lines. Home address, Paul Hudson, 1040 Wornall Road, Kansas City, Mo.

First Lieut. Warren Edwin Eaton, aviation section, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Rantheville, France, October [illegible] 1918. With one other pilot Lieut. Eaton engaged an enemy formation of 11 planes (Fokker type), though another hostile formation was directly above them. After a severe combat Lieut. Eaton destroyed one of the enemy planes and, with his companion, drove down another out of control. Home address, Mrs. Warren E. Eaton, wife, Norwich, N. Y.

First Lieut. Remington Deb Vernam, pilot, 22d Aero Squadron. For extraordinary heroism in action near Buzancy, France, October 10, 1918. Successively attacking two enemy balloons, which were moored to their nests, Lieut. Vernam displayed the highest degree of daring. He executed his task despite the fact that several enemy planes were above him, descending to an altitude of less than 10 meters when 5 miles within the enemy lines. His well-directed fire caused both balloons to burst into flames. Address, Mrs. Philip J. Ross, mother, 66 Broadway, New York, N. Y.

First Lieut. John Frost, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Verneville, France, September 17, 1918. While on patrol duty with two other planes in enemy territory Lieut. Frost attacked an enemy formation of eight planes (Fokker type). He attacked at close range and, after a severe combat, succeeded in sending one of the enemy down in flames. With his comrades, they destroyed in all four planes and by repeated attacks dispersed the remainder. Home address, Mrs. Josephine H. Frost, mother, 650 Soledad Street, San Antonio, Tex.

Second Lieut. Meredith L. Dowd, deceased, 147th Aero Squadron. For extraordinary heroism in action near Dannevoux, France, October 26th, 1918. Having been unable to overtake and join a patrol Lieut. Dowd alone encountered four German planes, which he daringly attacked. He fought with most wonderful skill and bravery, diving into the formation and sending one of the enemy to earth. In the course of the combat his machine was disabled and crashed to the earth, killing him in the fall. Next of kin, Mrs. M. L. Dowd, wife, Rue Bleue, Paris, France.

First Lieut. Glen Phelps, observer, balloon section. For extraordinary heroism in action near Villiers-sur-Marne, France, July 15 and August 7, 1918, and Chatel-Chenery, France, October 27-30, 1918. While regulating artillery fire from his balloon Lieut. Phelps, with another observer, was attacked by three enemy planes and forced to jump after his balloon had been set on fire. On four other occasions his balloon was sent down in flames, after beingattacked by superior numbers of the enemy, but on each occasion he resumed his work just as soon as another balloon could be obtained. Home address, Mrs. W. A. Phelps, mother, 4442 Demar Boulevard, St. Louis, Mo.

Second Lieut. Clinton Jones, 22d Aero Squadron. For extraordinary heroism in action near Landres-et-St. Georges, France, October 30, 1918. Lieut. Jones, while attacking four enemy planes (Fokker type), was in turn attacked from above and obliged to dive through a formation of 15 planes (Fokker type). His plane was riddled, but he managed to destroy one of the enemy machines. Home address, Mrs. Clinton Jones, mother, 2817 Buchanan Street, San Francisco, Cal.

First Lieut. Spessard L. Holland, C. A. C. Observer, 24th Aero Squadron For extraordinary heroism in action near Bois de Wantheville, October 15, 1918. Flying at an altitude of 300 meters 5 kilometers within the enemy lines. Lieut. Holland and his pilot, Lieut. George A. Goldthwaite, continued on their mission in spite of being harassed by antiaircraft, securing information of great military value. Home address, Mrs. B. F. Holland, mother, Barlow, Fla.

Capt. Maury Hill, U.S., pilot, 24th Aero Squadron. For extraordinary heroism in action near Conflans, France, November 5, 1918. While on a photographic mission of a particularly dangerous character, Capt. Hill and his observer, Lieut. John W. Cousins, were attacked by superior numbers of enemy pursuit planes. During the combat which ensued, his skill and coolness enabled his observer to destroy one of the enemy aircraft. Home address, Walker Hill, father, Mechanics-American National Bank, St. Louis, Mo.

First Lieut. Penrose V. Stout, Air Service, 27th Aero Squadron. For extraordinary heroism in action near Chamy, France, September 28, 1918. While engaged in a solitary patrol of the enemy lines Lieut. Stout attacked an artillery regulating machine. He was almost immediately attacked by five enemy planes, and subjected to infantry and antiaircraft fire but fearlessly continued the unequal fight until his machine guns were broken and he was shot through the shoulder and lung. Home address, Frank R. Chambers, Pronxville, N. Y.

First Lieut. Clair . Kinney, deceased, Air Service, 49th Aero Squadron. For extraordinary heroism in action near Doulcon, France, October 4, 1918. With a patrol of 6 other machines Lieut. Kinney attacked 17 enemy planes, Fokker type. Diving into the midst of the enemy formation he fired into one of the German planes, and pursued it until it crashed to the ground, though he was wounded by another Fokker, which attacked him from the rear. After maneuvering to escape his pursuer Lieut. Kinney immediately attacked another enemy plane directly in front of him, and forced it to the ground. In so doing he was fired upon from behind by another Fokker, several bullets striking him in the body and another setting fire to his gas tank. He succeeded in making a safe landing. This gallant officer has since died of his wounds. Next of kin, Mrs. M. R. Kinney, mother, Endicott, Wash.

First Lieut. Ora R. McMurry, Aviation Section, 49th Aero Squadron. For the following act of extraordinary heroism in action near Toges and La Croix-aux-Bois, France, October 30, 1918, Lieut. McMurry is awarded a bar to be worn with the distinguished-service cross awarded him November 25, 1918. After becoming separated from his patrol because of motor trouble this officer encountered and attacked five enemy planes (Fokker), and succeeded in shooting down one of them. Home address, Mrs. J. C. McMurry, mother, Evansville, Wis.

OFFICIAL MAGAZINE FOR AIR SERVICE MEN OF THE ARMY, NAVY AND MARINE CORPS

There has just been issued at Washington the first number of "U.S. Air Service", the official publication of the Air Service Clubs' Association, Major General William L. Kenly, President. The magazine presents an attractive appearance and contains articles from such well known authorities in their particular lines as Orville Wright, Colonel William Thaw, Major Charles J. Biddle, Holworthy Hall, in addition to salutations from the Secretary of War, the Secretary of the Navy, and an article by Major A. A. Cunningham, Commandant of the Aviation Section of the Marine Corps. There is also an important contribution by Lt. Colonel T. S. Gilmore of the British Aviation Mission in which the international prospects of aviation are exhaustively considered from the British point of view. The first publication of a verified list of honors in the war appears in the magazine.

The magazine is 7 x 10 inches, contains 32 pages, and is profusely illustrated. It is printed on super paper with 120 screen halftone and the body of the text is in 10-point type. Editorially, it is pointed out that the object of the magazine is to make it of real value as a medium for the exchange of views among men in the Air Service and as a means of presenting their views to the manufacturers. The Navy and Marine Corps have recently announced their desire to join the association, so that "U.S. Air Service", beginning with its second number in March will represent the aviation interests of the Army, Navy, and Marine Corps, and the name of the association will be changed on February 15, in accordance with this program. A Navy man will be appointed Associate Editor.

The magazine is published under the supervision of the Board of Control of the Air Service Clubs' Association.

The Editorial Staff is made up of the following:

Captain Earl N. Findley, Editor-in-Chief;
Captain L. I. Brock, Managing Editor; and
Captain Horace Green,
Captain Parfore W. H. Powel, and
Lieutenant Reid F. Benham

On account of the extra time available for preparation, the March issue will be larger and more interesting, than the first issue. Among the most important articles under consideration are the following:

Deep Reconnaissance -- Work of the First Observation Group at St. Mihiel and the Argonne.
By Lt. Col. John N. Reynolds, D.S.C.

Monoplane vs Biplane
By Grover C. Loening

Military Intelligence in the Air Service
By Major Rupert Hughes

Navy Citations, Honors and Awards
The complete official list

History of the Liberty Engine
By Lt. Col. J. G. Vincent

In addition, as all channels of official information are open to the official publication, there will be articles by Col. C. C. Culver, Col. A. L. Miller, Major B. B. Daggett, personal narratives by American aces, and others who can speak with authority about not merely the past but the present and future of aviation.

CAPT. H. CLYDE BALSLEY OF ORIGINAL LAFAYETTE ESCADRILLE

The Walter Reed "Come Back" prints the following:

Recently Capt. H. Clyde Balsley, member of the original Lafayette Escadrille, and a patient at Walter Reed, has taken a full four-year collegiate course in the world war. He would be wearing eight service stripes if they counted the time Americans have actually spent in service. Four years ago, Capt. Balsley first got into action in the French ambulance service. Capt. Balsley liked the French ambulance service, but in September, 1915, he joined the French aviation, and when Bellinnall, Chapman, Lufbery and the others arrived in 1916 to form the American squadron, Balsley became one of the charter members of the American Flying Squadron, which later became the Lafayette Escadrille.

During the siege of Verdun, in June, 1916, Capt. Balsley was wounded, the first of the American squadron to be hurt. He was struck in the abdomen by an explosive bullet. The captain estimates he is now carrying about thirty fragments of the bullet in his body as souvenirs. And yet he modestly asserts that there is nothing to his experience.

While in the hospital at Neuilly, France, Capt. Balsley sent word to Victor Chapman, of the escadrille that he had been wounded. Chapman started up to see his friend three or four days later, going by airplane, and carrying with him fresh oranges to help him through his convalescence. The story of Chapman's fate while on that errand of mercy is well known. Chapman was the first member of the squadron to be killed, while on his way to see Balsley.

It was nearly a year before Capt. Balsley could leave the hospital. By this time the first American forces had landed, and he made haste to join them at Chaumont. Soon afterwards he came home for a few months' furlough, and has been here since, instructing, and also as an adviser in aeronautics here in Washington. Further trouble from his old wound forced him to go to Walter Reed for a short time.

Capt. Balsley is one of the five living members of the original Lafayette Escadrille. The other four are Bert Hall, William Thaw, G. C. Johnson and Elliot Cowdin. The other five have gone, Raoul Lufbery, Victor Chapman, Kiffen Rockwell, James McConnell and Norman Prince, all America's first knights of the air.

Another pilot of Walter Reed, Capt. F. E. Inglis, of Detroit, saw more than a year's service overseas and was on the Toul sector. Among his trophies is a cane made from the propeller blade of a German Rumpler machine captured by Major Charles J. Biddle of Philadelphia.

Inglis tells a thrilling story of how Major Biddle took just two shots to disable and capture a German machine, which was part of a reconnaissance party that had been coming over the American lines daily. Biddle went up one afternoon and when the Germans came over he fired two shots. The first one disabled the German gun and the second took off the German observer. Then Biddle outmaneuvered the Boche machine and forced it to land.

This is extremely difficult, according to all aviators, and any one who maneuvers so that he accomplishes it is indeed a general of the air.

AIR SERVICE UNITS ORDERED HOME

The following organizations have been assigned to early convoy:

96th Aero Squadron
93d Aero Squadron
103d Aero Squadron
6th Balloon Company
3d Balloon Company
8th Balloon Company
336th Machine Gun Battalion

THREE KINDS OF A FLIER

Colonel William M. Hensley, Air Service Aeronautics, has the distinction of being entitled to wear all three of the Air Service flying insignia. He is an observer, a Junior Military Aviator and a Junior Military Aeronaut, and is now taking a course at Akron in dirigibles.

Colonel Hensley is a graduate of the Military Academy and served for over fifteen years in the Cavalry, graduating from the Mounted Service School in 1912. He was detailed to the Air Service during the European War, and on July 18, 1918 qualified as an observer. He won his pilots' wings for heavier than air flying at Mather Field, November 8, 1918, and on December 11, 1918 received his balloon wings at Camp John Wise.

MAJOR SATTERFIELD RETURNS

Major J. M. Satterfield, A.S. for some months Assistant Chief of Supply, Air Service, A.E.F., reported to the Director of Military Aeronautics, on February 6, 1919, at the direction of General Mason M. Patrick, Chief of S.S., A.E.F. Major Satterfield will report on the developments of the Supply Service, in France up to and including the first part of the liquidation of our Air Service obligations to France, at which time he was relieved and detailed to other duty.

PERSONAL ITEMS

Colonel Joseph C. Morrow, A.S.A., having reported on January 22, 1919, to the Director of Military Aeronautics, in compliance with Embarkation Orders No. 11, American Expeditionary Forces, Headquarters Services of Supply, has been assigned to duty in the Training Section.

Colonel W. E. Gillmore, A.S.A., has been announced as Chief of Supply Section, vice Colonel C. S. Edgar, A.S.A., relieved therefrom and transferred to the Executive Section.

Captain W. F. Volandt, A.S.A., has been appointed Contracting Officer for the Division of Military Aeronautics to execute on behalf of the United States all contracts for the Division of Military Aeronautics, except contracts with Schools, Colleges and Universities, vice Captain Clinton G. Brown, A.S.A. relieved.

Colonel Edward A. Deeds, A.S.A., is announced as on duty in the Supply Section, Office of the Director of Military Aeronautics.

Colonel M. F. Davis, A.S.A., is relieved from duty as Chief of Training Section, and will report to the Director of Air Service for Assignment to duty.

Effective on the discharge from military service of Colonel Arthur Woods, A.S.A., Colonel Archie Miller, A.S.A., in addition to his other duties, has been announced as Acting Assistant Director of Military Aeronautics.

Major Horace M. Hickam, A.S.A. was assigned on January 21, 1919 to the Executive Section.

Lt. Colonel William Thaw and Major Charles J. Biddle, A.S.A., were announced as members of the board to assist and cooperate with the Secretary of the Interior and Mr. George E. Dorr in the matter of the erection of a monument in the Lieur de Monts National Park to the aviators who have died during the war.

Colonel Walter G. Kilner, A.S.A., having reported to the Director of Military Aeronautics, from American Expeditionary Forces, Headquarters Services of Supply, France, has been assigned to duty with the Training Section. He left Washington recently for an extensive trip, terminating in California.

Major Harrison H. C. Richards, J.M.A., who reported at the D.M.A. on January 21st, has been assigned to the Supply Section.

Lieut. Cols. Daniel M. Cheston Jr., and Augustine M. Robins, J.M.A. have reported to the D.M.A. and been assigned to the Supply Section.

Lt. Col. S. M. Mount, J.M.A. left Washington, February 8th, for San Diego, California.

Captain Reed C. Harris, America's second living "ace", has been assigned to the Executive Section and has left for Chicago for duty.

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AIR SERVICE CLUBS' ASSOCIATION MEETING, FEBRUARY 15TH

Members of the A.S.C.A. will meet in the auditorium of the Interior Building, 18th and F. Sts., N.W., at 4:30 P.M. Saturday, February 15, 1919. Amendments to the constitution will be considered including the proposed change in name of the organization to "Army and Navy Air Service Association".

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HONORABLY DISCHARGED

Clifford B. Harmon,	Captain, A.S.A.
McDonald Lovell,	Second Lieutenant, A.S.A.
William H. Hamilton,	Second Lieutenant, A.S.A.
George E. Galbraith,	First Lieutenant, A.S.A.
Bert L. Bree,	First Lieutenant, A.S.A.
Edward Burns,	Major, A.S.A.
Eugene L. Deacon,	Major, A.S.A.
James E. Wills,	Second Lieutenant, A.S.A.
Charles J. Biddle,	Major, A.S.A.
Harold D. Hynds,	Captain, A.S.A.
Harold A. Miller,	First Lieutenant, M.C.
Robert R. Thompson,	Second Lieutenant, A.S.A.
Charles W. Reed,	First Lieutenant, A.S.A.
Wilbur H. Downs,	First Lieutenant, A.S.A.
Theodore D. Whittemore,	First Lieutenant, A.S.S.C.
Harry C. Durston,	Second Lieutenant, A.S.M.A.
Willard P. Fuller,	Captain, A.S.A.
Albert F. Bigelow,	Captain, A.S.M.A.
William C. Lawler,	Second Lieutenant, A.S.M.A.
Charles M. Dickson,	Captain, A.S.A.
Henry W. Heine,	Second Lieutenant, A.S.A.
Cyril J. Smith,	First Lieutenant, A.S.A.
John M. Sternhagen,	Second Lieutenant, A.S.A.
John H. Crippen,	Second Lieutenant, A.S.A.
William D. Simpson,	First Lieutenant, A.S.A.
Arthur Woods,	Colonel, A.S.A.
Edward Stevens,	First Lieutenant, A.S.A.
William H. Herbert,	First Lieutenant, A.S.A.
Edward H. Cumpston,	Captain, A.S.A.
Franklin W. Youry,	First Lieutenant, A.S.A.
Richard F. Decker,	Second Lieutenant, A.S.M.A.
Robert M. Wade,	First Lieutenant, A.S.A.
Bernard M. Conaty,	Second Lieutenant, A.S.M.A.
Joseph H. Pepper,	Second Lieutenant, A.S.A.P.
Harry M. Vivian,	Second Lieutenant, A.S.A.
Howard E. Cammack,	Second Lieutenant, A.S.M.A.
Clinton G. Brown,	Captain, A.S.A.
Oscar P. McCord,	Captain, A.S.A.
Walter Hendricks,	Second Lieutenant, A.S.A.
George Peabody,	Captain, A.S.A.
Robert C. Baldwin,	Captain, A.S.A.
Pierce Van Vleck,	Second Lieutenant, A.S.S.C.
Clarence W. Happ,	Second Lieutenant, A.S.A.
Julius A. White,	Second Lieutenant, A.S.M.A.
Elmer G. Leonhardt,	Second Lieutenant, A.S.A.
Robert F. Mackie,	Second Lieutenant, A.S.M.A.
Ernest J. Pfirrman,	Second Lieutenant, A.S.A.
Edward E. Ashley, Jr.,	Captain, A.S.A.
Cecil F. Whitehead,	First Lieutenant, A.S.S.C.
Walter P. Jacob,	Captain, A.S.A.
George C. Whiting,	First Lieutenant, A.S.A.
Clifford E. Smyths,	Captain, A.S.A.
Cyrus McCormick, Jr.,	First Lieutenant, A.S.A.
Howard T. Cook,	Second Lieutenant, A.S.A.

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GENERAL MITCHELL DECORATED

Brig. Gen. William Mitchell, Chief of Air Service, 3d Army of Occupation, A.E.F., was named a Commander in the French Legion of Honor on January 14, 1919, with nine other American General Officers.

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R. M. A.'s

In accordance with recommendations from the Training Section, the following named officers are rated as Reserve Military Aviators, from the date set after their respective names:

2nd Lieut. Leland B. Bass, A.S.A.	January 28, 1919
1st Lieut. A. L. Pade, Jr., A.S.A.	January 29, 1919
2nd Lieut. John M. Martin, A.S.A.	January 29, 1919
Captain Wilbur F. Wright, A.S.A.	February 1, 1919

The following R. M. A.'s were announced recently but not printed in the Weekly News Letter:

Capt. Charles G. Eidson, A.S.A.	December 19, 1918
1st Lieut. Hilton, M. Patton, A.S.A.	January 4, 1919
2d Lieut. Clyde V. Winter, A.S.A.	January 4, 1919
Capt. C. A. Miller, A.S.A.	January 20, 1919

FATALITIES AT FLYING FIELDS

During the week ending January 23d, there were two fatalities at American Flying Fields as follows:

Gerstner, Lake Charles, La., January 18, 1919, Arthur E. Elliott, 2d Lt., Pilot.
McCook, Dayton, Ohio, January 22d, 1919, Frank Banks, 1st Lt., Pilot.

For the week ending January 30th, there were three fatal accidents:

Carlstrom, Arcadia, Fla., January 27th, Cyril T. Hunt, 2d Lt. Pilot.
Rockwell, San Diego, California, January 29th, George P. Leggett, 2d Lt., Pilot.
Godman, Stithton, Ky., January 29th, William T. Morgan, 2d Lt., Pilot.

INSTRUCTORS' INSIGNIA

Flying instructors will wear the small gold wings on the right sleeve, bottom of insignia one inch above sleeve braid, or between wound stripes and sleeve braid where the former are worn,

Only those persons who have been designated as instructors by field commanders and have been announced in orders as being on duty as flying instructors, or who may be so designated in future, will wear this insignia.

SECOND MARTIN BOMBER ARRIVES

Glenn Martin Bomber Number 4, arrived at Bolling Field, Anacostia, D.C. February 6th, from Cleveland. The entire trip, via Baltimore amounting to practically 450 miles air travel, was made in two hours and fifty-eight minutes. This is the second machine of this type delivered to the Division of Military Aeronautics by the Glenn Martin Company, It will be flown to New York later in the month for exhibition in the International Aeronautical Exposition at Madison Square Garden.

The Martin Bomber was piloted by Mr. Eric Springer of the Martin Company and carried three passengers, the Chief Engineer of the Martin company, a representative of the Post Office, and a mechanic.

Vol. I. D. M. A. WEEKLY NEWS LETTER OS 1345

Air Service Washington, D. C. War Department
February 15, 1919

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

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ADVANCED RATINGS FOR OVERSEAS FLYING OFFICERS

FOR DISTINGUISHED SERVICE

Advanced flying ratings have been recommended to 20 officers of the Air Service who have distinguished themselves in action overseas. Among the officers so recognized are Lt. Col. Wm. Thaw, Major David McK. Peterson, Capt. Edward V. Rickenbacker, Capt. Reed G. Landis, Capt. Douglas Campbell, Capt. Edward G. Tobin, and Lieut. L. O. Donaldson, all credited with having shot down five or more planes.

Those ratings are the first awards issued by a Board formed under the direction of Major General Wm.L. Kenly, Director of Military Aeronautics, to pass upon the qualifications and merits of flying officers who have distinguished themselves in action, with a view to awarding them such ratings as their achievements and abilities may warrant. This Board is composed of Colonel Townsend F. Dodd, Lt. Colonel B. F. Castle, Major Horace M. Hickam, and 1st Lt. Sidney T. Thomas, of the Army Air Service.

The ratings awarded are those of the Junior Military Aviator, carrying an increase of 50% base pay for flying duty, and the Military Aviator carrying 75% increased pay. Before the war the rating of Junior Military Aviator was given after certain flying tests were passed and that of Military Aviator only after three years experience as a Junior Military Aviator. During the war the rating of Reserve Military Aviator was created and a law was passed which authorized the promotion and appointment of officers to advanced ratings for distinguished service in action, without examination. The operations in the United States are now vested in the above mentioned board.

There follows a list of the 20 officers just recommended by the board for these ratings, six of whom are reported deceased. The ratings are indicated by the Letters J.M.A., Junior Military Aviator, and M.A., Military Aviator, the second being the senior rating. Following each name is the date from which the officer's new rating is recommended to take effect.

List of American Flying Officers recommended for advanced rating for distinguished service in action overseas:

Lt. Col. Wm. Thaw, M.A. February 15, 1918. Pittsburg, Pa.
Maj. David McK. Peterson, M.A. May 15, 1918. Honesdale, Pa.
Capt. Edward V. Rickenbacker, J.M.A. May 17, 1918; M.A. May 28, 1918. Columbus, Ohio.
Capt. Reed G. Landis, M.A. August 8, 1918. Chicago, Ill.
Capt. Douglas Campbell, M.A. May 28, 1918. Mt. Hamilton, Calif.
Capt. Edgar G. Tobin, J.M.A., July 16, 1918. San Antonio, Texas.

1st Lieut. Louis G. Bernheimer, J.M.A. August 11, 1918. New York, N.Y.
1st Lieut. Wm. P. Erwin J.M.A., July 15, 1918. M.A. September 12, 1918. Chicago, Ill
1st Lieut. Robert F. Raymond, J.M.A., June 24, 1918, Newton Center, Mass.
1st Lieut. Donald B. Warner (Bomber) J.M.A., September 4, 1918. Swampscott, Mass.
1st Lieut. James A. Keating, J.M.A. July 17, 1918 M.A. August 8, 1918, Chicago, Ill.
1st Lieut. Charles W. Drew, J.M.A. August 15, 1918, Philadelphia, Pa.

2d Lieut. Earl W. Porter (Observer) J.M.A. August 9, 1918, Chicago, Ill.
2d Lieut. John O. Donaldson, M.A., August 10, 1918, Washington, D.C.

Officers Deceased

1st Lieut. Fred W. Norton, J.M.A., July 2, 1918, Columbus, Ohio.
1st Lieut. Edward Orr, J.M.A. August 28, 1918, Chicago, Ill.
1st Lieut. Merton L. Campbell, M.A. August 13, 1918, Wakeman, Ohio.
1st Lieut. Lloyd A. Hamilton, M.A. August 13, 1918, Burlington, Vt.
2d Lieut. Frank B. Bellows, J.M.A., September 13, 1918, Wilmette, Ill.
2d Lieut. Roger Hitchcock, J.M.A. August 11, 1918. Los Angeles, Calif.

NO AIRPLANE FATALITIES

There were no airplane fatalities at the United States Flying Fields during week ending February 6, 1919.

Three accidents occurred at Kelly Field but no one was killed. A total of 4006 hours was flown.

UNAUTHORIZED INSIGNIA

The War Department authorizes publication of the following:

"It has been brought to the attention of the War Department that post exchanges and similar places are selling unauthorized insignia such as service ribbons and gold and silver stars to be worn on the uniform."

"Responsible officers will take immediate steps to have such practice discontinued by post exchanges and stores under their immediate jurisdiction. At the same time every effort will be made to influence stores located near posts, camps or cantonments to discontinue the practice."

GENERAL MENOHER GOES HOME

On a recent leave of absence Major General Charles T. Menoher, Director of the Air Service, visited Johnstown, Pa., where his mother who is 87 years old is still living. It was an "Old Home Week" for the General. The State Legislation adjourned on Friday, February 7th., in his honor and Governor Sproul attended exercises celebrating General Menoher's return. On this occasion the General was presented with a handsome silver service from the people of his native city. It was a gala week-end for the General who made six or eight speeches in the course of his brief stay.

Three planes from Bolling Field, Washington, made the trip to Johnstown, to take part in the ceremony. The General said that the enthusiasm of the people and the extent of the courtesies extended to him was surprising, and he noted with special interest that the sympathy of the whole countryside seemed to be with the boys in France, and that they were fired by the one idea of defeating the Boche. There was an apparent lack of German influence and sympathy in this neighborhood, the General noticed.

Of course, it was a great day for Mrs. Menoher, the mother of this brilliant and distinguished officer who had just returned from overseas to head the Air Service. It was with great pride that she told of his service and the fact that she had besides her son, four grandsons who were officers in the American

service, and four grandsons who were enlisted, two of the latter serving in the Aviation section. Two of the grandsons, of course, were General Menoher's sons, Major Pearson Menoher, and Lieut. Darrow Menoher.

GENERAL MENOHER RECEIVES DECORATIONS

General Menoher recently received through the State Department, two medals from the French Government. One of them conferred the rank of Commander of the Legion of Honor, and the other was a Croix de Guerre with palm. The citations to accompany these medals have not yet been received.

HEADS OF A. E. F. AIR SERVICE ORGANIZATIONS

About the time of the signing of the Armistice, the American Air Service overseas was commarded by Major General Mason M. Patrick, Chief of Air Service, A.E.F., Headquarters, Tours. He had two chief assistants; Brig. Gen. William Mitchell, Assistant Chief of the Air Service, Army Group, or Zone of Advance, and Brig. Gen. Benjamin D. Foulois, M.A., Asst. Chief of the Air Service, Service of Supply.

On November 6th, the chief of the Air Service, First Army, was Col. Frank P. Lahm, J.M.A.; the Chief of the Air Service Second Army was Col. Thomas DeW. Milling, M.A.; when the Third Army Air Service was organized Brig. Gen. Mitchell took command and on January 8th, 1919 was stationed in Coblenz, Germany.

Col. Milling was chief A.S. 1st Army at Orquevaux, on January 8th, 1919, and Col. Lahm was chief of the A.S. 2d Army, at Toul.

Col. Charles deF. Chandler, J.M. Aeronaut was head of the American Balloon Service, A.E.F.

In Italy the Headquarters of the American Air Service was at Rome, where Major Robert Glendenning was in command.

In England the Headquarters Air Service, Base Section #3, was under the command of Col. C. R. Day.

Paris Headquarters were under the command of Lt. Col. H. Dunwoody.

Col. Aubrey Lippincott, commanded the Air Service Replacement Barracks at St. Maixent, where the complete organization and equipment of the squadrons was carried out, except the planes which were flown to the advance stations by the pilots from Orly, the Aviation Acceptance Park, commanded by Col. T. A. Baldwin.

Lt. Col. Hiram Bingham was in command of the 3d Army Instruction Center, at Issoudun, the largest flying school in the world, having 14 fields.

Col. W. G. Kilmer, J.M.A., was chief of Training, Hdqs. Tours. Lt. Col. E. V. Sumner was in charge of Air Service Production Center, No. 2 at Ramorantin.

Col. Whithead was chief of staff for the Air Service at G.H.Q. November 11, 1918.

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AIR SERVICE CITATIONS NUMBER THREE HUNDRED SEVENTY FOUR

Three hundred and seventy four awards and citations have been issued to members of the American Air Service to date.

The Director of Military Aeronautics has just received a second list of Honors and Awards conferred upon American Aero Squadrons and flying officers of the American Expeditionary Forces. This list gives the citations of five squadrons, including the Lafayette, the 17th and 148th, which were with the British; the 90th and the 99th Squadrons. The names of fifty-nine American Flying Officers awarded the Distinguished Service Cross are recorded. Thirteen awards of the Croix de Guerre and three French citations are listed. One award of the British Distinguished Flying Cross is announced. The list of Italian honors conferred shows that thirty-nine American officers won the Croce al Merito di Guerra; six others were mentioned in Italian citations.

Distinguished Service Medals, have been awarded to Generals Menoher and Patrick, and Legion of Honor Medals, Commander to Generals Menoher and Mitchell.

The list, together with the first list, which showed the citations of five American Squadrons, the 1st Day Bombardment Group and 129 Air Service Officers, brings the number of Air Service citations up to two hundred and fifty individuals and eleven organizations, not including over one hundred other awards of Distinguished Service Crosses announced by the War Department.

The citation of the Lafayette Squadron, formerly the Lafayette Escadrille, is signed by General Petain and reads as follows:- "Brilliant unit which has shown itself, during the course of operations in Flanders, worthy of its glorious past. In spite of losses which took away a third of its effectives, in a difficult sector, it has assured a perfect security to our Corps Observation airplanes, a complete service of reconnaissance at both high and low altitude, and the destruction, not only near the front lines but deep in the enemy's territory, of a great number of German airplanes and captive balloons."

The 17th and 148th Squadrons which served with the British Royal Air Force were cited in letters by both Generals J. M. Salmond and J. Byng, when they were transferred to the American Army. In citing the 90th Squadron, General Bell, Commanding the 33d Division says in part:- "I wish to express to you at this time my appreciation for the valuable and efficient work your Squadron has done while serving with us. You have met all our requests with willing compliance unless prevented unquestionably by the elements. Your greatest cooperation has been in assisting us in locating our lines, which you have done repeatedly with uniform success and accuracy."

Attached to the citation is a list of the pilots of this squadron, as is the case of this citation of the 99th Aero Squadron by Major General J. E. Mc Mahon, in which he especially mentions pilots and balloonists as follows:

Capt. William O. Butler,	Germantown, Pa.
Lieut. James A. Healy,	Jersey City, N.J.
Thomas J. Abernathy,	West Pembroke, Maine.
Sidney I. Howell,	E. Orange, N. J.
Arthur H. Jones,	Hayward, Calif.
Lee M. Murphy,	Roxbury, Mass.
Ralph A. O'Neill,	Nogales, Ariz.
Charles P. Porter,	Beechmont, New Rochelle, N.Y.
Kenneth L. Porter,	Dowagiac, Mich.
Joseph C. Raible, Jr.,	Hannibal, Mo.
Louis C. Simon, Jr.,	Columbus, Ohio.
James E. Wallace	(Examined) Atlanta, Ga.

The Italian Croce al Merito di Guerra was awarded to the following:

Major Florello H. La Guaedia,	New York City, N.Y.
First Lieuts:	
James L. Bahl,	Wooster, Ohio.
Raymond P. Baldwin,	Brookline, Mass.
Arthur M. Beach,	Apalachin, N. Y.
Allen W. Bevin ,	Princeton, N. J.
Gilbert P. Bogart,	1219 N. State St., Chicago, Ill.
Arthur F. Clement,	606 Whitlock Ave., Crawfordsville, Ind.
Wm. G. Cochran	Southold, L. I.
De Witt Coleman, Jr.,	Tenafly, N. J.
Kenneth G. Collins,	Port Jefferson Sta. N. Y.
Alexander M. Craig,	79 Worth St., New York City.
Herbert C. Dobbs, Jr.,	221 B St., N.E., Washington, D.C.
Edmund A. Donnan,	115 Wade Ave., Washington, Pa.
Norton Downs, Jr.,	Three Tuns, Pa.
Arthur D. Farquahr,	Sandy Spring, Md.
Harry S. Finkenstaedt	University Club, Detroit, Mich.
Willis Fitch,	West Medford, Mass.
Donald G. Frost,	Paterson, N. J.
William O. Frost,	No address
Gosta N. Johnson,	Good Pine, La.
James P. Hanley, Jr.,	110 Broadway, Wheeling, W. Va.
Geo. C. Hering	Felton, Del.
Wallace Hoggson	Greenwich, Conn.
LeRoy D. Kiley,	3227 Ellis Ave., Chicago, Ill.
Herman F. Kreuger,	Niosho Falls, Kansas.
Paton MacGilvary,	Madison, Wis.
Oble Mitchell,	Grinnell, Iowa.
William H. Potthoff,	Logansport, Indiana.
Aubrey G. Russell,	No Address.
Wm. B. Shelton,	Ithaca, N. Y.
Norman Sweetser,	Philadelphia, Pa.
Emory E. Watchorn,	Los Angeles, Calif.
Frederick K. Weyerhaeuser,	509 North Yakima Ave., Lacoma, Wash.
Warren Wheeler,	No address.
Alfred S. R. Wilson,	Santa Barbara, Calif.
Warren S. Wilson,	2063 Green St., San Francisco, Cal.
Second Lieuts:	
Spencer L. Hart,	Whitakers, N.C.
James Kennedy,	Lansdown, Pa.
Norman Terry,	Fulton, Ky.

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HONOR ROLL OF THE AIR SERVICE

The following officers of the American flying arm have been decorated for conspicuous bravery in action. The list, which includes both American and foreign awards, has been carefully compiled from available official sources, but the records are not yet complete.

DISTINGUISHED SERVICE CROSS

Thomas J. Abernathy .....2d Lieut.
Perry H. Aldrich .....1st Lieut.
Arthur H. Alexander .....1st Lieut.
Sterling C. Alexander .....1st Lieut.
Gardner Philip Allen ..1st.Lieut. C.A.C.
Flynn L. A. Andrew, ...1st Lieut.
Paul Armengaud.....Major
Rodney M. Armstrong .....1st Lieut.
Dogan H. Arthur .....1st Lieut.
Benjamin L. Atwater .....1st Lieut.
Walter L. Avery.....1st Lieut.
Philip R. Babcock .....Captain.
David H. Backus, ...1st Lieut.
Wm. T. Badham .....1st Lieut.
Paul Frank Baer .....1st Lieut.
Ralph S. Bagby .....1st Lieut.
Herbert B. Barthelf, ...1st Lieut.
Byrne W. Baucom .....1st Lieut.
James D. Beane .....1st Lieut.
David C. Beebe .....2d Lieut.
Franklin B. Bellows .....2d Lieut.
William Belzer .....2d Lieut.
Otto E. Benell .....2d Lieut.
Louis G. Bernheimer .....1st Lieut.
Chas. Raymond Blake.....1st Lieut.
Erwin R. Bleckley .....2d Lieut.
Hugh D. Bloomfield, ...1st Lieut.
Allen F. Bonnalie.....1st Lieut.
Horace L. Borden .....2d Lieut.
Lloyd G. Bowers.....1st Lieut.
Samuel C. Bowman .....2d Lieut.
Theodore E. Boyd .....1st Lieut.
Lewis H. Brereton .....Lt. Colonel.
Hugh Brewster .....1st Lieut.
Arthur R. Brooks .....1st Lieut.
Wm. E. Brotherton.....2d Lieut.
Mitchell H. Brown.....2d Lieut.
Harold H. Buckley.....Captain.
Edward Buford Jr.....Captain.
Valentine Burger.....2d Lieut.
James S. D. Burns.....2d Lieut.
Byron T. Burt, Jr.....1st Lieut.
Alan Butt, ...1st Lieut.
Douglas Campbell.....Captain.
George D. Carrol.....1st Lieut.
John R. Castleman.....1st Lieut.
Reed M. Chambers.....Captain.
Chas. W. Chapman.....2d Lieut.
Kenneth S. Clapp.....1st Lieut.
Sheldon V. Clarke .....1st Lieut.
Wallace A. Coleman.....1st Lieut.
Harvey Conover .....1st Lieut.
Everett F. Cook .....Captain.
Weir H. Cook, ...1st Lieut.
Hamilton Coolidge, ...Captain.
John G. Cousins.....Captain.
Edward M. Curtis.....1st Lieut.
Edward B. Cutter.....1st Lieut.
Ralph E. de Castro.....1st Lieut.
Willis A. Dieken.....Captain.
Raymond P. Dillon.....1st Lieut.
Charles R. D'Olive .....1st Lieut.
Kingman Douglass.....1st Lieut.
Meredith L. Dowd .....2d Lieut.
Chas. W. Drew.....1st Lieut.
Arthur William Duckstein.....1st Lieut.
Arthur C. Esterbrook.....1st Lieut.
Warren Edwin Eaton.....1st Lieut.
Robert F. Elliott.....1st Lieut.
William P. Erwin.....1st Lieut.
J. Dickinson Este .....1st Lieut.
Leo C. Ferrenbach.....1st Lieut.
Howard F. Fleeson.....1st Lieut.
Justin P. Follette, ...1st Lieut.
Hugh L. Fontaine.....1st Lieut.
Christopher W. Ford.....Captain.
Wm. F. Frank.....1st Lieut.
John Frost.....1st Lieut.
George Willard Furlow.....1st Lieut.
Bradley J. Gaylord.....1st Lieut.
Harold H. George.....1st Lieut.
Ernest A. Giroux.....1st Lieut.
Harold E. Goettler.....2d Lieut.
George E. Goldthwaite.....1st Lieut.
Alfred A. Grant.....Captain.
Fred C. Graveline.....Sergeant.
Charles G. Grey.....Captain.
Andre F. Gundelach, ...1st Lieut.
Murray K. Guthrie.....1st Lieut.
James Norman Hall.....Captain.
Lloyd A. Hamilton.....1st Lieut.
Leonard C. Hammond.....Captain.
Percival G. Hart.....2d Lieut.
Harold E. Hartney.....Major.
Benjamin P. Harwood.....1st Lieut.
Frank K. Hays.....2d Lieut.
James A. Healey.....1st Lieut.
Phil. A. Henderson.....1st Lieut.
J. A. Higgs.....1st Lieut.
Maury Hill.....Captain.
Raymond C. Hill.....1st Lieut.
Roger W. Hitchcock.....1st Lieut.
Lansing C. Holden.....1st Lieut.
Spesserd D. Holland.....1st Lieut.
William J. Hoover.....1st Lieut.
Donald Hudson.....1st Lieut.
D. G. Hunter.....1st Lieut.
Frank O'Driscoll Hunter.....1st Lieut.
Livingston Gilson Irving.....1st Lieut.
John N. Jeffers.....1st Lieut.

Thomas M. Jervey .....1st Lieut.
Arthur H. Jones.....1st Lieut.
Clinton Jones.....2d Lieut.
John W. Jordan.....2d Lieut.
Clarence C. Kehle.....1st Lieut.
Samuel Kaye, Jr.....1st Lieut.
Asher E. Kelty.....1st Lieut.
Geo. C. Kennedy.....1st Lieut.
Field E. Kindley.....1st Lieut.
Clair A. Kinney.....1st Lieut.
Wilbert E. Kinsley.....2d Lieut.
James Knowles.....1st Lieut.
John H. Lambert.....1st Lieut.
Gerrin De Freest Larner.....1st Lieut.
Walter R. Lasson.....Captain.
John B. Lee.....2d Lieut.
Robert Lindsay.....1st Lieut.
Frank A. Llewellyn.....1st Lieut.
K. P. Littauer.....Major.
William C. Love.....2d Lt. U.S.M.C.
Francis B. Lowry.....2d Lieut.
Frank Luke, Jr.....1st Lieut.
Joel H. McClendon.....1st Lieut.
Cleveland W. McDermott.....2d Lieut.
James A. McDevitt.....1st Lieut.
Harry C. McDougall.....1st Lieut.
Elmore K. McKay.....2d Lieut.
James R. McKay.....1st Lieut.
Ora B. McMurry .....1st Lieut.
John MacArthur.....2d Lieut.
Winfred J. MacBrayne.....1st Lieut.
James F. Manning, Jr.....1st Lieut.
Russell L. Maughan.....1st Lieut.
James A. Meissner.....Major.
John F. Michenor.....1st Lieut.
John Mitchell.....Captain.
William Mitchell..... Brig.General.
Edward Russell Moore.....1st Lieut.
Edw. H. Morris.....2d Lieut.
Oscar B. Myers.....1st Lieut.
Roland H. Neel.....2d Lieut.
Harlow P. Neibling.....1st Lieut.
George R. Nixon .....1st Lieut.
Sigbert A. J. Norris.....2d Lieut.
Fred W. Norton.....1st Lieut.
Stephen H. Noyes.....1st Lieut.
Alan Nutt.....1st Lieut.
Paul J. O'Donnell.....2d Lieut.
Ralph A. O'Neill.....1st Lieut.
Edward Orr.....1st Lieut.
Richard C. M. Page.....1st Lieut.
Joseph A. Palmer.....2d Lieut.
William W. Palmer.....1st Lieut.
Alfred P. Patterson, Jr.....1st Lieut.
Karl C. Payne.....1st Lieut.
Elmer Pendell.....1st Lieut.
Josiah Pegues.....1st Lieut.
David McK Peterson.....Major.
Glen Phelps.....1st Lieut.
Geo. B. Phillips.....1st Lieut.
Chas W. Plummer.....2d Lieut.
Lewis C. Plush.....1st Lieut.
Britton Polley.....1st Lieut.
William Thomas Ponder.....1st Lieut.
Carl W. Porter.....2d Lieut.
Charles P. Porter.....2d Lieut.
Kenneth L. Porter.....2d Lieut.
Glen A. Preston.....2d Lieut.
Percy Rivington Pyne.....1st Lieut.
John J. Quinn.....1st Lieut.
Joseph C. Raible, Jr.....1st Lieut.
John I. Rancourt.....1st Lieut.
Howard S. Rath.....1st Lieut.
Robert F. Raymond , Jr.....1st Lieut.
Clearton R. Reynolds.....Captain.
John N. Reynolds.....Lt.Colonel.
James W. Richardson.....2d Lieut.
Edward V. Rickenbacker.....Captain.
Paul N. A. Rooney.....1st Lieut.
Hermon C. Rorison.....1st Lieut.
Cleo J. Ross.....1st Lieut.
Edward W. Rucker, Jr.....Captain.
Leslie J. Rummell,.....1st Lieut.
Alexander P. Schenck.....1st Lieut.
Karl J. Schoen .....1st Lieut.
Arthur P. Seaver.....1st Lieut.
Cecil G. Sellers.....Captain.
Sumner Sewall.....1st Lieut.
Richard B. Shelby.....1st Lieut.
Louis C. Simon, Jr.....2d Lieut.
John H. Snyder.....1st Lieut.
Carl Spatz .....Major
Richard Wilson Steele.....2d Lieut.
John H. Stevens.....2d Lieut.
John Y. Stokes, Jr.....1st Lieut.
Penrose V. Stout.....1st Lieut.
Wm. H. Stovall.....1st Lieut.
Victor H. Strahm.....Captain.
W. J. R. Taylor.....1st Lieut.
Walton B. Ten Eyck, Jr.....2d Lieut.
William Thaw.....Lt.Colonel
Fred A. Tillman.....2d Lieut.
Edgar G. Tobin.....Captain.
Wm. H. Vail.....1st Lieut.
Remington D. Wernam.....1st Lieut.
James E. Wallis.....Captain.
William W. Waring.....1st Lieut.
Donald B. Warner.....1st Lieut.
Pennington H. Way.....2d Lieut.
Joseph F. Wehner.....1st Lieut.
Wilbert W. White.....1st Lieut.
Alan F. Winslow.....2d Lieut.
Chester C. Wright.....1st Lieut.

DISTINGUISHED SERVICE MEDAL

Charles T. Menoher....Maj. General
Mason M. Patrick.....Maj. General

DISTINGUISHED SERVICE ORDER
--BRITISH

A. F. Bonnalie.....1st Lieut.

DISTINGUISHED FLYING CROSS
--BRITISH

H. L. Bair.....1st Lieut.
M. L. Campbell.....1st Lieut.
Henry Robinson Clay, Jr.1st Lieut.
John O. Donaldson.....2d Lieut.
Floyd Andrews Hamilton..1st Lieut.
Charles L. Heater.....1st Lieut.
Thomas John Herbert.....1st Lieut.
P. T. Iaccaci.....1st Lieut.
James Alfred Keating....1st Lieut.
Field E. Kindley.....1st Lieut.
Reed G. Landis,.....Captain.
Frederick E. Luff.....1st Lieut.
Elliott W. Springs.....Captain.
George Augustus Vaughn..1st Lieut.

LEGION OF HONOR
— FRENCH
(Commander)

Maj. Gen. Charles T. Menoher
Brig. Gen. William Mitchell

CROSS OF THE LEGION OF HONOR
-- FRENCH

Charles W. Miller.....2d Lieut.
David E. Putnam.....1st Lieut.

CROIX DE GUERRE — FRENCH

Thomas J. Abernathy,....2d. Lieut.
James H. Ackerman.....1st Lieut.
Floyd H. Allport.....2d Lieut.
Paul Frank Baer.....1st Lieut.
Walter V. Barneby.....1st Lieut.
James Henry Faucham.....
James D. Behne.....1st Lieut.
Charles John Biddle....Major.
Stewart Bird.....1st Lieut.
William C. Butler.....Captain
Douglas Campbell.....Captain
Richard Carside.....1st Lieut.
Thomas G. Cassady.....1st Lieut.
Chas. Wesley Chapman, Jr.2d Lieut.

CROIX DE GUERRE -- FRENCH
(Continued)

Arthur J. Coyle.....Captain
Kenneth P. Culbert.....2d Lieut.
Karl H. Eymann.....2d Lieut.
Charles C. Fleet.....1st Lieut.
Christopher Wm. Ford.....Captain.
#Ernest A. Giroux.....1st Lieut.
James A. Healy.....1st Lieut.
Raymond C. Hill.....1st Lieut.
Amos L. Hopkins.....1st Lieut.
Sidney I. Howell.....1st Lieut.
Frank O'Driscoll Hunter.....1st Lieut.
Arthur H. Jones, ...1st Lieut.
Henry Jones.....1st Lieut.
Henry P. Jones.....Sergeant.
Charles Maury Jones.....Captain.
Charles Wayne Kerwood.....Sergeant.
Charles Kinsolving.....1st Lieut.
George Marion Kyle.....1st Lieut.
G. DeFreest Larner.....1st Lieut.
Handerson Lehr.....1st Lieut.
Kenneth Marr.....Major.
James A. Meissner.....Major.
Charles T. Menoher.....Maj. Gen.
Charles I Merrick.....1st Lieut.
Paul Meyers.....2d Lieut.
Robert Moore.....1st Lieut.
Leo L. Murphy.....1st Lieut.
Ralph A. O'Neill,.....1st Lieut.
Carter Landram Ovington.....1st Lieut.
David McK. Peterson.....Major.
Granville Pollock.....1st Lieut.
William Ponder.....2d Lieut.
Charles P. Porter.....2d Lieut.
Kenneth L. Porter, ...2d Lieut.
John A. Posey.....2d Lieut.
Clifford R. Powell.....1st Lieut.
David E. Putnam.....1st Lieut.
Joseph C. Raible, Jr.....1st Lieut.
Rufus Randall Rand.....Sergeant.
Walter Davis Rheno.....Corporal
Edward V. Rickenbacker.....Captain.
Ralph Royce.....Lt. Colonel
Malcolm A. Sedgwick.....2d Lieut.
Morteu Seymour.....Lieut.
Harry Shaffer.....2d Lieut.
Reginald Sinclaire.....Sergeant.
Louis J. Simon Jr.....1st Lieut.
Donald Stone.....Corporal
William Thaw .....Lt.Colonel.
George Evans Turnure.....1st Lieut.
James E. Wallace.....1st Lieut.
William E. Wass.....1st Lieut.
Charles Herbert Wilcox.....1st Lieut.
Alan Winslow.....2d Lieut.
Joseph Volney Wilson.....1st Lieut.
Houston Woodward.....Corporal.
#James Norman Hall.....Captain.

FRENCH CITATIONS

Valentine J. Burger, ...Lieut.
Alexander T. Grier, ...2d Lieut.
Horace A. Lake.....2d Lieut.

ITALIAN CROCE AL MERITO DI GUERRA

The following American Officers serving with the Italian Royal Air Force have been awarded the Italian War Cross:

Major:

Florello H. La Guardia

First Lieutenants:

James L. Bahl (deceased)
Raymond P. Baldwin
Arthur M. Beach
Allen W. Bevin
Gilbert P. Bogert
Arthur F. Clement
William C. Cochran
De Witt Coleman Jr. (deceased)
Kenneth G. Collins
Alexander M. Craig
Herbert C. Dobbs, Jr
Edmund A. Donnan
Norton Downs Jr.
Arthur D. Farquhar
Harry S. Finkenstaedt
Willis Fitch
Donald G. Frost
William O. Frost
Gosta N. Johnson
James P. Hanley Jr.
George C. Hering
Wallace Hoggson
LeRoy D. Kiley
Herman F. Kreuger
Paton MacGilvary
Dole Mitchell
William H. Potthoff
Aubrey G. Russell
William Shelton
Norman Sweetser
Emory E. Watchorn
Frederick K. Weyerhaeuser
Warren Wheeler
Alfred S. R. Wilson
Warren S. Wilson

2nd Lieutenants:

Spencer L. Hart
James Kenedy
Norman Terry

ITALIAN CITATIONS

The following American Officers, First Lieutenants, attached to the Italian Air Service have been mentioned in citations:

James P. Hanley Jr.
George C. Hering
William B. Shelton
Norman Sweetser
Emory E. Watchorn
Frederick K. Weyerhaeuser

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

First Lieut. Howard T. Fleeson, Signal Corps observer, 12th Aero Squadron. For the following act of extraordinary heroism in action near Buzancy, France, October 30, 1918. Lieut. Fleeson is awarded a bronze oak leaf, to be worn on the distinguished-service cross, awarded him October 3, 1918. This officer accompanied a formation of nine planes on a photographic mission in German territory, six planes turned back before reaching the enemy line, and the remaining three were attacked by 18 Fokker-type planes when they had penetrated 12 kilometers into the enemy country. After his two companions, whom he tried to assist, were shot down, Lieut. Fleeson fought his way back to his own lines, destroying two enemy planes in the combat. Home address, W. H. Fleeson, brother, Sterling, Kans.

First Lieut. Hugh D. Broomfield (deceased), pilot (Air Service). For extraordinary heroism in action near Dunel, France, October 21, 1918. Responding to an urgent request for a plane to penetrate the enemy lines to ascertain whether or not the enemy was preparing a counter attack, Lieut. Broomfield immediately volunteered for the mission. Obliged to fly at a very low altitude on account of the unfavorable weather conditions, he was under terrific fire of the enemy at all times, but by skillful dodging he managed to cross the enemy lines. Next of kin, Thomas Broomfield, father, 527 Tacoma Avenue, Portland, Oreg.

Second Lieut. Clinton Jones, Air Service (pilot), 22d Aero Squadron. For the following act of extraordinary heroism in action near St. Mihiel, France, October 10, 1918. Lieut. Jones was a member of a patrol which succeeded in hedging in a fast enemy biplane. Approaching the enemy plane Lieut. Jones signaled the enemy to give up and land. The reply was a burst of machine-gun fire, which cut his wind shield and set fire to his plane. Lieut. Jones then closed in and shot the German pilot and sent the plane crashing to the ground. He landed his own plane and extinguished the flames. Home address, Mrs. Clinton Jones, mother, 2617 Buchanan Street, San Francisco, Calif.

Capt. Hamilton Coolidge, deceased, 94th Aero Squadron. For extraordinary heroism in action near Grandpre, France, October 27, 1918. Leading a protection patrol, Capt. Coolidge went to the assistance of two observation planes which were being attacked by six German machines. Observing this maneuver, the enemy sent up a terrific barrage from antiaircraft guns on the ground. Disregarding the extreme danger, Capt. Coolidge dived straight into the barrage and his plane was struck and sent down in flames. Next of kin, J. R. Coolidge, father, 10 West Hill Place, Boston, Mass.

First Lieut. William H. Vail, Air Service, pilot, 95th Aero Squadron. For extraordinary heroism in action at Stenay, France, November 6, 1918. Lieut. Vail, while on patrol, engaged four hostile pursuit planes which were about to attack an accompanying plane. Almost immediately he was attacked by five more enemy planes, all of which he continued to fight until he was severely wounded and his plane disabled. He glided to the ground, abandoning the flight only when his machine fell to pieces near the ground. Home address, Mrs. Fred E. Vail, mother, 1535 South Paulina Street, Chicago, Ill.

Capt. Edward V. Rickenbacker, Air Service, 94th Aero Squadron. For the following act of extraordinary heroism in action near Billy, France, September 25, 1918, Capt. Rickenbacker is awarded an additional bar to be worn on the distinguished-service cross awarded him October 16, 1918. While on voluntary patrol over the lines, Capt. Rickenbacker attacked seven enemy planes (five, type Fokker, protecting two, type Halberstadt). Disregarding the odds against him, he dived on them and shot down one of the Fokkers out of control. He then attacked one of the Halberstadts and sent it down also. Home address, Mrs. William Rickenbacker, 1334 East Livingstone Avenue, Columbus, Ohio.

Second Lieut. Glen A. Preston, Field Artillery observer, 99th Aero Observation Squadron. For extraordinary heroism in action near Andevanne, France, October 29, 1918. Becoming separated from his protecting planes while on a photographic mission, Lieut. Preston continued alone, and, although he was attacked by seven enemy planes, type Fokker, he drove them off and secured numerous photographs. For the following act of extraordinary heroism in action October 30, 1918, Lieut. Preston is awarded one bar to be worn with his distinguished-service cross. Lieut. Preston successfully accomplished his mission in spite of encounters with four separate enemy formations, one of 38 machines, another of 6, type Pfalz, another of 7, type Fokker, and a formation of biplane planes. He shot down one of the enemy and returned with valuable information. Home address, Mrs. Perry C. Davidson, mother, Howe, Ind.

First Lieut. John R. Castleman, Air Service pilot, 99th Aero Squadron. For extraordinary heroism in action near Romagne, France, October 5, 1918. In spite of being attacked by seven enemy planes, type Fokker, and later by five, type Pfalz, Lieut. Castleman successfully accomplished a photographic mission 6 kilometers behind the German lines, without protection, and also destroyed two of the enemy planes. Home address, F. I. Castleman, brother, 128 Rochelle Avenue, Wissahickon, Philadelphia, Pa.

First Lieut. John Y. Stokes, Jr., Air Service, 20th Aero Squadron. For extraordinary heroism in action near Etain, France, September 16, 1918. After their own formation had been broken up, Lieut. Stokes and his pilot voluntarily continued on their bombing mission with planes from another squadron. Although their plane was thrown out of control by antiaircraft fire, they proceeded to their objective and dropped their bombs. Their motor then died completely, and they were attacked by an enemy combat plane, but they fought off the attacking machine and reached the allied lines, where their plane crashed in a forest. Home address, John Y. Stokes, father, West Market, Reedsville, N. C.

Second Lieut. Edw. M. Morris, pilot (Air Service). For extraordinary heroism in action near Landres-et-St. Georges, France, October 30, 1918. Unable to complete a photographic mission, owing to motor trouble, Lieut. Morris, with his observer, made a reconnaissance behind the German lines. They dispersed a battalion of enemy troops, and although twice attacked by enemy patrols, drove them off and each case brought down one enemy plane. They remained in the air until their motor failed completely. Home address, Mrs. Rose Morris, 109 West One hundred and twenty-ninth Street, New York, N.Y.

First Lieut. Flynn L. A. Andrew, observer (Air Service). For extraordinary heroism in action near Landres-et-St. Georges, France, October 30, 1918. Unable to complete a photographic mission, owing to motor trouble, Lieut. Andrew, with his pilot, made a reconnaissance behind the German lines. They dispersed a battalion of enemy troops, and although twice attacked by enemy patrols, drove them off and in each case brought down one enemy plane. They remained in the air until their motor failed completely. Home address, Mr. Wm. H. Andrew, 1441 Pennsylvania Avenue, Denver, Colo.

Capt. Clearton H. Reynolds, pilot (Air Service). For extraordinary heroism in action near Romagne, France, October 9, 1918. Although weather conditions made flying exceedingly dangerous, Capt. Reynolds, with his observer, started on a mission to determine the position of the front-line troops of the division to which his squadron was attached. Flying at an altitude of 20 meters, they encountered and defeated three enemy patrols, gathered and delivered to division headquarters very valuable information. Home address, Mrs. Lena B. Reynolds, mother, 33 North Seventeenth Street, East Orange, N. J.

First Lieut. Britton Polley, observer (Air Service). For extraordinary heroism in action near Romagne, France, October 9, 1918. Lieut. Polley was assigned to a mission to find line troops of the division to which his squadron was attached. Weather conditions made flying almost impossible, a second plane, assigned to the mission returning on that account. Flying at an altitude of 25 meters over enemy lines, he encountered and defeated three enemy patrols, gathering and delivering to his division headquarters, most valuable information. Home address, J. W. E. Polley, father, 440 East One hundred and sixty-sixth Street, New York, N.Y.

Second Lieut, Frank Luke, Jr., deceased, Air Service, 27th Aero Squadron. For The following act of extraordinary heroism in action near Etain, France, September 18, 1918, Lieut. Luke is awarded a bar to be worn with the distinguished-service cross awarded him November 8, 1918. Immediately after destroying two enemy observation balloons, Lieut. Luke was attacked by a large formation of German planes, Fokker type. He turned to attack two, which were directly behind him, and shot them down. Sighting an enemy biplane, although his gasoline was nearly gone, he attacked and destroyed this machine also. Next of kin, Frank Luke, 2200 West Monroe Street, Phoenix, Ariz.

F. 115 1719

RETURNING TRANSCONTINENTAL FLIGHT MEETS DIFFICULTIES

Major Albert D. Smith, in charge of the Army transcontinental flyers, who made the trip east from San Diego recently, has experienced rough weather all the way West on his return trip. So far, in accidents due to soft fields and high winds, he has lost three of the ships which left Washington February 4th. He himself is going on alone to California in the remaining ship.

The four ships arrived at Columbia, South Carolina, in good shape on February 6th, in five hours and forty minutes from Langley Field, proceeding thence to Emerson Field and Camp Gordon, Atlanta. On the flight from there to West Point, Mississippi, one plane hit a tree while taking off in the mud at Vernon, Alabama, and was left behind, its pilot and its passenger, going on West by train.

The three remaining ships left Payne Field, West Point, Mississippi, on February 10th for Love Field, Dallas, Texas, and made that distance, roughly 450 miles, in seven hours and thirty minutes. From Dallas the fliers, on February 11th, flew to El Paso, Texas, 570 miles, in nine hours and forty-five minutes against a strong head wind, with one stop for gas at Big Spring. They were to leave El Paso at day-break on February 12th, but a wind storm of sixty-five mile velocity struck El Paso at 4:00 o'clock in the morning and badly damaged two of the three remaining planes, necessitating their shipment to Rockwell Field, San Diego, California by train. Major Smith wired last night that he expected to leave at the first opportunity for San Diego and complete the trip alone, but that the wind velocity was still forty-five miles per hour and directly against him.

ACCOMPLISHMENTS OF MILITARY AERONAUTICS

The following letter from Col. Milton F. Davis, to Major General Wm. L. Kenly, Director of Military Aeronautics is reproduced for the information of all. Colonel Davis has been assigned to the office of Directors, Air Service.

On leaving my duties as Chief of Training under your supervision, I desire to call your attention to, and to express in some way my appreciation of, the no less than remarkable accomplishments of our Flying Fields during the year ending November 11, 1918.....

Now that the war is over and the rush of Training activities has ceased, we may take time to look back over the past eighteen months and calmly survey the remarkable results attained by our Training Schools during that brief time. Before taking up his new duties, the Chief of Training desires to express his commendation and praise of the splendid work done by the Field Commanders, their administrative staffs and the remarkable body of young fliers who have produced greater results in less than a year than any other nation has done in thrice the time.

During the hurry of training and preparation of troops to lick the Hun, few people took time to consider the really marvelous work that was being done at the Flying Fields of the United States; and few, if any, outside of the Air Service, - as a matter of fact many in the Air Service, - have any conception of the magnitude of the U. S. Air Service on November 11, 1918.

The National Defence Act, authorizing and expanding the Aviation Section of the Signal Corps and appropriating the famous $640,000,000 was passed July 27, 1917. At that time America was unknown in the air. She had a few old ships that had been battered around in the Mexican Expedition, one lonesome squadron and a detachment. There were no airplanes and no factories in which to make them. There were no Flying Fields and but a few civilian Flying Instructors whose time in the air was counted by minutes instead of hours. From practically the absolute zero of arithmetic, the Air Service started to grow August 1st, 1917. In one year its accomplishments are almost beyond comprehension; they are so well known that a repetition of figures is not considered necessary here. Suffice to say that in that one year the United States had trained ten thousand fliers and the daring and initiative of our Field Commanders and their assistants had reached such a point that, at the signing of the Armistice, a Colonel of the British Air Service feelingly expressed the idea that, had the war continued a little longer, the Allies would have been coming to us to learn the art of flying and fighting in the air.

The world-wide results that have been thus accomplished have been done by a bunch of youngsters who, in times of ordinary peace with its slow promotion, would be Second and First Lieutenants. These young officers, who have been responsible for this splendid work and the wonderful reputation of our Training System, have built it up on their own initiative by endless and gruelling grind and in spite of restricting regulations and, only too often, of lack of co-operation of powers higher up. Youthful Majors and Lieutenant Colonels have performed the work, and handled the commands of Brigadiers and Major Generals; and have done it to the unqualified satisfaction of the Chief of Training. The greatest pride of his life is to have been associated with this bunch of live-wire young officers during their splendid work. Difficult problems have arisen which, in many cases, they have proceeded to solve without authority but always with the one idea in view, - to do the work and lick Germany.

The undersigned desires to express his boundless appreciation of the wonderful service rendered to the country by the corps of Field Commanders, Instructors and enlisted mechanicians of the Air Service in America and to commend and thank them for having done so much in helping to bring the war to a speedy termination. The nation is especially indebted to the personnel of the trained enlisted force of the flying fields, who, with little hope of getting overseas, having worked unceasingly, almost night and day, - at most fields sixteen hours was an average day's work, - to keep ships in the air. These men for a soldier's pay have continuously, and without complaint, done twice the amount of work each twenty-four hours that any civil organization would have dared ask of its employees. Their work and splendid spirit is more than appreciated, and is characteristic of America's spirit in the war.

Milton F. Davis
Colonel, A.S.A.
Late Chief of Training.

NEW R. M. A.'s

In accordance with recommendations of the Training Section, the following-named officers are rated as Reserve Military Aviators, from the date set after their respective names:

1st Lieut. William Green, A.S.A., ...January 27, 1919
1st Lieut. Aaron E. Jones, A.S.A., ...February 1, 1919
2d Lieut. Thomas J. Farrell, A.S.A., ...January 31, 1919
2d Lieut. Thomas C. Fitzhugh, A.S.A., ...February 1, 1919
1st Lieut. James J. Donahue, A.S.A., ...February 3, 1919
2d Lieut. Jules D. Biscayart, A.S.A., ...February 3, 1919

GENERAL KENLY COMMENDS OFFICERS AND MEN

WAR DEPARTMENT
Air Service
Division of Military Aeronautics
Washington, D.C.

February 13, 1919

GENERAL ORDERS
NO. 12

To The Officers and Enlisted Men of the Air Service:

1. It seems fitting at this time to express my appreciation of the splendid work performed for the past year or more of war activities, by the officers and enlisted men of the Division of Military Aeronautics. Many of you are now returning to civil pursuits with the regret that you were not among the more fortunate ones who experienced actual service overseas. To you who have labored night and day, undertaking hazardous duties in all weather, that the training of our fighting air men might continue without interruption, I express my sincere thanks for your steadfast devotion to a duty which so suddenly became apparent would involve little hope of commensurate reward. The interminable grind of performing the same hazardous duties over and over again in order that others less experienced might be fitted for the work in hand, and then to have your former students sent to the Front while you "carry on", requires a quality of pluck and steadfast determination which the fortunate few who have never experienced such heart-rending disappointment can never understand .

2. To those who serve overseas and return to this country with the satisfactory feeling of difficult duty well done, I offer my sincere congratulations for your worthy accomplishments.

3. For those who met an untimely end in our service, I am sure we all hope that they may receive the reward they so justly merit for the extreme sacrifice.

W. L. Kenly
Major General, U.S.A.
Director of Military Aeronautics.

AIR UNITS TO RETURN

The following organizations have been assigned to early convoy:

16th Aero Squadron,
20th Aero Squadron,
227th Aero Squadron,
265th Aero Squadron,
353d Aero Squadron,
42d Balloon Company,
43d Balloon Company,
69th Balloon Company.

FIRING COMMANDS BY RADIO TELEPHONE

A Field Artillery Brigade in action, with its Artillery Commander 2000 feet up in the air observing and giving firing commands direct, is the latest situation in aerial adjustment brought about by the use of the radio telephone.

Obviously, it cuts the time in field artillery response. Under the old system of airplane observation, it took from an hour to an hour and a half to adjust the fire of one gun, the time being taken in giving commands to the battery. By using the radio telephone and giving the firing commands direct, — as can be done by the aviator if he is a trained artilleryman,— the time for making all shifts and range changes can be more than quartered; and in this same less-than-one-fourth of the time, more than one gun can be brought into the action, and even the fire of a whole platoon.

These are actual results from recent experiments with the radio telephone between an airplane from Rockwell Field, San Diego, Cal., and a battery of field artillery training at Camp Kearney.

The airplanes used in these experiments have been the Curtiss JN4-D equipped with SCR 69 sets. An SCR 59 set has been used on the ground with SCR 53 antenna unit. (Radio phone) The practice work is being carried on at regular intervals.

Brigadier General Rand, commanding the 16th Field Artillery Brigade, in giving his report of two days of cooperation between airplane and battery in the earlier days of this practice, has shown incidentally of what stuff aviators are made. Following is an extract from the General's report:

"Yesterday and today we have had firing by aerial adjustment from airplane using the telephone. The ground aerials were set up right at the battery, the executive officer wearing the telephone headdress. All the conduct of fire was by an aviator.

"The aviator who did the adjustment received the first lesson in adjusting fire by me 15 minutes before he went up, and that is all he knew about artillery fire. He was very bright, however, and on his first problem gave the proper commands for shifting his gun into its target and all the proper range changes throughout precision adjustment, including improvement fire. The first problem was 22 rounds, and lasted 19 minutes from the time he left the ground until the last shot. I had him actually give the firing commands, and he sent us no sensings whatsoever. In other words, he was battery commander. The second problem he secured his adjusted range and fired six rounds in improvement fire, making a total of 16, in 14 minutes. Included in this 14 minutes, he had given the commands to bring in the second gun. This morning, he went up, adjusted two guns of a platoon separately, brought in the whole platoon in fire for effect, making his corrections properly, and total time from his leaving the ground to last shot -- 21 minutes; total rounds fired -- 47.

"We all were greatly pleased with the results, and to my mind it means a revolution in aerial adjustment. If the aviator is a trained artilleryman, he can handle this fire with the ease, speed, and facility which one could do under the very easiest of terrestrial observation conditions. There was none of the long, tiresome delay such as I have been used to under our old system, as, you know, it took us about an hour or hour and a half, if we were lucky, to adjust one gun by airplane. The ship flew at about 2000 feet. I don't see why it wouldn't be possible to even pick up a fleeting target and adjust shrapnel fire with all the guns. Of course the height of burst might give him trouble, but if it on the proper proportion of air and graze, the trained field artilleryman should be able to handle it, and possibly one could get a very good idea after practice by rating the relation of the pattern to the burst, and be able to tell something about the height.

"However, to sum up my whole observation so far, I believe from now on, where the phone can be used, and we have trained observers, they should give the firing commands direct instead of sending sensings down, and waiting for the ground people to transpose them to the battery. The ship we used had only one-way communication, but in a few days they expect to have apparatus so that we can also talk from the ground. That will make everything simple.

"I forgot to tell you that we purposely gave him a good error in deflection each time he was up, and he had no difficulty in making the proper shift. The accuracy of firing speaks for itself. In one problem he had three target hits during improvement and in another one two....."

PERSONAL MAIL

It has been directed that all personal correspondence and such official correspondence as is entirely personal (for instance, personal pay vouchers, mileage vouchers, etc.) and in no way pertaining to the official business of the Division of Military Aeronautics be deposited in the mail box at the entrance of Building D. Hourly collections are maintained between 9 a.m. and 7 p.m. daily.

D.M.A. AERONAUTICAL LIBRARY

The Aeronautical Information Branch of the Executive Section, Division of Military Aeronautics, has organized and will maintain a Library on aeronautics and related subjects. It is located on 3d Floor, Wing 1, Bldg. D.

This Library now consists of books on aviation, ballooning, engineering, radio, photography, metallurgy, and lubrication, besides dictionaries, handbooks, and general reference books.

About sixty periodicals, English, French and Italian, are regularly received and indexed. An annotated list of the more important articles is stencilled bi-weekly and sent to those interested. As many of the aeronautical magazines are not included in the periodical indexes now published, this service is found to be of value.

It is frequently found necessary, by the various sections of this Department, to compile technical data and to do research work of various kinds. Officers and civilians have spent much time on such work at the Library of Congress, the Smithsonian, and other Libraries. It develops that the same work is being done all the while by this Library. It, therefore, seems advisable to have the Library undertake all such service. Presumably it is more thoroughly and quickly done by those trained in Library work than by those unfamiliar with this profession.

It is planned to have books and periodicals to meet the requirements of all Sections. Requests for special material needed will be given prompt attention.

The Library is for the service of every Section and of each individual in the Air Service of the Army.

NATIONAL PRESS CLUB AIR SERVICE NIGHT

The National Press Club "held" three of America's "Aces" of the air on Thursday, February 13th for the greater part of the evening and drew the four just as the entertainment was closing. Captain Edward V. Rickenbacker,

Capt. Douglas Campbell and Lieut. J. O. Donaldson were the guests of the evening and related some of their thrilling experiences at the front and told of going over the top in the air. Major James Meissner arrived late in the evening just in time to make the fourth "Ace". Together these four fliers accounted for 47 Hun planes.

Capt. "Eddie" Rickenbacker, ace of aces, with twenty-six Hun planes officially credited to him, told of his work and that of his associates. He told of how eleven German observation balloons were brought down in eight consecutive days by Lieut. Luke, of Phoenix, Ariz., who is missing.

"He was swallowed up in the air and no word has ever come through as to his fate," said Rickenbacker, "You know we have to learn to love and respect each other and then forget each other in a brief few minutes."

Lieut. J. O. Donaldson, of Washington, who flew with the British and was captured by the Germans when forced to land, is accredited with seven "Huns".

"We just jumped out of a second story window and walked away," he said. "Lieut. Maddon and I tried to get away in a plane. Just when all was set a German showed up. In the encounter I received a flesh wound in the back with a bayonet. Maddon hit the Hun with the large flashlight and the Hun collapsed, just like Charley Chaplin."

"The people of the nation should be taught the value of the air service in peace," said Capt. Douglas Campbell. "Aerial Success in War depends upon the development of planes and engines in Peace," said Captain Campbell. He further agreed with Capt. Rickenbacker that the real heroes of the war were still in France, and urged that they be not forgotten.

Maj. Maurice Connolly, pilot and formerly member of Congress from Iowa, said America now has four types of planes better than any produced by the allies or Germany. He paid tribute to the men who were unable to get "their chance."

HONORABLY DISCHARGED

Richard S. Merrill,	Captain, A.S.A.
George A. Washington,	Captain, A.S.M.A.
Bennett Oliver,	First Lieutenant, A.S.A.
Thomas Walkup,	Captain, A.S.M.A.
Julian W. Camp,	Second Lieutenant, A.S.M.A.
Clarence E. Hall,	First Lieutenant, A.S.A.
Ira H. Case,	Captain, A.S.A.
Bion J. Arnold	Lieutenant-Colonel, A.S.A.
John M. Satterfield,	Major, A.S.A.
Robert Bowser,	Captain, A.S.A.
Frederick T. Blakeman,	Major, A.S.A.
Harry F. Bloom,	Second Lieutenant, A.S.A.R.
Raymond L. Weaver,	Second Lieutenant, A.S.M.A.
Clinton G. Edgar,	Colonel, A.S.A.
Francis K. Howell,	Second Lieutenant, A.S.A.
Abner G. Jackson,	First Lieutenant, A.S.M.A.
John B. McCray,	Second Lieutenant, A.S.A.
Robert C. Dunbar,	Captain, A.S.A.
George R. Howell,	Captain, A.S.A.
John A. Hambleton,	Captain, A.S.A.
Walter J. Smith,	Second Lieutenant, A.S.A.
Philip A. Carroll,	Lieutenant-Colonel, A.S.A.
Carl L. Williford,	First Lieutenant, A.S.A.
John H. Holcombe, Jr.,	Captain, A.S.A.
Richard H. Dixon, Jr.,	Captain, A.S.A.
John H. Galt,	First Lieutenant, A.S.A.
John C. Farrar,	First Lieutenant, A.S.A.

PERSONALS

Major Thacker W. Walker, A.S.A., was assigned on January 22, 1919 to Supply Section.

Major Benjamin G. Weir, JMA., A.S.A. was assigned on January 21, 1919 to Supply Section.

Major Frederick T. Blakeman, A.S.A., who reported February 6th, to the Director of Military Aeronautics, from London, was assigned to the Training Section.

Lt. Colonel Lewis H. Brereton, A.S.A., who reported to the Director of Military Aeronautics, from overseas on February 6th, was assigned to duty in the Training Section and granted leave for ten days.

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Vol. I. D. M. A. WEEKLY NEWS LETTER O.S. 1379

Air Service Washington, D.C. February 22, 1919. War Department

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

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AUTHORITY AND FUNCTIONS OF THE DIRECTOR OF AIR SERVICE

To enable the Director of Air Service to exercise the necessary supervision, control, and direction over the Bureau of Aircraft Production and the Division of Military Aeronautics, with which he is charged by direction of the Secretary of War, the following was announced by the Chief of Staff:

The Director of Air Service will carry out the duties of the Chief of the Air Service, as prescribed in Article LXXXI, Army Regulations, 1913. He will exercise, under the direction of the Chief of Staff, full and complete supervision, control, and direction over the Bureau of Aircraft Production and the Division of Military Aeronautics, in all that pertains to administration, supply, instruction, training, and discipline.

General Orders, No. 80, War Department, 1918, have been amended by striking out the words "the Directors of Military Aeronautics, — of Aircraft Production," and substituting the words "The Director of Air Service,"

FOURRAGERS

The Director of Military Aeronautics has just been advised by cable from General Pershing, that the 103d, Aero Squadron, formerly the Lafayette Escadrille, is one of the two organizations of the A.E.F. entitled to wear Fourragers awarded by the French government. This organization was awarded the Fourragers in the colors of the Croix de Guerre, having received two citations of the French Orders of the Army. The names of the individuals qualified to wear this decoration will be forwarded shortly.

BACK PAY FOR CADET FLIERS

A recent decision of the Comptroller of the Treasury is to the effect that cadets who were in training for commission in the Air Service from April 1st to June 30th, 1918, should have been paid at the rate of $100 per month under the Appropriation Act of June 15, 1917.

The Director of Finance has been authorized, under arrangements with the Auditor for the War Department, to settle these unpaid accounts of cadets on supplemental final statements. This holds in the case of all cadets who have been subsequently discharged or commissioned, or both. Settlement will be made in this manner not only for the difference in pay before July 1, 1919 but also for the 50% increase of pay for flying duty subsequently to that date.

The necessary forms to be filled out in getting settlement for these unpaid accounts will be furnished on application to the Director of Finance, 3203 Munitions Building, Washington, D.C.

Communications on this subject should not be addressed to the Director of Military Aeronautics, but to the Director of Finance.

MILITARY AERONAUTICS STRENGTH

Figures prepared by the General Staff show that 60 per cent of Total Personnel of the Division of Military Aeronautics was Overseas on February 6th.

Distribution of personnel in United States and overseas at various dates is shown in the following diagram:

DATE	NUMBER		PER CENT	
	In U. S.	Overseas	In U. S.	Overseas
Nov. 11	79,321	78,786	50	50
Nov. 18	80,689	78,973	51	49
Nov. 25	84,785	78,361	52	48
Dec. 2	84,844	78,061	52	48
Dec. 9	889,661	70,040	56	44
Dec. 21	81,607	61,245	57	43
Dec. 26	77,140	59,917	56	44
Jan. 6	67,833	59,584	53	47
Jan. 16	51,321	58,854	47	53
Jan. 23	46,467	58,133	44	56
Jan. 30	41,314	57,527	42	58
Feb. 6	37,537	56,299	40	60

REDUCTION OF PERSONNEL

The War Department recently announced that the Air Service Personnel, in Washington, had decreased as follows:

Division	Civilian Personnel Nov. 11	Net reduction Nov. 11 - Feb. 7.	Per cent decrease Nov. 11 - Feb. 7
Aircraft Production	1,861	579	31
Military Aeronautics	1,100	313	28
The Total figures for the whole War Department are;	25,892	6,536	25

CANCELLED AIRCRAFT CONTRACTS

The War Department has announced Aircraft Contract Cancellations to the value of contracts cancelled and suspended $469,000,000.

The following is a summary of cancellations and suspensions of contracts to Feb. 7th:

	Value	Per cent of total
Engines and spare parts	$250,107,551	53
Planes and spare parts	163,231,790	35
Chemicals	13,181,235[a]	3
Balloons and balloon supplies	9,877,356[a]	2
Instruments and accessories	9,864,238[a]	2
Fabrics, lumber and metals	5,954,726[a]	1
Miscellaneous	16,631,047	4
Total	$468,847,993 [a]	

Note: a. Reductions due to revision in cancellations of contracts.

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SUSPENSIONS OF PLANE AND ENGINE CONTRACTS

The value of planes and engines delivered during the week ended February 7 was nearly $2,000,000, leaving a balance on order valued at over $10,000,000.

	Balance on order Nov. 11	Suspended Nov. 11 to February 7	Per cent		
			Suspended	Delivered	Remaining
Planes					
Service	$124,818,750	$113,968,750	91	8	
Adv. Training	12,203,600	9,677,700	79	18	3
Elem. Training	5,400,000	4,187,358	77	23	
TOTAL	$142,422,350	$127,833,808	90	9	
Engines					
Service	$227,010,000	$193,452,000	85	14	
Adv. Training	31,377,500	14,926,295	48	27	25
Elem. Training	2,864,200	0		93	7
TOTAL	$261,251,700	$208,378,295	80	17	3

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331 LIBERTY MOTORS REMAINING ON ORDER

During the week ended February 7th a total of 189 Liberty motors were delivered, leaving 331 still on order. To date 20,147 have been produced.

The status of contracts on February 7th is shown below:

	Balance on order Nov. 11	Suspended Nov. 11 to Feb. 7	Delivered Nov. 11 to Feb. 7	Per cent Suspended	Per cent Delivered	Per cent Remaining
Nordyke-Marmon Co.	4,548	4,000	548	88	12	
Lincoln Motor Corp.	13,228	10,500	2,728	79	21	
Packard Motor Car Co.	7,373	5,600	1,473	76	20	4
General Motors Corp.	3,430	2,472	927	72	27	1
Ford Motor Co.	1,947	1,050	397	54	46	
Total	30,526	23,622	6,573	77	22	1

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42 DE HAVILLAND 4 PLANES REMAINING ON ORDER

Deliveries of De Havilland 4 planes during the week ended February 7 were 5, leaving 42 still on order. A total of 4,600 exclusive of 204 shipped without engines, have been produced.

The status of contracts on February 7 is shown below:

	Balance on order Nov. 11	Suspended Novemb. 11 to Feb. 7	Delivered Nov. 11 to Feb. 7	Per cent Suspended	Per cent Delivered	Per cent Remaining
Standard Airc. Corp.	421	360	61	86	14	
Fisher Body Corp.	3,031	2,400	631	79	21	
Dayton Wright Air. Co.	2,623	1,900	681	72	26	2
Total	6,075	4,660	1,373	77	22	1

WASHINGTON TO BE NATIONAL HEADQUARTERS OF AIR SERVICE ASSOCIATION

The National Capital will be the headquarters of the Army and Navy Air Service Association, the new name of the Air Service Clubs' Association. Steps are being taken toward the erection of a building in memory of the Officers of the Air Service, according to an anouncement read at a meeting of the Association on February 15.

Colonel, H. F. Davis, Executive Officer of the Army Air Service, acting as President of the Association in the absence of Major General M. L. Kenly, explained that the National Aeronautic Committee, through its chairman, Mrs. Charles Van Renssalaer, had written the President of the Association offering to present the Air Service Association with the memorial building to American Aviators, as the National headquarters.

One of the principal functions of the Association is to bring Air Service officers closer together for the good of the air service and aeronautics in general. The building will be in the form of a club house for officers of the Air Service of both the Army and Navy either active or discharged, where the best things they have learned in the service of their country can be encouraged and perpetuated. Detailed plans for the collection of funds for the erection of the memorial club house are being carried out by Mrs. Van Rensselaer and her active committee which has done so much for the air service already.

The anouncement concerning the club house came as a surprise to the members of the association who met primarily to change the name from "Air Service Clubs' Association" to the "Army and Navy Air Service Association" in honor of the many new members from the Navy and Marine Corps flying branches. Commander John H. Towers, U.S.N., a pioneer flier, was elected a member of the Board of Control of the Association. Lt. Col. J.E. Fickel, A.S.A. was elected Treasurer; Captain Earl N. Findley, Secretary, and Lieut. Carl. H. Butman, Asst. Secretary.

Preceding the business meeting, Major James A. Meissner, of Brooklyn, one of America's recently returned "Aces", addressed the meeting and related some of his experiences in France. His remarks were accompanied by moving pictures of aviation activities taken by the Signal Corps and lent the Association by the War College.

Following the business of the meeting Major Melvin A. Hall, A.S.A., who formerly flew with the British and was recently Chief of the Aviation Forces of the First American Army Corps, spoke briefly on a little known branch of the aerial observation work. He cited some interesting feats performed by the low-flying contact planes in co-operation with infantry advances maintained principally by dropping notes from overhead. He told of one pair of fliers who, after flying in advance of troops indicating and attacking machine-gun nests hidden from the

infantry, were forced to land. The pilot and observer immediately got in touch with the commander of the advancing troops and led them around the machine-gun nests safely, eliminating casualties and eventually capturing the nests.

Among those present were Maj. Gen. Charles T. Menoher, Director of the Air Service, Colonel M. F. Davis, W. E. Gillmore, G. H. Crabtree, A.L. Fuller and Lt. Col. E. F. Castle, and O. Westover.

The association now numbers 1150 members and has on deposit over $8,000.

7TH AERO SQUADRON

Reporting from France Field, Cristobal, Canal Zone on January 25, 1919, the Information Officer writes as follows:

EXPLORATION

This week a flight was made to San Blas, R. P., in an HS1L flying boat, a distance of 180 miles being covered in about 140 minutes. On the trip to San Blas the boat carried four passengers (including pilots) and about 200 pounds of extra equipment. Two of the passengers were Air Service men who are on hunting pass, and in addition will make a hurried survey of conditions in the San Blas territory. The San Blas tribe of Indians is an old race, with many historical traditions. They have never been conquered, and the Panamanian Government is making some effort to educate them and to strengthen their allegience to the Republic. A peculiarly shy and child-like people, these Indians have many habits of dress and adornment which are interesting. All their women wear nose rings of imitation gold almost from infancy, cover their heads and faces with cheap cotton shawls of elaborate design, wrap their legs tightly with a fabric strip and paint a stripe of varying color on their noses. The chief men are distinguished by circular ear-rings, also of imitation gold.

...

NEW GAS STATION

The Panamanian Governor of the Province offered to allow the use of a portion of the Capital Island, Porvenir, for aviation purposes, and to build a gas station there. Cooperating with Navy Aviation Officers, the Commanding Officer of France Field plans to visit Porvenir within the next week in a Navy submarine chaser and one of France Field's boats, the U.S.A. David Putnam, and complete arrangements for the establishment of this gasoline station. This base will assist the operation of sea planes from France Field along the entire Atlantic Coast of Panama, a distance of approximately 700 miles. The value of establishing gasoline stations of this kind is apparent, when it is learned from Navy sources that six Curtiss NC1 flying boats are capable of landing 300 soldiers and equipment at any point along a 700 mile coast line in about three hours time.

WASHINGTON TO NEW YORK IN 85 MINUTES

Lieut. Frank H. Harmon, pilot of Bolling Field, Anacostia, February 19th, established a record flight from Washington to New York by airplane in a La Pere plane.

He landed at Hazelhurst, N. Y. 85 minutes after his "take-off" at Bolling Field.

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

First Lieut. William P. Frank, observer, (Air Service), 20th Aero Squadron, first day bombardment group. For extraordinary heroism in action near Buzancy, France, October 23, 1918. While flying in the rear of a formation, returning from a bombing raid, Lieut. Frank's machine was attacked by three hostile planes, Fokker type. Lieut. Frank was wounded and rendered unconscious early in the encounter, but upon recovering he shot down a Fokker which was attacking the leader of the formation and drove off two others which were pressing him from the side. Home address, Paul A. Frank, brother, 2349 Michigan Avenue, Chicago, Ill.

First Lieut. Andre P. Gundelach, deceased (Air Service), pilot, 96th Aero Squadron. For extraordinary heroism in action near Buxieres, France, September 12, 1918. Lieut. Gundelach, with Second Lieut. Pennington H. Way, observer, volunteered for a hazardous mission to bomb concentrations of enemy troops. They successfully bombed their objective, but while returning were attacked by eight enemy planes. Their plane was brought down in flames and both officers killed. Next of kin, Maj. C.D. Meyer, Q.M.C., 5802 Kenmore Avenue, Chicago, Ill.

Second Lieutenant Pennington H. Way, deceased (Air Service), observer, 96th Aero Squadron. For extraordinary heroism in action near Buxieres, France, September 12, 1918. Lieut. Way with first Lieut. Gundelach, pilot, volunteered for a hazardous mission to bomb concentrations of enemy troops. They successfully bombed their objective, but while returning were attacked by eight enemy planes. Their plane was brought down in flames and both officers killed. Next of kin, Mrs. Pennington S. Way, wife, St. Davids, Pa.

First Lieut. Richard D. Shelby, Air Service, 139th Aero Squadron. For extraordinary heroism in action near Verdun, France, October 10, 1918. Lieut. Shelby encountered six enemy planes at a very low altitude strafing our trenches. He immediately attacked and dispersed the enemy planes and by skillful maneuvering brought one of the planes down just behind his own lines. Home address, W. A. Shelby, father, Rosedale, Miss.

First Lieut. Karl J. Schoen (deceased), Air Service, 139th Aero Squadron. For extraordinary heroism in action near Aincreville, France, October 10 1918. While leading a patrol of three machines Lieut. Schoen sighted nine enemy planes, Fokker type, and immediately attacked them. Although greatly outnumbered, he destroyed one of the planes and put the others to flight. He was killed in action October 29 and has been officially credited with destroying seven enemy aircraft. Next of kin, Maruine Estelle Schoen, wife, 5001 College Avenue, Indianapolis, Ind.

First Lieut. Herbert E. Bartholf, pilot, Air Service, 103d Aero Pursuit Squadron. For extraordinary heroism in action near Aincreville, France, October 3 1918, and near Baalon, France, November 4, 1918. On October 30, in the region of Aincreville, Lieut. Bartholf, with one other pilot, engaged five enemy planes. Outnumbered, he did not hesitate to attack, and, although subjected to the severe fire of five enemy planes, he succeeded in destroying one. On November 4, in the region of Baalon, while on a bombing expedition, he encountered an enemy patrol of eight machines, Fokker type. He immediately dived into their formation and, despite the severe fire to which he was subjected, continued a spirited combat with one of the enemy until it crashed to the ground. Home address, C.S. Bartholf, father, 535 Longwood Avenue, Glencoe, Ill.

First Lieut. H. Weir Cook, Air Service, 94th Aero Squadron. For extraordinary heroism in action near the Bois de Dole, France, August 1, 1918. Sighting six enemy monoplace planes at an altitude of 3,500 meters, Lieut. Cook attacked them despite their numerical superiority, shooting down one and driving off

the others. For the following act of extraordinary heroism in action near Crepion, France, October 30, 1918, Lieut. Cook is awarded a bar to be worn with the distinguished-service cross. Lieut. Cook attacked three enemy biplace planes at an altitude of 1,000 meters. After a few minutes of severe fighting his guns jammed, but after clearing the jam he returned to the attack, shot down one of his adversaries in flames, and forced the other two to retire to their own lines. Home address, Dr. B. H. Cook, father, 1327 Jackson Street, Anderson, Ind.

THE 64TH BALLOON COMPANY

Lt. Col H.B.S. Burwell, J.M.A., Commanding Officer of Rockwell Field has commended the Commanding Officer, Arcadia Balloon School, on his cooperation in the Rockwell Field "Flying Circus", as follows:

"It is desired to extend to you my sincere thanks and appreciation for the wonderful way in which you co-operated with us in making the Rockwell Field "Flying Circus" a success. The presence of the balloon company was one of the principal features of the circus, and the work done by the officers and enlisted men of that command is appreciated by myself and every member of this command.

In spite of the very unfavorable weather conditions you were able to carry out your end of the program to the complete satisfaction of every one present. It was a great pleasure to have you here as our guests, and our one regret is that we were not able to show how fully we appreciated the great trouble that you went to in bringing down the balloon company and equipment.

The circus was a financial success and netted a substantial sum which will be used for the benefit of the enlisted men. Should you decide to stage a similar show at Arcadia you can rest assured that we will do everything in our power to co-operate with you in the way of furnishing airplanes and pilots and any other equipment at our command."

...

Lt. Col. Mygatt conveyed the message to the 64th Balloon Company with the following indorsement;

"The work of the 64th Balloon Company, during the Flying Circus at Rockwell Field, is greatly appreciated by the Commanding Officer at that Station. He states that the presence of the Balloon Company was one of the principal features of the circus, and the work done by the officers and enlisted men of this Company was appreciated by himself and every member of his command. The handling of the Balloon was excellent and the parachute jumps were perfect. The discipline and appearance of the Company, in spite of the inclement weather and excessive work because of it, was all that could be desired. The Commanding Officer takes this opportunity to thank the officers and men of the 64th Balloon Company, and the officers attached to it, for their excellent work. A thorough performance of duty such as this reflects great credit upon the Balloon Service."

By order of Lt. Col. L. J. Mygatt:

OXEN ASSIST AIRPLANE

Ppobably the first instance where an airplane received assistance from a yoke of oxen took place last Monday at Middleburg, Va. Lt. Col. B. F. Castle and Captain Clyde Dunnington were flying cross country and were forced to land in a field near Middleburg, Va. The mud was so thick they could not get out, and even after the assistance of various townspeople they were unable to move the machine. When they were nearly exhausted and quite discouraged, there appeared coming over the hill a yoke of oxen attached to a farmer's cart.

The driver consented to assist the airmen and, backing up to the plane, coupled on and pulled them to solid ground from which they took off easily.

HONORABLY DISCHARGED

America's leading "Ace", Captain Edward V. Rickenbacker, A.S.A., who reported at the O.D.M.A., February 10, 1919, was honorably discharged February 13th.

The following officers of the Air Service were discharged on the dates noted:

February 10, 1919: Captains William N. Weidig, Clarence G. Spencer, Laurence E. Rubel, Samuel P. Burnam, Daniel C. McCoy, Robert R. McMath; 1st Lieutenants George H. Pfau, Robert J. Love.

February 13, 1919: Lt. Colonel John A. Drexel, 1st Lieutenant Thomas F. Ward, 2d Lieutenant Aaron Prussian.

February 14, 1919: Captains David R. Wheeler, Maury Hill; 2d Lieutenants Harold Palmer, Edwin S. Ladley, Wallace J. Frost.

February 15, 1919: Lt. Colonel Thomas G. Gallagher, Major Walter G. Rogers; Captains Michael J. Phillips, John McQuerney, Otis S. Van De Mark, Charles H. Neubauer; 1st Lieutenants William G. Garrett, Edward E. Dean, 2d Lieuts. Harry A. Van Horn, John M. Saunders, 1st Lieut. Lawrence W. Kinnear.

February 17, 1919: Major Charles S. Jackson, 2d Lieutenants Thomas H. Owen, William T. Ashby.

February 18, 1919: Captains Leonard S. Hammond, Claude O. Van Valer; 2d Lieutenant Robert G. Elbert.

The following officers have been rated Reserve Military Aviators:

Second Lieutenants James B. D. Palmer, A.S.A., and Harvey Ashfield, A.S.A., to date from January 30, 1919; and Second Lieutenant Walter William Roop, A.S.A., to date from January 18, 1919.

The following organizations have been assigned to early convoy:

Eighth Aero Squadron
Photographic Section Air Service Number 17
Photographic Section Air Service Number 23.

Lieut. Colonel Jacob E. Fickel, J.M.A., A.S.A., Captain George Washington Price, A.S.A., and Captain Louis Montford, A.S.A., have been appointed members of the Board of Contract Review of the Division of Military Aeronautics, created September 23, 1918, vice Lieut. Colonel Harold Benington, A.S.A., Captain Otis S. Van De Mark, A.S.A. and Captain Lewis B. Ticknor, A.S.A., relieved.

The following named officers are constituted a board to submit recommendations for awards of the Aero Club of America, Medals of Merit, and awards of the Mackey Trophy, in conformity with the request of the Aero Club of America by their letter of February 6, 1919: Colonel Townsend F. Dodd, J.M.A., A.S.A., Lieutenant Colonel Herbert A. Dargue, M.A., A.S.A., Lieutenant Colonel Byron Q. Jones, M.A., A.S.A. and First Lieutenant Sidney T. Thomas, A.S.A. Recorder

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Lieutenant Colonel Herbert A. Dargue, M.A., A.S.A., was recently ordered to proceed from Washington, D.C., to Post Field, Fort Sill, Oklahoma; thence to Air Service School for Radio Operators, Penn Field, Austin, Texas; thence to School of Military Aeronautics, University of Texas, Austin, Texas, in connection with an investigation of the facilities existing at Penn Field, for the establishment of a permanent radio school.

A Board of Officers consisting of the following personnel, Colonel William N. Hensley, Jr., J.M.A., A.S.A., Colonel James Prentice, J.M. Aer., A.S.A. Major Frank M. Kennedy, J.M. Aer., A.S.A., Commanding Officer, Langley Field, Captain John McInerney, A.S.A., met at Langley Field, Hampton, Virginia, for the purpose of reporting upon the location of a dirigible hangar and making recommendations as to what Lighter-than-Air activities may be advantageously carried on at that place together with construction required therefor, Colonel Arthur L. Fuller, in charge of Lighter-than-Air Training and Acting Chief of the Training Section met with the Board at Langley Field.

Captain Roy N. Francis, A.S.A., who was ordered to proceed, by airplane, from Washington, D.C., to Hazelhurst Field, Mineola, Long Island, New York, piloting a Martin Bombing Machine, made the trip successfully on February , in 2 hours and 30 minutes.

"WORLD'S GREATEST FLYING CIRCUS" AT ROCKWELL FIELD TO BE AN ANNUAL EVENT

Rockwell Field, in its "World's Greatest Flying Circus", held at the field on North Island in San Diego Bay on February 2d, instituted what promises to be an annual occurrence that will supplant in popular favor the time-honored sawdust ring, annual football games, Mardigras, and every other fête that makes its yearly round.

By permission of Lt. Colonel Harvey Burwell, Commanding Officer, the entire field and its equipment were turned over to the use of the circus. As the Rockwell Field "Weekly Flight" puts it, "Hundreds of intrepid aviators, in the roles of circus men, risked their lives in the performance of the most spectacular feats known to the flying game; the "big top" was limited only to the cloud-flecked sky; huge battle planes were the horses ridden; and the god of chance was the ringmaster. A capable director he proved, too, for not an accident happened to mar the entire flying program." There were sham battles and all the strategic moves of aerial warfare, both in single encounter, pursuit, and formation. Parachutes were dropped from airplanes;and a captive observation balloon, brought from the Arcadia Balloon School, demonstrated parachute drops from the basket of its big "cigar".

The concessions or side-shows of the circus were novel and aeronautical. "A shooting gallery had small airplanes for targets and a sign read "Get 5 planes and become an ace." Nearby was a tent where one could get "flying instructions" for a quarter of a dollar. Over at another booth a sign read "Are you physically fit to fly 30,000 feet in the air, with both feet on the ground? Come in and try." In another booth many talked over the new wireless telephone." — these are but samples of the many. Old fashioned Southern barbecued meats, cooked over wood coals, were served in some of the booths, and in others fake cabaret stars danced and sang.

The crowd came by train and by motor, and, despite threatening weather, was one of the largest San Diego has seen. For most, it was their first close-up view of Rockwell Field. All were amazed at the extent of the improvements; at the buildings, the paved streets, the splendid flying field, the equipment, and the ability and discipline of the men. It was the first time in more than twenty months that the general public had been permitted to make an inspection

of the aeronautical shops. Each department of the flying school gave, as part of the day's entertainment, lectures on its own work. Experts explained the various types of motors, guns, and planes; and every piece of machinery was, besides, well placarded to show its particular use.

The climax of the day, however, was not in the circus itself. It was instead a replica of what has taken place many times on the battle front in France, with full military ceremony. This was the presentation of the Distinguished Service Cross to Major Carl Spatz and of the Croix de Guerre to Major Kenneth Marr. The presentation was made by Colonel H. H. Arnold, District Supervisor of the Western District of the D.M.A. The Quartermaster General had been directed to have the cross for Major Spatz sent to the Commanding Officer of the field, and the Secretary of War had directed that upon its receipt it be presented with appropriate ceremonies. The citation of Major Spatz for extraordinary heroism during the St. Mihiel offensive, September 26, 1918, has already been published. This was read at the presentation, as was, also, an order from the Headquarters of the French armies of the east citing Major Kenneth Marr for the Croix de Guerre and describing him as an "excellent squadron commander of a legendary bravery, who has been a beautiful example for his entire unit".

A subsequent feature of the program was a presentation of medals to the Boy Scouts of Coronado.

Rockwell Field lays not a little of the credit for the success of the day to the work of the nine bands that played continuously. These bands were from the Balboa Park Naval Training Station, Camp Kearny (three bands), Rockwell Field, Naval Air Station, Fort Rosecrans, and the Section Naval Base.

Among the distinguished visitors at the circus, as guests of Lt. Colonel Burwell, were Major General Guy Carleton, commanding Camp Kearny; Rear Admiral William Fullam, commander of the reserve force, Pacific fleet; Glenn Martin, vice-president of the Wright-Martin Aircraft Corporation; Colonel Henry H. Arnold; Lt. Commander E. W. Spencer, commander of the naval air school, North Island; Brig. General W. C. Short; Colonel Guy Rowe; Colonel J. R. Pourie, commander of the seacoast defenses of San Diego; Captain Arthur MacArthur, commander of the naval training camp, Balboa Park. Most of these officers were accompanied by their wives; and Mrs. Newton Baker, wife of the Secretary of War, and Mrs. William Kenly, wife of the Director of Military Aeronautics, were also guests of the commander.

The net profit of the circus was set down as $4,742. This is to be devoted to the Rockwell Field Athletic Fund and to the expenses of the great international exhibition, which it is planned to give at North Island, November 11, 1919 —— the date set for the annual event.

Vol. I. D. M. A. WEEKLY NEWS LETTER OS 1393

Air Service Washington, D. C. War Department
March 1, 1919

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

The following correspondence has recently passed between the Director of Military Aeronautics and the Chief of the Air Service Medical.

February 12, 1919

Brigadier General T. C. Lyster, M.C.,
Office of the Surgeon General,
Washington, D.C.

My dear General Lyster:

I wish to express to you my official and personal appreciation and that of the entire Air Service for the excellent and invaluable work that has been performed, and is still being performed, under your direction by the personnel of the Medical Corps assigned to the Division of Military Aeronautics.

This work has developed into one of a highly technical and specialized character, and in the assistance rendered our flying in the investigation and solution of the medical problems involved, selection of the proper type of flyer, his qualifications based on his physical limitations, and the maintenance of his efficiency, has been of incalculable value. Your flight surgeons have trained and flown with us and have gained first hand knowledge possible in no other way, and we feel they are actually close to and a part of us.

The work thus done has made it evident that such assignment and close cooperation of the necessary personnel from your corps is essential to our flying welfare, and it is greatly hoped that this relationship will be continued indefinitely.

Very sincerely yours,

W. L. KENLY
Major General, U.S.A.
D. M. A.

February 13, 1919

Major General W. L. Kenly,
Department of Military Aeronautics,
6th and B Streets,
Washington, D. C.

My dear General Kenly:-

Your letter expressing your official and personal appreciation and that of the Air Service for the work performed by the personnel of the Medical Corps assigned to the Division of Military Aeronautics was received with deep pride. The Medical Corps thus assigned felt the responsibility of bringing into this new service not only their part of good team work but the highest developments that have been attained in the science of medicine to assist you and those responsible for maintaining an efficient Air Service. We now feel that a closely allied medical service is essential both now and in the future to the development of aeronautics. Highly gifted medical men, no matter what their qualifications need special training with an air force before they can give all that there is in them to the advancement of this art. The medical personnel can be depended upon to give the Air Service as close cooperation in the future as in the past, and we, too, hope that this relationship will be continued indefinitely.

Sincerely,

T. C. Lyster
Brigadier General, Medical Corps.

DEMOBILIZATION

The War Department authorizes the following statement:

The "honorable discharge" emblem to be issued by the War Department will be a bronze lapel button somewhat similar to the G. A. R. button of like significance. It is the intention of the Government to distribute the button free of charge to all entitled to it. The buttons will be manufactured only by concerns chosen by the government, which will furnish the dies for their manufacture and purchase the buttons, thus obviating any possible variance from the approved pattern in design, color or material.

Of appropriate and artistic design, the button is the result of a competition among American artists and sculptors, conducted by the Commission of Fine Arts of which Charles Moore is chairman, and the following are members: Herbert Adams, J. Alden Weir, Charles A. Platt, William Mitchell Kendall, John Russell Pope, James L. Greenleaf, and Col. C. S. Ridley, secretary. Fifteen designs were submitted by the Commission for final selection by the Chief of Staff.

Circular No. 83, W. D., February 17, 1919, contains the following order on the transfer of company funds:

When units having company funds have contributed a share of those funds to new units and when these new units are about to be demobilized, the original contributing units shall be reimbursed when practicable from the company fund of the unit about to be demobilized to the extent of the original contribution. Reimbursement will be made only after all debts have been paid and then not to exceed the amount of the original contribution. Any surplus remaining will be disposed of as directed in Circular No. 143, War Department, 1918.

OS 1393

The following Officers of the Air Service have been honorably discharged:

February 17, 1919
Major Charles S. Jackson;
Second Lieutenants Thomas H. Owen, William T. Ashby.

February 20, 1919
Lieutenant-Colonel Harold Benington,
First Lieutenants David R. Danner, Howard A. Scholle.

February 21, 1919
Second Lieutenant Donovan L. Shaw.

February 24, 1919
Captain Douglas Campbell.

February 25, 1919
First Lieutenant Lionel E. Drew; Second Lieutenant Harry B. Campbell.

February 26, 1919
Second Lieutenant Harold W. Quirt.

February 11, 1919
Captains George R. Howell, John A. Hambleton;
Lieutenant-Colonel Philip A. Carroll;
Second Lieutenant Walter J. Smith.

February 12, 1919
Captains John M. Holcombe, Jr., Richard H. Dixon, Jr.;
First Lieutenants Carl L. Williford, John M. Galt, John C. Farrar.

Under date of February 21, 1919 the Chief of Staff authorizes the following:

Reports show that, according to the latest data on hand, the following discharges of officers and men have been accomplished. Discharges from returned oversea contingents are included.

OFFICERS

Total number of Officers, Resigned or Discharged	74,313

ENLISTED MEN

Discharged up to and incl. Feb. 8, 1919	1,072,753	
Discharges for week ending Feb. 15, 1919	68,756	
Early returns week ending Feb. 22, 1919	23,009	1,164,518
Total discharges, Officers and Enlisted Men		1,238,831

Orders issued to February 20, 1919, cover the demobilization of approximately 1,530,000 men as follows:

Troops in the United States	1,281,000
Oversea Troops Returned to the United States	249,000
Total ordered demobilized	1,530,000

DETAILED REPORT

Showing Discharges of Enlisted Men by Weeks

WEEK ENDING		
November 23, 1918		5,571
" 30, 1918		40,650
December 7, "		96,705
" 14, "		194,957
" 21, "		182,736
" 28, "		74,307
January 4, 1919		65,686
" 11, "		78,819
" 18, "		77,260
" 25, "		90,338
February 1, "		85,971
" 8, "		79,753
" 15, "		68,756
" 22, "	(early returns)	23,009
Total to February 21, 1919		1,164,518

DETAILED REPORT

The detailed report of approximate numbers of troops in the United States ordered demobilized shows:

Military Aeronautics	41,500
Spruce Production	30,000
Aircraft Production	3,500

A NEW OCCUPATION

A new occupation, that of "farm mechanic," will be an outcome of the the world war. This is the belief of the Federal Board for Vocational Education, which is preparing to train disabled soldiers, formerly farm boys, for such work. With the scarcity of labor on the farm, the board looks for a more extensive use of farm machinery in the future, and the soldiers will be trained to handle and repair tractors and other farm machinery. The board is of the opinion that every farm of one hundred acres or more will require such a mechanic.

TO THE ATTENTION OF SOLDIERS !

The Capital Issues Committee has submitted to Congress the text of a bill designed to prevent sale of doubtful stock to the public. The primary purpose of the proposed law is to protedt the Government in its sale of bonds from the operations of a class of speculators who are decoying the investing public continually into purchase of wildcat stocks. The bill, if enacted into law, will compel every corporation engaging in interstate commerce that proposes to sell its stock, and every firm, person, association or corporation that intends to offer its stock to the public in any manner through the mails or by any form of communication owned or operated by the United States or through advertisements in magazines, newspapers or circulars carried in the mails, to file a statement, giving all details of the organization and its object. Names and addresses of every officer and agent of the corporation must be filed with the Government and any other

information required must be given. Certified copies of all such statements will be required to be filed with the postmaster in the capital of every state where the corporation undertakes to do business.

OVERSEAS TROOPS ARRIVING

The War Department authorizes publication of the following:

The Cruiser Frederick sailed from Brest February 19th and is due to arrive at New York March 1st, with the following Air Service troops:

95th Aero Squadron	5 officers	165 men
103d Aero Squadron	6 officers	174 men
465 Aero Squadron	3 officers	126 men
835th Aero Squadron	2 officers	145 men
1099th Aero Squadron	4 officers	126 men

The Transport Sierra, sailed from Bordeaux February 19th and is due to arrive at New York about March 5th:

1 Casual Officer.

The Transport Mexican sailed from St. Nazaire February 20th and is due to arrive at New York March 5th, with the following troops:

	2 officers	121 men, New York
	1 officer	130 men, Camp Upton
23d Aero Squadron	2 officers	158 men
35th Aero Squadron	2 officers	137 men
149th " "	2 officers	154 men
151st " "	1 officer	150 men
153d " "	2 officers	152 men
158th " "	1 officer	153 men
173d " "	2 officers	152 men
176th " "	1 officer	156 men
184th " "	1 officer	147 men
247th " "	1 officer	150 men
264th " "	2 officers	153 men
469th " "	2 officers	115 men
374th " "	1 officer	147 men
499th " "	2 officers	146 men
500th " "	2 officers	148 men

The Transport Siboney which sailed from Bordeaux February 20th and is due to arrive at New York March 3d, has on board 14 Air Service officers.

The Transport Lake Gaspar, sailed from Bordeaux February 20th and is due to arrive about March 8 with 1 casual officer, - Air Service.

Transport Ceylon Maru sailed from Bordeaux February 20th and is due to arrive at Newport News March 7th with 1 casual officer, Air Service.

Transport Moccasin sailed from Brest February 20th and is due to arrive at New York March 4th with the following troops:

1 Casual Officer, Air Service.

The Battleship Ohio, which sailed from Brest February 20th, and is due to arrive at Newport News March 5th carries 2 Casual officers of the Air Service.

The Transport Buford sailed from Bordeaux February 17th and is due to arrive at Newport News March 4th, with 1 Casual Officer, Air Service.

The Cruiser Rochester sailed from Brest February 17th and was due to arrive at New York about February 25th with the following troops:

467th Aero Squadron 4 officers and 133 men divided as follows:
4 officers 108 men Camp Upton; 25 men Camp Taylor
1 Casual Officer, Air Service.

The Transport Olympic sailed from Brest February 18th and was due to arrive at New York February 25th with 13 Casual officers of the Air Service.

The following organizations have been assigned to early convoy:

99th Aero Squadron;
Air Service Casual Co. Number 5.

ANOTHER AMERICAN ACE

Lieut. J. O. Donaldson recently recommended for Military Aviator rating by the Division of Military Aeronautics' Rating Board, has been announced as an Ace "having brought down five planes officially noted as crashes and three officially out of control." Lieut. Donaldson was not included in the first list of 63 Aces received from General Pershing; but, owing to recent confirmations from British Commands with which he flew, a positive record that he brought down at least five planes is now on file in the Air Service. Lieut. Donaldson is a Washington man who took the Ground School Course at Cornell University and completed his flying training with the British. He was attached to a British Squadron when he was forced to land within the German lines. He was captured, but later escaped.

Lieut. Donaldson received the D. F. C. — the British Distinguished Flying Cross.

CITED FOR DISTINGUISHED SERVICE

The Commander in Chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

Released for Afternoon Newspapers of Monday, March 3, 1919

First Lieut. Elliott White Springs, Air Service. For extraordinary heroism in action near Bapaume, France, August 22, 1918. Attacking three enemy planes (type Fokker), who were driving on one of our planes, Lieut. Springs, after a short and skillful fight, drove off two of the enemy and shot down the third. On the same day he attacked a formation of five enemy planes (type Fokker), and after shooting down one plane was forced to retire because of lack of ammunition. Home address, Leroy Springs, father, Lancaster, S.C.

OS 1393

Released for Morning Newspapers of Tuesday, March 4, 1919

Sergt. (first class) Harold O. Nicholls, Balloon Service, First Army. (A. S. No. 36239) For repeated acts of extraordinary heroism in action near Griscourt, France, August 11, 1918; near Avecourt, France, October 1 and 9, 1918. On August 11 Sergt. Nicholls volunteered and ascended for the purpose of making observation He continued with his work until the balloon was set on fire by attacking enemy planes. On October 1 he remained on duty until his balloon was fired by incendiary bullets, and again on October 9, while on duty with another observer, he remained with his balloon under attack until it was set on fire by enemy planes, and he then refused to jump until his companion had escaped. Home address, Mrs. Helen Nicholls, 1716 Avenue C, Galveston, Tex.

Released for Morning Newspapers of Wednesday, March 5, 1919

First Lieut. Leo H. Dawson, Air Service, 94th Aero Squadron. For extraordinary heroism in action near Hartennes, France, July 19, 1918. While on a voluntary patrol, Lieut. Dawson encountered seven enemy monoplanes at an altitude of 2,000 meters. After a brief engagement his guns jammed, but, after repairing the jam in the air and under heavy fire, he returned to the fight, shot down one of the enemy in flames and drove off the others. For the following act of extraordinary heroism in action near Clery-le-Petite, France, November 4, 1918, Lieut. Dawson is awarded a bar, to be worn with the distinguished-service cross: Sighting four enemy planes (type Rumpler), Lieut. Dawson immediately attacked, despite the numerical superiority of the enemy, and destroyed one of the group, whereupon the remaining three scattered and returned to their lines. Home address, Mrs. A. G. Dawson, 942 Ogden Street, Denver, Colo.

Released for Afternoon Newspapers of Saturday, March 8, 1919

First Lieut. Arthur E. Easterbrook, Infantry (observer). For the following acts of extraordinary heroism in action near Exermont and Varennes, France, October 8, 1918, a bar, to be worn with the distinguished-service cross awarded him on October 3, 1918, is awarded. On October 8 Lieut. Easterbrook, with Lieut. Erwin, pilot, successfully carried out a mission of locating our Infantry, despite five encounters with enemy planes. During these encounters he broke up a formation of three planes, sending one down out of control; killed or wounded an observer in an encounter with another formation; and sent a biplane crashing to the ground, besides driving away a formation of two planes and several single machines. Home address, Maj. E. P. Easterbrook, father, Fort Flagler, Wash.

Capt. Elmer R. Haslett, Air Service. For extraordinary heroism in action near Montfaucon, France, September 28, 1918. While on an artillery surveillance mission Capt. Haslett engaged four enemy planes which were about to attack the American balloon line. He succeeded in diverting them from the balloons, but in the combat his machine guns became jammed. Driving off his nearest adversary by firing a Very pistol at him he succeeded in clearing the jam and, returning to the fight, he destroyed one hostile plane and dispersed the remainder of the group. Home address, Mrs. J. F. Haslett, mother, Cartersville, Mo.

DEATHS DURING THE WAR

The Statistics Branch, General Staff, War Department, under date of February 22, 1919 has prepared the following summary of deaths during the War in the A. E. F. and among troops in the United States.

The figures for the United States are from April 1, 1917, to February 14, 1919; for the A. E. F., to February 16, 1919.

The source of information is given as Current Statistics Section, and Medical Records Section, Division of Sanitation, Medical Department.

	A.E.F.	U.S.	Total
Total	72,951	34,493	107,444
Disease	20,829	32,737	53,566
Battle	48,768		48,768
Other	3,354	1,756	5,110

GENERAL PERSHING IN THE U.S. CAMP AT BREST

General Peyton C. March, Chief of Staff, made public on February 24th the following cabled communication from General Pershing:

"Under date of Feb. 12 the New York Evening Telegram sent a cablegram to President Wilson as follows:

'Hundreds of complaints have been made to the Evening Telegram of the conditions at the U.S. Camp at Brest. Soldiers from the front and Red Cross nurses practically held prisoners. If they complain are put at bottom of sailing list. Wounded and ill forced to stand in rain hours for meals. Officers overbearing and harsh and give casuals no consideration. Roofs of buildings leak, barracks filthy, mud everywhere. Can you not inspect camp and remedy abuses costing lives of many American soldiers, or have camp abolished?

(Signed) New York Evening Telegram.'

"The President sent me the above cablegram and directed me to have a report made on the matter to the Secretary of War. The following is summary of report of conditions at Brest just received from Major General Eli A. Helmick, Inspector General's Department, A. E. F., commanding there:

'The charge that soldiers from the front and Red Cross nurses practically held prisoners absolutely groundless. No individual has been put at the bottom of the sailing list. One organization was held fifteen days on account of bad state of discipline and neglect of duty and was released before expiration of time set on account of honest efforts made to correct deficiencies. No man of the garrison of more than 60,000 is required to remain in line over 10 minutes. Troops are marched to meals by time schedules and the entire garrison is fed within one hour and fifteen minutes.

'Relative to officers overbearing and harsh and give casuals no consideration, all commanding officers of troops and casual officers passing through here have almost without exception voluntarily and without solicitation visited my office before leaving and have expressed their appreciation both verbally and in writing for the uniform courtesy and great consideration shown them by all officers on duty at this base section. With the exception of newspaper reporter by the name of Brown of Washington, D. C. paper, every newspaper man that has visited Brest has become an ardent advocate of the organization, efficiency and human kindness in common at the railroad station, at camp, at the embarkation office, at the pier and in all offices in base section No. 5. Inspections of buildings

are made daily and only in rare instances are leaks discovered during the hardest wind and rain storms. In every instance the leaks are immediately repaired usually before the occupants have had time to report them. As relates to mud everywhere, this is the rainy season. Footpaths and roads were muddy for a time, due to conditions over which no man had control. Even this has been met by laying approximately 40 miles of board walks along the roadside throughout the camp to storehouses, to incinerators, to laundries, to delousing plants, to mess halls and along highways. Thousands of cubic yards of crushed stone have been laid and rolled so that one may walk over the camp without stepping in the mud. Sheds and messes have been built at the railroad station to serve 5,000 men within an hour after arrival both day and night. These are located conveniently near the docks in order also to serve troops embarking in case of necessity. Enclosed buildings and rest rooms furnished with heating facilities such as stoves and open fireplaces with attractive decorations have been provided at the docks and are being managed by the Red Cross assisted by commissioned and enlisted details from the Army. These facilities are provided with chairs, writing tables, music, light refreshments, benches and will accommodate 4,000 men. A neat and attractive building has been provided as an infirmary at dock to which ambulances have access under cover. Sick and wounded are provided with covers from infirmary to hospital boat which is enclosed and heated. Sick and wounded are removed from hospital to hospital train or ships under cover. '

On February 1, 1919, the Director of Military Aeronautics sent the following letter to the presidents of all universities and colleges in this country:

"The Director of Military Aeronautics asks your cooperation in the following matter, which is important to the Air Service of the country and which may be of yet more intimate concern to the locality and to the institution with which you are associated.

"This office is making every effort to assemble the personal stories of the men who have been with the Air Service overseas. It seems not unlikely that the better part of each story is contained in letters to friends and relatives at home. Letters from some of our aviators have already appeared in book form and in the magazines, and from time to time college publications have had occasion to print appreciations of fliers killed in combat.

"Such informal records may supply information of historical value to be had from no other source ——— information which should find a place in the written history of the country.

"The Director of Military Aeronautics therefore makes this request: that, with the full sanction of those most concerned, this office be furnished with copies of such letters, or excerpts from them, and likewise with copies of any of your student or alumni publications that have contained articles pertinent to this subject. It would be gratifying, also, if you would interest your townspeople in this matter, and would obtain the cooperation of the local press. Whatever you can do to further the assembling of this data, —— and with reasonable haste, that nothing may be lost, —— will be deeply appreciated here.

"Communications in reply should be addressed:

'Director of Military Aeronautics
6th Street & Missouri Avenue
Washington, D. C.

'Aeronautical Information Branch'

FOR A HISTORY OF THE WAR

On February 25th, the War Department authorized publication of the following:

The Secretary of War has directed that a bulletin be published to the Army to provide that officers and other persons who have served in or with the Army during the war and who are in possession of historical information of value for use in connection with the history of the war are authorized and invited to communicate such information direct by mail or otherwise to the Chief of the Historical Branch, Army War College, Washington, D. C., such material to be considered as having been furnished to the War Department unconditionally, to be used as desired and not to be returned unless request is made to do so.

The request from the O.D.M.A. has brought assurance of cooperation from a source from which not a little might be expected. The material as received will be sifted and classified, and copies will be furnished the Historical Branch of the War College. It is desired to give all the publicity possible to this appeal from the Air Service.

Remember, this war, too, must find its Lossing and McMaster. So officers and men in the camps who have material, in letters or other form, of the sort that goes to make histories should think to send a copy to the O.D.M.A.

"Attention Aeronautical Information Branch."

ILLEGITIMATE COPYRIGHTING OF W.D. PHOTOGRAPHS

The Director of the War Department News Bureau gives out this notice :

The attention of the War Department has been drawn to the practice of certain news-picture syndicates in "copyrighting" and otherwise claiming credit for news photographs which are being distributed by the Army to the press at cost price (25 cents per print) in the interest of public information. There is no objection to the practice of any picture syndicate copying and distributing any photograph offered through the Army Signal Corps Service, but no such print shall be marked as "copyright", nor shall "credit" for such picture be claimed by any agency or publication. The correct credit mark is "By Signal Corps, U.S.A."

For the protection of editors and of this public service it will be necessary to discontinue serving any agency violating the provisions of this notice. Editors will kindly advise this bureau of any violations observed.

RATINGS OF FLIERS

Major Melvin A. Hall, A.S.A., is appointed a member of the Board of Officers created by Paragraph 3, Special Orders No. 28, Division of Military Aeronautics, February 1, 1919, to pass on the qualifications of flying officers who have distinguished themselves in action, with a view to awarding them such ratings as their achievements and abilities may warrant. Major Hall is appointed vice Colonel Townsend F. Dodd, M.A., A.S.A., relieved.

Lieutenant Colonel Bruce B. Buttler, A.S.A., has been ordered to report at Kelly Field, San Antonio, Texas, on March 15, 1919, for examination for rating as Junior Military Aviator.

The following-named Officers, having completed the required tests, are rated Reserve Military Aviators, to be effective from the dates set after their respective names:

Second Lieutenant Warren E. Calvin, A.S.A.,	January 20, 1919
Second Lieutenant Cyril R. Davis, A.S.A.,	January 20, 1919
Second Lieutenant John H. Matthews, A.S.A.,	February 7, 1919

LICENSES TO FLY CIVILIAN AIRCRAFT

Licenses to fly civilian aircraft issued by the Joint Army and Navy Board on Aeronautic Cognizance, up to and including February 24, 1919, are as follows:

Licence No.	Issued to	Address
301	Marjorie Stinson	122 King Ave., San Antonio, Tex.
302	Theodore Hedlund	Boston, Mass.
303	Louis Gertson	Chicago, Ill.
304	Baxter H. Adams	Henderson, Kentucky
305	David Gregg	Brookline, Mass.
306	Edwin K. Jaquith	Atlantic City, N. J.
307	Curtiss Flying Station	Atlantic City, N. J.
308	Walter Pack	San Francisco, Cal.
309	Leon Richardson	Washington, D. C.
310	W. H. Fitzpatrick, Jr.	Buffalo, N. Y.
311	Walter T. Varney	San Francisco, Cal.
312	Clarke C. Minter	Washington, D. C.
313	W. E. Nightingale	Nantasket, Mass.
316	J. Riley	Caro, Michigan
320	Harry B. Crewdson	Chicago, Ill.
321	Warren L. Baker	Providence, R. I.
322	Allen P. Bourden	East Greenwich, R. I.
323	John O'Hara, Jr.	Brocklyn, N. Y.
324	Ed R. Hutchison	Elmira, N. Y.
326	Curtiss Aeroplane & Motor Corp.	New York, N. Y.
327	B. H. Kendrick	Atlantic City, N. J.
328	Prof. Rexford C. Gardiner	Celoron, N. Y.
330	Frank Bonar	Underwood, Iowa.
331	Charles T. Mills	La Salle, N. Y.
332	America Trans Oceanic Co. (David H. McCullock)	New York, N. Y.
333	Frank Mills	Essington, Pa.
335	Walter W. Raub	Salem, Ohio.
336	A. W. Snyder	Bolling Field, D. C.
337	Howard A. Scholle	New York, N. Y.
338	Melvin W. Hodgdon	Somerville, Mass.

Licenses renewed:

License No.	Issued To	Address
117	The Lawrence Sperry Aircraft Co.	Farmingdale, L. I.
176	Dewey Airplane Company	Dewey, Oklahoma.

TYPES OF PLANES ACTIVE, OBSOLESCENT, OR OBSOLETE

The following types of planes are declared by Circular No. 5 O.D.M.A., February 21, 1919, "active", "obsolescent" and "obsolete":

ACTIVE

PLANES		MOTORS
Curtiss JN4H	(JN4HB	Hispano Suiza Model I
Curtiss JN6HO	(JN4HG	Hispano Suiza Model E
Curtiss JN7H	(JN6HB	Liberty - 12
DeHaviland 4	(JN6HP	LeRhone 80 HP
USD9A	(JN6HG1	
SE-5	(JN6HG2	
VE-7		
S4-C		
Martin Bomber		
Hydros		
Lepere		
Handley-Page		
Spad		
Sopwith Dolphin		
Caproni		

OBSOLESCENT

Curtiss JN4A	Curtiss OX2
Curtiss JN4B	Curtiss OXX3
Curtiss JN4D	Curtiss OX5
Canadian JN4	Hispano-Suiza Model-A

Thomas Morse Scout equipped with Gnome Motor.

OBSOLETE

PLANES	MOTORS
Curtiss R4	Thomas Morse -8
Curtiss R2	Curtiss Model-O
Curtiss N8	Curtiss OXX
Curtiss Twin	Curtiss OXX-2
LWF	Curtiss N-8
Standard J-1	Sturtevant 5-A
L-2	Hall Scott A5A
R-6	Hall Scott A7A
Martin -R	Lawrence
Standard D	Clerget -9
Heinrich C-1	Curtiss V -2
Aero Marine	Curtiss V-X
Boeing	Wright 6-Cyl.
Martin TT	Salmson M-9
Martin R6	Renault -12
Standard H-2	Renault -8

OBSOLETE (Continued)

PLANES	MOTORS
Standard H-3	Sturtevant 4-cyl.
Sturtevant S-4	Aero Daimler 6-cyl.
Bristol Fighters	Curtiss Type S.
Burgess Hydroplane	Laviateur -8

The following is the policy in regard to operation and repairs of obsolescent planes and engines:

(a) Obsolescent planes and engines will be operated and used in active training until through accident or fair wear and tear they are put out of commission.

(b) Where necessary spare parts are available at a Flying Field or Repair Depot, obsolescent planes and engines will be repaired and put back in commission.

(c) Where the necessary spare parts for making repairs are not available, at a Flying Field or Repair Depot, they will be requisitioned on the Supply source which source will obtain them, if possible, from other Flying Fields, Repair Depots or Supply Depots in cases where there are none at the Supply source upon which the requisition was issued.

(d) Where obsolescent planes and engines are out of commission on account of the lack of spare parts which may be easily manufactured at the Flying Fields, it will be left to the judgment of the Commanding Officer as to whether or not it is advisable to make the necessary parts to complete the repair. No extensive repairs, however, will be made.

(e) No spare parts will be purchased or manufactured other than as indicated in paragraph (d).

(f) After Surveys and Salvage Reports have been properly executed, parts from planes and engines out of commission on account of lack of spare parts will be used as spare parts for making repairs to other similar planes and engines which may be put in commission by the use of parts from the planes so surveyed and salvaged.

The policy regarding the disposition of obsolete planes will be announced later.

FLYING DATA

Airplane daily crew reports from flying fields yield some interesting summaries, according to tabulation by the Information Records Branch of the Supply Section, for the month of December, 1918. Here are some of the totals for the 27 flying fields considered as one. Decimals for the larger numbers are omitted.

For All Fields

Total hrs. per mo. Engine running time	-	49,745
" " " " Airplane flying "	-	44,759
Average no. ships per day		531

Total gals. gas per mo. put in	-	320,938
Av. " " " ship per hr.		6:45
Total qts. oil per mo. put in	-	111,966
Av. " " ship per hr.	-	2:25
Qts. used " returned	-	11,362

TRAVEL FOR AVIATION PURPOSES

Section III of G.O. 22 W.D., February 6, 1919, amends Section III G.O. 81, W. D., 1918, as follows:

"Actual and necessary expenses, not exceeding $5 per day, may be paid from the Signal Corps appropriation of July 24, 1917, or from the Air Service appropriation of July 9, 1918, to officers, enlisted men, and civilian employees of the Army, and authorized agents when sent on special duty for aviation purposes at home or abroad under specific instructions from the Secretary of War."

It also announces that "Vouchers submitted for payment under the provisions of this order will be accompanied by an itemized statement of expenses."

It is to be noted that this change in General Orders has the effect of stopping reimbursement for expenses of any special duty for aviation purposes not authorized by the Secretary of War. Also, that actual expenses and not a per diem allowance will be paid, and that reimbursement will not be made for expenses in excess of $5.00 a day.

The officer in charge of Airship Training and Instruction at Akron, Ohio, is announced as Commanding Officer of a Balloon School, for the purpose of issuing travel orders in cases of officers returning from free balloon flights.
(G.O. 14, c.s., O.D.M.A.)

THE "FAMILY MEDICINE BOOK" FOR MOTOR TROUBLES

A pamphlet on Motor Trouble Shooting, issued by the Training Section, has been sent to the various flying fields for the use of pilots in cross-country flying.

The compilation of this pamphlet stands to the credit of 2nd Lieut. Curtis C. Webb, Assistant Engineer Officer at Ellington Field, who did all the detailed work on it.

The pamphlet is a well-set-up pocket edition of about twenty pages — excellently printed and well laid out. Each "trouble" has a page to itself where it is diagnosed in itemized form. Directions for starting Hispano-Suiza and Liberty -engines and a few general rules precede.

AVIATION OVER THE WASHINGTON PARADE

Evidently an air parade is now an essential part of any self-respecting celebration. Part of Washington's welcome to the Commander in Chief and to the District of Columbia's men of the A.E.F. last Thursday, February 27th, was contributed by the air services of both the Army and the Navy. The day was perfect, both for fliers and spectators: and in the brilliant sunshine every outline of the machines was silhoutted in silver against the cloudless blue.

All the pilots of Bolling Field were there. A local pilot and a field pilot flew together. Captain Roy Francis steered the big Glenn Martin day bomber with twin Liberty 400 hp. engines, flying low over the route, taking motion pictures as he went.

Other pilots were Capt. Felix Steinle, Capt. James W. Osgood, Lieutenants George Perkins, Leo S. Post, Thomas F. Graves, Ernest E. Harmon, Capt. Roy R. Showalter, and A. W. Snyder, T. D. Lucas, L. M. Merrick, and W. E. Benjamin.

The machines, besides the Glenn-Martin, which appeared both in formation and singly were the Curtiss JN4-D, Curtiss JN4-H, LePere, Ordnance Scout, SE-5, and Thomas Morse scout with Le Rhone engine.

Back and forth among the planes went a big C-3 — Navy dirigible. It had started from Cape May, proceeding via Norfolk; and after it had proved conclusively how completely it was under control, it headed back for Norfolk where it landed safely after dark. The fuselage under the long gas bag carried six passengers — a lieutenant commander, a lieutenant, two ensigns, and two mechanicians.

While the different units of the parade and the army equipage were finding their stations ready to fall in, one piece of aircraft tried to show its utter contempt of land travel. It had been planned to have a Type "R" Cacquot observation balloon tethered to a winch moving in the ground parade, the balloon to be kept at a height of 300 feet, with a motion picture operator in the basket. The 29th Balloon Company, stationed at the Ordnance Proving Grounds, Aberdeen, Md., who were to participate in the parade brought it down with them. At 11:00 o'clock, while it was being maneuvered to position, with 1st Lieut. G. H. McMillan in the basket, the balloon rose to 10,000 feet and floated over Washington in a northeasterly direction. Lieut. McMillan succeeded in valving down and landed the balloon near Hillmead, Md., about nine miles east of the District line. The only damage sustained was a slight tear of the fins caused by the balloon's catching on a tree in landing. Soldiers followed the balloon in trucks, deflated it, and brought it back to the city.

MORE ABOUT BALLOON ACTIVITIES AT THE FLYING CIRCUS

The 64th Balloon Company, Captain E. P. Phillips in command, traveled from Arcadia to Rockwell Field on February 1st using its own transportation. The start was made at 7 A.M., and Rockwell Field was reached at midnight the same day. The next morning the balloon was inflated and made ready for the air. The long trip, and the rapid preparation for flight and observation gave an excellent idea of the mobility and training of a balloon company.

During the circus the balloon was the target of a dummy attack by several airplanes. After the balloon had been "hit with incendiary bullets" the observers, Captain Phillips and Lieutenant Burt, made parachute jumps. This demonstrated the only manner in which a balloon observer may save himself if his balloon is set afire. The contemplated use of helium gas instead of hydrogen will enable the observer to be armed with an automatic rifle and will insure him against the danger of fire.

Lieuts. Welch, McFayden, Cameron, Mooney, Hahlbeck, and Whistler ll made successful parachute jumps. Lieut. R. K. Lloyd caused quite a sensation y making a drop in a basket parachute.

OVER 210 HOURS IN THE AIR

Ream Field boasts a JN4-H with a record of 210 hours and 20 minutes ctual flying time without once having had its motor overhauled.

According to the Rockwell Field Weekly Flight, "this ship put in over 5 hours in combat work, — conceded to be the work placing the heaviest strain n a ship, — was mounted with a Marlin machine gun and used in tow target work nd parachute drill, and answered in full every call on it without the mar of a ingle forced landing."

The chauffeur, one of Ream Field's best motor mechanicians who was in harge of the plane throughout its entire course, was given permission to make n exhaustive endurance test of it. It was generally conceded that the machine as good for thirty or forty more hours, but the officers in authority decided hat it should be stripped, the motor taken apart and photographed in detail nd its history studied for the benefit of further motor construction.

Lt. Colonel William Thaw, now at Rockwell Field, has been designated ost Executive Officer.

OUTSTANDING CONTRACTS

The Statistics Branch, General Staff, War Department announces the alues of contract terminations and deliveries for the Army Air Service to ebruary 8, in percentage of contracts outstanding November 9, 1918.

No allowance for settlements has been made. Value of suspensions as ell as of cancellations are included in terminations.

The figures are: Terminated 82.5 %; Delivered 15 %; Balance 2.5%

Vol. I D. M. A. WEEKLY NEWS LETTER OS 1403

Air Service Washington, D. C. War Department
March 8, 1919

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

The War Department authorizes publication of the following:

The following organizations have been assigned to early convoy:

157th, 370th, and 639th Aero Squadron

A cabled correction reads:

On the Transport Plattsburg, which sailed from Brest February 26th and is due to arrive at New York March 6th:

"37th Aero Squadron, 9 officers, 168 men" should read "49th Aero Squadron, 9 officers, 168 men."

The Transport Patria sailed from Marseilles March 2nd and is due to arrive at New York about March 14th, with 34 Casual Officers of the Air Service on board.

OVER 4,800 LIBERTY-12 ENGINES SHIPPED TO STOREHOUSES SINCE ARMISTICE

The Statistics Branch of the General Staff, War Department, has made up the following table, which shows the number of planes and engines shipped by the Bureau of Aircraft Production to depots and storehouses from the date of the armistice to February 14th:

Liberty 12 service engines	4,806
OX-5 elementary training engines	1,261
Le Rhone advanced training engines	994
De Havilland 4 observation planes	524
Hispano 180 advanced training engines	343
Hispano 150 advanced training engines	254
JN6-H advanced training planes	174
JN4-D elementary training planes	131

The War Department authorizes the following statement of fatalities which occurred at flying fields, camps, etc., in the United States:

During the week ending February 13, 1919:

Place at which fatality occurred	Number of fatalities
Carlstrom Field, Arcadia, Florida.....	1

During the week ended February 20, 1919:

Barron Field, Everman, Texas	1
Carlstrom Field, Arcadia, Florida	1
March Field, Riverside, California.....	1
Park Field, Millington, Tenn.....	1
Total.....	4

WAR RISK INSURANCE --- APPLICATIONS FOR INSURANCE MUST BE IN WRITING

Circular No. 103, W.D., February 26, 1919, Y 824, D.M.A., quotes the following decision of the Bureau of War Risk Insurance:

"In this case _____ Battery _____ Battalion, _____ enlisted June 30th, 1918. He did not make out an application for insurance. On October 7th, 1918, after being taken to the Base Hospital at his Camp, he expressed a desire to make application for insurance. His Commanding Officer prepared an application and took it to the Base Hospital to obtain the soldier's signature, but being unable to find the soldier, mailed the application to him. This application was not received by the soldier before his death, October 16th, 1918.

"The question is then presented as to whether the soldier's oral expression of a desire to make application for insurance constitutes an application for insurance.

"In this case no valid application for insurance has been made for the reason that application for insurance must be made in writing."

PRESS INTERVIEWS BY THE SECRETARY OF WAR

The Judge Advocate General in reviewing the cases of the nineteen men tried by General Court Martial for assault at Camp Grant found that by reason of the haste of the trial, which was hurried because the Division was about to go overseas, fundamental rights of the accused were ignored, and recommended that the President set aside the convictions and order a new trial. This has been done. Another court for the trial of these cases has been appointed and the trial will proceed at once, so carefully safeguarded as to prevent any further possibility of prejudice to the men or mistrial.

The War Department authorizes the following statement from the Office of the Director of Purchase & Storage:

Twenty-two Army laundries, owned and operated by the Government at the various camps, cantonments, posts and stations in the United States, laundered 9,977,444 pieces of clothing during the month of January. The gross receipts from these operations amounted to $543,910.68 and the net profit, after deducting the cost of operation, amounted to $248,479.40 for that month. Army laundries are operated by the Laundry Branch of the Salvage Division.

HONORABLY DISCHARGED

The following Officers of the Air Service have been honorably discharged:

February 18, 1919:
Captains Leonard C. Hammond, Claude O. Van Valer;
Second Lieutenant Robert G. Elbert.

February 28, 1919:
Captain Charles M. Fleischmann;
First Lieutenants Harry J. Kennedy, John K. Willcox;
Second Lieutenant Robert H. Doutt.

March 1, 1919:
Major Charles H. Hammond;
Captains Henry I. Brock, Charles L. Heater;
Second Lieutenants James A. Johnston, Jr., George D. Kingsland, Louis, A. Giroux, Edward L. Bullock, Jr., Herbert J. Stack, James C. Hayes.

March 3, 1919:
Captain Roscoe G. Kincaid;
Second Lieutenants Efford A. Beverly, Anthony E. Nommensen.

March 4, 1919:
Captains Walter L. Saunders, John S. M. Eley;
First Lieutenants Tom S. Patterson, Robert L. McClure.

March 5, 1919:
Lieutenant-Colonel Robert Glendinning;
Major Frank H. Maguire;
Captain Harford W. H. Powel, Jr.;
First Lieutenants Paul P. Immel, Leo M. Harlow, Walter A. McDonald.
Second Lieutenants James W. Huntley, Norman C. Granniss.

R. M. A.'s

The following Officers have been rated as Reserve Military Aviators from the dates set after their respective names:

Major Ora M. Baldinger, A.S.A.	January 30, 1919
Captain Gordon Baker, A.S.A.,	January 30, 1919
First Lieutenant William D. Prindle, Infantry	February 12, 1919
First Lieutenant William M. Bailey, A.S.A.,	February 12, 1919
First Lieutenant James Wade Jenkins, A.S.A.,	January 30, 1919
First Lieutenant Fielding B. Cochran, A.S.A.,	January 30, 1919

First Lieutenant Donald G. Duke, A.S.A.,	January 30, 1919
First Lieutenant Raymond C. Brown, A.S.A.,	January 30, 1919
First Lieutenant William B. Remington, A.S.A.,	January 30, 1919
First Lieutenant Charles M. Leonard, A.S.A.,	February 11, 1919
First Lieutenant Earl D. Stearns, A.S.A.,	January 27, 1919
First Lieutenant Sam George Epstein, A.S.A.,	January 27, 1919
First Lieutenant Joe Thurmond, A.S.A.,	February 14, 1919
First Lieutenant George V. Bonhag, A.S.A.,	February 11, 1919
Second Lieutenant John L. Salway, A.S.A.,	January 30, 1919
Second Lieutenant Stanley Clarke, A.S.A.,	February 10, 1919
Second Lieutenant Milton Barratt, A.S.A.,	February 11, 1919
Second Lieutenant Ralph A. Gibson, A.S.A.,	February 11, 1919
Second Lieutenant Alfred D. Karr, A.S.A.,	February 11, 1919
Second Lieutenant Granville C. Johnston, A.S.A.,	January 27, 1919
Second Lieutenant George K. Pond, A.S.A.,	January 27, 1919
Second Lieutenant Arnold M. Kent, A.S.A.,	February 12, 1919

GOVERNMENT SHIPMENT OF HOUSEHOLD GOODS

The Division of Military Aeronautics has secured a decision from the Adjutant General's Office as to whether an officer who did not avail himself of the privilege of having his household goods and personal effects shipped to his station at Government expense when he entered the service is entitled to the privilege of having the above mentioned goods shipped to his home on being discharged from the service. The decision reads:

"When an officer, who, under the law, is entitled to have his household goods shipped at Government expense upon discharge from the Army, makes application to have his authorized allowance of household goods shipped to a point other than the place where he resided at the time of entry into Federal Service, the Shipping Quartermaster is authorized to ship these goods at Government expense to any point not farther than the number of miles for which he is allowed travel allowance. His allowance of household goods may be shipped at Government expense irrespective of where the goods were acquired."

ANTI-FREEZING MIXTURES FOR RADIATORS

The Motor Transport Branch, Supply Section, O.D.M.A., is in receipt of latest reports on anti-freezing mixtures for radiators from the U.S. Bureau of Standards. This information is on file in this Branch and is available to anyone interested.

NEW RECORD FROM WASHINGTON TO NEW YORK

Eighty minutes from Washington to Mineola is now the record. It was made on March 5th by Lt. Colonel Herbert A. Dargue, Assistant Chief of training, O.D.M.A., and Lieutenant Lucas of Bolling Field, in a DH-4 with 400 h.p. Liberty engine. Lt. Colonel Dargue was in the pilot's seat.

It was just 90 minutes according to Colonel Dargue, from the take-off at Bolling Field to the landing at Mineola; just 80 minutes to the landing from a point over the center of Washington. It was 40 minutes to Baltimore; 50 minutes

to Philadelphia. The wind was with them, blowing strongly, but the flying was nevertheless very smooth. The start at 11:10 A.M. was made in the rain. They got out of the rain at Baltimore and into sunshine at Philadelphia. The trip was made at a little over 6000 feet. For the 1½ hours, 26 gallons of gasoline were used and 2 gallons of oil.

With the same machine they made the return trip the following morning, but the time was 2 hours 5 minutes.

The trip to New York was not only a record flight in point of time, but it was a non-stop flight. The former record over this route allowed for a stop at Bustleton.

Lt. Colonel Dargue is a West Point graduate who has been twelve years in the Regular Army and six years in the Air Service. While in New York he visited the Aeronautical Exposition.

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Vol. I D. M. A. WEEKLY NEWS LETTER OS. 1421

Air Service Washington, D.C. War Department
March 15, 1919.

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

See Mar 22
Mar 29

THE REORGANIZATION OF THE AIR SERVICE

Major General Wm. L. Kenly has been relieved of his rank as Major General in the National Army and of his assignment as Director of Military Aeronautics. General Kenly reverts to his rank as Colonel in the Field Artillery and has reported for duty to the Chief of Field Artillery. Brigadier General Wm. Mitchell, who was Assistant Chief of the Air Service, A.E.F., and later Chief of the Air Service, 3d Army of the Army of Occupation, has succeeded General Kenly as Director of Military Aeronautics.

Major General Charles P. Menoher, Director of Air Service, has selected and announced orders in his staff. They are as follows:

Executive Staff

Executive Officer	Colonel Milton F. Davis, A.S., A.
First Assistant Executive	Colonel William E. Gillmore, A.S., A.
Second Assistant Executive	Major Horace M. Hickam, A.S., A.
Third Assistant Executive	Brig-General William Mitchell, U.S.A.
Fourth Assistant Executive	Lt. Colonel William F. Pearson, A.S., A.

Technical Advisory Staff

Supply

Chief, Air Service Property	Lt. Col. Augustine W. Robins, A.S., A.
Chief, Air Service Procurement	Col. Chalmers G. Hall, A.S., A.
Chief, Air Service Materiels Inspection	Lt. Col. George W. Mixter, A.S., A.P.
Chief, Air Service Finance	Lt. Col. Alex. C. Downey, A.S., A.P.
Chief, Air Service Aeronautical Engineering	Col. Thurman H. Bane, A.S., A.

Training and Operations

Chief, Air Service Training	(Detail to be announced later)
Chief, Air Service Operations	Lt. Col. Lewis H. Brereton, A.S., A.
Chief, Air Service Gunnery	Lt. Col. Harold E. Hartney, A.S., A.
Chief, Air Service Communications	Col. Clarence C. Culver, A.S., A.
Chief, Air Service Balloons & Airships	Col. Charles DeF. Chandler, A.S., A.

Administrative Staff

Chief, Air Service Personnel	Lt. Col. Rush B. Lincoln, A.S., A.
Chief, Air Service Inspector	Lt. Col. Frank M. Andrews, A.S., A.
Chief Surgeon, Air Service	Col. Albert E. Truby, M.C.

The following named officers have been designated as an Advisory Board, Air Service:

Colonel Walter G. Kilner, M.A., A.S.A.,
Colonel Arthur L. Fuller, A.S.A.,
Colonel Henry C. Pratt, A.S.A.,
Lt. Colonel George B. Hunter, A.S.A.,
Lt. Colonel Henry W. Harms, J.M.A., A.S.A.,
Major Charles R. Cameron, A.S.A., Secretary.

and the following named detailed for duty in the Office of the Director of Air Service, as indicated:

Assistant to Executive Officer - Lt. Col. Oscar Westover, A.S., A.P.,
Assistant to Second Assistant Executive - Major John B. Reynolds, A.S.A.,
Assistant to Third Assistant Executive - Col. Thomas DeWitt Milling, M.A., A.S.A.,
Assistant to Fourth Assistant Executive - Major Walter H. Frank, J.M.A., A.S.A.,
Assistant to Fourth Assistant Executive - Major Raycroft Walsh, J.M.A., A.S.A.,
Assistant to Chief, Air Service Materiels Inspection - Lt. Col. John D. Reardan, A.S., A.P.,
Assistant to Chief, Air Service Finance - Lt. Col. Jacob E. Fickel, J.M.A., A.S.A.,
Assistant to Chief, Air Service Finance - Lt. Col. William C. McChord, J.M.A., A.S.A.,
Assistant to Chief, Air Service Aeronautical Engineering - Lt. Col. Byron Q. Jones, M.A., A.S.A.,
Assistant to Chief, Air Service Training - Lt. Col. Herbert A. Dargue, M.A., A.S.A.,
Assistant to Chief, Air Service Personnel - Lt. Col. Hollis C. Clark, A.S., A.P.,
Legal Advisor to Director of Air Service - Major J. Gowan Roper, J.A.

By direction of the Director of Air Service:

Wm. F. Pearson
Lt. Colonel, A.S.A.
Assistant Executive.

By:

Rush B. Lincoln
Lt. Colonel, A.S.A.
Chief of Personnel.

The following chart explains the various functions of the Executive Staff:

Director of
Air Service

Executive Officer
Col. M. F. Davis

Advisory Board
Col. W. G. Kilner,
Col. A. L. Fuller
Col. H. C. Pratt
Lt. Col. G. B. Hunter
Lt. Col. H. W. Harms
Maj. C. R. Cameron

Foreign Representation
(to be announced later)

E X E C U T I V E S T A F F

1st Asst. Executive
Col. W. E. Gillmore

Technical Advisory
Staff : Supply
Chief A.S. Property
Lt. Col. A.W. Robins
Chief, A.S. Procurement
Col. C. G. Hall
Chief, A.S. Materiels Inspect'n
Lt. Col. A.C. Downey
Chief, A.S. Aero. Eng'r
Col. T. H. Bane

2nd Asst. Executive
Maj. H. M. Hickam

Information
Statistics
Publicity

3d Asst. Executive
Brig. Gen. Wm. Mitchell

Tech. Advisory Staff
Training & Operations
Chief A.S. Training
(to be announced later)
Chief, A.S. Operations
Lt. Col. L.H. Brereton
Chief, A.S. Gunnery,
Lt. Col. H.E. Hartney
Chief, A.S. Communications
Col. C.C. Culver
Chief, A.S. Balloons &
Airships
Col. C.DeF. Chandler

4th Asst. Executive
Lt. Col. W.F. Pearson

Administrative Staff
Chief, A.S. Personnel
Col. R.B. Lincoln
Chief, A.S. Inspector
Lt. Col. F.M. Andrews
Chief Surgeon, A.S.
Col. A.E. Truby, M.C.

Routine Executive
A.S. Functions.

WAR RISK INSURANCE --- NONDELIVERY OF INSURANCE CERTIFICATES

The Bureau of War Risk Insurance announces that a large number of insurance certificates remain undelivered. This is due to insufficient or no address having been given in some cases, while in many others the address of the beneficiary has changed and the certificate has been returned.

All officers and enlisted men whose insurance certificates have not been received either by themselves or by their beneficiaries, should write to the Insurance Division, Bureau of War Risk Insurance, Treasury Department, Washington, D.C., stating the following:

a. Full name.
b. Rank and organization at the time of application for insurance.
c. Army serial number.
d. Present address.
e. Name and address of the beneficiary if it is desired that the certificate be sent to the beneficiary.
f. If it is not desired that the certificate be sent to the beneficiary instructions will be given as to what disposition is to be made of it.

Certificates will in no case be sent for file to the Adjutant General of the Army.

BILL TO CREATE A DEPARTMENT OF AIR

A Department of Air is favored by F. H. LaGuardia, Congressman from New York, who flew in Italy during the war. He told an interested group at the Aeronautical Exposition in Madison Square Garden recently that he is preparing a bill which will make the head of the Air Department the head of everything connected with flying and take control of all air matters.

GENERAL MENOHER TO ATTEND AERONAUTICAL EXPOSITION
ON AIR SERVICE DAY, FRIDAY, MARCH 14.

Major General Charles T. Menoher, Director of the Air Service, accompanied by his staff, will attend the Aeronautical Exposition on Air Service Day, Friday, March 14th. General Menoher will be the guest of honor. He returned recently from overseas where he was commander of the Sixth Army Corps.

Air Service Day will throw the exposition open to all flyers and observers, whose insignia will be sufficient to gain admission as guests. The concert hall of Madison Square Garden will be the rendezvous for members of the Air Service. Refreshments will be served there throughout the afternoon and evening.

FLIERS ORGANIZE CLUB IN NEW YORK CITY

Overseas pilots and observers who every day are the guests of honor at the Aeronautical Exposition, announced March 11th, that a club, including some 500 American aviators who crossed the German lines during the war, has been organized in New York City and has opened its headquarters at No. 11 East 38th Street. It is planned to affiliate with the Army and Navy Air Service Association and cooperate in every way.

Laurence La Tourrette Driggs, who was a guest of the British Government and observed many of the air activities along the front, is one of the founders of the club. He has just returned from France and brought back with him a large number of valuable air trophies which are exhibited at the Aeronautical Exposition.

The prize of the collection is the pennant streamer from Baron von Richthofen's Flying Circus, the crack flying squadron whose leader was the greatest ace in the German aerial forces and who was killed in combat. Mr. Driggs obtained it the day after the armistice was signed in one of the cities evacuated by the Germans.

Next to this in interest are the insignias from the American flying squadrons, chief of which is that of the U.S. Aero Squadron No. 94, commanded by Captain Edward V. Rickenbacker, America's leading ace. The insignia is a hat in the ring. This squadron got the first Hun, the last Hun and had more aces in it than any other squadron on the American lines. It also brought down the largest number of German planes.

The insignia of Quentin Roosevelt's squadron is also shown. It is a kicking mule and represents the spirit of American Aviators in action. This outfit was commanded by Captain John Mitchell, of Harvard 1917, and made a wonderful record during the hostilities.

The first squadron over the German lines was the 185th Aero Squadron. This is represented by a devil holding a bomb, representing the bombardment forces. This squadron received the largest number of decorations during the war for individual work.

Major James A. Meissner, of Brooklyn, who commanded the U.S. 147, is represented by a dog on a diamond. The bat against a moon is the insignia of night flying squadron 195, commanded by Captain Seth Low, son of the former Mayor of New York. This was organized to combat the German planes that flew over the American lines at night. Aero Squadron 27, commanded by Captain Alfred Grant, of Texas, had for its insignia an eagle striking and a checker board. This squadron contained Frank Luke, America's greatest balloon stalker, who has a record of downing thirteen balloons in one day.

There are also a number of German insignia's taken from Hun Albatrosses, Fokker machines shot down by Captain Eddie Rickenbacker, and a Hun Rumpler shot down in the Argonne forest. Also the top wing of a German Halberstadt, and many pieces of German wing beams, ribs and struts.

In the way of helmets, there is one of the Crown Prince's Death Head Regiment. There are said to be only 200 in Germany, There are also helmets captured from the Uhlans, flying corps helmets and a number of iron crosses of the first and second degree.

The old Lafayette Escadrille, the first squadron in which Americans fought in France, and which was later commanded by Lieut. Colonel William Thaw, of Pittsburgh, is represented by an insignia in the collection. It is an Indian head. The Lafayette saw about as much service as several of the others together.

SOME AIRPLANE SPECIFICATIONS

There follow some specifications of airplanes exhibited at the Aeronautical Exposition, New York, held March 1st to March 15, 1919, under the auspices of the Manufacturers Aircraft Association.

UNITED STATES ARMY AIR SERVICE

"THE MARTIN BOMBER"

Designed and built by the Glenn L. Martin Company, Cleveland Ohio.

Dimensions: Length, 46' 0"; width, 71' 0"; height, 14' 0"; biplane panels; four-wheel landing gear.
Weights: Empty, 5,600 lbs.; gasoline supply, 285 gallons; crew, 4 men; bombs, 1,500 lbs.; gross weight 9,600 lbs.
Speed: Landing, 47 m.p.h.; maximum, 118.0 m.p.h.; climb, 10,000 feet in 21 minutes.
Motor: Two Liberty motors, each 400 h.p.; tractor propellers, direct drive.

D H-4 BATTLEPLANE

Built by Dayton-Wright Airplane Co.

Dimensions: Length, 31' 1½"; width, 42' 5½"; height, 11'9"; biplane panels; two-wheel landing gear.
Weights: Empty, 2,475 lbs.; gasoline supply, 88 gallons; crew, 2 men; gross load, 3,800 lbs.
Speed: Landing, 58 m.p.h.; maximum, 122 m.p.h.; climb 10,000 feet in 10 minutes.
Motor; One Liberty, high compression, 400 h.p.; tractor propeller, direct drive.

HANDLEY PAGE BOMBER -- MODEL O-400

Built by the Standard Aircraft Corporation.

Dimensions: Length, 62' 10"; width, 100' 0"; height, 22'0"; biplane panels; four-wheel landing gear.

Weights: Empty, 8,300 lbs; gasoline supply, 400 gallons; crew, 5 men; gross weight, 14,700 lbs.
Speed: Landing, 48 m.p.h.; maximum, 93 m.p.h.; climb, 10,000 feet in 32 minutes.
Motors: Two "Liberty" motors, each 400 h.p.; tractor propellers, direct drive.

"S-4-C" — SINGLE SEATER SCOUT

Built by Thomas-Morse Aircraft Corp., Ithaca, N.Y.

Dimensions: Length, 19' 10"; width, 26' 6"; height, 8' 1"; biplane panels; two-wheel landing gear.
Weights: Empty, 940 lbs.; gasoline supply, 30 gallons; crew, 1 man; gross load, 1,330 lbs.
Speed: Landing, 45 m.p.h.; maximum, 97 m.p.h.; climb, 7,500 feet in 10 minutes.
Motor: One LeRhone, 80 h.p., air cooled rotary; tractor propeller, direct drive.

M B-3 — SINGLE SEATER FIGHTER

Built by Thomas-Morse Aircraft Corp., Ithaca, N.Y.

Dimensions: Length, 19' 0"; width, 26' 0"; height, 8' 0"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,360 lbs.; gasoline supply, 65 gallons; crew, 1 man; gross load, 2,050 lbs.
Speed: Landing, 65 m.p.h.; maximum, 163.68 m.p.h.; climb, 10,000 feet in 4 minutes, 52 seconds.
Motor: One Hispano-Suiza, 300 h.p.; tractor propeller, direct drive.

"LOENING" MILITARY MONOPLANE

Built by Wright-Martin Aircraft Corp., New Brunswick, N.J.

Dimensions: Length, 23' 9"; width, 33' 4"; height, 9' 3"; monoplane panels; two-wheel landing gear.
Weights: Empty, 1,380 lbs.; gasoline supply, 54 gallons; crew, 2 men; gross load, 2,380 lbs.
Speed: Landing, 48 m.p.h.; maximum, 145 m.p.h.; climb, 16,000 feet in 16 minutes.
Motor: One Hispano-Suiza, "300 h.p."; tractor propeller direct drive.

UNITED STATES NAVY
(NAVAL AIRCRAFT FACTORY)
Philadelphia, Pa.

MODEL F 5-L FLYING BOAT

Dimensions: Length, 49' 4"; width, 103' 9"; height, 18' 9"; biplane panel; hull.
Weights: Empty, 8,250 lbs.; gasoline supply, 350 gallons; crew, 4 men; gross load, 13,000 lbs.
Speed: Landing, 50 m.p.h.; maximum, 87 m.p.h.; climb, 2,625 feet in 10 minutes.
Motors: Two "Liberty" low compression, each 330 h.p.; tractor propellers, direct drive.

LOENING "KITTEN" MONOPLANE

Dimensions: Length, 13' 0"; width, 18'0"; height, 5'0"; monoplane panels; twin pontoon landing gear.
Weights: Empty, 300 lbs.; gasoline supply, 10 gallons; crew, 1 man; gross load, 530 lbs.
Speed: Landing, 50 m.p.h.; maximum, 105 m.p.h.; climb, 1,500 feet in the first minute.
Motor: One 3 cylinder Lawrence, 60 h.p., air cooled fixed; tractor propeller, direct drive.

"GALLAUDET D-4 LIGHT BOMBER SEAPLANE"

Built by Gallaudet Aircraft Corp.

Dimensions: Length, 33' 0"; width, 46' 6"; height, 11' 6"; biplane panels; single central pontoon.
Weights: Empty, 3,800 lbs.; gasoline supply, 64 gals.; crew, 2 men; bombs, 2 (400 lbs.); gross load, 5,430 lbs.
Speed: Landing, 45 m.p.h.; maximum, 130 m.p.h.; climb with bombs 8,100 feet in 15 minutes; without bombs, 7,700 feet in 10 minutes.
Motor: Liberty with patented Gallaudet pusher fuselage propeller.

SPECIAL EXHIBITS

S E-5 — British Single Seater Scout.

SPAD — Single seater, French Combat Plane.

NIEUPORT — Single seater French Combat Plane.

ALBATROSS, Single seater, German Combat Plane.

LE PERE — Two-place Fighting Biplane with Liberty Engine.

MANUFACTURER'S EXHIBITS

LEWIS & VOUGHT CORP.
Long Island City

V E-7 "BLUEBIRD" TRAINING PLANE

Dimensions: Length, 24' 2"; width, 34' 3"; height, 8' 7½"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,365 lbs; useful load, 630 lbs.; crew, 2 men, gross load, 1,995 lbs.
Speed: Landing, 48 m.p.h.; maximum, 110 m.p.h.; climb, 10,000 feet in 12 minutes.
Motor: Model "A" Hispano-Suiza, 150 h.p.; tractor propeller, direct drive.

STANDARD AIRCRAFT CORPORATION
Elizabeth, N.J.

E-1

Dimensions: Length, 18' 10"; width, 24'0"; height, 9' 1"; biplane panels; two-wheel landing gear.
Weights: Empty, 869 lbs.; gasoline supply, 20 gallons; crew, 1 man; gross load, 1,188 lbs.
Speed: Landing, 48 m.p.h.; maximum, 103 m.p.h.; climb, 10,000 feet in 22.33 minutes.
Motor: One LeRhone motor, 80 h.p. rotary; tractor propeller, direct drive.

J R-1

Dimensions: Length, 26' 2"; width, 31' 4¾"; height, 10' 10 3/16"; biplane panels; three-wheel landing gear.
Weights: Empty, 1,566 lbs.; gasoline supply, 30 gallons; crew, 1 man; gross load, 2,400 lbs.
Speed: Landing, 48 m.p.h.; maximum, 100 m.p.h.; climb, 5,300 feet in 10 minutes.
Motor: Model I Hispano-Suiza, 170 h.p.; tractor propeller, direct drive.

GIO. ANSALDO & COMPANY
Genoa, Italy

"S.V.A." (SAVOIE VERDUZIO ANSALDO)

Dimensions: Length, 22' 11"; width, 29' 10"; height, 11' 6"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,900 lbs.; gasoline supply, 75 gallons; crew, 1 man; bombs, 150 lbs.; gross load, 2,900 lbs.
Speed: Landing, 45 m.p.h.; maximum, 140 m.p.h.; climb, 20,000 feet in 30 minutes.
Motor: S.P.A. Ansaldo, 6 cylinder, vertical, 220 h.p.; tractor propellers, direct drive.

"ANSALDO PRIMO"

Dimensions: Length, 19' 8"; width, 22' 11"; height, 11' 6"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,600 lbs.; gasoline supply, 40 gallons; crew, 1 man; gross load, 2,200 lbs.
Speed: Landing, 45 m.p.h.; maximum, 145 m.p.h.; climb, 20,000 feet in 25 minutes.
Motor: (Same as S.V.A. motor equipment.)

CAPRONI MANUFACTURING CO.,
Milan, Italy

Caproni Triplane Model "1915"

Dimensions: Length, 48' 0"; width 130' 0"; height, 19'0"; triplane panels, eight-wheel landing gear.
Weights: Empty, 11,000 lbs.; gasoline supply, 300 gallons; crew, 5 men; bombs, 3,300 lbs;; gross load, 16,000 lbs.
Speed: Landing, 40 m.p.h.; maximum, 100 m.p.h.; climb, 5,000 feet in 15 minutes.
Motors: Three Liberty motors; propellers; outside, tractors and center, pusher; direct drive.

THE BURGESS CO.
Marblehead, Mass.

Burgess — Blimp Car (Nacelle) — Type "6" Dirigible

Dimensions: Length, 40' 0"; width, 16' 0"; height, 7'0".
Weights: Empty, 3,800 lbs.; gasoline supply, 280 gallons; crew, 4 to 7.
Speed: Maximum, 68 m.p.h.
Motor: 2 Union gas engines, 6 cylinder, 120 h.p.; pusher propellers, direct drive.

GALLAUDET AIRCRAFT CORPORATION
East Greenwich, R.I.

Gallaudet "Chummy Flyabout"

Dimensions: Length, 18' 7"; width, 33'0"; height 5'0"; monoplane panels; two-wheel landing gear.
Weights: Empty, 750 lbs.; gasoline supply, 8 gallons; crew, 2 men; gross load, 1,080 lbs.

Speed: Landing, 45 m.p.h.; maximum, 85 m.p.h.
Motor: Two Indian motorcycle engines, each 18 h.p.; pusher propellers, transmission and gear drive.

PACKARD MOTOR CAR COMPANY
Detroit, Mich.

The "1-A" Packard

Dimensions: Length, 25' 0"; width, 37' 0"; height, 8' 11"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,520 lbs.; gasoline supply, 34 gallons; crew, 2 men; gross load, 2,167 lbs.
Speed: Landing, 42 m.p.h.; maximum, 102 m.p.h.; climb, 15,000 feet in 34.5 minutes.
Motor: One Packard "1-A", 8 cylinder; tractor propeller, direct drive.

DAYTON-WRIGHT AIRPLANE COMPANY
Dayton, Ohio

"T-4"— "Messenger Plane"

Dimensions: Length, 17' 6"; width, 19' 3"; height, 6' 1"; biplane panels; two-wheel landing gear.
Weights: Empty, 476 lbs.; gasoline supply, 12 gallons; crew, 1 man; gross load, 730 lbs.
Speed: Landing, 58 m.p.h.; maximum, 122 m.p.h.; climb, 3,000 feet in 10 minutes.
Motor: One four cylinder Palmer engine, 37 h.p. at 2,000 r.p.m.; tractor propeller, direct drive.

D 4 K — "The Honeymoon"

Dimensions: Length, 31' 1½"; width, 42' 5½"; height, 11' 9"; biplane panels; two-wheel landing gear.
Weights: Empty, 2,400 lbs.; gasoline supply, 88 gallons; crew, 3 men; gross load, 3,410 lbs.
Speed: Landing, 53 m.p.h.; maximum, 115 m.p.h.; climb, 10,000 feet in 10 minutes.
Motor: One "Liberty", high compression, 400 h.p.; tractor propeller, direct drive.

Model of the "Limousine" Type

CURTISS AEROPLANE AND MOTOR CORP.
52 Vanderbilt Avenue, New York City

Curtiss J N 4 D-2

Dimensions: Length, 27' 4"; width, 43' 7 3/8"; height 9' 10 5/8"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,580 lbs.; gasoline supply, 21 gallons; crew, 2 men; gross load, 2,130 lbs.
Speed: Landing, 45 m.p.h.; maximum, 75 m.p.h.; climb, 3,000 feet in 10 minutes.
Motor: One Curtiss "OX - 5", 90 h.p.; tractor propeller, direct drive.

Curtiss "M F" Flying Boat

Dimensions: Length, 28' 10¼"; width, 49' 9 3/8"; height, 11' 9 3/8"; biplane panels; hull.

Weights: Empty, 1,796 lbs.; gasoline supply, 40 gallons; crew, 2 men; gross load, 2,430 lbs.
Speed: Landing, 45 m.p.h.; maximum, 69 m.p.h.; climb, 5,000 feet in 27 minutes.
Motor: One Curtiss "OXX", 100 h.p.; pusher propeller, direct drive.

Curtiss H. A. Hydroaeroplane

Dimensions: Length, 30' 9"; width, 36'0"; height, 10' 7"; biplane panels; single central pontoon.
Weights: Empty, 2,638 lbs.; gasoline supply, 85 gallons; crew, 2 men; gross load, 3,650 lbs.
Speed: Landing, 62 m.p.h.; maximum, 130 m.p.h.; climb, 8,500 feet in 10 minutes.
Motor: One Liberty "12", low compression, 330 h.p.; tractor propellers, direct drive.

Curtiss 18 B Specifications withheld by U.S. Navy

THOMAS-MORSE AIRCRAFT CORP.
Ithaca, N.Y.

"S 6" — Tandem Two-Seater

Dimensions: Length, 20' 8"; width, 29' 0"; height, 8' 10"; biplane panels; two-wheel landing gear.
Weights: Empty, 900 lbs.; gasoline supply, 20 gallons; crew, 2 men; gross load, 1,385 lbs.
Speed: Landing, 40 m.p.h.; maximum, 105 m.p.h.; climb, 8,000 feet in 10 minutes.
Motor: One LeRhone, 80 h.p. rotary; tractor propeller, direct drive.

"S 7" — "Social Seater"

Dimensions: Length, 21' 6"; width, 32' 0"; height, 9' 0"; biplane panels; two-wheel landing gear.
Weights: Empty, 1,000 lbs.; gasoline supply, 20 gallons; crew, 2 men; gross load, 1,480 lbs.
Speed: Landing, 40 m.p.h.; maximum, 90 m.p.h.; climb, 6,700 feet in 10 minutes.
Motor: One LeRhone, 80 h.p. rotary; tractor propeller, direct drive.

L-W-F ENGINEERING CORPORATION
College Point, L.I.

H'S 2-L Flying Boat

Dimensions: Length, 38' 6"; width, 74' 19/32"; height, 14' 10"; biplane panels; hull.
Weights: Empty, 4,220 lbs.; gasoline supply, 153 gallons; crew, 3 men; gross load, 6,500 lbs.
Speed: Landing, 45 m.p.h.; maximum, 80 m.p.h.; climb, 3,000 feet in 10 minutes.
Motor: One "Liberty" low compression, 330 h.p.; pusher propeller, direct drive.

"G-2", Combat Plane

Dimensions: Length, 29' 1¼"; width, 41' 7½"; height, 9' 4 3/8"; biplane panels; two-wheel landing gear.
Weights: Empty, 2,675 lbs.; gasoline supply, 90 gallons; crew, 2 men; gross load, 4,023 lbs.
Speed: Landing, 50 m.p.h.; maximum, 134 m.p.h.; climb, 10,000 feet in 9.33 minutes.
Motor: One Liberty, high compression, 400 h.p.; tractor propeller, direct drive.

V.H. — 1. Hydroaeroplane

Dimensions: Length, 31' 1"; width, 46' 6" ; height, 13' 7"; biplane panels; twin pontoons.
Weights: Empty, 2,463 lbs.; gasoline supply, 80 gallons; crew, 2 men; gross load, 3,437 lbs.
Speed: Landing, 43 m.p.h.; maximum, 85 m.p.h.; climb, 3,000 feet in 10 minutes.
Motor: Sturtevant "8", 140,h.p., geared 5:3; tractor propeller.

BOEING AIRPLANE COMPANY
Seattle, Washington

"C-L-4-S", Hydroaeroplane

Dimensions: Length, 27' 0"; width, 43'6"; height, 12' 7"; Biplane panels; twin pontoons.
Weights: Gasoline supply, 31.5 gallons; crew, 2 men; gross load, 2,430 lbs.
Speed: Landing, 38 m.p.h.; maximum, 75 m.p.h.; climb, 3,600 feet in 10 minutes.
Motor: Hall-Scott Liberty four, 125 h.p.; tractor propeller, direct drive.

AEROMARINE PLANE & MOTOR COMPANY
Keyport, N.J.

Aeromarine — "50" Flying Boat

Dimensions: Length, 25' 6"; width, 48' 4"; biplane panels, hull.
Weights; Empty, 1,925 lbs.; gasoline supply, 35 gallons; crew, 3 men; gross load, 2,485 lbs.
Speed: Landing, 48 m.p.h.; maximum, 80 m.p.h.; climb, 2,400 feet in 10 minutes.
Motor: Aeromarine "L", 6 cylinder, 125 h.p.; pusher propeller, direct drive.

CANTILEVER AERO COMPANY
1265 Broadway, New York

Christmas "Bullet" Type Mail Machine

Dimensions: Length, 19' 6"; width, 28' 0"; height, 7' 6"; strutless biplane panels; two-wheel landing gear.
Weights: Empty, 1,600 lbs.; gasoline supply, 40 gallons; crew, 1 man, gross load, 1,925 lbs.

A SEAPLANE WITH INHERENT LATERAL STABILITY

The Boeing C-I-F Seaplane used by the Navy for training purposes is unusual in its lack of a lateral fin. The ship is alligned with a 50 per cent stagger and because of this, it approaches inherent lateral stability.

The C-I-F has a wing span of 41 feet, a length of 23 feet and its weight with useful load is 2383 lbs. It has a speed of range from 38 to 66 miles an hour when propelled by an OXX5 motor.

A NEW COMMERCIAL PLANE

The Packard Airplane made by the Packard Motor Car Co., Detroit, illustrates that company's efforts to develop a safe, stable but efficient commercial ship. This biplane, according to the manufacturers, possesses a certain inherent stability which relieves the pilot of much effort to control the ship in the air. The use farring between the double flying wires is intended to still further increase the safety factor. A thin board, to which these wires are taped, offers a streamline arrangement to lessen the resistance. The ship also has a wooden fuselage, a product of European construction, tending to lessen the danger by reducing the number of wires and supports in the tail of the machine. The Packard Company is utilizing their automobile plant for the testing of all materials which go into this machine.

"This plane was designed to make use of the very best materials obtainable and to have the ample factor of safety over seven", is the statement of the manufacturers.

It is propelled by a Packard aircraft engine, unusual in the location of the carburetor below the cylinders. This is intended to provide proper gravity feed, thus eliminating the complication of weight and pressure of pump feed, and at the same time warming the intake passages without the necessity of adding a hot water jacket system. This arrangement also leaves the feed entirely clear, thus rendering the spark plugs very accessible and providing for unusually good vision on the part of the pilot. The engine also carries a self-starter, which eliminates the danger from cranking and the trouble which comes with winding the propeller.

In the passenger compartment is luggage space with room for 100 lbs.

The weight of the full machine is 13-1/2 lbs. per H.P.
The estimated performance calls for 102 miles an hour, and a landing speed of 42 miles an hour.
The cruising radius at 15,000 feet is 4 hours.
The machine empty weighs 1520 lbs.

PERMANENT EXHIBIT OF AIRCRAFT

It was announced at the Aeronautical Exposition that a number of the exhibits now on display there will be sent to Washington after the close of the show to become the nucleus of a permanent exposition at the United States National Museum.

Under direction of Dr. Charles D. Walcott, Secretary of the Smithsonian Institution, plans for a permanent War Exposition in Washington have been underway for some time, and are now definitely arranged. Dr. Walcott, a member of the National Advisory Committee for Aeronautics, is particularly interested in aviation and has been since the days of Langley, who was himself at one time Secretary of the Smithsonian. Consequently a large part of the War Exhibition will be the development of the science of aeronautics and include many American and European examples of airplanes and accessories.

SCHROEDER'S ALTITUDE RECORD STANDS

The altitude record of 28,900 feet made last September in Dayton by Major R. W. Schroeder, in an American-built plane powered with a Hispano-Suiza motor, still holds, according to a cablegram received at the Aeronautical Exposition.

The information, which came from London, was to the effect that the flight which Capt. Lang, of the Royal Air Force, made on January 2, in England, was between 27,000 feet and 28,000 feet, instead of 30,500, as was reported in news dispatches at the time. This correction was made on a re-reading and calibration of the instruments.

AERONAUTICS AS PART OF COLLEGE COURSES

The Division of Military Aeronautics in cooperation with the Committee on Education and Special Training of the General Staff has arranged a training program for college students which will not interfere with their prescribed college courses but which will, at the end of three years, turn out men prepared for commercial or for military aviation.

In view of the depreciation among our Reserve officers of not less than ten percent a year, it is estimated that the Air Service must draw from some source about 1,000 pilots, 650 airplane and balloon observers, and 100 engineer officers every year. West Point, essentially military schools, and the ranks can be drawn upon only to fill up the Regular establishment. Therefore the machinery of the Reserve Officers' Training Corps, as established by General Order No. 49, 1916, (W.D.) and now in process of modification, was chosen as most likely to bring about desired results.

"In outline the plan is to give the equivalent of the work formerly done in the ground schools exclusive of military practice -- that is, airplanes, engines, gunnery, navigation and maps, infantry and artillery cooperation, and signaling - at the colleges and universities during the college year and give flying and military training during the six weeks summer camps held at northern flying fields. It is estimated that three summer camps will be required to qualify for pilot."

"AERIAL TAXIS"

The first aerial taxi depot in the world will be established within the next two months at Garden City, Long Island, according to Glenn H. Curtiss at the Aero Show.

Mr. Curtiss said: "We shall have a taxi depot which will furnish small machines for short inter-city travel, anything less than 200 miles, on order. Experienced pilots will be available to drive these airplanes, and the total cost will be surprisingly reasonable. It certainly will not

exceed that of many an automobile trip, for we save on the pilot's and the ship's time even if we may have a larger running cost to meet."

FLY TO AERO SHOW

A number of prominent men and officers of the Army and Navy went to New York for the Aeronautical Exposition via the air route last week. A feature of these flights was that while several different parties made round trips there were no accidents and all completed their journeys in good time.

Among those who flew to New York from Washington were:

Assistant Secretary of War ,Crowell, Senator Pittman, General Kenly, Majors Hickam, Ocker and Conolly, Captain Francis, and Lieutenants Proctor and Harmon. Major Rheuben Fleet and Capt. Earl F. White flew on from Dayton in record time for the distance and included one stop. During the Exposition Captain Roy Frances took up some of New York's reporters for their first aerial rides. He piloted the Martin Bomber over the city on three different trips on Monday last. Flying the LePere from Washington, Lieutenant E. E. Harmon with a passenger, came to New York recently in one hour and twenty-five minutes. Altogether the aerial traffic to New York had been fairly heavy.

LE PERE FIGHTER ON EXHIBIT

The speedy Army Le Pere battle plane, which was flown from Washington to New York on the opening day of the Aeronautical Exposition has been placed on exhibition in the 69th Regiment Armory as a part of the Army Air Service exhibits.

This plane was designed by Captain Le Pere, of the French Army around the Liberty engine and has proven one of the most remarkable developments in practical aviation achieved in this country during the war. The first machine was constructed by the Packard Company of Detroit, and only seventy-five have been completed.

The following-named Officers have been rated as Reserve Military Aviators from the dates set after their respective names:

First Lieutenant Donovan R. Phillips, A.S.A., February 19, 1919
First Lieutenant Joseph T. Higgins, A.S.A., February 19, 1919

The following Officers have recently been honorably discharged from the Air Service:

John H. McCann	First Lieutenant, A.S.A.
Morris E. Brown	First Lieutenant, A.S.A.
James A. McKnight	Second Lieutenant, A.S.A.
William D. Baker	Second Lieutenant, A.S.A.
Ira B. Joralemon	Major, A.S.A.
Harold Bottomley	Second Lieutenant, A.S.A.
John H. Christman	Second Lieutenant, A.S.A.
Hiram Bingham	Lieutenant-Colonel, A.S.A.
Thomas A. Box	Captain, A.S.A.
Duerson Knight	First Lieutenant, A.S.A.
Clifford T. Wetherell	Second Lieutenant, A.S.A.
Garland W. Powell	Captain, A.S.A.
George W. Sutton, Jr.	Second Lieutenant, T. C.
John B. Shober	First Lieutenant, A.S.M.A.

Vol. I. D. H. A. WEEKLY NEWS LETTER V-16

Air Service Washington, D.C. War Department
March 22, 1919.

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

AIR SERVICE REORGANIZATION

In connection with the reorganization of the Army Air Service, Major General Charles T. Menoher, has pointed out that the system of staff organization, used overseas, was followed.

The Director of the Air Service is assisted by an executive officer who is his official mouthpiece, being authorized to sign his name and act as his general executive.

Orders No. 5, issued March 19, 1919, by the Director of Air Service gives the following detailed information:

1. In naming the various subdivisions of this office, the following terminology will be used:

(a) Headquarters will be known as the Office of the Director of Air Service.

(b) The First, Second, Third and Fourth Assistants will be Chiefs of Groups, known respectively as the Supply, Information, Training and Operations, and Administrative Groups.

(c) The chiefs reporting directly to the Assistant Executives in any group will be known as Chiefs of Divisions.

(d) Those subordinates who report directly to Division Chiefs will be known as Chiefs of Sections.

(e) Subordinates reporting directly to Section Chiefs will be known as Branch Chiefs.

Should any further subdivisions be required, proper designation of the subdivision so formed will be given upon request to this office.

2. Effective this date, all matters arising in connection with Air Service activities other than that pertaining to cancellation of contracts and that which pertains to the approval or authority for funds, will be handled through the Executive Assistants and Division Chiefs of this office in the manner contemplated under the organization outlined in Orders Nos. 1 and 2 of this office.

3. Matters pertaining to the cancellation of contracts and the approval or authority for funds will continue to be handled by the Director of Military Aeronautics and the Acting Director of Aircraft Production, as the case may be, and when necessary, will be referred directly to this office for action.

The Chief of Supply Group has charge of supply, airplane engineering, production, procurement, inspection, maintenance and finance disbursement for entire Air Service, in both Aircraft Production and Military Aeronautics.

The Chief of the Information Group gathers and distributes all information, statistics and publicity. In war time he would have charge of intelligence work for the whole Air Service.

The Chief of the Training and Operations Group directs training and operations and is at the same time Director of Military Aeronautics. This is the office held by Brig. General Mitchell.

The Chief of the Administrative Group is practically the Adjutant General of the Air Service, controlling administration, and executive work, personnel, office management, cables, correspondence, etc.

CIVIL VERSUS ARMY EMPLOYMENT

Do you know that the Air Service of the Army pays more money to skilled mechanics than can be earned in civil life?

Count the cash that you have left after deducting your necessary expenses in a civil trade.

An automobile mechanic earns from $3.50 to $4.50 per day, counting 26 working days per month your salary at $4.50 per day equals $117.00 per month. Your expenses are:

Board and room	$35.00
Clothing (outside)	8.00
Shoes, hats, underwear, etc.	3.00
Doctor's and Dentist's bills, Hospital and medicines	5.00
Loss of time due to holidays, sickness, etc. 2 days per month	9.00
Loss of time due to lay off, lack of employment, vacations, etc. 3 days per month	13.50
Total	$73.50

Deduct this amount from your salary of $117.00 per month and you have left $43.50.

If you are a skilled mechanic and have confidence enough in your ability to put your skill to a real test, by enlisting in the Army, you can earn from $44. to $121.50 per month, without a single cent of expense. Whether you get the $44. or $121.50, is up to you.

The Air Service of the Army offers steady employment with short hours and no "lay offs"; furloughs are granted with full pay and cheap transportation rates for your trips. When sick, pay goes on just the same. You receive, free, the best hospital facilities and medical treatment.

The Air Service of the Army offers excellent opportunity to men between the ages of 21 and 35 who have mechanical inclination, or who are skilled mechanics.

Air Service Mechanics Schools enable the young apprentice to complete his education and become an expert tradesman, and qualify you for large earnings while in the service.

Skilled mechanics are always in demand and can save money through enlistment.

Go over your qualifications and your past earnings. Then count your savings and advancement. If you are satisfied the above facts are interesting, go to the nearest Recruiting Officer and start out right -- it will mean much in your future advancement and savings.

ADDITIONAL HONORS WON IN THE AIR BY AMERICANS

There follows a list of American officers who have won decorations according to the records in the War Department:

CROIX DE GUERRE

1st. Lieut. Thomas P. Atkinson, Balloonist,
Fort Sill, Okla.

Lieut. Walter L. Avery,
Columbus, Ohio.

2nd Lieut. Alfred B. Baker, Pilot
Washington, D.C.

2nd Lieut. Newel C. Barber, Pilot
Medford, Oregon.

Lt. H. St. John Boldt, Observer,
New York, N.Y.

Lieut. Alford J. Bradford, Observer,
Duluth, Minn.

2nd Lieut. Valentini Burger, Machine Gun Officer,
Leonia, N.J.

1st Lieut. John Cotton,
Gallup, New Mexico.

1st Lieut. Wm. B. Cowart,
Houston, Texas.

2nd Lieut. D. W. Davis,

1st Lieut. Frank A. Dixon, Observer,
Pittsburgh, Pa.

1st Lieut. Allyn M. Eddy,
New York, N.Y.

1st Lieut. Alvin C. Goodale,
Pasadena, Calif.

2nd. Lieut. Alexander T. Grier, M.G. Officer,
Salsbury, Md.

Lieut. James G. Hall, Pilot,
Pennsgrove, N.J.

Major Melvin Adams Hall, Pilot,
New York City.

2nd Lieut. Bradley B. Hammond,
Brighton, Mass.

Captain E. R. Haslett,
Webb City, Mo.

Lieut. Armin F. Herold, Observer, (Inf.)
Fort Sill, Okla.

Lieut. Frederick Hirth, Observer (Art.)
Toledo, Ohio.

2nd Lieut. Rodger W. Hitchcock, Pilot,
Los Angeles, Calif.

Lieut. Alfred N. Joerg, Pilot,
Brooklyn, N.Y.

2nd Lieut. Horace Alvin Lake, M.G. Officer,
Washington, D.C.

Lieut. Wm. Lovett, Jr., Pilot,
Los Angeles, Calif.

2nd Lieut. John C. Lumsden, Observer,
Wilson, N.C.

1st Lieut. Harold W. Merrill,
Westerly, R.I.

Lieut. Russell McCormack,
Philadelphia, Pa.

2nd. Lieut. Richard N. Moody, Observer,
Minneapolis, Minn.

2nd. Lieut. Charles L. Miller, French.

1st Lieut. Roy K. Patterson, Balloonist,
Roselle, N. J.

2nd. Lieut. Paul Penfield,
Detroit, Mich.

2nd. Lieut. Earl W. Porter,
Atlantic, Iowa.

Lieut. John I. Rancourt,
France.

Lieut. Carlyle Rhodes, Pilot,
Terre Haute, Ind.

2nd. Lieut. Lloyd F. Schaeffer,
Fox Hills, N.Y.

Lieut. Vayne B. Stephenson,
Bokersfield, Calif.

Lieut. Henry Stickney, Pilot,
New York, N.Y.

Lieut. Sidney P. Thompson,
Ithaca, N.Y.

1st. Lieut. Alwin H. Treadwell, Pilot,
Poughkeepsie, N.Y.

Lieut. Fred A. Tillman,
Camp Meade, Md.

2nd. Lieut. James C. Wooten, Observer,
Columbia, Tenn.

CROSS LEGION OF HONOR, FRENCH

Lieut. Colonel Bert M. Atkinson,
Newman, Ga.

Lieut. Colonel Lewis M. Brereton,
Washington, D.C.

Captain Edward V. Rickenbacker,
Columbus, Ohio.

1st Lieut. Fred A. Tillman,
(No address)

MILITARY MEDAL, BRITISH

Bert Hall, Adjt., French, Pilot
New York City.

DISTRICT SUPERVISORS

The offices of District Supervisors of Air Service activities in the following named districts have been ordered abolished, effective March 31, 1919:

Eastern District, - Headquarters, O.D.M.A., Executive Section, Supervisors Branch.
Southeastern District, - Headquarters, Montgomery, Ala.
Northern District, - Headquarters, Indianapolis, Ind.
Southern District, - Headquarters, Houston, Texas.
Southwestern District, - Headquarters, Dallas, Texas.
Western District, - Headquarters, Coronado, California.

The functions heretofore performed by District Supervisors will, in the future, be exercised by the office of the Director of Air Service, and by Department Air Service officers in accordance with definite instructions to be promulgated later.

SALE OF SURPLUS AIR SERVICE MATERIAL

The Salvage Branch, Supply Section, is charged with entire responsibility in matters pertaining to the sale of all surplus, inactive, and obsolete Air Service material within the Division of Military Aeronautics. In the future no sales of surplus, inactive, or obsolete Air Service material will be made until the Salvage Branch, Supply Section, has been properly advised.

FLYING FIELD AMBULANCES

The Training Section, Office of the Director of Military Aeronautics, authorizes the following:

At active fields, an ambulance, with a medical officer and necessary medical personnel, will be on flying field during all flying. Ambulance equipment will include wire cutters, axes, fire extinguishers, etc.

At inactive fields, an ambulance, fully equipped, will be held at a convenient place, ready at all times for immediate action. A medical officer, and other necessary medical personnel, will be in readiness to respond to a call during the time flights are being made on the flying field. Commanding Officers of inactive fields will use their judgment in arranging the details necessary to comply with the spirit of the foregoing instructions.

PLANS FOR AERIAL NAVIGATION REGULATIONS

Memoranda and recommendations for aerial navigation regulations, drawn up by the National Advisory Committee for Aeronautics, approved by the Secretaries of the Navy, Commerce and War, were sent to the President recently.

The details released by Dr. Charles D. Walcott, of the National Advisory Committee for Aeronautics, in the form of a proposed Congressional Bill are as follows:

That no person, company or corporation within the jurisdiction of the United States and its dependencies, other than duly accredited officers and enlisted men of the Army, Navy, and Marine Corps, shall use or operate any aircraft in aerial navigation from one State or Territory of the United States or the District of Columbia, to any other State or Territory of the United States or the District of Columbia, or from one place in a State or Territory or the District of Columbia, to another place in the same State or Territory or the District of Columbia, or between the United States or its dependencies and any foreign country or any international waters, except under and in accordance with a license, revocable for cause, granted by the Secretary of Commerce upon application therefor; and the Secretary of Commerce is hereby authorized to grant such licenses and to make and publish all needful rules and regulations for the licensing and navigation of such aircraft; any violation of such rules or regulations to be punished by a fine not to exceed $500.00; and the Secretary of Commerce shall submit, by December 10, 1919 a report to Congress, giving in detail the action taken by him hereunder, together with his recommendations for further and more detailed legislation with respect to the navigation of aircraft and the licensing and regulation thereof. For the enforcement of this Act and the rules and regulations made in pursuance thereof, including personal services in the District of Columbia and in the Field, the sum of $25,000.00 is hereby appropriated.

MEMORANDUM

An emergency has arisen in relation to the establishment of rules and regulations to govern aerial navigation within the United States and its dependencies.

1. At the present time there is no authority for the establishment of rules and regulations to govern civil aerial navigation in the United States and its dependencies except local laws passed prior to 1914 in the States of Massachusetts and Connecticut.

2. The War Department alone now has for sale several thousand aircraft of various types which, if put upon the market, will be purchased largely by amateurs, and in the absence of Government rules and regulations it is highly probable that many accidents will occur and much litigation ensue.

3. There is also a probability of complications, especially in matters of smuggling, arising by unlicensed irresponsible aircraft crossing the borders between the United States and both Canada and Mexico.

4. At the present time the Joint Army and Navy Board of Aeronautical Cognizance is issuing licenses to pilots as a war emergency, but without assuming any responsibility as to qualifications of pilots or air worthiness of the airplanes.

"ACES" TO FLY FOR LOAN

The greatest flying program the United States has ever witnessed will be offered in connection with the coming Victory Liberty loan. Demonstration of the flying art as developed above the battle fields of Europe will be given to approximately 50 of the leading American cities by the most celebrated aces of the United States, France and England.

Three flying circuses, made up of American, French, and British aviators and flying American planes and captured German planes, will tour the United States, giving aerial sham battles and performing aerial acrobatics over all the leading American cities. These tours and demonstrations will be under the direction of the Bureau of Publicity of the Victory Loan Organization, Frank R. Wilson, director. The actual flights will be under the direction of the Army Air Service.

Fourteen German Fokker planes captured by Gen. Pershing's men have been landed at Newport News and will be shipped at once to Washington and turned over to the Treasury Department for the period of the loan campaign. The best types of American planes developed during the war will be demonstrated to the American people to show what has been achieved as a result of the generous response to Liberty loan campaigns.

FLIERS VISIT PERLAS ISLANDS

A report from France Field, Cristobal, Canal Zone dated February 15, 1919, states that:

A flight to the Perlas Islands was made recently in one of the H.S.1 L Flying Boats. This group is situated about 30 miles off the Pacific Coast of the Canal Zone and inhabited by a few pearl fishermen. Due to the coral construction of the islands and reefs in the harbors it is not an ideal situation for the operation of seaplanes.

A report from two Air Service Officers who made a reconnaissance of the San Blas Indian territory has been received. At the time of their visit there was certain amount of unrest among several of the tribal chiefs and they were requested to join the Panamanian Police in securing the loyalty of these tribes. They discovered in one instance that the Indians were not loyal to Panama because they thought the Columbian flag more beautiful. In another case it was found that the tribe thought Italy still under the jurisdiction of Columbia and was not aware of the existence of the Republic of Panama. One chief refused to haul down the Columbian banner and it was necessary to use force and in doing so one of the native chiefs received a bayonet wound. Efforts were made to penetrate still further inland but it was impossible to obtain guides.

AIR SERVICE DAY

March 14th was Air Service Day at the Aeronautical Exposition, and Fliers and observers were the guests of the Manufacturers Aircraft Association. Among the prominent guests were Major General Charles T. Menoher, director of the Air Service. He made a tour of the exhibits with some of the officials and seemed well pleased with the display of planes and accessories. Brig. General William Mitchell, paid another visit to the exposition last Friday, he was accompanied by his aids and other overseas officers. Commander H. C. Richardson who is in charge of the Navy's Transatlantic flight experiments, with some Naval Aviators, was also present. Among the officers of the Army were: Major General George O. Squier, Chief Signal Officer, Major Phillip Roosevelt, A.S.A., and Major R. W. Schroeder.

AERIAL TRANSPORTATION

Much interest in the possibilities of commercial aeronautics has been manifest since the sale of four "bombing" type twin-motored planes by Glenn L. Martin to Lieut. W. A. Hill of Phoenix, Ariz. Lieut. Hill, who was a pioneer in the early days of pony express, and lately a member of the Tank Corps is about to open an aerial transportation route for the carrying of freight and passengers over the Apache Trail between El Paso, and Los Angeles and San Francisco. This is the first aerial transportation route to be definitely planned. The four planes will be delivered from New York City to Los Angeles via the air early in August, and will carry twelve passengers each on the initial trip.

AIR RADIO SERVICE

RADIO ENLISTED MEN in the Air Service are divided into two classes: (1) mechanics, and (2) operators; but every mechanic is expected to be able to perform full duty as operator in case of need and every operator must be able to perform full duty as a mechanic.

THE PRINCIPAL DUTIES OF A RADIO MECHANIC in the Air Service are to repair radio apparatus and install it on airplanes. Radio in the Air Service includes not only radio telegraph apparatus, but also the new and wonderful radio telephone. The operation of this apparatus includes all sorts of electrical equipment such as generators, motors, transformers, microphones, dry batteries, storage batteries, vacuum tubes, several varieties of meters, and many instruments. Every flying field and air squadron is furnished with a large amount of this apparatus, all of which must be kept in the very best possible state of repair. Then there are laboratories, shops and experimental fields where new kinds of apparatus are developed and tested. All this requires the services of well trained radio mechanics who are expert on these different kinds of electrical equipment.

THE PRINCIPAL DUTY OF A RADIO OPERATOR in the Air Service is to receive messages from airplanes which are sent out to collect information or to direct the fire of artillery, and from other ground stations. He must be able to receive messages through interference from many stations, for in modern military operations many radio stations are operated in a small area. Besides being a competent operator, he must be an expert on all kinds of radio instruments, because he may be called on at any time to repair and install them. Like the radio mechanic, he must be an all round radio man.

THE AIR SERVICE HAS SPECIAL SCHOOLS for training radio mechanics and operators. In these schools the men are taught, not only the subjects that pertain directly to their special work as mechanics and operators, but also many other subjects, such as elementary mathematics, drawing and English; subjects aimed to develop the high type of man required for this important duty.

IF YOU ENLIST FOR RADIO WORK, you will be trained in all of these subjects for about nine months and then assigned to duty at one of the flying fields of the United States, or perhaps one of the overseas fields at Hawaii, Panama or the Philippines. All this means valuable training and experience for one interested in electricity, because the work is strictly up to date in every particular. A man who receives this training will be in great demand in the new and rapidly developing field of electrical communication in civil life, if he wishes to leave the army after his enlistment period.

THE QUALIFICATIONS FOR ENLISTMENT are moderate. While a high school education, or a considerable part of one, is desirable, it is by no means essential. All that is required is good health, some mechanical aptitude and the ability to learn from text books. If, after enlistment, it is found that a man is better fitted for some other line of work, he can easily be transferred because the Air Service is in need of mechanics of every kind, chauffeurs, clerks and stenographers.

CHANGE IN AIR SERVICE MEDICAL

The Air Service Division of the Office of the Surgeon General, created during the war to handle medical problems connected with the aviation service, was discontinued, on March 17th. Business heretofore transacted by this division has been taken over by the Air Service, under the jurisdiction of its chief surgeon.

CHEVRONS AND BADGES FOR SERVICE IN FOREIGN ARMIES

Officers and enlisted men of the United States Army who served in the armies of any cobelligerent with the United States in the present war, are authorized by an order of the Secretary of War, to wear such chevrons or badges as may have been awarded to them by the governments in whose armies they served.

FLYING FATALITIES DURING WEEK ENDING MARCH 6TH

There were two airplane fatalities at Army flying fields during the week ending March 6th. 2nd Lieut. Walter Wirz, pilot and Sergt. Harold K. Olmstead, passenger were killed at Post Field, on March 3d. The cause of the accident has not been determined.

484TH AERO SQUADRON

Major General Kenly, on January 28th, sent a letter of appreciation to the Commanding Officers of the 484th Aero Squadron. The letter reads as follows:

"I am advised that the work of this Squadron is practically completed and that it will be demobilized in the near future.

"Before the squadron is broken up and the men depart for their homes to again take up civil pursuits, I wish to congratulate and commend the officers and men for so conducting themselves overseas as to warrant the awarding of citations for the work of the Squadron with both the First and Second Armies in the field. It is conduct of this sort which goes to make the traditions of the Army, and each officer and man of your Company may realize that he individually, by prompt and constant performance of duty in the face of difficulty and danger, has helped to make this most creditable and enviable record."

ARRIVAL OF TROOPS FROM OVERSEAS SINCE NOVEMBER 11, 1918.

From November 22, 1918 to March 14, 1919, 414,278 officers and men have arrived in the United States.

The rate per week has risen from 703 to 59,454.

DISCHARGE OF OFFICERS

(Prepared by Statistics Branch, General Staff, War Department)

DISCHARGES OF COMMISSIONED OFFICERS, BY SERVICES, THROUGH MARCH 13th.

Branch of Service	On duty Nov. 11	Discharges week ended March 13	Discharges Nov. 11-March 13.	Per cent discharged through March 13.
Military Aeronautics	18,661	197	11,343	61
Aircraft Production	1,898	57	1,106	58

The discharges in Military Aeronautics and in Aircraft Production show higher percentages than any other branch of the Service, except Chemical Warfare, which on March 13, was 83 percent.

Infantry	-	754	25,499	
Field Artillery	-	233	10,758	
Cavalry	-	18	692	
Miscellaneous	-	33	1,166	
Total Infantry, etc.	85,373	1,038	38,115	45
Grand Total Army	188,434	2,617	83,409	44

RETURNING AERO UNITS

The War Department authorizes publication of the following:

The Transport Manchuria sailed from St. Nazaire March 14th and is due to arrive at New York March 27th with the following troops:

636th Aero Supply Squadron	3 officers	140 men
373rd Aero Pursuit Squadron	4 officers	152 men
148th Aero Squadron	11 officers	183 men
142nd Aero Squadron	3 officers	158 men
89th Aero Squadron	4 officers	146 men
36th Aero Squadron	4 officers	215 men
182nd Aero Squadron	4 officers	182 men
341st Aero Squadron	4 officers	162 men

DEMOBILIZATION OF AIR SERVICE

M-I-L-I-T-A-R-Y A-E-R-O-N-A-U-T-I-C-S

Prepared by Statistics Branch, General Staff, War Department.

According to reports received from the Division of Military Aeronautics the net decrease in the total commissioned and enlisted strength, from the date of the armistice to March 6 was 48 per cent.

The following table shows the distribution and per cent of net decrease to March 6. The strength figures include only officers and men not yet ordered discharged; they do not include men at demobilization camps awaiting discharge.

	Nov. 11	March 6	Per cent of net decrease
Cadets	5,775	1,285	78
Officers	18,688	7,078	62
Enlisted men	133,644	73,223	45
Total	158,107	81,586	48

Demobilization of Overseas Personnel

The net decrease in personnel overseas since January 30 is approximately 12 per cent, against a net decrease of 25 per cent in the U.S.

	In United States	Overseas
Nov. 11	79,321	78,786
Nov. 18	80,689	78,973
Nov. 25	84,785	78,361
Dec. 2	84,844	78,061
Dec. 9	89,661	70,040
Dec. 21	81,607	61,245
Dec. 26	77,140	59,917
Jan. 6	67,833	59,584
Jan. 16	51,821	58,854
Jan. 23	46,467	58,133
Jan. 30	41,314	57,527
Feb. 6	37,537	56,299

Feb. 13	35,479	54,802
Feb. 20	33,240	53,604
Feb. 27	31,111	53,087
Mar. 6	30,823	50,763

AIRCRAFT PRODUCTION

Demobilization of Personnel

According to reports received from the Bureau of Aircraft Production, the net decrease in the total commissioned and enlisted personnel from November 15 to March 11 was approximately 94 per cent.

The distribution and per cent of net decrease to March 11 are shown below:

	Nov. 15	Mar. 11	Per cent of net decrease
Officers	1,898	649	66
Enlisted men	30,622	1,382	95
Total	32,520	2,031	94

AN AMERICAN BUILT AND DESIGNED BOMBER

The features of the Glenn Martin day and night bomber that particularly distinguish this machine from others of its general type have been described by an Army aviator who is piloting this plane:

"The Glenn Martin bomber has steel triangular bracings throughout the center section to the motor mountings, which gives the plane strength and an added factor of safety and insures its perfect alignment.

"The machine has a new type of landing gear, which distributes the load of the machine over sufficient ground in landing. It is almost impossible to stick the machine in a mud hole. It has had some severe tests in flying from very soft fields, and has encountered no trouble.

"The new design of wheel control for lateral stability is one that is of special interest to pilots. For such a big machine there is unusual freeness in the working of the controls.

"This plane is propelled by two Liberty motors. Tests have been made on the Glenn Martin bomber where it has climbed 200 feet a minute on one motor with almost a full military load. This is a big feature in cross-country work. It insures a pilot's being able to fly his machine to some point that will afford a good landing field and insures against wrecks from forced landings in bad country.

"There are likewise many new details in the design that are advances in aeronautical engineering."

CHANGE OF STATION

The following named field officers were ordered to change station March 11, 1919, as follows:

Colonel Henry H. Arnold, J.M.A., A.S.A., ordered from Coronado, California, to Rockwell Field, San Diego, California, to assume command.

Colonel James E. Fechet, J.M.A., A.S.A., ordered from Houston, Texas, to Kelly Field, San Antonio, Texas, to assume command.

Colonel Henry C. Pratt, A.S.A., ordered from Kelly Field, San Antonio, Texas, to Washington, D.C.

Lieutenant-Colonel Leonard H. Drennan, J.M.A., A.S.A., ordered from Washington, D.C., to Chicago, Illinois, for duty as Department Air Service Officer.

AIR SERVICE CASUALTIES IN A.E.F.

The War Department has just announced that during the aerial fighting at the front, the American Air Service suffered 554 casualties as follows:

Killed in action	171
Prisoners	135
Wounded	129
Missing	73
Killed in accidents	42
Miscellaneous	4

The number killed in action is over a third of the casualties. The casualties reached the highest point during the month of September, when 181 were reported.

AIR SERVICE FIELDS PURCHASED

Under a recent order from the Secretary of War the following Army Flying Fields are being purchased by the Government:

March Field, Riverside, Calif.
Mather Field, Sacramento, Calif.
Carlstrom Field, Arcadia, Fla.
Dorr Field, Arcadia, Fla.
Ellington Field, Houston, Tex.
Kelly Field No. 2, San Antonio, Tex.
Park Field, Millington, Tenn.
Souther Field, Americus, Ga.
Selfridge Field, Mt. Clemens, Mich.
Chanute Field, Rantoul, Ill.
Scott Field, Belleville, Ill.
Balloon School, Arcadia, Calif.
Brooks Field, San Antonio, Tex.
Engine and Repair Depot, Montgomery, Ala.

Under the same order the following fields will be released June 30, 1919;

Wilbur Wright, Dayton, Ohio.
Taylor Field, Montgomery, Ala.
Payne Field, West Point, Miss.
Eberts Field, Lonoke, Ark.
Gerstner Field, Lake Charles, La.
Call Field, Wichita Falls, Tex.
Taliaferro Field, Hicks, Tex.
Carruthers Field, Benbrook, Tex.
Barron Field, Everman, Tex.
Love Field, Dallas, Tex.
Rich Field, Waco, Tex.

Further orders will define the policy regarding Chapman Field, Miami, Fla., and Hazelhurst and Mitchell Fields at Mineola, L.I.

It is understood that the following fields owned by the Government will be retained:

Army Balloon Schools, Fort Omaha, Neb.
" " " Lee Hall, Va.
Kelly Field #1, San Antonio, Tex.
Post Field, Fort Sill, Okla.
Rockwell Field, San Diego, Calif., and
Langley Field, Hampton, Va.

According to the Assistant Secretary of War, the Army Air Service will abandon Camp John Wise, San Antonio, Texas and McCook Field, Dayton, Ohio.

The status of Bolling Field, Anacostia, D.C. has not been definitely decided.

TRAINING AIR SERVICE MECHANICS

When a man decides to learn a particular trade, he enters any shop as an apprentice. He is usually placed as an assistant or understudy to a competent mechanic whom he helps and who in turn instructs him. The amount of instruction which he receives from his instructor is a matter of how much attention the instructor pays to him, how close attention he pays to his instructor, and the interest of the instructor in the apprentice. There are certain rules of thumb and certain practices that a man who has already learned his trade unconsciously uses but often times neglects to tell an apprentice. These same facts are often times withheld for the very reason that the man who has already learned his trade is more or less jealous of these small bits of information learned through hard knocks and experience.

The matter of the principles applying to any particular trade that are learned by an apprentice working under a master tradesman are missed by this very system and principle of instruction. Also, it can easily be seen that by this uncertain method where the personal equation enters so greatly into the efficient results required, that the time necessary for an apprentice to become a qualified expert is very uncertain.

To an apprentice enlisting in the Air Service for the purpose of learning a trade the situation is very different. In the first place, he is sent to a properly organized mechanics' instruction school where he is taught the principles of the trade. He applies those principles to the practical work that is given him at the same time. By combining the principles with the experience,

the time element necessary to make an accomplished expert out of an apprentice is considerably cut down. Furthermore, the Government pays him his salary all the time he is learning. It is to the interest of the Government to see that this man is fully and completely instructed in all phases of the trade that he desires to learn, because the Government will reap the benefits of the excellence of the instruction when that man is finally turned loose as a finished product and employed in the shops or as an instructor of other men. This advantage of direct schooling in the trade, over the knowledge of that trade gained by what one can pick up as an apprentice, is of untold advantage.

Apply to local recruiting officers for further information relative to the training of Air Service Mechanics.

MOTOR TRANSPORT CORPS NOT ADVISED AS TO SALE OF CARS

The Motor Transport Corps has no official information with reference to the plans in contemplation as to the sale of surplus motor equipment.

The appointment of Lt. Colonel William C. Sherman, Corps of Engineers, to the staff of the Director of Air Service as Chief, Air Service Training, has been announced.

Lieutenant-Colonel Henry B. Hersey, J.M. Aero., A.S.A., has been ordered from Washington, D.C., to Army Balloon School, Fort Omaha, Nebraska; thence to Army Balloon School, Arcadia, Los Angeles County, California.

HONORABLY DISCHARGED

The following officers are honorably discharged from the Service of the United States:

Howard W. Heintz,	Second Lieutenant, A.S.A.
Leon Richardson,	Captain, A.S.A.
George Perkins,	First Lieutenant, A.S.A.
William H. Vollmer,	First Lieutenant, A.S.A.
Charles H. Shook,	First Lieutenant, A.S.A.
Clarence A. Smith,	Second Lieutenant, A.S.M.A.
David S. Johnson,	First Lieutenant, A.S.A.
Frank A. Pence,	First Lieutenant, A.S.A.
Benjamin F. Fiery,	Second Lieutenant, A.S.A.
Elias H. Kron,	First Lieutenant, A.S.M.A.
Edward D. Babcock,	First Lieutenant, A.S.A.
Emil F. Schwab,	First Lieutenant, A.S.A.
Percy H. Willis,	First Lieutenant, A.S.A.

CITED FOR DISTINGUISHED SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

Second Lieut. Clinton S. Breese, observer, 12th Aero Squadron. For extraordinary heroism in action near Argonne, France, November 2, 1918. While on an infantry contact mission, Lieut. Breese and his pilot were attacked by four enemy planes and driven back, but realizing the importance of their mission, deliberately returned and attacked the four planes, sending one to the earth and driving the others away. Unmindful of the damaged condition of their plane and of their own danger, they then flew for an hour within 100 meters of the ground through a continuous heavy machine-gun fire until they had accurately located our front-line positions. Home address, R. P. Breese, father, 115 McCall Street, Waukesha, Wis.

First Lieut. Kenneth H. Holden, pilot, 12th Aero Squadron. For extraordinary heroism in action near Argonne, France, November 2, 1918. While on an infantry contact mission Lieut. Holden and his observer were attacked by four enemy planes and driven back, but realizing the importance of their mission, deliberately returned and attacked the four planes, sending one to the earth and driving the others away. Unmindful of the damaged condition of their plane and of their own danger they then flew for an hour within 100 meters of the ground through a continuous heavy machine-gun fire until they had accurately located our front-line position. Home address, Mrs. E. M. Moran, sister, 1110 Washington Street, Michigan City, Ind.

Second Lieut. (Observer) Thomas B. Dodwell, Royal Air Forces, British Army. For extraordinary heroism in action near Bruges, Belgium, August 13, 1918. This officer and his pilot led two other machines on a long photographic mission over the area north of Bruges. Over Thourout they were attacked by six enemy planes. While heavily engaged, Lieut. Dodwell and his pilot saw one of their machines in difficulty and trying to make our lines with an enemy plane close at his tail. Regardless of their own danger from the remaining planes, they dived to the assistance of the crippled plane. Taking advantage of their preoccupation, several enemy planes attacked from the rear; but, in spite of this rear attack, they drove off the enemy plane and allowed the damaged plane to land within our lines. Half of the tail plane was shot away, but Lieut. Dodwell climbed along the wing and lay down along the cowling in front of the pilot, enabling the pilot to regain partial control of his machine. When nearing the ground, he crawled back into the cockpit to allow the nose to rise, and the pilot made a safe landing. The presence of mind and cool courage of this officer saved the machine from crashing to the ground. Home address, Henry Dodwell, father, The Day House, Wellington, Shropshire, England.

First Lieut. Louis C. Simon, Jr., Air Service, 147th Aero Squadron, United States Army. For the following acts of extraordinary heroism in action near Cierges, France, September 28, 1918, Lieut. Simon is awarded a bronze oak leaf, to be worn on the distinguished-service cross awarded him October 23, 1918. Lieut. Simon and two other pilots encountered nine (type Fokker) enemy planes, which were protecting an observation plane (type Rumpler). Lieut. Simon attacked the lower formation of four planes alone and drove them off. He next dived at the observation plane and sent it crashing to the ground in flames. Next of kin, Mrs. M. E. Simon, mother, Normandie Hotel, Columbus, Ohio.

Vol. I D. M. A. WEEKLY NEWS LETTER V-37

Air Service Washington, D.C. War Department
March 29, 1919.

This sheet is intended primarily for the Flying Field newspapers, and heads of Air Service Posts, Stations, and Sections but will be sent to such daily newspapers and periodicals as may desire it.

(For Release to Morning Papers, Monday, March 31, 1919)

The War Department authorizes the following statement from the Office of the Director of Air Service:

Co-ordination of all Army aerial activities under one head -- the Director of the Air Service -- is the aim of reorganization now under way, that is, the substitution of the fundamental principle which made possible unified operations overseas, for the rather cumbersome methods followed in the United States in the past.

The reorganization is designed to supersede the complicated dual war-time air establishment and at the same time to develop peace time activities, thereby assuring the full use of industrial, training and operation gains achieved during the conflict with Germany.

Major General Charles T. Menoher, who at the time he was recalled to become Director of the Air Service, was commander of the Sixth Army Corps, and throughout its long service at the front, was in command of the Forty-Second (Rainbow) Division. He endeavored to apply to the Air Service the principle of co-ordination which was followed overseas, not alone by the United States, but by Great Britain and France. He found the air establishment in two parts -- Division of Military Aeronautics and Bureau of Aircraft Production. This plan of organization was temporary, destined under the terms of war legislation to pass out of existence six months after the signing of the treaty of peace.

Having in mind the problems of the future, General Menoher proposed a reorganization based on the divisional system. As Director of the Air Service he assumes the position of responsibility. As an advisory board, each member representing an important branch of the service, he has designated the following: Col. Walter G. Kilner, Col. Arthur L. Fuller, Col. Henry C. Pratt, Lieut. Col. George B. Hunter, Lieut. Col. B. Q. Jones and Major Charles R. Cameron.

Dealing directly with him also are the air attaches of foreign Governments, thus enabling him to keep in contact with developments at home and abroad.

As every division overseas has had a general staff, so the new Air Service has an executive organization. To carry out the policies which he alone formulates and to attend to the secretarial duties, the Director has designated an executive officer, Col. Milton F. Davis. Where two or more groups are concerned in any action, their activities are co-ordinated by the Executive Officer in carrying out the policies dictated by General Menoher.

The problem of dividing properly the duties of the various branches was solved by turning once more to the divisional system followed so successfully overseas. The work has fallen naturally into four main channels or groups -- Training and Operations; Supply; Executive and Administrative; and Information, Publication and Statistics.

The Chief of the Supply Group has charge of supplies, airplane engineering, production, procurement, inspection, maintenance, and finance disbursement for the entire Air Service, including both the old branches -- Aircraft Production and Military Aeronautics.

The Chief of the Information Group gathers and distributes all information, statistics and publicity. In war time he would have charge of intelligence work for the whole Air Service.

The Chief of the Training and Operations Group directs all training and operations.

The Chief of the Administrative Group is practically the Adjutant General of the Air Service, controlling administration and executive work, personnel, office management, the medical section, cables, correspondence, etc.

Brigadier General William Mitchell assumed charge of the most important activity, that of Training and Operations. Colonel William E. Gillmore became Chief of Supply. Lieutenant Colonel William F. Pearson assumed charge of administration, and Major Horace M. Hickam became Chief of Information. It is to be noted that the Supply, Administration and Information Groups exist practically for the creation and maintenance of the Training and Operation Group. The latter is the most important and has at its head the ranking officer among the branch chiefs -- Brigadier General Mitchell.

Each branch chief is directly responsible to the Director of the Air Service, and in this manner the activities of the entire service are co-ordinated in and centered upon the office of the Director.

Again, following the overseas divisional system, the Director has designated the Supply Group as first in the organization, Information as second, Training and Operations as third, and Administration as fourth. This does not imply rank. Each chief is immediately responsible to the Director. The Director designates what action is to be taken, lays down service policies and co-ordinates the activities of all four branches.

The primary purpose of this organization, is to develop the Air Service, co-operate in the advancement of commercial aeronautics, and promote the principle that the United States deserves a leading place in the air, promised by our original application of the principles of mechanical flight.

PROGRESS IN DEMOBILIZATION OF AIR SERVICE

(Prepared by Statistics Branch, General Staff, War Department - March 22, 1919)

According to reports received from the Air Service the net decrease in the total commissioned and enlisted strength from the date of the armistice to March 13 was 57 per cent.

The following table shows the distribution and per cent of net decrease to March 13. The strength figures include only officers and men not yet ordered discharged; they do not include men at demobilization camps awaiting discharge.

	Nov. 11	Mar. 13	Per cent net decrease
Cadets	5,775	1,187	79
Officers	20,586	7,631	63
Enlisted men	164,266	72,460	56
Total	190,527	81,278	57

Demobilization of Air Service Personnel Overseas Increasing

During the two weeks from February 27 to March 13 the strength of the Air Service overseas decreased 5,140 men against 4,440 during the previous four weeks. The strength of the Air Service in the U.S. and overseas is shown for various dates in the following diagram:

	In U.S.	Overseas
Nov. 11	111,846	78,786
Dec. 2	115,216	78,061
Dec. 26	99,010	59,917
Jan. 30	46,919	57,527
Feb. 27	33,649	53,087
Mar. 6	33,068	50,763
Mar. 13	33,331	47,947

SALES OF PLANES AND EQUIPMENT

The War Department authorizes the following statement from the Office of the Director of Sales:

Sales reported to the Office of the Director of Sales from March 8 to March 14, inclusive, include the following Air Service equipment;

Airplanes	$319,000.00
Airplane equipment	679,887.00

All materials; Total sales amount to $42,499,827.00

It will be noted that there has been no sale of passenger automobiles or trucks. The amount of $450 listed under trucks and trailers was a sale of kitchen trailers.

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628 D.H.4 PLANES AT FRONT

(Prepared by Statistics Branch, General Staff, War Department - March 22, 1919)

628 De Havilland 4 Planes Put in Service at Front Before Armistice

The following table and diagram shows the status of production, shipments and use overseas of De Havilland 4 service planes at the date of the armistice:

	Number	Per cent of total production
Produced	3,227	100
Floated	1,865	58
Rec'd at French ports	1,185	37
Assembled overseas	1,025	32
Put into service overseas	984	30
Put into service at front	628	19
In commission at front	457	14

CONTRACTS CANCELED AND SUSPENDED

The following is a summary of the value of cancellations and suspensions of contracts to March 19, 1919 totals $480,730,131.

	Value	Per cent of total
Engines and spare parts	$250,409,982	52
Airplanes and spare parts	167,554,386	35
Chemicals and chemical plants	19,852,370	4
Instruments and accessories	13,832,902	3
Balloons and supplies	10,071,035	2
Fabrics, lumber and metals	7,968,324	2
Miscellaneous	11,041,132	2
Total	$480,730,131	

NATIONAL RIFLE MATCHES

Acting Secretary of Navy, Roosevelt, on March 21, 1919, announced that at the invitation of the War Department, the United States Navy will conduct the National Matches for the year 1919, and that these great competitions wherein soldiers, sailors, marines and civilians compete for national marksmanship honors, will be held on one of the large rifle ranges. The Matches will be held sometime in August.

Particulars in regard to the admission of teams and other arrangements for the matches can be secured by addressing:

Executive Officer, National Matches
Room 1108, Woodward Building
Washington, D.C.

EMPLOYMENT

COLONEL ARTHUR WOODS, LATE OF THE AIR SERVICE, IS NOW CHAIRMAN OF THE EMERGENCY COMMITTEE ON EMPLOYMENT OF SOLDIERS, SAILORS AND WAR WORKERS. He stated recently that:- The "Emergency Committee on Employment of Soldiers, Sailors and War Workers" is a temporary body. The Government departments and Boards represented in the Committee will not attempt to create a substitute employment service or in any way take over the functions of the United States Employment Service. "The Committee intends to give the fullest support to the work of the United States Employment Service and to encourage towns and cities, through public and private contributions, to carry on the Bureaus for Returning Soldiers and Sailors and local employment offices which the Service itself will be unable to finance until Congress appropriates the necessary money."

ARMY AND NAVY AIR SERVICE ASSOCIATION

The publication office of "U.S. Air Service" and the office of the Army and Navy Air Service Association have been moved from Building D., 6th and B Sts., Washington, D.C. to Room 645 Munsey Bldg., Washington, D.C.

This new location will be a convenience to the business interests of the Association and particularly the magazine. Members of the association, as well as prospective members, will be welcomed when in Washington.

The Secretary, Captain Earl N. Findley A.S.,A., and Lieutenants Meade, and Metcalf, who have been detailed as members of the magazine staff are now located in the new offices.

The "Aerofoil" published at Scott Field, Belleville, Ill., has announced that, due to decreased personnel at Scott Field, the publication will be discontinued. It is regretted that this step seems necessary as the "Field" papers have been of considerable value to the Information Branch of the Air Service.

S.E.-5's COMING TO BOLLING FIELD

Five Army pilots have been detailed to fly as many S.E.- 5 planes from Mineola to Bolling Field, Anacostia, D.C. The pilots are Captains, Felix Steinle, and James W. Osgood and Lieutenants Leo F. Post, Thomas E. Graves, and Ernest E. Harmon.

ELLINGTON FIELD MAGAZINE

Ellington Field "Tale Spins" from now on will appear semi-monthly instead of weekly and in magazine form.

All former Ellington men, now in civilian life have subscribed to "Tale Spins", thus making it necessary to put out a publication of interest to all parts of the country.

The cover is three color work, of twenty-four pages, size - 10 X 14 inches. Lieut. Joe Weil is Managing Editor, and Lieut. C. A. Wright, Business Manager.

WILL RECOMMEND FOR DECORATIONS

A Board of Officers to consist of the following personnel is appointed to review recommendations for the Distinguished Service Medal, which have been received at this office, and to make recommendations to the Director of Air Service as to further action:

Brig. General William Mitchell, J.M.A., A.S.A.
Colonel Chalmers G. Hall, A.S.A.
Colonel Arthur L. Fuller, A.S.A.
Colonel Henry C. Pratt, A.S.A.
Lt. Colonel Oscar Westover, A.S., A.P.
Major Charles R. Cameron, A.S.A., Secretary, (Non-voting Member)

AIR SERVICE MEDICAL

By direction of the Director of Air Service, and by agreement with the Surgeon General of the Army, the Air Service Division of the Surgeon General's Office is discontinued, effective March 14, 1919, and its functions, including the supervision of the commissioned and enlisted personnel of the Medical Department on duty with the Air Service, have been transferred to the Chief Surgeon, Air Service.

This new branch will be the Medical Section of the Executive and Administrative Group, and will be under the direction of Chief Surgeon, Air Service, Colonel Albert E. Truby, M.C.

NATIONAL ADVISORY REPORTS

Applications by the personnel of the Air Service for the annual or other Reports of the National Advisory Committee for Aeronautics should be made to the Director of Air Service.

GOVERNMENT PUBLICATIONS

The following is a copy of Section 11, Public Act No. 314, sixty-fifth Congress, approved March 1, 1919;

"Sect. 11. That the Joint Committee on Printing shall have power to adopt and employ such measures as, in its discretion, may be deemed necessary to remedy any neglect, delay, duplication or waste in the public printing and binding and the distribution of Government publications: Provided, that hereafter no journal, magazine, periodical or other similar publication, shall be printed and issued by any branch or officer of the Government service unless the same shall have been specifically authorized by Congress, but such publications as are now being printed without specific authority from Congress, may, in the discretion of the Joint Committee on Printing, be continued until the close of the next regular session of Congress, when, if authority for their continuance is not then granted by Congress they shall not thereafter be printed: Provided further, That on and after July 1, 1919, all printing, binding, and blank-book work for Congress, the Executive Office, the judiciary, and executive department, independent office, and establishment of the Government, shall be done at the Government Printing Office, except such classes of work as shall be deemed by the Joint Committee on Printing to be urgent or necessary to have done elsewhere than in the District of Columbia for the exclusive use of any field service outside of said District."

OFFICIAL PUBLICATIONS OF AIR SERVICE

The classification of matter for issue by the Office of the Director of Air Service, will be as follows:

Orders: Publish matters of importance to all activities of the Air Service which are of permanent interest or are to be constantly observed.

Personnel Orders: Publish matters concerning individuals - usually relating to boards of officers, leaves of absence, travel, or assignment to some specific duty or office.

Circulars: Publish matters which are received from sources outside the Air Service and other matters which are of interest to all activities of the Air Service, but not of sufficient importance to publish as Orders.

Letters of Instruction: Publish matters which are of direct importance only to a particular individual or group of this office.

Memoranda: Publish matters concerning the administration of the Office of the Director of Air Service and are issued in two forms, numbered and unnumbered as follows:

(1) Numbered memoranda publish matters of importance that permanently affect the routine of the office of the Director of Air Service.

(2) Unnumbered memoranda publish matters that do not permanently affect the routine of the Office of the Director of the Air Service.

Pamphlets: Publish technical information, special regulations, etc., - usually issued in booklet form.

All orders, personnel orders, circulars, letters of instruction, memoranda and pamphlets issued by the Office of the Director of Air Service will be over the personal signature of the Fourth Assistant Executive; no other officer of the Air Service is authorized to issue instructions of the character contemplated by this Order. Proposed orders, properly coordinated, will be submitted to the Fourth Assistant Executive for his examination and appropriate action.

TRANSPORTATION

The Traffic and Storage Branch, Supply Section has been authorized to issue transportation requests on railroad companies for the transportation of officers and enlisted men traveling under official orders.

This Branch is also charged with the issuance of furlough fare certificates to those entitled to the same.

For the convenience of officers and enlisted men of the Air Service the Traffic and Storage Branch will secure railroad tickets and Pullman accommodations provided that a proper transportation request or sufficient funds accompany the requests for services of this nature.

TAXI SERVICE STOPS

The Motor Transport Corps' so-called, "taxi service" in the city of Washington, D. C. will be discontinued on March 29, 1919.

On and after that date one car only will be available to the personnel of the Air Service for the transaction of official business. This car will be assigned to the Office of the Director of Air Service and will be under the direct charge of Captain George W. Gibson, Administrative Group.

MOTOR CAR INSTRUCTION

The Packard Motor Car Co., is conducting a truck instruction course in Philadelphia. This course began on March 10th, and will be under the supervision of an experienced instructor for the benefit of Packard owners and their drivers.

PERSONNEL ORDERS

On March 17, 1919 the following named officers, having reported to the Director of Air Service, Washington, D.C., were assigned to duty as indicated:

Lt. Colonel Wm. L. Sheep, M.C., to Administrative Staff, and
Major Ora M. Baldinger, A.S.A., to Training and Operations.

Lt. Colonel William C. Sherman, Corps of Engineers, having been detailed to the Air Service and having reported to the Director of Air Service has been assigned to duty with the Training and Operations Group.

The appointment of Lieutenant-Colonel Edward E. McCammon, A.S., A.P., as Assistant to Chief, Air Service Materiels Inspection is announced.

Effective March 18th, Major Maurice Connolly, A.S.A., is relieved from present duty and is assigned to Training and Operations Group.

Colonel George H. Crabtree, M.C., and Colonel Albert E. Truby, M.C., have been ordered to proceed from Washington, D.C., to Millington, Tennessee; Dallas, Texas; Fort Sill, Oklahoma; Fort Worth, Texas; San Antonio, Texas; Houston, Texas and Lake Charles, Louisiana on temporary duty. He will attend an important meeting of flight surgeons at Dallas, Texas, and coordinate the work of demobilization and reorganization of the medical service at other stations.

Lt. Colonel Thomas S. Bowen, M.A., A.S.A., was assigned to Training and Operations Group on March 17th.

Colonel Henry C. Pratt, A.S.A., was assigned to Office of Director of Air Service on March 20, 1919.

Lieutenant Colonel Henry W. Harms, J.M.A., A.S.A., is relieved from duty as a member of the Advisory Board, Air Service, created March 13, 1919 and Lieutenant Colonel Byron Q. Jones, M.A., A.S.A., is appointed a member of the Advisory Board, Air Service.

HONORABLE DISCHARGES

The following officers of the Air Service have been honorably discharged:

Herschel Lutes,	First Lieutenant,	A.S.A.
Joseph O. Freck,	First Lieutenant,	A.S.A.P.
Roger W. Andrews,	First Lieutenant,	A.S.A.
Edward W. Clark 3d,	First Lieutenant,	A.S.A.P.
William R. Kiefer.	First Lieutenant,	A.S.A.

D. Dwight Douglas,	Captain, A.S.A.
Frank B. Makepeace, Jr.,	Captain, A.S.A.
Louis M. Merrick,	Second Lieutenant, A.S.A.
James A. Meissner,	Major, J.M.A., A.S.A.
Curran S. Benton,	Major, A.S.M.A.
William B. Poynter,	Second Lieutenant, A.S.A.
R. Hunter McQuistion,	Captain, A.S.,A.P.
Cameron B. Waterman,	Major, A.S., A.P.
Theron A. Clements,	First Lieutenant, A.S.,A.P.
Truman W. Eustis,	Captain, A.S., A.P.
Oscar L. Halsey,	Captain, A.S., A.P.
Alan F. Winslow,	Second Lieutenant, A.S.A.

AIR SERVICE HONORS

The Director of the Army Air Service has just received a list of additional honors and awards made to the units and individuals of the Air Service, A.E.F.

The new list includes 21 individuals not previously reported, who have been awarded decorations from the American, British, French and Italian Governments, 148 individuals who have been especially cited, and 8 units of the Air Service which have been cited in Army or corps orders.

Second Lieut. John MacArthur, who brought down three planes on one day and two on another, is now rated as an American Ace. His record was discovered in the following French citation, just received:

"2ND LIEUT. JOHN MACARTHUR, 27TH AERO SQUADRON

Excellent officer possessing in the highest degree the sentiment of duty. In the course of many combats, he has shown the finest courage and greatest self-control. He distinguished himself, especially on 13th of June 1918, when seeing two reconnaissance airplanes attacked by 8 Albatros, he brought down three of these and dispersed the others; also on 2nd July when, during a combat against 9 adversaries he brought down two of these. (G.O. No. 12,059 "D", G.H.Q., French Armies of the East, 30th November, 1918.)"

On December 23, 1918, the 103d Aero Pursuit Squadron, formerly the Escadrille, was disbanded. Its last citation from the commanding officer is of interest.

COMMENDATION

Headquarters, 103d Aero Pursuit Squadron American E. F.

December 23, 1918.

General Order
No. 23.

1. This date the 103d Aero Pursuit Squadron dispatched without mishap all its airplanes to the First Air Depot, thus successfully terminating our major responsibility as a combat unit in the American Expeditionary Forces after nine months of active operations.

2. At this time it is my earnest desire to express sincerely and fully to each and every member of the command, both officers and men, my appreciation and admiration of their faithful and willing services so nobly and splendidly performed.

3. In February 1918, the enlisted personnel of the 103d Aero Pursuit Squadron joined the pilots of the old Lafayette Escadrille and from that amalgamation there came a unit, purely American, that conscientiously and bravely struggled with its daily task of operating against the enemy. Serving as an independent unit for five months under four different French commands, the Fourth, the Sixth, the D.A.N., and the Eighth French Armies, you maintained always a high standard of efficiency. Especially was this true in the Flanders sector where you were able to perpetuate the name of the old Lafayette Escadrille which had its origin under French colors and brought added glory to its flag and traditions by winning a second French Army citation. This last citation should be treasured by all, knowing as you do, it was given in recognition of valorous and meritorious operations against the strongest kind of enemy aerial activity in a sector where the whole personnel was nightly subjected to intensive bombardment from the air without effecting its morale or detracting from its efficiency. In July this command came for the first time under the immediate direction of the American Army and from then until the cessation of hostilities you unceasingly labored with the same indomitable courage, tireless energy, and tenacity of purpose that characterized your efforts while with the French.

4. On the eve of your departure to the land for which you have fought, reflect on the record that your Squadron has made and, by your appearance and every act, show to the people awaiting you that the sacrifices endured and difficulties overcome have not been in vain, but from the mighty test you have come forth valiant soldiers and worthy representatives of your country.

5. The Squadron Commander looks with pride upon your record and considers it a privilege to have served with such an organization.

R. SOUBIRAN,
Captain, A.S., U.S.A.,
Commanding.

The following American officers of the Lafayette Escadrille are entitled to wear the Fourrager:

William Thaw, Major; Pittsburg, Pa.
Robert Soubiran, Captain; Cravant, Fr.
Dudley Hill, Captain; Peekskill, N.Y.
Ray C. Bridgeman, Captain; Princeton, N.J.
Robert Rockwell, Captain; Norwood, Ohio.
Henry Jones, Lieut.; Hartford, Pa.
William E. Dugan, Lieut. Jr.; Rochester, N.Y.

According to a cable from General Pershing, the 103d Aero Squadron, formerly the Lafayette Escadrille, was one of the two units of the A.E.F. entitled to wear the French Fourrager. The color of the Croix de Guerre is worn for two citations of the French Orders of the Army.

The new list includes a letter of commendation to the Balloon Companies of the First Army, A.E.F. from the Commanding Officer of the First Pursuit Group, Major H. E. Hartney, who thanked the Balloon Companies for the valuable assistance in operations and in confirming victories of the First Pursuit Group.

The commanding General of the Fifth Army Corps commended the Corps Balloon Wing advising that Balloon Companies Nos. 6,7,8, and 12 of the Fifth Army Corps are commended for their work, beginning November 1st, by Major General C. P. Summerall.

The 2d, 7th, 8th, and 12th, 24th, 25th, and 44th Balloon Companies and the Balloon Schools at Meucon and Souge have also been commended for their service.

RECENT AWARDS:

DISTINGUISHED SERVICE CROSS

Thomas G. Cassady, 1st Lieut., Pilot, 28th Aero Squadron.
Spencer, Ind.

Leo H. Dawson, 1st Lieut., A.S., 94th Aero Squadron.
Denver, Colorado.

Tom Farnsworth, 1st Lieut., A.S., Pilot,
Washington, D.C.

Winfred C. MacBryne, 1st Lieut., F.A., Observer.
Lowell, Massachusetts.

Guy E. Morse, 2nd Lieut., Observer
Kansas City, Missouri.

Harold O. Nicholls, Sgt. 1st Class, A.S., Balloon Service,
1st Army, Galveston, Texas.

William Clarkson Potter, 1st Lieut., 20th Aero Squadron.
Denver, Colorado.

W. C. Suiter, 1st Lieut., Pilot, 135th Aero Squadron.
Shamokin, Pennsylvania.

Elliott White Springs, 1st Lieut., A.S.
Lancaster, South Carolina.

Harold E. Tittman, 1st Lieut., A.S.
St. Louis, Missouri.

------DISTINGUISHED FLYING CROSS, R.A.F.------

Howard Burdick, 2nd Lieut., 17th Aero Squadron.
Brooklyn, N.Y.

Clayton Bissell, 1st Lieut., 148th Aero Squadron.
Kane, Pa.

Lawrence Kingsley Callahan, 1st Lieut., 148th Aero Squadron.
(Address Unknown)

Jesse Orin Creech, 1st Lieut., 148th Aero Squadron.
Washington, D.C.

------FRENCH DECORATIONS:------

KNIGHT OF THE LEGION OF HONOR

Fred A. Tillman, Lieutenant, A.S., U.S.A.
(Address Unknown)

CROIX DE GUERRE

James A. Connelly, Sgt., Pilot,
(Address Unknown)

Edward Milton Urrand, 1st Lieut., A.S., Spad 286.
Ithaca, N.Y.

MEDAILLE MILITAIRE

James Connelly, Sgt., Pilot.
(Address Unknown)

------ITALIAN DECORATIONS------

CORONA D'ITALIA

Robert Glendinning, Major; (Officer of the Crown of Italy.)
Philadelphia, Pa.

Charles M. Fleischman, Captain: Knights of the Crown of Italy.
New York, N.Y.

Frank H. Maguire, Major: " " " " " "
Lansdowne, Pa.

Philip Bongiorno, Lieut.: " " " " " "
New York, N.Y.

Albert Spalding, Lieut.: " " " " " "
(Address Unknown)

Oliver B. Kiel, Captain, M.C.: 8th A.I.C. " " " " " "
(Address Unknown)

GOLD MEDAL OF VALOR

DeWitt Coleman, Lieut.:
Tenafly, N.J.

SILVER MEDAL OF VALOR

James L. Bahl, Lieut.:
Cleveland, Ohio.

AMERICAN CITATIONS

(No medal awarded)

Arthur C. Esterbrook, 1st Lieut., A.S.
Fort Flagler, Washington.

William P. Erwin, 1st Lieut., A.S.
Chicago, Ill.

Harold J. Forshay, 1st Lieut. A.S.
Brooklyn, N.Y.

John O. Peterson, 650th Squadron.
(Address Unknown)

----F R E N C H C I T A T I O N S----

Morton B. Adams, Lieut.; Observer, 90th Squadron.
William S. Anderson, 2nd Lieut., Balloon Observer, Balloon.B.1.
Hobart Baker, Lieut.; Pilot, #103d Squadron (Lafayette)
Rawel Barber, 2nd Lieut., Pilot, Squadron Br. #108.
Thomas Barrow, Lieut.; Balloon Observer, 88th Balloon Company, (Artillery).
Walter Bender, Lieut.; Pilot,91st Squadron.
Charles Raymond Blake, 1st Lieut., Pilot, Squadron BR. 29
Frederick William Borchers, Lieut.; Observer, Squadron BR. 129.
Valentine Burger, 2nd Lieut.;Observer, 90th Squadron.
John S. Burrell, 2nd Lieut., Observer, #5th Balloon Co.
William Caikins, 1st Lieut.; Pilot, Squadron BR. 129
Daniel W. Casserd, Lieut.; Pilot, 147th Squadron.
Reed Chambers, Lieut.; Pilot, 94th Squadron.
Lucien H. Cocke, Captain,; Observer, Squadron SAL 39
John Cotton, 1st Lieut.; Pilot, #12th Squadron.
Harry Craig, 1st Lieut.; Observer, Squadron BR. 120.
Richard Davis, 2nd Lieut.; Pilot, Squadron SPA 77.
Frank Dixon, 2nd Lieut.; Observer, 55th Squadron.
James A. Doherty, 2nd Lieut.; Observer, 45th Balloon Co., (Artillery).
William Erwin, Lieut.; Pilot, 1st Squadron.
Floyd E. Evans, 1st Lieut.; Pilot, 88th Squadron.
Edwin Bradley Fairchild, Sgt., Pilot, #159th Squadron.
.....Flett, Lieut., Observer, 90th Balloon Company.
A. C. Goodale, Lieut.; Observer, Squadron.
Adwin Green, Lieut.; Pilot, 94th Squadron.
Paul Edson Green, 1st Lieut.; Pilot, 131st Squadron.
Alexander Grier, 2nd Lieut., Machine Gunner, 46th Squadron.
Horace Moos Guilbert, Lieut.; Pilot, 91st Squadron.
James Goodwin Hall, Lieut.; Pilot, Squadron BR. 111.
Melvin Adams Hall, Major, Commanding the Aeronautical Sector of 3d Army Corps.
Bradley Hammond, 2nd Lieut.; Observer, Squadron BR. 108.
E. R. Haslett, Lieut.; Operations Officer, 1 W Balloon.
Armin F. Herold, Lieut., Observer, 12th Squadron, (Infantry)
Frederick Hirth, Lieut., Observer, 91st Squadron, (Artillery).
Thomas Hitchcock, Lieut.; Pilot, (French Squadron).
Roger W. Hitchcock, 2nd Lieut.; Pilot, 88th Squadron.
Jacob Serene, Sgt., Pilot, 157th Squadron.
Miles Kresge, 1st Lieut.; Observer, 55th Squadron.
Horace Lake, 2nd Lieut.; Machine Gunner, Sqd. C. 46.
Joseph W. Lane, 2nd Lieut.; Observer, 5th Balloon Co.
David Lansden, Lieut., Observer, Squadron, Spad 141. (Field Artillery)
Andre Lebeuc, 2nd Lieut., Observer, 90th Balloon Company.
Manderson Lehr, 1st Lieut.; Pilot, Squadron, BR. 117.
David Wilbur Lewis, 2nd Lieut.; Pilot, 79th Squadron.
Frank Albert Llewellyn, 1st Lieut.; Pilot, 99th Squadron.
William Lovett, Lieut.; Pilot, Squadron, SPA 76
Harold W. Merrill, 1st Lieut.; Observer, 88th Squadron.
Harry E. Montgomery, 2nd Lieut.; Balloon Observer, Balloon B. 2.
Richard W. Moody, Lieut.; Observer, Squadron BR. 129
Leo M. Murphy, 1st Lieut.; Balloon Observer, Balloon B. 2.
Roland Hall Neel, Lieut.; Pilot, 99th Squadron.
Ralph Matthews Noble, 2nd Lieut.; Observer, 6th Bombing Group.
Thomas Noonan, 1st Lieut.; Pilot, Squadron BR. 29.
Ernest Noring, 1st Lieut.; Observer, Squadron BR. 29.
Stephen H. Noyes, Lieut.; Pilot, Commanding the 12th Squadron.
L. C. M Page, Lieut.; Pilot, 88th Squadron.

Eugene Kluge Patterson, Lieut.; Observer, 131st Squadron.
Roy K. Patterson, 1st Lieut.; Observer, Balloon B 2.
Earl Penfield, 2nd Lieut., Machine Gunner, Squadron C. 46.
Ray K. Phelps, 1st Lieut.; Balloon Observer, Balloon B. 21.
Earl Porter, 2nd Lieut.; Observer, Squadron BR. 29.
John Posey, 2nd Lieut.; Observer, Squadron Br. 111.
David Putnam, 1st Lieut.; Pilot, Squadron SP 38.
John L. Rancourt, Lieutenant, Observer, 38th Squadron.
Coleman Reddy, 2nd Lieut., Observer, Squadron, Br. 108.
Carlyle Rhodes, Lieut.; Pilot, 95th Squadron.
Dominic William Rich, Lieut., Pilot, Squadron BR. 129.
William G. Schauffler, Captain, Pilot, Commanding the 90th Squadron.
Malcolm Sedgwick, 2nd Lieut., Balloon Observer, Balloon B. 2.
Romer Shacohan, Lieut., Operations Officer, 1st Combat Group.
Lloyd Shaeffer, 2nd Lieut., Observer, Squadron Br. 66.
Harry Schaffer, 2nd Lieut.; Observer, 65th Squadron.
William D. M. Shuman, 2nd Lieut., Balloon Observer, Balloon B. 1.
Wayne B. Stephenson, 2nd Lieut.; Pilot, Squadron SPA 100.
Henry Stickney, Lieut.; Pilot, Squadron SPA 150.
Ray W. Thompson, 1st Lieut.; Balldon Observer, Balloon B. 1.
Sidney P. Thompson, Lieut.; Pilot, 95th Squadron.
Edgar Gardner Tobin, Lieut.; Pilot, 103d Squadron.
M. Tompkins, Lieut.; Observer, 54th Squadron.
Alvin Hill Treadwell, 1st Lieut.; Pilot, Squadron SPA 154.
John William Van Heuwel, Lieut.; Pilot, Squadron 91.
Charles Herbert Veil, Sgt.; Pilot, Squadron SPA 150.

----FRENCH CITATIONS----

ORDRE DE L'ARMEE

Thomas J. Abernathy, 2nd Lieut.; Pilot, 147th Squadron.
Walter L. Avery, 1st Lieut.; Pilot, 95th Squadron.
Bert M. Atkinson, Lt.-Colonel, Pilot, C.O. 1st Pursuit Wing, 1st Army.
Alfred B. Baker, 2nd Lieut.; Pilot, 12th Squadron.
H. St. John Boldt, 1st Lieut.; 1st Squadron.
A. J. Bradford, 2nd Lieut.; Observer, 12th Squadron.
Lewis H. Brereton, Lt.-Colonel, Pilot, C.O. of 1st Army Corps.
Edward P. Buford, Jr., 1st Lieut.; Pilot, 95th Squadron.
Douglass Campbell, 1st Lieut., Pilot, 94th Squadron.
Daniel W. Cassard, 1st Lieut.; Pilot, 147th Squadron.
Kenneth Smith Clapp, 1st Lieut.; Pilot, 27th Squadron.
Hamilton Coolidge, Captain, Pilot, 94th Squadron.
William B. Cowart, 1st Lieut.; Pilot, 1st Squadron.
Edward P. Curtis, 1st Lieut.; Pilot, 95th Squadron.
Alfred A. Grant, Captain, Pilot, 27th Squadron.
Harold E. Hartney, Major, Pilot, 27th Squadron.
James A. Healy, 1st Lieut.; Pilot, 147th Squadron.
Waldo H. Heinrichs, 1st Lieut.; Pilot, 95th Squadron.
Willard D. Hill, 1st Lieut.; Pilot, 94th Squadron.
William J. Hoover, Captain, Pilot, 27th Squadron.
A. N. Joerg, 1st Lieut.; Pilot, 12th Squadron.
Arthur H. Jones, 1st Lieut.; Pilot, 147th Squadron.
James Knowles, 1st Lieut.; Pilot, 95th Squadron.
John C. Lumsden, 2nd Lieut.; Observer, 12th Squadron.
John MacArthur, 2nd Lieut.; Pilot, 27th Squadron.
James A. Meissner, 1st Lieut.; Pilot, C.O., 147th Squadron.
Zenos R. Miller, 1st Lieut.; Pilot, 27th Squadron.
John Mitchell, Captain, Pilot, 95th Squadron.
Fred. W. Norton, 1st Lieut.; Pilot, 27th Squadron.
Ralph A. O'Neill, 2nd Lieut.; Pilot, 147th Squadron.
Maxwell C. Parry, 2nd Lieut.; Pilot, 147th Squadron.

David McK. Peterson, Captain, Pilot, 95th Squadron.
Charles P. Porter, 2nd Lieut.; Pilot, 147th Squadron.
Kenneth L. Porter, 2nd Lieut.; Pilot, 147th Squadron.
Joseph C. Baible, Jr., 1st Lieut.; Pilot, 147th Squadron.
Edward V. Rickenbacker, 1st Lieut.; Pilot, 94th Squadron.
Ivan A. Roberts, 1st Lieut.; Pilot, 27th Squadron.
Philip J. Roosevelt, Captain, Assistant to the C.A.S., 1st Army.
Quentin Roosevelt, 1st Lieut.; Pilot, 95th Squadron.
Edward W. Rucker, Jr., Captain, Pilot, 27th Squadron.
Sumner Sewell, 1st Lieut.; Pilot, 95th Squadron.
Francis M. Simonds, 1st Lieut.; Pilot, 147th Squadron.
John H. Stevens, 2nd Lieut.; Pilot, 147th Squadron.
Thorne C. Taylor, Captain, Pilot, 94th Squadron.
William H. Taylor, 1st Lieut.; Pilot, 95th Squadron.
Stephen W. Thompson, 2nd Lieut.; Observer, 12th Squadron.
Grover C. Vann, 1st Lieut.; Pilot, 95th Squadron.
Jerry C. Vasconcelles, Captain, Pilot, 27th Squadron.
Wilbert W. White, 1st Lieut.; Pilot, 147th Squadron.
James C. Wooten, 2nd Lieut.; Pilot, 1st Squadron.

----ORDRE DU CORPS D'ARMEE----

Philip R. Babcock, Captain, Pilot, 88th Squadron.
Harold R. Buckley, Captain; Pilot, 95th Squadron.
Wilfred V. Casgrain, 1st Lieut.; Pilot, 95th Squadron.
Robert Z. Cates, Jr., 1st Lieut.; Pilot, 94th Squadron.
George F. Fisher, Captain; Pilot, 95th Squadron.
Clarence S. Gill, 1st Lieut.; Pilot, 95th Squadron.
John A. Hambleton, Captain; Pilot, 95th Squadron.
John D. Hartigan, 1st Lieut.; Observer, 1st Squadron.
Benjamin P. Harwood, 1st Lieut.; Observer, 12th Squadron.
William F. Loomis, 1st Lieut.; Pilot, 95th Squadron.
Frederick J. Luhr, Captain, Pilot, 12th Squadron.
Stuart E. McKeown, 1st Lieut.; Pilot, 95th Squadron.
Alexander H. McLanahan, Captain, Pilot, 95th Squadron.
Kenneth Marr, Major; Pilot and C.O., 94th Squadron.
Charles W. Plummer, 2nd Lieut.; Observer, 28th Squadron.
Laurence H. Richards, 1st Lieut.; Pilot, 95th Squadron.
Louis C. Simon, 1st Lieut.; Pilot, 147th Squadron.
Harold H. Tittman, 1st Lieut.; Pilot, 94th Squadron.

WHAT THE AIR SERVICE OFFERS

The Army Air Service presents many interesting advantages to the enlisted man. It offers a good situation, now; it educates its members thoroughly in the new and growing science of aviation, with its many commercial features, and offers to those enlisted men who are physically and mentally equipped, an opportunity to learn to fly. Incidentally this service pays good salaries and provides for early promotion.

In accordance with the plans of the Government for the organization of a permanent Air Service, the Director of Air Service has been authorized by the General Staff to reenlist or recruit enlisted men up to 15,000.

Have you a good job today? If not, what can you find better than the Air Service?

One feature of service in the military branch of aviation not usually considered is the education in aviation to be gained. There is but little if any opportunity today to secure employment with any of the large manufacturers of aircraft; they are cutting down their personnel. The commercial future of aviation in this country while most promising is, at present, hanging fire at best, and every plant has more experienced men than it can keep employed. The Air Service will take you today, however, and teach you practical aviation. The time will come within a year or two when there will be a great demand for skilled mechanicians and other experts in aviation who have had experience. Today the only practical way to get experience is in the Air Service. Then the opportunities for good positions in commercial lines may be seized when they appear.

It is possible for men now in the Air Service to get their discharges with the $60.00 bonus, and reenlist in the Air Service for a year, with the privilege of a month's furlough. In most cases it will be possible for the non-commissioned personnel to retain the grade held during the war, and upon reenlistment be allowed five cents per mile en route home.

The chances of advancement in the Air Service are excellent. A bright, energetic, young man with initiative, should not remain a private long. A man is promoted to the grade of non-commissioned officer, for aptitude, attentiveness, willingness and ability. The following table shows the chances of promotion in a squadron of one hundred and fifty men, or rather it shows 114 non-commissioned grades of corporal or better, that are available, and to which men enlisting in the Air Service can be promoted. Only 36 of the 150 are privates:

4 Master Signal Electricians, 29 Sergeants, first class, 33 Sergeants 48 corporals, 12 Privates, first-class and 24 Privates.

With respect to the various activities that are carried on in the Air Service, 17 different types of tradesmen are required for as many sorts of work:

Radio mechanical work, wireless telegraph and telephone, radio electricians, airplane mechanics, aero motor mechanics, propeller makers, fabric workers, magneto repair men, instrument repair men, carpenters and cabinet makers, machinists and tool makers, metal workers and welders, coppersmiths and vulcanizers, photographers, draftsmen, bench mechanics and chauffeurs.

Almost any type of work in which a man is interested is required in the classifications that make up the personnel of the Air Service. Whatever may be a recruit's desires, there is no reason why those desires cannot be fulfilled by an enlistment in the Air Service.

Little mention has been made of the chances that an enlisted man has to learn to fly, but instructions have already been issued to the flying fields covering conditions under which enlisted men may learn to fly. The main qualifications determining whether or not an enlisted man will be taught how to fly are physical qualifications, combined with the necessary mechanical knowledge which he must have before he will be allowed to participate in flights or will be allowed to receive instruction in a machine. The average enlisted man with a high school education, who has applied himself so that he has a good knowledge of motors and airplanes, and is in such condition physically that he can pass the required examination, can learn to fly. After a man learns to fly, he will, if properly qualified from an educational viewpoint, be given a good opportunity to secure a commission in the Air Service. Regulations are now being compiled covering this phase of the service.

Vol. II AIR SERVICE NEWS LETTER V-100

Information Group APRIL 5, 1919. Building D
Air Service Washington, D.C.

The title of the D.M.A. Weekly News Letter has been changed to Air Service News Letter. The New Letter will not be issued weekly, but more frequently and whenever information seems to warrant.

The purpose of the letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in general, including orders, changes in organization and personnel, achievements in production, training, flying, etc., and to release to the Press such matter as may appear to have news value.

(Released to Papers, April 6, 1919.)

THE FUTURE OF THE AIR SERVICE

BY MAJOR-GENERAL CHARLES T. MENOHER, U.S.A., DIRECTOR OF AIR SERVICE

(This article appears in the April issue of "U.S. Air Service", official publication of the Army and Navy Air Service Association.)

It should be apparent to anyone who scans the current press or who holds intercourse with his fellow men that there is no subject before the American public to-day that is of more absorbing interest to the country at large than that of the navigation of the air.

This manifestation of interest cannot all be attributed to the mere passing attraction provided by the recital of the many thrilling and dramatic experiences and achievements of the fighting men in France; nor can it be attributed entirely to realization of the immense commercial possibilities of general air navigation. To my mind it has a much broader and deeper significance than these — the knowledge and realization on the part of those to whom we must look in the future for our flyers, the youth of the country, that here will be an opportunity to experience personally some of the thrills that were the privilege of those who fought over-seas.

And we need have no fear for the future of a human activity which possesses, in addition to its great military and commercial possibilities, such opportunity for romantic experience. This phase of air activity will insure for all time the maintenance of the necessary personnel for carrying on its development along all lines.

It is to the military and commercial support of the science of aeronautics, however, that we must look for its practical meterial development. The demands of the war have placed the Air Service of the military establishment in a commanding position, and other air service activities will look to it for assistance for some time to come. Whether we maintain that commanding position will depend in great measure upon our own efforts.

With a reasonable legislative support and an adequate organization, there is no reason why it should not be maintained; but it will not be maintained except by vigorous effort on the part of the Air Service itself and by the loyal, whole-hearted support of the plan of operations prepared by our superiors, of every individual in the Air Service.

There may be, and undoubtedly are, legitimate and logical differences of opinion in regard to certain fundamentals of the Air Service in general, such as whether we should have a separate Department of the Air, which might or might not include all Government air activities, whether there should be separate but coordinated Service for the Army and the Navy, or whether these should be combined -- these are questions rather of policy, whose determination is, and should be, left to higher authority. Our Military Air Service, being a subordinate activity of the War Department, is concerned with carrying out the broad policies of that Department entirely unaffected by personal or political considerations, recommending fearlessly to the Department in matters not already covered by such policies.

Within the Air Service itself the same principle should obtain all the way through. In no other way can there be realized that team work that is absolutely essential to successful accomplishment. It is within the orbit prescribed by higher authority — and it is the very nature of things that limits should be set to this orbit — that the Air Service has its normal, legitimate activity. There is and will be enough, and more, for each one to do if the Service is to continue to be worthy of the name.

Coming down to a more concrete consideration of the problems that concern our Air Service: the immediate demand is to provide for adequate storage, maintenance, and so on, sufficient to the matériel on hand and for a liberal program of training, with provision for expanding production activities in case of need, and to save as much as possible of the trained personnel now in service from the wreck occasioned by insistent demands for demobilization; then to adopt an adequate organization and a training program to the end that as many tactical units as possible may be kept and maintained. By these means, tactical training may be carried on, traditions may be maintained and fostered, and provision made for expansion of the numbers of such units in case of emergency. The whole problem must be viewed from a tactical standpoint and no considerations of peace time conditions must be allowed to obstruct or obscure the view.

Having once adopted and put into operation an organization and an adequate program, the next important step is to secure proper liaison with all activities that affect the problem in any way. This can be obtained only by a painstaking insistence thereon until it becomes a matter of second nature, in dealing with any problem, whether tactical or administrative, to tie up with all activities having any point of contact therewith. The same rules regarding liaison must apply outside the Air Service proper as well — to other bureaus of the War Department, the Navy, the other Government agencies and all commercial or civilian activities bearing in any way upon the Air Service. The term liaison necessarily implies friendly intercourse, and in all dealings -- whether with other executive agencies of the Government, Congress, commercial agencies, the press or whatever it may be — it should be borne in mind that "the other fellow" is also actuated by reasonable and, most probably, friendly motives.

Now that peace has come and the various activities disturbed by war are returning to normal channels, as I have said in a public speech, we may look for a steady flow of conservative development. We all, I believe, would like to see the United States, where aviation had its birth, gain and maintain the lead in aviation. To do this will require the cooperation and coordination of all our activities and resources. Because of the lead given the Air Service of the War Department by the enforced effort due to the war,

civilian activies are sure to look to our Air Service for assistance for some time to come. This places upon the Air Service an obligation of assistance and cooperation in carrying on the work. This, I believe, is a fortunate circumstance for the Air Service, provided it fulfills its obligation.

It will be the endeavor of the Air Service to fulfill these obligations as far as possible, subject to the limitations of Congressional appropriation.

The acceptance of such cooperation and assistance by civilian activities should carry with it the reciprocal obligation, and appeal is hereby made for such reciprocal cooperation.

It will be in the matter of research and development of matériel that we must look in the future to civilian activities, unless Congress should appropriate for these purposes more liberally than we have any reason to hope for. The Air Service must render every encouragement possible to private manufacturers to develop new and impro ed types and, at the same time, carry on its own work along these lines as far as possible.

The foregoing will indicate only in a general way what some of the more pressing problems are for the Air Service and what should be its policy. Within the Air Service itself there must be an active, progressive policy. From its present position of advantage, it should be able to lead the way in most phases of air activity. It should never be content simply to maintain its existence.

Active aggression has every hope of success while passive defense tends only to inaction and, if persisted in, can lead only to defeat and failure.

SURPLUS TRAINING PLANES AND MOTORS SOLD

Based upon authority given by the War Department the Director of Air Service has signed a contract to sell as surplus equipment 4,608 Curtiss OX-5 Motors, 1,616 JN-4 planes without motors, and 1,100 Standard planes without motors, to the Curtiss Company for $2,720,000.00. Practically all of this property, from the stand-point of use to the Army, is obsolete and worn out.

The OX-5 Motor is one of the 8-cylinder type developing 90 horse power and was used extensively in the elementary training planes. All but 212 of these motors have been used to such an extent that they will in many cases have to be rebuilt before being of any value whatsoever.

The JN-4 planes were also used in early training and are now in a condition which requires a great deal of overhauling, and in most cases rebuilding. About half of these planes will have to be salvaged. These JN-4 planes should not be confused with the JN4-H planes, now being used by the Air Service, which will not be sold at present. The 1,100 Standard Planes have been condemned by the Air Service and have only a scrap value.

Following the policy of the War Department to disrupt as little as possible the market price for any material which is to be sold, and at the same time to obtain for the Government the best possible price in the sale of surplus material, the manufacturers of airplanes were requested to bid on this material.

The best bid obtainable was that of the Curtiss Airplane and Motor Corporation, and as the result of this, a contract has been signed whereby the Government will sell these OX-5 Motors, JN-4 Planes without motors, and Standard Planes without motors, to the Curtiss Airplane and Motor Corporation for a sum of $2,720,000.

SALE OF PLANES AND EQUIPMENT: A CORRECTION

The statement from the Director of Sales, printed in the Weekly News Letter of March 29th, to the effect that included in the sales reported to the office of the Director of Sales from March 8th to March 14th was the following Air Service equipment:

Airplanes	$319,000
Airplane equipment	679,887

Investigation has shown that these sales actually occurred in November and January respectively, and that the first item was for 25 L-W-F's, sold to Czecho-Slovaks, while the latter was a quantity of skins, intended for lining flying suits, sold to Mr. Lazarus of New York.

ADVANCE IN FLYING RATINGS

A Cable dated March 29th, 1919, from General Harbord, contains the following ratings of American Fliers who were with the A.E.F.

Military aviators made in A.E.F.:

Col. T. F. Dodd,	July 19, 1917.
Col. W. G. Kilner,	June 16, 1918.
Lieut.Col.J.E.Carberry	July 19, 1917.
Lieut. Col. S.W.Fitzgerald	June 18, 1918.
Lieut. Col. Leslie Macdill,	July 2, 1918.
Lieut. Col. A.R. Christie,	July 3, 1918.
Lieut. Col. Ira A. Rader,	July 14, 1918.
Major T. S. Bowen,	Aug. 21, 1917.

Junior Military Aviators made in A.E.F.:

Brig. Gen. William Mitchell	July 19, 1917.
Major James A. Meissner	Oct. 14, 1918.

ARMY AVIATORS TO FLY FOR LOAN

A number of Army aviators together with some British and French flyers will make a tour of the country for the Treasury Department in behalf of the Victory Loan. The plans under the direction of Major O.M. Baldinger of the Air Service, include the operation of three flights of airplanes; one to be known as the Eastern flight, the second the Central flight, and the third the far Western flight.

According to the schedule, each flight will be composed of 15 flyers, including American, French and British aces, together with enlisted men of the 103d Aero Squadron, formerly the LaFayette Escadrille, and speakers. The planes to be flown are the German Fokker's, the S.E. 5's, Spads and Curtiss ships.

The Eastern flight will include flights at Philadelphia, Baltimore, Washington, Richmond, Raleigh, Charleston, Savannah, Jacksonville, Atlanta, Birmingham, Chattanooga, Nashville Louisville, Lexington, Cincinnati, Indianapolis, Columbus, Toledo, Detroit, Cleveland, Pittsburgh, Buffalo, Syracuse, Albany, Rutland, Boston, Concord, Manchester, Portland, Providence and Hartford.

The Central or mid-western trip will include flights in Louisiana, Missouri, Illinois, Mississippi, Tennessee, Arkansas, Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, Oklahoma and Texas.

Far Western trip will include flights in California, Nevada, Utah, Idaho, Washington, Oregon, Montana, Wyoming, Colorado, Texas and Arizona.

The flights start on April 10 and extend over a period of a month. The personnel of the three flights is as follows:

VICTORY LOAN DRIVE

EASTERN FLIGHT NO. 1.

Personnel

EXECUTIVE and C.O.:	Major Henry J. F. Miller,
ASS'T. EXECUTIVE:	Captain R. G. Blake,
ADVANCE:	Captain C. T. Phillips,
ENGINEER:	1st Lt. I. Udy,
TRAFFIC:	2d Lt. H. C. Crueger,
PHOTOGRAPHER:	Capt. Leroy E. Gahris,
FLYERS:	Capt. Harry M. Smith, Capt. A. D. Sinonin, 1st Lt. M. B. Kelleher, 1st Lt. Geo. R. White, 1st Lt. Jean DeSmart, 1st Lt. Leo S. Post, 2nd Lt. W. F. Sharon, 2nd Lt. Bert ReBlair, 2nd Lt. Guy Stewart, 2nd Lt. Geo. C. McDonald, 2nd Lt. E. S. Middleton.

Also 1st Lt. J. O. Donaldson, M.A. (American Ace) Washington, D.C., and also two French and two English Aces.
Also Major Maurice Connelly, R.M.A., lecturing.
Capt. M. J. Swanz, Medical Officer and Capt. F. B. Wieners, Recruiting.

CENTRAL OR NO. 2 FLIGHT

Personnel

EXECUTIVE:	Major George E. Strattemeyer,
ASS'T EXECUTIVE:	2nd Lt. Clarence J. Moors,
ADVANCE:	1st Lt. Donovan R. Phillips,
ENGINEER:	2nd Lt. Fred L. Smith,
PHOTOGRAPHER:	2nd Lt. Grafton Wiggins, (Ellington Field)
FLYERS:	Captain Edgar G. Tobin, Captain Howard H. Howell, 1st Lt. Frank B. Estell, 1st Lt. George H. Belher, 1st Lt. Leland R. Hewett, 1st Lt. Franklin O. Carroll, 2nd Lt. H. C. Roberts, 2nd Lt. P. A. Smith, 2nd Lt. Joseph L. Whitney, 2nd Lt. Edward H. Hill, 2nd Lt. Alvin M. St. John, 2nd Lt. Edward P. Streeter, American Ace, 1st Lt. Wm. P. Erwin,

Also two French and two British Aces.
Capt. A. T. Brides, Medical, Capt. Wm. G. Dunn Lecturing and 1st Lt. P. E. McGregor, Recruiting.

FAR WEST FLIGHT, NO. 3.

Personnel

EXECUTIVE:	Major Carl Spatz,
ASS'T EXECUTIVE:	2nd Lt. H. A. Halversan,
ADVANCE:	Major Kenneth Marr,
ENGINEER:	Capt. L. H. Smith,
TRAFFIC:	Capt. G. G. Noble
PHOTOGRAPHER:	2nd Lt. Leland W. Miller,
FLYERS:	Capt. W. J. Hoover, 1st Lt. H. W. Follmer, 1st Lt. Geo. W. Puryear, 2nd Lt. C. P. McClain, 2nd Lt. H. M. Wirt, 2nd Lt. C. W. Getchell, 2nd Lt. C. M. Atkins, 2nd Lt. S. E. Cavanaugh,

2nd Lieut. Clement McMullen,
2nd Lieut. J. E. Reid,
2nd Lieut. L. S. Andrews,

Also Capt. John A. Hambleton, (Ace) Baltimore.
Also two French and two English Aces.
Medical officer Capt. F. L. Dennis,
Recruiting Lt. Col. A. J. Hanlin.

BRITISH ACES

Following British Aces and pilots sailed for U.S.A. on S.S. Northland March 27th, to assist in the Victory Loan Airplane Flights.

Major E. Parker, O.B.E.,D.F.C.
Major F. P. Holliday, D.S.O.,M.C.
Major G.Y.C. Maxwell, M.C.,D.F.C.
Capt. H. W. Woollett, D.S.O.,M.C.
Capt. A.W. Beauchamp Proctor, V.C.,D.S.O.,M.C.,D.F.C.

GENERAL MITCHELL, C.M.G.

Brig. General William Mitchell, Chief of Training and Operations Group, Army Air Service, has just been notified by cable from General Trenchard of the Air Ministry that he has been awarded the C.M.G., that is made a Companion of the Order of St. Michael and St. George. The high honor just conferred by the King of England makes the sixth decoration awarded to General Mitchell for meritorious service during the war. He has received a Croix de Guerre with a star and two palms designating subsequent citations, the decoration of a Commander of the Legion of Honor and the American Distinguished Service Cross.

General Mitchell went overseas when a Major as a Military Observer of the American Military Mission before General Pershing or any of the American Expeditionary Forces arrived, and returned as a Brig. General to succeed General Kenly as Director of Military Aeronautics. In the reorganization of the Air Service under General Menoher's direction, General Mitchell is now charged with the Operations and Training of the Army Air Service and heads the most important group of General Menoher's staff.

General Mitchell has the distinction of being the first American officer to participate in the fighting at the front with the French and British forces and was the first American officer representing the American Army to receive the Croix de Guerre. He entered the Army after service in the Spanish war. He was commissioned a First Lieutenant in the Signal Corps in 1901. After graduating with distinction from the Army School of the Line in 1908, he then attended the Army Staff College and was one of the youngest officers to complete the course. General Mitchell received his rating as a Junior Military Aviator in July, 1917: he became a Colonel on August 5, 1917, and a Brig. General Nov. 1, 1918, and was Chief of Air Service, 3d Army of Occupation at the time of the Armistice.

His masterly handling of his command in the A.E.F. bespeaks efficiency in the future training of Army aviators in this country.

DECORATIONS TO GENERAL KENLY AND OTHER OFFICERS OF AIR SERVICE

The award of the following decorations has been announced by the British Government:

Major General William Lacy Kenly, the C.B.;
Colonel Walter Kilner, C.M.G.;
Lieutenant Colonel John Armstrong Drexel,
Captain Hutchinson Ingram Cone, and Major Russell Willett Bryant, (Distinguished Service Order.)

CAPTAIN HASLETT DECORATED

Captain Elmer R. Haslett, a pilot of the Air Service, who recently returned with General Mitchell from overseas, was decorated yesterday by General Charles T. Menoher, Director of Air Service, with a Croix de Guerre. The ceremony was the first of its kind held in the office of the Director of Air Service. It was a surprise to everyone in General Menoher's staff and the officers assembled, especially the recipient, when Captain Haslett was asked to step forward and receive this decoration forwarded from France by Marshal Petain. Captain Haslett is now an assistant to General Mitchell, Chief of Operations and Training of the Army Air Service. His home is in Los Angeles and he was born in Carterville, Mo.

The citation did not accompany the decoration but, it is expected, will be forwarded from France. General Menoher congratulated Captain Haslett on the decoration he had won and the excellent service he had rendered in France.

The particular action for which Captain Haslett was decorated was for the now famous flight made by Lt. Colonel Lewis H. Brereton, now Chief of the Air Service Operations under General Mitchell, and Captain Haslett, deep within the enemy lines on the second day of the Chateau-Thierry fight.

During this great drive, a report on the intention of the enemy was needed and, after discussion, it was deemed a better plan to send one ship on thi quite perilous mission, rather than a number. Colonel Brereton, then Chief of the Air Service, First Army Corps, desired to go himself and learn the actual status of the advance. His operations officer, Captain Haslett, was no less anxious to see the results of the drive than his superior, and so these two officers left the airdrome in a single plane on July 20 to make a circuit of the Chateau-Thierry sector. At one time they penetrated 40 kilometers within the lines.

Leaving their station at Coulomnier, somewhat behind the actual front, they crossed the line at Chateau Thierry and proceeded north to Fere-en-Tardenois, thence to Soissons and down the Vesle to Braine and Fismes, where they were 40 kilometers within the lines. All along the route they had made important observation despite very bad atmospheric conditions. By flying very low, at not more than 500 meters, they did not attract much attention from either the enemy planes over-head or the anti-aircraft on the ground. The enemy either failed to see them or believed no allied ship would be flying so low or so far within the line. They encountered some resistance however, from machine-gun fire. From Fismes they continued south to Dormans and finally proceeded west to Chateau Thierry, having completed a rectelinear flight around the sector.

The information was of such an important character and the mission so hazardous that both these officers were decorated for this exploit, Colonel Brereton received the Legion of Honor and the Croix de Guerre. He later received the Distinguished Service Cross for extraordinary heroism in action on Thiaucourt. Captain Haslett had previously received a Croix de Guerre for excellent work as air operations officer of the 1st Army Corps and also the Distinguished Service Cross for gallantry in action in the Argonne Offensive.

Captain Haslett's citation, just received, reads as follows:

"A remarkable officer, who by his intelligence and activity has contributed towards making the aero of the C.A.U.S. very efficient. He has done important reconnaissance work, one time over a course of 40 kilometers, penetrating 15 kilometers into the enemy lines."

LIEUTENANT HEALY RECEIVES D.S.C.

In the absence of 1st Lieut. James A. Healy, 147th Aero Squadron, General Menoher read the citation just received from the Adjutant General awarding the Distinguished Service Cross:

The Citation follows:

"For extraordinary heroism in action near Grand Pre, France, October 30, 1918. Becoming separated from his patrol, flying at an altitude of 600 meters, he discovered an enemy plane (type Halberstadt) hiding in the sun two hundred meters above him, which he attacked and sent to the ground in a steep dive. He then noticed two other machines (type Fokker) which had been attempting to attack him. He succeeded in out maneuvering them, and finally shot down one of the Fokkers. He then returned without a drop of gasoline in his tank."

ARGENTINA HAS OWN AVIATION INSTRUCTORS

Argentina has aviators of her own, and does not need volunteer Instructors from the United States . Some Argentina officers are now abroad studying aviation in preparation for returning to their own country to act as instructors in Military Aviation. This advice has been reported to the Secretary of State by the American Consul General at Buenos Aires, in response to a request from the Argentine Minister of War. During the past two months American aviators have been offering their services to Argentina as prospective instructors in flying, but found that they were not needed.

KELLY FIELD NOTES

LIEUT. COL. RHINEHARDT SERIOUSLY INJURED IN FALL.

Lt. Col. Claude K. Rhinehardt and 1st Lieut. E. W. Raley fell at Austa on Saturday March 22, 1919. Col. Rhinehardt was taking off in an English Avro

when the motor cut out. He tried to turn back into the landing field, but was unable to do so for lack of altitude, and the machine crashed into the ground. Col. Rhinehardt was seriously injured about the head and bruised considerably. Lieut. Raley suffered minor injuries and bruises.

SECRETARY BAKER AT KELLY FIELD.

At ten o'clock Sunday morning, March 23, 1919 the signal was given which started one of the most interesting aerial exhibitions ever shown at Kelly Field. All the ships, in commission, were lined up on the dead line, facing the field, the crews in place, and the pilot standing at attention at the tail of the ship. When the signal was given, all the ships were cranked and the first formation moved out and took off, followed by six ships that went up for acrobatics. This formation consisted of all the ships in line from hangar 1 to hangar 12. The second formation consisted of all the ships in line from hangar 13 to hangar 24, and moved out as the last ship of the first formation took to the air. The leaders of each group took off in different directions so that there would be no confusion in the air. On account of the clouds being very low it was impossible to put on an exhibition such as had been hoped for, but even with this handicap all were agreed that it was a splendid performance.

At a given signal all of the ships returned to the ground, except the six that had gone up for acrobatics. As soon as the air was cleared these pilots thrilled the spectators with many daring and excellently executed stunts. While some were looping, some were spinning, some barrelling, others were flying on their backs for long distances, or did Immelman and wing turns along with many other interesting and thrilling stunts. As the ships came down they passed very close to the reviewing stand and each pilot saluted the Secretary and his party as he passed.

After the stunt ships were down, five De Havillands took off and very quickly formed into a "V" formation. This formation passed up and down the field several times, each ship keeping in its proper place.

BALL PLAYERS FLY TO GAME

On Friday, March 22, 1919 the Kelly Field Base Ball Team was taken to Austin by air in sixteen ships.

BALLOON COMPANIES IN REVIEW

B U L L E T I N

Training and Operations Group
Balloon and Airship Division

The below is an extract from a letter written by the Commanding Officer of the 6th, 7th and 8th Balloon Companies to the Chief of Air Service, Balloon Section, Paris, France, on the subject of a review by General Pershing.

The review took place on February 27, when the 6th, 7th and 8th companies were inspected by the Commander-in-Chief, the Companies being organized into a Provisional Battalion of 5 Detachments with Captain Samuel T. Moore commanding.

Extract

3. General Pershing repeatedly complimented the detachment commanders on the splendid appearance and dress of the men. He also highly praised the work of the balloons on the front, inquiring as to the length of service, at the front, number of casualties sustained in the various organizations, and displaying a general keen interest in the work accomplished. "We are all very proud of the work accomplished by the balloons, it was splendid" he told each company commander. After passing in review, which was in line of companies, the officers and non-commissioned officers assembled about the Commander-in-Chief who congratulated them and personally thanked them for their initiative interest and tireless energy.

4. The 6th Company was commanded by 1st Lieut. George E. Nixon; 7th Company by 2nd Lieut. George E. Quisenberry; 8th Company, by 1st Lieut. Hollace H. Jennings; 2nd Platoon, 6th Company, by 2nd Lieut. Meyer Morton, and 2nd Platoon 8th Company, by 2nd Lieut. Harle W. Pyle.

5. On March 1, 1919, the three companies attended an illustrated lecture by Colonel Howe, of the General Staff, on America's part in the War. The pictures included the bringing down of a German airplane by the Machine-gunners of the 6th company and Colonel Howe announced that he was very happy to find the company which accomplished such a good piece of work and contributed such an interesting feature to the moving picture part of this lecture.

P. E. Van Nostrand
Major, A.S.A.
Executive Officer.

58TH BALLOON COMPANY

Colonel C. DeF. Chandler, Chief, Balloons and Airships Division, Air Service has released the following report of Maneuvering:

V-100
A. S.

FIFTY-EIGHTH BALLOON COMPANY
A. P. O. 704

21 February 1919.

MEMORANDUM: For Chief of Air Service, American E. F., (Balloon Section)

1. As shown by enclosed copy of log, on Wednesday, 19 February, 1919, this company manoeuvred the balloon a distance of 12 kilometers from Etalans to work with the Artillery at School.

2. Our position beyond the target range, simulated that of an enemy balloon in actual warfare. The problem of artillery was a manoeuvring problem, and balloon was supposed to locate batteries and follow their advance, not to regulate fire.

3. The Commandant of school did not inform the several officers who were to conduct the problem that the balloon was to be used and our ascension was timed to conform to that at which the batteries went into position.

4. In the critique which followed the problem, because positions of all batteries had been reported from balloon, some on roads, commanders were criticized for having taken up exposed positions and for not having made better use of cover.

5. Our part in the problem has surely done more to convince the Artillery of service it is possible for the balloon to render, than anything we could have done, and we are promised further work with next class at school. Colonel Deems, Director of the School, expressed his personal appreciatio of the services rendered.

6. In preparation for this work 12 kilometers of wire were laid by telephone section; to avoid manoeuvres over high tension wires and other obstacles in town, the balloon was carried a distance of two kilometers and the entire program was carried out successfully.

7. The excellent work of Lieuts. Lewis and Whitehead in the basket, merits especial mention.

M. S. Farr,
Capt. A.S.

TWELFTH BALLOON COMPANY RETURNS

Five Air Service Officers and a non-commissioned officer of the 12th Balloon Company, which saw considerable service in action overseas, have just returned and reported to the Director of Air Service. This organization took part in the St. Mihiel Offensive, and has been cited in orders three times. One of the officers received a Distinguished Service Cross, and nearly all the personnel have been through shelling and carried on observation in the air under fire.

The officers who returned include Captain A. C. McKinley, Balloon Observer, Commanding Officer; of St. Louis; Lieutenants R. R. Cummings, maneuvering officer; M. D. Sapiro, and G. L. Thompson, Observers, and Lieut. Edgar Meyers (Coast Artillery) Student Observer. The diary of the Company kept during the whole overseas tour is interesting. It touches lightly upon the loss of two observers who in one balloon, were blown into Germany by a strong wind; mentions the experiences of observers who jumped under fire, and relates the story of the day that the balloon and whole company were shelled, including a direct hit on the balloon.

ARMY AERONAUTIC FUNDS

War Department releases Executive Order placing all appropriations for Military Aeronautics and Aircraft Production under jurisdiction of Director of Air Service and dissolves Aircraft Board.

EXECUTIVE ORDER

"By virtue of the authority in me vested as Commander in Chief of the Army, and by virtue of further authority upon me specifically conferred by 'An Act authorizing the President to co-ordinate or consolidate executive bureaus, agencies and offices, and for other purposes, in the interest of economy and the more efficient concentration of the Government,' approved May 20, 1918, I do hereby make and publish the following order:

1

"The Aircraft Board, created by Act of Congress, approved October 1, 1917, having accomplished the important purposes for which it was created, is hereby dissolved.

"The last paragraph of Section 3, Article 1, of the Executive Order of May 20, 1918, is hereby revoked and the following paragraph substituted therefor:

"'A Director of Aircraft Production, selected and designated by the Secretary of War, shall hereafter have direct charge, under the direction of the Director of Air Service, of the Bureau of Aircraft Production and he shall perform such duties in connection with the activities, personnel and properties of said Bureau, as may, from time to time, be assigned him by the said Director of Air Service, or as may be prescribed by law.'

11

"All unexpended funds of appropriations heretofore made for the Signal Corps of the Army and already specifically allotted for use in connection with the functions of the Aviation Section of the Signal Corps and specifically placed under the jurisdiction of the Director of Military Aeronautics, as well as all such funds already specifically allotted for use in connection with the functions bestowed upon the Bureau of Aircraft Production and specifically placed under the jurisdiction of the Director of Aircraft Production are hereby transferred to and placed under the jurisdiction of the Director of Air Service for the purpose of meeting the obligations and expenditures authorized by law or Executive Order in the field of Activity of the Aviation Section of the Signal Corps and the obligations and expenditures authorized by the Bureau of Aircraft Production.

Woodrow Wilson.

The White House
19 March, 1919."

AIR SERVICE APPROPRIATIONS BALANCE $187,000,000

Prepared by Statistics Branch, General Staff, War Department - March 29, 1919

By Act of Congress, dated February 25, 1919, the original appropriations for the Bureau of Aircraft Production and Division of Military Aeronautics for fiscal year 1918-1919 were reduced as shown in the following table:

	Original appropriation	Reduction Feb. 25, 1919	Present current appropriation	Per cent reduction
B.A.P.	$760,000,000	$400,000,000	$360,000,000	53
D.M.A.	184,304,758	85,000,000	99,304,758	46
Total	$944,304,758	$485,000,000[a]	$459,304,758	51

(a) In addition there was also a deduction of $2,000,000 from the Aviation appropriation of 1918.

STATUS OF AIR SERVICE APPROPRIATIONS

The total appropriations for the Air Service since the beginning of the war, after deducting $487,000,000 carried to the surplus fund and covered into the Treasury, are $1,097,304,758, of which approximately $712,000,000 or 65 per cent, had been expended to March 15.

The figure for "estimated outstanding obligations" given below is based on the assumption that approximately $340,000,000 will be saved in the liquidation of suspended contracts. Accurate figures showing outstanding obligations will not be available until final settlements of contracts in liquidation have been made.

	Millions of dollars	Per cent of total
Appropriations	1,097	100
Expenditures	712	65
Estimated outstanding obligations	200	18
Estimated balance	187	17

NOTE: These appropriations are now, by Executive Order of March 19, 1919, placed under the administration of the Director of Air Service.

COLONEL DICKMAN AND MAJOR BUTTS KILLED

The Training and Operations Group of the Air Service has been advised of the deaths of Lt. Colonel Frederick T. Dickman, Commanding Officer of Souther Field, and Major John W. Butts, executive Officer who fell in an airplane at Americus, Ga., on April 3d.

Both of these officers were Junior Military Aviators. The report states that the plane fell into a tail spin as they were making the last turn into the field in preparing to land. The officers were in the same ship; Major Butts is said to have been piloting.

Lt. Colonel Dickman was the son of Major General Dickman Commanding the Third Army of Occupation. He was the Assistant Executive of the Division of Military Aeronautics until detailed to command Souther Field on January 10th. Major Butts was a native of Cisco, Texas.

TWENTY-ONE AERO SQUADRONS TO BE RETAINED

Although the demobilization of the Air Service will continue until the enlisted personnel reaches 15,000, twenty-one aero squadrons will be retained in the Service. Authority has just been granted the Director of Air Service to retain in service the following Aero Squadrons:

Pursuit Squadrons --- 27th, 94th, 95th, & 147th;
Bombardment Squadrons (Day) - 11th, 20th, 96th, & 136th;
Army Observation Squadrons - 9th, 24th & 91st;
Army Artillery Squadrons - 99th, 135th, & 258th;
Corps Observation Squadrons - 1st, 12th, 50th, & 88th;
Surveillance Squadrons - 8th, 90th, & 104th.

The authority granted is not to be construed as amending previous instructions directing the reduction of the enlisted personnel to 15,000 men. All men in the above organizations, who were enlisted or drafted for the emergency, will be discharged upon their return to the United States, without delay, if they so desire and are eligible for discharge.

COMPARISON OF PERFORMANCE OF ALLIED AND ENEMY PURSUIT PLANES

(Prepared by Statistics Branch, General Staff, War Department March 29, 1919)

The following comparison shows the average performance of the five best known types of allied pursuit planes in use at the front during the last months of the war, with the average performance of the five leading types of German pursuit planes:

Average Horse-power

Allied	186
Enemy	160

Average Pounds Weight per Horse-power

Allied	9.3
Enemy	12.5

Average Feet per Minute Climb to 6,500 Feet

Allied	1140
Enemy	705

Average Miles per Hour at 6,500 Feet

Allied	126
Enemy	109

DISCHARGES OF COMMISSIONED OFFICERS, AIR SERVICE, THROUGH MARCH 27

(Prepared by Statistics Branch, General Staff, War Department March 29, 1919)

Branch of service	On duty Nov. 11	Discharges week ended March 27	Discharges Nov. 11 - March 27	Per Cent Discharged through March 27
Military Aeronautics	18,661	237	11,762	63
Aircraft Production	1,898	13	1,145	60

EXHIBIT OF PHOTOGRAPHIC BRANCH
AT
AERONAUTICAL EXPOSITION

One of the most interesting exhibits of the Airplane Show, held in Madison Square Garden, New York City, between March first, and fifteenth, was that of the United States Army Air Service Photographic Branch.

The entire aerial photographic training course, from the time the raw recruit reports to the Army School of Aerial Photography in Rochester, N.Y., to the time he is graduated for duty in the field in the United States and overseas with the American Expeditionary Forces was excellently portrayed by a series of enlargements, in some cases almost exact size, well arranged and tastefully hung.

Numerous photographs and enlargements -- the finished product of the trained personnel -- were shown and clearly demonstrated to the throngs always around the booths, the highly important functions of aerial photography in the great war which has been drawn to a conclusion. As an aid to army operations in preparation for an offensive, the photographs made over the Hun lines were invaluable. They showed the progress of trench construction, new and additional, machine-gun and heavy-artillery emplacements, etc. In fact nothing could escape the lens of the aerial cameras as used by the American observers.

During the training operations some very good work was done from an aerial mapping standpoint such as complete mosaics of Washington, D.C., Fort Sill, Okla. and vicinity, numerous flying fields in the United States and France, etc. The speed at which this work can be done is marvelous; for instance, the area of Washington, D. C., was covered by one ship with pilot and observer, in two hours and a quarter, flying time. These mosaics include many individual photographs and show clearly very minute details that could not be gotten by any other means.

Enlarged photographs of the training activities at the specialized schools and flying fields are worthy of mention. These covered various phases of the course and showed very clearly the scope of the Photographic Branch from a training and practical standpoint.

The various types of cameras used for aerial photography were also shown in their several models, which included the new automatic film and plate types, especially adapted for aerial-mapping work. The film type carries roll film that enables the operator to make one hundred exposures at one loading. Additional rolls can be carried in the ship and loaded in the camera in daylight.

The plate type carries fifty plates and must be loaded and unloaded in a darkroom. Both of these automatic cameras are driven by wind power produced while the ship is in motion. Additional cameras shown were the several standard models, both film and plate, used by the Photographic Branch for training purposes.

CHANGES IN STATION

The following named field officers have been ordered to change static. as follows:

Ordered March 1, 1919

Major Clinton W. Russell, J.M.A., S.C., ordered from Kelly Field, San Antonio, Texas, to Call Field, Wichita Falls, Texas, to assume command.

Ordered March 3, 1919

Lieutenant-Colonel Henry B. Hersey, J.M.Aer., A.S.A., ordered from Air Service Depot, Garden City, L.I.,N.Y., to Washington, D.C., for discharge.

Lieutenant-Colonel William C. McChord, J.M.A.,A.S.A., ordered from Gerstner Field, Lake Charles, Louisiana, to Washington, D.C.

Major Rollin I. Mowry, A.S.A., ordered from Washington, D.C., to Kelly Field, San Antonio, Texas.

Ordered March 4, 1919

Colonel Chalmers G. Hall, A.S.A., ordered from Air Service Depot, Garden City, L.I.,N.Y., to Washington, D.C.

Lieutenant-Colonel Henry W. Harms, J.M.A.,A.S.A., ordered from Washington, D.C., to Dayton, Ohio.

Ordered March 5, 1919

Major Walter W. Wynne, J.M.A., A.S.A., ordered from Sacramento, California, to Gerstner Field, Lake Charles, Louisiana, to assume command.

Lieutenant-Colonel John D. Carmody, A.S.A., to proceed from Camp John Wise, San Antonio, Texas, to Governor's Island, New York, thence to Army Balloon School, Arcadia, California.

Ordered March 11, 1919

Colonel Henry H. Arnold, J.M.A., A.S.A., ordered from Coronado, California, to Rockwell Field, San Diego, California, to assume command.

Colonel James E. Fechet, J.M.A., A.S.A., ordered from Houston, Texas, to Kelly Field, San Antonio, Texas, to assume command.

Colonel Henry C. Pratt, A.S.A., ordered from Kelly Field, San Antonio, Texas, to Washington, D.C.

Lieutenant-Colonel Leonard H. Drennan, J.M.A., A.S.A., ordered from Washington, D.C., to Chicago, Illinois, for duty as Department Air Service Officer.

Ordered March 13, 1919

Lieutenant-Colonel Frank M. Andrews, J.M.A., S.C., ordered from Montgomery, Alabama, to Washington, D.C.

Ordered March 17, 1919

Lieutenant-Colonel Lawrence W. McIntosh, J.M.A.,A.S.A., ordered from Washington, D.C., to Selfridge Field, Mt.Clemens, Michigan, to assume command.

Ordered March 20, 1919

Lieutenant-Colonel Henry B. Claggett, J.M.A., A.S.A., ordered from Dallas, Texas, to Kelly Field, San Antonio, Texas.

Colonel, Archie Miller, A.S.A., ordered from Washington, D.C., to Hazelhurst Field, Mineola, Long Island, New York, to assume command of all Air Service activities at Long Island.

March 21, 1919

Major Jenner Y. Chisum, A.S.A., ordered from Washington, D.C. to First Reserve Wing, Hazelhurst Field, Mineola, Long Island, New York.

March 25, 1919

Major Roy P. Tisdale, A.S., A.P., ordered from Washington, D.C., to Aviation General Supply Depot, Los Angeles, California, to assume command.

March 26, 1919

Major Adlai H. Gilkeson, J.M.A., S.C., ordered from Aberdeen Proving Grounds, Aberdeen, Maryland, to First Reserve Wing, Hazelhurst Field, Mineola, Long Island, New York.

Lieut. Col. B. F. Castle, A.S.A. is announced as the representative of the Air Service on the U.S. Liquidation Commission and is the only officer of the Air Service competent to officially communicate with the representatives of foreign governments on questions of claims, contracts, or obligations relating to the U.S. Government.

The following officers have been honorably discharged from the Service of the United States:

Walter B. Devereux, Jr.,	Major, A.S.A.
Harold A. Sands,	First Lieutenant, A.S.A.
Lamont A. Cadmus,	First Lieutenant, A.S.A.P.
Theodore H. Maenner,	Captain, A.S.A.

Edward J. McGrath,	Captain, A.S.A.P.
Thomas L. B. Lyster,	Lieutenant-Colonel, A.S.A.
Robert P. Seibz,	First Lieutenant, A.S.,A.P.
Paul H. Richards,	Second Lieutenant, A.S.A.P.
Sidney T. Thomas,	First Lieutenant, A.S.A.
William D. O'Gorman,	Captain, A.S.,A.P.
Isaac H. Saunders,	Captain, A.S.M.A.
Walter J. Conaty,	First Lieutenant, A.S.,A.P.
Carl F. Heinrichs,	First Lieutenant, A.S.A.
John J. O'Brien, Jr.	Captain, A.S.,A.P.
Robert W. Davis,	Second Lieutenant, A.S.,A.P.
Richard D. Skinner,	Captain, A.S.A.
Frank Upman,	Captain, A.S.A.
Lucien H. Thayer,	First Lieutenant, A.S.A.

Vol. II AIR SERVICE NEWS LETTER V-119
Information Group APRIL 12, 1919 Building D
Air Service Washington, D.C.

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

TO THE PRESS

(Can you run the following story, or part of it, in the interest of the Army Air Service?)

AIR SERVICE RECRUITS BY AIRPLANE

Twenty-One Fields Participate

Air Service Offers Recruits Instruction in Many Lines

The Army Air Service launches its first recruiting campaign on April 9th, in connection with the three Victory Loan Flying Circuses operating chiefly for the Treasury Department. These flying expeditions were organized at Ellington Field, Texas; Hazelhurst Field, Long Island; and Rockwell Field, California to tour adjacent sections. They comprise 12 or 15 American pilots each, including an American Ace who won distinction in the air overseas, and aces from the French and British air services who also distinguished themselves in their battles with the enemy. An Air Service recruiting officer is attached to each flight.

Authority has just been received by the Director of Air Service, to send out special recruiting expeditions in airplanes from 17 air service centers and 4 balloon fields in an effort to recruit men for the Air Service. Not only will flights be made over neighboring cities, but demonstrations of assembling and taking-down planes will be staged. In this drive for recruits the Air Service will cooperate with local general recruiting agencies.

Flights will be made from the following air stations:

Rockwell Field, San Diego, Calif.
Langley Field, Hampton, Va.
Post Field, Fort Sill, Okla.
Kelly Field, San Antonio, Tex.
March Field, Riverside, Calif.
Mather Field, Sacramento, Calif.
Carlstrom Field, Arcadia, Fla.
Dorr Field, Arcadia, Fla.
Ellington Field, Houston, Texas.
Park Field, Millington, Tenn.
Souther Field, Americus, Ga.
Selfridge Field, Mt. Clemens, Mich.
Chanute Field, Rantoul, Ill.
Scott Field, Belleville, Ill.
Bolling Field, Anacostia, D.C.
Hazelhurst Field, Mineola, L.I., N.Y.
Repair Depot, Montgomery, Ala.

Air Service recruiting parties will also be sent out from the following Balloon Fields:

Lee Hall, Va.
Fort Crook and Omaha, Nebr.
Arcadia, Fla.
Brooks Field, San Antonio, Tex.

The Air Service opens a universal training campaign besides the mere search for recruits. The personnel of the Air Service is made up literally of men in every trade and walk of life. A list of the personnel of an aero squadron or a balloon company includes several kinds of mechanics including radio, airplane, and aero motor, tool makers, metal workers, coppersmiths and bench mechanics. Besides these men there are needed wireless telegraph and telephone operators and repair men, propeller makers, balloon and airplane fabric workers, balloon riggers and cordage workers, instrument makers, armorers, carpenters and cabinet makers, hydrogen gas operators, balloon winch mechanics, photographers, draftsmen, electricians and chauffeurs.

Enlistment in the Air Service offers many advantages to the skilled man as well as the unskilled. To the skilled workman in any of these trades there become available many non-commissioned grades; master signal electricians who earn including their board, room, clothes and savings for annuity, over $2,000.00 per year, sergeants 1st class, sergeants and corporals. Out of a squadron of 150 men, 114 are non-commissioned officers, corporals or better.

Recent regulations provide that a man discharged from the Service may now reenlist for one year without further obligations. He must however, have had experience in the Air Service. He receives upon his re-enlistment, the $60.00 bonus accompanying his regular discharge and may secure a furlough for one month following his re-enlistment. Excellent opportunities are provided for these men and there are vacancies in every non-commissioned grade. Good opportunities for clerks, typists and stenographers are also available.

The unskilled civilian who enlists in the Air Service is offered a course of instruction in the particular branch of the Air Service he elects. A three year enlistment is required. General and special schools are maintained for the enlisted men; they are instructed by competent skilled teachers and unlike the operations of a private school, the quicker and better they learn, the more the Government is satisfied, because the better their instruction, the more value they are to the Government.

The age limits for enlistment in the Air Service range from 18 to 45 years inclusive. Men must specify if they desire service in the Air Service and other corps organizations, in which case they will be enlisted for the infantry but will be transferred immediately to the service they desire, for assignment to duty and sent to a flying field. Out of the quota authorized for the Air Service - 15,000 men - only the men re-enlisting will be accepted for the one year period; others for three years. The features of the plan, however, make enlistment or re-enlistment attractive.

Instructions have already been issued to the flying fields covering conditions under which enlisted men may learn to fly. The main qualifications determining whether or not an enlisted man will be taught how to fly, are physical qualifications, combined with the necessary mechanical knowledge which he must have before he will be allowed to participate in flights or will be allowed to receive instruction in an airplane. The average enlisted man with a high school education, who has applied himself so that he has a good knowledge of motors and airplanes, and is in such condition physically that he can pass the required examination, can learn to fly. After a man learns to fly, he will, if properly qualified from an educational viewpoint, be given an opportunity to secure a commission in the Air Service. Regulations are now being compiled covering this phase of the service.

THE D.S.M's TO AIR SERVICE

By direction of the President, under the provisions of the Act of Congress approved July 9, 1916, the Distinguished Service Medal has been awarded to the following named officers of the Air Service upon recommendation of the Commanding General, American Expeditionary Force:

Colonel Townsend Dodd, U.S.Army. For exceptionally meritorious and distinguished services. He organized the aviation training school at Issoudon, and successfully conducted the negotiations for the first purchase of aeroplanes from Allied governments, for the use of the American Expeditionary Forces.

Colonel Charles DeF. Chandler, U.S.A. For exceptionally meritorious and distinguished services. As Chief of the Balloon Section, Air Service, American Expeditionary Forces, from November 1917 to February 1919, he rendered notable service in the supply, administration, and operation of the balloon units, that so thoroughly demonstrated their efficiency during all the major operations of the American Expeditionary Forces.

Colonel T. DeW. Milling, Air Service, U.S.A. For exceptionally meritorious and distinguished services. First as Chief of Staff and later as Commander he organized and conducted the operations of the Air Service of the First Army during the entire operations of that Army. By untiring, painstaking and energetic efforts, he succeeded in raising the efficiency of his command and insuring the proper cooperation with the land units. He exhibited professional attainments of the highest order, and exercised a marked influence on the success of the First Army.

MIDWESTERN FLYING CIRCUS AIDS LOAN DRIVE

Many schemes are to be used in the raising of the huge fifth Liberty Loan, but one of the most unique plans of all is the sending of three Flying Circuses over the country. The circus which will cover the Mississippi Valley was formed at Kelly Field. This Circus proceeded to Ellington Field on the 31st, of March, where all equipment was received and the special train, to carry planes, pilots and crews, made up. The circus will carry two Fokkers, four Spads, five S.E. 5's, and five Curtiss H's ships. There will be eleven pilots from Kelly Field, two British and two French Aces, and fifty mechanics from the Famous Lafayette Escadrille, all under the command of Major Stratmeyer of Kelly Field. Other Officers will also be with the circus as Advance Officer, Engineer Officer and Assistant Executive Officer.

The pilots from Kelly Field went to Ellington by air. Ships from Brooks Field and from Kelly Field will be driven over, some of them by Kelly Field pilots, who will return as soon as the circus reaches Ellington Field.

The circus left Ellington Field on April 10th, proceeding to New Orleans, where the first Exhibition will be given. From there the party will proceed up the Mississippi Valley, giving exhibitions at all the principal cities on the eastern side of the river as far north as Duluth, Minnesota. The return trip will include all of the larger cities on the western side of the river. The schedule will cover about five or six weeks, if fair weather prevails, otherwise longer.

WAR SWEPT FRANCE TO BE SHOWN AT KELLY FIELD

On the evening of April 12th, a great aerial program will be shown on Kelly Field, during which the horrors of war, as carried on by the Huns, will be depicted in the aerial bombardment of defenceless cities, the looting and burning of homes, and the carrying away of captives of the peoples of these cities. Never before in America has anything of the kind ever been shown. The performance will start at twilight, just as the people are returning to their homes. As night falls the city will be shelled by heavy artillery followed by a bombardment by German planes. As the houses burst into flames, the enemy troops will charge into the city, capturing and killing the people. But while the enemy planes hover over the city on their mission of destruction, a squadron of Allied ships will suddenly sweep down from the sky and attack them. During this battle of the air, every strategy known to defensive and offensive aerial combat will be enacted. As the Battle of the Clouds draws toward an end, with the Allies victorious, the American Infantry will "go over the top" and drive out the Huns.

The proceeds of this spectacle will be used for the building of a swimming pool for Kelly Field. The need for an innovation of this sort has long been felt in the minds of Kelly Field men. This very need will make every one, who takes part in the show, work at top notch, to carry the project over the top.

This is to be a rare opportunity for the general public to see a wonderful show, with all branches of the army co-operating exactly as they do, and did, on the Western Front.

REDUCTION OF CONTRACT OBLIGATIONS OF THE WAR DEPARTMENT

The Acting Secretary of War authorized the following statement on April 8, 1919:

The work of canceling War Department contracts has now reached a stage where the figures show very definitely the steady progress that has been made. Two of the best indications of this progress are the figures for the value of material still to be delivered by the different bureaus, and the amounts that are being delivered each week.

In the Air Service the progress of cancellations has been rapid. Contracts there have been canceled and suspended to the value of nearly $500,000,000, so that practically all deliveries of important items of materiel have been terminated.

THE FREE BALLOON IN MODERN AERONAUTICS

Very recently the Balloon and Airship Division of the Air Service ordered thirty-six free balloons to be made out of surplus kite balloon fabric. This may appear a queer thing to do, with the war practically over. The question may be asked why an expenditure for these obsolete spherical drifters was made.

There is no more apology needed for this step than there is for the Navy when it orders small sail boats to train Annapolis cadets. The free balloon is to the aviation what the sail boat is to navigation. With it the airman can put himself at the mercy of the forces of nature and then extricate himself and get back safely to earth. In no other way can a man more quickly grasp the true meaning and possibilities of meteorological phenomena.

A slight fall of temperature, a warm gust of wind, the drifting of a cloud over the sun, the rifting of a fog bank may mean death or great hardship unless he does the right thing. Pendant beneath this bucyant sphere, he is wafted through the realms of space to a final safe landing near the utilities and comforts of civilization or to fall in some lone place from which he can extricate himself only by superhuman effort. He may fall to his death after a period of chill unconsciousness in the great altocirrus heights. He may be left broken and bleeding after being dragged, in case he fails to land properly, in a windstorm or be drowned in case his course takes him over some great body of water where his balloon lets him down.

What better expedient can then be devised to inspire profound research of meteorology, with ultimate true knowledge of the phenomenal of the air?

In our generation we have seen fit to invade the aerial heights and make them the arena of our combats, our routes of communication and our paths of pleasure. So too, in some past dim distant age, did men first essay to use the ocean. Even to this day with all our accomplishments in engineering, great ships are lost because the masters and crews in times of mechanical failure, cannot hoist sails and ride to safety using the very winds, that would destroy them. Still in this day are ignorant adventurers on the deep drifted to death along the shores. Many a stately ship is stranded and damaged because the powers of even gentle winds are not known to masters trained to trust in artificial power alone.

If the airship is to be a success, it will be one because those who pilot it know the powers and characteristics of the wind and the meaning of the symptoms of storms. Landings in gales must be made at times. The airship cannot play the part of a pampered beauty who goes out only on calm and sunny days.

The master pilot of an airplane or airship by various expedients, can find the direction and speed of wind strata; using this knowledge, can know when to seek safety before his fuel gives out. He can evade or overcome storms. He can effect economies of management or give greater pleasure to the multitudes who from now on will venture up into the blue arch of heaven to satisfy the yearning of their childhood days to be among the clouds and see what it all looks like.

Millions of people line the shores of New York Bay every few years to see the sailing yacht races. They revive this old sport, why? To see what nation can build craft most cannily and handle them most skilfully under the forces of the surface breezes.

A few people have begun to watch the skies to sight those brave adventurous souls who, leaving all behind, drift on in sunshine, in clouds, in darkness and in silence through the remote heavens to distant landings when the air gives them up.

Which is the greater adventure, to take a horse and a gun off on the plains, to take a sailboat with supplies and compass out onto the blue reaches of the ocean, or to take a sphere of gas and barely enough food to sustain existence for the period of flight and then start off to match your wits and endurance against every peril that nature can provide?

Which of these sports will develop the true air-man; the true celestial navigator? Ask yourself these questions and you will know why the air service wants free balloons. They are wanted to give proper elemental training to a profession too prone to trust to artificial means alone for gaining distance, too prone to seek a few prepared landing places at the end of flights and too prone to ignore those great economies in power the winds will provide.

They are wanted to develop the indescribable and profound power of discernment and the type of will and courage needed if we are to be longer rated as a first class power of the aerial world.

DEH-4's FLY OVER SIERRA-NEVADA

A report from Mather Field states that on March 22nd, three De Haviland -4 airplanes flew from Mather Field to Sacramento, Calif., thence to Carson City, Nevada, crossing the Sierra- Nevada mountains enroute, The distance covered in the flight was 120 miles and the average time was 85 minutes. It was stated that this was the first time the mountains have been crossed by heavier-than-air machines.

The three machines were piloted by Lt. Colonel Henry L. Watson, Commanding Officer of Mather Field, 1st Lieut. James T. Crowell, Officer in charge of flying, and 1st Lieut. T. S. Curtiss, Assistant Officer in charge of flying. The three passengers were Sergeant 1st-class Leo Conway, 2nd Lieut. Charles W. Schwartz, flying instructor, and 1st Lieut. Francis W. Ruggles, engineer officer. A Curtiss plane piloted by Lt. F. D. Hackett, also made the flight from Mather Field to Carson City, approximately 90 miles in 2 1/2 hours. The Curtiss machine crossed the mountains at an altitude of eleven thousand feet.

The three De Haviland-4's crossed the range of mountains at an altitude of 14,000 feet. The report states that at this altitude the temperature was approximately 10 degrees above zero but the pilots had no trouble in the flight, the motors working perfectly all the time. The average consumption of gas per machine for the trip was 33 gallons.

The machines landed one mile east of Carson City in a very good field and after gassing the planes, they left for Reno, Nevada, where a safe landing was effected four miles east of the town.

The return trip was started from Reno about noon on March 23d. A stop was made at Carson City for gas and oil, and at this point, Governor Boyle of Nevada took the place of Lt. Ruggles in one of the ships, and was carried from the Capital of Nevada to the Capital of California, and thence to Mather Field. Governor Boyle has the distinction of being the first civilian to make the flight across this range of mountains.

An interesting feature of the trip is the time saved in transit between these two cities. Eight hours and five minutes was saved on railroad travel. The average train time between the two capitals is 9 1/2 hours, while the airplane averaged 85 minutes. The object of the flight was to prove that airplanes are practical for flights over particularly rough stretches of country where existing routes by rail or road are indirect. It is stated that previous flights over this range have been attempted by civilian fliers from time to time during the past five years, but owing to insufficient horsepower the attempts were not successful. Although the altitude at Reno and Carson City is over 4,600 feet, the fliers experienced no difficulties with their Liberty engines in landing or getting away.

LIEUTENANT NEELY KILLED

The Director of Air Service has been advised by a telegram from the Commanding Officer of Langley Field, that 2nd Lieut. John E. Neely, Air Service, was killed in an airplane accident at 8:10 A.M. April 9th. Lieut. John E. Neely's residence is Seattle, Washington.

AERO GAS FOR AIRPLANES ONLY

A circular issued by the Office of the Director of Air Service states that:

> The use of high-test aeronautical gasoline for any purpose other than that for which intended is prohibited. Its use in passenger automobiles, motor trucks, motorcycles or for cleaning purposes will be immediately discontinued.

AIR SERVICE

(Prepared by Statistics Branch, General Staff, War Department, - March 29, 1919)

Contracts Canceled and Suspended Nearly $500,000,000

The following is a summary of the values of cancellations and suspensions of contracts through March 22, 1919.

	Value	Per cent of total
Engines and spare parts	$266,961,771	54
Airplanes and spare parts	165,288,590	33
Chemicals and chemical plants	18,648,239	4
Instruments and accessories	10,761,081	2
Balloons and supplies	10,071,035	2
Fabrics, lumber and metals	7,977,445	2
Miscellaneous	13,634,218	3
Total	$493,342,379	

Orders for Liberty 12 Engines Completed

The Packard Motor Car Co. made the final deliveries of Liberty 12 motors during the week ended March 21, 1919. This completes all contracts. The following shows the number and per cent produced by each factory:

Firm	Number Produced	Per cent of total
Packard Motor Car Co.	6,500	32
Lincoln Motor Co.	6,500	32
Ford Motor Co.	3,950	19
General Motor Co.	2,528	12
Nordyke-Marmon Co.	1,000	5
Total	20,478	

LEASES ON AIR SERVICE FIELDS RENEWED

In the issue of the News Letter dated March 22nd, it was stated that eleven (11) flying fields would be released on June 30th, 1919. This has led to some misunderstanding in view of the interpretation of the word "released". It should have read; the leases on the following fields will be renewed June 30, 1919.

Wilbur Wright, Dayton, Ohio.
Taylor Field, Montgomery, Ala.
Payne Field, West Point, Miss.
Eberts Field, Lonoke, Ark.
Gerstner Eield, Lake Charles, La.
Call Field, Wichita Falls, Tex.
Taliaferro Field, Hicks, Tex.
Carruthers Field, Benbrook, Tex.
Barron Field, Everman, Tex.
Love Field, Dallas, Tex., and
Rich Field, Waco, Texas.

PROGRESS IN DEMOBILIZATION IN AIR SERVICE

(Prepared by Statistics Branch, General Staff, War Department - April 5, 1919)

According to reports received from the Air Service the net decrease in the total commissioned and enlisted strength from the date of the armistice to March 28 was 63 per cent.

The following table shows the distribution and per cent of net decrease to March 28. The strength figures include only officers and men not yet ordered discharged; they do not include men at demobilization camps awaiting discharge.

	Nov. 11	Mar. 28	Per cent net decrease
Cadets	5,775	812	86
Officers	20,586	3,569	83
Enlisted men	164,266	66,727	59
Total	190,627	71,108	63

Demobilization of Air Service Personnel

During the week of March 28 the Air Service personnel overseas decreased 4,689 men against a weekly average of 2,462 during the six preceding weeks. The strength of the Air Service in the United States and overseas is shown for various dates in the following table:

	United States	Overseas
Nov. 11	111,846	78,786
Dec. 2	115,216	78,061
Dec. 26	99,010	59,917
Jan. 30	46,919	57,527
Feb. 27	33,649	53,087
Mar. 28	25,347	41,800

&

RETURNING AERO UNITS

The Transport Otsego sailed from Bordeaux April 4th and is due at New York with the following troops:

Detachment 19th Balloon Company	4 officers	88 men;
30th Balloon Company	5 officers	168 men;
50th Balloon Company	5 officers	170 men;
35th Balloon Company	2 officers	165 men;
36th Balloon Company	4 officers	170 men;
45th Balloon Company	5 officers	163 men;

The following organizations have been assigned to early convoy:

Aero Squadrons 199th, 648th, 26th, 369th, 641st, 642d, 644th and 802d.

The following officers are honorably discharged from the Service of the United States, April 3d;

Charles F. H. Johnson,	Major, A.S.,A.P.
Roland J. Houck,	Second Lieutenant, A.S.,A.P.
Walter P. McQuade,	Second Lieutenant, A.S.A.
Ernest F. Willets,	Second Lieutenant, A.S.A.

April 4th:

Philip Drinker,	First Lieutenant, A.S.A.
Harry W. Bryan,	First Lieutenant, Q.M.C.
David L. Rairden,	First Lieutenant, A.S.A.
Arthur V. Moninger,	Captain, A.S.A.

April 5th:

Milford H. Olds,	Second Lieutenant, A.S.S.C.
Frank J. Stamper,	First Lieutenant, A.S.,A.P.
Edward C. Russel,	Second Lieutenant, A.S.,A.P.
Walter E. Benjamin,	Second Lieutenant, A.S.A.
John W. Davis,	Captain, A.S.A.
Peter C. Borre,	Second Lieutenant, A.S.A.

April 7th:

Raymond L. Branson,	Second Lieutenant, A.S.,A.P.

April 8th:

Frederick C. Wiggins,	First Lieutenant, A.S.A.

April 9th:

Oswald H. Day,	Second Lieutenant, A.S.A.P.
Dudley H. Hagan,	First Lieutenant, A.S.A.P.
Malcolm MacDonald,	First Lieutenant, A.S.A.P.

TRAINING IN MARINE AERONAUTIC CORPS

The Navy Department authorizes the following:

The first aviation unit organized in America and sent abroad using American-made material was the First Marine Aeronautic Company, equipped for water flying only, which is now stationed abroad at a naval base. This information is given in an announcement of the progress of Marine Corps aviation which has just been made public at Marine Corps headquarters.

In addition to the flying field maintained at Miami, Fla., where all training in actual flying is given, the Aviation Section of the Marine Corps gives candidates instruction in ground work at the Massachusetts Institute of Technology, Boston, Mass., and has two schools for instruction in aviation mechanics.

At present the Marine Corps aviation forces in France, equipped for land flying only, are performing pursuit, combat, bombing, and reconnaissance duty. In addition, they are performing duties which involve actual flying with heavier and lighter than air craft, the former consisting of pursuit, combat, and gunnery machines, seaplanes and flying boats. Kite balloons are used in performing the duties connected with lighter than air craft.

SELECTION OF PERSONNEL

An Aviation Section is maintained at headquarters, United States Marine Corps. All selections for the personnel of the Marine Reserve Flying Corps are made by this office. It also makes all requests for material for the use of the Aviation Section, obtained from the Army and Navy. It is estimated that in addition to the personnel at present attached to aviation, it will need 1,500 officers and 6,000 enlisted men to carry on the work assigned to the Aviation Section of the Marine Corps during the next year.

The Aviation Section of the Marine Corps will be called upon to furnish replacements for duties abroad. Since the recent arrival of marine aviation forces in France, the operations have been very successful. One officer has been recommended for the distinguished service cross and medal of honor for bringing down enemy planes.

PHYSICAL STANDARD HIGH

The standard of the Marine Reserve Flying Corps is very high. No men are accepted for entrance into its ground school with the prospect of becoming officers unless they are as nearly physically perfect as possible. Applicants must weigh not less than 135 pounds and not over 165 pounds. The enlisted personnel has been selected from the very best in the Marine Corps. They are highly trained and given every opportunity for promotion to a commission.

AIR SERVICE CASUALTIES

Recent statistics show that fatalities in the Air Service in this country between September 1, 1917 and November 11, 1918, numbered 264, for a total of 811,072 hours of flying. This was at the rate of 3,072 hours flying per death.

The rate of fatalities has evidently increased since the signing of the armistice. Probably due to nature of flying engaged in. Between November 11, 1918 and March 13, 1919, 57 fatalities have been reported for 125,864 hours of flying, which makes only 2,208 hours per fatality.

Serious accidents recorded between September 1, 1917, and Nov. 11, 1918, numbered 209, representing 3,881 hours per accident. Between November 11, 1918 and March 13, 1919, 61 serious accidents have been reported representing 2,063 hours per accident.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS TO ERECT LABORATORY

At a meeting of the National Advisory Committee for Aeronautics, on April 10th, the construction of an engine dynamometer laboratory was authorized The laboratory will be erected on the Committee's plot at Langley Field and will cost approximately $15,000.

The purpose of the laboratory is to test internal combustion engines, conduct researches and advance the development in aircraft engines. The study of related problems, including the co-relation of engine performance in free flight with the results obtained on the test stand, will also be made.

DISCHARGED OFFICERS MUST WEAR RED CHEVRON

According to a recent circular issued by the War Department, all discharged officers as well as enlisted men, who wear their uniform after discharge, will wear the red chevron on the left sleeve.

The circular reads in part as follows:

"The act of Congress approved February 28, 1919, provides that any person who served in the United States Army during the present war may wear the uniform after discharge provided that it shall include some distinctive mark to be prescribed by the Secretary of War.

The red chevron has been prescribed to be worn by discharged enlisted men as a recognition of duties performed in the service of the country. This is now also designated as the distinctive mark required by the before-mentioned act and will be worn by discharged officers and enlisted men alike.

This also applies to discharged officers who accept commissions in the Officers' Reserve Corps, until called to active duty, when the red chevron will be removed. A chevron will be worn point up mid-way between the elbow and shoulder on the left sleeve of the coat and overcoat and on the shirt when worn without the coat. It is unlawful under the National

Defense Act for the uniform to be worn by discharged officers or enlisted men without this distinctive mark, and the offender renders himself liable to civil prosecution and punishment by a fine not exceeding $300 or by imprisonment not exceeding six months or by both such fine or imprisonment. x x x x."

INACTIVE FIELDS NOW UNDER SUPPLY

The Director of Air Service has ordered the following "Inactive" flying fields discontinued as activities operated by the Training and Operations Group, and assigned to the Supply Group for operation as Temporary Aviation Storage Dèpots:

Barron Field	Everman, Texas.
Call Field	Wichita Falls, Texas.
Carruthers Field	Benbrook, Texas.
Eberts Field	Lonoke, Arkansas.
Gerstner Field	Lake Charles, Louisiana.
Love Field	Dallas, Texas.
Payne Field	West Point, Mississippi.
Rich Field	Waco, Texas.
Taliaferro Field	Hicks, Texas.
Taylor Field	Montgomery, Alabama.
Wilbur Wright Field	Fairfield, Ohio.

The administrative control of these activities remains with the Administrative Group as heretofore.

POPE FIELD NAMED

The flying field to be established at Camp Bragg, N.C., is named "Pope Field" in honor of 1st Lieut. Harley Halbert Pope, A.S.A., R.M.A., who was killed in an airplane accident January 7, 1919.

R.M.A.'s

The following named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their names:

First Lieutenant Rex E. Field, A.S.A.	March 18, 1919
First Lieutenant Charles W. Martin, A.S.A.	March 18, 1919
Second Lieutenant John V. Calhoun, A.S.A.	March 18, 1919
Second Lieutenant Clifford E. Gilpin, A.S.A.	March 18, 1919

Second Lieutenant Benjamin D. Harrison, A.S.A.	March 18, 1919
Second Lieutenant Lawrence F. Kraft, A.S.A.	March 18, 1919
Second Lieutenant Thornton C. Morrow, A.S.A.	March 7, 1919
Second Lieutenant Richard F. Shaw, A.S.A.	March 18, 1919
Second Lieutenant Lewis R. Trezona, A.S.A.	March 18, 1919
Second Lieutenant Alfred R. Coningsby, A.S.A.	March 13, 1919
Second Lieutenant Anthony J. Kerin, A.S.A.	February 1, 1919
First Lieutenant George K. Thomas, A.S.A.	March 6, 1919
Second Lieutenant Elmer C. DeMontel, A.S.A.	February 28, 1919
Second Lieutenant Charles R. Rowland, A.S.A.	March 20, 1919
Second Lieutenant Robert W. Patterson, A.S.A.	March 20, 1919
Second Lieutenant Harvey C. Waugh, A.S.A.	March 14, 1919
Major Samuel M. Strong, Medical Corps,	March 15, 1919
First Lieutenant Andrew J. Yarrell, A.S.A.	March 1, 1919
First Lieutenant John P. Stone, A.S.A.	February 28, 1919
Second Lieutenant William M. Lanagan, A.S.A.	February 28, 1919
First Lieutenant George W. Rogers, A.S.A.	March 8, 1919
First Lieutenant Frank W. Cawthon, A.S.A.	March 6, 1919
Second Lieutenant Roderick N. Ott, A.S.A.	March 6, 1919
Second Lieutenant Richard P. Minor, A.S.A.	March 6, 1919
Second Lieutenant Isadore Robinson, A.S.A.	March 6, 1919
Second Lieutenant Jesse J. Gee, A.S.A.	March 10, 1919
Second Lieutenant Matthew M. Sullivan, A.S.A.	March 14, 1919
Second Lieutenant Howard N. Tandy, A.S.A.	March 14, 1919
Captain Albert M. Wilcox, A.S.A.	March 15, 1919
Second Lieutenant Louis T. Barry, A.S.A.	March 15, 1919
Second Lieutenant John Preston Richards, A.S.A.	March 13, 1919
First Lieutenant George B. Fredell, A.S.A.	March 12, 1919.

CHANGES IN STATION

The following named field officers have been ordered to change station as follows since March 27, 1919.

Ordered March 27, 1919

Major Dean Smith, J.M.A., A.S.A., ordered from Brooks Field, San Antonio, Texas, to Dayton, Ohio.

Ordered March 28, 1919

Major Eugene W. Crockett, A.S.A., ordered from Fort Omaha, Nebraska, to Washington, D.C. on temporary duty, thence to Air Service Depot, Garden City, Long Island, New York.

Ordered March 31, 1919

Major LeRoy S. Simons, A.S.A., ordered from Washington, D.C., to Aviation General Supply Depot, Little Rock, Arkansas.

FLYING LICENSES

The Office of the Joint Army and Navy Board of Aeronautical Cognizance, charged with the issuance of civilian Flying licenses, is now located in Room 232, Building D., 6th and B Sts., Washington, D.C. Since the discharge of Lieutenant Haugen, Lieut. A. J. Clayton, A.S.,M.A., has been acting secretary. The membership of the Board otherwise remains unchanged.

Applicants for civilian licenses should apply to the Board, addressing the acting Secretary Lieut. Clayton.

There have been issued 40 licenses since February 25th, as follows:

License No.	Issued to	Address
339	Alfred S. Koch	Washington, D.C.
340	John Domenjos	New York City.
341	James A. Roe, Jr.	New York City.
342	Merrill K. Riddick	New York City.
344	Penrose B. Metcalfe	San Angelo, Texas
345	John H. Hughes	Macon, Georgia
345a	Harry Richard Kashe	Anacostia, D.C.
346	A. J. Brubaker	New York City
347	Homer M. Berry	Okmulgee, Oklahoma
348	Julian Sykes	Chicago, Ill.
349	Paul W. Peterson	Underwood, Iowa.
350	L. S. Ryan	Underwood, Iowa.
351	David L. Behncke,	Chicago, Ill.
352	Joseph L. Cato,	New Haven, Conn.
353	Edgar F. Waters	Milltown, N.J.
354	Louis M. Merrick	Washington, D.C.
355	George Perkins,	Washington, D.C.
356	Ellis S. Middleton	Anacostia, D.C.
357	Lyman Patterson	Anacostia, D.C.
358	J. B. Struble	San Francisco, Calif.
359	Stuart J. Davies	Utica, N.Y.
360	Herbert M. Schick	San Mateo, Calif.
361	Charles Henry Kinzie	Philadelphia, Pa.
362	Romer G. Weyant	Lincoln, Nebraska
363	Cortlandt S. Johnson	Washington, D.C.
364	Aircraft Service Corp.	Detroit, Mich.
365	Stuart A. Morgan	New York City.
366	James Ward	Houston, Texas
367	Ray A. Dunn	Lynbrook, N.Y.
368	Wesley L. Smith	New York City
369	Earl F. Beers	Essington, Pa.
370	Edward A. Stinson	San Antonio, Texas
371	Paul W. Ward	New York City
372	W. J. Falvey	Brookline, Mass.
373	Hubert E. Phenicie	Manchester, Iowa.
374	I. B. Humphreys	Denver, Colo.
375	Lucielle Belmont Baldwin	Chicago, Ill.
376	Charles Theodore	Dallas, Texas.
377		
378	Barney Benes	Cleveland, Ohio.
379	Frank G. Seyfang	New York City.

WASHINGTON AERIAL SHOW

The Eastern Flight of the Victory Liberty Loan Air Circus will reach Washington early Sunday morning and give an exhibition over the city commencing at approximately 1:30 P.M.

With the Eastern Flight is Lieut. J.O. Donaldson, of Washington, an American Ace, who will demonstrate aerial feats with an SE-5, such as he flew in France.

German Fokker planes, French Spads and American battle planes will be used in the demonstration. This Flying circus conducted by the officers of the American and Allied Air Services, is staged for the Treasury Department in the interest of the Victory Loan.

SOUTHER FIELD MOURNS DICKMAN AND BUTTS

Souther Field, reports that, all incidents of the week ending April 5th, were overshadowed by the deaths of Lt. Col. F. T. Dickman Commanding Officer and Major John W. Butts Executive Officer at that post.

The two officers had been up on their usual afternoon flight. They were coming down to land on the field, making their last turn. At a height of about 100 feet the machine went into a tail spin for some unaccountable reason. It fell straight down like a plummett, nose first. At such a comparatively low height it was impossible to bring the machine out of the spin and it crashed on the landing field.

Major Butts who was in the front seat, was killed instantly. Colonel Dickman seated in the rear, lived only a few minutes after being taken to the hospital near the field. He was unconscious when picked up. It is not known which one of the two officers was driving the machine when it went into the tail spin. Both were expert flyers, and the machine was equipped with double controls, so that the two occupants could alternate in driving it. The officer in charge of flying witnessed the accident, and says there was no apparent reason why the machine should have gone into the tail spin.

Colonel Dickman was thirty-five years of age and a son of Major General Dickman, now commanding the Third Army of Occupation in Germany. He graduated in 1906 from West Point, was an expert flyer, and a splendid officer in every way. He leaves a wife and three-year-old boy, who live here in the commandant's quarters at Souther Field.

Major Butts was 28 years old, was a graduate of West Point in the class of 1914, was a native of Cisco, Texas, and also leaves a wife and one child, who reside in the city of Americus. He, like Colonel Dickman, was an expert flyer and a splendid officer. He was an all around athlete.

The tragic death of the two officers is a blow to every one at Souther Field. Both enjoyed the respect and affection of officers and men alike. Their death is a loss to the army and especially a loss to the Air Service.

ENGINEERS WANTED

The following letter is printed at the suggestion of the Personnel Department.

Albert Kahn
Ernest Wilby Louis Kahn
J.F.Hirschman Associates
ARCHITECTS & ENGINEERS
Marquette Building
Detroit, Michigan.

April 2nd, 1919

Department of Military Aeronautics,
4½ to 6 Missouri Avenue,
Washington, D.C.

Gentlemen:-

ATTENTION COLONEL W. E. GILLMORE

This office is in need of a number of mechanical and structural engineers. It occurred to us that due to reduction in the personnel of your Department there would be a number of able engineers, whose services we could employ. Can you, therefore, have someone advise us as to the names of men still with your Department, who will shortly be open for positions and also present addresses of a number who have already received their discharge.

Your courtesy in this matter will be very much appreciated.

Yours very truly,

ALBERT KAHN, ARCHITECT

By: (Signed) Louis Kahn.

Vol. II AIR SERVICE NEWS LETTER V-154

Information Group
Air Service

APRIL 19, 1919

Building D
Washington, D. C.

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

ARMY FLIERS AND PLANES CANNOT BE ENTERED IN COMPETITIONS FOR PRIZES

On April 14, 1919, General Menoher, Director of Air Service announced that owing to demobilization, reorganization, the Victory Loan campaign and the consequently great amount of work under way with reduced personnel, the Air Service could not take part in the second Pan-American Aeronautical Exhibition to be held at Atlantic City, during the month of May, 1919.

It was also announced that Army flyers and planes could not compete for the Pulitzer or other trophies for the same reasons, and for the additional reason that it was considered an improper use of the time of flyers and of Government property to compete for purses and individual prizes.

The Air Service will give favorable consideration to any project of this sort which has for its object aerial performance without remuneration for development, charitable or cooperative purposes of an international, national, state or civic character, but must adopt as a War Department policy, disapproval of any project which involves competition of Air Service teams or individuals with private clubs or enterprises for money or other prizes or trophies.

DEMONSTRATE ORIENTATOR

The operations of the Ruggles Orientator used by the Army Air Service for instructing fliers was demonstrated Wednesday morning, April 16th, at the Air Service building. Major General Charles T. Menoher, Brig. General Wm. Mitchell, Colonel M. F. Davis, Colonel T. De W. Milling, Colonel George H. Crabtree and other officers of the Air Service were present.

The machine was demonstrated by Mr. W. G. Ruggles, the inventor, and Major F. J. Martell. General Mitchell and Col. Davis also had rides. A series of moving pictures were taken by the photographic section of the Air Service, and several still pictures. The latter are available for distribution.

THE RUGGLES ORIENTATOR

V-154
A.S.

The Ruggles Orientator is a mechanism which enables the operator to revolve a section of an airplane fuselage about three different axes. This machine, resembling somewhat a giant gyroscopic top, is used to train a flier or pupil in orientation and motion sensing. Two sets of large steel rings are swung, one in vertical and one in horizontal bearings and driven by small motors so that they revolve within each other. The longitudinal axis of the airplane fuselage is suspended by bearings on the innermost ring and also revolved by motors. Dual sets of controls, one in the machine and one on the floor, permit the instructor or the student to regulate the evolutions of this machine in any of three directions, both forward and reverse. Either the student or the instructor can cause the car to revolve in one, two, or three directions at once, but with experience the student is enabled to control the mechanism and keep himself upright despite the efforts of the instructor to unbalance him.

Feeling the necessity of teaching all fliers stunts or aerial spins, the officers of the Air Service Medical got Mr. Wm. G. Ruggles to further develop an invention which he had evolved in 1912. This machine enabled the flight surgeons to give the flier the sensations of aerial spins while he was safe on the ground. The Ruggle's Orientator was produced, and was shown for the first time to the public at the Aeronautical Exposition in New York. With this machine the Army surgeons, who have in mind the care of the flier, teach an aviator or a student the proper senses of orientation and enable him to learn stunts and the controls before he tries them aloft in a plane endangering his life and running a chance of wrecking a valuable plane.

By manipulating the controls, which are almost exactly the same as these of an airplane, the operator whirls the car through its various spins much faster than any airplane can turn. A slight movement of the stick, which projects upward between the pilot's knees, to the right causes the car to tip to the right on its horizontal axis, just as an airplane would if he banked. If the pilot holds his stick to the right the car turns over and will continue to roll on its longitudinal axis until the stick is brought back to neutral. If this motion is started by the instructor, it may be counteracted by the student with a movement of his control stick to the left, or, vice versa. If the instructor pushes his control stick forward the car in the orientator begins to fall, or rather to turn with its nose down just as an airplane would start in a nose dive, this motion, is of course, overcome by the student before a revolution is made, by bringing his control stick slightly toward him. But, if it is not controlled, the car will spin around its lateral axes performing a sort of impossible reverse loop. Of course, the radius of the circles which the operator passes through in this training machine, are very much shorter than they would be in an airplane performing similar stunts, and the speed is much faster, so that the student is subjected not only to the principal rotations but experiences much worse spinning sensations than he would in any plane. Finding himself upside down in the orientator, he canedo one of two things; throw his stick forward as in nosing down in a plane, and thus turn over, or, in this machine, he may throw his stick to the right or left to turn over, which, of course, he probably could not do in an airplane unless he had great speed.

The third direction of rotation is from right or left around a vertical axis, and this is controlled, as in a plane, by the rudder bar. A pressure with the left foot causes the machine to turn in that direction, and a pressure of the right foot counteracts this, or causes it to revolve to the right.

The student is first permitted to experiment with these controls himself, but after he has mastered them, he is put through rather complicated paces by the instructor and expected to be able to maintain himself upright and on an even keel, or to be able to return immediately to normal position. The ability to realize one's position in space, as it were, and maintain the normal, is known as orientation, a faculty which every flier must develop to successfully perform stunts. Stunts have been found very necessary in flying, especially war flying. Sometimes an aviator falls unintentionally into an unusual position; a spin, upside-down etc., and he must know it at once and be able to extricate his plane and gain a normal flying position. Practice on the orientator teaches the pilot to sense and realize his position almost immediately, through the functioning of his center of equilibrium within his inner ear. This "ear motion sense," as it is called, is very keen when developed and affords a pilot an additional method of orientating himself, when his muscle sense and eyesight fail to do so. In other words, a man trained by this method, should be able to know his position immediately even if his muscles failed to function and he was in the dark.

AIR AND FOREST SERVICES TO COOPERATE

Major General Charles T. Menoher, Director of Air Service, has advised the Forest Service of the Department of Agriculture that the Air Service will cooperate with the Forest Service in order to carry out certain experimental work desired by that bureau on fire patrol.

Mr. Henry S. Graves, the Forester, has been advised that he should communicate with the commanding officers of Rockwell Field, San Diego; March Field, Riverside; and Army Balloon School near Los Angeles, California. The Director of Air Service has instructed the commanding officers of these Air Stations to cooperate with the Forester in order to carry out the experimental work which he desires done during the coming summer. It is possible later that further work may be carried out at Mather Field.

Conferences between Air Service officers and representatives of the Forest Service have been held for the purpose of determining further cooperation between these two bureaus in assisting in fire patrol of National Parks.

RETURNING UNITS

The War Department announces that the following organizations have been assigned to early convoy:

658th Aero Squadron;
603rd Company, Transportation Corps;
650th Aero Squadron;
Air Service Casual Company Number 7.

The 351st Aero Squadron is enroute to the U. S.

FATALITIES

Six fatalities occurred at flying fields, camps, etc., in the United States during the week ended April 3, 1919:

Place at which fatality occurred.	Number of fatalities.
Bolling Field, Anacostia, D.C.	1
Kelly Field, San Antonio, Texas	2
March Field, Riverside, California	1
Souther Field, Americus, Georgia	2
Total	6

AIR SERVICE D.S.Ms.

The Distinguished Service Medal has been awarded to the following named American Officers of the Air Service in addition to Colonels Dodd Chandler and Milling announced last week:

Colonel R. C. Bolling, Air Service, U. S. A. (Deceased). For exceptionally meritorious and distinguished services. His service to the United States Aviation was distinguished for an accurate and comprehensive grasp of aviation matters for a sound and far-sighted conception of the measures needed to establish an efficient American Air Service in Europe for initiative and resourcefulness in attacking the problems of a young Air Service; for brilliant capacity in arranging affairs with Foreign Governments; for boldness and vigor in executing determined policies. In all of these he has rendered service of great value to the Government.

Colonel Edgar S. Gorrell, U. S. A. For exceptionally meritorious and distinguished services. He rendered most excellent service as a member of the United States Aeronautical Commission charged with the selection of types of European Aeronautical material to be manufactured in the United States; and as the representative of the Air Service with the General Staff, American Expeditionary Forces. In the performance of his many important tasks he displayed good judgment, great energy, and showed that he possessed ability of a high order, which have been of invaluable service to the Government.

Colonel John R. Thomas, Jr., General Staff, U. S. A. For exceptionally meritorious and distinguished services. As Chief of the Aviation Division of the Intelligence Section, he displayed unusual energy and skill in the collection and dissemination of information regarding the enemy's air forces. During part of the period covered by the Argonne-Meuse Offensive Operations, he acted as head of the Intelligence Section, and performed the duties of that position with marked ability and sound judgment.

Colonel H. C. Whitehead, U.S.A. For exceptionally meritorious and distinguished services. During the period of organization of the American Expeditionary Forces, he rendered services of a superior order in the planning and the organization of the Air Service, As Chief of Staff, Air Service, he displayed sound judgment and great ability in solving the many problems with which he was confronted. Throughout the entire duration of the war, his high professional attainments and untiring zeal have materially promoted the efficiency of the Air Service.

Colonel William H. Wilmer, Medical Corps, U.S.A. For exceptionally meritorious and distinguished services. As surgeon in charge of medical research laboratories, Air Service, A.E.F., since September 1918, he has rendered most distinguished service. His thorough knowledge of the psychology of flying officers and the expert tests applied efficiently and intelligently under his direction have done much to decrease the number of accidents at the flying schools in France and have established standards and furnished indications which will be of inestimable value in all future work to determine the qualifications of pilots and observers. The data collected by him is an evidence of his ability, his painstaking care and of his thorough qualifications for the important work intrusted to him. The new methods, instruments and appliances devised under his direction for testing candidates for pilots and observers have attracted the attention and been the subject of enthusiastic comment by officers of the Allied Services, and will be of great importance in promoting the safety and more rapid development of aerial navigation.

ARMY FLIERS FROM FRANCE FIELD SAFE AT BLUEFIELDS.

A cablegram from Lt. Colonel M. F. Harmon, Jr. C.O. at France Field, Cristobal Canal Zone to the Director Air Service, states that the two Army fliers reported lost were safe at Bluefields Bluffs on April 16th.

Their safe arrival was reported at Bluefields by General Blatchford Commanding Officer Canal Zone, and confirmed today by a cable from Col. Harmon, stating that Lieuts. Otto and Barker were delayed by engine trouble, probably requiring that new piston rings be made at Bluefields.

The records show John D. Barker, 2nd Lieut., A.S.A., Thomas O. Otto, 2nd Lieut., A.S.A., and Robert Hornby, Sergeant First-Class, A.S.A., mechanician, are members of the Air Service stationed at France Field.

NOTE TO FIELD INFORMATION OFFICERS

In regard to clippings from local papers now being furnished to this office, it is requested that the name of the paper and the date of issue be indicated on all clippings.

AIR SERVICE CHIEF AGAIN DECORATED

General Menoher has just been awarded the Cross of Commander of the Order of Leopold by the King of Belgium.

COLONEL MILLING DECORATED BY KING OF BELGIUM

Colonel. Thomas de W. Milling, Air Service, Military Aviator, has just been advised through the Adjutant General that King Albert of Belgium has bestowed upon him the Order de Leopold, with rank of "Officier". This honorary distinction was conferred upon Colonel Milling as a token of the esteem of the King and in recognition of the valuable services rendered the common cause.

Colonel Milling is one of the first Army Officers to fly, having trained with Colonels Arnold and Foulois,.

He was Captain of Cavalry, assigned to the Aviation Section in 1917, and went overseas early in August. He was Air Service, Commander, 1st. Army, after going through the battles of San Mihiel and the Argonne as Chief of Staff for General Mitchell then Commander, Air Service, First Army. He succeeded his chief when General Mitchell became Commander, Air Service, Army Group, comprising the Air Services of both the 1st and 2d Armies.

Colonel Milling returned to the United States with General Mitchell in March, 1919 and is his assistant in the Training and Operations Group.

FOUR FRENCH MEN CITED FOR DISTINGUISHED SERVICE WITH AIR SERVICE

The commander in chief, in the name of the President, has awarded the distinguished-service cross to the following-named officers and soldiers for the acts of extraordinary heroism described after their names:

Sergt. Etienne Houroux, pilot, 284th Escadrille (French), attached Third Army Corps, United States Army. For extraordinary heroism in action near Dun-sur-Meuse, France, October 30, 1918. While engaged in a visual reconnaissance Sergt. Houroux accepted combat with four enemy planes, who attacked him with the object of forcing him to abandon his mission. Although he was himself seriously wounded, he sustained the unequal fight until his observer was killed by the fire of the attacking aircraft. When no further defense was left to him, he made a successful retreat into the allied lines and landed safely. Suffering severely from his wound and too weak to leave the pilot's seat without assistance, he insisted that his observer be cared for before permitting anyone to aid him. Home address, M. Houroux, 39 Rue de Paris, Avallon, Yonne, France.

Capt. Jean Meni, 16th Pursuit Group, French Air Service. For extraordinary heroism in action in the St. Mihiel offensive, France, September 12, 1918. Despite the unfavorable weather conditions, Capt. Meni made a reconnaissance flight over the enemy lines, returning with valuable information concerning the evacuation of the enemy and the dominant position of Montsee.

Lieut. Louis Andral, observer, deceased. 284th Escadrille, French Aviation, attached 3d Army Corps. For extraordinary heroism in action near Dun-sur-Meuse, France, October 30, 1918. Distinguishing himself by his constant bravery and brilliance as an observer, Lieut. Andral rendered valiant service, flying at times under most hazardous conditions. Many times he returned from low-flying patrols with his machine riddled with bullets. He attacked and drove from its mission an enemy observation plane, and later attacked a patrol of four enemy planes. In the fight that ensued he proved unequal to such an adversary and was killed. Next of kin, Madam Andral, Saint Denis-les-Martels, pres Villeneuve sur Lot, Lot France.

Lieut. Francois de Pavant, observer, 284th Escadrille, French Aviation, attached 3d Corps. For extraordinary heroism in action near Brieulle, France, October 4, 1918. While engaged on an infantry contact patrol, Lieut. de Pavant attacked six Fokker pursuit planes and valiantly drove them off, remaining in action until his plane was so badly damaged by fire that it was forced to land. Home address, M. P. F. de Pavant, Ville Jeanne D'Arc, Avenue de L'Alliance, Versailles, France.

AMERICA'S HIGHEST AWARD TO FRANK LUKE OF THE AIR SERVICE

The Congressional Medal of Honor, America's highest award for valor, has just been awarded to Lieut. Frank Luke, Jr., Air Service, of Phoenix, Arizona, America's second ace, who was killed in action, September 29, 1918, after bringing down two enemy planes, three balloons and about a dozen German soldiers.

Frank Luke, Jr., a Second Lieutenant in the Air Service, operating as a pursuit pilot of the 27th Aero Squadron, had, according to all accounts, the vividly brilliant and yet meteoric career of any fighting pilot in the Air Service of the Army, despite the fact that nearly everyone in this service at the front experienced a more or less eventful career.

The second name on America's list of Aerial Aces is that of Second Lieutenant Frank Luke, Jr., followed by the figures 18. These figures indicate the number of enemy aircraft brought down by him over the American lines. At the time of his death this young officer, only 21 years of age, was the leading American Ace, credited with having shot down 18 Huns in 17 days.

Captain "Eddie" Rickenbacker, who later succeeded to the title of America's Premier Ace, stated recently that "had he, Lieutenant Luke lived, he would have put me out of business as the Army's leading Ace, long ago." In an article written by Captain Rickenbacker in the "U. S. AIR SERVICE" magazine, he further states "there were men like Frank Luke, whose record is one of the brightest glories of our Air Service and who gave his all, his life, to the cause. Luke's 18 Huns included 11 balloons, and to get a balloon you have to go through the anti-aircraft and machine-gun barrage and the flaming onions they send up to protect it. Getting a balloon is so much more difficult than getting a plane, in fact, that the Germans credit a pilot with two victories for every balloon brought down. Luke from the beginning was a wild man in the air."

His citations tell his story briefly:

The first record of a decoration presented to Lieut. Luke is the American Distinguished Service Cross, awarded "for extraordinary heroism in action near St. Mihiel, France, September 12, 13, 14, 15, 1918. Lieut. Luke, by skill, determination and bravery and in the face of heavy enemy fire, successfully destroyed eight enemy observation balloons in four days."

Lieut. Luke's second decoration was a bar, to be worn with the Distinguished Service Cross previously awarded. For extraordinary heroism in action near Etain, France, on September 18, 1918, just eleven days before his death. The citation reads as follows: "Immediately after destroying two enemy observation balloons, Lieutenant Luke was attacked by a large formation of German planes (type Fokker). He turned to attack two which were directly behind him and shot them down. Sighting an enemy biplane, although his gasoline was nearly gone, he attacked and destroyed this machine also."

The third citation was the Congressional Medal of Honor, awarded upon the recommendation of General Pershing, for the acts of gallantry set forth after his name, only a few days ago.

"Second Lieutenant Frank Luke, Jr., A.S. (Deceased), 27th Aero Squadron, First Pursuit Group.

For conspicuous gallantry and intrepidity above and beyond the call of duty in action with the enemy near Murvaux, France, September 29, 1918. After having previously destroyed a number of enemy aircraft within seventeen days, he voluntarily started on a patrol after German observation balloons.

Though pursued by eight German planes which were protecting the enemy balloon line, he unhesitatingly attacked and shot down in flames three German balloons, being himself under heavy fire from ground batteries and the hostile planes.

Severely wounded, he descended to within fifty meters of the ground, and flying at this low altitude near the town of Murvaux, opened fire upon enemy troops, killing six and wounding as many more. Forced to make a landing, and surrounded on all sides by the enemy, who called upon him to surrender, he drew his automatic pistol and defended himself gallantly until he fell dead from a wound in the chest.

Frank Luke, Jr., a native of Phoenix, Arizona, successfully passed his examination for admission to the Army Air Service, school for training, on August 3, 1917. His papers show that he graduated from the Phoenix High School in 1917, probably in June, scarcely two months before his application for enlistment. At this time he was 20 years of age, but he was an unusually well developed young man due to his great interest in athletics, and his irrepressable desire for exercise and excitement. While at the Phoenix High School he had the honor of being Captain of his baseball, football, and track teams. This did not take all his time for sport however, as he also took active interest in basketball, tennis and boxing. His position on the football team as quarterback, he held four years, and, with the unusual ability which was his, played successfully every position on his baseball and basketball team.

Unlike a lot of the Army's flying personnel, whose knowledge in aviation did not antidate the war, Frank Luke demonstrated his interest and inventive genius some time before. In replies to the questions of previous aviation experience he stated briefly as follows:

"Built a machine without a motor; flew by use of auto, wire attached."

This all toobrief description of his early experiment does not indicate the extent of his investigation, but certainly demonstrated his desire for an aerial trip and his ingenuity, especially as to motive power.

At the time of his enlistment, he was a mechanical inspector employed by a copper company in Phoenix. It was with great impatience that he awaited his orders to a ground school following his success with his examination on August 3d. A little over a month later he wrote to the Aviation Section of the Signal Corps asking when he would be ordered to a school for instruction. Orders came approximately two weeks later sending him to the University of Texas at Austin where he graduated from the Ground School on November 24, 1917.

His flying instruction was secured at Rockwell Field at San Diego, Calif. and he passed his R.M.A.'s test in January 1918, just after the regulations of the Army prevented his securing a first lieutenancy. Commissioned as second lieutenant, he was ordered to active duty on January 23d, as a pursuit pilot. Following a little over a month of active flying at San Diego, Lieut. Luke was ordered to Hoboken and thence overseas on February 27, 1918.

Much interesting detail of his brief career overseas is recorded in an article in the "U. S. AIR SERVICE" magazine, by Lieut. Colonel H. F. Hartney of the Air Service, himself an Ace, who was Lieut. Luke's squadron commander. According to Colonel Hartney, the exploits of this young officer had a direct effect upon the development of American air tactics. He says that Luke will remain an example of valor and self sacrifice to the end of American History.

Further training was accorded to Luke after he arrived overseas, at Issoudun. He took aerial gunnery at Cazeaux, and finally reported for duty to the Commanding Officer of the 27th Aero Squadron at Saints in the Chateau-Thierry sector late in July, 1918, together with eight other young pilots.

Colonel Hartney reveals interesting insights to Luke's character and devotion to duty, briefly as follows: He was most impatient with formation flying and his successes eventually warranted his own desires to operate as a free lance of the air, much after the style of Guynemere and the other heroes of early aerial combats who flew alone. Luke was a flying enthusiast and never could get enough time in the air. He was always borrowing ships for extra flights and never came down except for gas. Stunting was apparently his joy in life; it is said that he never flew a straight course.

According to his Brother Officers, it was his determination to "get" enemy balloons, that eventually brought about his end, but, before that time arrived he was so successful as to bring down eleven balloons, a super man feat. Equipped with an eleven millimeter Vickers guns, which fired special incendiary bullets, Luke outdid everyone in his balloon stalking and proved the usefulness of this gun in this connection, despite the lack of French confidence in it.

Colonel Hartney says that Luke got his first official Hun on Sept. 12th the first day of the St. Mihiel drive, but sometime earlier, in the Chateau-Thierry sector, he had reported a victory in the air which was never confirmed. His first official victory was a German Drachen, which he and his partner, Lieutenant Wehner, shot down in flames, damaging another also. Having broken a connection rod, Lieut. Luke landed by an American balloon station where he incidentally secured a confirmation of his first victory.

His wild desire to shoot up balloons despite their frightful barrages, developed tactics which got him up in the early morning to launch his attack and sometimes kept him out in the dim light of the evening. At such times the enemy balloons were often unprotected by enemy aircraft. With his flying companions he made life extremely miserable for the German balloonists but eventually lost his aerial running mate. 1st. Lieut. Joseph Fritz Wehner, officially credited with five enemy aircraft, was killed on September 20, 1918. Quite broken in spirit over the loss of his friend, Luke left the front on leave for a few days but was recalled on September 26th. when the Argonne-Meuse offensive began. For the next two days, Lieut. Luke was very busy in the air. He got a two-seater on September 27th, and was credited with a balloon that night. No one seems to have been able to keep an exact account of Lieut. Luke's movements during his last day of life. He flew over an American Airdrome however, late in the after-noon and dropped a note requesting them to watch three enemy balloons some distance back of the German lines. This the officers did, and presently witnessed the three balloons go down, in flames, but Lieut. Luke, they never saw again. After sometime he was reported missing in action, then killed in action, but his last movements and the scene of his last stand, remained a mystery until recently.

It seems that Lieut. Luke went over the lines alone at a very high altitude, when he was intercepted by ten enemy machines all of which he engaged successfully, shooting down two of them. He then dropped out of control, or pretending that he was, until he reached the level of the balloons, all of which he shot down in flames. During all this time, of course, he was under very heavy fire from the ground. After a long wait for further information, news from the Red Cross established the fact that Lieut. Luke landed, probably

because his machine was damaged, or possibly because he was hit. In any event, before he did so, he "shot up" a number of enemy troops in a village street, several of which he killed, as is shown in his last citation. Not wishing to surrender when he was surrounded, he defended himself with his automatic until he fell dead beside his plane. Lieut. Luke's career is well called meteoric because his fighting career included scarcely three weeks at the front during time which he shot down 18 Huns.

Luke's name became famous almost immediately, first on account of his remarkable exploits in getting balloons and planes and then on account of the spectacular last day and the mystery of his disappearance. His decorations and his promotion to a first lieutenant, dated November 6, 1918, could not keep apace with his achievements. They arrived too late for him and meagre recompense indeed for his sorrowing family.

His glorious career and his dramatic death, may not have a conspicuous place among the great moments of the whole war, but his intrepid and unconquerable spirit will long remain the spirit of the Army Air Service.

CIVILIAN FLYING LICENSES
ISSUED BY JOINT ARMY AND NAVY BOARD OF AERONAUTIC COGNIZANCE

License No.	Issued to	Address
334	C. J. Zimmerman	Keyport, N.J.
343	J. B. Porter	Wabash, Indiana.
377	Leon D. Smith	Millerton, Pa.
380	Pomilio Bros. Corporation	New York City.
381	Fort Worth Aerial Transportation Co.	Fort Worth, Texas.
382	Morse D. Levitt	New York City.
383	William L. Lamkin	Porterville, Calif.
384	Northeastern Balloon Company	Newburyport, Mass.
385	Lamont A. McDowell	Elizabeth, N.J.
386	Robert Bruce McGill	San Francisco, Calif.
387	Harold C. Brooks	Wabash, Ind.
388	V. P. Hollingsworth	Wabash, Indiana.
389	Henry F. Fawcett	Wabash, Indiana.
390	The Cameron Aerial Company	Cameron, Missouri
391	Joseph M. Pallissard	Dayton, Ohio.
392	The Curtiss Eastern Aipplane Corp.	Philadelphia, Pa.
393	George H. Watkins	Cambridge, Mass.
394	Carl H. Duede	Stuart, Iowa.
395	S. A. Purcell	San Francisco, Calif.
396	James Dazill McKee	Pittsburgh, Pa.
397	David R. Baker	New York City.
398	Alexander Seversky	New York City.
399	E. Clark Harter	Wenona, Ill.
400	Arthur W. Fox	Rockaway, N. J.
401	Everett K. Eavey	Rockaway, N.J.
402	John H. Hughes	Macon, Georgia.

STATUS OF OUTSTANDING AIR SERVICE ORDERS, PRINCIPAL ITEMS OF EQUIPMENT

Includes all articles of equipment on outstanding contracts on March 23, 1919 except airplane bombs and clothing.

(Prepared by Statistics Branch, General Staff, War Department, April 12, 1919)

	Orders	Deliv-eries	Per cent		Orders	Deliv-eries	Per cent
DELIVERIES OVER 90 PER CENT OF ORDERS							
De Havilland 4 planes	4846	4842	99.9	Spare(train.)propellers	33631	33064	98.3
Compasses	12650	12644	99.9	Gun sights	20607	20007	97.1
Cameras, gunnery training	1609	1599	99.3	Oxygen apparatus	6100	5609	92.0
Oak lumber (1000 ft.)	311	308	99.0	Lewis machine guns	43950	40294	91.7
Balloons, kite type "R"	910	898	98.6	Vickers machine guns	18125	16366	90.3
DELIVERIES 51 TO 90 PER CENT OF ORDERS							
Motor lorry outfits	77	69	89.6	Bomb sights	16544	11630	70.3
Airplane fabrics (1000 yds.)	11568	10263	88.7	Bomb releases	15850	10362	65.3
Hispano 180 H.P.Engines	6000	5075	84.5	Flare bracket holders	23037	14542	63.1
Handley Page laminations	2000	1660	83.0	Cherry lumber (1000 ft.)	1006	618	61.4
Hydrogen cylinders	172800	142300	82.3	Gasoline gauges	1450	858	59.2
Cameras, observation	1351	1051	77.8	Cable (1000 ft.)	3310	1720	52.0
Oxygen tanks	17000	13077	76.9	Flares	162248	83000	51.2
Synchronizing devices	24226	17650	72.9	Winches	236	121	51.2
DELIVERIES LESS THAN 51 PER CENT OF ORDERS							
Cotton tape (1000 yds.)	15090	7339	48.6	Mahogany (1000 ft.)	22352	9984	44.7
Balloon fabrics(1000yds.)	13764	6664	48.4	Balloon equipment units	400	87	21.8
Walnut lumber(1000 ft.)	10354	4649	44.9	Hispano 300 H.P.engines	500	101	19.2

ACTIVE, OBSOLESCENT, AND OBSOLETE PLANES AND ENGINES ON HAND MARCH 15

(Prepared by Statistics Branch - General Staff, War Department, April 12, 1919)

The air Service has divided all planes and engines into three classes - "Active", "Obsolescent", and "Obsolete". The following table shows the number of engines and planes on hand for each class according to revised figures:

	NUMBER				PER CENT		
	New	Used, but in flying condition	Out of Comm.	Total	New	Useable	Not Useable
ACTIVE							
Service engines	9,725	412	277	10,414	93	4	3
Service planes	9,264	198	150	2,612	86	8	6
Training engines	1,997	491	155	2,643	76	18	6
Training planes	740	1,019	344	2,103	35	48	17
OBSOLESCENT							
Training engines	4,541	4,417	1,900	10,858	42	41	17
Training planes	498	1,854	552	2,904	17	64	19
OBSOLETE							
Engines	1,638	116	1,009	2,763	59	4	37
Planes	1,037	68	913	2,018	51	4	45

AIR SERVICE CONTRACTS CANCELED AND SUSPENDED, OVER $500,000,000

(Prepared by Statistics Branch, General Staff, War Department, April 12, 1919)

During the week ended April 5, 1919, the total Bureau of Aircraft Production obligations were reduced over $4,000,000 making a total of canceled and suspended contracts of $500,679,617 since the armistice. The following is a summary of the value of cancellations and suspensions of contracts through April 5, 1919:

	Value	Per Cent of Total
Engines and Spare parts	$275,616,187	55
Airplanes and spare parts	166,081,004	33
Chemicals and chemical plants	18,334,715	4
Instruments and Accessories	10,868,841	2
Balloons and Supplies	9,314,963	2
Fabrics, lumber and metals	7,228,778	1
Miscellaneous	13,235,129	3
Total	$500,679,617	

CHANGES OF STATION

The following named field officers have been ordered to change station as follows since April 3, 1919.

Ordered April 4, 1919

Lieutenant-Colonel Joseph E. Carberry, A.S.A., ordered from Army General Hospital, Hot Springs, Arkansas, to Rockwell Field, San Diego, California.

Ordered April 5, 1919

Major Harry E. Cross, A.S.A., ordered from Garden City, Long Island, New York, to Dayton, Ohio.

Ordered April 7, 1919

Colonel Joseph C. Morrow, A.S.A., ordered from Cooperstown, New York, to Washington, D.C.

Lieutenant-Colonel Earl L. Canady, M.A., A.S.A., ordered from Washington, D.C., to San Francisco, California, thence Philippine Islands, for duty as Department Air Service Officer.

Ordered April 9, 1919

Lieutenant-Colonel Ira A. Rader, J.M.A., A.S.A., ordered from Ellington Field, Houston, Texas, to Americus, Georgia, to assume command of Souther Field and Aviation General Supply Depot.

Ordered April 10, 1919

Lieutenant-Colonel John N. Reynolds, J.M.A., A.S.A., ordered from Godman Field, Camp Knox, Stithton, Kentucky, to Washington, D.C.

Major Chester P. Dorland, J.M.A., A.S.A., ordered from Rockwell Field, San Diego, California, to Post Field, Fort Sill, Oklahoma.

Ordered April 12, 1919

Major Ralph P. Cousins, J.M.Aer., A.S.A., ordered from Payne Field, West Point, Mississippi, to Ellington Field, Houston, Texas.

Major Eugene Lazar, A.S.A., ordered from Washington, D.C., to Brooks Field, San Antonio, Texas.

PERSONNEL ITEMS

Colonel William H. Wilmer, M.C. who reported to Director of Air Service April 3, 1919 has been assigned to Administrative Staff.

First Lieutenant William H. Cosgrove, Ordnance, has been ordered to proceed from Washington, D.C., to Aberdeen Proving Grounds, Aberdeen, Maryland, on temporary duty, for the purpose of witnessing and firing of Baldwin Gun with reference to its adaptation for aerial use.

Major Warren P. Jernigan, Junior Military Aviator, Air Service Aeronautics has been ordered to Eberts Field, Lonoke, Arkansas; thence to Barron Field, Everman, Texas; Love Field, Dallas, Texas; Kelly Field, San Antonio, Texas; thence to Ellington Field, Houston, Texas; and Park Field, Millington, Tennessee, on temporary duty for the purpose of conference with Field Commanders regarding flying training.

Colonel Chalmers G. Hall, A.S.A., has been ordered to proceed from Washington, D.C., to Hazelhurst Field, Mineola, Long Island for the purpose of inspection of Engine Plant at Wright-Martin Aircraft Corporation.

Captain Raymond C. Pierce, A.S.A., has left Akron, Ohio, for Post Field, Fort Sill, Oklahoma, in connection with tests of Pierce Gun.

Lieutenant Colonel Leslie MacDill, Military Aviator, A.S.A., left Washington, for Langley Field, Hampton, Virginia recently.

First Lieutenant Robert S. Olmstead, Air Service Aeronautics, was ordered from Washington, to Fort Monroe, recently, for the purpose of testing Helium Balloon, and Sextant Instrument for measuring horizontal angles.

PERSONNEL BOARD

A Board of Officers to consist of the following personnel has been appointed to consider such matters affecting the personnel of the Air Service as may be brought before it:

Colonel Thomas De W. Milling, Military Aviator, Air Service Aeronautics
Lieutenant-Colonel Rush B. Lincoln, Air Service Aeronautics
Lieutenant-Colonel Daniel M. Cheston, Junior, Air Service Aeronautics

Major Horace M. Hickam, Junior Military Aviator, Air Service Aeronautics
First Lieutenant James A. Healy, Air Service Aeronautics, Recorder

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NEW R.M.A's.

The following-named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain William S. Reyburn, A.S.A.	January 27, 1919
Captain Daniel Buckley, A.S.A.	March 28, 1919
Captain William M. Marrs, A.S.A.	March 28, 1919
First Lieutenant Maurice L. Buell, A.S.A.	March 14, 1919
First Lieutenant Edwin A. Russell, A.S.A.	March 14, 1919
First Lieutenant Langhorne W. Motley, A.S.A.	March 28, 1919
First Lieutenant William H. McCullough, A.S.A.	March 28, 1919
First Lieutenant Tasso V. Orr, A.S.A.	March 28, 1919
First Lieutenant Robin A. Day, A.S.A.	March 28, 1919
Second Lieutenant Harold F. DeLacour, A.S.A.	March 28, 1919
Second Lieutenant Kenneth K. Wooling, A.S.A.	March 28, 1919
Second Lieutenant Mark D. Bohen, A.S.A.	March 28, 1919
Second Lieutenant William Scott, Junior, A.S.A.	March 14, 1919
Second Lieutenant Charles B. McNeil, A.S.P.	March 28, 1919
Second Lieutenant Roy M. Andrews, A.S.A.	March 28, 1919
Second Lieutenant William S. Blakely, Junior A.S.A.	March 28, 1919
Second Lieutenant Clifford C. Stevens, A.S.A.	March 28, 1919
Second Lieutenant Dewey H. Miller, A.S.A.	March 29, 1919
Second Lieutenant Edward E. Hildreth, A.S.A.	March 29, 1919
Captain Walter R. Lawson, A.S.A.	March 24, 1919
Major Louis B. Knight, A.S.A.	March 31, 1919
Captain Albert C. Lord, A.S.A.	March 31, 1919
First Lieutenant Charles H. Schumacher, A.S.A.	March 31, 1919
Second Lieutenant Ivan L. Proctor, A.S.A.	March 31, 1919
First Lieutenant James B. Kelsey, A.S.A.	March 29, 1919
First Lieutenant Benton A. Doyle, A.S.A.	March 15, 1919
(Former First Lieut.) Howard F. Baxter (A.S.A.)	Dec. 19, 1918

OBSERVERS

The following-named Officers, having completed the required course, are hereby rated as Observers:

First Lieutenant Sidney P. Le Boutillier, A.S.A.
First Lieutenant James P. Carberry, A.S.A.
Second Lieutenant Glennen K. Vars, A.S.A.
Second Lieutenant Benedict Fox, A.S.A.
Second Lieutenant Jerry L. Bennett, A.S.A.

HONORABLY DISCHARGED

The following officers are honorably discharged from the Service of the United States:

Thomas J. Naughton, Second Lieutenant, A.S.A.
Charles R. Jacobus, First Lieutenant, A.S.A.P.
Harold R. Eyrich, Major, A.S.A.
Irwin Wheeler, Second Lieutenant, A.S.A.
Paul B. King, Captain, A.S.A.
Robert Marsh, Jr. Major, A.S.A.
Edwin J. Fredell, Captain, A.S.A.P.
Wilson S. Zimmerman, Second Lieutenant, A.S.A.P.
Edwin F. Kingsbury, Captain, A.S.A.P.
Alvin C. Goetz, First Lieutenant, A.S.A.P.
Charlie D. Coleman, Second Lieutenant, A.S.A.P.

Lt. Prambli

Vol. II AIR SERVICE NEWS LETTER V-202

Information Group APRIL 26, 1919 Building D
Air Service Washington, D. C.

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

SOUTHEASTERN AERO CONGRESS

The Army Air Service will participate in the Southeastern Aeronautical Congress, which is to be held in Macon, Ga., May 2 to 10, it was announced today.

Major General Charles T. Menoher, Director of the Air Service and Brig. General William Mitchell, Chief of Operations, will speak. General Menoher will attend the conference on Monday, May 5 and on that day also, it is declared, Brigadier General L. E. O. Charlton, British air attache, will be the guest of the Congress.

According to information obtained by the Air Service, the Macon congress is the result of a widespread movement among municipalities looking toward the establishment of landing fields suitable for use as military or postal terminals while being developed, of course, as commercial centers.

The idea was first broached to the Director some weeks ago. The Macon Chamber of Commerce queried 300 commercial organizations in the states south of the Ohio river and east of the Mississippi and to date 243 of these have signified their intention to send delegations of from five to twenty-five persons. In addition, delegates are to be sent by some two score cities. Four Governors of states and a number of Senators and Representatives, according to information supplied by the congress, are to participate in the meeting.

The Director of the Air Service has had in preparation specifications for standardized landing fields and these data are to be made public at the time of the Macon congress. The military authorities, cooperating with the Post Office Department, are desirous of providing the proper information to all municipalities desirous of establishing landing fields.

The Air Service, on the invitation of Otto Praeger, second assistant postmaster general, is investigating the feasibility of establishing an experimental air mail route from Macon to Montgomery, Ala., a distance of 150 miles. Mr. Praeger, it is also declared, will attend with Macon congress and will address the delegates on the development of the aerial mail.

The Air Service is arranging an extensive exhibit of airplanes, parts, motors, photographs, etc. Major Junius Houghton, now in command of Carlstrom Field, has been ordered to Macon, where he will have charge of the army's flying demonstrations, which will consist of squadron exhibitions, voice control, gunnery, etc.

NEW AIR RECORD

Captain Earl French White, Air Service flew a D. H.4 plane with a Liberty motor from Chicago to New York without a stop on Saturday, April 19, in 6 hours and 50 minutes. He left Chicago at 9.50 A.M. and landed at Mineola, N.Y. at 4.40 P.M. With him was Mechanician H. M. Scheafer.

Captain White is an experienced pilot, previous to being commissioned he was a flying instructor at San Diego. He had three years experience in the cavalry before he enlisted in the Aviation Section of the Signal Corps in 1915. He received his pilots license on March 27, 1917. He was commissioned as a Captain in the Aviation Section November 8, 1917, and in January 1918 qualified as a Reserve Military Aviator. In August he was stationed at Wilbur Wright Field, and later at the Technical Flying Field, at Dayton, Ohio. His home is Fairhope, Alabama. Captain White was born in Minneapolis, Minn., July 12, 1888.

ARMY MOTOR VEHICLES

The Transportation Section announces that:

This office has been informed that the Chief, Motor Transport Corps, has been ordered to sell not less than thirty thousand motor vehicles of various kinds. No announcement as to the manner of their sale has as yet been made but it will probably be in conformity with the plan outlined in a previous publication, to wit:-

> "First, to manufacturers (each manufacturer to be offered the cars made by him);
> "Second, the net surplus remaining after the above method has been followed will be disposed of to the public, either through auction or by sealed bids."

M E N W A N T E D
for the
A I R S E R V I C E

IF YOU ARE AMBITIOUS YOU CAN NOT AFFORD TO OVERLOOK THE OPPORTUNITIES IN THE AIR SERVICE.

The Government is giving FLYING TRAINING to ENLISTED MEN, as well as a complete course in AVIATION MECHANICS, FABRIC WORK, RIGGING, WOODWORKING, and MOTOR MECHANICS.

THIS IS AN OPPORTUNITY OF A LIFETIME. AEROPLANES HAVE COME TO STAY.

There will always be a large demand for skilled aeroplane pilots and mechanics. NOW is the time to learn at the GOVERNMENT'S EXPENSE.

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HERE ARE SOME OF THE REASONS WHY YOU CAN NOT AFFORD TO OVERLOOK THIS OPPORTUNITY TO JOIN THE U.S. ARMY IN THE AIR SERVICE, AERONAUTICS DIVISION.

1. Highest branch of the Service.

2. An enlisted man has the opportunity of attending a Training School, where a three months' course is given in airplane construction, repair of and upkeep of airplane motors, and woodworking. In view of the fact that the airplane will without question be used to a very large extent commercially, the knowledge gained while in the Army could be put to very good advantage in civil life should the soldier desire to return to civil life after serving with the colors for three years.

3. Attention is also brought to the fact that the average salary for men between the ages of 20 and 25 years of age equals about $885 per annum. Compare this with the pay and allowances in the Army, figuring as follows, which is conservative:

Private —Pay per annum	$360.00
Room and Board—$40.00 per month	480.00
Clothing	170.00
	$1,010.00
Sergeant, figuring on same basis as above	$1,178.00
Sergeant, first class, figuring on same basis as above	1,262.00
M.S.E., figuring on same basis as above	1,610.00

After having completed a course at school a soldier has the opportunity of taking an examination for appointment as Aviation Mechanic, which when successfully passed gives an increase of 50 per cent per month to salary.

In addition to the above, free entertainment and athletic events are held, free medical attention, excellent opportunity for travel. You also have an opportunity of taking flying instruction, and after the prescribed course has been finished, which generally requires three months, you are entitled to an additional 50 per cent increase in pay. This additional pay does not apply, however, if you have been appointed to the grade of Aviation Mechanic.

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RECRUITING OFFICER AND EXPERIENCED AVIATORS WILL BE AT GOVERNMENT FIELDS AND PRINCIPAL CITIES. WATCH FOR THEM. BE SURE AND SEE THE EXHIBITION OF FLYING. ACROBATIC STUNTS AND ALL KINDS OF EXCITING AND THRILLING FEATS WILL BE PERFORMED BY TRAINED AVIATORS.

BUREAU OF WAR RISK INSURANCE

Services of medical specialists have been secured by the Bureau of War Risk Insurance for the care of disabled soldiers. The work of providing free treatment for men who were in the service during the war with Germany and who can trace their disability to the line of duty has been subdivided into seven sections by Colonel Charles E. Banks, chief of the medical Division of the the Bureau of War Risk Insurance. Under the direction of the United States Public Health Service there is being expended an appropriation of $9,000,000 for the purchase, remodeling and equipment of hospitals in which the Bureau of War Risk Insurance places its soldier patients.

Hospitals which will do the work of the Bureau of War Risk Insurance, and which will be operated by the United States Public Health Service, will be established to care for tuberculosis, neuro-psychiatric, eye, ear, nose and throat, prosthetics, internal medicine and miscellaneous cases. Disabled men will be sent to hospitals where there is complete equipment for their particular needs and which are staffed with specialists.

Colonel Banks has secured men who are acknowledged authorities in their line to head the specialized work. The specialists who have been assigned are Major J. C. Foltz, tuberculosis; Surgeon W. L. Treadway, United States Public Health Service neuro-psychiatric; Lieutenant Colonel Fairfax Irwin, military surgery; Capt. C. S. Chapelle, U. S. A., eye, ear, nose and throat; Dr. D. O. Smith, prosthetics; Surgeon G. A. Kempf, United States Public Health Service, internal medicine; and Dr. J. C. Douglass, miscellaneous practice.

Chiefs of the several subdivisions carrying on the medical work of the Bureau of War Risk Insurance will cooperate in their work with national bodies which are constantly doing research work along particular lines. The National Tuberculosis Association and the National Neurological Association have already cooperated to a considerable degree with the Bureau of War Risk Insurance in its work of caring for the disabled soldier.

Rest Haven, a sanatorium at Waukesha, Wis., built for private practice and equipped with all facilities, has been taken over for the work of the Bureau of War Risk Insurance and will be devoted to the needs of men suffering mental and nervous disorders. When constructed Rest Haven was intended exclusively as a sanatorium for wealthy private patients and it was through a fortunate combination of circumstances that the government acquired it. Rest Haven has 250 beds and 250 private rooms. The furnishings of the hospital were chosen with a view to harmony which would have a pleasing effect upon those suffering from nervous diseases. It is equipped with a huge solarium furnished with oriental rugs and decorated with tropical plants. In these surroundings the patients of the Bureau of War Risk Insurance will receive treatment.

"SENSATIONS ON MY FIRST TRIP IN A PLANE"

Lieutenant Rema J. Henderson of Souther Field says: "Some one asked what the sensations of a novice were on his first flight. I imagine they all feel different. I did in a lot of ways. No one ever told me they had the same sensations, so I'll just give a few details.

'I had been in the Air Service a year before asking for a flight. Most of that time had been spent at Kelly Field, Texas, where in company with other ground men, we watched aviators floating overhead till we acquired sunburn on the roofs of our mouths. At that time the war was going fine and fliers were too busy to be bothered by giving out joy rides. If one was approached on the subject his answer was, to paraphrase George Ade's remark, 'Cripples and kee-wees stand back from the ropes.'

"Time passed on, in its well known manner, and eventually some of us arrived at Souther Field. The war was rapidly changing from current events to ancient history and pilots were not rushed with work, so I asked for and received permission one day to "go aloft.' All the fliers were willing to have a passenger and each promised his best efforts to instruct us for the afternoon.

"The one selected rigged me out with helmet, goggles and leather coat and strapped me into the seat. The care he used in fastening my safety belt and the smile he wore while doing so caused me to tell him that I was not anxious to observe all he knew in one afternoon, also that my relatives at home were busy at this season of the year and would not care for my company if I came home in sections.

"He climbed into the front seat, put on the power, and the works began to hum. We skimmed over the flying field, touching as lightly as thistle - down and getting lighter. Then we started up, after ascending for a moment I began to feel that my only connection with the Government was my insurance. I tried to arrange my breathing so it would not occur too often. It was essential that the ship stay up and I didn't want to use all the air.

"In what seemed a remarkably brief time the instruments registered 4000 feet. The pilot registered his intention of stunting, and I registered hope.

"We went through a series of banks and dips, and rises, and came out level. The pilot screamed back at me that we had performed a 'Falling Leaf'. If I were a leaf I should try and be a rose leaf so when it came time to fall the altitude would be practically negligible.

"I did not have time to say anything, for I caught the word 'Immelmann' and we had started. It only lasted a fraction of a moment, which was the chief recommendation of that evolution. As a discoverer Immelmann left Columbus in the kindergarten class, but I'll bet the first time he made that turn he came down and asked the bystanders what he did. I hope all the readers of this have seen an Immelmann turn because I'm not going to describe it. I would have to stop and draw a picture.

"Everything seemed to be pleasing to the pilot so he did a series of loops. I didn't see all of them because I was inspecting the inside of the ship. There was too much scenery outside to look at just then, also I began to have a suspicion I had eaten something that did not agree with me. My interest in aerial observation seemed about to drop below par, but we had completed the loops and taken part in a beautiful spin--the pilot said. I did not see any of it, I was too busy trying to convince my dinner not to pass in review.

"We were coming down. I could see the altimeter dropping off the feet by the hundreds. We were tipped to one side so I knew we were 'side-slipping' in. I looked over the edge and the ground was coming up with surprising celerity. I wished my Sunday School record had been better, then I pictured the old home, and the shade in front and remembered the neighbors who used to gather of an evening but all those things seemed long ago-- and far away. Just then we leveled out, and settled down and made a beautiful landing. I know we did, any landing would have seemed beautiful. I climbed out and pushed my vital organs down out of my throat into their normal position, and began breathing again and when the pilot came up and asked me how I enjoyed it I looked him calmly in the eye and said in my smoothest manner, "Fine, Lieutenant, ain't it a grand and glorious feeling,' And--I'm going up again."

--From the Kelly Field Eagle,
April 3, 1919.

AIRPLANE VS. TRAIN

Kelly Field has again illustrated the necessity of the airplane as a commercial factor.

The Mexican Trades Delegation, composed mostly of Texas business men, in making a tour of Mexico for the purpose of encouraging and arranging for trade relations, had assembled in San Antonio under the direction of the Chamber of Commerce. All arrangements had been completed late Friday night and the party had boarded the Special train, on the I & G.N. R.R., which was to take them on their pilgrimage, when it was discovered that nine of the passports had not arrived. Telegraphic permission was secured immediately, pending receipt of the passports, and the train started for the border.

Saturday morning the Secretary of the Chamber of Commerce called up the field explaining the situation and stating that the passports had been received from the State Department, in Washington, and asking if it would be possible to dispatch a courier by airplane, with the missing documents.

Colonel Fechet, Commanding Officer of Kelly Field, immediately responded and at two o'clock Lieutenant H. S. Kenyon, accompanied by a mechanic, left by plane for Larede. Owing to heavy low clouds, and to the smallness of the landing field at Larede. Lieutenant Kenyon was forced to use a Curtiss J.N.4 Canadian, equipped with a four hour tank, in the face of a twenty mile wind. The 150 mile trip was made in remarkably good time, three hours and twenty minutes. The passports were delivered to the Custom Officer and the Trade Delegation was free of all encumbrance.

The return trip was completed in two hours and twenty minutes, Lieutenant Kenyon flying at a higher altitude and taking advantage of a thirty-five mile wind.

LIEUTENANT COLONEL CLAUDE K. RHINEHARDT RETURNS TO KELLY FIELD

Lieutenant Colonel Claude K. Rhinehardt, former Officer in Charge of Flying at this field, who was seriously injured March 22nd, when the ship in which he was flying fell from a height of about 50 feet, near Penn Field, Austin, Texas, returned to this field Monday March 31st.

At the time of the accident, Colonel Rhinehardt was taken to the Seton Infirmary, and the careful attention given him there, can be attested to by his rapid recovery. However, he is still far from being fit for duty, and has left the field on a 30 day leave.

DISCHARGED MEN TO HAVE FLIGHT BEFORE LEAVING FIELD

The Flying Department at Kelly Field has made arrangements to give enlisted men a ride when they are about to be discharged, and it is with keenest interest that they come into the office and arrange for their flights.

SOUTHER FIELD NOTES.

A committee of four prominent Thomasville, Ga., citizens motored to Souther Field, recently for the purpose of securing a flight to that town on April 26th. They took back with them, Lieutenant John MacRae, through the courtesy of Major Schofield, to advise on the proper selection of a landing field. The visitors were Mr. E. R. Jerger, Editor Times-Enterprise, F. B. Harris, R. G. Mays and J. C. Vaughn. Thomasville's enterprise is admirable.

On April 19th, the third Souther Field Victory Loan squadron left for Atlanta to cooperate with the flying circus there and distribute literature enroute. Four Souther Field Victory Loan squadrons left Souther Field this week to cover Georgia and surrounding states.

WAR DEPARTMENT OFFICIAL FLIES TO NEW YORK ON OFFICIAL BUSINESS

The War Department authorizes the publication of the following:

Douglas H. Allen, confidential assistant to the Secretary of War left Washington on April 18th, for New York City in an Army airplane. He will confer with Victory Loan officials in New York concerning details of the War Department's cooperative activities in connection with the coming loan drive. The flight was made in a DH 4, piloted by Lieutenant L. A. Smith.

It is anticipated that, as a part of this cooperation of the War Department with the Victory Loan Committee, airplanes will often be used for the transaction of business between Washington and New York.

FOURRAGERES

The War Department authorizes publication of the following cabled communication from the Commander-in-Chief, of the American Expeditionary Forces:

The following organizations have been awarded French Fourragere to date.

Of colors of ribbon of Croix de Guerre:

103rd Aero Squadron, SSU 539 and SSU 625.

Of colors of ribbon of Medaille Militaire: SSU 646.

(NOTE: S.S.U. is the designation for Ambulance units, known as "Sections", serving with the French Army.)

TWO AERO UNITS TO RETURN

The 105th and 103d Aero Squadrons are due to arrive in New York from overseas on April 28th.

VICTORY BUTTONS

Circular
No. 187

WAR DEPARTMENT,
Washington, April 14, 1919.

1. A lapel button to be known as the Victory Button, for wear on civilian clothes, will be issued to all officers, enlisted men (excluding members of the Students' Army Training Corps), field clerks, and members of the Army Nurse Corps, who served honorably on active duty in the Army of the United States for a period of fifteen days at any time between April 6, 1917, and November 11, 1918. The button will be of silver for those wounded in action, and bronze for all others.

2. For the present, the Victory Button will be issued at time of honorable discharge to those entitled to it and to those who have already been honorably discharged. Later, the button will be issued to all remaining in service entitled to it.

3. Those who have been discharged before a supply of buttons was available for issue may secure a button by mailing to the supply officer of the nearest military post, camp or station, including a recruiting station, their original discharge certificate or a true copy thereof prepared on the form provided for the purpose, or, in the case of officers to whom no discharge certificate was issued, their discharge order or a true copy thereof. The true copy of a discharge certificate or of a discharge order must be executed by a civil officer empowered to administer oaths and be a full, literal and complete copy of the original and contain all written or printed matter appearing on both sides of the discharge certificate or discharge order. The certificate of the civil officer must be in the following form:

"I certify that the foregoing is a true and complete copy of the original discharge certificate (or discharge order) of _____ _____, and contains all written and printed matter appearing on both sides of the discharge certificate (or discharge order).

I further certify that I have indorsed on the original discharge certificate (or discharge order) over my signature the following in words and figures:

True copy made by me .....(date).....191.... for purpose of securing a Victory Button by mail."

4. Necessary blank forms (Form No. 704, A.G.O., for enlisted men, and Form No. 704-1, A.G.O., for officers) for preparation of true copies of discharge certificates will be furnished by the War Department and may be obtained when the supply is available from the supply officer of any military post, camp or station, including a recruiting station.

No blank form for preparation of true copies of officers' discharge orders will be furnished.

5. When the supply officer issues a Victory Button, he will indorse on the discharge certificate, discharge order, or true copy of discharge

certificate or discharge order, the fact of issue and kind of button issued.

6. Commanding officers will give this circular the widest publicity possible in the local press.

By order of the Secretary of War:

PEYTON C. MARCH,
General, Chief of Staff.

Official:

J. T. KERR,
Adjutant General.

ONE FLYING FATALITY

The War Department authorizes publication of the following statement:

One fatality in flying during the week ended April 10, 1919, at Langley Field, Hampton, Virginia.

PHOTOGRAPHIC MAPPING FROM THE DIRIGIBLE

According to Colonel James Prentice the dirigible is the ideal vehicle for photographic mapping in that it can rest in midair, proceed at very low speed, and can be raised or lowered easily to any altitude desired. These are very important considerations for the careful aerial photographer who is looking for the exact angle and height from which to take pictures. The war helped to give aerial photography an impetus it would never have received in any other way, and as a result of the amazing developments brought about, a new peace-time industry is not only possible but highly probable -- aerial photography. By means of this new method of survey, hitherto impenetrable and therefore uncharted regions, may be mapped photographically. The making of comprehensive progress and valuation reports also will be possible. The dirigible or blimp as it is sometimes called, is especially well fitted for such work and there is no doubt that it will figure prominently in this new line of endeavor.

No aspersions are cast on the aeroplane as a medium for aerial photographic work particularly in War; in certain kinds of reconnaissance particularly where speed is the essential thing as in war photography, it is in a class by itself; but in peace-time uses the lack of suitable landing places will make it impractical in many cases. For instance, for every mile of distance away from a landing haven, 1000 feet of altitude are necessary for safe landing in case of engine trouble. The landing place also must be flat and smooth. To-day photographic mapping will be wanted of swampy, rocky, wooded and mountainous regions where heretofore no comprehensive surveys have been possible, and no flat, clear spaces will be available. The lack of suitable landing places for the aeroplane in such regions, therefore, will make this type of aerial vehicle very difficult to utilize. The expense for the rental of such flat landing areas in inhabited regions would also be a deterrent factor for the

aeroplane when photographs were required of these regions.

The dirigible, particularly the small type suitable for use in aerial photography, on the other hand can be moored to a mast or tower or to a large tree, made into a mast when necessary, while the hangar, located at the base of operations, may be used only as a "dock" or repair shop. Shelter is not absolutely necessary for dirigibles. During the war in England, dirigibles away from the front were moored outside for months without damage. If a landing is desired it can be accomplished on calm days in an area as small as ten acres, not necessarily clear of shrubbery or stumps. Such land of course is not as expensive as that required for aeroplane landings. Dirigible bases may be maintained on property adjoining railroads, rivers, etc., so that problems of transportation are simplified.

One can readily see, therefore, that the dirigible has great advantages over the aeroplane in the matter of landing facilities. In duration of flights the dirigible is especially advantageous. Four or five hours of work in an aeroplane as a photographic ship uses up all the gas, and is about the limit that the pilot can endure at one time. The nervous strain for longer flights is very fatiguing. In a dirigible there is no such strain. A pilot and the photographic operator and his assistants may be up in the air for thirty hours or more if necessary without worrying about landing.

A feature of the dirigible that lends itself especially to photographic work is the ease with which a small dark room may be added to its equipment, and for the purposes of photographic development the ordinary water ballast could be used. This feature would be a great convenience to the photographer, for it would enable him to experiment at different altitudes and with different cameras and different plates to get the best results for the type of day and kind of territory being photographed. Added to this convenience is that of freedom of movement and the great cruising radius.

As every one knows who goes up in the air, there is a certain haze which hovers near the earth's surface, objects tend to blend and it is accordingly harder to pick out objects because of lack of what the photographers call contrast. When an airship gets up to heights of 10,000 feet on certain days the haze is so dense as to cut off almost entirely one's view of the earth. By means of specially prepared panchromatic plates (ordinary plates are sensitive to blue light only, these are sensitive to all colors of light) and color filters, which exclude the predominating blue light of the haze, or cut it down and permit the penetration of other colors, excellent pictures of true and shade value are obtainable. The photographer may want to experiment with his filters or his plates to get the correct penetration of the haze below him. This is made easily with the small dark-room in the dirigible and pictures of the best quality for the work at hand can be obtained.

Where the dirigible is used to get special airship views of large building projects for progress reports, or of large manufacturing plants or institutions for advertising pictures, there is one position and altitude where the best picture can be obtained and because of the flexibility of the dirigible its operator can maneuver it about until the photographer is absolutely satisfied this position has been found before he exposes his plates. This flexibility of operation and the slow speed possible also enables the photographic observer to study the lay of the land below him at his ease and be more thoroughly convinced when that position is secured.

Because of the lack of vibration and the necessity of going up to high altitudes to provide a safety factor in case of forced landings, the need of elaborate camera equipment is not so great. At the low altitudes in which a dirigible can fly, ordinary plate cameras or even hand kodaks can be used.

Furthermore, the absence of vibration and slower speed permit longer exposures when necessary on dark cloudy days.

A large field for dirigibles suggests itself in photographic mapping. At a height of 10,000 feet approximately two square miles of area may be photographed at each exposure. From lower heighths the area is proportionately smaller. By cruising over areas to be mapped and taking several successive exposures, the entire areas may be photographed. The resulting photographs later pieced together make an accurate mosiac. Trained draftsmen can trace this mosaic and make a map which would be absolutely correct. Up-to-date maps of the entire country could be obtained very quickly by this method. Present maps of isolated territories which took months to make, and are now inaccurate could be kept up-to-date.

Such mosaics would be of immense value for picking out all sorts of detail as foot paths, brooks, certain types of trees (determined by experts by their foliage) rocks, submerged sandbars and reefs etc. They would be of value for the sale of real estate and forested lands. Taken along the right-of-way of railroads, they would provide excellent valuation reports or assist in the survey of proposed lines and extensions.

Of course, the cost of dirigibles for use in commercial aerial photography is an important consideration and is quite high. Even a small dirigible will cost more than $25,000 and, if a shed is required, an additional $10,000 will be necessary. The British authorities found that it costs about $1200 a month to operate a ship. With the development of better fabrics, more efficient methods of inflation and repair the life of the ship can be lengthened to as much as three years.

Apparatus for the detection of leaks in the bags has become so efficient and the "dope" sprayed on by air guns, so effective, that there is not much loss of inflation gas. It is no longer difficult to obtain hydrogen since the process of hardening fats has becoming a well established industry in various parts of the country. The hydrogen can be provided at comparatively low prices and can be stored in iron bottles or cylinders until used. Helium is a far safer gas than hydrogen being non-inflammable and is coming to be used where absolute safety is required. This gas which has 95 per cent the lifting power of hydrogen is non-corrosive, can be compressed in containers and may even be compressed with air without the danger of explosions.

It is often erroneously believed that a large number of men are required to land a dirigible and that the cost of hiring these men would make the use of it prohibitive. This is not necessarily so. With a small dirigible such as would be used in photographic expeditions, twenty men could easily land it if the proper landing ropes and devices were provided and on calm days even fewer men could handle it. Since a dirigible can give warning of its approach and can hover or float over its landing place until the men below assemble, arrangements could be made with men from neighboring farms, mines, factories or other establishments to be on hand only at time of landing and departure.

The dirigible proved its worth in the war particularly in the detection of submarines when it proved more effective than seaplanes especially in playing the waiting game. The accompanying table, which gives comparisons of results accomplished by both the dirigible and seaplane in this important work, tells the story. With such evidence at hand one can readily see why the dirigible for photographic expeditions will be the superior aerial vehicle.

BRITISH AIRCRAFT

Comparison of Anti-Submarine Patrol and Convoy

work by Airships and Planes

		Airships	Planes	Ration in Favor of Airships
June-Dec. 1917	Patrols per craft	42	18	2-1
	Hours flying per craft	228	36	6-1
	Miles flying per craft	6452	2201	3-1
	Escorts flying per craft	6	1.6	4-1
Jan-April	Patrols per craft	37	17	2-1
	Hours flying per craft	241 hrs.	34 hrs.	7-1
	Miles flying " "	6316	2081	3-1
	Escorts flying	9	1.3	7-1
	Men per hour flight	2.3	4.7	2-1
	Hours flight per man	.65	.24	2-½-1
	Miles per man	52	47	---

SURPLUS PROPERTY BOARD

A Board of Officers to consist of the following personnel is appointed to determine the amount of surplus property of every kind in the Air Service:

Major Harry Graham, Junior Military Aviator, Air Service Aeronautics,
Captain Ralph J. Moore, Air Service Production,
Captain Louis B. Montfort, Air Service Aeronautics,
Captain Frazer Hale, Air Service Aeronautics.

Dirigible Pilot James F. Shade will proceed from Washington, D.C., to Akron, Ohio.

Construction and Electrical Engineer A.W. Duff, will proceed from Washington, D.C., to Langley Field, Hampton, Va., reporting upon arrival to the Commanding Officer, for temporary duty in connection with Photography of bomb sights and bomb trajectories.

R.M.A.'s

The following-named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain Lloyd T. Jones, A.S.A.,	April 3, 1919.
Captain James A. Langston, A.S.A.,	April 3, 1919.
First Lieutenant Hiram E. Wilson, A.S.A.,	April 3, 1919.

Lieutenant-Colonel John S. Sullivan, Air Service Aeronautics, is appointed a member of the Board of Officers created by Paragraph 7, Personnel Orders No. 27, Air Service, April 10, 1919.

Second Lieutenant Walter L. Perley, Air Service Production, will proceed from Washington, D.C., to Chicago, Ill., thence to Toledo, Ohio; thence to Swissdale, Pennsylvania; thence to New York City, New York, on temporary duty in connection with the Air Service of the Army, for the purpose of obtaining the history of Lawrence OX-5, Gnome and LeRhone aviation engines from the Manufacturers.

HONORABLE DISCHARGES

The following officers are honorably discharged from the Service the United States:

Clarence N. Walker,	First Lieutenant, A.S.A.P.
William P. Boyd,	Second Lieutenant, A.S.A.
Warren P. Gillelen, Jr.,	Second Lieutenant, A.S.A.
Charles I. Henderson,	Second Lieutenant, A.S.A.P.
Frank S. Welsh,	Second Lieutenant, A.S.A.
Edward J. Nolan,	First Lieutenant, A.S.A.
John H. Snyder,	First Lieutenant, A.S.A.
George E. Ramey,	First Lieutenant, A.S.A.
Roger D. Acker,	Second Lieutenant, A.S.A.
Carl H. Butman,	Second Lieutenant, A.S.A.

CHANGES OF STATION

1. The following named field officers have been ordered to change station as follows since April 14, 1919.

Ordered April 18, 1919.

Lieutenant-Colonel Harvey B. S. Burwell, J.M.A., A.S.A., ordered from Rockwell Field, San Diego, California, to Love Field, Dallas, Texas, to assume command.

Major Clinton W. Howard, J.M.A., A.S.A., ordered from Rockwell Field, San Diego, California, to Payne Field, West Point, Mississippi, to assume command.

Major Albert L. Sneed, J.M.A., A.S.A., ordered from Love Field, Dallas, Texas, to Washington, D.C.

Ordered April 21, 1919.

Major Jacob H. Rudolph, A.S.A., ordered from Chapman Field, Miami, Florida, to Selfridge Field, Mount Clemens, Michigan, to assume command.

Ordered April 22, 1919.

Lieutenant-Colonel Lawrence W. McIntosh, J.M.A., A.S.A., ordered from Selfridge Field, Mount Clemens, Michigan, to Ellington Field, Houston, Texas to assume command.

Ordered April 23, 1919.

Major John E. Russell, J.M.A., A.S.A., ordered from March Field, Riverside, California, to Hazelhurst Field, Mineola, Long Island, New York.

Vol. II AIR SERVICE NEWS LETTER V-246
Information Group
Air Service MAY 3, 1919 Building D
Washington, D. C.

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

(This Story Must be held for Release. It is for publication in morning papers of Tuesday, May Sixth, but not before.)

WAR DEPARTMENT AIR SERVICE ANNOUNCES OFFICIAL PLANS FOR CO-OPERATION WITH MUNICIPALITIES IN EXTENSION OF AERIAL NAVIGATION AND ESTABLISHMENT OF MUNICIPAL LANDING FIELDS.

The Air Service of the United States Army announced today, through the Southeastern Aeronautical Congress, the Government's official plan for co-operating with municipalities in the establishment of landing fields in all parts of the United States, thereby creating a system of aerial highways capable of use for military, postal and commercial purposes.

Simultaneously with this announcement it was made known that the Air Service hopes within the near future to aid in the laying out of air terminals in at least thirty-two cities and towns from the Atlantic to the Pacific and from the Canadian border to the Gulf of Mexico. These points range in size from New York City to Flatonia, Texas, and have been selected for the position they must take in any organized national system of air lanes.

Landing fields are to be of four classes, according to the importance of the city or its position with regard to military, postal or commercial uses. No field should be proposed unless it is capable of expansion, for the Air Service is looking ahead to the day when aerial navigation will challenge the older means of transportation and it is insisted that municipalities give thought to the future.

The Air Service announcement is in three parts: official policy, specifications for landing fields and classification of landing fields. In addition, there are blueprints illustrating exactly what a municipality, coming within a given class, should do. The announcement is declared to be the most important made since the actual establishment of an Air Service as it marks, it is pointed out, the adoption of a definite idea looking toward the development of aerial navigation in America along the unified lines of military, naval, postal and commercial activities.

The government is now taking steps to secure the cooperation of certain municipalities in the United States in establishing landing fields primarily for the use of the Air Service and the Aerial Mail, but in addition, for such local uses as may be determined upon through mutual agreement.

The development of aviation in the United States will be along both military and commercial lines. The Air Service, although concerned primarily in the military phase of aviation development, is nevertheless vitally interested in cooperation with and assisting any other legitimate agencies which are engaged in aerial activities. Foremost among these is the Post Office Department, which now finds it necessary to establish throughout the country terminal or way stations for its aerial mail deliveries, and which is jointly associated with the Air Service in presenting this project to the attention of your municipality.

The establishment of landing fields throughout the country, through cooperation between the Government agencies and the cities concerned, will certainly operate to the advantage of both the Government and the city, because in the rapid development of commercial aviation, those cities which have provided the primary facilities for operation of aircraft in their vicinity, will have paved the way for local benefits, resulting from the development of aerial inter-city transportation, express service, mail service, emergency service, and local photographic mapping or aerial protection.

In furthering this matter, the Government has adopted the following general policy:

(1) The Air Service and Postoffice Department will cooperate fully in establishing municipal landing fields.

(2) The Air Service will select the landing fields in cooperation with municipal representatives. The field selected must conform, as far as possible, to the general specifications contained herein and will be classed according to detailed specification hereto attached.

(3) The establishment of the field will be made in accordance with Articles of Agreement to be entered into between the United States Government and the municipality, - a tentative form of agreement being hereto attached. Neither the Air Service nor the Postoffice Department, the Government agencies mentioned herein, will deal with any private societies or associations in the matter of landing fields.

(4) At present the Government can cooperate only in the establishment of municipal flying fields at cities where the Postoffice Department established an aerial mail station and where the Air Service cross-country routes require intermediate stations. A study of the immediate requirements would indicate that the establishment of municipal flying fields will be confined at present to the following cities and towns:

Boston, Mass.
New York City, N.Y.
Richmond, Va.
Raleigh, N.C.
Columbia, S.C.
Augusta, Ga.
Macon, Ga.
Atlanta, Ga.
Kissimmee, Fla.
Mobile, Ala.
New Orleans, La.
Baton Rouge, La.
Beaumont, Texas.
Flatonia, Texas.
El Paso, Texas.
Texarkana, Texas.
Columbus, Ohio.
Tuscon, Ariz.
Phoenix, Ariz.
Yuma, Ariz.
Bakersfield, Calif.
Fresno, Calif.
Buffalo, N.Y.
Syracuse, N.Y.
Albany, N.Y.
Columbus, N. M.
Kansas City, Mo.
Oklahoma City, Okla.
Uniontown, Pa.
Daytona, Fla.
Cleveland, Ohio
Chicago, Ill.

(5) Although the Government must confine itself at present in cooperating in the establishment of municipal landing fields at cities where the aerial mail service requires stations or where stations are required for cross-country use of the Air Service, it is not intended that such limitation should in any way restrict the establishment of other landing fields at cities and towns where local conditions would seem to warrant such action. Wherever such independent action is considered, it is felt that the Air Service should be consulted in the selection of the field, in order that the landing field decided upon by the municipality may meet the specifications for a regular Air Service station, in case further developments lead to its incorporation in the net work of fields, which the Government assists in establishing.

The general specifications for a proper landing field may be stated as follows:

(a) The location of the field should be such that transportation to and from the heart of the city will not ordinarily take longer than half an hour.

(b) The fields should be situated adjacent to a good highway and be near to the city car lines.

(c) It should have public service utilities, such as electric light, water supply and sewerage.

(d) The field should permit of expansion.

(e) It should not be in a position where it is likely to be shut in by future building operations.

(f) SIZE: The minimum size of any field should be such as to allow a 600 yard runway in every direction, with no interfering obstacles.

(g) SHAPE: The field should be square or rectangular.

(h) MARKING: A circle 100 feet in diameter with a band 3 feet wide has proven most effective.

(i) GROUND: The ground should be smooth and firm under all weather conditions.

(j) APPROACHES: All landing fields should be free from surrounding obstacles, such as buildings, telegraph or telephone lines, trees, towers, etc.

(k) ACCOMMODATIONS: The field should provide such accommodations as telephone service, transportation, gasoline and oil supply and spare parts.

(6) The classification of fields will be according to the detailed specifications attached and may be stated in general terms as follows:

(a) First class landing fields are those which conform to the above general specifications in every way.

(b) Second class landing fields are those which conform to the general specifications in every way except that the shape of the field is neither square nor rectangular.

(c) Third class landing fields are those fields which are less desirable, owing to size and location, and which fail to meet the general specifications along the following lines: where the ground is such that a take-off can be made only under certain weather conditions; where accomodations do not include hangar space; where supplies are available only upon request; where the field is so situated that help can be available only on request. Third class fields must, however, have provisions for guarding airplanes and must have telephonic communications with the city.

(d) Fourth class flying fields are those which can be used only for landing in case of emergency.

The detailed specifications for these fields are hereto attached.

Should the municipalities mentioned in this letter decide to cooperate with the Government in the matter of establishing landing fields, the Government will obligate itself to furnish an expeditionary steel hangar to be erected in the city selected, but at the expense of the municipality. It will be understood that the landing field will be prepared at the expense of the municipality, which will also bear all the expense necessary in the procurement of personnel, and the maintenance of both the field and the accompanying equipment, exclusive of airplanes. Incidental matters relating to this project will, of necessity, have to be arranged at the time of the establishment of the field, and will be covered by written agreement to be entered into by the Government representatives and the local officials.

It will be necessary to maintain at least two men constantly on duty at the field, one of whom will be an expert motor carburation and ignition expert, and the other an airplane mechanician. The salaries of these men will amount to about $150 each per month. Additional personnel will be required according to the class of the field, the amount of activity thereat, and will be determined and procured from time to time, as necessity therefor arises.

THE NECESSITY OF A DESIRABLE LANDING FIELD AND AERIAL IDENTITY OF A COMMUNITY

Prominent cities and towns of the south are rapidly grasping the future ahead for aviation and the utilization of the airplane for commercial, official and pleasure purposes.

Many requests are coming in to the different Government fields for ships to visit respective towns and it is always the desire of the government and commanding officers to grant these requests and to assist in any way possible, both by suggestion and the sending of expert flyers to these towns to investigate the locality for proper landing facilities as this is of great importance to aviation.

Before the automobile could approach its zenith and universal use, counties began improving their roads and placing sign boards along the route with information where main towns were located and their distances; now comes aviation and its requirements are good landing fields and sign boards also; only those sign boards must be placed so they can be read from the air. In this respect a prominent building of the town or the station should have in large block letters (opposite color to the roof) painted on the roof the name of the town and also the distances to larger towns in direct line.

One of Souther Field, Georgia's flyers makes this suggestion regarding a proper landing field.

"A community desiring to be on an air route, and particularly the proposed aerial mail for all parts of the country, must offer as a chief inducement a desirable landing field. This proposition of a desirable landing field is far too permanent and serious to be guessed at and no effort should be left undone to perfect such a municipal landing field. A ship having to land on a poor field jeopardizes the life of the flyer and his passenger, as well as the ship. THE NAME AND SUCCESS OF A TOWN MEANS NOTHING TO AVIATION, BUT A GOOD LANDING FIELD WILL SERVE TO PUT THE SMALLEST AS WELL AS THE LARGEST TOWN ON THE AERIAL MAP TO STAY."

The following rules are published for the information and guidance of all concerned and all persons, committees, municipalities and organizations in charge of celebrations, State fairs, etc., at which government aeroplanes are to make exhibition flights, will be governed thereby.

1. A level field, clear of all obstacles, obstructions and ditches, to be not less than twelve hundred feet long by four hundred feet wide will be provided and marked. Said field will be clear at both ends of all obstructions such as trees, telephone or power lines and buildings.

2. The "T" or arrow for indicating the direction of the wind will be placed in the center of the field and kept pointed into the wind at all times. The "T" will be twenty feet long by three feet wide, and the end or "T" head will be six feet long by three feet wide. These "T's" are usually constructed of cheese cloth tacked on wooden frames, layed flat upon the ground.

3. The landing field will be kept clear at all times. No vehicles, spectators or stock will be permitted inside of the fence surrounding the field, and sufficient guards should be provided to enforce this requirement.

4. A guard will be maintained over the aeroplane at all times. When not in use the aeroplane will be roped off to a distance of five feet.

A progressive town with foresight ahead for aviation will arrange to have its field as near town as possible and also the field should be in close proximity to high test gasoline and oil.

EVOLUTION OF AN AVIATOR

The prospective aviator after submitting application, in proper form, is ordered to report to a hospital, where he stands the most rigid physical examination known to the Army; the examination for West Point not excepted.

If he is lucky enough to pass physically, he, in due course, is ordered to report to a Ground School, at which he is taught the various things that are essential for a Military flyer to know, wireless, aerial navigation, astronomy, artillery observation, etc. Also he is taught Infantry drill and Manual of Court Martial and kindred subjects that a future officer of the Army must know.

He is, at all times, under the strictest of military discipline, drills two or four hours per day, besides the "setting up" exercises.

He is examined weekly and two failures is sufficient to cause his namedto be dropped from the rolls, and his career is ended.

The course runs over a period of eight to twelve weeks (at present 12 weeks) and at graduation, our embryo "Ace" is sent to one of the primary training schools, where he usually has his first sight of an airplane in flight, which is an event of moment in his young and eager life.

After rather impatient waiting, during which he does his share of drilling, kitchen police and hiking (he thinks much more than his share) he finds his name on the flying list and reports for the "Great Event".

He has been anxiously awaiting this moment, talking and dreaming of it, for months, and so is naturally keyed up to the highest pitch of delight. He, at last, is really going to fly!

Rushing to the Supply room, he draws goggles, leather coat and helmet, dons them and reports to the Flying Instructor, usually a Second Lieutenant of long experience as a flyer.

The Instructor explains the action of the controls and directly the inspection of the Airplane (which he now begins to call a "ship") this is important and he is shown every fitting and other vital points and how to tell whether wires are at proper tension and fittings secure; not a nut, wire or bolt is passed up.

He is then ordered to climb into the seat and shown how to fasten the safety belt, the crew chief then swings the propeller at the order of the instructor and the engine starts; about this time our future hero isn't so awfully sure he wants to fly, however, the instructor tests out the motor and then signals to the mechanics to remove the blocks from the wheels, and they start, rolling along the ground, with much the same sensation as an automobile at high speed.

All at once the slight bumping of the wheels ceases and they are actually in the air.

The instructor, if not rushed, usually gives the new pupil what is called a "Joy Ride", though if he stunts, there is seldom much "joy" for the Student Flyer.

After this first ride, the student is taken to a safe altitude and given the controls; the instructor having a 'phone set in order to correct mistakes and give the proper instruction while flying.

The flight of an hour each morning continues until the Student has enough hours and develops enough skill to safely fly and land the "ship" then one eventful morning, after making a couple of landings, the instructor climbs slowly out of the front seat, gives a few last directions and our hero is told to fly the ship around the field and land it.

At the signal of the instructor, he opens up his engine, or as the flyer says, "Gives her the Gun" and is off for his first "Solo" ride.

This first ride alone is the real test, and if he succeeds in doing fairly well, he is passed to the 1st Solo Stage, where he practices "Take Offs" and "Landings" for an hour each day.

During this time he reports to the Flight Surgeon at certain intervals to see that he is in physical shape for flying and that he doesn't go "Stale", if so he is ordered to rest and recreation for a few days.

Having satisfactorily made the grades and flown the requested number of hours the Student is passed to the Second Solo where an instructor shows him how to do Figure Eights, Spirals and other Aerial Maneuvers, but no "Stunts" or more properly "Aerial Acrobatics".

The only "Stunt" so far, having been the famous and supposedly deadly, "Tail Spin" which his Dual Instructor taught him how to handle before his first Solo ride.

He flies the required number of hours and makes the proper grades on the second solo stage; by this time having become a fairly safe flyer, becoming more accurate and confident each day. Having seen instructors and others performing various acrobatics, such as the "Loop" "Immelman Turn", "Falling Leaf", "Vertical Reverse", "Whip Turn" and so on, and having secretly tried some of them himself, with small success, he is delighted beyond measure to reach the acrobatic stage, where an instructor takes him up and shows him how to do the various "stunts".

This stage is primarily for the purpose of instilling confidence in the young pilot and to instil, the assurance necessary to enable a pilot to fly his ship without conscious thought, as he has to fly by "Feel" and almost unconsciously in order to give his attention to his machine gun and the hostile aircraft when in combat.

After the acrobatic stage comes the Formation Stage in which our hero is taught to fly closely in conjunction with other students in the formations used in battle, such as the "V" like ducks in migration, and other defensive positions; this is very important as one poor flyer can ruin a formation and have the whole flight open to the attack of the hostile aircraft, also one must not stray away or fall behind his formation as the enemy is sure to pick you off. After being able to maneuver with ease he is ready for the test of all "tests" and if he can pass this, our hero will be entitled to wear the much coveted and greatly desired "Wings".

He is now a Pilot, but not by any means a finished pilot or expert pilot, being qualified only as pilot of certain types of machines.

Our hero, now is ready for Advanced Training, and is ordered as he desired and was recommended as a Pursuit or Fighting Pilot to a Pursuit School.

Here he is again put through a course or stage of acrobatics such as are used in combat or fighting work.

After this comes another high moment in our hero's life, his first "Scout" or "Single Seat Fighting Plane" with "Rotary Motor"; the type but less horse power, used over the lines on the Western Front.

Another pleasant stage is the "V C" (Voice Control) stage, where he goes up in a Scout, with a special helmet and a wireless telephone set in his ship; he plugs in his helmet connection and receives commands from an invisible voice to do certain things in formation flights.

He then comes as near to actual fighting as he will get before going over the lines for on the Combat Stage, he has a Camera Gun on his "ship" and goes up in a "Scout" to engage in actual (Camera Gun) battle with an instructor, who, is flying another "Scout".

They maneuver for position, each trying to keep the other from getting his sight in line for a shot, as the Camera Gun operates exactly like a machine gun, except that it takes pictures in place of firing bullets, and our hero, here has a great deal of the superfluous confidence taken out of him; he had a wonderful opinion of his flying ability until he hit this stage, but try as he will that blamed Combat Instructor seems to sit on his tail without an effort and it looks as if he can never shake him off and get into position to snap his own pictures; but after a few days pf practice and humble asking of questions of older flyers, he corrects his faults and succeeds in getting in a few hits with his camera gun, to his intense gratification.

In the afternoons, he is still studying machine guns and engines, as he has ever since he started and now he goes up to put the two results together; his flying and his machine gun practice.

He takes up Aerial Gunnery, and with a machine gun on his plane, goes up to shoot at Ground Targets, diving at the outline of an airplane on the ground.

Then he takes up a parachute, strapped under one wing, and releases that, shooting as many rounds at it as possible before it reaches the ground.

Then he and a partner go up and both shoot at the same parachute, After this he shoots at a target towed behind another ship, first alone, then with a partner, and then three on one target. When our hero has satisfactorily finished this course he is no longer the rather overconfident, somewhat boastful chap that thought, and didn't mind telling you that he was a wonder; but a quiet, self-confident, rather modest, but very efficient Pursuit Pilot, ready and eager for active duty "Over There".

Of such stuff are our present Aces.

WILLIAM G. KING,
2nd Lieut. A.S.A.

VISITORS TO AERONAUTICAL CONGRESS CAN HAVE OCULAR AND AURAL DEMONSTRATIONS OF WIRELESS TELEPHONE USED IN CONJUNCTION WITH AVIATION

Conversation by wireless telephones, which was one of the most spectacular developments of the war, and which was brought to its present state of efficiency by American genius, will be demonstrated in practical fashion at the Aeronautical Congress in Macon, which opens May 2nd.

Hundreds of persons who have read about the new art of communication and have accepted it perhaps with a bit of doubt, will hear with their own ears talk that passes through the air between stations widely separated from each other. During the exposition further demonstrations of wireless telephony will be given, the most spectacular of which will be the direction by voice command of maneuvers by airplanes flying in battle formation high above the Fair Ground.

The formation will consist of five airplanes, three of which are equipped with wireless receiving sets and the other two with both transmitting and receiving sets. The headquarters station on the ground will keep in constant communication with the whole aerial fleet and issue orders to the squadron commander who will then maneuver the entire squadron and by voice control the pilots.

The radiophones are one of the Army Air Service features of the exposition. The "Voice Control" demonstrations are to be conducted by the following officers: Lieut. J. C. Shively of Aberdeen, Maryland, and Lieut. V. H. Sinks of Houston, Texas. The formation is to be commanded by Lieut. Adams and the ground station by Lieut. Shangraw. These officers conducted a similar demonstration which was held at the Aeronautical Exposition in New York City. Every one who attended the demonstration in that city were impressed with the fact that wireless telephony has a boundless future. Now that aerial mail routes have been established and passenger carrying planes will be utilized in the near future, it will be necessary to have some means of communication; hence, the wireless telephone is not an experimental piece of apparatus, but a necessity. Long ago, an officer in Washington talked through the ether to Honolulu and recently the large wireless station at New Brunswick, N.J., carried on a one way conversation with President Wilson on board the George Washington in the harbor at Brest, France.

RAPID DEVELOPMENT NECESSITATED BY WAR

For years desultory experiments were made with wireless telephony, but success did not come until war needs spurred on the experimenters to increased efforts and speed. Lack of means of communication between the ground and airplanes in the sky was the problem which appealed to the inventors, and which they solved before the end of the war.

Wireless telegraphy was tried, but was not very satisfactory because it was a one way affair. The aviator could send messages, but could not receive them readily. Then the manipulation of discs suspended from the ships wings, and the maneuvering of the ships themselves, were used as signals as well as the dropping of bags containing written messages and the laying out of visible panels on the ground. But all these visual codes had the drawback that they could be used only for short ranges. Wireless telephone has proved successful over considerable distances, when the ships were far out of sight of those on the ground.

The history of the evolution of the wireless telephone begins some ten years ago with the experiments of R. A. Fessenden, who, with a crude instrument, demonstrated that the air would carry the voice for several miles. The present instrument which turned the tide of air victory, was made practical by the application of three separate inventions - - the generator invented by E. F. Alexanderson, the "Poulson Arc" and the vacuum tube invented and developed by Dr. Lee DeForest, To these should be added the oscillating tube by E. H. Armstrong, formerly of Columbia University, and assisting Prof. Puppin. All of these inventions were taken up and developed by various electrical companies. Particular credit must be given the Western Electric and the General Electric Companies.

HOW THE VOICE IS TRANSMITTED

The action of wireless communication is analogous to throwing a stone into a quiet pond. Immediately a series of waves appear on the surface of the water and spread out until they reach the edges of the pond. The larger the stone, the greater the waves and the further they travel. In similar fashion the atmosphere, permeated with ether, carries waves of vibration of electricity a greater or less distance, depending on the strength of the wave. It has been

...d that an electric discharge through space in a radio circuit, such as all wireless telephones and telegraph sets have, (these wires are commonly called antennae), discharges electric vibrations into surrounding space, which are caught at various distances by other sets of instruments. The example of the pond dealt with only surface movements; in the case of wireless transmission through ether, the messages permeate all space, going in every direction. The commercial possibilities of the radiophone are yet undreamed of. With the linking of the wire telephone and the radiophone, it would be possible for the people of one nation to know directly and intimately the people of far distant climes. It is certain that reasonably inexpensive communication by such wireless system is not only feasible but practical.

One of the great uses of the radiophone will be its work in commercial aeronautics. It is almost certain that in the development of aerial commerce by airplanes and dirigible balloons every ship will be equipped with a radiophone. The necessity of the phone in keeping in touch with commercial instructions is very apparent. Its greatest use will probably be with the commerce of the seas. The wireless telegraph is very extensively used at present, but the radiophone, when properly developed, will have many advantages which the telegraph does not have.

In Aerial passage from the American Continent to the European Continent, the radiophone, with the accompanying direction finder, will make possible the pilot's knowledge of his exact location by communication with land stations such as Arlington in our own country and similar high powered stations in different parts of the world.

It will also be practically useful for establishing communication across sparsely populated regions of the world where the ordinary telephone would be too expensive to establish and maintain.

A CLEAR LANDING FIELD FOR AVIATORS

In these days of Aerial exhibitions and Flying Circuses there is greater and greater necessity for the crowds gathered at the landing fields to recognize their responsibility to the fliers themselves. The city has provided open space for planes to land and take off and in this space the pilot must have the right of way.

On April 29th, at Sheridan, Wyoming, Lieutenant C. W. Getchell was forced to land with a dead motor shortly after taking off. The landing field, however, was so crowded with automobiles that it was only by the most skilful and heady piloting that he managed to bring his Spad to a standstill without damage to the plane or the machines. If there is to be safety for pilot and spectator, the "coast must be clear." Too much credit can not be given Lieutenant Getchell for his coolness and skill.

WORKING ON NEW AERIAL ROUTE

The Engineering Department at Kelly Field in cooperation with the Air Service is working on a new Aerial Route from San Antonio, Texas, to Yuma, Arizona. The first part of the work was to make a reconnaissance of the whole

territory before taking up the photographic work.

The work was started by Captain Giffin of the Engineering Department and he completed the work as far as San Angelo, Texas. Captain M. P. Taylor now has charge of the work from San Angelo to Yuma and it is expected that he will carry out the work in a very proficient manner. It will be several months before the work will be completed, as the work is difficult and requires much time.

The Aerial Photo Section of Kelly Field is a main factor in the making of the route, it being necessary that pictures be taken of the ground covered and the ground to be covered.

THE CARRIER PIGEON

The carrier pigeon has proven to be an indispensable factor in time of war. Not only on the ground, in carrying messages from the advance lines to the rear and as a means of liaison between troops in newly entrenched positions taken over from the enemy and their support, but also in the Air Service, delivering reconnaissance reports of vital importance.

The carrier pigeon has also proven its indispensability in Cross Country training, and every airplane that leaves Kelly Field, on an Overland trip, carries a trained pigeon. Upon arrival at his destination the pilot releases his pigeon, and the Flying Department is informed as to the pilot's where-abouts.

Instances have occurred where, owing to engine trouble or unforseen weather conditions, ships have been forced to land in uninhabited country, out of reach of telegraph or telephone connection. However, by means of his pigeon the pilot has been able to notify his home field as to his location and assistance has been promptly sent to him.

The care and attention paid to the health and protection of the carrier pigeons, is very interesting as they receive almost as careful medical attention as a human being. Every effort being made to keep the pigeons in healthy condition and to keep them well trained.

PRESENTATION OF BANNERS TO AMERICAN AIR UNITS IN FRANCE

On the afternoon of Saturday, April 12th, under the auspices of the "Pays de France" a ceremony was held at the Opera-Comique, Paris, at which banners of the organization known as the "Femmes Francaises" were presented to the American air units in France; one banner to each organization. Twenty-three balloon companies, which were serving with American troops at the front on November 11th, 1918, were each presented with one of these banners; these companies are: 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 24th, 25th, 26th, 42nd, 43rd, 44th, and 69th.

EXCEPTIONALLY MERITORIOUS SERVICE

The attention of the Director of Air Service is herewith invited to exceptional service rendered by M. E. Victor V. Allison, #1078007, Air Service Mechanics School Detachment, Kelly Field, Texas, on the occasion of the exhibition of the Victory Loan Flying Circus #2, Mid-West Flight, at Milwaukee, Wis.

The flying field selected, Washington Park, was surrounded with trees and houses on all sides, the field was also enclosed by a fence, inside of which on three sides was a trench, making it a very hazardous field.

Landings were made with great difficulty by all the Curtiss ships on exhibition and the entire personnel of the circus was greatly concerned over the great difficulty which would be encountered in the landing of the Scout planes. Three attempts were made by 1st Lieut. F. O. Carroll, A.S.M.A., piloting a Spad plane, to get on the ground. Each attempt was unsuccessful owing to the trees, fence, and ditch, surrounding the field. After each attempt the pilot again circled the field. Finally he succeeded in making an excellent three point landing within about two hundred feet from the end of the Field. The plane was rolling forward at an approximate speed of forty miles per hour and it was obvious to all that unless the plane was stopped or diverted the machine would be a total wreck and the pilot possibly injured. M. E. Allison rushed toward the plane and dove for the left wing, and grasping the same succeeded in diverting the path of the plane to the left and away from the fence and the ditch. He was dragged about seventy five feet.

This act was witnessed by the entire circus personnel and twenty five thousand spectators. It required great courage and absolute disregard of possible serious injuries. M. E. Allison received several minor bruises about the arms and body, but immediately resumed his regular duties as crew chief of his ship, which was another from that which he saved.

About five minutes after this act he participated in diverting a Curtiss plane in practically the same manner bringing about the same results.

HELIUM

Up to the present time all military and most other balloons have been filled with hydrogen. This gas, although giving the greatest lift which it is possible to secure, is so highly inflammable as to make the destruction of balloons by fire, not only in war time, but during operations under ordinary conditions, a serious matter. For example, the writer happens to know personally of twenty-six cases in which kite balloons or dirigibles have been completely destroyed by fire, caused by atmospheric or frictional electricity, during the last two years. Many attempts have been made to minimize this fire hazard by fire-proofing balloon fabrics, and by use of hot air or ammonia in place of hydrogen, but so far without success. The use of helium instead of hydrogen affords absolute safety from fire, whether caused by accidental electric sparks or by incendiary or explosive bullets of an enemy in time of war. An adequate supply of helium will, therefore, entirely revolutionize balloon practices, and will do more than any other one thing to assure to the nation possessing it, that control of the air which will in the future be absolutely necessary for any adequate plan of National Defense.

The history of helium is interesting. About 70 years ago, a line was discovered in the spectrum of the sun's atmosphere, which could not be identified as belonging to any element known on the earth. This unknown gas was, therefore, named helium. Many years later, a thimble full of a gas, occuring in very minute quantities in the earth's atmosphere, was isolated by Sir William Ramsay, and proved to be the hitherto unknown element to which the name helium had been given. It was then proved to be not only incombustible but inert in every other chemical way and to have about twice the density of hydrogen. Still later it appeared that this gas is formed whenever radium or any other radio active material disintegrates and for a time the chief source from which helium was obtained in small quantities for scientific research was certain radio active minerals. Still later helium was found to be a constituent of certain natural gases, particularly those occuring in Southern Kansas, parts of Oklahoma and Northern Texas, and processes were developed at the University of Kansas for purifying it so cheaply that it could be sold to scientists, in small quantities, at something like $1700.00 per cubic foot. At that time the total quantity of reasonably pure helium in the world was probably less than 100 cubic feet. In the face of so discouraging an outlook, some one in the British Admiralty had imagination enough to propose seriously, that helium should be produced in sufficient quantities for the British Balloon Service, and experiments were undertaken in Canada for this purpose. A report on this matter was found in a mess of British documents sent to this country soon after we entered the war, by the Gas Warfare Committee of the Bureau of Mines and the matter was brought to the attention of the Signal Corps and the Bureau of Steam Engineering. Since that time about six millions have been either spent or obligated, the entire practicability of the production of helium on a large scale at a cost of ten to fifteen cents per cubic foot has been demonstrated, and production plants to yield 40,000 to 60,000 cubic feet per day are now being constructed or under test.

Three processes, alike in fundamental principles, but differing in important details, are being tried. One of these, the Linde process, has demonstrated its success and is the basis of the production plant now being built. The second, the Claude process, gives promise of a somewhat lower operating cost than the Linde process, but has not yet been entirely perfected. At present, this plant is temporarily shut down until the new Government pipeline can provide it with an adequate supply of undiluted Petrolia gas, at which time the final test will be made. The third process, invented by Norton and developed by the Bureau of Mines, is the basis of the large experimental unit in Plant #3. This unit is still being worked into shape by Norton, the inventor, and it is hoped that satisfactory results will be forthcoming within the next two months. It gives promise of an operating cost lower than either of the others.

The active supervision of the production program for helium, with the exception of Plant #3, has been placed in the hands of the Navy Department by mutual agreement between the Army and Navy. All that it is necessary for the Army to do at the present time, is therefore, first, to keep in touch with the work the Navy is doing in behalf of both Departments ; second, to prepare itself for the proper utilization of the helium that will be supplied to it under the agreement with the Navy, and third, to assume the responsibility of providing an adequate supply of the necessary raw material, in the future.

It is further suggested that there is much to be done before the Army will be ready to use this new gas in the most effective way. A small re-purification plant has already been authorized and plans for it are nearly completed. The question of modifying the designs of the various types of balloons in use, so as to make them appropriate for helium, should be undertaken at once. The chief difficulty is connected with the very large waste of gas involved in the methods of handling balloons at present in use. This waste of gas will have to be very largely reduced by careful experimentation and by changes both in balloons and in the manual of tactics before the use of helium in balloons of the Army types will be justified from the point of view of the whole problem of National Defense.

Finally, it must be remembered that the supply of helium in the United States, although large, is by no means unlimited. At the present time probably a million cubic feet per day is being fed through the natural gas mains of various cities in the Middle West and being dissipated into the atmosphere through thousands of chimneys. Steps should be taken at the earliest possible moment to secure for the Army and Navy the right to process all supplies of natural gas containing usable quantities of helium before this gas is distributed. The details of such a procedure will require careful study and for this purpose an Argon Conservation Committee consisting of a representative of the Navy, a representative of the Army and a representative of the Bureau of Mines was appointed last August by the Aircraft Board and an adequate allotment to cover its expenses recommended. For various reasons effective action by this Committee has seemed impossible until very recently. It is now hoped that the Committee can proceed with its work in the near future.

HONORABLY DISCHARGED

Emmett R. Tatnall,	Second Lieutenant, A.S.M.A.
Kenneth B. Warner,	Second Lieutenant, A.S.A.
Henry M. Hoyt, Jr.	First Lieutenant, A.S.A.
Preston B. Wilkes, Jr.	Second Lieutenant, A.S.A.
Wilson S. Zimmerman,	Second Lieutenant, A.S.A.P.
Edwin F. Kingbury,	Captain, A.S.A.P.
Alvin C. Goetz,	First Lieutenant, A.S.A.P.
Charlie D. Coleman,	Second Lieutenant, A.S.A.P.
Charles I. Henderson,	Second Lieutenant, A.S.A.P.
Edwin J. Fredell,	Captain, A.S.A.P.
Clarence N. Walker,	First Lieutenant, A.S.A.P.
William P. Boyd,	Second Lieutenant, A.S.A.
Warren P. Gillelen, Jr.,	Second Lieutenant, A.S.A.
George P. Sweet,	Captain, A.S.A.P.

R.M.A's.

The following-named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain Louis R. Crawford, A.S.A.,	March 29, 1919.
Captain William G. Renwick, A.S.A.,	March 29, 1919.
First Lieutenant Ward R. Clark, Infantry,	March 29, 1919.
First Lieutenant James C. Nabours, A.S.A.,	March 29, 1919.
First Lieutenant Clarence J. Moors, A.S.A.,	March 29, 1919.
Captain Paul R. Turpin, A.S.A.,	March 29, 1919.
First Lieutenant George E. King, A.S.A.,	March 6, 1919.
Second Lieutenant Howard C. McGregor, A.S.A.	March 6, 1919.
Second Lieutenant Roy W. Chilson, A.S.A.,	March 6, 1919.
Second Lieutenant Henry C. Gamble, A.S.A,	March 6, 1919.

Second Lieutenant John F. Dresing, Junior, A.S.A., March 10, 1919.
Second Lieutenant James A. B. Roddie, A.S.A., March 10, 1919.
Second Lieutenant John Wilson Albright, A.S.A., March 25, 1919.
Second Lieutenant Ralph J. Leeds, A.S.A., March 29, 1919.
Second Lieutenant Lester N. Stockard, A.S.A., March 29, 1919.
Second Lieutenant Woodward C. Riley, A.S.A., March 29, 1919.
Second Lieutenant William D. Jones, A.S.A., March 29, 1919.

VICTORY BOND SALES IN THE AIR SERVICE

The total sales of Victory Bonds in the office of the Director of Air Service including April 29th amounted to $85,650, 32% of the entire personnel in Washington having subscribed.

In the Fourth Loan, subscriptions were received from 97% of the personnel of one of the Bureaus now comprising the Air Service, and from 66% of the other, making an average for the two Bureaus of 81½%.

Earnest cooperation and hearty support are desired from every one, so that previous records may at least be equaled. Only 10 days remain before the close of the sale.

Statements issued by the War Department to the Press are based on a percentage subscription as well as a total subscription, and the Air Service must be at the top.

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department, April 19, 1919)

AIR SERVICE

Value of Contracts Canceled and Suspended

During the week ended April 12, 1919, the Bureau of Aircraft Production withdrew cancellations and suspensions of contracts to the amount of $2,640,879, thus reducing the total of cancellations and suspensions of contracts since the armistice from $500,679,617 to $498,038,738. These withdrawals of cancellations and suspensions are practically all for spare parts and accessories. Following is a summary of the value of cancellations and suspensions of contracts to date:

	Value	Per cent of total
Engines and spare parts	$275,929,088	55
Airplanes and spare parts	164,129,759	33
Chemicals and chemical plants	18,014,611	4
Instruments and accessories	10,674,840	2
Balloons and supplies	9,137,403	2
Fabrics, lumber, and metals	7,302,295	1
Miscellaneous	12,850,742	3
Total	$498,038,738	

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department - April 19, 1919)

DISCHARGES OF COMMISSIONED OFFICERS, BY SERVICES, THROUGH APRIL 17

BRANCH OF SERVICE	On duty Nov. 11	Discharges week ended April 17	Discharges Nov. 11 to April 17	Per cent discharged through April 17
Military Aeronautics	18,661	218	12,507	67
Aircraft Production	1,898	17	1,198	63

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department, April 19, 1919)

	Balance on order Nov. 11	Delivered Nov. 11 to April 3	Balance to be delivered April 3	Per cent of balance on order Nov. 11.		
				Canceled or ordered suspended	Delivered	Balance
Browning, aircraft	54,426	1,030	0	98	3	
Lewis, aircraft	31,969	8,085	0	75	25	

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department, April 19, 1919)

SALES OF SURPLUS SUPPLIES, BY BUREAUS

Value of sales as reported to Director of Sales to April [illegible], 1919.

	March 15-21	March 22-28	March 29-April 4	Apr. 5-11	Total to Apr. 11
Aircraft Production	11,093	0	59,302	105,620	1,092,645
Military Aeronautics	52,484	5,310	2,780	6,686	466,436

PRICE RECEIVED VS. ORIGINAL COST

	Received	Cost	Receipts in per cent of cost
Aircraft Production	1,089,186	1,211,825	90
Military Aeronautics	455,436	625,772	73

WARNING AGAINST THE INDISCRIMINATE OPERATION OF AIRCRAFT

The Joint Army and Navy Board on Aeronautic Cognizance wishes to call attention to an occurrence of recent date, the seriousness of which must be apparent to every one.

On March 25, 1919, during the parade held in celebration of the home coming of the 27th Division in New York City, a flying boat was seen in flight directly up and down Fifth Avenue above the parade, at a dangerously low altitude, estimated to be from three to five hundred feet, which was so low that in case of motor failure the pilot would have had no choice except to land in the crowd on the Avenue. He could not have reached even a fringe of Central Park owing to the number of trees.

Inquiry has developed that this boat was piloted by a civilian who was flying without the license required by the Proclamation of the President of the United States on February 28, 1918. This proclamation provides that a license must be obtained from the Joint Army and Navy Board on Aeronautic Cognizance by or in behalf of any person who contemplates flying in a balloon, aeroplane, hydroplane, or other machine or device over the whole United States, its Territorial Waters, Insular Possessions, and the Panama Canal Zone. Heavy penalty is attached to violation of this regulation.

There is no way of adequately providing for the public safety where aeroplanes fly at too low an altitude over cities or large assemblies of people. In case of accident a pilot would be forced to descend immediately, and human life and property would be endangered to a serious degree. All persons operating civilian aircraft are cautioned against the repetition of an occurrence such as the one which took place in New York on March 25th, and are warned that before engaging in the operation of any aeroplanes or balloons, they must first secure a license from the Joint Army and Navy Board on Aeronautic Cognizance.

CIVILIAN FLYING LICENSES
ISSUED BY JOINT ARMY AND NAVY BOARD OF AERONAUTIC COGNIZANCE

License No.	Issued to	Address
403	William Diehl, Jr.	New York City
404	James Daniel Howard	Brookline, Mass.
405	Martin F. Metzler	Philadelphia, Pa.

License No.	Issued to	Address
406	George W. Blakeley	Boston, Mass.
407	Ralph N. Largent	Nampa, Idaho
408	Bertram B. Tate	Summerfield, Alabama
409	Frank M. Bradbury	Richmond, Va.
410	Howard E. Murchie	West Orange, N.J.
411	George H. Wirth	Houston, Texas
412	Charles E. Hastings, Jr.	Wilmette, Ill.
413	Ernest C. Slye	Fairhope, Ala.
414	John K. LaGrone	Smith Center, Kansas
415	Philip J. Morey	Kerrville, Tenn.
416	Bertrand B. Acosta	San Diego, Calif.
417	E. Clifford Barber	Jonesville, Michigan.
418	Thomas Henry Baskin, Jr.	Chicago, Ill.
419	Oscar A. Solbrig	Davenport, Iowa.
420	Charles A. Vander Veer	Atlantic City, N.J.
421	C. C. Baldwin	Chicago, Ill.
422	Pierce Raney	St. Louis, Mo.
423	N. R. Lovern	Charles City, Iowa.
424	Edward Axborg	Dallas, Texas.
425	Charles Carlisle Penfield	New York City.
426	Theodore L. Tibbs	New York City.
427	George Andrew Wilson	New York City.
428	Daniel Kiser	Chicago, Ill.
429	Horace C. Burnham	Oldtown, Maine.
430	C. E. Jones	Chicago, Ill.

Captain Lyman C. Cotton, U.S.N. is announced as a new member of the Joint Army and Navy Board on Aeronautic Cognizance.

SOUTHER FIELD NOTES

Major Tom C. Macaulay who holds the transcontinental records will probably be in command of the squadron using seven De Haviland fours 400 horse-power Liberty Motors in the flight from Dallas, Texas, to Boston, Mass.

The flyers as far as possible will move in formation and at the request of cities and towns enroute may make several landings if the fields for that purpose are suitable.

The tentative route at present is via Dayton, Ohio, and New York. The direct airline distance, Dallas to Boston, is about seventeen hundred miles.

Some high altitudes were made today at Rockwell Field, San Diego, California.

Lieutenant William R. Sweeley, in a Curtiss H, 180 HP, Hispano-Suiza Motor reached 19,600 feet.

Lieutenant James M. Field, Jr., in a De Haviland four- 414 HP Liberty Motor, 20,100 feet in 56 minutes.

By arrangement with the Navy Commandant at Rockway Point the Air Service is able to announce that Dirigible C-4 will fly over New York during the Victory Loan Parade, May third, carrying maximum operating crew. The dirigible is equipped with two 150 Horse Power Hispano-Suiza Motors, 195 feet long, 45 feet in diameter, contains 190,000 cubic feet of gas. Will lift, 16,000 pounds and has a cruising radius of over 1,000 miles.

Arrangements completed for early installation of a Government observation balloon on Boston Commons, same type used on the front in the war. Balloon to be in charge of expert pilots and it is expected a passenger now and then may go up in the basket. The balloon ascends to about 3,000 feet and is controlled by a wire and windlass.

The following named field officers have been ordered to Change station as follows since April 24, 1919.

Ordered April 24, 1919.

Major Norman W. Peek, J.M.A., A.S.A., ordered from Pope Field, Camp Bragg, Fayetteville, South Carolina, to Ellington Field, Houston, Texas.

Ordered April 25, 1919.

Major Prince Albert Oliver, A.S.A., ordered from Langley Field, Hampton, Virginia, to Wilbur Wright Air Service Depot, Fairfield, Ohio, to assume command.

Ordered April 26, 1919.

Lieutenant-Colonel Atkinson, Bert M., J.M.A., A.S.A., ordered from Hazelhurst Field, Mineola, Long Island, New York, to San Francisco, California, for transportation to Honolulu, Territory of Hawaii, for duty as Department Air Service Officer.

Ordered April 30, 1919.

Major Earl C. Zoll, A.S.A., ordered from Hazelhurst Field, Mineola, Long Island, New York, to Wright-Martin Engine Plant, Long Island City, New York.

The orders dated March 5, 1919, issued to Lieutenant-Colonel John D. Carmody, A.S.A., were amended on April 30, 1919, to direct him to proceed from his temporary station, Governor's Island, New York, to Hazelhurst Field, Mineola, Long Island, New York.

Address to be delivered by Major General Charles T. Menoher, Director of Air Service, before the Southern Aeronautical Congress at Macon, Georgia, May 5, 1919.

In order to give an idea as to the problems which confront the Air Service and the aims and objects in view, I will quote extracts from various public utterances made in the last two months by the present Director of Air Service.

"Now that peace has come and the various activities disturbed by war are returning to normal channels, we may look for a steady flow of conservative development. We, I believe, would like to see the United States, where aviation had its birth, gain and maintain the lead in aviation. To do this will require the cooperation and coordination of all our activities and resources.

Because of the lead given the Air Service of the War Department by the enforced effort due to the war, civilian activities", and in this is included all activities outside of the governmental departments, " are sure to look to the Air Service for assistance for some time to come. This places upon the Air Service an obligation of assistance and cooperation in carrying on the work. This, I believe, is a fortunate circumstance for the Air Service, provided it fulfills its obligation.

It will be the endeavor of the Air Service to fulfill these obligations as far as possible, subject to the limitations of Congressional appropriation. The acceptance of such cooperation and assistance by civilian activities should carry with it a reciprocal obligation and appeal is hereby made for such reciprocal obligation.

It will be in the matter of research and development of material that we must look in the future to civilian activities unless Congress should appropriate for this purpose more liberally than we have now reason to hope for. The Air Service must render every encouragement possible to private manufacturers to develop new and improved types and at the same time carry on its own work along these lines as far as possible, * * * * Withing the Air Service itself, there must be an active progressive policy. From its present position of advantage, it should be able to lead the way in most phases of Air Activities. It should never be content to simply maintain its existence."

Again, " Of the many problems pressing for solution in the general field of aeronautics, the most urgent is that of proper and adequate rules and regulations for the navigation of the air. First and foremost among these rules should be those covering matters of qualifications and licensing of pilots. The rules should cover also such activities as general interstate flying, coast defense patrol, postal service, forest patrols, commercial photography, aerial transport service, sports and recreations, exploration, night flying, police service, smuggling, incendiarism, etc., etc.

On account of numerous and urgent requests from various sources throughout the country for assistance in the matter of exhibits and flying exhibitions, it was found necessary to announce some policy in regard to participation by the Government in such activities and the following policy in regard thereto was announced.

"The Air Service will give favorable consideration to any project of this sort which has for its object aerial performances without remuneration,

for development, charitable or cooperative purposes of any international, national, state or civic character but must adopt as a War Department policy disapproval of any project which involves competition of Air Service teams or individuals with private clubs or enterprises for money or other prizes or trophies." Again, -"It is considered an improper use of the time of flyers and of Government property to compete for purses and individual prizes."

In line with the policy previously announced regarding encouragement to private manufacturers, it has been stated on numerous occasions by the present Director of the Air Service that we are desirous of doing everything that is possible and legitimate in the way of encouraging manufacturers who have built up numerous plants during the war, to "carry on" in the future. This is a difficult question to deal with. Unless we can give adequate orders for new planes, these manufacturers will have to go out of business as airplane manufacturers." Again-"If we do not have adequate appropriation for new orders, no progress in the way of improvement in type is possible. It can readily be seen how closely these two ideas are linked up together and how necessary it is to have a continuing policy, and financial assistance to carry out such policy. It is not desired nor is it considered desirable that the Government itself, should undertake the manufacture of planes or engines in quantity. This must be left to private manufacturers.

What it is aimed to do, however, in this line is to establish and maintain an adequate technical engineering establishment where all kinds of experiments may be carried on, where we can even build experimental engines or experimental planes and the facilities of which can be placed at the disposal of inventors in carrying on their work. This technical engineering center is now practically an accomplished fact. Then, we aim to have a complete engine production plant to be held as a matter of insurance against future contingencies such plant not to be used for production by the Government except in time of great emergency but to be available for such emergency or to be available for use by private manufacturers under contract in case the Government desires to place other for engines. Such a plant is already available, belongs to the Government having been paid for during the war. Such a scheme would save to the Government amortization charges in the future on any such contract as that referred to. The cost of maintenance, while idle, of the plant in question would be only nominal but as a matter of insurance is of far-reaching advantage. It is aimed to do the same thing in regard to a plant for manufactured planes.

The foregoing will indicate in a very general way some of the problems confronting the Air Service and its policy in regard to civilian and commercial activities. I may say incidentally that this Congress is the kind of activity with which we desire to have full and complete "liaison". We are now in close liaison with the Navy Department and the Post Office Department and it is to one phase of our co-operation with the Post Office Department that I now desire to invite your attention.

One of the aims of the Air Service is to prepare and publish for the benefit of the public at large guide books, road maps, etc., similar to publications of that kind for the guidance, etc., of automobilists. Considerable work along this line has already been done, as may be seen by an examination of charts on exhibition at the Air Service Exhibit. The ultimate aim is to have the entire country charted and road maps available for the use of pilots -- the whole system to form a complete network linking up all the important centers in the United States. In considering this question the idea at once occurred that there was no better opportunity to make use of the aerial mail service than this, and steps were taken to get in touch with the Post Office Department through the 1st Assistant Postmaster General, Mr. Otto Praeger.

The logical way to extend this network of aerial routes seems to be to municipalities conveniently and properly located to take up the matter and assist in this great work; to designate and set apart adequate landing fields for the use of the Air Service in cross country work, the mail service in handli the mail; and for the use of itinerant pilots. Such a scheme if carried out will serve many purposes. It will not only fulfill the purposes just named, but will place the cities concerned "on the map", so to speak, and will pave the way for local benefits resulting from the development of inter-city transportation, express service, emergency service, local mapping, police protection, etc. These municipal landing fields will also serve another very important purpose of which I will speak later.

The idea in this matter is to call upon certain municipalities to set aside landing fields under conditions which have been prepared and are now ready for distribution; that when so designated the field will be examined by representatives of the Air Service, the field and vicinity photographed, and then the facilities, which will be necessary at each field, installed. It is not my purpose to go into the details of the matter, these will be left to one of my assistants to present to the Congress at the appropriate time.

On account of the magnitude of this work and the claims that the various cities are likely to put forward as to priority, it has been considered necessary not to include all cities throughout the country at which we ultimately desire to establish landing fields, but to undertake just now only a limited part of the work--to provide a skeleton, so to speak, of the network, then to fill in the details later.

The following list of towns has been selected as the ones where we want to establish these fields in the first instance. It will be recognized that some of these are relatively unimportant in size, and perhaps commercially, but they were selected, more on account of location than commercial importance. The Government also desires to confine itself at present to cities where the aerial mail service requires stations or where they are required for the cross-country use of the Air Service. It is not intended that such limitations should in any way restrict the establishment of other landing fields at cities and towns where conditions warrant such action. These cities are:

Boston, Massachusetts	Columbus, Ohio
New York City, N.Y.	Tuscon, Arizona
Richmond, Virginia	Phoenix, Arizona
Raleigh, N.C.	Yuma, Arizona
Columbia, S.C.	Bakersfield, Calif.
Augusta, Georgia	Fresno, Calif.
Macon, Georgia	Buffalo, N. Y.
Atlanta, Georgia	Syracuse, N. Y.
Kissimmee, Florida	Albany, N. Y.
Mobile, Alabama	Columbus, N. Mex.
New Orleans, La.	Kansas City, Mo.
Baton Rouge, La.	Oklahoma City, Okla.
Beaumont, Texas	Uniontown, Penna.
Flatonia, Texas	Daytona, Florida
El Paso, Texas	Cleveland, Ohio
Texarkana, Texas	Chicago, Ill.

The important additional purpose which these landing fields will serve, and to which reference was made a little while ago, is this: We desire to keep together as far as possible, at least to keep in touch as far as possible with the officers, trained pilots, mechanics, etc., who have had service during the war. These municipal landing fields it is believed will serve the useful purpose of centering the interest of the classes of men just referred to and the aim of the Air Service is to establish in each one of the communities, where the landing field is maintained, a reserve unit which can then be provided with the facilities for instructions and practice in flying, observing, care and repair of ships, and which would be so organized as to furnish a unit for service in case of emergency. This I consider one of the most important phases of this whole proposition of the municipal flying fields, and the co-operation of every one concerned is earnestly requested.

Vol. II AIR SERVICE NEWS LETTER V-277

Information Group
Air Service

MAY 10, 1919

Building D
Washington, D. C.

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

PROSPECTS FOR COMMERCIAL AIRSHIPS.

Plans for municipal landing fields for aircraft in the United States should include provision for large airships. The American people have heard very little of late about large dirigible balloons, known generally by the more comprehensive designation of "airships", and, consequently, they do not realize the development reached in England and Germany.

The British airmen say that at least one of their airships will fly to America and return during the present summer. That should serve to rudely awaken the American people to our inferiority in respect to commercial air transportation. The present war well illustrates what the American people can do when their pride is thoroughly aroused. Hence, the advice to consider large airships in connection with landing fields should bear repetition.

Airships having a gas capacity of two million cubic feet are now successfully flying Europe; such ships have a gross lift of 60 tons and a useful lift of about 20 tons available for fuel, passengers and merchandise. There is a fundamental physical principle involved which assures far greater carrying efficiency in the future development, -- it is because the lift of airships increases as the cube of the dimensions. As the size increases it is found that the ratio of useful lift to gross lift becomes materially larger, so that an airship of ten million cubic feet capacity will have a gross lift of 300 tons of which 200 tons will be useful lift. Furthermore, the length and diameter of the ten million ship will be only 1.7 times greater than the existing two million ship with which it is compared. For the same fundamental reason the engine power increases much less rapidly than the volume and lift.

To improve their efficiency it is certain that airships will constantly increase in size, perhaps by increments of about one million cubic feet which will enable the designers to profit by experience and proceed with confidence. It should be appreciated that airship design must progress gradually like the design of seagoing ships.-- Attempting more at one time than is warranted by available engineering data is likely to result in failure and loss of the Airship.

Now that two million size airships have proved satisfactory, the British are designing 1920 models of greater capacity and constructing shelters suitable for the accommodation of probable sizes five years hence.

Do not be surprised within the present year to learn of the British nation inaugurating regular airship mail service to Paris, Rome and Canada. The vast expanse of the United States seems exceptionally favorable for the establishment of similar air routes including service to Alaska, Hawaii, Porto Rico, Cuba and Panama.

Large, expensive buildings to completely house great airships are not required for each landing field. The need is simply a fairly level clear space about one mile square having in the center a mooring mast. Each station will need emergency supplies of compressed hydrogen and helium, together with gasoline and lubricating oils. Terminal airship stations for effecting repairs will requir large buildings; but ultimately, when ships are constructed entirely of steel, the docks will probably consist only of wind-breaks extending from the ground a little more than half way to the top of the ship.

We may reasonably expect in the near future to have transcontinental airships in the United States each capable of carrying nearly 200 tons of useful load. Obviously it will be such airships that will transport the first class mail and some passengers. Airplanes will not be displaced by these mammoth ships, -- the natural employment of the planes in great number will be the local distribution of mail in all directions from the main airship stops across the continent.

There is no engineering difficulty now apparent which might prevent the fulfilment of the situation just stated. The delay will be caused by financial difficulties for the reason that no commercial firm could expect to furnish the many millions of dollars that will be required for several years while developing the engineering staff, construction plants and experimental types before the industry can be operated on a profitable commercial basis.

The fire risk which heretofore has menaced all hydrogen filled airships will be eliminated in the future by using helium, which is not inflammable.

It seems not only possible, but probable, that giant all metal airships capable of cruising 20,000 miles and remaining above the earth three weeks will appear within a few years.

OVER THE ROCKIES IN A FOKKER

On April 26, 1919, when the "Far West Liberty Loan Flying Circus" reaches Helena, Mont., Major Carl Spatz, A. S. A., M. A. flew a German Fokker from Helena, Mont., to Great Falls, over the Big Belt Spur of the Rocky Mountains, to assist and augment a "side show" which had proceeded to Great Falls by train under the command of Major Robert Walsh. Major Spatz has given a brief account of the trip:

"Before leaving the ground I provided myself with a map of the country between Helena and Great Falls. Although not very suitable for cross country flying, it showed the Missouri River and most of the mountains.

"I left Helena, Mont., at 11:15 A.M. The field at Helena was the drill ground at Harrison Barracks about 4½ miles northwest of the city. It was rather small for the altitude above sea-level, 4700 feet. The length into the wind was 350 yards.

"After taking off I headed directly toward a notched mountain peak. This peak I had been informed was one of the sides of a canon through which the Missouri river flowed, and was a little west of north from the take-off field. For the first 15 minutes the country was fairly smooth and a landing could be effected anywhere. The Missouri River was visible after attaining an altitude of about 1500 feet. After 15 minutes flying I reached the mountains which border the northwest portion of the valley in which Helena is situated. My altitude at this time was 5000 feet above the take-off field. For the next ten minutes the country beneath was very rough. A strong north wind prevented any remarkable progress. After 25 minutes I was directly over the Missouri River and at 7000 feet altitude above the field at Helena. The river, being dammed, forms a lake some 20 to 30 miles long. For the next 15 minutes I followed north along this lake. The mountains rise abruptly from both sides of the lake. A landing could have been made, if necessary, in the lake. Continuing north along the river the mountains receded from the western shore and excellent landing places were apparent. Reaching Mid-Canon at the end of these 15 minutes, I seemed to stand motionless in the air as far as any progress over the ground was concerned. At Mid-Canon the Missouri has cut a narrow gap through the mountain ranges. I estimated their height to be about 10,000 feet above sea-level.

"My altitude upon reaching Mid-Canon was 8000 feet above the level of Helena. The mountains appeared to be about 2000 feet above. Reaching Mid-Canon and feeling that the wind was preventing much progress I nosed down slightly, passing through the canon into the level country beyond. My altitude after this manoeuvre was 3000 feet above Helena. Level country was between this point and Great Falls. Better progress was made from this point and I reached Great Falls at 12:30 P.M.

"The landing field was very narrow into the wind direction. In order to land I was forced to clear one line of telegraph wires and glide under another. Reaching the ground safely and having stopped rolling I attempted to taxy the machine. Striking a ditch resulted in breaking the tail skid and damaging the rudder.

"The trip took one hour and fifteen minutes. The distance following the river is about 100 miles. No rough air or unusual wind currents were experienced while over the mountains, although at times the tops seemed fairly close to the landing chassis. However immediately upon reaching the level country between Mid-Canon and Great Falls the air became exceedingly rough and continued so all the way to Great Falls. During the trip there was only about one 15 mile stretch where there was no landing place available."

FOUR FLY 1300 MILES

The big Martin bombardment 'plane, with four on board, completed, on May 7th, the round trip between Washington and Macon, Ga., flying the return distance of 650 miles without stop.

The passengers were: Lieut. Colonel T. E. Gillmore, of the Royal Air Force, Major W. H. Frank of the U.S. Air Service, Captain Roy N. Francis, Pilot, and Lieut. E. E. Harmon, second Pilot, The party left Bolling Field, Washington, D. C. for Macon, Ga., Sunday, May 4th at 1:25 P.M. and arrived at Pinehurst, S.C. at 6:05 Sunday evening, stopping there over night.

They left Pinehurst, S.C. at 9:00 o'clock, Monday, May 5th, but after passing Augusta, Ga. rain storms were encountered and forty miles were flown in the rain and clouds. "The clouds kept driving us lower to the ground, and we were forced to land at Haddock, Ga. in the rain and fog. The field selected was not the best, but no damage was done in the forced landing. In an hour and a half's time the rain ceased and we proceeded on to Macon, Ga., which was only about fifteen miles away, arriving there at 3:40 Monday afternoon. A distance of 650

miles had been covered in a total of seven hours and fifty five minutes flying time.

"On the return trip, we left Macon, Ga. for Washington, D. C. at 9 o'clock, but due to low clouds and poor visibility we had considerable trouble in finding the proper railroad to get our bearings on leaving Macon. We lost abou three quarters of an hour flying around and orientating our ship and ourselves in the low clouds. Finally getting our correct railroad, we left Macon at 10:15 and flew a direct line to Washington, D. C. a distance of 650 miles, in six hours and fifteen minutes, non-stop, landing at Bolling Field at 4:30 Wednesday.

"In our non-stop flight back from Macon, we encountered at least five thunder showers in a distance of 200 miles. At times we were flying as low as 00 feet and other times as high as 4,000 feet. We found when striking a rain storm, if we slowed the machine down, the rain would not damage the propellers as much as if they were on full speed; also, it was easier to drive in a rain at a slower speed."

The maps used were those of the Department of Navigation, A. S. A. These were geological survey maps, in a roll strip of about 75 miles width and of the total length of the Macon - Washington trip. The direct air line with proper compass course and emergency landing fields are noted on these maps.

There was no trouble, with fair visibility, in locating every town or village passed, checking it off map and noting the exact position of the flight relative to the direct air line from the two given points.

NEW ALTITUDE RECORD FOR KELLY FIELD

On Friday, April the 25th, 1919, 2nd. Lieut. James M. Field, jr. broke the altitude record for Kelly Field of 19,000 feet recently established by Lieut. J. R. Sweeley, by reaching a height of 20,100 feet in a De Havilland 4, equipped with a Liberty 12.

The total time required to make the flight was 74 minutes, with an average climb of 358 feet plus per minute. The first 5000 feet required 5 minutes, 10,000 feet in 10 minutes, 15,000 feet in 24 minutes, 18,000 feet in 38 minutes and 20,100 feet in 56 minutes. The down-ward trip was made in 18 minutes.

Lieut. Field kept the ship in a steady climb, with air speed of 55 m.p.h. to 60 m.p.h. and the motor turning 1560 revolutions per minute up to 14,000 feet where R.P.M. gradually dropped to 1480 at 20,100 feet. Lieut. Field experienced no difficulty in breathing and was not uncomfortably cold at any time. Lieut. S. S. Boggs, passenger, noticed the cold to a certain extent and experienced slight difficulty in breathing above 18,000 feet.

FLYING FIELD CASUALTIES

The War Department authorizes publication of the following statement of fatalities which occurred at flying fields, camps, etc., in the United States during the week ended April 24, 1919:

Call Field, Wichita Falls, Texas	1
Hazelhurst Field, Mineola, L.I., N.Y.....	1
Total ...	2

CIVILIAN FLYING LICENSES
ISSUED BY THE JOINT ARMY AND NAVY BOARD OF AERONAUTIC COGNIZANCE

License No.	Issued to	Address
431	Howard C. Brown	Charleston, W. Va.
432	Robert John Wilde	Baltimore, Md.
433	James Hodgens Smith	Overland Park, Kansas.
434	B. M. Spencer	Vallejo, California
435	Gilbert G. Budwig	Washington, D. C.
436	Wm. A. Kopseker and Wm. C. Miller	Topeka, Kansas.
437	H. R. Cruikshank.	Chicago, Ill.
438	Fred DeKor	Kansas City, Mo.
439	Monte Rolfe	Elizabeth, N.J.
440	Edward A. Terhune, Jr.	Dorchester, Mass.
441	Raymond B. Quick	Weehawken, N.J.
442	Thomas Hayes Potter	Boston, Mass.
443	Louis Henry Mueller	San Francisco, Calif.
444	Crescent Balloon Company	West Haven, Conn.
444a	L. G. Haugen	Northwood, Iowa.
445	Wm. Burleigh Hutchinson,	Dayton, Washington
446	George T. Wright,	East Lansing, Michigan.
447	Harry M. Jones	Cambridge, Mass.
448	W. H. Cushing	Philadelphia, Pa.
449	Police Reserve Air Service of the City of New York	New York City.
450	Wayne V. Pittman,	Montgomery, Ala.
451	H. Lorimer Rhoades	Forest Hills, Long Island, N.Y.
452	Harry Gray Carley	W. Newton, Mass.
453	Horace B. Wild	Lincoln, Nebraska
454	Errold G. Bahl	Humboldt, Nebraska
455	John L. Salway,	Ridgewood, N.J.
456	Henry Irvin Beall	Camp Morrison, Va.
457	Stanley Clarke	Winchester, Mass.
458	William D. Davis	New York City.
459	Overton M. Bounds,	Elizabeth, N. J.
460	Charles A. Skiver	Indianapolis, Indiana.
461	Paul Robert Blair,	Chicago, Ill.
462	Asheville Aerial Corporation	Asheville, North Carolina.

AWARDS OF FRENCH CROIX DE GUERRE, WITH PALM

2nd. Lieut. James H. Ackerman, 1st. Aero Squadron,
1st. Lieut. Thomas P. Atkinson, 47th. Balloon Company,
1st Lieut. Walter L. Avery, 95th. Aero Squadron,

1st. Lieut. Ralph Bridges Bagby, 88th. Aero Squadron,
2nd. Lieut. Alfred B. Baker, 12th. Aero Squadron,
2nd. Lieut. Newel Barber, 108th. Aero Squadron,
1st. Lieut. Charles Raymond Blake, 29th. Aero Squadron,
1st. Lieut. Herman St. John Boyd, 1st. Aero Squadron, (deceased)
1st. Lieut. Alford J. Bradford, 17th. Aero Squadron, (deceased)
1st. Lieut. Jasper Brown, 6[illegible]th. Aero Squadron,
2nd. Lieut. Valentini Burger 46th. Aero Squadron,
1st. Lieut. Pitt. F. Carl, 88th. Aero Squadron,
1st. Lieut. George M. Comey, 80th. Aero Squadron,
1st. Lieut. John Cotton, 120th. Aero Squadron,
1st. Lieut. William B. Cowart, 1st. Aero Squadron,
2d. Lieut. Roger W. Hitchcock, 88th. Aero Squadron (deceased)
1st. Lieut. Amos L. Hopkins, 12th. Aero Squadron,
1st. Lieut. Alfred N. Joerg, 13th. Aero Squadron, (deceased)
Major General Charles T. Menoher 42nd. Division,
Brig. General William Mitchell, Air Service,
2nd Lieut. Frank M. Moore, 88th. Aero Squadron (deceased)
2nd. Lieut. Earl Porter, 29th. Aero Squadron,
2nd. Lieut. John A. Posey, 111th. Aero Squadron,
2nd. Lieut. Colman Reedy, 108th, Aero Squadron,
2nd. Lieut. Lloyd Schaeffer, 66th Aero Squadron,
1st. Lieut. William H. Taylor, 95th. Aero Squadron, (deceased)
2nd. Lieut. James C. Wooten, 11th. Aero Squadron,
Sergeant Reginald Sinclaire, Escadrille No. 68.

AIR SERVICE OFFICERS NOW CIVILIANS

"By direction of the President, and under the provisions of Section 9, Act of Congress, May 18, 1917, and Circular No. 75, War Department 1918, the following officers are honorably discharged from the Service of the United States, for the convenience of the Government, to take effect this date, their services being no longer required."

George Bleistein, Jr.,	Captain, A.S.A.
Stephen Philbin,	Second Lieutenant, A.S.A.
Preston B. Wilkes, Jr.,	Second Lieutenant, A.S.A.
Emmett R. Tatnall,	Second Lieutenant, A.S.M.A.
Kenneth B. Warner,	Second Lieutenant, A.S.A.
Henry M. Hoyt, Jr.,	First Lieutenant, A.S.A.
George P. Sweet,	Captain, A.S.A.P.
Theodore H. Sloan,	2nd. Lieut., A.S.A.P.
Philander R. Gray,	Captain, A.S.A.
William M. Sweet,	2nd. Lieut., A.S.A.
Dean B. Fraser,	2nd. Lieut., A.S.A.
Paul M. Muller,	Second Lieutenant, A.S.A.P.
Robert E. Hill,	First Lieutenant, A.S.A.
James W. Osgood,	Captain, A.S.A.
Frank I. Wheeler, Jr.	First Lieutenant, A.S.A.P.
Roy T. Robling,	Second Lieutenant, A.S.A.P.
Daniel Cushing,	Captain, A.S.A.P.
William Knight,	First Lieutenant, A.S.A.
Bruce D. Reynolds,	First Lieutenant, A.S.A.P.
James A. Stone,	First Lieutenant, A.S.A.P.
Oscar R. Zipf,	Second Lieutenant, A.S.A.
John Gordon, Jr.	Captain, A.S.A.
William P. Field,	Captain, A.S.S.C.
Paul N. Edwards,	First Lieutenant, A.S.A.
William A. Taylor,	Second Lieutenant, A.S.A.
Howard C. Babcock,	First Lieutenant, A.S.A.
[illegible]	[illegible]

1108TH AND 660TH HOME

The "Giuseppi Verdi" sailed from Marseilles on April 30th, with one officer and 129 men of the 1108th Aero Squadron and one officer and 113 men of the 660th. Theyare due in New York about May 12th.

Out of an approximate Air Service strength in the A.E.F. on November 11, of 79,658, 52% have sailed for the U.S. up to April 20 --41,056. The sailings reported for the various services are approximate only, being low in all instances due to the large number of casuals whose organizations are not indicated in cabled reports.

The following organizations have been assigned to early convoy:

1st Balloon Company, Aero Squadrons, numbers 25, 28, 213, 223, 91, 12, 94, 166, 100, 163, 22, and 185; Photo Sections Numbers 2, 4 and 6; Mobile Ordnance Repair Shops Numbers 5, 106, 109, 114, 309, 310 and 312.

AIR SERVICE DEMOBILIZATION

The net decrease in the total commissioned and enlisted strength from the date of the armistice to April 17 was 69 per cent.

The following table shows the present distribution of personnel as compared with November 11, and per cent of net decrease. The April 17 figures do not include 514 men at demobilization camps awaiting discharge.

	Nov. 11	Apr. 17	Per cent net decrease
Cadets	5,775	824	86
Officers	20,586	6,220	70
Enlisted men	164,266	51,384	69
Total,	190,627	58,428	69

69 Per Cent of Present Air Service Personnel Overseas

During the week ended April 17, 1919, the Air Service personnel overseas decreased 424 men as against a weekly average of 2,268 during the nine preceding weeks. The strength of the Air Service in the United States and overseas is shown for various dates in the following diagram:

	U.S.	Overseas
Nov. 11	111,846	78,786
Dec. 2	115,216	78,061
Dec. 26	99,010	59,917
Jan. 30	46,919	57,527
Feb. 27	33,649	53,087
Mar. 23	25,347	41,800
Apr. 10	20,636	40,855
Apr. 17	17,753	40,431

AIRCRAFT DELIVERIES

(Prepared by Statistics Branch, General Staff, War Department - April 26, 1919)

Over 1,000 Hispano-Suiza 180 and 300 H.P. Engines Remain on Order

During the week ended April 17, 1919, the only engine remaining on order was the Hispano-Suiza. Of these 809 were of the 180 H.P. type engine, and 249 of the 300 H.P. type. All are forecast for completion in May. The following table shows the status of the remaining engine production:

Hispano-Suiza type	Number on order	Number produced	Remaining on order	PER CENT Produced	PER CENT Remaining
180 H.P.	6,000	5,191	809	87	13
300 H.P.	500	251	249	50	50
Total	6,500	5,442	1,058	84	16

Status of Outstanding Orders, Principal Items of Equipment

Includes all articles of equipment on outstanding contracts through April 15, 1919, except airplane bombs and clothing.

DELIVERIES OVER 90 PER CENT OF ORDERS

	Orders	Deliveries	Per cent		Orders	Deliveries	Per Cent
De Havilland 4 planes	4846	4842	99.9	Balloons Kite Type "R"	910	898	98.6
Compasses	12650	12644	99.9	Gun yokes	20402	19976	97.9
Cameras - gunnery training	1609	1599	99.3	Oxygen Apparatus	6100	5609	92.0
Oak lumber (1000 ft.)	311	308	99.0	Lewis machine guns	43950	40294	91.7
Spare train. propellers	33631	33269	98.9	Vickers machine guns	18125	16366	90.3

DELIVERIES 51 TO 90 PER CENT OF ORDERS

Motor lorry outfits	77	69	89.6	Bomb sights	16544	11630	70.3
Airplane fabrics (1000 yds)	11568	10263	88.7	Bomb releases	15850	10362	65.3
Hispano 180 H.P. engines	6000	5191	86.5	Flare bracket holders	23037	14542	63.1
Hydrogen cylinders	172800	147300	85.2	Cherry lumber (1000 ft)	1006	618	61.4
Handley P. laminations	2000	1660	83.0	Gasoline gauges	1450	858	59.2
Cameras - observation	1351	1051	77.8	Winches	236	135	57.2
Oxygen tanks	17000	13077	76.9	Cable (1000 ft.)	3310	1828	55.2
Sychronizing devices	24226	18028	74.4	Flares	162248	83000	51.2

DELIVERIES LESS THAN 51 PER CENT OF ORDERS

Hispano 300 H.P. engines	500	251	50.2	Walnut lumber (1000 yds)	10354	4649	44.9
Balloon fabrics (1000 yds)	13764	6891	50.1	Mahogany (1000 ft.)	22352	9984	44.7
Cotton tape (1000 yds.)	15090	7339	48.6				

DISCHARGES OF COMMISSIONED OFFICERS, BY SERVICES, THROUGH APRIL 24.

Branch of Service	On duty Nov. 11	Discharges week ended April 24	Discharges Nov. 11 to Apr. 24	Per cent discharges through April 24.
Military Aeronautics	18,661	201	12,708	68
Aircraft Production	1,898	10	1,208	64

SALE OF SURPLUS SUPPLIES

Value of sales as reported to the Director of Sales to April 18, 1919

	Total to March 28	March 29-April 4	April 5-11	April 12-18	Total To April 18
Aircraft Production	927,723	59,302	105,620	8,099	1,100,744
Military Aeroantuics	456,970	2,780	6,686	4,916	471,352

PRICE RECEIVED VS. ORIGINAL COST

	*Received	Cost	Receipts in per cent of cost
Aircraft Production	1,096,573	1,222,091	90
Military Aeronautics	460,352	636,788	72

*Figures exclude items for which cost is not known.

VALUE OF CONTRACTS CANCELED AND SUSPENDED

During the week ended April 19, 1919, the Bureau of Aircraft Production withdrew cancellations and suspensions of contracts to the amount of $394,110, thus reducing the total of canceled and suspended contracts to $497,644,628. These withdrawals are practically all for spare parts and accessories. Following is a summary of the value of cancellations and suspensions of contracts as of April 19, 1919:

	Value	Per cent of total
Engines and spare parts	$275,462,776	55
Airplanes and spare parts	164,134,974	33
Chemicals and chemical plants	18,009,964	4
Instruments and accessories	10,570,788	2
Balloons and supplies	9,207,494	2
Fabrics, lumber, and metals	7,329,440	1
Miscellaneous	12,929,192	3
Total	$497,644,628	

78 PER CENT SAVINGS ON LIQUIDATION OF CANCELED CONTRACTS

From the date of the armistice to April 5, 1919, canceled and suspended contracts representing an original value of over $111,000,000 have been liquidated at a saving of over $87,000,000 or 78 per cent.

In the following diagram is shown the per cent of actual saving and per cent cost of termination of contract, for various items:

	Value of Canceled contracts	Termination charges (for contractor)	Per Cent Actual saving	Termination charges
Balloons & supplies	$3,732,908	$ 558,559	85	15
Engines and spare parts	96,362,392	20,749,843	78	22
Fabrics, lumber & metals	3,809,165	832,597	78	22
Airplanes & spare parts	4,216,046	1,036,149	75	25
Chemicals & chem'l plants	1,115,485	274,780	75	25
Instruments & accessories	1,054,527	315,290	70	30
Miscellaneous	853,091	187,376	78	22
Total,	$111,143,614	$23,954,594	78	22

STATUS OF CURRENT APPROPRIATIONS FOR THE MILITARY ESTABLISHMENT AS OF APRIL 15

Amounts appropriated comprise appropriations for the fiscal year ending June 30, 1919, plus the balances on July 1, 1918, of such appropriations as did not lapse on that date. Amounts repealed by the Second Deficiency Act have been deducted, with the exception of the item of $829,000,000 expected to be re-appropriated for the Quartermaster Corps.

Against the balance of $4,400,000,000 there are outstanding nominal obligations of about $4,500,000,000. This figure, however, represents in large part the value of contracts already suspended and awaiting liquidation. Savings effect in settling such contracts will reduce the amount of actual obligations well below the present balance.

	Appropriated	Withdrawn from Treasury	Balance in Treasury
Aircraft Production	360,527	135,304	225,223
Military Aeronautics	107,454	23,328	84,126

PER CENT OF APPROPRIATIONS WITHDRAWN

	To April 15	To March 31
Aircraft Production	38	37
Military Aeronautics	22	21

General A. Pinto, Chief Staff of the Chilean Army, and Capt. C. Garfias are touring the world inspecting various Aviation Centers. They were at Hazelhurst Field, Mineola, May 6th, accompanied by Col. A. Ewing, Military Attache of Chile in the United States. General Pinto is a student of aviation and the founder of a Chilean flying school in 1913.

TEN FIELDS TO BE ABANDONED

The War Department has decided to abandon the following flying fields:

Barron Field, Ft. Worth, Texas,
Call Field, Wichita Falls, Texas,
Carruthers Field, Ft. Worth, Texas,
Eberts Field, Lonoke, Arkansas,
Love Field, Dallas, Texas,
Payne Field, West Point, Miss.,
Rich Field, Waco, Texas,
Taliaferro Field, Ft. Worth, Texas,
Taylor Field, Montgomery, Ala.,
Gerstner Field, Lake Charles, La.,

as soon as equipment now in storage at these fields can be disposed of.

The abandonment of Gerstner Field will be completed by June 30, 1919. It is intended to sell or salvage the buildings and improvements unless they can be utilized to advantage by some other department of the Government.

The War Department has requested information from these other departments as to whether they desire to make use of any of these fields, and, if so, that further details will be supplied by the Construction Demobilization Committee of the General Staff.

ARTILLERY ADJUSTMENT BY RADIO TELEPHONY

The experiment of adjustment of fire by radio telephony was recently conducted with gratifying success at the School of Fire at Fort Sill, Okla. Qualified observers though without previous radio telephone training, conducted shoots using radio telephony instead of the radio telegraphy with gun crews also untrained in this new method.

Report has been made on these trials to the Director of Air Service from which observation is of popular interest:

"The radio telegraphic equipment now available for use makes possible the combining of the best features of terrestrial and of aerial observation. In terrestrial observation the B. C. has unbroken communication with his guns, but his visibility is uncertain. In aerial observation communication by radio telegraph was slow, even with expert operators sending and receiving; but the advantage of observing from a great height more than compensated for this disadvantage. The radio telephone gives us unbroken communication both ways, direct with the battery. The advantages of direct communication are: Elimination of the probability of error, saving the time of relaying the message, and making it possible for the observer to send down corrections rather than observations. In fact, one trained artillery officer can easily conduct the fire of two, or even three, batteries with speed and accuracy."

On April 22 one observer adjusted two guns on a two-gun emplacement in 28 minutes from the time the plane left the ground until the end of the problem. This was the first time he had ever conducted a problem from the air with the radio telephone, having bothway communication direct with the battery, and the gun crews were also new. It is believed that with trained personnel a precision adjustment can be accomplished in 20 minutes, or a zone adjustment in 3 or 4 minutes.

"The time required for adjustment with the radio phone was greatly reduced over that required by radio telegraph, due to the following savings:

"With one-way communication the observer can speak directly to the ground and can transmit the more quickly than with telegraph which is limited to about sixty (60) characters a minute and eliminates the use of code and the necessity of decoding before transmitting the sensing to the executive.

"With two-way communication additional time was saved due to the fact that the observer did not have to return to the battery to observe the panels between sensings and was therefore always in a position to observe the target and could give the command to fire as soon as the battery was reported ready."

The following named field officers have been ordered to change station as follows since May 1, 1919.

Ordered May 1, 1919.

Major Frank M. Kennedy, J.M. Aer., A.S.A., ordered from Naval Air Service Station, Pensacola, Florida, to Washington, D.C.

Ordered May 3, 1919.

Major Harry M. Brown, S. C., relieved from further duty at Air Service Depot, Garden City, Long Island, New York, and will proceed upon completion of his present leave of absence to Kelly Field, San Antonio, Texas.

The orders dated April 26, 1919, issued to Lieutenant-Colonel Bert M. Atkinson, J.M.A., A.S.A., were amended on May 1, 1919, so as to direct him to proceed from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D.C. temporary duty not to exceed ten days thence San Francisco, California, for transportation Honolulu Territory of Hawaii, for duty as Department Air Service Officer.

Lieut. Franklin. 319.1
Postal Mail & Air News Letter

Vol. II AIR SERVICE NEWS LETTER V-277

Information Group MAY 10, 1919 Building D
Air Service Washington, D. C.

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

PROSPECTS FOR COMMERCIAL AIRSHIPS.

Plans for municipal landing fields for aircraft in the United States should include provision for large airships. The American people have heard very little of late about large dirigible balloons, known generally by the more comprehensive designation of "airships", and, consequently, they do not realize the development reached in England and Germany.

The British airmen say that at least one of their airships will fly to America and return during the present summer. That should serve to rudely awaken the American people to our inferiority in respect to commercial air transportation. The present war well illustrates what the American people can do when their pride is thoroughly aroused. Hence, the advice to consider large airships in connection with landing fields should bear repetition.

Airships having a gas capacity of two million cubic feet are now successfully flying Europe; such ships have a gross lift of 60 tons and a useful lift of about 20 tons available for fuel, passengers and merchandise. There is a fundamental physical principle involved which assures far greater carrying efficiency in the future development, -- it is because the lift of airships increases as the cube of the dimensions. As the size increases it is found that the ratio of useful lift to gross lift becomes materially larger, so that an airship of ten million cubic feet capacity will have a gross lift of 300 tons of which 200 tons will be useful lift. Furthermore, the length and diameter of the ten million ship will be only 1.7 times greater than the existing two million ship with which it is compared. For the same fundamental reason the engine power increases much less rapidly than the volume and lift.

To improve their efficiency it is certain that airships will constantly increase in size, perhaps by increments of about one million cubic feet which will enable the designers to profit by experience and proceed with confidence. It should be appreciated that airship design must progress gradually like the design of seagoing ships.-- Attempting more at one time than is warranted by available engineering data is likely to result in failure and loss of the Airship.

Now that two million size airships have proved satisfactory, the British are designing 1920 models of greater capacity and constructing shelters suitable for the accommodation of probable sizes five years hence.

Do not be surprised within the present year to learn of the British nation inaugurating regular airship mail service to Paris, Rome and Canada. The vast expanse of the United States seems exceptionally favorable for the establishment of similar air routes including service to Alaska, Hawaii, Porto Rico, Cuba and Panama.

Large, expensive buildings to completely house great airships are not required for each landing field. The need is simply a fairly level clear space about one mile square having in the center a mooring mast. Each station will need emergency supplies of compressed hydrogen and helium, together with gasoline and lubricating oils. Terminal airship stations for effecting repairs will requir large buildings; but ultimately, when ships are constructed entirely of steel, the docks will probably consist only of wind-breaks extending from the ground a little more than half way to the top of the ship.

We may reasonably expect in the near future to have transcontinental airships in the United States each capable of carrying nearly 200 tons of useful load. Obviously it will be such airships that will transport the first class mail and some passengers. Airplanes will not be displaced by these mammoth ships, -- the natural employment of the planes in great number will be the local distribution of mail in all directions from the main airship stops across the continent.

There is no engineering difficulty now apparent which might prevent the fulfilment of the situation just stated. The delay will be caused by financial difficulties for the reason that no commercial firm could expect to furnish the many millions of dollars that will be required for several years while developing the engineering staff, construction plants and experimental types before the industry can be operated on a profitable commercial basis.

The fire risk which heretofore has menaced all hydrogen filled airships will be eliminated in the future by using helium, which is not inflammable.

It seems not only possible, but probable, that giant all metal airships capable of cruising 20,000 miles and remaining above the earth three weeks will appear within a few years.

OVER THE ROCKIES IN A FOKKER

On April 26, 1919, when the "Far West Liberty Loan Flying Circus" reaches Helena, Mont., Major Carl Spatz, A. S. A., M. A. flew a German Fokker from Helena, Mont., to Great Falls, over the Big Belt Spur of the Rocky Mountains to assist and augment a "side show" which had proceeded to Great Falls by train under the command of Major Robert Walsh. Major Spatz has given a brief account of the trip:

"Before leaving the ground I provided myself with a map of the country between Helena and Great Falls. Although not very suitable for cross country flying, it showed the Missouri River and most of the mountains.

"I left Helena, Mont., at 11:15 A.M. The field at Helena was the drill ground at Harrison Barracks about 4½ miles northwest of the city. It was rather small for the altitude above sea-level, 4700 feet. The length into the wind was 350 yards.

"After taking off I headed directly toward a notched mountain peak. This peak I had been informed was one of the sides of a canon through which the Missouri river flowed, and was a little west of north from the take-off field. For the first 15 minutes the country was fairly smooth and a landing could be effected anywhere. The Missouri River was visible after attaining an altitude of about 1500 feet. After 15 minutes flying I reached the mountains which border the northwest portion of the valley in which Helena is situated. My altitude at this time was 5000 feet above the take-off field. For the next ten minutes the country beneath was very rough. A strong north wind prevented any remarkable progress. After 25 minutes I was directly over the Missouri River and at 7000 feet altitude above the field at Helena. The river, being dammed, forms a lake some 20 to 30 miles long. For the next 15 minutes I followed north along this lake, the mountains rise abruptly from both sides of the lake. A landing could have been made, if necessary, in the lake. Continuing north along the river the mountains receded from the western shore and excellent landing places were apparent. Reaching Mid-Canon at the end of these 15 minutes, I seemed to stand motionless in the air as far as any progress over the ground was concerned. At Mid-Canon the Missouri has cut a narrow gap through the mountain ranges. I estimated their height to be about 10,000 feet above sea-level.

"My altitude upon reaching Mid-Canon was 8000 feet above the level of Helena. The mountains appeared to be about 2000 feet above. Reaching Mid-Canon and feeling that the wind was preventing much progress I nosed down slightly, passing through the canon into the level country beyond. My altitude after this manoeuvre was 3000 feet above Helena. Level country was between this point and Great Falls. Better progress was made from this point and I reached Great Falls at 12:30 P.M.

"The landing field was very narrow into the wind direction. In order to land I was forced to clear one line of telegraph wires and glide under another. Reaching the ground safely and having stopped rolling I attempted to taxy the machine. Striking a ditch resulted in breaking the tail skid and damaging the rudder.

"The trip took one hour and fifteen minutes. The distance following the river is about 100 miles. No rough air or unusual wind currents were experienced while over the mountains, although at times the tops seemed fairly close to the landing chassis. However immediately upon reaching the level country between Mid-Canon and Great Falls the air became exceedingly rough and continued so all the way to Great Falls. During the trip there was only about one 15 mile stretch where there was no landing place available."

FOUR FLY 1300 MILES

The big Martin bombardment 'plane, with four on board, completed, on May 7th, the round trip between Washington and Macon, Ga., flying the return distance of 650 miles without stop.

The passengers were: Lieut. Colonel T. E. Gillmore, of the Royal Air Force, Major W. H. Frank of the U.S. Air Service, Captain Roy N. Francis, Pilot, and Lieut. E. E. Harmon, second Pilot, The party left Bolling Field, Washington, D. C. for Macon, Ga., Sunday, May 4th at 1:25 P.M. and arrived at Pinehurst, S.C. at 6:05 Sunday evening, stopping there over night.

They left Pinehurst, S.C. at 9:00 o'clock, Monday, May 5th, but after passing Augusta, Ga. rain storms were encountered and forty miles were flown in the rain and clouds. "The clouds kept driving us lower to the ground, and we were forced to land at Haddock, Ga. in the rain and fog. The field selected was not the best, but no damage was done in the forced landing. In an hour and a half's time the rain ceased and we proceeded on to Macon, Ga., which was only abou fifteen miles away, arriving there at 3:40 Monday afternoon. A distance of 650

miles had been covered in a total of seven hours and fifty five minutes flying time.

"On the return trip, we left Macon, Ga. for Washington, D. C. at 9 o'clock, but due to low clouds and poor visibility we had considerable trouble in finding the proper railroad to get our bearings on leaving Macon. We lost abou three quarters of an hour flying around and orientating our ship and ourselves in the low clouds. Finally getting our correct railroad, we left Macon at 10;15 and flew a direct line to Washington, D. C. a distance of 650 miles, in six hours and fifteen minutes, non-stop, landing at Bolling Field at 4:30 Wednesday.

"In our non-stop flight back from Macon, we encountered at least five thunder showers in a distance of 200 miles. At times we were flying as low as 500 feet and other times as high as 4,000 feet. We found when striking a rain storm, if we slowed the machine down, the rain would not damage the propellers as much as if they were on full speed; also, it was easier to drive in a rain at a slower speed."

The maps used were those of the Department of Navigation, A. S. A. These were geological survey maps, in a roll strip of about [illegible] miles width and of the total length of the Macon - Washington trip. The direct air line with proper compass course and emergency landing fields are noted on these maps.

There was no trouble, with fair visibility, in locating every town or village passed, checking it off map and noting the exact position of the flight relative to the direct air line from the two given points.

NEW ALTITUDE RECORD FOR KELLY FIELD

On Friday, April the 25th, 1919, 2nd. Lieut. James M. Field, jr. broke the altitude record for Kelly Field of 19,000 feet recently established by Lieut. W. R. Sweeley, by reaching a height of 20,100 feet in a De Havilland 4, equipped with a Liberty 12.

The total time required to make the flight was 74 minutes, with an average climb of 358 feet plus per minute. The first 5000 feet required 5 minutes, 10,000 feet in 10 minutes, 15,000 feet in 24 minutes, 18,000 feet in 38 minutes and 20,100 feet in 56 minutes. The down-ward trip was made in 18 minutes.

Lieut. Field kept the ship in a steady climb, with air speed of 55 m.p.h. to 60 m.p.h. and the motor turning 1560 revolutions per minute up to 14,000 feet where R.P.M. gradually dropped to 1480 at 20,100 feet. Lieut. Field experienced no difficulty in breathing and was not uncomfortably cold at any time. Lieut. S. S. Boggs, passenger, noticed the cold to a certain extent and experienced slight difficulty in breathing above 18,000 feet.

FLYING FIELD CASUALTIES

The War Department authorizes publication of the following statement of fatalities which occurred at flying fields, camps, etc., in the United States during the week ended April 24, 1919:

Call Field, Wichita Falls, Texas	1
Hazelhurst Field, Mineola, L.I., N.Y.....	1
Total ...	2

CIVILIAN FLYING LICENSES
ISSUED BY THE JOINT ARMY AND NAVY BOARD OF AERONAUTIC COGNIZANCE

License No.	Issued to	Address
431	Howard C. Brown	Charleston, W. Va.
432	Robert John Wilde	Baltimore, Md.
433	James Hodgens Smith	Overland Park, Kansas.
434	B. M. Spencer	Vallejo, California
435	Gilbert G. Budwig	Washington, D. C.
436	Wm. A. Kopseker and Wm. C. Miller	Topeka, Kansas.
437	H. R. Cruikshank.	Chicago, Ill.
438	Fred DeKor	Kansas City, Mo.
439	Monte Rolfe	Elizabeth, N.J.
440	Edward A. Terhune, Jr.	Dorchester, Mass.
441	Raymond B. Quick	Weehawken, N.J.
442	Thomas Hayes Potter	Boston, Mass.
443	Louis Henry Mueller	San Francisco, Calif.
444	Crescent Balloon Company	West Haven, Conn.
444a	L. C. Haugen	Northwood, Iowa.
445	Wm. Burleigh Hutchinson,	Dayton, Washington
446	George T. Wright,	East Lansing, Michigan.
447	Harry M. Jones	Cambridge, Mass.
448	W. H. Cushing	Philadelphia, Pa.
449	Police Reserve Air Service of the City of New York	New York City.
450	Wayne V. Pittman,	Montgomery, Ala.
451	H. Lorimer Rhoades	Forest Hills, Long Island, N.Y.
452	Harry Gray Carley	W. Newton, Mass.
453	Horace B. Wild	Lincoln, Nebraska
454	Errold G. Bahl	Humboldt, Nebraska
455	John L. Salway,	Ridgewood, N.J.
456	Henry Irvin Beall	Camp Morrison, Va.
457	Stanley Clarke	Winchester, Mass.
458	William D. Davis	New York City.
459	Overton M. Bounds,	Elizabeth, N. J.
460	Charles A. Skiver	Indianapolis, Indiana.
461	Paul Robert Blair,	Chicago, Ill.
462	Asheville Aerial Corporation	Asheville, North Carolina.

AWARDS OF FRENCH CROIX DE GUERRE, WITH PALM

2nd. Lieut. James H. Ackerman, 1st. Aero Squadron,
1st. Lieut. Thomas P. Atkinson, 47th. Balloon Company,
1st Lieut. Walter L. Avery, 95th. Aero Squadron,

1st. Lieut. Ralph Bridges Bagby, 88th. Aero Squadron,
2nd. Lieut. Alfred B. Baker, 12th. Aero Squadron,
2nd. Lieut. Newel Barber, 108th. Aero Squadron,
1st. Lieut. Charles Raymond Blake, 29th. Aero Squadron,
1st. Lieut. Herman St. John Boldt, 1st. Aero Squadron, (deceased)
1st. Lieut. Alford J. Bradford, 12th. Aero Squadron, (deceased)
1st. Lieut. Jasper Brown, 67th Aero Squadron.
2nd. Lieut. Valentini Burger 48th. Aero Squadron,
1st. Lieut. Pitt. F. Carl, 88th. Aero Squadron,
1st. Lieut. George M. Comey, 88th. Aero Squadron,
1st. Lieut. John Cotton, 120th. Aero Squadron,
1st. Lieut. William B. Cowart, 1st. Aero Squadron,
2nd. Lieut. Roger W. Hitchcock, 88th. Aero Squadron (deceased)
1st. Lieut. Amos L. Hopkins, 12th. Aero Squadron,
1st. Lieut. Alfred N. Joerg, 13th. Aero Squadron, (deceased)
Major General Charles T. Menoher 42nd. Division,
Brig. General William Mitchell, Air Service,
2nd Lieut. Frank M. Moore, 88th. Aero Squadron (deceased)
2nd. Lieut. Earl Porter, 29th. Aero Squadron,
2nd. Lieut. John A. Posey, 111th. Aero Squadron,
2nd. Lieut. Colman Reedy, 108th. Aero Squadron,
2nd. Lieut. Lloyd Schaeffer, 66th Aero Squadron,
1st. Lieut. William H. Taylor, 95th. Aero Squadron, (deceased)
2nd. Lieut. James C. Wooten, 11th. Aero Squadron,
Sergeant Reginald Sinclaire, Escadrille No. 68.

AIR SERVICE OFFICERS NOW CIVILIANS

"By direction of the President, and under the provisions of Section 9, Act of Congress, May 18, 1917, and Circular No. 75, War Department 1918, the following officers are honorably discharged from the Service of the United States, for the convenience of the Government, to take effect this date, their services being no longer required."

George Bleistein, Jr.,	Captain, A.S.A.
Stephen Philbin,	Second Lieutenant, A.S.A.
Preston B. Wilkes, Jr.,	Second Lieutenant, A.S.A.
Emmett R. Tatnall,	Second Lieutenant, A.S.M.A.
Kenneth B. Warner,	Second Lieutenant, A.S.A.
Henry M. Hoyt, Jr.,	First Lieutenant, A.S.A.
George P. Sweet,	Captain, A.S.A.P.
Theodore H. Sloan,	2nd. Lieut., A.S.A.P.
Philander R. Gray,	Captain, A.S.A.
William M. Sweet,	2nd. Lieut., A.S.A.
Dean B. Fraser,	2nd. Lieut., A.S.A.
Paul M. Muller,	Second Lieutenant, A.S.A.P.
Robert E. Hill,	First Lieutenant, A.S.A.
James W. Osgood,	Captain, A.S.A.
Frank I. Wheeler, Jr.	First Lieutenant, A.S.A.P.
Roy T. Robling,	Second Lieutenant, A.S.A.P.
Daniel Cushing,	Captain, A.S.A.P.
William Knight,	First Lieutenant, A.S.A.
Bruce D. Reynolds,	First Lieutenant, A.S.A.P.
James A. Stone,	First Lieutenant, A.S.A.P.
Oscar R. Zipf,	Second Lieutenant, A.S.A.
John Gordon, Jr.	Captain, A.S.A.
William P. Field,	Captain, A.S.S.C.
Paul N. Edwards,	First Lieutenant, A.S.A.
William A. Taylor,	Second Lieutenant, A.S.A.
Howard C. Babcock,	First Lieutenant, A.S.A.
William T. Wilkinson,	Second Lieutenant, A.S.A.

1108TH AND 660TH HOME

The "Giuseppi Verdi" sailed from Marseilles on April 30th, with one officer and 129 men of the 1108th Aero Squadron and one officer and 113 men of the 660th. Theyare due in New York about May 12th.

Out of an approximate Air Service strength in the A.E.F. on November 11, of 79,658, 52% have sailed for the U.S. up to April 20 --41,056. The sailings reported for the various services are approximate only, being low in all instances due to the large number of casuals whose organizations are not indicated in cabled reports.

The following organizations have been assigned to early convoy:

1st Balloon Company, Aero Squadrons, numbers 25, 28, 213, 223, 91, 12, 94, 166, 100, 163, 22, and 185; Photo Sections Numbers 2, 4 and 6; Mobile Ordnance Repair Shops Numbers 5, 106, 109, 114, 309, 310 and 312.

AIR SERVICE DEMOBILIZATION

The net decrease in the total commissioned and enlisted strength from the date of the armistice to April 17 was 69 per cent.

The following table shows the present distribution of personnel as compared with November 11, and per cent of net decrease. The April 17 figures do not include 514 men at demobilization camps awaiting discharge.

	Nov. 11	Apr. 17	Per cent net decrease
Cadets	5,775	824	86
Officers	20,586	6,220	70
Enlisted men	164,266	51,384	69
Total,	190,627	58,428	69

69 Per Cent of Present Air Service Personnel Overseas

During the week ended April 17, 1919, the Air Service personnel overseas decreased 424 men as against a weekly average of 2,268 during the nine preceding weeks. The strength of the Air Service in the United States and overseas is shown for various dates in the following diagram:

	U.S.	Overseas
Nov. 11	111,846	78,786
Dec. 2	115,216	78,061
Dec. 26	99,010	59,917
Jan. 30	46,919	57,527
Feb. 27	33,649	53,087
Mar. 23	25,347	41,800
Apr. 10	20,636	40,855
Apr. 17	17,753	40,431

AIRCRAFT DELIVERIES

(Prepared by Statistics Branch, General Staff, War Department - April 26, 1919)

Over 1,000 Hispano-Suiza 180 and 300 H.P. Engines Remain on Order

During the week ended April 17, 1919, the only engine remaining on order was the Hispano-Suiza. Of these 809 were of the 180 H.P. type engine, and 249 of the 300 H.P. type. All are forecast for completion in May. The following table shows the status of the remaining engine production:

Hispano-Suiza type	Number on order	Number produced	Remaining on order	PER CENT Produced	PER CENT Remaining
180 H.P.	6,000	5,191	809	87	13
300 H.P.	500	251	249	50	50
Total	6,500	5,442	1,058	84	16

Status of Outstanding Orders, Principal Items of Equipment

Includes all articles of equipment on outstanding contracts through April 15, 1919, except airplane bombs and clothing.

DELIVERIES OVER 90 PER CENT OF ORDERS

	Orders	Deliveries	Per cent		Orders	Deliveries	Per Cent
De Havilland 4 planes	4846	4842	99.9	Balloons Kite Type "R"	910	898	98.6
Compasses	12650	12644	99.9	Gun yokes	20402	19976	97.9
Cameras - gunnery training	1609	1599	99.3	Oxygen Apparatus	6100	5609	92.0
Oak lumber (1000 ft.)	311	308	99.0	Lewis machine guns	43950	40294	91.7
Spare train, propellers	33631	33269	98.9	Vickers machine guns	18125	16366	90.3

DELIVERIES 51 TO 90 PER CENT OF ORDERS

Motor lorry outfits	77	69	89.6	Bomb sights	16544	11630	70.3
Airplane fabrics (1000 yds)	11568	10263	88.7	Bomb releases	15850	10362	65.3
Hispano 180 H.P. engines	6000	5191	86.5	Flare bracket holders	23037	14542	63.1
Hydrogen cylinders	172800	147300	85.2	Cherry lumber (1000 ft)	1006	618	61.4
Handley P. laminations	2000	1660	83.0	Gasoline gauges	1450	858	59.2
Cameras - observation	1351	1051	77.8	Winches	236	135	57.2
Oxygen tanks	17000	13077	76.9	Cable (1000 ft.)	3310	1828	55.2
Sychronizing devices	24226	18028	74.4	Flares	162248	83000	51.2

DELIVERIES LESS THAN 51 PER CENT OF ORDERS

Hispano 300 H.P. engines	500	251	50.2	Walnut lumber (1000 yds)	10354	4649	44.9
Balloon fabrics (1000 yds)	13764	6891	50.1	Mahogany (1000 ft.)	22352	9984	44.7
Cotton tape (1000 yds.)	15090	7339	48.6				

DISCHARGES OF COMMISSIONED OFFICERS, BY SERVICES, THROUGH APRIL 24.

Branch of Service	On duty Nov. 11	Discharges week ended April 24	Discharges Nov. 11 to Apr. 24	Per cent discharges through April 24.
Military Aeronautics	18,661	201	12,708	68
Aircraft Production	1,898	10	1,208	64

SALE OF SURPLUS SUPPLIES

Value of sales as reported to the Director of Sales to April 18, 1919

	Total to March 28	March 29-April 4	April 5-11	April 12-18	Total To April 18
Aircraft Production	927,723	59,302	105,620	8,099	1,100,744
Military Aeroantuics	456,970	2,780	6,686	4,916	471,352

PRICE RECEIVED VS. ORIGINAL COST

	*Received	Cost	Receipts in per cent of cost
Aircraft Production	1,096,573	1,222,091	90
Military Aeronautics	460,352	636,788	72

*Figures exclude items for which cost is not known.

VALUE OF CONTRACTS CANCELED AND SUSPENDED

During the week ended April 19, 1919, the Bureau of Aircraft Production withdrew cancellations and suspensions of contracts to the amount of $394,110, thus reducing the total of canceled and suspended contracts to $497,644,628. These withdrawals are practically all for spare parts and accessories. Following is a summary of the value of cancellations and suspensions of contracts as of April 19, 1919:

	Value	Per cent of total
Engines and spare parts	$275,462,776	55
Airplanes and spare parts	164,134,974	33
Chemicals and chemical plants	18,009,964	4
Instruments and accessories	10,570,788	2
Balloons and supplies	9,207,494	2
Fabrics, lumber, and metals	7,329,440	1
Miscellaneous	12,929,192	3
Total	$497,644,628	

78 PER CENT SAVINGS ON LIQUIDATION OF CANCELED CONTRACTS

From the date of the armistice to April 5, 1919, canceled and suspended contracts representing an original value of over $111,000,000 have been liquidated at a saving of over $87,000,000 or 78 per cent.

In the following diagram is shown the per cent of actual saving and per cent cost of termination of contract, for various items:

	Value of Canceled contracts	Termination charges (for contractor)	Per Cent Actual saving	Termination charges
Balloons & supplies	$3,732,908	$ 558,559	85	15
Engines and spare parts	96,362,392	20,749,843	78	22
Fabrics, lumber & metals	3,809,165	832,597	78	22
Airplanes & spare parts	4,216,046	1,036,149	75	25
Chemicals & chem'l plants	1,115,485	274,780	75	25
Instruments & accessories	1,054,527	315,290	70	30
Miscellaneous	853,091	187,376	78	22
Total,	$111,143,614	$23,954,594	78	22

STATUS OF CURRENT APPROPRIATIONS FOR THE MILITARY ESTABLISHMENT AS OF APRIL 15

Amounts appropriated comprise appropriations for the fiscal year ending June 30, 1919, plus the balances on July 1, 1918, of such appropriations as did not lapse on that date. Amounts repealed by the Second Deficiency Act have been deducted, with the exception of the item of $829,000,000 expected to be re-appropriated for the Quartermaster Corps.

Against the balance of $4,400,000,000 there are outstanding nominal obligations of about $4,500,000,000. This figure, however, represents in large part the value of contracts already suspended and awaiting liquidation. Savings effected in settling such contracts will reduce the amount of actual obligations well below the present balance.

	Appropriated	Withdrawn from Treasury	Balance in Treasury
Aircraft Production	360,527	135,304	225,223
Military Aeronautics	107,454	23,328	84,126

PER CENT OF APPROPRIATIONS WITHDRAWN

	To April 15	To March 31
Aircraft Production	38	37
Military Aeronautics	22	21

General A. Pinto, Chief Staff of the Chilean Army, and Capt. C. Garfias are touring the world inspecting various Aviation Centers. They were at Hazelhurst Field, Mineola, May 5th, accompanied by Col. A. Ewing, Military Attache of Chile in the United States. General Pinto is a student of aviation and the founder of a Chilean flying school in 1913.

TEN FIELDS TO BE ABANDONED

The War Department has decided to abandon the following flying fields:

Barron Field, Ft. Worth, Texas,
Call Field, Wichita Falls, Texas,
Carruthers Field, Ft. Worth, Texas,
Eberts Field, Lonoke, Arkansas,
Love Field, Dallas, Texas,
Payne Field, West Point, Miss.,
Rich Field, Waco, Texas,
Taliaferro Field, Ft. Worth, Texas,
Taylor Field, Montgomery, Ala.,
Gerstner Field, Lake Charles, La.,

as soon as equipment now in storage at these fields can be disposed of.

The abandonment of Gerstner Field will be completed by June 30, 1919. It is intended to sell or salvage the buildings and improvements unless they can be utilized to advantage by some other department of the Government.

The War Department has requested information from these other departments as to whether they desire to make use of any of these fields, and, if so, that further details will be supplied by the Construction Demobilization Committee of the General Staff.

ARTILLERY ADJUSTMENT BY RADIO TELEPHONY

The experiment of adjustment of fire by radio telephony was recently conducted with gratifying success at the School of Fire at Fort Sill, Okla. Qualified observers though without previous radio telephone training, conducted shoots using radio telephony instead of the radio telegraphy with gun crews also untrained in this new method.

Report has been made on these trials to the Director of Air Service from which observation is of popular interest:

"The radio telegraphic equipment now available for use makes possible the combining of the best features of terrestrial and of aerial observation. In terrestrial observation the B. C. has unbroken communication with his guns, but his visibility is uncertain. In aerial observation communication by radio telegraph was slow, even with expert operators sending and receiving; but the advantage of observing from a great height more than compensated for this disadvantage. The radio telephone gives us unbroken communication both ways, direct with the battery. The advantages of direct communication are: Elimination of the probability of error, saving the time of relaying the message, and making it possible for the observer to send down corrections rather than observations. In fact, one trained artillery officer can easily conduct the fire of two, or even three, batteries with speed and accuracy."

On April 22 one observer adjusted two guns on a two-gun emplacement in 28 minutes from the time the plane left the ground until the end of the problem. This was the first time he had ever conducted a problem from the air with the radio telephone, having bothway communication direct with the battery, and the gun crews were also new. It is believed that with trained personnel a precision adjustment can be accomplished in 20 minutes, or a zone adjustment in 3 or 4 minutes.

"The time required for adjustment with the radio phone was greatly reduced over that required by radio telegraph, due to the following savings:

"With one-way communication the observer can speak directly to the ground and can transmit the more quickly than with telegraph which is limited to about sixty (60) characters a minute and eliminates the use of code and the necessity of decoding before transmitting the sensing to the executive.

"With two-way communication additional time was saved due to the fact that the observer did not have to return to the battery to observe the panels between sensings and was therefore always in a position to observe the target and could give the command to fire as soon as the battery was reported ready."

The following named field officers have been ordered to change station as follows since May 1, 1919.

Ordered May 1, 1919.

Major Frank M. Kennedy, J.M. Aer., A.S.A., ordered from Naval Air Service Station, Pensacola, Florida, to Washington, D.C.

Ordered May 3, 1919.

Major Harry M. Brown, S. C., relieved from further duty at Air Service Depot, Garden City, Long Island, New York, and will proceed upon completion of his present leave of absence to Kelly Field, San Antonio, Texas.

The orders dated April 26, 1919, issued to Lieutenant-Colonel Bert M. Atkinson, J.M.A., A.S.A., were amended on May 1, 1919, so as to direct him to proceed from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D.C. temporary duty not to exceed ten days thence San Francisco, California, for transportation Honolulu Territory of Hawaii, for duty as Department Air Service Officer.

Vol. II AIR SERVICE NEWS LETTER V-317

Information Group
Air Service

MAY 16, 1919

Building D
Washington, D. C.

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

THE AUTOMATIC OBSERVER

Another new device has been invented for the aircraft instrument board. - air "Automatic Observer" (Turner & Long).

This has been designed for the purpose of taking an accurate record of the performance of an aeronautical engine. The mechanism is constructed to record on a paper tape the revolutions per minute of the engine, the altitude at which operating and the fuel flow to the engine in gallons per hour.

The instrument consists of a recording box "A", carrying on its right side a stop clock which starts the recording tape in motion when there is the slightest flow of fuel (.113 gallon per hour), or one revolution of the engine per minute, and will continue to keep the tape in uniform motion for a period of fifty hours or until the engine or fuel flow are totally cut off. There is a glass door in the front of the recording box which may be opened to make possible the inspection of all working parts therein or to make any slight adjustment of the recording pens that may be found necessary from time to time. There is another door at the base of the box from which the tape that has been used is taken out and inspected or cut off and taken to the record department for comparison or filing. New tape is put in at the end of fifty hours flying. The box also carries three recording pens which are directly connected with the recording sylphons. The revolution recording sylphon and the fuel flow recording sylphon are connected to their respective units by means of hydraulic transmission lines. All hydraulic lines are totally filled with a special non-freezing solution which is not effected appreciably in change of volume by temperature. The recording sylphon at the extreme right of the box is connected to the flow-meter "B" and records in gallons per hour from 0.1 to 50.0 on the tape. The center unit in the recording box is a paragraph of the well known type, except for the fact that much more durable sylphons are used. The unit in the extreme left of the box records the revolutions of the engine per minute and is sensitive to one R.P.M. It is connected to the revolution counter "C" which consists of a small gear pump, incorporated in which is a small flow-meter. This measures the flow or discharge of the pump for every speed, thus giving a very accurate method of taking the revolutions of the engine. No flexible shaft is used on this type of tachometer and therefore less trouble should be experienced.

The entire instrument is very simple in construction and has been found by test to be accurate in operation. Vibration seems to have no effect on the recording and vibrations that are set up are quickly damped out in the hydraulic lines of the units. It has been tested and found that a change of heat or temperature has no effect on the accuracy of the reading.

May 16-1919

V-317
A.S.

The Automatic Observer will be used for testing airplanes and airships for the most economical flying conditions. When this has been determined for any type of airplane, a red line marked on all the recording tapes will show the pilot, at all times during the flight, what adjustments to make to get the best possible performance while in the air. Another use of this instrument is for testing a student flyer as to his ability to operate an airplane in the most economical manner while in the air. This will be obtained by comparing the record made by the student with the standard for that airplane. Still another use of this instrument is for taking comparative records of the performance of different types of carburetors, engines, airplanes, etc., as to their climb, speed, fuel consumption, etc. This instrument is not limited totally to use in the air but may be used at ground testing laboratories by incorporating in it a temperature and power recording device and would prove of great value in making tests. It can also be used on automobiles for reading the miles traveled per gallon of fuel.

NOW CIVILIANS

The following officers have been honorably discharged by P[illegible] Order, of May 10, 1919:

Roy F. Lindquest,	Second Lieutenant, A.S.A.,
Jay L. Crouse,	Captain, A.S.A.,
Robert J. Randolph,	First Lieutenant, A.S.A.P.

Up to date 995 officers have been discharged.

CIVILIAN FLYING AND INSURANCE

The London public seems not to be deterred by poor weather or the alleged risks of flying.

According to THE TIMES (London):

"All sorts of people were taking the opportunity of flying, and many tickets had already been sold by midday. These tickets are available for any one of the four days of the holiday, and as many have been sold to women as to men. Parties of three and four were also being made up, and there was a brisk demand for insurance at the rate of 5s. for £500 against death and 5s. for £250 in case of injury. But that fact did not indicate any real nervousness on the part of passengers, among whom were quite a number of elderly people. The machines to be used will be much as they were in wartime, and passengers will be able to discover for themselves, without the joy that may spring from dropping bombs on the foe, what are the sensations of an observer in a fighting 'plane. They will be well advised to take warm wraps with them.

"Pleasure flying will not be limited to London. Half a dozen seaside resorts, among them some of the most popular are on the South Coast, have arrange for pleasure aircraft to be at the disposal of visitors. While it may be possibl

for some of them to spend their Easter looping the loop, the flying at Cricklewood will be of a more sober character, and incidentally that is a good thing for the public, for no Handley Page machine evere stunted or ever will."

TRANSATLANTIC AERIAL INSURANCE

"Many inquiries are understood to have been received in the insurance market for policies covering pilots and machines against the risk of accidents in the projected Transatlantic flight.

"It is indicative of the immense interest which the scheme is arousing that very divergent views are expressed on what the rates ought to be. One machine is known to have been insured against the risks of total loss and damage at a premium of 20 per cent., which, as regards the risk of total loss alone, is equivalent to odds of 4 to 1 in favour of the machine reaching Europe safely.

"On the other hand, some authorities whose judgment carries much weight consider that this premium is inadequate. They believe that the odds are not more favourable than even, and that, allowing for the prospect of earning a reasonable profit, the premium should be about 55 per cent. It is notable that some who have been writing aircraft risks on a modest scale for years are not among those who are quoting the lowest rates.

"The task of the aeronautical underwriter at present in quoting rates is undoubtedly difficult. He must try to quote a rate low enough to encourage aviation, but one which really does bear some relation to the risks incurred. It is quite conceivable that some wealthy concerns to attract business might temporarily quote rates lower than the risks actually justified, and be willing in the process to lose a good deal of money. But sooner or later the rates would be adjusted to the actual conditions, and then it might be that the public who had subscribed capital to concerns basing their estimates of financial results on unduly low costs of insurance that would not continue, would suffer."

"To avoid delays in applying for insurance it is necessary, in the case of a 'flip' (a short aerial pleasure trip) give the name of the aerodrome from which he proposes to fly and the type of machine. When longer flights are proposed the character of the trip must be specified. The particulars specified by the underwriters are not as full as those which the Aircraft Inspection Department of the Air Ministry requires the transport companies to submit to it, and when the simple facts are furnished to the aeronautical underwriter a rate of premium can be obtained immediately."

— The Times (London).

ADDITIONAL AWARDS OF CROIX DE GUERRE, WITH PALM

1st Lieut. James Beane, 69th. Aero Squadron,
1st Lieut. Walter Bender, 91st Aero Squadron,
2nd Lieut. Frederick William Borchers, 129th Aero Sqaudron,
Lieut. Colonel Thomas S. Bowen, Air Service,
1st Lieut. William Calkins, 129th Aero Squadron,
Captain Lucien H. Cooke, Aero Squadron No. 39,
1st Lieut. Harry Craig, 120th Aero Squadron,
2nd Lieut. Richard Davis, 77th Aero Squadron,
2nd Lieut. Frank Dixon, 55th Aero Squadron,
1st Lieut. Alvin C. Goodale, 12th Aero Squadron (deceased),
1st Lieut. Horace Moos Guilbert, 91st Aero Squadron,
1st Lieut. James Goodwin Hall, 11th Aero Squadron,
2nd Lieut. Bradley Bancroft Hammond, 108th, Aero Squadron,
2nd Lieut. Frederick K. Hirth, 91st Aero Squadron (deceased)
1st Lieut. Miles W. Kresge, 99th. Aero Squadron,
2nd Lieut. Horace Lake, 46th Aero Squadron,
1st Lieut. Manderson Lehr, 117th Aero Squadron, (deceased),
2nd Lieut. David Wilber Lewis, 79th Aero Squadron,
Major Kenneth P. Littauer, 88th Aero Squadron,
2nd Lieut. William W. Lovett, jr., 76th Aero Squadron,
1st Lieut. John C. Lumsden, 12th Aero Squadron (deceased)
2nd Lieut. Richard W. Moody, 129th Aero Squadron,
1st Lieut. Carlyle La Mar Nelson, 131st Aero Squadron,
2nd Lieut. James Milton Newel, 131st Aero Squadron,
1st Lieut. Thomas W. Noonan, 29th, Aero Squadron,
1st Lieut. Ernest G. Noring, 29th Aero Squadron,
2nd Lieut. Paul Penfield, 46th Aero Squadron,
1st Lieut. William T. Ponder, 163d. Aero Squadron,
1st Lieut. David Putnam, 129th Aero Squadron (deceased)
1st Lieut. Dominic William Rich, 129th Aero Squadron,
2nd Lieut. Harry Schaffer, 66th Aero Squadron,

ADDITIONAL AWARDS OF FRENCH CROIX DE GUERRE, WITH GILT STAR

2nd Lieut. Valentine J. Burger, 90th Aero Squadron,
1st Lieut. Thomas Cassady, 163d. Aero Squadron,
Lieut. Harvey Conover, 90th, Aero Squadron,
1st Lieut. Raymond C. Hill, 267th Aero Squadron,
2nd Lieut. Joseph W. Lane, 5th Balloon Company,
1st Lieut. Russell MacCormack, 164th Aero Squadron,
1st Lieut. R. C. McCormack, 64th Aero Squadron,
2nd Lieut. Charles W. Plummer, 88th Aero Squadron (deceased),
1st Lieut. William Ponder, 163rd Aero Squadron,
1st Lieut. John I. Rancourt, 88th, Aero Squadron,
Captain William G. Schaffer, 90th Aero Squadron,

FIELD OFFICERS WHO CHANGE STATION

1. The following named field officers have been ordered to change station as follows since May 5, 1919.

Ordered May 8, 1919.

Colonal Henry H. Arnold, J.M.A., A.S.A., ordered from Rockwell Field, San Diego, California, to San Francisco, California, for duty as Department Air Service Officer.

Colonel Joseph C. Morrow, M.A., A.S.A., ordered from Washington, D.C., to Chicago, Illinois, for duty as Department Air Service Officer.

Colonel James E. Fechet, J.M.A., A.S.A., ordered from Kelly Field, San Antonio, Texas, to Fort Sam Houston, San Antonio, Texas, for duty as Department Air Service Officer.

Colonel Gerald C. Brant, A.S.A., ordered from Ellington Field, Houston, Texas, to New York City, New York, for duty as Department Air Service Officer.

Lieutenant-Colonel Leonard H. Drennan, J.M.A., A.S.A., ordered from Chicago, Illinois, to Boston, Massachusetts, for duty as Department Air Service Officer.

Lieutenant-Colonel Herbert A. Dargue, M.A., A.S.A., ordered from Washington, D. C., to Charleston, South Carolina, for duty as Department Air Service Officer. Colonel Dargue has been granted fourteen days leave of absence enroute.

Major John McClintock, A.S.A., ordered from New York City, New York, to Hazelhurst Field, Mineola, Long Island, New York.

Major John B. Edgerly, A.S.A., ordered from Charleston, South Carolina, to Souther Field, Americus, Georgia.

Ordered May 12, 1919.

Colonel William N. Hensley, J.M.A., A.S.A., ordered from Army Balloon and Airship Detachment, Akron, Ohio, to Langley Field, Virginia, to assume command.

Major Clarence H. Maranville, A.S.A., ordered from Naval Air Service Station, Key West, Florida, to Washington, D.C., on temporary duty not to exceed five days, thence to Akron, Ohio to assume command.

2. So much of telegraphic orders dated May 8, 1919, as directs Colonel Theodore A. Baldwin, Jr., A.S.A., to return upon completion of his temporary duty to his proper station Hazelhurst Field, Mineola, Long Island, New York, is amended so as to direct him to report to the Director of Air Service, Washington, D.C., for duty.

CIVILIAN FLYING LICENSES

ISSUED BY THE JOINT ARMY AND NAVY BOARD OF AERONAUTIC COGNIZANCE

Licence No.	Issued to	Address
343	Service Aviation Training & Transportation Company,	Wabash, Ind.
387	Tony Barone	Fort Worth, Texas.
388	H. W. Hanchette	Fort Worth, Texas.
389	Clarence F. Cato	Beaumont, Texas.
463	Francis B. Towle	Larchmont, N.Y.
464	Donald Gifford Vande Water	Washington, D.C.
465	Howard J. Ludington,	Holley, New York.

License No.	Issued to	Address
466	G. W. Shaw	Caribon, Maine
467	Laurence L. Russell	Wilmington, Del.
468	Adolphua R. McConnell	Knoxville, Tenn.
469	Earl Kenneth Campbell	Strawberry Pt., Iowa.
470	F. E. Carter	Chevy Chase, Md.
471	Goodyear Tire and Rubber Company,	Akron, Ohio.
472	Henry C. Kenly,	Washington, D.C.
473	William L. Kenly,	Washington, D.C.
474	Charters Ward Birch	Albany, N.Y.
475	Paul B. King	Salt Lake City, Utah
476	Hannivig Aircraft Company	New York City.
477	Ashmusen Mfg. Company	Omaha, Neb.
478	E. A. Johnson,	Dayton, Ohio.
479	Martin A. Sundeen	Michigan City, Ind.
480	J. J. Tillis, Jr.	DeLand, Florida.
481	Charles Fred Taylor	Waterloo, Iowa.
482	R. D. Jennings	Ravenna, Ohio.
483	Logan T. McMeremy,	Rockford, Ill.
484	Carroll G. Taylor	Dallas, Texas
485	Edward P. Brennan	Southampton, N.Y.
486	Thomas Durfee	Providence, R.I.
487	George L. Barnett	Des Moines, Iowa
488	Lyman B. Lockwood	New York,City.
489	L. Phelps Ashley	Norwood, N.Y.
490	Mark I. Ashley,	Norwood, N.Y.
491	Edward K. Merritt	New York City.
492	Luke Christopher	Everman, Texas.

FUNCTIONS OF INFORMATION GROUP

The principal function of the Information Group, Office of the Director of Air Service, is the gathering and dissemination of all information of value to the Air Service.

The Group maintains a library, in addition to its other activities, in which it is essential that copies of reports, manuals, pamphlets and publications of a tactical, technical or engineering nature received in the Air Service be filed.

"It should be borne in mind that information considered of value to any office or individual of the Air Service, in his official capacity, must of necessity be of value to the Air Service as a whole, and should be sent to the Chief, Information Group, for file."

Commanding Officers and heads of offices have been directed to take immediate steps to establish a system whereby all information of value to the Air Service coming to their attention, or to the attention of any individual under their control, is transmitted as soon as practicable to the Chief, Information Group, through military channels.

BALLOON AIDS LIBERTY LOAN

The 22nd Balloon Company has been at Van Cortland Park, New York City and at Boston, in connection with the recent Victory Liberty Loan. On the 10th instant, while the balloon was 3000 ft. above Boston, Captain John D. Jones, the Company Commander, telephoned to Colonel Chandler in Washington, the transmission being remarkably clear.

Captain Jones reported that the balloon has been a great success as a Liberty Loan attraction; during the few days that the balloon had been at Boston more than $1,500,000.00 had been subscribed to the Loan by persons desiring ascensions and others buying bonds for the privilege of telephoning from the ground to the passengers in the balloon. While at New York and Boston the 22nd Balloon Company secured many enlistments for the Air Service.

BOMBING FOR THE VICTORY LIBERTY LOAN

The baseball season of the Texas League opened at San Antonio on April 26, 1919. Business was practically at a standstill and even the oil question was forgotten temporarily as thousands of fans made their way to the ball field.

Seizing the opportunity for boosting the Victory Liberty Loan, Mr. Napier, the Chairman of the Loan Committee for the section, called upon Kelly Field to aid in the distribution of Victory Liberty Loan literature, and ships were immediately put at his disposal.

Five De Havilland Fours in formation took the air at 3:45 P.M., and after reaching the park bombed the field. A formation of Curtiss J N 4 D's took off at 4:00 P.M., and after bombing San Antonio made for the ball park, arriving there in time to carry on the work where the De Havilland Formation left off. Then it broke up and gave an exhibition of acrobatics. All of the known stunts were performed, and the fans were treated to a rare performance of aerial tactics.

DIRIGIBLE ACTIVITY

With the cessation of hostilities the Balloon and Airship Division has been able to turn its attention to the development of dirigibles. Orders have been placed for several small size dirigibles and delivery of these ships has begun. A number of officers are being trained as dirigible pilots both in this country and abroad. For the present, the work has been confined exclusively to the non-rigid type of airship although experimental work with the rigid type is contemplated in the near future.

APPLICANTS FOR ENLISTMENT IN AIR SERVICE TO FLY TO RECRUITING OFFICE

Authority has been granted Commanding Officers of flying fields to transport in airplanes to the respective fields where the enlistment can be completed the men applying for enlistment.

Applicants desiring to be transported from their homes to the field for enlistment in this manner notify the commanding officers either by telephone, letter or postcard, and upon receipt of that notification an airplane will be sent for him. Needless to say, the applicant must be sincere in his purpose. The only other formality is the signing of a card relieving the Government from all responsibility in case of accident during the flight.

It is expected that the publication by papers within radii of sixty miles or so of respective fields of this announcement will result in many applicants.

STATUS OF AIRCRAFT CANCELLATIONS, APRIL 12, 1919.

(Figures in thousands)

	Contracts outstanding Nov. 9, 1918[a]	Reductions since Nov. 9, 1918		Remaining out-standing
		by termination	by delivered	
Bureau of Aircraft Production	672,849	498,039	160,000[b]	14,810[b]

(b) Estimated; subject to revision.

STATUS OF CONTRACTS

The per cent of contracts outstanding November 9, 1918, for the Bureau of Aircraft Production are stated to be as follows:

Terminated	Delivered	Remaining
74	24	2

Terminated contracts as shown represent cancelled and suspended contracts now in the process of liquidation. The saving that will result from terminations depends on the amount paid contractors in settlement.

INCREASE IN FATALITY RATE SINCE ARMISTICE

Records of flying fatalities at U. S. flying fields show an increase in the fatality rate in recent months as compared with the average rate up to the armistice. From June 1, 1918 to the armistice the average hours flown per fatality was 3,149; from the armistice to date the average is only 1,852 hours per fatality, or an increase in the rate of 41 per cent.

The following diagram shows the pre-armistice rate compared with monthly rates since the armistice:

Period	Fatalities	Hours flown	Hours flown per fatality
June 1, to Nov. 11, 1918	156	491,283	3,149
Nov. 11 to Jan., 1919	42	78,831	1,877
January	6	16,498	2,750
February	17	15,688	922
March	14	28,072	2,005
April	6	14,650	2,441

ACTIVE, OBSOLESCENT AND OBSOLETE ENGINES AND PLANES IN U.S. APRIL 4, 1919

The Air Service has divided all planes and engines into three classes- "Active", "Obsolescent", and "Obsolete". The following table shows the number of engines and planes on hand for each class:

	New	Used, but in flying condition	Out of Comm.	Total	New	Per cent Usable	Not usable
ACTIVE							
Service engines	10,175	269	242	10,686	95	3	
Service planes	296	157	142	595	50	26	24
Training engines	1,817	906	115	2,838	64	32	4
Training planes	676	978	477	2,131	32	46	22
OBSOLESCENT							
Training engines	4,250	3,880	2,259	10,389	41	37	22
Training planes	441	1,751	403	2,595	17	67	16
OBSOLETE							
Engines	275	179	399	853	32	21	47
Planes	1,027	77	909	2,013	51	4	45

UNCLAIMED BAGGAGE

The Lost Baggage Depot, Hoboken, has on hand 3,300 pieces of baggage of returned members of the American Expeditionary Forces which it cannot deliver to owners because of lack of information of their whereabouts. Owners of baggage lost overseas should communicate their name, address and description of the baggage and how lost to the Baggage Officer, Port of Embarkation, Hoboken, N.J. If the baggage should not be at Hoboken the baggage officer will institute search.

PROGRESS IN DEMOBILIZATION

The Air Service net decrease in the total commissioned and enlisted strength from the date of the armistice to May 1 was 71 per cent.

The following table shows the present distribution of personnel as compared with November 11, and per cent of net decrease. The May 1 figures do not include 218 officers and 450 men on detached service or at demobilization camps awaiting discharge:

	November 11	May 1	Per cent net decrease
Cadets	5,775	600	90
Officers	20,586	5,620	73
Enlisted men	164,266	48,451	71
Total	190,627	54,671	71

66 PER CENT OF PRESENT AIR SERVICE PERSONNEL OVERSEAS

During the week ended May 1, 1919, the decrease in the Air Service personnel overseas was 2,679 as against a weekly average of 1,379 for the five preceding weeks.

The strength of the Air Service in the U.S. and overseas is shown for various dates in the following table:

	United States	Overseas
November 11	111,846	78,786
December 2	115,216	78,061
December 26	99,010	59,917
January 30	46,919	57,527
February 27	33,649	53,087
March 28	25,347	41,800
April 24	19,000	38,350
May 1	18,367	36,304

PROPORTION OF SERVICE AND TRAINING PLANES IN TOTAL PRODUCTION - EUROPEAN ALLIES

Data for the plane production of France, Great Britain, and Italy for the period January 1 to October 1, 1918, show that service planes constitute 79 per cent and training planes 21 per cent of the total.

The following table shows the production and percentage distribution for each of the principal Allied countries:

Country	Service planes	Training planes	Total	PER CENT Service	PER CENT Training
Italy	2,507	421	2,928	86	14
France	15,326	3,507	18,833	81	19
Great Britain	17,854	5,655	23,509	76	24
Total	35	9,583	45,270	79	21

FLYING FIELDS TO BE RETAINED

Fifteen flying fields and five balloon schools are to be held by the Air Service as permanent training fields.

Flying Fields

"Government Owned"

Rockwell Field, San Diego, Cal.
Langley Field, Hampton, Va.
Post Field, Fort Sill, Okla.
Kelly Field #1, San Antonio, Tex.

"Leased - to be purchased"

March Field, Riverside Cal.
Mather Field, Sacramento, Cal.
Carlstrom Field, Arcadia, Fla.
Dorr Field, Arcadia, Fla.
Ellington Field, Houston, Tex.
Park Field, Millington, Tenn.
Souther Field, Americus, Ga.
Selfridge Field, Mt. Clemens, Mich.
Scott Field, Belleville, Ill.
Chanute Field, Rantoul, Ill.
Kelly Field #2, San Antonio, Tex.

Balloon Schools

"Governemt owned"

Balloon School, Lee Hall, Va.
Balloon School, Ft. Crook, Nebr.

"Leased to be purchased"

Balloon School, Arcadia, Cal.
Balloon School, San Antonio, Tex.
Balloon School, Ft. Omaha, Nebr.

AIR SERVICE

Weekly Attendance at Training Fields

	Elementary	Advanced	Total
Date of armistice	2,423	2678	5,099
Week ended			
January 30	1,125	740	1,865
February 27	1,252	487	1,739
March 27	937	260	1,197
April 24	697	49	746

Graduations at Training Fields

	Elementary	Advanced	
Week of armistice	208	96	304
Week ended			
January 30	26	67	93
February 27	32	24	56
March 27	21		21
April 24	49	4	53

Hours Flown at Flying Fields

Week ended	Flying hours
November 11	23,493
January 30	5,404
February 27	4,583
March 27	2,341
April 24	3,442

AIR SERVICE OFFICERS NOW CIVILIANS

Logan T. McMenemy,	Captain, A.S.A.
Henry L. Lyster,	Captain, A.S.A.
Charles L. Billsborough,	Second Lieutenant, A.S.A.P.
Arthur D. Hayden,	First Lieutenant, A.S.A.P.
John H. Spicer,	Second Lieutenant, A.S.A.
Wallace A. Anderson,	First Lieutenant, A.S.A.
Clyde A. Maclaren,	First Lieutenant, A.S.A.
Beverly Duer,	Captain, A.S.A.
Ellis S. Middleton,	Second Lieutenant, A.S.A.
Charles S. Rockey,	First Lieutenant, A.S.A.P.
Allison F. H. Scott,	Captain, A.S.A.P.

Lieut Franklin 319.1
Central Trail v Files

Vol. III AIR SERVICE NEWS LETTER V-372

Information Group MAY 24, 1919 Building D
Air Service Washington, D. C.

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

18,711 MILE TOUR FOR FLYING CIRCUS

The three "companies" of the "Victory Loan Flying circus" on May 10 ended 30-day tours at their home stations, after "playing" in 88 cities, in 45 states and covering in "one-day stands" circuits totaling 19,124 miles.

At each of these a standard "show" was given, scheduled for 1:30 P.M. Literature in the form of pasteboard bombs was dropped. Each package of 200 bombs contained one autograph of the Secretary of the Treasury. Photographs of the town were made and the negatives dropped by parachutes for such use as the loan committee might make. After ten or fifteen minutes, various exhibition flying the Fokkers made a sham attack on the formation of Curtiss planes which were eventually rescued by the Spads and SE5's, who drove down the enemy planes. The Spads and SE5's then indulged in maneuvers and acrobatics. After these were finished and the machines landed the Curtiss ships came down. Each circus had with it American, English, and Italian "Aces." The enlisted personnel were from the famous 103rd (Lafayette) 139th and 148th Squadrons. All three squadrons had meritorious records on the Western front and practically every enlisted man has had more than twelve months service during active operation. "Side shows" were given at nearby cities off the scheduled route.

On April 10, three special trains, consisting of nine baggage cars, three sleepers and a diner left Ellington (Houston, Tex.), Rockwell (San Diego, Calif.) and Hazelhurst (Mineola, N.Y.) fields with their complement of men and material. There was an average total of twenty-two officers and fifty enlisted men on each train.

The standard equipment was five Fokkers, four Spads, four SE5's and five Curtisses with spare parts.

The "Eastern Flight" visited: New York, N.Y., Philadelphia, Pa., Baltimore, Md., Washington, D.C., Richmond, Va., Raleigh, N.C., Charleston, S.C., Savannah, Ga., Jacksonville, Fla., Atlanta, Ga., Birmingham, Ala., Chattanooga, Tenn., Nashville, Tenn., Louisville, Ky., Lexington, Ky., Cincinnati, Ohio, Indianapolis, Ind., Columbus, Ohio, Toledo, Ohio, Detroit, Mich., Cleveland, Ohio, Pittsburgh, Pa., Buffalo, N.Y., Syracuse, N.Y., Albany, N.Y., Concord, N. H., Portland, Me., Boston, Mass., Providence, R.I., Hartford, Conn.

On the "Middle-West Flight" the itinerary included: New Orleans, La., Jackson, Miss., Memphis, Tenn., Little Rock, Ark., St. Louis, Mo., Springfield, Ill., Chicago, Ill., Milwaukee, Wis., Madison, Wis., Minneapolis, Minn., St. Paul, Minn., Duluth, Minn., Fargo, N.D., Aberdeen, S.D., Redfield, S.D., Sioux Falls, S.D., Sioux City, Iowa, Omaha, Neb., Kansas City, Mo., Wichita, Kansas, Muskogee, Okla., Tulsa, Okla., Oklahoma City, Okla., Ft. Smith, Ark., Shreveport, La.

The "Far West" Flight No. 3 toured Los Angeles, Calif., Fresno, Calif., San Francisco, Calif., Sacramento, Calif., Reno, Nevada, Salt Lake City, Utah, Boise, Idaho, Pocotella, Idaho, Walla Walla, Wash., Portland, Ore., Tacoma, Wash., Seattle, Wash., Yakima, Wash., Spokane, Wash., Helena, Mont., Mont., Miles City, Mont., Sheridan, Wyoming, Alliance, Neb., Cheyenne, Wyoming, Denver, Colo., Pueblo, Colo., Trinidad, Colo., El Paso, Texas, Tucson, Ariz., Phoenix, Ariz., Albuquerque, New Mexico.

A M G

A side show of two baggage cars and one Pullman left the Far Western circus at Helena, Mont., arriving in Great Falls, Mont., at twelve noon. Here Major Carl Spatz joined the show having flown from Helena.

The Eastern, Middle-West, and Far West flights covered a railroad mileage of 4338, 7747 and 6626 miles respectively, to which must be added 413 miles by the Far-West outfit in one "side show".

The statistics of the enterprise are as follows:

	Eastern	Middle-West	Far-West
Total hours flown	273	202	234
Total civilian passengers carried	82	144	142
Total flights made	459	391	425

The observation as to the value of the fields used, nature of the country, altitude difficulties and the like, made on this tour will be of aid to military, postal, commercial and sporting aeronautics.

The enthusiasm of the people of the North-West, North-Central and North-East States over flying is something that can hardly be understood by "old timers" in aviation. A great many of the farmers and ranchers in that part of the country had never seen an airplane and they came from 100 to 150 miles to gratify their interest.

CHANGE IN DISTINGUISHING INSIGNIA ON AIRCRAFT

In accordance with an agreement between the Secretary of War and the Secretary of the Navy to change the distinguishing insignia on aircraft and pursuant to the instructions contained in 2d Indorsement, A.G.O., April 30, 1919 (400.161 Misc. Div.) addressed to the Director of Air Service the following regulations are published for the information and guidance of all concerned:

The design shall be a red circle inside of a white, five-pointed, star, inside of a blue circumscribed circle. The circumference of the inner circle shall be tangent to the lines forming a pentagon made by connecting the inner points of the star. The inner circle shall be red, that portion of the star not covered by the inner circle shall be white, and that portion of the circumscribed circle not covered by either the inner circle or star shall be blue; the colors to be the same shades as those in the American Flag.

These insignia shall be placed on the upper and lower surfaces, respectively, of the upper and lower planes of each wing in such position that the circumference of the circumscribed circle shall be tangent to the outer tips of the planes. One point of each star shall be pointed directly forward and unless otherwise specified the diameter of the insignia shall be 60 inches.

The insignia for the rudder shall be 3 equally wide bands, red, white, and blue, and both sides of that portion of the rudder which are in the rear of the rudder post shall be striped parallel to the vertical axis of the airplane. The blue band shall be nearest the rudder post, the white band in the center, and the red band at the tail of the rudder; the colors to be the same as hereinbefore-mentioned.

The insignia may be painted on or applied by decalcomania transfer.

All aircraft now built will continue to have the "3-circle" insignia for the present, but all aircraft delivered after the date of the issuance of this Order, except those that have the "3-circle" insignia already painted on wing sections, or in the case of lighter-than-air aircraft, on fabric panels, will have the "star" insignia.

This change will be generally effective for all aircraft not later than January 1, 1920, except that under no circumstances will the "star" insignia be used on aircraft in European countries until after peace is declared.

AIRPLANES FOR FOREST PATROL

The use of aircraft enabling quick discovery of forest fires through an extended patrol system is rapidly coming forward. The greatest activities for the moment in the way of forest patrol experiments are in force in southern California through the united Cooperation of the Commanding Officers of the United States Army Balloon School at Arcadia, California and the United States Army flying school at March Field, Riverside, California.

There will be stationed an observation balloon at an elevation of about 3,000 feet at the Balloon School Field near Arcadia. This observer will be on duty from 7 A.M. to 2:30 P.M. each day. He will be furnished with a map of the front of the Angeles National Forest from La Canada to San Dimas Canyon and can probably give adequate lookout service as far north as the crest of the San Gabriel watershed. The student detachment learning observation now stationed at Mt. Wilson will also render lookout service. Reports of fires from both the balloon observer and the Mt. Wilson detachment will come in by phone to the Balloon School at Arcadia and will be transmitted to the Forest Service at Los Angeles who will call upon the appropriate unit of the suppression force.

In addition to lookout service there will be available at all times a one and one-half ton truck at Arcadia equipped with a fifty gallon tank of water, shovels, canteens, axes and fire extinguishers. This truck, together with ten enlisted men will become a unit of the suppression force subject to the call of the Forest Service.

The Airplane Patrol

Two routes of aeroplane patrol have been laid out starting and ending at the March Field, twelve miles southeast of Riverside. Route No. 1 covers a circle touching on its west the east edge of the area covered by the observation balloon and zigzagging east, in and out of the mountains to the mouth of Mill Creek, thence back to the base. Route No. 2 starts from March Field and circles east over Beaumont and Banning covering the south slope of the Angeles front near the head of Mill Creek then turning south along the southwest slope of the San Jacinto Mountains covering the headwaters of the San Jacinto River in the Cleveland National Forest, thence back to the base at March Field. In each route two planes will operate. One starting at ten A.M. and the other at one P.M., thence covering the route twice a day. Each of these patrol routes are about one hundred miles in length. Reporting of fires discovered will be:

1st. By parachute messages dropped over a town, the finder to phone them in to the Forest Service.

2nd. By special landings made to report, for which there will be installed one ortwo additional phone box reporting stations, and

3d. By returning to the base and reporting from March Field direct to the Supervisor.

Fires will be located and reported by squares drawn on duplicate maps, one to be in the possession of each aeroplane observer and the other in the Forest Supervisor's office.

It is proposed to start this service June 1.

If the tests and demonstrations prove satisfactory as experts declare they will, a vast extension of this means of forest protection over other states is only a question making and carrying plans to suit each locally into effect.

First Class Sergeant Gordon D. Gates, an enlisted man taking flying instructions, is believed to be the first of record to pilot an airplane across country which was done on May 21 from Souther Field, Ga., to Montgomery and return; two hundred and fifty miles.

Fairfax Naulty of New York has through the means of the cinema camera it is claimed been able for the first time to photograph air in motion across the wings of an airplane.

The making of the photographs commenced in January and three miles of films have been made at Bolling Field the development of which has just been completed.

The photographs show, it is said, much that will in the future be a guide to the construction and operations of airplanes.

Second Lieutenant T.S.K. Reed at Ft. Sill, Oklahoma, righted a ship from its back and landed safely after the stick had been completely broken off five inches from the socket connecting it to the control rod - stick was broken in rolling the ship carrying out a series of stunts.

INSURANCE FOR AVIATORS

The old line Insurance Companies will either not write air insurance or only for small amounts at excessive premium rates.

It will now be of interest to all Aviators to learn that the "term insurance," written by the War Risk Insurance Bureau may now be converted into any one of six permanent forms of Government Insurance in the United States Government Life Insurance. This conversion may be made at any time before the end of the five years after the termination of the War, for which period the War Risk Insurance was taken. Any person now holding War Risk Insurance may convert same into life insurance from $1,000 to $10,000.

This is understood to apply to persons now flying or who contemplate flying and is practically the only opportunity of such persons obtaining life insurance.

The six forms of policies are as follows:

1. Ordinary Life.
2. Twenty-payment Life.
3. Thirty-payment Life.
4. Twenty-year Endowment.
5. Thirty-year Endowment.
6. Endowment maturing at age 62.

These forms of Insurance are most liberal in their terms and conditions and the rates of premium are less than that of regular insurance. Full conditions and rate tables may be obtained upon application to the Bureau of War Risk Insurance, Washington, D.C.

No medical examination is necessary to make the conversion. The only requirement is that the insured has kept up his term insurance premium payments. Policies are free of conditions as to residence, travel, occupation, military or naval service and the insurance is unassignable, nontaxable and free from the claims of creditors.

The policies cover both death and total permanent disability and payment of premiums may be made monthly, quarterly, semi-annually or annually.

NEW ENGLAND STATES AIR-TOURED IN RECRUITING CAMPAIGN

Captain Henry E. Reece and Lieutenant Nathan P. Oakes using a Curtiss H returned to Washington, May 21, 1919 from a two weeks tour over Pennsylvania, New Jersey, New York, Connecticut, Rhode Island and southeastern Massachusetts with Providence, R. I. as an eastern base. The flight from Washington to Providence, 448 miles, was made in 300 minutes - exclusive of time lost in one stop at Mineola. From Providence local flights, with acrobatics, were made over Pawtucket, Newport, Woonsocket, Central Falls in Rhode Island and Fall River, Massachusetts. The return flight was without incident except low clouds, 500 feet high and very deep, over Maryland which made a landing desirable at Elkton, Md. The recruiting feature of the flight was greater than anticipated.

FLIGHT SURGEONS MAY FLY

The importance of the work of Flight Surgeons has been sufficient to warrant Air Service authorities requiring that a Flight Surgeon be detailed at each of its 15 active fields.

Owing to the discharge of a large number of temporary medical officers, the Air Service needs a number of medical officers of the permanent establishment, as Flight Surgeons. Medical officers below the grade of Lieutenant Colonel, who desire duty of this character, should communicate with the Chief Surgeon, Air Service, Washington, D. C., who will fill vacancies from among those who volunteer.

Flight Surgeons have full charge of everything connected with the physical condition and care of the flyer, and live and associate with the cadets and aviators constantly. In this way they are able to determine when any individual is not in proper condition to fly. Many of these surgeons take flying training and become pilots, authority having been granted medical officers to receive this training. When they qualify, they are entitled to all the rights and privileges of aviators including the "wings," and also a 25% increase in pay from the time training is started. Medical officers who have been Flight Surgeons, are enthusiastic over this work.

AIR SERVICE OFFICERS DISCHARGED

John F. Hetherman,	Second Lieutenant, A.S.A.P.
Raynor Garey,	First Lieutenant, A.S.M.A.
Stanley W. Pierce,	Second Lieutenant, A.S.A.
Orrin D. Kingsbury,	Second Lieutenant, A.S.A.
James Suydam,	Captain, A.S.A.
Lawrence J. Kline,	Second Lieutenant, A.S.A.

CIVILIAN FLYING LICENSES
ISSUED BY THE JOINT ARMY AND NAVY BOARD ON AERONAUTIC COGNIZANCE

Licence No.	Issued to	Address
493	Walter B. Hawkins	511 West Maple St. Monrovia, Cal.
494	George W. Putnam	Box 402-Millensburg, Ohio.
495	Ft. Dodge Aeroplane Co.	Fort Dodge, Iowa.
496	George V. Grey	780 Kinston Ave. Predmont, Cal.
497	Lyman A. Wine	164 Winona Ave., Detroit, Mich.
498	Clarence W. Osburn	151 W-Pike St. Clarksburg, W. Va.
499	George C. Beck	Salt Lake City, Utah.
500		
501		
502	Paul F. Baer	11 East 38th St., New York City, N.Y.
503	Paul Micelli	463 West 159th St. New York City, N.Y.
504	Wilber P. Larrabee	119 Groveland Ave., Minneapolis, Minn.
505	Henry Hugo Hewetson	493 Ave.E - Bayonne, N.J.

License No.	Issued to	Address
506	Paul Augustine Bogan	44 Guild St., Boston, Mass.
507	Caspar D. Swinson	80 Alfred St., Detroit, Mich.
508	Dean L. Lamb	11 East 38th St. New York City, N.Y.
509	W. M. Brainerd	533 West 31st St., Oklahoma City, Okla.
510	George Puflea	2424 Indian Ave., Chicago, Ill.
511	William S. Brock	c/o B.W. Beam, Celina, Ohio.
512	N. R. Walling	1241 Philip St., New Orleans, La.
513	George W. Hill	1241 Philip Street, New Orleans, La.
514	Glen Wm Poyzer	703 Merchants Rd. Rochester, N.Y.
515		
516		
517	Charles Adam Martin	326 Barrett Place, San Antonio, Texas.
518	S. C. Wilberg	595 Charles River Rd. Cambridge, Mass.

VALUE OF AIR SERVICE CONTRACTS CANCELED AND SUSPENDED

The total value of contracts canceled and suspended to May 3, 1919, is approximately $492,000,000.

Following is a summary of the value of cancellations and suspensions of contracts with per cent of total:

	Value	Per cent of total
Engines and spare parts	$275,081,720	56
Airplanes and spare parts	164,986,960	34
Chemicals and chemical plants	14,224,466	3
Instruments and accessories	10,294,581	2
Balloons and balloon supplies	9,612,172	2
Fabrics, lumber and metals	7,362,015	1
Miscellaneous	10,722,552	2
Total	$492,284,466	

75 Per Cent Saving on Liquidation of Canceled Contracts

From the date of the armistice to May 3, 1919, canceled and suspended contracts representing an original value of nearly $128,000,000, have been liquidated at a saving of nearly $96,000,000, or 75 per cent.

In the following table is shown the status of liquidations and per cent saved:

	Value of contracts liquidated	Per cent of suspensions liquidated	Amount saved on liquidation	Per cent saved on liquidation
Balloons & supplies	$4,054,601	35	$3,407,399	84
Airplanes & spares	6,725,797	4	5,361,155	80
Fabrics, lumber & metals	3,857,543	41	3,017,276	78
Engines & spares	102,495,317	37	76,113,737	74
Chem'ls & chemical plants	8,303,919	58	6,069,058	73
Instruments & access.	1,387,877	13	972,955	70
Miscellaneous	1,028,757	7	803,742	78
Total	$127,853,811	19	$95,745,322	75

300 Horse-power Hispano-Suiza Only Engine Remaining on Order

During the two weeks ended April 25, 1919, over 800 Hispano-Suiza 180 horse-power engines were produced, completing all orders for aeronautical engines except one for 500 Hispano-Suiza 300 horse-power service engines, which it is expected will be completed in May. The present status of this order is shown in the following table;

	Number	Per cent
Ordered	500	100
Produced	331	66
Remaining on order	169	34

STATUS OF OUTSTANDING AIR SERVICE ORDERS, PRINCIPAL ITEMS OF EQUIPMENT

Includes all articles of equipment on outstanding contracts through April 30, 1919, except airplane bombs and clothing.

DELIVERIES OVER 90 PER CENT OF ORDERS

	Orders	Deliveries	Per cent		Orders	Deliveries	Per cent
De Havilland 4 planes	4846	4842	99.9	Spare train.propellers	33631	33269	98.9
Compasses	12650	12649	99.9	Gun yokes	20311	19728	97.1
Balloons kite type "R"	910	906	99.6	Oxygen apparatus	6100	5609	92.0
Cameras - gunnery training	1609	1599	99.3	Lewis machine guns	43950	40224	91.7
Oak lumber (1000 ft.)	311	308	99.0	Vickers machine guns	18125	16366	90.3

DELIVERIES 51 TO 90 PER CENT OF ORDERS

Motor lorry outfits	77	69	89.6	Bomb sights	16544	11630	70.3
Airplane fabrics(1000 yds)	11568	10263	88.7	Bomb releases	15850	10362	65.3
Hydrogen cylinders	172800	150800	87.3	Flare bracket holders	23037	14542	63.1
Handley P.laminations	2000	1660	83.0	Cherry lumber(1000 ft.)	1006	618	61.4
Cameras-observation	1351	1051	77.8	Cable (1000 ft.)	3310	1970	59.5
Oxygen tanks	17000	13077	76.9	Gasoline gauges	1450	858	59.2
Synchronizing devices	24226	18028	74.4	Winches	236	138	58.5
Hispano 300 H.P.engines	500	367	73.4	Flares	162248	83000	51.2

DELIVERIES LESS THAN 51 PER CENT OF ORDERS

Balloon fabrics(1000 yds.)	13764	6891	50.1	Walnut lumber(1000ft.)	10354	4649	44.9
Cotton tape (1000 yds.)	15090	7339	48.6	Mahogany (1000 ft.)	22352	9984	44.7

STATUS OF CURRENT APPROPRIATIONS FOR THE MILITARY ESTABLISHMENT AS OF APRIL 30

Amounts appropriated comprise appropriations for the fiscal year ending June 30, 1919, plus the balances on July 1, 1918 of such appropriations as did not lapse on that date.

(Figures in thousands)

	Appropriated	Withdrawn from Treasury	Balance in Treasury
Aircraft Production	$360,527	144,088	216,439
Military Aeronautics	107,476	24,171	83,305

PER CENT OF APPROPRIATIONS WITHDRAWN

	April 30	March 31
Aircraft Production	40	37
Military Aeronautics	22	21

DISTINGUISHED SERVICE MEDAL

Upon recommendation of General Pershing Distinguished Service Medals have been awarded to the following officers for exceptionally meritorious and distinguished services in positions of great responsibility:

Lieutenant Colonel E. V. Sumner, U.S.A. For exceptionally meritorious and distinguished services. As Commanding Officer of the Air Service Production and Assembly Center at Romorantin, he displayed peculiar administrative ability in coordinating the work of the many different elements at the largest Air Service project in the A.E.F. The satisfactory results obtained at Romorantin were due largely to his tireless energy and skill in supervising and directing its operation. His example established a spirit of team work and accomplishment which were most marked.

Colonel Walter G. Kilner, U.S.A. For exceptionally meritorious and distinguished services. By his personal efforts and efficient labors he organized the machinery necessary to train pilots, and successfully developed this branch of the Air Service. He overcame numerous difficulties inherent in the establishment of such an organization in a foregin country, and it was largely due to his efficiency that the Air Service was able to furnish well-trained personnel to the squadrons at the front. He, at all times, displayed marked devotion to duty, untiring energy and sound judgment.

Colonel Halsey Dunwoody, U.S.A. For exceptionally meritorious and distinguished services. As Chief of Supply and Assistant Chief of Air Service, by his energy, tact and executive ability, he built up an efficient supply Service, capable of meeting the program for material, airplanes, motors and equipment. He established and maintained excellent relations with the Allied Military Authorities. His service was marked by exceptional administrative ability, comprehensive knowledge of the needs and conditions of the service, and whole-hearted devotion to his important tasks.

ADDITIONAL AWARDS OF FRENCH CROIX DE GUERRE, WITH SILVER STAR

1st Lieut. Floyd E. Evans, 35th. Aero Squadron,
1st Lieut. Edwin M. Green, 94th, Aero Squadron,
1st Lieut. Paul M. Green, 103d. Aero Squadron,
1st Lieut. Harold W. Merrill, 88th. Aero Squadron,
1st Lieut. Carlyle Rhodes, 95th. Aero Squadron.

ADDITIONAL AWARDS OF FRENCH CROIX DE GUERRE WITH PALM

1st Lieut. Russel C. MacCormack, Aero Squadron No. 164,
1st Lieut. Eugene E. Stephenson, 100th. Aero Squadron,
1st Lieut. Wayne B. Stephenson, 100th. Aero Squadron,
1st Lieut. Henry Elmer Stickney, 150th Aero Squadron,
1st Lieut. Howard W. Verwholt, 91st. Aero Squadron.

CHANGE OF STATIONS

1. The following named field officers have been ordered to change station as follows since May 14, 1919.

Ordered May 14, 1919.

Major George E. Lovell, Jr., J.M.A., A.S.A., ordered from Washington, D.C., to Rockwell Field, San Diego, California.

Ordered May 17, 1919.

Major Howard F. Wehrle, A.S.A., ordered from Carlstrom Field, Arcadia, Florida, to Washington, D. C., temporary duty not to exceed five days, thence to Air Service Mechanics School, St. Paul, Minnesota, to assume command.

Major Oliver P. Echols, F.A., recommended to be detailed with Air Service and ordered from Camp Devens, Ayer, Massachusetts, to Godman Field, Camp Knox, Stithton, Kentucky, to assume command.

Ordered May 20, 1919.

Major Carl Spatz, M.A., A.S.A., ordered from Rockwell Field, San Diego, California, to Taliaferro Field, Hicks, Texas, to assume command.

2. Adjutant General orders dated May 10, 1919, directing Lieutenant Colonel Leonard H. Drennan, J.M.A., A.S.A., to proceed from Chicago, Illinois, to Boston, Massachusetts, for duty as Department Air Service Officer, were revoked on May 16, 1919.

Adjutant General orders dated May 12, 1919, directing Major John McClintock, A.S.A., proceed from New York City, New York, to Hazelhurst Field, Mineola, Long Island, New York, were revoked on May 16, 1919.

Vol. II AIR SERVICE NEWS LETTER V-418

Information Group
Air Service

MAY 29, 1919

Building D
Washington, D. C.

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

METEOROLOGY AND AERONAUTICS

To perform meteorological work in the United States Army, both in this country and overseas, the Meteorological Section was authorized in July 1918 as a regular section of the Signal Corps.

The work performed by meteorological stations is divided into two classes: "Meteorological", that part of the work which is connected with observations on surface atmospheric conditions, "Aerological", that part of the work which is connected with upper air conditions.

The meteorological work consists in observing and recording data concerning temperature, barometric pressure, humidity, rain or snow fall, cloudiness, sunshine and surface winds. Continuous records of meteorological conditions are often kept from self-recording instruments.

The aerological work consists in taking observations on upper air data. At most stations this is limited to determinations of the wind velocity and direction at various altitudes, generally known as wind-aloft data. The procedure in making a wind aloft observation consists in allowing a small rubber balloon inflated with hydrogen to ascend freely. Observations on the position of this pilot balloon are taken at regular intervals by means of one or two specially constructed theodolites, and from the calculated path of the balloon the wind velocity and direction may be computed for each altitude the balloon reaches. Upper air soundings of this character may be made to the limit of visibility, which averages from 6000 to 15,000 feet, depending upon weather conditions. The highest altitude reached by this means in this Service is about $12\frac{1}{2}$ miles.

The results of any observation are given out by telephone, radio, or by messenger, and in the form (units, etc.) desired.

Up to the autumn of 1918 a considerable number of aerological stations had been established at the request of various branches of the military service and these were widely distributed throughout the country. The assembling of upper air reports from these stations gave an opportunity to study the upper air currents over the United States, with a view to aiding aerial navigation. In order to do this properly, however, it was necessary to obtain upper air data from certain other points where no stations existed. Accordingly a number of other stations were established. As mentioned above, certain daily observations are made simultaneously by aerological stations and the results telegraphed in special code form to the Weather Bureau at Washington. A series of maps are then charted, one for each of the following altitudes: surface, 250 meters, 500,

1000, 1500, 2000, 3000 and 4000 meters. Each of these charts show the surface isobars and the wind velocity and direction at the corresponding altitude, as reported from the observing stations. Typical sets of such maps are herewith. From these wind-aloft charts, used in conjunction with data from the regular Weather Bureau stations, bulletins are issued concerning the probable weather conditions for the following twenty-four hours including the direction and velocity of the winds aloft.

The principal function of the stations supplying data to the Aviation Section of the Department of Military Aeronautics is to make wind aloft observations at regular intervals during the day or night, from which reports are submitted to Headquarters, Officer in Charge, Flying, etc. These local reports are, for purposes of local flying, more valuable than the telegraphic bulletin, as they hold good usually for several hours, and for a radial distance of twenty-five to fifty miles. Thus from frequent wind-aloft observations accurate knowledge is always on hand of atmospheric conditions aloft. From the behavior of the balloon during an ascension and other considerations the bumpiness or gustiness of the upper air is often inferred.

The telegraphic bulletinsreceived at night, to cover the following day, are intended for use only on long cross-country flights. It is believed that these upper air bulletins will prove to be of considerable assistance to future cross-country aviation.

With reference to the value of upper air data to Aviation, attention may be called to the following facts of common observation: (1) the upper winds are practically always quite different in direction and velocity from the winds at the surface (2) the wind velocity at altitudes as low as 3000 to 5000 feet is sometimes greater than 100 miles per hour with little or no indication of this state from surface conditions, (3) the wind velocity and direction are liable to sudden and large changes.

Meteorological data are also given in the reports sent out by the stations. Regular reports on temperature and pressure have been found to be of service, as well as frequent reports on surface wind direction and velocity. In a number of instances the records of the station proved of value for use in connection with determining the cause of accidents that occurred at the field. Meteorological data have also been employed in relation to dope and fabric tests. The meteorological personnel at several aviation training fields have been called upon to give courses of lectures in meteorology and aerology to the student aviators.

MEDICAL APPARATUS TO BE EXHIBITED

At the annual meeting of the American Medical Association, to be held in Atlantic City, N.J., June 9. - 13, technical apparatus in use at Medical Research Laboratory, Mineola, is to be exhibited.

Papers are to be delivered on Aeronautic medicine, here and abroad, films "Fit to Fly" are to be shown, and there is to be an assembly of medical men who have served at some time with the Air Service.

CUBAN MINISTRY GRATEFUL TO AIR SERVICE INSTRUCTORS

The following letter received from the Cuban Minister through the Office of the Secretary of State by the Office of The Secretary of War expresses the appreciation of Cuba of Kelly Field and School of Military Aeronautics, Austin, Texas:

LEGATION OF CUBA

Washington, D.C.

No. 76 May 8, 1919.

Mr. Secretary:

I have the honor to inform Your Excellency that the Secretary of State of my country instructs me to inform, through you, the Secretary of War that my Government, on the recommendation of the Secretary of War and Marine, takes pleasure in expressing its thanks for the efficiency, devotion, and the interest manifested by the Corps of Instructors of the School of Military Aeronautics of Austin, Texas, and of the United States Aviation School, Kelly Field, San Antonio, in the training of the group of aviators and machinists of the Aviation Corps of the Cuban Army, who were sent to those schools for their instruction.

I discharge this very pleasant duty and renew to Your Excellency, etc.

CARLOS MANUEL DE CESPEDES

His Excellency
Mr. Frank L. Polk,
Acting Secretary of State,
Washington, D.C.

MAJOR CUSHMAN HARTWELL RETURNS TO WASHINGTON

After six months spent in Siberia, Major Cushman Hartwell has returned to Washington and taken up the duties of Executive Officer in the office of the Information Group. Before going overseas, Major Hartwell was Executive Officer of the Training Section.

COMMERCIAL AERIAL TRANSPORTATION IN TEXAS

Last Saturday Kelly Field was visited by a plane bearing the banner of a Texas aerial transportation company. The ship was a Canadian Curtiss J N 4, which, the pilot stated, had been purchased from the Canadian Government at a cost of $2,000, complete with two spare propellers, two cylinders, tools and other

minor spare parts. He also stated that in the month or so that he has been driving for the company that the money derived from taking up passengers had more than paid for the ship three times, and that it will take him about two months of flying time to take up all the passengers he has on his waiting list.

A number of ex-army flyers are said to have received invitations to employ of such companies.

DISTINGUISHED SERVICE CROSS

The Commander-in-Chief, in the name of the President, has awarded the Distinguished Service Cross to the following officer for the act of extraordinary heroism set forth after his name:

FIRST LIEUTENANT WILLIAM P. ERWIN, First Aero Squadron, (Pilot). For the following act of extraordinary heroism in action near Sedan, France, November 5, 1918. Lieutenant Erwin is awarded an Oak Leaf Cluster to be worn with the Distinguished Service Cross awarded him October 1, 1918. Against the advice of experienced officers he undertook a reconnaissance flight in the face of atmospheric conditions that rendered flying most dangerous. In order that his observer might gain the necessary information, he was forced to fly at a perilously low altitude, and was subject to continuous anti-aircraft and rifle fire. When information gained on the flight had been dropped at division headquarters, he circled and returned over the enemy lines, although on the first reconnaissance mission his plane had been repeatedly hit by bullets. Penetrating far into enemy territory, he manoeuvered most skilfully, and with shells bursting near him, flew low while his observer poured deadly fire upon machine-gun nests that had been holding up the advance of our troops. When his machine was crippled by enemy fire, he displayed exceptional skill in effecting a landing upon rocky land within the enemy lines. With his observer, he beat off repeated enemy attacks and fought his way back to the American lines, with information of vital importance to our troops.

Home address: W. A. Erwin, (Father), 814 Fine Arts Bldg., Chicago, Ill.

PROMOTIONS

Lt. Colonel J. A. Mars, Director of Aircraft Production, promoted to Colonel.

Lt. Colonel W. F. Pearson, Chief, Administrative Group, promoted to Colonel.

Lt. Colonel Oscar Westover, Assistant to Executive Officer in the office of the Director of Air Service, promoted to Colonel.

Major Horace M. Hickam, Chief, Information Group, promoted to Lieutenant Colonel.

TWO AIR SERVICE REGIMENTS TO RETURN

The following organizations have been assigned to early convoy:

1st Air Service Mechanic Regiment;

2nd Air Service Mechanics Regiment, 10th & 19th Companies.

CHANGE OF STATIONS

1. The following named field officers have been ordered to change station as follows since May 21, 1919.

Ordered May 21, 1919.

Lieutenant-Colonel Arthur J. Harlon, A. S. A., ordered from Washington, D. C., to Rockwell Field, San Diego, California, to assume command.

AIR SERVICE OFFICERS DISCHARGED

Charles W. D. Parsons, First Lieutenant, A. S. A. P.
Carl L. Stucklin, Second Lieutenant, A. S. S. C.
William T. Stevens, First Lieutenant, A. S. A.
Lauritz G. Haugen, First Lieutenant, A. S. A.
Charles F. Curry, Second Lieutenant, A. S. A.
Albert B. Caines, Jr. First Lieutenant, A. S. A.
Walter J. Enright, First Lieutenant, A. S. A.
Robert C. Clarkson, First Lieutenant, A. S. A.
George Winchester, First Lieutenant, A. S. A.
William J. Jordan, Second Lieutenant, A. S. A.
Charles S. Lyon, Captain, A. S. A.

NEW R. M. A.'s.

The following named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Second Lieutenant John Blaney, A. S. May 1, 1919.
Second Lieutenant Floyd P. Roberts, A. S. May 1, 1919.

Second Lieutenant Charles S. Wages, A.S.	May 5, 1919.
First Lieutenant Harry A. Dinger, A.S.	May 9, 1919.
Captain Elmer E. Adler, A.S.	May 5, 1919.

The War Department authorizes publication of the following information:

A progress report on Sales has been handed to the Secretary of War by the Assistant Secretary of War. Inventories and turning over of surplus material to the Director of Sales, C. W. Hare, are under way but figures now available are mostly only estimates.

BUREAU	ESTIMATED TOTAL SURPLUS	SALES TO DATE	BALANCE TO SELL
Air Service, Aircraft Production	$62,000,000	$1,500,000	$60,500,000
Air Service, Military Aeronautics	85,000,000	500,000	84,500,000

TROOPS IN A. E. F.

According to the Statistics Branch, General Staff, 5707 Air Service officers and 74,273 enlisted men arrived in the A.E.F. between May 17, 1917 and December 31, 1918. This does not include those officers and men who entered the Service from civil life in France.

STATUS OF A.S. TRAINING

During the week ended May 15, 1919 the status of training activities, as compared with the date of the armistice, was as follows:

Attendance	Elementary Schools	Advanced Schools	Total
Nov. 11	2,423	2,676	5099
May 15	276	18	294
Graduations			
Nov. 11	208	96	304
May 15	155		155

Hours flown at flying fields	Hours flown
Week ended	
Nov. 11	23,493
May 15	10,135

Comparison of Flying Fatality Rates

The flying fatality rate shows a marked increase over the rate during the war. The number of fatalities and the flying hours per fatality from June 1, 1918 to the armistice and the period since the armistice to May 1, are as follows:

Peridd	Fatalities	Hours flown per fatality
June 1 to Nov. 11	156	3,149
Nov. 11 to May 1	71	1,467

The serious accident rate (exclusive of fatalities) reflects a similar tendency.

Period	Serious accidents	Hours flown per serious accident
June 1, to Nov. 11	169	2,907
Nov. 11 to May 1	71	1,467

PROGRESS IN DEMOBILIZATION

According to reports received from the Air Service the net decrease in the total commissioned and enlisted strength from the date of the armistice to May 15 was 76 per cent.

The following table shows the present distribution of personnel as compared with the figures for November 11, and per cent of net decrease. The November 11 figures have been corrected in this report to agree with the latest information received from the A.E.F. The May 15 figures do not include 213 officers and 1,087 enlisted men on detached service or at demobilization camps awaiting discharge.

	Nov. 11	May 15	Per cent net decrease
Cadets	6,483	372	94
Officers	20,852	5,307	75
Enlisted men	170,436	42,403	75
Total	197,771	48,082	76

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59 PER CENT OF PRESENT AIR SERVICE PERSONNEL OVERSEAS

During the week ended May 15, 1919 the decrease in the Air Service personnel overseas was 448 as against a weekly average of 5,132 for the two preceding weeks.

The strength of the Air Service in the U.S. and overseas on November 11 and May 15 is shown in the following table:

	U. S.	Overseas
November 11	119,882	77,839
May 15	19,812	28,270

...

1,157 DISCHARGED FLYING OFFICERS HAVE BEEN COMMISSIONED IN RESERVE

Of 8,415 flying officers discharged from the Air Service to May 10, 1,157, or 14 per cent, have accepted reserve commissions; non-flying officers discharged total 5,429, of whom 18 per cent entered the reserve.

CIVILIAN FLYING LICENSE

ISSUED BY THE JOINT ARMY AND NAVY BOARD ON AERONAUTIC COGNIZANCE

532	Walter J. Carr	Humboldt, Tenn.
533	Oregon Aircraft Trans. Co.	Portland, Oregon.
534	Lyman A. Hodgdon	8 Indiana Ave., Somerville, Mass.
535	William S. Cormack, Jr.	5 Bigelow Terrace, Newton, Mass.
536	William F. Wichart	Aero Club of Amer., Washington, D.C.
537	Malcolm G. Robinson	415 Carter Bldg., Houston, Tex.
538	Jas. Thos. Ringland	1860 E-Grand Blvd., Detroit, Mich.
539	Howard W. Trefry	19 Hubbard Ave., Cambridge, Mass.
540	C. C. Creighton	410 Traction Bldg. Indianapolis, Ind.
541	Vernon C. Omlie	Grafton, North Dakota.
542	Burnit Albert Shields	Surf Ave. & 8th St. Coney Island, N.Y., (c/o Mr. Goldberg)
543	Philadelphia Aero-Service Corp.	1209 Arch St. Philadelphia.
544	Leslie L. Petticord	316 South Main St., Wichita, Kan.
545	Harley W. Lake	210 Peterboro St., Detroit, Mich.
546	James A. Hewlett	80 Columbia Heights, Brooklyn, N.Y.
547	U.S. Airplane Exhibition Co.	514 Westminister Bldg. Chicago, Ill.
548	Elon L. Brown	2607 Wilshire Blvd. Los Angeles, Cal.
549	Alexander McLeod	
550	Packard Motor Car Co.	Detroit, Michigan.
551	Maurice J. Regan	2111 Bird St., Joplin, Missouri
552	Jean F. deVillar	609 Caples Bldg., El Paso, Tex.
553	Harry P. Christofferson	1363 5th Ave., San Francisco, Cal.
554	Dana C. de Hart	Queens, L.I., N.Y.
555	Parker Dresser Cramer	Bradford, Pa.
556	J. Tinus Christensen	1503 State St., Racine, Wis.
557	James E. Kirkha.	338 North Kedzie Ave., Chicago, Ill.

RECRUITING STATISTICS

May 22, 1919

STATION	Reduction To: Off.	Enl. Men	Off.	Cad.	Reg. A.	Temp.	COMMANDING OFFICERS
Bolling Fd., Anacostia			37	0	82	113	Hartz, R.S., Colonel
Brooks Fd., San Antonio	11	250	24	0	50	246	Caldwell, R. C., Colonel
Call Fd., Wichita Falls	11	65	9	0	4	61	Russell, C.W., Major
Carruthers Fd., Tex.	11	0-65	12	0	0	0	Hanley, T.J., Major
Chanute Fd., Rantoul, Ill.	11	65	18	0	195	22	Longnecker, Ira, Lt. Col.
Chapman Fd., Miami, Fla.	3		2	0	0	0	Madigan, F.T., 2nd Lt.
Dorr Fd., Arcadia, Fla.	11	0-65	7	0	1	44	Duncan, T. Lt. Col.
Eberts Fd., Lonoke, Ark.	11	65	14	0	12	54	Krogstad, N. Major
Gerstner Fd., Lake Chas., La.	11	65	10	0	3	64	Wynne, W. W. , Major
Langley Fd., Hampton, Va.	25	502	59	0	84	254	Hensley, Wm. N., Col.
Mather Fd., Sacramento, Cal.	11	65	14	0	115	3	Watson, H.L., Lt. Col.
Payne Fd., West Point, Miss.	11	65	23	0	3	62	Howard, W. W. Major
Rich Fd., Waco, Tex.	11	65	14	0	11	54	Whitesides, J. G., Major
Selfridge Fd., Mt. Clem.	11	65	31	0	157	16	Rudolph, J. N., Major
Scott Fd., Belleville, Ill.	11	65	11	2	126	1	Abbey, Henry, Major
Souther Fd., Americus, Ga.	11	65	19	0	23	45	Rador, I. A., Lt. Col.
Taliaferro Fd., Hicks, Tex.	11	65	32	0	8	67	McCauley, T.G., Major
Taylor Fd., Montgomery, Ala.	11	65	12	0	3	54	Cook, Seth W., Lt. Col.
Barron Fd., Everman, Tex.	11	0-65	10	0	0	0	Alfonte, J. J., Major
Carlstrom Fd., Arcadia, Fla.		500	107	16	17	485	Duncan, Thomas, Lt. Col.
Ellington Fd., Houston, Tex.		1000	314	102	126	1125	McIntosh, L. W., Lt. Col.
Kelly Fd., San Antonio, Tex.		2000	246	97	209	1716	Buttler, B. B., Lt. Col.
Love Fd., Dallas, Tex.	11	65	25	0	42	53	Burwell, H. B. S., Col.
March Fd., Riverside, Cal.	11	65-200	50	2	70	59	Bartholf, J.C.P., Major
Park Fd., Millington, Tenn.		65	28	0	33	63	Simons, J.W., Jr., Major
Post Fd., Ft. Sill, Okla.		500	77	34	109	485	Barnitz, R. R., Lt. Col.
Rockwell Fd., San Diego, Cal.		400	184	2	232	201	Hanlon, A.J., Lt. Col.
Ft. Omaha, Nebr.	64	150	34	0	64	367	Wuest, J.W.S., Lt. Col.
Lee Hall, Va.	32	100	21	0	38	207	Vaughan, H.R., Major
Arcadia, Calif.	32	150	34	0	66	77	Mygatt, L. J., Lt. Col.
Ft. Monroe, Va.	6		3	0	2	164	Creighton, Neal, 1st Lt.
Camp Knox, West Point	6		18	0	7	181	Schaffner, H. A., Capt.
Camp Bragg, Fayetteville			13	0	63	132	Saunders, B. J., Capt.
Akron, Ohio			20	0	59	1	Maranville, C. H., Major
Ft. Hancock, N.J.			5	0	3	97	Hoyt, Ross G., Capt.
Berkeley, Calif., U. of Cal.		0	1	0	0	0	Crane, Chas. B., Major
Cornell Univ., Ithaca, N.Y.		0	2	0	0	0	Phipps, Geo. R., Capt.
U. of Tex., Austin, Tex.		0	2	0	0	0	Giesecke, B. E., 1st Lt.
Speedway, Indianapolis	15	0-65	15	0	58	0	Frizzell, Patrick, Major
Dallas, Tex.	15	0-65	12	0	0	5	Netherwood, D. B., Lt. Col
Montgomery, Ala.	15	0-65	18	0	103	2	Knight, L.R., Major
Hazelhurst Fd., L.I., N.Y.	105	850	449	0	615	1671	Miller, Archie, Colonel
Morrison, Va.		0-65	11	0	0	23	Bonesteel, C.H., Major
Wilbur Wright A.S.D.	11	0-65	40	0	5	15	Oliver, P.A., Major
Buffalo, N.Y., A.G.S.D.	5	0-65	2	0	2	0	Scarlett, G.G., 1st Lt.
Dayton, Ohio	5	0-65	3	0	0	64	Caffery, Jas. P., Capt.
Detroit, Mich.	5	0-65	4	0	0	0	Jones, M. W., 1st Lt.
Houston, Tex.	7	0-65	5	0	1	1	Tips, J.G., Jr., Capt.
Little Rock, Ark.	10	0-65	10	0	0	0	DeArmond, G.W., Lt. Col.
Los Angeles, Calif.		0-65	5	0	0	0	Tisdale, Roy P., Major
Middletown, Pa.	19	0-65	19	0	0	0	Kirtland, Roy C., Lt. Col
Richmond, Va.	7	0-65	6	0	1	13	Stolze, Chas. W, Capt.
San Antonio, Tex.	18	0-65	10	0	2	2	Garrison, Wm. H., Major
Chicago, Ill. Cent. Dept.			5	0	0	4	Morrow, J.C., Colonel
New York, N.Y., East Dept.			5	0	19	2	Brant, G.V., Colonel
Charleston, S.C., S.E.Dept.			1	0	0	0	Edgerly, J.P., Major
Ft. Sam Houston, Southern Dept.			1	0	0	0	Fetchet, J.E., Colonel
San Francisco, Calif., W. Dept.			2	0	0	0	Arnold, H.H., Colonel

May 22, 1919

STATION	Reduction To: Off.	Enl. Men	Off.	Cad.	Reg. A.	Temp.	COMMANDING OFFICERS
Panama, 7th Aero Sqd.			32	0	146		Harmon, M. F., Lt. Col.
Hawaii, 6th Aero Sqd.			28	0	138		Brooks, J.B., Major
Aberdeen Md., Proving Ground			20	0	164	192	Carolin, Nobert, Capt.
Penn Fd., Austin, Tex.			12	0	1	12	Mills, B.H., Capt.
St. Paul, Minn.			2	0	0	0	Gosling, Arthur, Capt.
McCook Fd., Dayton, Ohio			87	0	15	10	Bane, T. H., Colonel
Elizabeth, N.J.			1	0	0	0	Johnson, L.H., Capt.
Petrolia, Tex., Gas Plant			1	0	0	0	Neville, R.M., 2nd Lt.
Spruce Division			28	0	3	46	VanWay, Colonel
AP District Offices			205	0	0	0	
Washington D.C., O.D.A.S.			372	0	7	35	Menoher, Chas. T., Gen.
Off. on detached Service			406	0	0	0	
TOTAL IN U.S.			3358	255	11967		Of these 3013 are regular army

Vol. II AIR SERVICE NEWS LETTER V-452

Information Group
Air Service

JUNE 6, 1919

Building D
Washington, D. C.

The purpose of this letter is to keep the personnel of the Air Service, both in Washington and in the field, informed as to the activities of the Air Service in gemeral.

AMERICAN EXPEDITIONARY FORCES,
HEADQUARTERS AIR SERVICE.

March 13th, 1919.

General Order

No. 9.

1. It gives me great pleasure to publish to the Air Service A.E.F. the following letter of appreciation from the Commander-in-Chief, American Expeditionary Forces:-

AMERICAN EXPEDITIONARY FORCES
Office of the Commander-in-Chief

March 4, 1919.

Major General Mason M. Patrick,
Chief of Air Service,
American E.F.

My dear General Patrick:-

At this time, when many officers and enlisted men are returning home and severing their connections with the American Expeditionary Forces, I am glad to take the opportunity of expressing to you and the officers and men under you, my appreciation of what the Air Service has accomplished.

To the Air Service fell the task of getting trained and equipped squadrons to the front, tactically organized and in sufficient number to act as a proper support to the American forces in the field. It was also responsible for the provision of balloons and balloon personnel, and in general, for housing repair and maintenance of all aviation material.

From the beginning the most difficult problem was that of material. For the earlier American operations, production in the United States could not be depended on, but by increasing the delivery of raw materials from America, airplane production in Europe was stimulated to an extent that our Allies were able to supply us with the necessary material to support our offensives. The Air Service had by then organized a system of schools which had trained admirably our splendid flying personnel for pursuit and observation work. As they came upon the front they proved their increasing superiority throughout the latter months of the war. We were well on toward leadership in this when active operations ceased.

The officers and men of the American Expeditionary Forces realize and acclaim the gallantry and unselfish devotion to duty of their comrades of the Air Service. It gives me great pleasure to express my thanks and the thanks of the American Expeditionary Forces to all of your officers and enlisted personnel.

Sincerely yours,

John J. Pershing.

2. Whatever measure of success the Air Service, A.E.F., attained was, above all other things, due to the splendid qualities of its officer and soldier personnel.

3. The squadrons and balloon companies actually on the front worked untiringly. The flying officers displayed great gallantry, the ground officers and soldiers in all organizations worked continuously, faithfully, and intelligently to keep the equipment in order, to promote efficiency, and to make this Service count in the World War.

4. Much of the great task of carrying on a modern war is performed far from the sights and scenes of battle, unstimulated by the heat of struggle and without hope of glory. In the offices, in the shops, in the hangars, at depots, production centers and at schools, the soldiers of the Air Service all labored tirelessly and gave in full measure the best that was in them.

5. The results show that, although pitted against the best that Germany could produce, the enemy more than met his match and that the Air Service A.E.F., played its part in bringing the war to a victorious conclusion.

MASON M. PATRICK,
Major General, U.S.A.
Chief of Air Service, A.E.F.

DEVELOPMENT OF AIRPLANE EQUIPMENT

The Equipment Section of the Engineering Division have certain devices, appliances, etc., which they desire to develop. The following list is printed in order that inventors and designers may be familiar with a small number of our problems.

The particular problems referred to are:

Gasoline tanks. A tank is desired which will withstand a salvo of fifteen shots fired at a range of thirty yards, the ammunition consisting of calibre 30, equally mixed, service, tracer, incendiary, and armor-piercing bullets, fired through the tank at the most vulnerable angle, without fire occurring, in ten consecutive tests on as many tanks. Naturally, the weight should be kept as low as possible, and the maximum limit is about 75% more than usual standard tank weight. We will of course furnish all information to anyone who desires it, regarding previous experiments.

Air Bag Floats, Landing Skids, etc. The object of these devices is to prevent machine from capsizing when landing in water, then remaining afloat. The British have made a fair success using these floats, but it would be desirable to have people start thinking about it.

Portable Hangars for Field Service. The present hangars, usually made of canvas, are unsatisfactory, and the usual drawbacks are either that they blow down in winds or that they leak or hold water in pools, or are too small. Any such hangar should be capable of housing at least four De Haviland planes with room enough left for working on them. They should incorporate the necessary wiring for electric lights and plugs for extension lamps.

Gasoline Supply Gauges. Much is to be desired with regard to a suitable gasoline supply gauge. The gauge should be responsive, serviceable,, and accurate to the last one-half gallon. At present, the mounting for the gauge can be left on the tank as it is thought that the mounting on the dash board will offer too many complications, unless done electrically.

Central Electric Power Plant. By this is meant the designing of a single generator and battery which will furnish the power required for the radio installation, the heating and lighting installation, the electric starter, the ignition, the motor driven camera; together with the necessary, perhaps, transformers to supply these various apparti with the electrical energy needed in its proportion and kind. This is to be engine driven in some way and this will do away with the head resistance of the various wind driven generators now used. Of course this must, as it most surely will, manifest a saving in weight. The motors for which this is most desired are the Liberty 12 and the Hispano-Suiza 300. Two ideas are desired, viz: the application to those engines already produced and simpler design to be incorporated in engines to be produced in the future.

Mobile independent cranking device. This to be mounted on an auto truck. This device is to be an electrically driven cranker for planes not equipped with self-starters and is to be mounted on a motor truck. It is to be used at an aerodrome. Our idea of this device is one mounted on a truck that can be backed up to the front end of any airplane, then a flexible arm attached to the propeller. The electric energy is then to be brought into play which will crank the engine and cause the engine to begin firing. When the engine picks up, the device should be automatically thrown out of connection with the propeller.

FUNCTIONS AND ORGANIZATION
OF
SUBCOMMITTEES OF EXECUTIVE COMMITTEE
NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

Approved by resolution, Executive Committee, May 20, 1919.

The Executive Committee shall have six subcommittees, to be known as standing committees on

(a) Aerodynamics,
(b) Power Plants for Aircraft,

(c) Materials for Aircraft,
(d) Personnel, Buildings, and Equipment,
(e) Publications and Intelligence,
(f) Governmental Relations.

These standing committees may, from time to time appoint special subcommittees with the approval of the Executive Committee.

The functions and membership of the standing committees shall be as follows:

AERODYNAMICS:

Functions. - The functions and duties of this committee shall be:

1. To aid in determining the problems relating to the theoretical and experimental study of aerodynamics to be experimentally attacked by governmental and private agencies;

2. To endeavor to coordinate, by counsel and suggestion, the research and experimental work involved in the investigation of such problems;

3. To act as a medium for the interchange or information regarding aerodynamic investigations in progress or proposed;

4. The committee may direct and conduct research and experiment in aerodynamics in such laboratory or laboratories, either in whole or in part, as may be placed under its direction;

5. The committee shall meet from time to time on call of the Chairman, and report its actions and recommendations to the Executive Committee.

Organization:

Chairman, Dr. John F. Hayford,
Vice-Chairman, Dr. Joseph S. Ames,
Professor Charles F. Marvin,
Colonel T. H. Bane, U.S.A.,
Lieut. Col. V. E. Clark, U.S.A.,
Dr. A. F. Zahm,
Lieut. Commander J. C. Hunsaker, U.S.N.,
Dr. L. J. Briggs,
Mr. M. D. Hersey,
Mr. E. P. Warner, Secretary.

POWER PLANTS FOR AIRCRAFT:

Functions. - The functions and duties of this committee shall be:

1. To aid in determining the problems relating to power plants for aircraft to be experimentally attacked by governmental and private agencies;

2. To endeavor to coordinate, by counsel and suggestion, the research and experimental work involved in the investigation of such problems;

3. To act as a medium for the interchange of information regarding aeronautic power plant investigations, in progress or proposed;

4. The committee may direct and conduct research and experiment on aeronautic power plant problems in such laboratory or laboratories, either in whole or in part, as may be placed under its direction;

5. The committee shall meet from time to time on call of the Chairman, and report its actions and recommendations to the Executive Committee.

Organization:

Dr. S. W. Stratton, Chairman,
Mr. L. M. Griffith,
Professor George W. Lewis,
Major George E. A. Hallett, U.S.A.,
Mr. J. G. Vincent,
Mr. Harvey N. Davis,
Dr. H. C. Dickinson, Acting Secretary,
One member to be nominated by the Navy Department.

MATERIALS FOR AIRCRAFT:

Functions. - The functions and duties of this committee shall be:

1. To aid in determining the problems relating to materials for aircraft to be experimentally attacked by governmental and private agencies;

2. To endeavor to coordinate, by counsel and suggestion, the research and experimental work involved in the investigation of such problems;

3. To act as a medium for the interchange of information regarding investigations of materials for aircraft, in progress or proposed;

4. The committee may direct and conduct research and experiment on materials for aircraft in such laboratory or laboratories, either in whole or in part, as may be placed under its direction;

5. The committee shall meet from time to time on call of the Chairman, and report its actions and recommendations to the Executive Committee.

Organization:

Dr. S. W. Stratton, Chairman,
Dr. G. K. Burgess, Vice-Chairman,
Lieut. Col. H. C. K. Muhlenberg, U.S.A.,
Lieut. Commander J. C. Hunsaker, U.S.N.,
Mr. H. L. Whittemore, Acting Secretary.

PERSONNEL, BUILDINGS, AND EQUIPMENT:

Functions. - The functions and duties of this committee shall be:

1. To handle all matters relating to personnel, including the employment, promotion, discharge, and duties of all employees and others assigned to the committee for duty;

2. To consider questions referred to it and initiate projects concerning the erection or alteration of buildings and the equipment of buildings, offices, and houses, etc.;

3. To meet from time to time on call of the Chairman, and report its actions and recommendations to the Executive Committee.

4. To supervise such construction and equipment work as may be authorized by the Executive Committee.

Organization:

Dr. Joseph S. Ames, Chairman,
Dr. S. W. Stratton, Vice Chairman,
Professor Charles F. Marvin,
Mr. J. F. Victory, Secretary.

PUBLICATIONS AND INTELLIGENCE:

Functions. - The functions and duties of this committee shall be:

1. The collection, classification, and diffusion of useful knowledge on the subject of aeronautics, including the results of research and experimental work done in all parts of the world;

2. The encouragement of the study of the subject of aeronautics in institutions of learning:

3. Supervision of the Office of Aeronautical Intelligence;

4. Supervision of the foreign office in Paris;

5. The collection and preparation for publication of the annual report and its appendices.

Organization:

Dr. Joseph S. Ames, Chairman,
Professor Charles F. Marvin, Vice-Chairman,
Miss M. M. Muller, Secretary.

GOVERNMENTAL RELATIONS:

Functions. - The functions and duties of this committee shall be:

1. Relations of the committee with Executive Departments and other branches of the Government;

2. Governmental relations with civil agencies.

Organization:

Dr. Charles D. Walcott, Chairman,
Dr. S. W. Stratton,
Mr. J. F. Victory, Secretary.

Due to the reduced activities of the Air Service it has been necessary to report all class 3 officers who have been approved for the examinations. These are being surplused to the Air Service and available for assignment to other activities, but it is hoped that further Air Service legislation may permit the return of these men to duty with the Air Service.

NOTICE

PURCHASE AIRPLANES OR MOTORS

Those contemplating the purchase of a Government airplane or motor, can write the Salvage and Sales Branch, Air Service, 6th & "B" Streets, Washington, D.C., and have their name entered on the list to be advised when the opportunity arrives for them to make a purchase. Detailed information furnished on request.

ORIGIN OF THE TERM "BLIMP"

The term "blimp" is a slang expression borrowed from the English, and in a Dictionary of Military Forms, by Farrow, is described as "a slang name given to a small dirigible designed to locate and observe submarines". In a pamphlet of Aeronautical Terms published by the War Department, it is defined as "a small non-rigid dirigible used chiefly for marine reconnaissance." It is not a term covering all government dirigibles, but only those of small non-rigid types, and our "blimps" were copied after those of the British Naval Air Service and are designed especially for coast patrol and are controlled by the Navy Department.

LT. COLONEL W. A. LARNED RETURNS FROM OVERSEAS.

Lt. Colonel W. A. Larned has returned from the A.E.F. where he was in charge of American Air Service Training and Activities in England. Lt. Colonel Larned is of the opinion that we should have an air Attache in England and each of the other allied countries. After a brief stay in Washington, Lt. Colonel Larned expects to return to civil life.

CHANGES OF STATIONS

May 31, 1919.

Lieutenant-Colonel Rutherford S. Hartz, J.M.A., A.S.A., relieved from duty in the Office Director Air Service, Washington, D.C., and assigned to duty at Bolling Field, Anacostia, D.C.

Major William M. Conant Jr., A.S.A., relieved from duty in the Office Director Air Service, Washington, D. C., and assigned to duty at Bolling Field, Anacostia, D. C.

June 2, 1919.

Major Maurice Connolly, A.S.A., from Washington, D. C., to Hazelhurst Field, Mineola, Long Island, New York. Major Connolly is on temporary duty at Mineola, Long Island, New York, and will be discharged upon completion of his duties there, which will be about July 1, 1919.

June 3, 1919.

Lieutenant-Colonel Harry W. Gregg, A.S.A., from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D. C., on temporary duty not to exceed five days, thence to Detroit, Michigan, to assume command.

NEW R. M. A.'s.

The following-named officers, having completed the required tests are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain Horace Green, A.S.A.,	May 6, 1919.
First Lieutenant Armin F. Herold, Infantry,	April 18, 1919.
Second Lieutenant Bruce Cleveland, A.S.A.,	May 7, 1919.
Second Lieutenant Harold S. Purdy, A.S.A.,	May 8, 1919.
Second Lieutenant Ernest Goodrich, A.S.A.,	May 12, 1919.
Second Lieutenant Wayne V. Pittman, A.S.A.,	May 22, 1919.

CIVILIAN FLYING LICENSE

ISSUED BY THE JOINT ARMY AND NAVY BOARD ON AERONAUTIC COGNIZANCE

%500 Curtiss Airplane Co. of New England, 80 Boylston St., Boston, Mass.
501 Curtiss Tri State Airplane Co., 246 Adams, Memphis, Tenn.
558 Rolf Thorp Nixon, 216 West 110th St., New York City.
559 Wade Stevens, Beaver City, Nebraska.
560 Madilene Davis, Wauchula, Florida.
561 Robert Gilbert Adams, 11 E 38th St., New York City.
562 William J. Hahnel, 154 Bleecker St., Brooklyn, N.Y.
563 Grederic Kirk Smith, 14-Hodges Ave., Taunton, Mass.
564 Harrison Dale Miller, 606 Board of Trade Bldg., Indianapolis, Ind.
565 Howard Z. Bogert, 529 - 18th St., N.W., Washington, D. C.
566 Frederick Henry Harris, 1017 -16th St., N.W., Washington, D.C.
567 John Wilbur Beall, Glenville, West Virginia.
568 Robert F. Shank, Traymore Hotel, Atlantic City, N. J.
569 Ralph Winslow Barnes, 328 Walnut St., Cochocton, Ohio.
570 Emery H. Rogers, 336Adelaide Drive, Santa Monica, California.
571 Edmond P. McKenna, Jr., Tyler, Texas.
572 Malcolm A. MacDonald, 11 East 38th St., New York City.
573 John D. Probst, Jr., South Dwight Place, Englewood, N. J.
574 Filip A. Bjorklund, General Delivery, Brooklyn, N. Y.
575 Curtiss Northwest Airplane Co., 534 Builders Exchange, Minneapolis, Minn.
576 Samuel Custer Eaton, Jr. 6324 N. Woodstock St., Philadelphia, Pa.
577 Marshall E. Callander, Sioux City, Iowa.
578 Erlon H. Parker, Farmington, Maine.

OFFICERS DISCHARGED

Herbert E. Ives,	Captain, A.S.A.,
Herman G. Oliver,	Second Lieutenant, A.S.A.
Edward P. Curtiss	Major, J.M.A., A.S.A.,
Gilbert D. Deere,	Second Lieutenant, A.S.A.,
William H. Harris, Jr.,	First Lieutenant, A.S.A.P.,
Robert C. Disque,	Captain, A.S.M.A.,
Edward Schoeppe,	First Lieutenant, A.S.A.P.,
DeWitt F. Ottman,	Second Lieutenant, A.S.A.P.
Robert Steinberger,	First Lieutenant, A.S.A.,
Charles H. Dauphin,	Second Lieutenant, A.S.A.

RECRUITING STATISTICS

STATION	Reduction To: Off.	Enl. Men	Off.	Cad.	Reg. A.	Temp.	May 29, 1919 COMMANDING OFFICERS
Bolling Fd., Anacostia			35	0	316	39	Hartz, R.S., Colonel
Brooks Fd., San Antonio	11	250	30	0	81	273	Caldwell, R.C., Colonel
Call Fd., Wichita Falls	11	65	9	0	61	8	Russell, C.W., Major
Carruthers, Benbrook, Tex.	11	0-65	10	0	0	0	Hanley, T.J., Major
Chanute Fd., Rantoul, Ill.	11	65	18	0	198	16	Longnecker, Ira. Lt. Col.
Chapman Fd., Miami, Fla.	3		2	0	0	0	Madigan, F.T., 2nd Lt.
Dorr Fd., Arcadia, Fla.	11	0-65	7	0	1	43	Duncan, T., Lt. Col.
Eberts Fd., Lonoke, Ark.	11	65	16	0	30	52	Krogstad, A.N., Major
Gerstner Fd., Lake Chas., La.	11	65	9	0	3	64	Wynne, W.W., Major
Langley Fd., Hampton, Va.	25	502	58	0	97	260	Hensley, Wm. N., Col.
Mather Fd., Sacramento, Cal.	11	65	14	0	143	2	Watson, H.L., Lt. Col.
Payne Fd., West Point, Miss.	11	65	22	0	5	62	Howard, W.W., Major
Rich Fd., Waco, Tex.	11	65	15	0	18	47	Whitesides, J.G., Major
Selfridge Fd., Mt.Clem., Mich.	11	65	30	0	159	9	Rudolph, J.H., Major
Scott Fd., Belleville, Ill.	11	65	11	2	122	2	Abbey, Henry, Major
Souther Fd., Americus, Ga.	11	65	18	0	37	42	Rader, I.A., Lt. Col.
Taliaferro Fd., Hicks, Tex.	11	65	32	0	25	67	McCauley, T.G., Major
Taylor Fd., Montgomery, Ala.	11	65	10	0	3	54	Cook, Seth W., Lt. Col.
Barron Fd., Everman, Tex.	11	0-65	8	0	1	0	Edgerly, J.R., Major
Carlstrom Fd., Arcadia, Fla.		500	101	10	60	428	Duncan, Thomas, Lt. Col.
Ellington Fd., Houston, Tex.		1000	302	115	137	889	McIntosh, L.W., Lt. Col.
Kelly Fd., San Antonio, Tex.		2000	273	73	221	1669	Buttler, B.B., Lt. Col.
Love Fd., Dallas, Tex.	11	65	25	0	44	53	Burwell, H.B.S., Col.
March Fd., Riverside, Calif.	11	65-200	50	2	86	30	Bartholf, J.C.P., Maj.
Park Fd., Millington, Tenn.		65	30	0	37	63	Simons, J.W., Jr., Maj.
Post Fd., Ft. Sill, Okla.		500	72	11	161	334	Barnitz, R.R., Lt. Col.
Rockwell Fd., San Diego, Calif.		400	178	2	244	169	Hanlon, A.J., Lt. Col.
Ft. Omaha, Nebr.	64	150	31	0	85	126	Wuest, J.W.S., Lt. Col.
ee Hall, Va.	32	100	23	0	35	41	Vaughan, H.R., Major
Arcadia, Calif., Ross Fd.	32	150	34	0	70	73	Mygatt, L.J., Lt. Col.
Ft. Monroe, Va.	6		3	0	2	46	Creighton, Neal, 1st Lt.
Camp Knox, West Point, Ky.	6		13	0	81	65	Schaffner, H.A., Capt.
Camp Bragg, Pope Fd., N.C.			18	0	8	23	Saunders, B.J., Capt.
Akron, Ohio			17	0	61	1	Maranville, C.H., Major
Ft. Hancock, N.J.			5	0	3	97	Hoyt, Ross G., Capt.
Berkeley, Calif., Univ. of Cal.		0	1	0	0	0	Crane, Chas. B., Major
Cornell Univ., Ithaca, N.Y.		0	2	0	0	0	Phipps, Geo. R., Capt.
Austin, Tex., Univ. of Tex.		0	2	0	0	0	Ciesecke, B.E., 1st Lt.
Speedway, Ind.	15	0-65	15	0	104	0	Frizzell, Patrick, Major
Dallas, Tex.	15	0-65	12	0	0	2	Netherwood, D.B., Lt.Col.
Montgomery, Ala.	15	0-65	16	0	111	2	Knight, L.R., Major
Mitchell Fd., L.I., N.Y.	105	1020	481	0	294	3105	Miller, Archie, Colonel
Morrison, Va.		0-65	10	0	0	6	Bonesteel, C.H., Major
Wilbur Wright A.S.D.	11	0-65	40	0	5	15	Oliver, P.A., Major
Buffalo, N.Y., A.G.S.D.	5	0-65	1	0	2	0	Scarlett, G.G., 1st Lt.
Dayton, Ohio	5	0-65	3	0	0	64	Caffery, Jas. P., Capt.
Detroit, Mich.	5	0-65	4	0	0	0	Balinger, A.J.Jr., Capt.
Houston, Tex.	7	0-65	5	0	1	1	Tips, J.G., Jr., Capt.
Little Rock, Ark.	10	0-65	10	0	0	0	DeArmond, G.W., Lt. Col.
Los Angeles, Calif.		0-65	5	0	0	0	Tisdale, Roy P., Major
Middletown, Pa.	19	0-65	19	0	0	0	Kirtland, Roy C., Lt.Col.
Richmond, Va.	7	0-65	6	0	1	2	Stolze, Chas. W., Capt.
San Antonio, Tex.	18	0-65	10	0	2	2	Garrison, Wm.H., Major
Chicago, Ill., Cent. Dept.			5	0	0	2	Morrow, J. C., Colonel
New York, Eastern Dept.			5	0	19	2	Brant, G.C., Colonel
Charleston, S.C., S.E. Dept.			1	0	0	0	Dargue, H. A., Lt. Col.
Ft. Sam Houston, Tex.			3	0	0	0	Fetchet, J.E., Colonel
San Francisco, Calif., West. Dept.			3	0	0	0	Arnold, H. H., Colonel

STATION	Reduction To: Off.	Enl. Men	Off.	Cad.	Reg. A.	Temp.	May 29, 1919 COMMANDING OFFICERS
Panama, 7th Aero Sqd. France Fd.			32	0	146		Harmon, M.F., Lt. Col.
Hawaii, 6th Aero Sqd., Luke Fd.			28	0	138		Brooks, J. B., Major
Aberdeen, Md., Proving Ground			20	0	234	163	Carolin, Nobert, Capt.
Penn Fd., Austin, Tex.			12	0	1	2	Mills, B.H., Capt.
St. Paul, Minn.			2	0	0	0	Gosling, Arthur, Capt.
Elizabeth, N.J.			1	0	0	0	Johnson, L. H., Capt.
Petrolia, Tex.			1	0	0	0	Neville, R.M., 2nd Lt.
McCook Fd., Dayton, Ohio			84	0	21	3	Bane, T.H., Colonel
Spruce Production Division			28	0	3	97	VanWay, Colonel
A.P.District Offices			179	0	0	0	
Off. on detached service			362	0	0	0	
Washington D.C., O.D.A.S.			475	0	9	34	Menoher, Chas.T.Gen.
TOTAL IN U.S.			3412	213	12,225		Of these 3344 are regular army.

DIRECTIONS FOR THE OPERATION OF THE ADOPTED TYPE OF PARACHUTES AND COMMENTS THEREON

The chutes complete are designed to be strong enough to carry a man weighing 200 lbs. traveling at 300 mph. The experimental chutes have been tested with 400 lbs. at 150 mph, which gives this result. Specifications prescribe that each chute shall be actually tested by dropping with a 300 lb. weight at 150 mph so as not to strain the chute near its limit. It is known that this chute will stand more than 400 lbs. at 150 mph, but not just how much more. This will be determined in the near future and report rendered.

This chute is by no means considered the last word, and experiments are to be continued with a view to improving it, but it is thought to be the best on the market today, either foreign or domestic.

So far at McCook Field five drops with live weights have been accomplished with the United States Army airplane chute. Three of the drops were by men who had previously made drops, veterans in fact, but two were made by men who had never dropped before, and who had little time in the air. All of the drops were made by stepping off the steps of a D H 9 machine after the engine had been throttled. Each of the droppers delayed pulling the rip-cord until well clear of the airplane. In four cases the chute opened fully before descending 100 feet. In the fifth case the shroud lines became twisted once. The action was similar to that which would be obtained had the parachute opened normally and then the parachutist had purposely made one revolution, which would wind the entire assembly of shroud lines. The man dropped 200 feet before he accomplished the feat of untwisting himself. During this time the chute was partially open, and had it continued to the ground, it is believed that at the worst, no more serious injury than a broken leg would have resulted. This was due, probably, to the manner in which this parachutist tumbled and twisted when he dropped. It is known that the chute would have automatically untwisted itself very soon without any aid. This has been noted several, but not many, times with dummy drops.

The first live drop was made by Mr. L. J. Irving, who is a veteran dropper. He jumped first , using both hands to do so, and while falling he

searched for the pull ring, finding it under his arm, when he cooly jerked it. The second drop was made by Mr. Floyd Smith, veteran aviator, who had previously made several drops. The next two drops were made by Mr. James Russell and James Higgins respectively, neither of whom had ever dropped before or had been in the air very much. They are employed as parachute mechanics. The fifth drop was made by Sgt. W. R. Bottreill, who has made numerous drops.

The drop by Mr. Irving was made on a day on which the air was quite bumpy. Upon landing the chute struck a down current, which caused a hard landing, breaking one of Mr. Irving's ankles. This taught the lesson of selecting only the best weather for parachute tests.

The other four landings were quite normal and without mishap, the average rate of descent being about 16 feet per second, which is equivalent to a free jump of about 5 feet.

All jumpers so far have used the same chute, which is 28 feet in diameter, with a 42-inch, patent, shock absorbing vent, supported by 30 shroud lines of 80 pounds breaking strength.

Further experiments are to be carried out with a view to determining the best method of escape from a plane in a nose dive, spinning nose dive, etc. It is believed that this offers no considerable difficulty.

In all live drops so far the engine has been throttled, and it is believed that the emergency is very remote when it will not be possible to close the throttle or cut the switch before jumping. In case the engine is idling, the problem of getting away is not difficult in normal or nearly normal flight, nor is it believed that the matter of speed itself will be bothersome within reasonable limits. There will be ample time to get out of the machine under any circumstances, (provided it is far enough above the ground), before a speed is reached which would cause failure of the chute. It will of course be necessary to clear all parts of the machine.

The present adopted type of chute is known as a flat chute, 28 feet in diameter, with a 48-inch flexible vent. It has 40 shroud lines, each of which has a breaking strength of 250 pounds. These are arranged in four groups of 10 each, tied to a D ring, which in turn is sewn into the harness webbing. The strength of the cords attached to any D ring is 2500 pounds; the D ring has a strength of 5000 pounds, while the webbing, as arranged, breaks at 3400. The breast and leg straps are strong out of all proportion. In the cords themselves, which are the weakest part, there is a factor of safety of at least 3 under the most extreme of the conditions named above, as a chute has already successfully passed this test with shroud lines attached to each D ring of only 720 pounds. Failure in fabric is not expected.

Future pack carriers will be both water and fireproof, it is hoped. Chutes must at all times be very carefully packed and it is thought that all fliers should know how, and it seems preferable for each to pack his own chute. Instructions and pictures of the actual operation of packing will be issued as soon as possible.

With each chute is a sample of the fabric, cords, webbing, etc. This is marked with the serial number of the chute, as well as with its tensile strength and should be tested at least monthly to determine its deterioration. In addition, it is thought that each month every chute on hand should be dropped, for test with a 300 lb. weight at 150 mph or the equivalent thereof.

Chutes should be stored in a dry place and every chute which has become wet should be dried without delay. In packing, care must be taken to see that:

1. The shroud lines are not tangled.
2. Pieces of newspaper are placed between each roll of shroud lines.

3. Bottom of chute is down (when worn)
4. Mouth of pilot chute is down.
5. Bottom of pilot chute is as far toward the bottom of the pack as possible. By bottom is meant the end nearest the ground when pack is worn.
6. The main chute is not packed on top of pilot chute nor so that any of its folds can obstruct its action.
7. The ends of pilot chute are carefully folded back upon itself.

This chute is steerable . By pulling down on one or more of the four webbs, the chute can be caused to travel sidewise somewhat. When nearing the ground, the leg straps should be unsnapped and immediately upon touching the ground the breast strap. It may be well in some cases to even unsnap the breast strap a short distance from the ground, holding both ends with the hands close to the body. The knees must be flexed upon striking the ground to ease the shock. At times chutes strike harder than at other times, due to down trends of air, and vice versa. Even if the rubbers in the flexible vent should break the rate of descent will not be dangerously increased. The flexible vent arrangement is primarily for the purpose of insuring better opening. No knots should be placed in shroud lines between vent and D rings as the lines will be weakened at the knot. If any lines break they should be replaced with an entire new line.

At present only one type of pack carrier is prescribed, but it is hoped that in the future three different types will be available so that the chute can be packed in the carrier which will most conveniently fit the airplane to be used in. This pack can be operated either by attaching the rip cord to the plane or by the aviator pulling it himself, either after or before jumping, depending upon circumstances. Of course, in the latter case it would behoove him to be out of his seat, either out on a wing or on the empennage. The attaching of the rip cord to the airplane is not recommended, but in case the aviator desires this arrangement he may simply tie a cord of the desired length into the rip cord ring and to the airplane. Such a cord is not furnished. When the rip cord is pulled, strong elastic bands come into play, which pull the covers of the pack apart and release the pilot chute, which springs open. The pilot chute then pulls the top of the main chute from the pack and holds it taut and straight until it fills with air. However, in case the pilot chute failed to operate, the main chute would be blown out and opened, but not quite so rapidly.

The following are conjectures, but are submitted for what they may be worth:

It is believed the best methods of leaving the airplane will be: (This in case of fire, wing collapse, serious plane failures, inoperative controls, some collisions, etc.)

1. In level flight, or 60 degrees above or below level flight, and at 500 feet or more, close throttle or cut switch, put hand in pull ring and jump or dive over side, pull rip cord as soon as leaving plane, but not <u>before</u>; or climb back to empennage or out on one wing far enough to clear horizontal stabilizer -- usually about the first strut -- pull rip cord, and the chute should pull the aviator off with a loss of altitude less than 50 feet. With small airplanes it is believed that it will be impracticable to climb out on a wing as that wing would instantly fall, but with larger planes this maneuver may be practicable if performed quickly.

2. When at altitude less than 500 feet and more than 100, get in one of positions outlined above, out on wing or on empennage, and pull rip cord.

3. From nose dive, if possible to be in position at more than 100 feet altitude, out on one wing or on empennage, as before stated.

4. From spinning nose dive, out on empennage.

5. In any case, if near the ground, back on empennage.

Vol. II AIR SERVICE NEWS LETTER V-516

Information Group
Air Service

JUNE 18, 1919

Building D
Washington, D. C.

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

MEDALS FOR SERVICE IN WAR WITH SPAIN AND ON THE MEXICAN BORDER

Section IV, General Orders, No. 8, War Department, 1919, is rescinded and the following substituted therefor:

1. A bronze medal to be known as the Spanish War Service Medal will be awarded to any officer or enlisted man of the Regular Army, Volunteers, or National Guard, who under orders of the President, served not less than ninety days in the war with Spain between April 20, 1898 and December 10, 1898, and who is not eligible to receive the Spanish Campaign Badge prescribed in subparagraph (c), paragraph 68, Compilation of orders.

2. A bronze medal to be known as the Mexican Border Service Medal will be awarded to

a. Any officer or enlisted man of the National Guard who, under orders of the President, served on the Mexican Border in the years of 1916 and 1917.

b. Any officer or enlisted man of the Regular Army who, under orders of the President, served as a member of the Mexican Border Patrol between January 1, 1916, and April 6, 1917.

This medal will not be issued to any one who is eligible to receive the Mexican Service Badge prescribed in section IV, General Orders, No. 155, War Department, 1917.

3. Neither of these medals will be awarded to men who have, subsequent to such service, been dishonorably discharged from the service or deserted. Medals awarded posthumously will be presented to the family of the deceased soldier. Application for these medals will be made to The Adjutant General through military channels, giving full name and address of the applicant, the rank he held and the organization in which he served during the war with Spain or upon the Mexican Border.

GENERAL FILES
ADMINISTRATIVE
TRAIN. & OPER.
SUPPLY
INFORMATION

AERIAL FOREST PATROL IN SOUTHERN CALIFORNIA

An aerial forest patrol has been operating in Southern California since June 1st using Curtiss JN4-D and JN6-H airplanes. The first route patrol starts at ten A.M. and covers 110 miles, generally at an elevation of 10,000 feet; the range of vision is about 95 miles to the mile of altitude. The second route patrol starts at one P.M. and covers 100 miles flying at an altitude of 7,000 feet. Major Geo. H. Peabody is in charge of the fire patrol service. Two fires have been reported to date, which were quickly extinguished with minor damage. Lieutenant H. M. Pugh, locating a fire in the San Jacinto Mountains, dropped a message parachute over Beaumont, Calif. at 11:30 A.M., which received immediate attention of the fire ranger for the district and the fire was extinguished before any serious damage was done.

TEN YEARS AGO TODAY

The month of June, 1909 was one of interesting events in aviation.

On June 5th, Hubert Latham, (Antoinette monoplane) in France, made a new world monoplane record of one hour seven minutes and thirty-seven seconds. Two days later Louis Bleriot (Bleriot monoplane) carried a passenger to an altitude of 1,978 feet. On the 11th with a passenger, he obtained the height of 4,920 feet and on June 12th increased his altitude with his mechanician to 3.73 miles. On the same day he established the new three-man distance record of 934 feet.

The University of Cincinnati on June 16th awarded Orville Wright an honorary degree as Doctor of Science.

June 20, 1919, is the 10th anniversary of the first sale in America of an airplane to an individual. This was made by Curtiss through the first airplane agency in the world, established by the firm of Wyckoff, Church and Partridge, agents for the Stearns car; and the purchaser was A.P. Warner the speedometer maker.

Glenn H. Curtiss, on June 26, 1909, made a public flight at the Exhibition of The Aeronautic Society at its grounds on the old Morris Park racetrack, New York, which also marked the opening of the first American club aerodrome.

The following day three daily newspapers in New York City printed the first advertisement of practical airplanes. The plane was listed at $7,500. Twenty-eight inquiries were received in three days by Wyckoff, Church & Partridge from these advertisments.

On June 10th, President Taft presented the Wright Brothers with gold medals at an audience given in the White House.

Earlham College (Indiana) conferred the degree of Master of Science on the Wrights on June 16th.

On the 17th the airplane inventors were welcomed at a homecoming celebration and presented with the key of the city and gold medals by the city of Dayton. Chief Signal Officer General James Allen presented them with the Congressional Medals. The State of Ohio, also gave gold medals.

ADDITIONAL AWARDS OF DISTINGUISHED SERVICE MEDAL

The Commander-in-Chief, in the name of the President, has awarded the Distinguished Service Cross to the following-named officers for the acts of extraordinary heroism described after their names:

COLONEL FRANK P. LAHM, Air Service, U. S. A. For exceptionally meritorious and distinguished services. A balloon pilot of marked ability and scientific attainments, he rendered valuable services to the American Expeditionary Forces by his untiring devotion to the innumerable problems which faced the Air Service during its organization in France. His broad experience in aeronautics played an important part in the formulation of policies of the Air Service and was reflected in its successes during the St. Mihiel offensive and subsequently in the operations of the Second Army.

LIEUTENANT HAROLD H. EMMONS, United States Naval Reserve Force. For especially meritorious and conspicuous service as Chief of the Engine Production Department of the Air Service.

COLONEL CLARENCE C. CULVER, United States Army. For exceptionally meritorious and conspicuous service. To Colonel Culver's untiring energy, close application, and perseverance is due the credit for having completed the coordination of the chain of events leading from the earliest conception of the radio telephone to the successful accomplishment of voice-commanded flying carried through to full fruition.

LIEUTENANT COLONEL ELBERT J. HALL, Air Service, United States Army (discharged). For exceptionally meritorious and conspicuous service rendered in the designing of the Liberty engine and subsequently in the adapting of the Le Rhone engine to the American methods of production and also in pushing to completion the American adaptation of the De Haviland plane.

BRIGADIER GENERAL BRYCE P. DISQUE, United States Army (resigned). For exceptionally meritorious and distinguished services rendered in connection with the organization and administration of the spruce production activities of the Bureau of Aircraft Production while serving as officer in charge of the Spruce Production Division and President of the United States Spruce Production Corporation.

RETURNING AERO UNITS

The transport Patria, sailed for New York, June 7th with the following troops from Marseille:

Detachments Aero Squadrons	20 officers	180 men;
645th Aero Squadrons	3 officers	97 men;

875th Aero Squadron	2 officers	125 men;
11th Photo Section	2 officers	29 men;
12th Photo Section	2 officers	24 men;
2nd Balloon Company	7 officers	146 men;

The following organizations have been assigned to early convoy: Headquarters and Headquarters Company of 1st. Regiment Air Service Mechanics; Headquarters of 3d. Regiment Air Service Mechanics.

STATUS OF SUSPENDED CONTRACTS, MAY 24, 1919.

	Value of suspended portions of contracts		Per cent liquidated
	Total	Liquidated	
Air Service	369,540,000	271,621,000	74

SAVINGS EFFECTED BY LIQUIDATION OF CONTRACTS TO MAY 24, 1919

The number of contracts which had been liquidated to May 24, 1919 was 16,189. Of these 8,765 were canceled at a saving of 100 per cent, contractors having submitted no valid claims for compensation. This explains the high rate of saving on the contracts liquidated thus far.

	Uncompleted portions of liquidated contracts	Amount saved by liquidation[c]	Per cent saved
Air Service	271,621,000	231,961,000[b]	85

(b) Partly estimated.
(c) The inventory value of property to be taken from the contractor has not been considered in determining the net saving to be effected by settlements.

CORRECTION IN NEWS LETTER, JUNE 6, PAGE 7

Due to the reduced activities of the Air Service it has been found necessary to report many approved Class 3 officers as surplus in the Air Service. These officers are being assigned to other activities, but it is hoped that future legislation will be such as to increase Air Service activities and to warrant the return of these officers to Air Service duty. Officers are especially cautioned to remember that being reported surplus does not mean disapproval of application to take examination for Regular Army commission.

OFFICERS DISCHARGED

James A. Buchanan,	Captain, A.S.A.
Andrew T. Cassell,	First Lieutenant, A.S.A.
William A. Larned	Lieutenant-Colonel, A.S.A.
Thomas N. Metcalf	First Lieutenant, A.S.M.A.
Charles W. Lamborn	First Lieutenant, A.S.A.
Rolland W. Tempest	First Lieutenant, A.S.A.P.
Harold B. Curtis	Second Lieutenant, A.S.A.
Ernest A. Coleman	Major, A.S.A.R.
Estell H. Rorick	Second Lieutenant, A.S.A.
Lawrence W. Scudder	Captain, A.S.A.P.
John H. Dumas	First Lieutenant, A.S.A.

CIVILIAN FLYING LICENSES

ISSUED BY THE JOINT ARMY AND NAVY BOARD ON AERONAUTIC COGNIZANCE

100 Reissued to Ruth Law, Stratford Hotel, Chicago, Ill. under date of June 2, 1919.

579	Alfred R. Callander,	Sioux City, Iowa.
580	Richard Boyce Miller,	401 S. 15th St., Indianapolis, Indiana.
581	Harry Ariail Boggs,	Charleston, S. C.
582	William S. Ferdon,	Amarillo, Texas.
583	Frederick A. Hoover,	c/o Packard Motor Car Co. Detroit, Mich.
584	Maurice H. Murphy	Roosevelt Field, Mineola, L.I., N.Y.
585	Sidney Q. Noel,	1301 Michigan St., Lawrence, Kansas.

586	Jules D. Biscayart,	Roosevelt Field, Mineola, L.I., N.Y.
587	L. D. Abney,	Ada, Oklahoma.
588	William F. Sullivan,	Port Washington, N.Y.
589	Richard Bernard Pennock,	136 Mountain View Terrace, Bunellen, N.J.
590	Simeon J. Jeffries,	Duppee, So. Dakota.
591	Peter Selmer Rask	313 - 9th Ave., S., Minneapolis, Minn.
592	A. H. Gibson,	Columbia Station, Ohio.
593	Claude M. DeVitalis,	Chatham, N.J.
594	James M. Field, Jr.,	1336 Main St., Buffalo, N.Y.
595	Harold R. Cochran,	3 St. Pauls Court, Brooklyn, N.Y.
596	Harry Baird Nilson,	756 - 76th Ave., No., Seattle, Washington.
597	James A. Morell,	72 Days Park, Buffalo, N.Y.
598	Amos Harper Johnson	Montgomery, Ala.
599	Charles E. Bradley	c/o Aerial Mail, P.O. Dept., Washington,
600	Donaldson Bros. Aero Show,	Milford, Iowa. (D.C.
601	Charles B. D. Collyer,	Farmville, Va.
602	Walter E. Lees,	54 W. 37th St., New York City.
603	Mortimer W. Mears,	314 Chronicle Bldg., Houston, Tex.
604	John R. White,	Gay Farm, Ellis, Mass.
605	John Wm. Metcalfe,	619 Binz Bldg., Houston, Texas.
606	Kellogg Sloan	275 Washington Ave., Brooklyn, N.Y.
607	Andrew J. Nielsen	607 Willow Ave., Council Bluffs, Iowa.
608	Paul E. Lehman,	Laurel, Md.
609	S. Harvey Krouse,	306 Chestnut St., Philadelphia, Pa.
610	George E. Weaver,	c/o Aero Club of Ill., Chicago, Ill.
611	Charles W. Meyers,	164 North 17th St., East Orange, Ill.
612	Oscar L. Rogers,	Alexander, N. C.
613	Charles E. Dickinson, Jr.	Lockport, N.Y.
614	Floyd C. Lewis,	Ilion, N.Y.

REVISE OF BATTLE DEATHS, BY SERVICES

Losses are measured against the total number of troops in each service arriving in France, except in the case of infantry officers, where deduction has been made for officers not serving with troops. Only the more important services are shown. The casualty figures are subject to correction.

	Killed in action and died of wounds		Battle deaths per 1,000 troops reaching France	
	Officers	Men	Officers	Men
Air Service	182	57	31	1

APPOINTEES IN O.R.C.

Appointees in Officers' Reserve Corps up to and including close of day, June 2, 1919 are as follows:

	Col.	Lt.Col.	Maj.	Capt.	1st Lt.	2nd Lt.	Totals
Aviation Sec. Sig. Flying			21	79	401	3670	4,171
" " " Non-fly			85	255	557	1703	2,600
" " " Balloon						15	15

RECRUITING STATISTICS

STATION	Reduction To: Off.	Enl. Men	Present Strength Off.	Cad.	Reg. A.	Temp.	June 5, 1919 COMMANDING OFFICERS
Bolling Fd., Anacostia			31	0	224	39	Hartz, R.S., Lt. Colonel
Brooks Fd., San Antonio	11	250	30	0	83	192	Bower, D.H., Lt. Colonel
Call Fd., Wichita Falls	11	65	9	0	11	61	Russell, C.W., Major
Carruthers, Benbrook, Tex.	11	0-65	10	0	0	0	Hanley, T.J., Major
Chanute, Rantoul, Ill.	11	65	17	0	208	8	Longnecker, Ira, Lt. Col.
Chapman, Miami, Fla.	3		2	0	0	0	Madigan, F.T., 2nd Lt.
Dorr Fd., Arcadia, Fla.	11	0-65	7	0	1	43	Duncan, T., Lt. Col.
Alberts Fd., Lonoke, Ark.	11	65	16	0	53	13	Krogstad, A.N., Major
Gerstner Fd., Lake Chas., La.	11	65	8	0	3	64	Wynne, W.W., Major
Langley Fd., Hampton, Va.	25	502	57	0	128	245	Hensley, Wm. N., Col.
Mather Fd., Sacramento, Cal.	11	65	14	0	91	3	Watson, H.L., Lt. Col.
Payne Fd., West Point, Miss.	11	65	21	0	7	62	Howard, W. W., Major
Rich Fd., Waco, Tex.	11	65	14	0	18	44	Whitesides, J.G., Maj.
Selfridge Fd., Mt. Clem. Mich.	11	65	28	0	127	9	Johnson, D., Lt. Col.
Scott Fd., Belleville, Ill.	11	65	11	2	111	2	Abbey, Henry, Major
Souther Fd., Americus, Ga.	11	65	18	0	50	28	Rader, I.A., Lt. Col.
Taliaferro Fd., Hicks, Tex.	11	65	32	0	48	67	McCauley, T.G., Major
Taylor Fd., Montgomery, Ala.	11	65	10	0	3	54	Cook, Seth W., Lt. Col.
Barron Fd., Everman, Tex.	11	0-65	8	0	3	0	Edgerly, J.R., Major
Carlstrom Fd., Arcadia, Fla.		500	110	0	75	171	Duncan, Thomas, Lt.Col.
Ellington Fd., Houston, Tex.		1000	299	94	151	868	McIntosh, L.W., Lt. Col.
Kelly Fd., San Antonio, Tex.		2000	208	73	232	1724	Buttler, B.B., Lt. Col.
Love Fd., Dallas, Tex.	11	65	28	0	80	14	Burwell, H.B.S., Col.
March Fd., Riverside, Calif.	11	65-200	48	1	90	30	Bartholf, J.C.P., Maj.
Park Fd., Millington, Tenn.		65	26	0	46	63	Simons, J.W., Jr., Maj.
Post Fd., Ft. Sill, Okla.		500	40	11	168	351	Barnitz, R.R., Lt. Col.
Rockwell Fd., San Diego, Calif.		400	171	2	277	145	Hanlon, A.J., Lt. Col.
Ft. Omaha, Nebr.	64	150	31	0	95	101	Wuest, J.W.S., Lt. Col.
Lee Hall, Va.	32	100	22	0	39	22	Vaughan, H. R., Major
Arcadia, Cal., Ross Fd.	32	150	32	0	76	70	Mygatt, L.J., Lt. Col.
Camp Knox, West Point, Ky.	6		12	0	102	41	Schaffner, H.A., Capt.
Pope Fd., Fayetteville, N.C.			18	0	8	22	Saunders, B.J., Capt.
Akron, Ohio			17	0	73	1	Maranville, C.H., Major
Ft. Hancock, N.J.			5	0	3	97	Hoyt, Ross G., Capt.
Ft. Monroe, Va.	6		3	0	4	1	Creighton, Neal, 1st Lt.
Berkeley, Calif.		0	1	0	0	0	Crane, Cha. B., Major
Cornell Univ., Ithaca, N.Y.		0	2	0	0	0	Phipps, Geo. R., Capt.
Austin, Tex., Univ. of Tex.		0	2	0	0	0	Giesecke, B.E., 1st Lt.
Speedway, Ind.	15	0-65	15	0	149	0	Frizzell, Patrick, Maj.
Dallas, Tex.	15	0-65	12	0	0	2	Netherwood, D.B., Lt.Col.
Montgomery, Ala.	15	0-65	14	0	133	2	Knight, L.R., Major
Mitchell Fd., L.I., N.Y.	105	1020	505	0	682	2557	Miller, Archie, Col.
Morrison, Va.		0-65	10	0	0	5	Bonesteel, C.H., Major
Wilbur Wright A.S.D.	11	0-65	31	0	5	15	Oliver, P.A., Major
Buffalo, N.Y., A.G.S.D.	5	0-65	2	0	0	0	Scarlett, G.G., 1st Lt.
Dayton, Ohio	5	0-65	3	0	0	64	Caffery, Jas. P., Capt.
Detroit, Mich.	5	0-65	3	0	0	0	Balinger, A.J., 1st Lt.
Houston, Tex.	7	0-65	4	0	1	1	Tips, J.G., Jr., Capt.
Little Rock, Ark.	10	0-65	9	0	0	0	DeArmond, G.W., Lt.Col.
Los Angeles, Calif.		0-65	3	0	0	0	Tisdale, Roy P., Major
Middletown, Pa.	19	0-65	17	0	0	0	Kirtland, Roy C., Lt.Col.
Richmond, Va.	7	0-65	6	0	1	0	Stolze, Chas. W., Capt.
San Antonio, Tex.	18	0-65	11	0	2	0	Garrison, Wm. H., Maj.
Chicago, Ill., Cent.Dept.			4	0	0	2	Morrow, J.C., Colonel
Boston, Mass., N.E.Dept.			1	0	0	0	Drennan, L.H., Lt.Col.
New York, Eastern Dept.			5	0	3	17	Brant, G.C., Colonel
Charleston, S.C., S.E.Dept.			1	0	0	0	Dargue, H.A., Lt. Col.
Ft. Sam Houston, San Antonio			3	0	0	0	Fetchet, J.E., Colonel
San Francisco, Calif., West.Dept.			2	0	0	0	Arnold, H.H., Colonel

STATION	Reduction To: Enl. Off.	Enl. Men	Present Strength Off.	Cad.	Reg. A.	Temp.	June 5, 1919 COMMANDING OFFICERS
Panama, France Fd., 7th Aero Sqd.			32	0	146		Harmon, M.F., Lt. Col.
Hawaii, Luke Fd., 6th Aero Sqd.			28	0	138		Brooks, J.B., Major
Aberdeen, Md., Proving Ground			21	0	317	144	Carolin, Nobert, Capt.
Penn Fd., Austin, Tex.			9	0	1	2	Mills, B.H., Capt.
St. Paul, Minn.			2	0	0	0	Wehrle, H.F., Major
Elizabeth, N.J.			1	0	0	0	Johnson, L.H., Capt.
Petrolia, Tex.			1	0	0	0	Neville, R.M., 2nd Lt.
McCook Fd., Dayton, Ohio			86	0	32	3	Bane, T.H., Colonel
Spruce Production Division			32	0	2	24	VanWay, Colonel
S.A.P. Dist. Offices			168	0	0	0	
Off. on detached service			400	0	0	0	
Washington D.C., O.D.A.S.			370	0	8	34	Menoher, Chas. T., Gen.
TOTAL IN U. S.			3229	183	11,837		Of these 4024 are regular army

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CHANGE OF STATIONS

1. Orders have been requested of the Adjutant General for the following named field officers to change station as follows since June 4, 1919.

June 4, 1919.

Major Robert Coker, A.S.A., from United States General Hospital, Fort McHenry, Maryland, to Washington, D. C.

June 5, 1919.

Lieutenant-Colonel Davenport Johnson, J.M.A., A.S.A., from Washington, D.C., to Chicago, Illinois, temporary duty, thence to Selfridge Field, Mt. Clemens, Michigan, to assume command.

June 9, 1919.

Major Eugene W. Crockett, A.S.A., from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D. C.

Major Victor M. Dumas, A.S.A., from Washington, D.C., to Aviation General Supply Depot, Middletown, Pennsylvania.

Major Leo G. Heffernan, J.M.A., A.S.A., from Washington, D.C., to Miami, Florida, to assume command.

BRIEF HISTORICAL SKETCH

OF AIRPLANE RADIO AND VOICE COMMANDED FLYING.

Previous to the entry of the United States into the great war, the problem of airplane radio development had received considerable attention from the Army. It was in August 1910 the first wireless transmission from airplanes was made. Two months later, at Belmont Park, L.I. an audience of thousands witnessed the spectacle of eleven monoplanes in flight. This spectacle of eleven monoplanes grouped in a single flight presented at once to the military minds of army officers present a vision of the great engine of war of the future, the air fleet. By giving its commander a voice, military tactics and naval tactics could be carried into the air, applied and extended into three dimensions without limit. With wireless telegraphy already a fact, and wireless telephony almost a fact, the path which lay before these officers was clear.

In the years following, while the world's attention was attracted to development of the art of flying and development of the design of aircraft, the development of the airplane radio was carried on through a series of accomplishments very interesting to the military minds engaged thereon. These may be summed up as follows:

1911, Message transmitted from airplane to ground by wireless telegraph over a distance of two miles;
1912, This distance increased to fifty miles;
1915, Program of development definitely begun at the aviation school at San Diego, California; airfan type of driving the wireless power plant on the airplane on the windmill principle developed and adopted; dicthaphone taken into the air, record of speech made in flight in the noise of the motor, the record studied, and officers convinced the idea of the telephone was entirely practical.
1916, Radio telegraph transmission from an airplane successful over 140 miles of distance, movements of airplanes flying on cross country tests from San Diego to Los Angeles and return reported to the commanding officer of the school by radio from one of the airplane means devised for receiving wireless messages in the rear of the motor of the airplane in flight; radio messages transmitted between airplanes in flight; the lead weight on the end of the trailing antenna eliminated, thus permitting airplanes to fly in close formation without danger of accident from same; airplane radio telephone constructed.
1917, January and February. Efficiency of the airplane radio telegraph greatly improved; the human voice transmitted by radio telephone from airplane to ground.

The trained military air force commanded by the voice of its commander and the airplane radio telegraph for observers' use in reporting his observations were the definite goals sought.

Contemporaneous with this development was the commercial development of the radio telephone for ground and ship use conducted by engineers of the American Telephone and Telegraph Company. This development culminated in a successful test of long range radio telephonic transmission from the naval radio station at Arlington to stations thousands of miles away.

In May 1917 steps were taken to combine the experience of these commercial engineers who had developed the ground wireless telephone and those of the army who had been developing the airplane wireless. This was done with a view to producing an airplane radio telephone in practical form in the shortest possible time, which would give a voice to the commander of the air fleet. The problem was given to the aforementioned engineers and an aviation officer who had been con-

ducting the army development was detailed to bring to them the benefit of his experience and the viewpoint of the trained military man and aviator. Six weeks later the airplane telephone was a fact. Further development continued, informal demonstrations were given high officials from time to time, and in October 1917 a long range test was made of the apparatus. In this test telephonic communication was carried on between airplanes in flight up to twenty-five miles apart and from airplane to ground up to a distance of forty-five miles. Reports of the American apparatus were received by American officers abroad with skepticism. Accordingly the same aviation officer who had been working with the scientists on t this problem was sent abroad with all available apparatus. Upon arrival there, comparative tests of the American and the foreign apparatus were made, demonstrations given and a definite airplane radio program determined upon. This program was outlined by cable to the United States and sent complete in detail by the officer who had brought the American apparatus and conducted the demonstrations abroad.

In the meantime the development in the United States had continued and orders were placed for the apparatus in quantities. In February 1918 conferences were held at Dayton, Ohio, at which officers returning from abroad representing radio, armament, heated clothing and other airplane accessories, presented the air program of their several specialties for consideration in connection with the equipment of airplanes and the mounting of same.

The development of Voice Commanded flying proper was definitely begun at Gerstner Field, La., in May 1918. An officer familiar with military tactics, aviation and airplane radio was sent to that field for the definite purpose of placing in the air a fleet drilled and manoeuvred by the voice of its commander. Tentative drill regulations were worked out step by step progressively through the School of the Unit, (3 airplanes), School of the Section (6 airplanes), School of the Squadron (3 sections) and Tactical Employment of the Squadron. On June 1st an aerial review was given the Director of Military Aeronautics of an air fleet consisting of two squadrons of 18 airplanes each, each with its Commander, the whole commanded by a superior also in flight. This review was followed by a snappy close order drill by a section of six airplanes which in turn was followed by a tactical problem among the clouds. Throughout the review and the drill and problem which followed, command was exercised by the voice of the commander flying with the fleets. The development of Voice commanded flying, and the training of aviators therein was continued at this field until it was destroyed by storm on August 6th. In September following, Voice Commanded flying was instituted at several other fields, particularly at Carlstrom Field. By using the airplane radio telephone i instructing aviators in aerial gunnery it was found possible to reach the same degree of efficiency with a saving of one third of the time otherwise required. By its use in the other phases of the training of pursuit pilots, extending the Gosport system to single seaters, and training in formation flying, twice as much training could be given. By exercising control over pilots in the air, accidents were practically eliminated. These are a few of the results obtained by the use o the airplane radio telephone in the training of Air Service personnel and it seems we have merely made a beginning in this phase of aeronautics. At the signing of the armistice, development and training in Voice Commanded flying was well under way at the pursuit schools in this country. It was being enlarged as rapidly as possible with a view to having pilots leaving for France during the Winter well trained in Voice Commanded flying and the tactics pertaining thereto. Numerous demonstrations were held during November and December and in the same period a fleet of 204 airplanes was manoeuvred in the air at San Diego by Voice Command. In the practical application of the airplane radio telephone to airplanes, over 6000 flights have been made with this apparatus in this country. In the last 2000 flights there have been 74 cases of airplane trouble and 25 cases of radio trouble.

Shipments of the apparatus to France in quantities began August and Septemb 1918, and of trained Air Service radio personnel in October. The report of the Chief of Air Service, A.E.F., is awaited with interest. Had active operations continued the voice-commanded military unit of the air would undoubtedly have made itself felt.

Wireless Apparatus of the Allies As Seen Through German Spectacles

The following translation of a captured document shows the importance the enemy attached to salving our wireless apparatus sets of the continuous or undamped wave type. In this connection it may be stated that wireless telegraph apparatus may be divided into two general types - those of the "spark" or damped wave type and those employing the continuous or undamped wave system. The latter type is an improvement on the former, and came into use several years ago for ship and shore stations, superseding the telegraph apparatus of the spark type to a great extent. The telephone apparatus is based on the continuous or undamped wave system and the outgoing energy is modulated by the voice instead of by the key as in the telegraph system. Airplane radio telegraph sets of the continuous wave type were used by the Allies as early as the Spring of 1917.

"XIII (Wurttemberg) Army Corps, H.Q.

Corps Headquarters,
5-6-1918.

ROUTINE ORDER NO. 30.

"1. (1c) Captured Aviation W. T. fittings.

"The enemy has found it possible to use wireless installations for undamped waves in his aeroplanes. So far, few fittings of this type of apparatus have been captured by us, and in order to enable us to make use of this as soon as possible and also so as to save millions which would have to be spent in experiments, it is everyone's duty to see that all W.T. fittings from captured aeroplanes are salved as completely as possible. Even the smallest pieces will be collected, as a tyro cannot recognize the value and importance of small parts to the expert.

"W.T. fittings which have been salved will be forwarded to the nearest airdraft unit, which is responsible that they are sent on immediately to the Commander of Aviation.

"In view of the importance of these fittings for our own wireless telegraphy, sums paid for salvage will be high."

The above order which was captured from the Germans indicates that the Allies had progressed a great deal further in their radio equipment than the Germans, and that Germany was prepared to spend millions to bring their radio equipment up to a point where it would be as efficient as that of the Allies. Even small portions of our radio equipment were extremely valuable to them. This explains the necessity for aviators who were forced to land on enemy territory, burning up their ships and all their equipment. When it is taken into consideration that Germany did not even know that we had developed a practical radio or telephone equipment, the importance of such radio or telephone equipment is readily seen. Germany undoubtedly would have given many million dollars for information which would enable them to duplicate such equipment.

Vol. III AIR SERVICE NEWS LETTER V-838

Information Group
Air Service

AUGUST 22, 1919

Building D
Washington, D. C.

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

NEW YORK - TORONTO RELIABILITY TEST

The test will consist of a return trip from Toronto to New York in which machines from Hazelhurst, Bolling, Selfridge, Langley, Middletown and McCook Fields will participate, together with one machine from the Office of the Department Air Service Officer, New York. All machines with the exception of those from Selfridge and McCook Fields start from Roosevelt Field, Mineola, Long Island. Machines from Selfridge and McCook Fields will start from Toronto simultaneously with those that start from Roosevelt Field, Mineola, L.I.

Thirty-two Government machines have been entered for this race and include the following types of planes: LaPere, Liberty D.H.4, Liberty D.H. 9, S. E. 5, Spad, Martin Bomber, Vought-7, D. H.9-A, J.N.4-H, Thomas-Morse and Caproni.

There will be three (3) control stops between the starting points, namely, Albany, Syracuse and Buffalo, where each machine must remain at least thirty (30) minutes.

Contestants will be given two (2) days within which to complete the return journey, but Toronto need not be reached the first day. Should, however, the weather interfere with the race and the officers in charge of control stations be compelled to hold the pilot, the latter will be given credit for any delay incurred through bad weather, and this delayed time will be added to the two-day period within which he must complete his race. A day will be computed from daylight to dark.

Officers commanding control stops above mentioned will fire rockets and Very's lights to facilitate and aid pilots in the location of the landing grounds.

Pilots must circle each field once before landing and their time will be taken from the moment wheels leave the ground on taking off to the time when the wheels touch the ground on landing.

Test flights will be permitted, but only upon the production of a signed permit from the control station commander, which permit must be turned in before the contestant proceeds further on his test.

Commanding Officers of control stops will submit daily detailed telegraph reports to the Commanding Officer, Hazelhurst Field, transmitting a copy to the Director of Air Service, Attention of Chief of Training, taking special care to indicate credits given pilots for time lost due to bad weather.

PERSONNEL

Col. A. Miller.....designated as Officer in Charge of Control Stop No. 1, Mineola, L.I.
Major R. L. Walsh.....designated as Officer in Charge of Control Stop No. 2, Albany, N.Y.
Major M. Davis .....designated as Officer in Charge of Control Stop No. 3, Syracuse, N.Y.
Major Lamphir .....designated Officer in Charge of Control Stop No. 4, Buffalo, N.Y.

Search lights will be provided at all landing fields, and in case the pilots should be forced to arrive at night, the beam of light will be thrown into the wind and the pilot will land down the beam as closely as practicable. Flying at night is not authorized.

The contest will be decided for by speed and handicap. In the speed test the machine making the return journey in the shortest time irrespective of conditions, will be considered the winner. In the reliability test each machine will virtually race against its own ideal performance.
The formula

$$\text{"}\frac{\text{Useful Load}}{\text{Horsepower}} \times \text{Speed"}$$

will be used in determining the ratio of the actual performance made to the ideal performance and the machine approximating most closely its ideal performance will win the handicap. The ideal performance is based on Government tests only.

With the exception of the London Aerial Derby of last May this is probably the biggest aerial test attempted anywhere. Granted favorable weather there will be much valuable information gained and considerable knowledge obtained as to the relative merits of machine and motors. The Canadian National Exhibition, one of the largest annual exhibitions of the world, has requested that an American pilot deliver a mail bag with messages from the Prince of Wales to the President of the United States. Major Reed Chambers, the officer who succeeded Captain E. Rickenbacker in the command of the 94th Squadron, and who is starting from Toronto, has been selected to carry this mail bag in his Spad airplane.

Civilians entering in the test will be eligible for the Hotel Commodore prizes, but the Government is not offering any prizes of any kind.

THE WEATHER BUREAU AND AERONAUTICS

It has been the continuous aim of the Weather Bureau during the past 48 years of its existence to make its service of the greatest possible value to all the people, not only in a general way through the dissemination

of forecasts and weather information by means of the press, telegraph and telephone but by rendering its warning advices and information directly to special interests and individuals benefitted thereby.

Created by a Joint Resolution of Congress approved in February, 1870, for the benefit of Commerce, Agriculture and Navigation, the Bureau has grown steadily to a great and beneficial public service, extending its work with the growth of the Nation and expanding to serve every new activity or situation dependent upon or influenced by the weather. At the present time it maintains over 200 fully equipped meteorological stations, and about 1400 substations classified as special meteorological, river, storm warning, hurricane, marine, cotton region, corn and wheat region, fruit, cranberry, and fire-weather warning stations. In addition to these the Bureau maintains, in connection with its climatological work, about 4500 stations known as cooperative stations, the equipment being furnished by the Bureau and the observations being taken by public spirited citizens who render gratuitous service. Its cooperative work extends to practically every ocean of the globe, and the masters of many vessels (the number was greatly reduced by the war, but is now on the increase) fill out our forms of daily meteorological observations on every voyage to be forwarded on arrival in port. Before the war daily receipt by cable and otherwise from selected stations over the entire Northern Hemisphere were collected and published. Negotiations to restore this exchange are under way. A highly trained, efficient and experienced personnel of over 800 commissioned employees helped by about 1400 who receive a small compensation for the regular performance of specific duties, conducts the work of the Bureau, and in addition the marine and cooperative observers consitute a host of spirited individuals who serve gratuitously. Such, in brief, is the machinery and organization of the Weather Bureau.

While the Bureau is best known to the public through the issue of its daily forecasts, maps and bulletins, there is no doubt that its greatest value in an economic sense consists in the immense saving effected by its special warnings as of storms and hurricanes for the benefit of marine interests, warnings of floods that occur on the principal rivers, warnings of cold waves which accomplish protection to property and food stuffs liable to damage by injuriously low temperatures, and warnings of frosts and freezing weather for the benefit of the fruit, sugar, tobacco, cranberry, market gardening, and other interests.

Its sobriquet of earlier days, "Old Probabilities", is expressive of the sense of humor with which the kindly public received the forecasts and warnings. Many a sad fatality has taught wisdom and transformed humor to respect. Many now eagerly seek and heed weather advices and manage business affairs by them. Cases are of record where the courts administered severe reprimands to masters of vessels, and their owners were compelled to pay damages for failure to heed Weather Bureau warnings.

To issue storm and weather warnings for navigation (marine) was by law one of its first duties. Its issue of warning advices and information for the navigation of the air is but one among other logical extensions of its work brought about chiefly by the war. As early as 1898 the Bureau began the taking of upper air observations, and work of this character has been carried on almost continuously since 1907. The data derived have been of great value in connection with aviation and the carrying on of military operations, and Congress readily granted the funds needed to enlarge the service to supply the needs of the Army and Navy in carrying on the war. Abreast with the need, a service of advices, forecasts and warnings, in aid of aeronautics has been created in the Weather Bureau; it has been in operation since December 1, 1918, and is offered and available to those who may be benefited by it. It is limited as yet in both funds and personnel, but Congress will doubtless make other provisions as needs develop. The service already performed in the past few months illustrates its operation and testifies to its worth.

When the first trans-Atlantic airship flight was perfected by the U. S. Navy the need of accurate meteorological reports of surface and upper air winds and their attendant weather such as clouds, fog, and visibility was early seen and their importance in such an undertaking fully recognized. As the Weather Bureau was the logical organization on this side of the Atlantic Ocean capable of handling an affair of this importance and magnitude, its aid was sought by the Navy Department in supplying the meteorological information and forecasts needed by the aviators making this flight. It, the Weather Bureau, had to do with the planning of the arrangements for securing meteorological reports from the Atlantic Ocean and Europe, and with the Weather Bureau was placed full responsibility for the making of the forecasts for the guidance of the aviator from the time they left Rockaway to the time they reached the Azores. That the forecasts fulfilled every expectation has been attested by officers of the Navy.

Active military operations are now happily over. Civil aerial transport exists and commands attention. Few are bold enough to guess perhaps what is before us, but foreknowledge of weather conditions is vital to the successful navigation of the air and the conservation of life and property.

Another example of the importance of meteorological information and forecasts to aerial navigation is that in connection with the recent visit of the British dirigible, the R-34, to our country. The first call for meteorological information and forecasts was received from the commander of this airship when off Newfoundland, and was by radio through the shore station at Cape Race. Immediately on the receipt of this call information of the prevailing weather and winds along the American Coast north of New York and forecasts of wind and weather conditions were sent twice each day until the airship reached Long Island. Perhaps the most important information contained in these advices was sent when the airship was flying between Nova Scotia and Cape Cod, encountering head winds and its supply of fuel nearly exhausted. The prediction was to the effect that the wind would change to the northeast within the next 12 hours. Unquestionably this change in wind was most timely and enabled the airship to reach its destination without the aid of torpedo boats. During all the time that the R-34 was moored at the flying field on Long Island advices three times each day concerning the probable wind and weather conditions were supplied its commander. Its dramatic departure was made on urgent recommendations from the Weather Bureau to the effect that a storm was approaching rapidly from the region of the Great Lakes, that the wind and weather conditions, then favorable for a start homeward, would continue but a few hours longer, and that to remain moored on the flying field would be at the risk of having the airship torn from its moorings and swept away by winds and squalls that would set in before the expiration of the night. This bulletin was sent as an urgent message at 9p.m., and at midnight the R-34 was on her homeward flight under exceptionally favorable winds and weather conditions. It is fortunate that she left when she did, for the following morning the wind was blowing half-a-gale, rain had set in, and atmospheric conditions were most dangerous for an airship unprotected on a flying field. In the meantime the R-34 was miles eastward, flying in good weather and with strong following winds making exceptionally fine speed. That the work of the Weather Bureau in this connection was appreciated is evidenced by the following message received from her meteorological officer via radio after her departure "Many thanks for kindly and efficient manner in which weather information has been supplied. Very grateful".

These are but examples of what the Weather Bureau will and must do for aerial navigators in the future, not only in the matter of trans-Atlantic flights but more particularly to safeguard flying in the United States.

The Weather Bureau has for some time past made forecasts for the air services of the Army and Navy, and in the immediate future this service will be enlarged and standardized. After August 10, 1919 "Flying Weather" forecasts will be made systematically for the United States by zones as follows: No. 1, North Atlantic States; No. 2, Middle Atlantic States; No. 3, South Atlantic States; No. 4, Lake Region; No. 5, Ohio Valley and Tennessee; No. 6, East Gulf States; No. 7, Upper Mississippi and Missouri Valleys; No. 8, Central

Plains States and Middle Mississippi Valley; No. 9, West Gulf States; No. 10, NorthernRocky Mountain States; No. 11, Southern Rocky Mountain States; No. 12, Southern Plateau States; No. 13, Pacific Coast States.

The zonal map shows the geographic districts into which the United States have been divided for the purpose of aviation forecasting. These forecasts will be issued twice daily, at 9:30 a.m. and 9:30 p.m., and will be immediately supplied the Air Service, U. S. Army, for dissemination to their airfields. It is presumed that the U. S. Naval Air Service will sooner or later need similar information for the coastal zones. It also seems probable that the press services will handle the forecasts for distribution to the regions where flying is more or less general, for it is manifestly true that meteorological information and forecasts are destined to become of even greater importance to the navigator of the air than to the navigator of the seas or the dweller on the lands.

The Weather Bureau through its chain of meteorological reporting stations and its trained personnel is at attention and prepared to handle the many problems that will have to be handled to save the lives and the ships of the air as it has saved the lives and ships at sea during the years since Congress planned and legalized its organization for this purpose.

LIGHTER-THAN-AIRCRAFT

The organization of six dirigible balloon companies has opened up wider opportunities for the Air Service recruit who has had the good fortune to be assigned to the lighter-than-air service, known as the Balloon & Airship Division, for the reason that, differing from the airplane, which only on occasion takes up an enlisted mechanic, the big airship, never takes off without at least one enlisted mechanic, often more, and each of these enlisted men on flying status, draws 50% increase in pay. One of the balloon schools will be designated as a dirigible, or airship base, while at Langley Field, Va., a school for dirigible instruction has been established.

This Airship game will afford a broader field for advancement of the wide awake enlisted man, than the airplanes, in that the planes require only a pilot, while the airship requires a crew of from two men up. So, while the chances of an enlisted man not under instruction as a pilot to travel by air in an airplane are limited to accompanying a pilot in a two seater, the airship or dirigible balloon actually requires enlisted men as crew.

The instruction for this work will develop the latent talent in each man along the line of work for which he displays the greatest fitness, and the instruction along these lines will be given at the several Balloon Schools. For instance, the experimental work with fabrics, dopes, instruments, certain types of gas engines, etc., will probably be carried on at Fort Omaha. The mechanics school, at Brooks Field, which will also be the base for border patrol, and where several airships will be kept, and also Ross Field (Arcadia, Cal.), while Langley Field will be the school for navigating airships where pilots will be given their final training.

Lee Hall, Va. has also been designated as a balloon school. Men being sent to any of these schools cannot help but become interested in their work as the duties of a balloon company are so closely linked with coast and border defense plans, the regulation of fire for the big, long range coast defense guns,

carrying out experiments with the Ordnance Corps, and various experimental projects of air navigation that even the dullest mind in a company cannot help but be aroused to a keen interest in the work.

The future commercial flying will without a doubt, develop along the lines of lighter-than-air craft and the man who goes into the balloon and airship game now and takes advantage of his opportunities will at the end of a 3-year enlistment be able to step into a new field of endeavor in civil life, where with a thorough knowledge of machines, gas, cordage, fabrics or rigging, he will meet with no such competition as the airplane mechanic whose training does not cover such a variety of phases of air navigation.

That commercial airships are soon to become as ordinary a sight in the air as army airplanes are at present, is an assured act as all of the balloon manufacturers in America, and abroad are planning, and actually building, airships from a small "sport model" two passenger ship, up to the enormous 10,000,000 cubic foot ship, fitted out for a world cruise with all the conveniences of an ocean liner. It is a new field that is only now opening up. The man who contemplates entering the air service and neglects to look into the airship (lighter-than-air) opportunities now offered him will be as short sighted as some of those old conservatives who stayed in the bicycle game when automobiles first came into use.

INACTIVE R.M.A.'s PERMITTED TO FLY IN GOVERNMENT AIRCRAFT

The Commanding Officer at any Air Service station where flying is authorized may permit qualified Reserve Military Aviators, who are in inactive status, to take such flights in Government aircraft as he deems advisable. Cross-country flights will not be made under this authority and no interference with the regular training or the operation of a station will be permitted.

Before exercising the authority given them in preceding paragraph, Commanding Officers of Air Service stations will be held responsible that the following conditions have been fulfilled.

(a) That individuals applying for such permission have fully and completely identified themselves--documentary evidence being required when necessary.

(b) That such individuals have demonstrated to the Flight Surgeon that their physical condition is satisfactory for solo flights.

(c) That no applicant is permitted to fly solo until he has been reported by a qualified instructor as competent to do so after an actual test in the air.

The foregoing restrictions have been found necessary as a result of the experience gained to date relative to flying engaged in under authority of Orders No. 30, O.D.A.S., 1919, which has been rescinded by this order. Commanding Officers are directed to observe the spirit as well as the letter of these instructions to the end that Government property may not be needlessly destroyed nor the lives of over-enthusiastic pilots in poor physical condition, or whose flying efficiency has been lowered by too long an absence from flying, be needlessly endangered.

FLIGHT SURGEONS

But very few remain of the old group of flight surgeons and in a short time practically all will have been discharged, necessitating the creation of an entirely new group of flight surgeons, most of them picked from the regular Medical Corps. On July 15th a class of seventeen completed their course of instruction at the Medical Research Laboratory and a new class of 12 was formed, the present course to terminate September 15. It is expected there will be a third class of eight or ten and it is then hoped that the needs of the Air Service for flight surgeons for sometime to come, will be entirely met. The course of instruction is very comprehensive and includes special attention to the eye and ear and much stress has been placed on the department of psychiatry. The program for each day calls for several hours attendance on the part of the student officers and a part of the time is devoted to clinical work at Bellevue and other city hospitals, all of the instruction both practical and theoretical being, of course, centered around the flight surgeon's duties, peculiar to the proper selection of fliers, their classification as to physical fitness, and most important of all the maintenance of their physical efficiency. Nearly all of the student officers have succeeded in passing without waivers of any kind, the physical examination for flying, and it is hoped that the successful ones will be able to perceive at the proper time with their flying training, and ultimately to obtain their ratings. The advantages to the Air Service of having a group of these officers qualified as pilots, have been conceded.

FRANCE FIELD NOTES

France Field was recently visited by Admiral Wood, commanding the Chicago, Denver, Cleveland and Tacoma, and his staff. This is the first section of the Pacific fleet to arrive at this field. The Admiral and three other Naval officers were given a flight across the Isthmus in DeHavaland 4 planes, flying in formation. Admiral Wood enjoyed the trip immensely and was perfectly "at home" in the plane, using every minute of the flight in keen observation of the Canal.

PENN FIELD CLOSED

It has been officially announced by the War Department that Penn Field Radio School, Austin, Texas, was abandoned on August 8th, 1919.

FOR BORDER SERVICE

With Lieutenant Rex Stoner, flight commander and Captain D. W. McNabb, commanding officer, as passenger, leading ship #1, Flight "B" Eighth Aero Squadron, left Kelly Field for border duty at Laredo, Texas. Ships were flown in Vee formation entire distance of one hundred eighty miles.

The following units are now operating as border patrol flights;

McAllen, Texas - Headquarters & "A" flight, 8th Aero Squadron

Laredo, Texas - "B" Flight - 8th Aero Squadron

Marfa, Texas - "A" Flight - 11th Aero Squadron

El Paso, Texas - Headquarters 1st Bombardment Group

Headquarters & "B" flight 11th Aero Squadron

Headquarters & "B" Flight 96th Aero Squadron

Douglas, Ariz. "A" flight, 96th Aero Squadron.

LT. HEALY PRESENTED WITH WAR MEDAL

Among the group of thirty American Aces to be presented with a War Medal and diploma by the Aero Club of America, was First Lieutenant James A. Healy. Lieutenant Healy also has the distinction of having received the D.S.C. with Oak Leaf and Croix de Guerre with three palms.

August 18, 1919

The War Department authorizes publication of the following information:

(a)

The Chief of Staff has approved recommendations of the Director of Operations, General Staff, providing that in filling such vacancies for commissioned officers as may be provided by legislation reorganizing permanent military establishment, it is the policy of the War Department to select appointees from among persons who served as emergency officers between April 6, 1917 and November 11, 1918. (a) Upon enaction of legislation, eligible emergency officers still in service having approved applications on file will be examined for appointment without further action on their part. (b) Upon enactment of legislation, former emergency officers who have been honorably discharged and in whose cases there are approved applications on file will, if eligible, be communicated with to ascertain if they still desire appointment and will be examined if they so desire. (c) Former emergency officers who have been honorably discharged but who at time of discharge or prior thereto did not express desire for permanent appointment may make application for examination.

(d) Persons other than emergency officers who may be eligible under such legislation as is enacted, may make application for examination and will be examined if recommendations and records are satisfactory.

No applications, other than from emergency officers still in service, will be considered or filed at this time. Regardless of such preliminary or other examinations as may have been held, no appointment will be made without a thorough and satisfactory final examination. The final examination will be such as to establish the mental, moral and physical qualifications of appointee. Candidates will be examined for arm of service selected by them, within limits of legislation. Examinations will not be held for a particular grade; examining boards will be permitted to recommend a suitable grade or grades for appointment, but all candidates will be examined with the understanding that the grade in which appointment is tendered will be determined by the War Department from consideration of age, length and character of service and recommendations of bids.

August 18, 1919

STATISTICS SERIES

(a)

REGULAR ARMY OFFICERS DISCHARGED FROM EMERGENCY RANK, TO AUGUST 19

Officers Returned to Regular Grade Since November 11

Emergency rank	Brig. Gen.	Permanent rank						Total
		Col.	Lt. Col.	Major	Capt.	1st Lt.	2nd Lt.	
Major General	4	22	1					27
Brigadier General		84	64	40	3			191
Colonel			67	105	27		1	200
Lieut. Colonel				41	106	1		148
Major					111	7	1	119
Captain						108	19	127
1st Lieutenant							48	48
Total	4	106	132	186	247	116	69	860

Promotions and Demotions Since April 6, 1917
(not including General Officers)

Regular Army rank	Given emergency rank	Returned to permanent rank	Per cent returned to permanent rank
Colonel	175	126	72
Lieut. Colonel	379	139	37
Major	930	206	22
Captain	2,922	423	14
1st Lieutenants	2,036	297	14
2nd Lieutenants	1,341	48	4
Total	7,783	1,239	16

(b)

ACCESSIONS TO COMMISSIONED STRENGTH OF REGULAR ARMY SINCE APRIL 1, 1917

The commissioned strength of the Regular Army April 1, 1917 was 5,791.

	Number	Per cent of total
Provisional 2nd Lieutenants	4,307	70.7
Graduates, Military Academy	932	15.3
Medical Corps	528	8.7
Dental Corps	148	2.4
Chaplains	79	1.3
Veterinary Corps	62	1.0
Returned to active list	24	.4
Reinstated	11	.2
Judge Advocate General	1	
Total	6,092	

REDUCTIONS IN COMMISSIONED STRENGTH OF REGULAR ARMY, APRIL 1, 1917 to AUG. 5, 1919

	Number	Per cent of total
Resigned	1,226	62.3
Died	328	16.7
Retired	210	10.7
Appointments Terminated	136	6.9
Dismissed	38	1.9
Honorably Discharged	26	1.3
Dropped	3	.2
Total	1,967	

LIBERTY MOTOR

Test of Experimental 24 Cylinder Liberty Motor Made

A short test of a 24 cylinder Liberty x-type motor has been conducted at McCook Field. The test engine was built of standard Liberty 12 parts. The changes involved were few, consisting in the main in the use of two regular crank case upper halves, one of which was somewhat altered, and special design connecting rods.

The following table compares the Liberty 12 and the experimental Liberty 24:

Horse power (normal)
- Liberty 24 ----------673
- Liberty 12 ----------400

Pounds per H.P. (dry)
- Liberty 24 ----------1.97
- Liberty 12 ----------2.11

Gas Consumption (pound per H.P. hour)
- Liberty 24 ---------- .55
- Liberty 12 ---------- .51

Liberty 24 Compares Well with Other High Power Airplane Motors

The experimental Liberty 24 compares favorably with successful tests of foreign motors of approximately the same power. An engine of this power, if run at the normal speed, would enable the use of a comparatively large slow-speed propeller without the gear reduction, thus increasing propeller efficiency.

The following table compares the Liberty 24 and various high powered foreign motors:

Motor	Country of Manufacture	Rated Horse power	Weight per H.P. (pounds)
De Dion	France	800	2.15
Liberty 24	U.S.	673-738 *	1.97
Fiat A-14	Italy	600	2.36
Rolls-Royce "Condor"	England	600	----
Anzani 20	France	600	----
Renault 12-M	France	550	----
Salmson 18-Z	France	500	1.76
Napier "Lion"	England	450	1.86

*Experimental, not rated.

The following officers have been honorably discharged from the service of the United States:

Francis A. Thompson, Second Lieutenant, A.S.A.P.
George W. Mixter, Colonel, A.S.A.P.
Henry B. Hersey, Lieutenant-Colonel, J.M.Aer., A.S.A.
Harold H. Ashley, Captain, J.M.A., A.S.A.
Charles C. Walker, Jr. First Lieutenant, A.S.A.
Harral Mulliken, Major, A.S.A.
Alvah W. Beckett, First Lieutenant, A.S.A.
Alfred B. Baker, Second Lieutenant, A.S.A.
Thomas H. Hiltz, Captain, A.S.A.
Z. Montford Smith, First Lieutenant, A.S.A.P.
Edwin Burge, First Lieutenant, A.S.A.
Charles E. Tirrell, Second Lieutenant, A.S.A.
Edward A. Deeds, Colonel, A.S.A.
Andrew C. Duncan, First Lieutenant, A.S.A.
Raymond P. Birdsall, Second Lieutenant, A.S.A.
Rollin L. Dixon, Second Lieutenant, A.S.A.
Henry D. Valentine, Second Lieutenant, A.S.A.P.
Victor W. Fitch, Second Lieutenant, A.S.A.
Robert A. Coxeter, Captain, A.S.A.
Ernest C. Slye, Second Lieutenant, A.S.A.
Alfred J. Ralph, First Lieutenant, A.S.A.
Walter L. Perley, Second Lieutenant, A.S.A.P.
Robert G. Woodcock, Captain, A.S.A.P.
Walter S. Chatterton, First Lieutenant, A.S.A.P.

FOREST FIRE PATROL

Rockwell Field.

For week ending August 16th, 1919, 2,602 miles of flying were covered, seven trips being made in 1,735 minutes. The officers participating were 2nd. Lieutenants M. N. Clark, T. V. Foster, F. R. Gilbreth, Joseph E. Loughead, W. R. McKenzie, Cecil P. Connelly, Louis L. Gowans, George A. Wright, Dal M. King, Gerald G. Martin, C. W. Marsh, Sergeant John Meller. Three fires were discovered.

March Field.

The Angeles National and Cleveland National were the forests under observation by the officers at March Field. For the week ending August 16th, 1919, thirteen flights were made covering 1,275 miles in thirteen hours fifteen minutes. Second Lieutenants Rufus J. Pilcher, Harry F. Colliver, J. T. Morris and Sergeant John G. Montijo participated in the flights. Two fires were reported during the week. Mr. R. T. Charlton, Forest Supervisor, stated that airplane fire patrol is the most effective system of fire detection that they have had at their disposal.

Mather Field.

Five fires were reported to the Forestry Service at Placerville by the Mather Field Forest Patrol Pilots, who during the course of the week flew 2,854 miles over Tahoe, Eldorado and Stanislaus Forest, flying at an average altitude of 6,500 feet, and making eighty seven flights. Forest patrols in Oregon operated from Salem and made 28 flights covering 2,730 miles, with a total of 54 hours ten minutes time. These patrols covered the Cascade Range on the East Coast and the same range on the west side. A total of 45 fires were discovered during the week ending August 16, 1919, by patrols from Mather Field, making a total of one hundred thirty fires since this work was started.

Ross Field.

Captains Thomas D. Jordon, Charles L. Hayward, Lieutenants Helmar B. Hoede, Marion A. Baldwin, William E. Riley, Harry A. Burdick, M.S.E. Leroy Richards, Leon Armour, and Sergeants 1st. Class John W. Jackson, Clifton Johnsen, and Robert H. Gray were the officers and enlisted men participating in the flights in observing for forest fires in the Sandimas and Sangabriel Forest Reserves for week ending August 16th. A 37,500 cubic foot capacity observation balloon was used, maintaining an altitude of 2200 feet, the total time in air being 2,265 minutes.

ALL AMERICAN PATHFINDERS

August 20, 1919.

Lieut. B. J. Tooher, pilot and Lieut. P. D. Riblet, photographer, in a Curtiss made a flight from Lebanon, Pa. to Huntingdon, Pa., a distance of 100 miles in 120 minutes, altitude 3,000 feet.

Lt. Raymond J. Pearson, pilot and Corp. K. T. Wiedekamp, passenger, made a flight from Lebanon to Roaring Springs, Pa., a distance 162 miles in 130 minutes, altitude 4,000 feet.

Lt. Marshall S. Boggs, pilot with Sgt. A. E. Matos as passenger made a flight in Curtiss plane from Everett, Pa. to Pittsburg, Pa., a distance of 106 miles in 110 minutes, altitude 4,000 feet.

Lt. Franklin - 7 files + Mails 319.1 News Letter #3

Vol. III AIR SERVICE NEWS LETTER V-858

Information Group AUGUST 27, 1919 Building D
Air Service Washington, D. C.

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

FREE BALLOON RACE BETWEEN ARMY AND NAVY

The Missouri Aeronautical Society, of which Major A. B. Lambert is President, has arranged a Free Balloon Race between the Army and the Navy, to start from St. Louis on September 26th. Six balloons have been offered; 3 for the Army and 3 for the Navy. Final details have not been arranged but there appears to be no doubt that the race will take place. As far as known this will be the first free balloon race between Army and Navy Officers ever held in this country and considerable interest is attahced to the results. Attempts will be made to establish both altitude and long distance records.

WAR BALLOON EXHIBIT OVER CENTRAL WESTERN STATES

A report from U. S. Army Balloon School, Fort Omaha, Neb. states that a recruiting party consisting of the Twelfth Balloon Company with Captain A. C. McKinly in command, 2nd Lieutenant James T. Neeley, as Recruiting Officer, Publicity Officer and Radio Officer, and 2nd. Lieut. James B. Jordan as Supply Officer, with 40 men, left Fort Omaha August 2nd for a 2 months recruiting trip and War Balloon Exhibit through the states of Iowa, Missouri, Kansas and Nebraska.

DALLAS - BOSTON FLIERS

Dallas-Boston Fliers in 5 D.H. airplanes flew from Rochester to Hempstead, N.Y., a distance of 285 miles in 110 minutes. The maximum altitude reached was 4,000 feet.

ELLINGTON FIELD FLIERS

On August 24, 1919, the Ellington Field, Houston, Texas Transcontinental fliers, including Lieut. Clifford C. Nutt, Lt. Edward W. Killgore, Lt. Charles V. Rugh, Lt. Erick H. Nelson, passengers Sgt. 1st Class A. M. John H. Campbell, Sgt. 1st Class A. M. Albert Vierra, Sgt. 1st Class M. Geo. W. Anderson and M. S. E. John J. Kelly in 4 DeHavilands, flew exhibition flights over Denver.

FOREST PATROL

Mather Field Patrols reported five fires for the week ending August 23, covering a distance of 2,894 miles. Twenty-eight flights were made necessitating 3,499 minutes.

Salem, Ore. patrols, consisting of Major Albert D. Smith in command, Lieutenants W. A. Wright, H. W. Webb, N. Schramm, Geo. McHenry with passengers M. E. R. P. Blanton, Sgts. V. Thomas & B. Sacey, flying 5 DeHavilands, reported 8 new fires. Twenty-eight flights were made covering a total of 2408 miles in a total of 2,421 minutes.

GOOD LANDINGS

To secure the cooperation of municipalities in the establishment of landing fields, the following article on "Good Landings" appearing in various magazines, is quoted

Good Landings

For Aeroplanes and Seaplanes Wanted Everywhere and Soon.

A new society has been founded which is intended to afford safe havens for our aviators.

It is called the Good Landing Society.

This new society, however, is new in name only. In reality it consists of the members and machinery of the Treasure and Trinket Society, one of our most useful war associations.

With the ending of the war these worthy women, having quaffed deeply of the joys of work and the delights of service, have turned to other fields of usefulness and picked the most important one of all - the one that has most pressing need of immediate attention.

And there is suggestion yea, inspiration - in their action.

Why scrap useful war organizations simply because the war is over?

Why not keep the organization a going concern, but give a new work to do?

Every city, town and village should have a landing station for aeroplanes and seaplanes.

Those that are first with them will be first on the mail routes, first on the excursion routes, first on the package and parcel delivery routes and first on the service routes.

These routes are being instituted NOW.

The aeroplane and seaplane are here.

They are not due to arrive next year, next month or even next week.

They are in operation and being extended as rapidly as landings are provided.

In every city and town there is a war organization of some kind.

Don't scrap it.

Give it a new job.

Set it to work at providing a good landing for aircraft.

Put your city or town on the aviation map and put it there before your rivals.

Remember the early-bird cities will be the distributing centers, and slow-going neighboring burgs will get their aerial mail, messages and parcels via your trolley lines and auto busses.

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department - August 16, 1919)

(1)

LIQUIDATION OF SUSPENDED CONTRACTS, BY BUREAUS, TO AUGUST 2

The task of the Claims Board is measured by the total value of uncompleted portions of suspended contracts. This value is subject to revision from week to week as corrected reports are received.

	Value of uncompleted portions of suspended contracts		
	Total	Liquidated	Per cent liquidated
Air Service	532,268,000	284,229,000[b]	53

(b) Estimate, in part.

(2)

SAVING EFFECTED BY LIQUIDATION OF CONTRACTS

Cost of completion is the amount the War Department would have paid for the completion of the portions of contracts which were suspended. Settlement payment is the amount paid to contractors for the relinquishment of contracts without further production. The difference between the cost of completion and the settlement is, in a sense, saved.

	Cost of completion	Settlement payment	Per cent of cost of completion	
			Payment	Saving
Air Service	284,229,000[b]	63,493,000[b]	22	78

(b) Estimate in part.

The War Department authorizes publication of the following information:

In filling such vacancies as may be created by future legislation reorganizing the Army, it is the policy of the War Department to select appointees from among persons who served as emergency officers during the war with Germany. Equal consideration will be given to all applications, whether the applicant is still in the service or necessarily has been discharged in the process of demobilization. No appointment will be made without a thorough and satisfactory final examination. All appointments will be provisional for a period of two years, during which time the appointment may be terminated should the provisional officer be found unsuitable for permanent retention in the service. Examinations will not, of course, be authorized until the enactment of legislation creating vacancies in the permanent military establishment.

NOTE TO CORRESPONDENTS: A number of published notices made up from the release reprinted hereafter (No. 1, a, August 18th) permitted misunderstanding on the part of readers, resulting in considerable correspondence with the War Department and leaving an incorrect and unfavorable impression in the minds of discharged emergency officers who gathered that preference was to be given in appointments to such officers still in the service. It is respectfully requested that this matter be called to the attention of editors with a view to getting out accurate information. The portion of release No. 1 of August 18 on this subject is repeated below:

The Chief of Staff has approved recommendations of the Director of Operations, General Staff, providing that, in filling such vacancies for commissioned officers as may be provided by legislation reorganizing the permanent military establishment, it is the policy of the War Department to select appointees from among persons who served as emergency officers between April 6, 1917 and November 11, 1918. (a) Upon enactment of legislation, eligible emergency officers still in service having approved applications on file will be examined for appointment without further action on their part. (b) Upon enactment of legislation, former emergency officers who have been honorably discharged and in whose cases there are

approved applications on file will, if eligible, be communicated with to ascertain if they still desire appointment and will be examined if they so desire. (c) Former emergency officers who have been honorably discharged but who at time of discharge or prior thereto did not express desire for permanent appointment may make application for examination. (d) Persons other than emergency officers who may be eligible under such legislation as is enacted, may make application for examination and will be examined if recommendations and records are satisfactory.

No applications, other than from emergency officers still in service, will be considered or filed at this time. Regardless of such preliminary or other examinations as may have been held, no appointment will be made without a thorough and satisfactory final examination. The final examination will be such as to establish the mental, moral and physical qualifications of appointee. Candidates will be examined for arm or service selected by them, within limits of legislation. Examinations will not be held for a particular grade; examining boards will be permitted to recommend a suitable grade or grades for appointment, but all candidates will be examined with the understanding that the grade in which appointment is tendered will be determined by the War Department from consideration of age, length and character of service and recommendations of boards.

NEW R. M. A.'S.

The following-named officers, having completed the required tests are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain Roy N. Francis, A.S.A.	June 10, 1917
2nd Lieutenant John M. Coleman	July 13, 1919
Captain Herbert G. Knight, A.S.A.	July 24, 1919
First Lieutenant Francis T. Murphy, Q.M.C.	July 24, 1919
2nd Lieutenant Verne M. Monticue, A.S.A.	July 24, 1919
2nd Lieutenant Alfred L. Coe, A.S.A.	July 24, 1919.

The following officers have been honorably discharged from the service of the United States.

Personnel Order)
No. 139) August 21, 1919.

Harry M. Agerter,	First Lieutenant, A.S.A.
Walter C. Sargent,	2nd Lieutenant, A.S.A.
Chauncey B. Williams,	2nd Lieutenant, A.S.A.
Robert E. Hollahan,	Second Lieutenant, A.S.A.P.

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1. Orders have been requested of the Adjutant General for the following named field officers to change station as follows since August 1, 1919.

August 6, 1919.

Major William C. Ocker, J.M.A., A.S.A., to proceed from Washington, D.C., to Cooperstown, New York.

August 8, 1919.

Colonel William L. Patterson, M.A., A.S.A., to proceed from Washington, D.C., to Aviation Repair Depot, Montgomery, Alabama, to assume command.

August 13, 1919.

Colonel Ira F. Fravel, A.S.A., to proceed from Washington, D.C., to Ross Field, Arcadia, California, to assume command.

Lieutenant Colonel Edward E. McCammon, A.S.P., to proceed from Washington, D. C., to Dayton, Ohio.

Lieutenant Colonel John N. Reynolds, M.A., A.S.A., to proceed from Washington, D. C., to Langley Field, Hampton, Va.

Lieutenant Colonel John S. Sullivan, A.S.A., to proceed from Washington, D.C., to Langley Field, Hampton, Va.

Major Harrison H. C. Richards, J.M.A., A.S.A., to proceed from Washington, D. C., to Rich Field, Waco, Texas, to assume command.

Major Benjamin G. Weir, J.M.A., S.C., to proceed from Washington, D.C., to Wilbur Wright Air Service Depot, Fairfield, Ohio.

August 14, 1919.

Major Robert Coker, A.S.A., to proceed from Washington, D. C., to New York City, New York.

August 15, 1919.

Major Victor M. Dumas, A.S.A., from Port of Embarkation, Hoboken, New Jersey, to Newport News, Virginia.

August 16, 1919.

Lieutenant Colonel Olan C. Aleshire, A.S.A., from Fort Sam Houston, San Antonio, Texas, to Aviation General Supply Depot, Houston, Texas, to assume command.

August 18, 1919.

Major Howard C. Davidson, J.M.A., S.C., to proceed from Port of Embarkation, Hoboken, New Jersey, upon completion of his present leave of absence of thirty days, to Washington, D.C.

August 20, 1919.

Major Frank D. Lackland, J.M.A., S.C., from Langley Field, Hampton, Va., to Ellington Field, Houston, Texas.

August 22, 1919.

Lieutenant Colonel Charles C. Benedict, J.M.A., A.S.A., from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D.C.

2. So much of letter orders dated August 20, 1919, as directs Lieutenant Colonel Edward E. McCammon, A.S.P., to proceed to Dayton, Ohio, is amended to direct him to proceed to Chicago, Illinois.

Vol. III AIR SERVICE NEWS LETTER V-833

Information Group SEPTEMBER 3, 1919 Building D
Air Service Washington, D.C.

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

BORDER ACTIVITIES

The plans of employment of Air Service now scheduled for assignment to the Border includes two squadrons, (9th and 91st Observation) to be stationed at Rockwell Field for patroling from the coast to the east; three squadrons of surveillance Group, (8th, 90th and 104th) and four squadrons of the Bombardment Group, (11th, 20th, 96th and 166th), the latter to be distributed along the eastern portion of the border. The First Pursuit Group has been ordered from Selfridge Field and will be stationed, depending upon the tactical plans of employment on the border.

At the present time with no active opposition on the border, it is only necessary to assign flights of squadrons at the different stations and it is planned to use the squadrons of the Surveillance Group and a portion of those in the Bombardment Group, splitting all into flights and stationing them at intervals of two or three hundred miles along the border.

The present distribution of troops actually operating over the border is as follows:

	Planes Assigd.	Planes in Comm.	Pilots	Observers.
8th Aero at San Diego	18	14	30	0
Flight 11th Aero at Marfa	6	6	9	2
Flight 11th Aero at El Paso	14	7	16	2
Flight 96 Aero at Douglass	4	3	8	0
Flight 96 Aero at El Paso	13	7	8	1
Flight 8th Aero at Mac Allen	8	4	9	8
Flight 8th Aero at Larado	6	6	5	5
	59	47	85	18

The following troop movements have occurred during the past week, 154th Construction squadron moved from Larado to Eagle Pass August 26, 1919, Flight A, 90th Aero moved to Eagle Pass August 28th. The First Pursuit Group, (ten officers and three hundred eighty-five enlisted men) moved from Mt. Clemens, Michigan on August 28th enroute for Kelly Field.

Flying personnel with considerable overseas experience is being ordered from day to day as reports advise availability, to the border for assignment to the border units, and the D.A.S.O., Southern Department is distributing same throughout the units operating in order to obtain the maximum efficiency.

Strenuous efforts are being made to further the cooperation between the Air Service and the ground troops in the Southern Department and plans of liaison have been drawn up under the direction of the D.A.S.O. of the Southern Department from which arrangements have been made for the execution of exercises with the

cavalry, infantry and artillery. Work of this nature has been hampered considerably in the Southern Department due to the lack of experienced observers and also of proper maps as will be noted from above information under organization. Observers are being assigned at present and as maps are being turned out by the Engineers the remaining obstacles in the way of co-operation will be practically removed.

Colonel Fechet, D.A.S.O., Southern Department has strongly recommended the movement of the remaining units of the First Bombardment Group from Ellington Field to Kelly Field, as he advises, arrangements can be made for the co-operation with ground troops in the vicinity of Kelly Field and the effective work of the group in question can be more readily accomplished by being under closer supervision of the D.A.S.O., when stationed at Kelly Field. As a result a memorandum has been forwarded to the Personnel Division, requesting authority for the movement of the 20th and 166th Aero Squadrons from Ellington to Kelly, and it was requested of the Administrative Executive that orders be issued stating that Ellington Field was transferred to the Supply Group to be held as a concentration point for troops in case of increased activity on the border.

Concerning equipment of units on the border, Colonel Fechet advises that bomb racks, sufficient for the present have been received and are being forwarded to all border stations. Steps are being taken to get all squadrons to function properly in as rapid a manner as possible.

The D.A.S.O., Southern Department is working in close co-operation with the Aviation General Supply Depot at San Antonio and it seems that the matters of supply are being much more readily and smoothly handled as the result of same.

One hundred forty-two mounts for Lewis Guns are expected at the A.G.S.D. any day and the Marlin synchronized guns are being installed as soon as five hundred trigger motors are received at San Antonio, to replace that number which were supplied originally with the 1918 model of Marlin gun but which did not fit the DeHaviland plane on the border.

The First Bombardment Group has two type L Grafflex cameras and forty-four twelve inch cameras are expected at the A.G.S.D. any day.

All flying on the border is now being done with service planes. The J.N. 4D planes have been removed.

The service time on the border at present for all units is averaging around forty to fifty hours daily.

An extensive training schedule has been laid out for the border units covering work in photography, artillery adjustment, radio, infantry and cavalry tactical control, dropping messages and aerial camera.

AIR SERVICE MANUALS

It is interesting to note that in the general uncertainty which surrounds the future of the Air Service much detailed work has been done in the collection of data and compiling of general valuable information. In this connection the Training Division has compiled and arranged manuals on the three important arms of the

ervice, i.e., Bombardment, Observation and Pursuit and besides has covered in the same form such subjects as Aerial Gunnery, Aerial Navigation, etc. These manuals are written for use as text books in training Air Service officers and contain complete ground and flying curricula covering all subjects necessary in primary and advanced training to make finished pilots, bombers, observers and aerial gunners in all arms of the service. Arrangements have also been made to keep training data and methods up to date in its development by constant practice, experiment and by liaison with other branches of the government armament and with the Air Ministry of our friends across the water.

In compiling these volumes, all the experiences gained at the front in actual operations against the enemy and all the methods used at home and abroad for training the specialists necessary to successfully perform the strenuous duties at the front, have been carefully reviewed and assimilated. All unimportant data and obsolete methods have been eliminated and an endeavor made in each case to segregate most approved methods and information, and to produce an interesting and highly instructive text book. The subject matter is presented in as clear and concise language as possible with no attempt at verbosity. These manuals form an integral part of the Government confidential file and are for official use only.

ALL-AMERICAN PATHFINDERS

On August 26, 1919, Lt. B. J. Tooher, pilot and Sgt. A. Matos, photographic observer, made a flight from Wheeling, W. Va., to Pittsburg, distance 50 miles in 30 minutes. Lt. Tooher was flying a Curtiss Plane.

On August 27, 1919, at an altitude of 4,000 feet, Lt. George T. Wise, pilot, with passenger M.S.E. Elzor Hall, in a Curtiss plane, made a flight from Altoona, Pa. to Pittsburg via Johnstown, a distance of 125 miles in 60 minutes.

On August 29, 1919, Lt. Geo. C. McDonald, pilot, with Passenger Sgt. Homer Gosby made flights from Pittsburg, Pa. to Coshocton, Ohio, distance of 110 miles in 90 minutes. From Coshocton to Columbus, Ohio, distance 70 miles in 49 minutes. Altitude 4500 feet.

August 31, Lt. James E. Adams, pilot and passenger Lt. William A. Dudley, made a flight from Minerva, Ohio to Columbus by way of Coshocton and Mayersville, a distance of 160 miles in 195 minutes, altitude 2,000 feet.

NOTICE

We have been requested by the British Air Attache, Air Commodore L.E.O. Charlton, C.B., C.M.G., D.S.O., British Embassy, Washington, D.C., to insert this notice to the effect that all Royal Air Force officers and other ranks now resident in the United States, or its overseas' possessions, who have been awarded the Distinguished Flying Cross or the Air Force Cross, and who are not yet in possession of the same, should communicate, without delay, to him at the above address, in order that arrangements may be made for the due presentation of the decorations.

The above also applies to officers late of the Aviation Service (Army or Navy) of the U.S.A. who are similarly entitled, but who are demobilized, therefore not necessarily in communication with the authorities in this matter.

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1. The following is quoted for the information and guidance of all concerned:

August 25, 1919.

From: The Adjutant General of the Army.

To: All Department & Camp Commanders and Commanding Officers of excepted places.

Subject: Discharge of Emergency Men by September 30, 1919.

1. You will cause each organization commander to take action with a view to discharging, in accordance with current instructions, by September 30, 1919, all men enlisted or drafted for the emergency who are physically eligible for discharge and who are not in confinement awaiting trial or serving sentence by Court-Martial.

No man of this class will be retained in the service after that date unless it has been definitely determined in each individual case that he cannot be spared or replaced by an available enlisted man of the Regular Army, or, under existing authority, by a civilian, or unless he has requested in writing to remain temporarily in the service or is included in Medical Corps personnel surplus for transfer to a General Hospital, as provided in A.G.O. telegram dated August 15, 1919.

2. Not later than October 10, 1919, you will make a report to the Adjutant General, attention Room 336, showing for date of September 30th, 1919, the number of enlisted men in each regiment and other separate units not constituting part of a regiment, classified as follows:

1st. Men enlisted or drafted for the period of the emergency.

2nd. Men who have been recalled to active service from the Regular Army Reserve.

3rd. Men who enlisted prior to April 2, 1917, and who, by December 31, 1919, will have completed the period of active service prescribed to make them eligible for furlough to the reserve.

4th Men who enlisted prior to April 2, 1917, and who will not have become eligible for furlough to the reserve by December 31, 1919.

5th Men who enlisted subsequent to February 28, 1919, for one year.

6th Men who enlisted subsequent to February 28, 1919, for three years.

3. Where emergency men are retained after September 30th, full explanation will be made as to the necessity for same and estimate will be given as to date when all such men can be dispensed with. There will be no relaxation of effort to discharge those men and a report will be rendered when all under your command have been discharged.

You will notify all under your jurisdiction.

By order of the Secretary of War:

Albert Gilmor,
Adjutant General.

In line with the policy of the Air Service, Lieutenant J. H. Sullivan appeared before the 20th Annual Convention of the Pennsylvania League of third class cities. This league is composed of thirty or more cities of Pennsylvania having a population of over 10,000. Lt. Sullivan selected as his subject the advisibility of municipally owned landing fields. He told them about placing the name of the town on the roof of their railway station, the advantages of a municipal map for use in the assessor's department. The value of a municipal aerial photographic map for use in the assessing department was explained by the statement that all natural advantages and real estate improvements, municipal and private, were very plainly shown on such a map. The appraising of valuation of property in a municipality could thus be more fairly made. A definite plan of operation was adopted by the Convention whereby each city interested, through the administration of the Mayor, would form a committee on aviation in their respective community. The functions of this committee would be to select a landing field and devise ways and means to maintain it; to arouse public interest in the development of commercial aviation, using their community landing field as an operating center. Among the cities represented at the Convention was Scranton, Pa. It will be noted that Scranton, Pa. is the site of the main field on the Lackawanna Air Trail, which was opened recently by the Scranton Aero Club with the cooperation of the United States Air Service.

NEW R. M. A.

First Lieutenant Lorenzo L. Snow, Air Service, Aeronautics, having completed the required tests, is hersby rated as a Reserve Military Aviator, to date from July 16, 1917.

The following officers have been honorably discharged from the services of the United States:

Allen R. Stover,	First Lieutenant A.S.A.P.
John E. Hornbaker,	Second Lieutenant, A.S.A.
W. Kenneth Watkins,	Second Lieutenant, A.S.A.
Edmund P. Gaines,	First Lieutenant, A.S.A.
Henry M. J. Halligan,	Second Lieutenant, A.S.A.
Chester H. Lake,	Second Lieutenant, A.S.A.

STATISTICS SERIES

DISCHARGES OF COMMISSIONED OFFICERS, THROUGH AUG. 20

Branch of Service	On duty Nov. 11	Discharges Aug. 1 to Aug. 20	Total through Aug. 20	Per cent discharged through August 20
Aircraft Production	1,870	17	1,505	80
Military Aeronautics	19,378	492	15,287	79

STATISTICS SERIES

A.E.F. PROPERTY REMAINING TO BE RETURNED AUGUST 1, 1919.

Source of information: Statistics Branch, General Staff, S.O.S., A.E.F.

	Short tons	Per cent of total
Air Service	12,830	7.2

1. Orders have been requested of the Adjutant General for the following named field officers to change station as follows since August 25, 1919.

August 25, 1919.

Lieutenant Colonel Leonard J. Mygatt, A.S.A., from Carlstrom Field, Arcadia, Florida, to Chicago, Illinois.

August 26, 1919.

Lieutenant Colonel Arthur J. Hanlon, J.M.A., A.S.A., from Rockwell Field, San Diego, California, to San Francisco, California, thence to Chicago, Illinois, on temporary duty, thence to Dayton, Ohio.

August 27, 1919.

Major Arthur Boettcher, J.M.A., A.S.A., from Army Balloon School, Fort Omaha, Nebraska, to Washington, D.C.

August 29, 1919.

Colonel Charles W. VanWay, A.S.P., from Vancouver Barracks, Portland, Oregon, to San Francisco, California.

Major Theodore W. Wrenn, A.S.A., from Washington, D.C., to San Francisco, California.

August 30, 1919.

Major Christopher W. Ford, A.S.A., from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D.C.

2. Adjutant General orders dated August 7, 1919, directing Major William C. Ocker, J.M.A., A.S.A., to proceed from Washington, D.C. to Cooperstown, New York, were revoked on August 28, 1919.

H. C. Clark,
Lt. Colonel, A.S.P.,
Ass't. Chief, Personnel Division.

ELLINGTON FIELD TRANSCONTINENTAL RECRUITING SQUADRON

On August 26, Lt. Killgore and Sgt. A. T. Vierra flew to Loveland from Denver, at an altitude of 2,000 feet, returning to Denver on August 27th. On coming back they flew over Estes Park and went over Long's Peak. This is the first time an airplane has flown over this mountain. Long's Peak is the highest mountain in Colorado.

On September 1, 1919, Lt. Clifford C. Nutt, Lt. Edward W. Killgore, pilots, with passenger Sgt. 1st Class A. M. John H. Campbell, Sgt. 1st Class A. M. Albert Vierra in two DeHavilands flew from Cheyenne, Wyoming to Fort Morgan, Colorado, distance of 100 miles. The highest altitude reached during the trip was 5000 feet. The total time consumed was 60 minutes.

Vol. III AIR SERVICE NEWS LETTER V-907

Information Group
Air Service

SEPTEMBER 9, 1919

Building D
Washington, D. C.

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

AERIAL PHOTOGRAPHY OUTSIDE OF THE ARMY

It is difficult to list fully the applications that can be made of aerial photography outside of the Army, because this branch of photography is so new and its range of usefulness so extensive that almost daily someone thinks of another field in which it can be employed. It is equally difficult to decide in which activity it is most valuable.

The vertical aerial photograph, made from a high altitude, resembles a portion of a map so closely that it was natural that aerial mapping should be thought of first as one of the fields, not confined to military operations, in which aerial photography can be used with profit. This field is tremendously large. If Congress were to decide to have the necessary and important work performed of mapping the United States from the air, this job alone would keep an Army air service, several times the size of the present one, busy for many years. Undoubtedly the project would be one of the most useful of army peace time training activities. While employed upon the work, the air forces would not only be receiving valuable training, every part of which would be necessary and nothing superfluous, but would at the same time be performing work that should not be delayed longer by the United States if it means to keep pace in this regard with other nations. Thus, those that demand that in peace time an army be as productive as possible can be appeased by this mapping work upon which the Air Service can engage with great profit to the country and to everyone concerned.

Since the signing of the armistice has made it possible, the army has been developing special apparatus for aerial mapping. One by one the difficulties that have interfered with the making of the most suitable photographs for mapping purposes have been overcome. Larger cameras, covering greater areas on the ground and using film that permits the making of hundreds of exposures, consitute one of the new developments.

An area is mapped from the air by flying over it, making the while enough photographs to form a composite picture of the tract. This composite photograph, when mounted, is known as a photographic mosaic or map. Aerial surveying possesses many distinct advantages over land surveying. If it is attempted to make a land survey of marshy areas, thickly wooded tracts or other practically impassable regions it will be found that land surveying is not only difficult and hazardous, but very expensive on account of the amount of time required. To accomplish the same amount of work it is merely necessary for the airplane to move swiftly in the free air over these impassable regions and with camera attached make a record so perfect that it would be impossible for the land surveyor to

draw a duplicate in all its detail. Meanwhile the land surveyor would consume days and months while the same area could be mapped from the air in a few hours.

Flying not only furnishes a new view point, but also a new vantage point for recording with the camera information that is valuable for other purposes than mapping. An enterprising lumberman with extensive timber lands could explore his forests from the air and record his observations by means of aerial photography. From the photographs an accurate estimate of the amount and location of each species of timber available on his land could be made and these photographs would make possible the filling of the needs of the market in the shortest space of time.

Another field of utility would be the photographing of real estate for advertising purposes. An aerial photograph not only permits of the comprehensive presentation of large tracts of land, but it can be used as an attractive advertisement. Chambers of commerce will turn to photography from the air for securing photographs of their cities to show railroad lines, harbor facilities, well-arranged streets for hauling manufactured products, residential sections for workmen's homes, factory districts, groups of large business buildings and for other purposes.

Photographs of the same city, taken at intervals of a few months or years, would illustrate more eloquently than an array of charts the statistics as to its growth. Fire insurance companies will inevitably become interested in these aerial surveys as they would in fact be inspections from the air that would give the companies a bird's-eye view of the conditions and surroundings of buildings in various sections of the city and thus enable them to realize and keep check on the fire risk involved.

The progress made in the construction of engineering projects, such as buildings, canals, railways, as well as the comparative merits of various types of city planning, can be better shown by aerial photographs than by any other means.

The foregoing compose most of the more important applications of aerial photography. While these workaday problems are under consideration, sight should not be lost of the possibilities of aerial photography in the realm of sport. Although this possible application has not as yet received the same amount of attention, it is already realized that motion pictures made from the air, of races for instance, would show the gains and losses of the contestants in a better way than they can be seen by a spectator limited to one view point.

THE DIRIGIBLE ACTIVITIES AT LANGLEY FIELD.

Progress in dirigible instruction at Langley Field has been very advanced during the past two or three weeks. At the present time there is but one ship there, and this of the smaller type. However, it is expected that within a very short time, at least two or three more ships will be sent to Langley Field, and it is hoped that one of the latter will be the latest French designed dirigible, built by the Zodiac Company for the American Navy during the War. This ship has a volume of 219,000 cubic feet, has a length of 236 ft.,

width of 49.2 feet and heighth of 65.5 feet. It was originally fitted up with a 75 millimeter gun, but it is very probable that this gun will be removed before the ship is delivered to the Army. However, the installation of the ship is of the latest design and it will provide accommodations for ten or twelve passengers. The nacelle or cabin is most luxuriously fitted and will give an idea of the possibilities in future airship cabin design.

It is believed that the French ship will be of sufficient volume to carry on a very efficient instruction in the advanced work required of an applicant for the rating of dirigible pilot before such applicant can fully qualify. The larger ships, such as this French ship, require at least three officers for its proper navigation. One of these officers has charge of the change in the altitude of the ship, maintaining necessary pressure in the gasbag, ballonets, etc., and in general making the necessary corrections to restore equilibrium when this is necessary. Another officer has charge of the direction of the ship and must keep it at all times on its proper course. The third officer or Commanding Officer, is in general charge of the direction of the ship and of all members of the crew. The advanced courses of instruction, therefore, for a dirigible pilot, would qualify him to assume the duties of Commanding Officer of the ship as well as those of either of the other officers.

In addition to the French ship, it is contemplated sending one or more of the "C" type ships, now used by the American Navy in home waters. This ship is an American development and has been constructed in the past by the Goodyear Tire & Rubber Co. It has a volume of 175,000 cubic feet.

A hangar is now being constructed at Langley Field which will be of sufficient size to take both the French ships and two or more "C" type ships, in addition to the small ship which is now there. It is believed that this hangar will be completed about October 1st, and arrangements are being made if possible to deliver the dirigibles on or about that date. About the 15th of October, therefore, it is hoped that full instruction on all matters connected with the care, operation and maintenance of dirigibles can be given at Langley Field. It is also hoped that with the larger ships such as the French Zodiac, it will be possible to take extended flights and in many cases, it is believed that these flights will be from Langley Field to Washington and nearby stations.

MANUALS

The following is the status of 21 manuals being prepared by Training and Operations Group, Air Service:

No. 1 - Aerial Navigation -- Complete 200 copies being stenciled.
No. 5 - Flying Manual -- Complete 40 copies distributed 50 copies now being stenciled.
No. 10 - Manual of Aerial Photography - Complete now but revised before approval
No. 17 - Air Service Manual of Practical Meteorology -- Available in Library.
No. 23 - Hand Book for Flying School Commanders -- Complete and available.

No. 4 - Air Service Bombing Manual --Awaiting Photographs
No. 11 - Manual of Aerial Gunnery -- In hands of printer
No. 12 - Hand book of Aerial Tactics & Combat -- In hands of printer
No. 13 - Air Service Pursuit & Combat Manual -- In hands of printer
No. 31 - Squadron Commanders Field Service Hand Book -- in hands of printer.

Program of Air Service Training based on Aerial Academy printed and ready for distribution.

No. 7 - Air Service Liaison, dealing with Infantry Liaison Complete and partially distributed.
No. 6 - Air Service Liaison, dealing with Aerial Observation for Artillery -- Complete and available.
No. 21 - Air Service Liaison, dealing with Army Liaison and Liaison Officers duties - printed and ready for distribution.
No. 2 - Air Service Liaison, dealing with the duties of the Operations Officer - In hands of printer.
No. 14 - Manual of Balloon Observation and Maneuvering - being approved.
No. 15 - Manual of the Balloon Winch -- Complete and available
No. 16 - Balloon Gas Manual -- being approved
No. 18 - Manual of Balloon Accessory Equipment -- being revised
No. 19 - Parachute Manual -- being approved
No. 32 - Balloon Riggers Manual (Type R) - Use present one.

WHILE WAITING FOR THE GENERAL

A number of ships in the form of a "Welcoming Flight" flew out to meet Brig. General Wm. Mitchell, Chief of Training and Operations, who made a recent visit to Langley Field. It is interesting to note how the pilots of the ships felt while awaiting in the air the arrival of the General, the following radio reports having been received from the "Welcoming Flight":

NY 1 - NY 2 We are on our way to meet the General. Ar. 11:35 A.M.

NY 1 - NY 2 Our formation is holding out fine. We are now in perfect form. I wish the General would come. Ar. 11:40 A.M.

NY 1 - NY 2 Yorktown - And no General yet. 11:42 A.M.

NY 1 - NY 2 Still no General. 11:44 A.M.

NY 1 - NY 2 We are headed back in for camp without seeing the General. Ar. 11:50 A.M.

NY 1 - NY 2 Wrong again. We only turned a circle, and are now heading away from Langley Field intent on meeting the General. 11:45 A.M.

NY 1 - NY2 Cherches General est il venu encore lalie. Ar. 12:00

NY 1 - NY2 Over the Dupont Works now but no General. 12:03.

NY 1 - NY2 Are you tired of waiting? So are we. 12:20 P.M.

NY 1 - NY2 Did I hear the dinner bell ring? My stomach seems to tell me that I need dinner? Yes. 12:30 P.M.

NY1 - NY 2 I'll bet the General slipped one over on us and got by without our seeing him. Here is the General now. Attention voici le General. He is now ahead of us. Now we are going like lightning. The General is ahead of us. 12:35.

NY 1 - NY 2 B V 12:38 P.M.

DALLAS-BOSTON FLIERS

Colonel H. B. Claggett pilot and Sergeant Smith passenger in a DeHavi-d airplane arrived on September 8th in Rochester, N. Y. from Hazelhurst Field, vering a distance of 304 miles in three hours and nine minutes.

ELLINGTON FIELD TRANSCONTINENTAL RECRUITING SQUADRON

Lt. E. W. Killgore, pilot, Sgt. A. T. Vierra passenger and Lt. C. C. tt and Sgt. J. H. Campbell flew from Fort Morgan, Colorado, to Lincoln, cover-g a distance of 400 miles in 240 minutes, altitude 5,000 feet.

On September 2d, flying a DeHaviland ship at an altitude of 4000 feet, t. E. H. Nelson pilot, M.S.E. J. J. Kelly passenger and Lt. C. V. Rugh and Sgt. W. Anderson of Ellington Field Squadron flew from Sterling, Colorado, to incoln, Nebraska, covering a distance of 350 miles in 200 minutes. They stopped t Lexington, Nebraska, for gas and oil.

Flying four DeHaviland 4 planes, pilots Lt. Clifford C. Nutt, Lt. Ed-ard W. Killgore, Lt. Chas. V. Rugh, Lt. Erick H. Nelson, with passengers Sgts. st class A. M. John H. Campbell, Albert T. Vierra, Geo. W. Anderson and M.S.E. ohn J. Kelly, on September 5th flew from Lincoln, Nebraska, to Kansas City, a istance of 160 miles in 120 minutes, highest altitude 6,000 feet. In compliance ith telegraphic orders, this squadron left Kansas City to proceed back to El-ington Field.

ALL AMERICAN PATHFINDERS

For the purpose of mapping out and locating landing field sites, Lieut. arl D. Guenther and Lieut. Kenneth C. Leggett, observer, made a flight from shocton, Ohio, to Dennison, Ohio, thence to Newark, Ohio, covering a distance 105 miles in one hour and forty minutes.

On September 8, 1919, Lieut. George C. McDonald pilot and passenger rgeant Homer Gorby, in a Curtiss JN6H plane flew from Columbus, Ohio, to Indian-olis, Indiana in two hours and thirty-five minutes.

PHOTOGRAPHIC RECRUITING EXPEDITION

The Photographic Recruiting Expedition, with Lt. Parke H. Struthers n command, which left Langley Field, Hampton, Va., about July 22d, spent the st week in Middletown, Pa. repairing airplanes. This Expedition will visit the ollowing places from September 6th. Harrisburgh will be visited from September th to 8th; Lancaster, Pa. from September 9th to 11th; New York from September 2th to 13th; Chambersburg from Sept. 14th to 16th, Johnstown from September 17th o 19th. At Johnstown they will fly for the Victory Jubilee and aerial photo-raphs of these cities will be taken giving the people a chance to see methods sed in aerial photography.

The following officers have been honorably discharged from the service f the United States:

rman DeFreest Larner, Captain, A.S.A. Joseph F. Randall, Captain, A.S.A.
. A. Morgan, Jr., 1st Lieut. A.S.A. Henry K. Gibson, Captain, A.S.A.
lix R. Roche, 1st Lieut. A.S.A. Fred F. Nolde, 1st Lieut., A.S.A.
Homer G. Jordan, 2d Lieut., A.S.A.

NEW R.M.A.'S.

The following officers having completed the required number of tests, re hereby rated as Reserve Military Aviators, to date set after their respective ates:

Lt. Ervin Brockman, A.S.A., August 9, 1919 - Capt. John G. Ayling, A.S.A., 6-7-19.

TRACK AND FIELD MEET

STOP - LOOK - READ

The International Track and Field Meet which is to be held at 3 P.M., Saturday, September 13, 1919, at the Central High School Stadium at Florida Avenue, and 11 th and 13th Streets, N.W., will bring together contestants from thirteen different departments of the Government. The list of events are as follows:

1. 100-yard trials
2. Shot Put
3. 50-yard dash (Ladies)
4. 220-yard Trials
5. 3-Legged Race (Teams from each dept.)
6. Standing Broad Jump
7. 120-yard Low Hurdles
8. Sack Race
9. 220-yard Relay Race (Team of 5 ladies from each dept.)
10. Standing High Jump
11. 100-yard finals
12. 50-yard Dash(Men over 45 years)
13. 50-yard low Hurdles (Ladies)
14. Running Broad Jump
15. Ball Toss (Ladies)
16. 440-yard Run
17. 220-yard Finals
18. Running High Jump
19. 880-yard Run
20. Pole Vault
21. Hop-Step-Jump
22. One Mile Relay (Team of 8 men from each dept.)
23. Tug of War (Team of 10 ladies from each dept.)

This is the first opportunity that the Air Service has been given to show the other departments what Esprit de Corps really means. We have demonstrated our ability and have shown our supremacy in the air and it behooves every one of us who has the spirit of loyalty to participate in some of the many events on this day. Twenty five entries have already been received. Let us show our enthusiasm and our desire to see the Air Service be in the limelight, by attending this Meet if, you have not already filled out your entry blank. The Air Service cannot let any departments carry away honors which should be ours.

The Shepard Athletic medal duplicated in gold, silver and bronze, will be awarded for 1st , 2nd, and 3rd prizes, for the individual events. This medal will have the name of the event and the name of the individual engraved thereon. In the event No. 5, two gold medals will be given for each lady on the team winning first; and in like manner in event No. 22 eight gold medals will be given to the winning team. The "Tug of War" feature which will be numbered as event No. 23, will be a team of 10 ladies from each department, and $50.00 in Gold Medals will be given to the team winning first. A 26-inch gold cup will be given as a trophy to the department scoring the highest number of points in the Meet.

It is up to you to see that the Air Service gets the GOLD CUP.

If you are not one of the contestants, you can help ROOT for your HOME TEAM. Buy a ticket today. The 25¢ goes for the buying of medals, etc.

Captain Phil P. Cook, A.S.A. is Air Service Representative and anyone desiring information on the subject can secure same by communicating with him. Branch 3430.

DON'T FORGET THE DAY -- Saturday, September 13, 1919.
THE PLACE -- Central High School Stadium, Florida Ave. & 11th St.

NOTICE

Colonel R. S. Hartz, who is flying in a U. S. Martin Bomber, over the states of Wisconsin, Illinois, etc., has notified the Office of the Director of Air Service that the city of Milwaukee, Wis. does not wish Air Service pilots flying over that city, to land in Washing Park.

Colonel Hartz reports a flight from Chicago to Milwaukee on September 8, flying at a maximum altitude of 3500 feet. He states that there are good fields all the way about four miles from the lake. He also reports Illinois aero field in excellent condition.

OYSTERS VIA AIRPLANE

On his return flight from Langley Field to Washington, D.C., General Mitchell carried in his ship two quarts of freshly-gathered oysters, two hours covering the service from the time he left Langley Field until he arrived at his home in Washington.

New opportunities are coming up every day which have been overlooked previously in the commercial prospects of aeronautics, as this is the first time that oysters have been delivered via airplane.

Vol. III AIR SERVICE NEWS LETTER V-928

Information Group
Air Service

SEPTEMBER 18, 1919

Building D
Washington, D.C.

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

COMMERCIAL AVIATION

Commercial Aviation has for its foundation the desire of financial gain; consequently, there is an inherent opposition to any curb or control that would interfere with this result.

In the use of the Air, governmental agencies must act so that there is some control of Commercial Aerial operations to prevent danger to the general public, to direct production towards types that will be of national as well as individual benefit and to frame legislation that, while hampering as little as possible commercial enterprises, will tend to provide careers at the same time for a body of trained military aviators available at times of necessity for military use.

Therefore, Commercial Aviation resolves itself into the following:

Legislation

Operation

Materiel

Personnel.

LEGISLATION.

The first legislation to be enacted must be Rules of the Air. The development of the "Rules of the Sea", during centuries of use results in some definite points which may be incorporated in "Rules of the Air" but there are also many points that will have to be defined for the proper use of this comparatively new field. Some of these subjects are for international, others for national and still others for local enactment. Great care must be exercised in the framing of these rules so as not to hamper by too wide application restrictions that should be merely periodic or local.

Next on the legislative program should be the enactment of laws controlling what should be flown, who should fly, and when and where.

Each one of these questions needs the closest scrutiny and a far reaching study of our own present position and what we must prepare for future Commercial Aviation. This preparation demands close liaison with foreign governments, and especially with that of Great Britain who today are foremost in this whole field, and devoting increasingly great attention to it.

OPERATIONS.

It may be frankly stated that in the "present state of the art", Commercial Aviation holds out little or no prospect of financial gain to those entering into it as a business, supplying for its successful operation their own capital. There are indications, however, that in some fields there is great need of such a service and with some governmental aid, either direct or indirect, a useful service could be given the Public and enable private enterprise so much the sooner to be financially independent by expanding the uses and cutting down the cost of installation and operation.

MATERIEL.

Curiously enough, while war thought has been developing aircraft solely for War purposes, through the phases of single seater optical observation, then two seater photographic observation, pursuit single seater, then same armed in addition with bombs, day and night bombardment, the net result is that we have developed types that might be used for Commercial Aviation if fostered without too much advertising into useful channels of Public Service.

Control must be supervised to prevent the adoption of types that are unsafe and are not in keeping with the rapid development of the art, as this would tend to throw a shadow on the bright future of Aviation.

PERSONNEL.

This nation has a most valuable asset in the literally thousands of trained pilots and air mechanics that peace has liberated from active service with the colors. What greater benefit could be done for our country than to devise the means by which this magnificent body of men might find remunerative employment at the present and with increasing knowledge of their art be available to be called again to active duty during national emergency.

The following officers have been honorably discharged from the services of the United States:

Henry G. Wilson,	First Lieutenant,	A.S.A.
Henry D. Kerr,	Second Lieutenant,	A.S.A.
Walter J. Staley	" "	A.S.A.
Arthur D. McIlvaine	" "	" " "
Roy A. Miller,	First Lieutenant,	A.S.A.
Thomas F. Burley, Jr.,	Second Lieutenant,	A.S.A.
William C. Moore	Captain,	A.S.A.

BRITISH COMMERCIAL ACTIVITIES

(U. S. Combined Factories Produced a Total of 14 Planes in July)

THE BRITISH SCANDINAVIAN FLIGHT.

2450 Sea Miles in 41 Hours.

The Demonstration flight to the Scandinavian countries recently carried out by F.5. Flying Boat N.4044, of No. 4. Communication Squadron R.A.F., proved remarkably successful. Starting from Felixstowe and proceeding via Dundee, the machine flew direct to Norway and landed at Christiansand; this being the first occasion on which this journey has been accomplished by a British Seaplane. Thence the trip continued in stages to Christiania, Copenhagen, Stockholm, Goteburg, Esbjerg and back to Felixstowe, a total distance of 2450 sea miles, which was covered in a total flying time of 40 hours 40 minutes.

The flight was made entirely as a demonstration of the commercial uses of flying boats, and is noteworthy because no mishap occurred of any kind, despite the fact that from its departure until its return to Felixstowe, the machine spent a total of 27 days in the water or in the air.

Exhibition and passenger-carrying flights were carried out at Christiania, Christiansand and Copenhagen. At the first named place flights were made before the King and Queen of Norway, and as the Queen expressed a great desire to fly, Her Majesty was taken up on two occasions. Seated alongside the Pilot, Her Majesty was keenly interested in his manipulation of the controls. During the second flight, when the Queen was accompanied by the Crown Prince Olaf, Her Majesty actually took control of the flying boat for a short period.

The Rolls Royce engines, of the low compression Eagle 8 type, worked magnificently throughout. This type demonstrated its reliability in the Transatlantic flight competition and has now shown its durability in conditions of protracted exposure, since in the Scandinavia flight there was no question of taking the flying boat ashore at any time and the engines had to be attended to on the water.

A very good impression was created in each of the Scandinavian capital towns visited, and it is hoped valuable results will accrue to the British aircraft industry in opening up what is perhaps the best market in the world for watergoing aircraft. As sea-faring people, the Scandinavians were quick to see the merits of flying boats. Very few land aerodromes exist in these countries, and the land lying between them is difficult and generally dangerous for alighting. On the other hand sheltered stretches of water are found everywhere and there are numerous natural "Seaplane Harbours".

Practically the whole of Norway is navigable by seaplanes making use of the fiords, and in Denmark all the large towns are approachable by water; in Sweden a natural seaplane highway extends right across the country, formed by the two large lakes Vättern and Vanern, the Gotha Canal, and countless small lagoons and lakelets.

It was generally found that the feeling in Norway, Denmark and Sweden towards British Aviation is favourable, but it cannot be too strongly emphasised that the near proximity of these countries, especially Sweden, to Germany renders them particularly exposed to German influences. In Sweden, the interests of British aviation are being stoutly upheld by two British demobilised Flying Officers who are giving exhibition and passenger flights at Stockholm with Avro machines. The Germans are doing their best to obtain a footing in Denmark and a short time ago announced aeroplanes and seaplanes for sale at unmistakably "cut" prices. The same policy is being pursued by German Companies throughout Scandinavia, although this method of obtaining business cannot be said to have helped their cause as several accidents have already occurred with the machines.

The competition of our trade rivals must not be disregarded; it is a very real factor.

It is important to realise that once a country becomes permeated by machines of one type a market for spare parts is secured and the difficulty of effecting a radical change of type increases as time goes on; a golden opportunity will be lost if the British Aircraft Industry does not respond to the great good will which already exists in Scandinavia towards British people and British manufacturers.

With regard to the flight itself, the object of demonstrating the advanced state of development of British aircraft and the potentialities of flying boats for commercial purposes was excellently achieved. From the technical standpoint the experience gave proof of high efficiency; the hull of the flying boat was as seaworthy after its month's immersion and exposure as when it left Felixstowe and the reliability of the Rolls-Royce engines was beyond praise. The wireless telegraphy installation was thoroughly trustworthy and communication was maintained with Dundee during the entire period of the voyage across the North Sea.

Thanks largely to the instinted assistance of the authorities at the places where descents were made; the arrangements for mooring and refueling also worked perfectly.

The times and distances of the stages flown were as follows:-

FELIXSTOWE	TO DUNDEE	July 11th	360	sea miles	6.0	Hrs Flying	
DUNDEE	" CHRISTIANSAND	" 20th	380	" "	7.15	"	"
CHRISTIANSAND	" CHRISTIANIA	" 22nd	150	" "	2.20	"	"
CHRISTIANIA	" COPENHAGEN	" 29th	265	" "	4.15	"	"
COPENHAGEN	" STOCKHOLM	Aug 3rd	390	" "	4.30	"	"
STOCKHOLM	" GOTEBORG	" 4th	300	" "	5.0	"	"
GOTEBORG	" ESBJERG	" 5th	245	" "	4.25	"	"
ESBJERG	" FELIXSTOWE	" 6th	360	" "	6.55	"	"
			2450	Demon-	40.40		
				stration	5.30		
				Flights	46.10		

An extraordinary example of accurate air navigation was furnished on the outgoing journey, when the flying over the North Sea through thick mist and clouds, from Dundee to the coast of Norway, the machine arrived at scheduled time at a point not more than two miles from the intended "land-fall" on the Norwegian coast.

During the last four days of the voyage, after leaving Copenhagen, 1295 sea miles were covered in four stages. No time was spent in making special demonstration flights as it was considered that the finest possible demonstration would be that of travelling from Copenhagen to Stockholm and thence along the central Scandinavian air route from Stockholm to Felixstowe via Goteborg and Esbjerg, in four days. This was successfully accomplished.

BRITISH RETRENCHMENT OF MILITARY AVIATION

The Air Ministry announces that in view of the decision of the Government to curtail their airship programme, it has been decided to place certain airships, airship stations, stores etc., on terms to be agreed, at the disposal of interested parties with a view to the commercial development of this type of aircraft. It is proposed as an initial step to hold a conference in connection with this matter on 8th September at 3.p.m. in the Lower Hall, Australia House, at which the Under Secretary of State for Air will preside.

Bona fide applications from individuals or firms should be made to the Air Ministry (C.G.C.A.) for permits to be present.

BRITISH SEAPLANE ACTIVITIES

Amongst the various British units employed in fighting the forces of Bolshevism in N. Russia is the R.A.F. seaplane flight on the Dwina River. This unit has been continuously engaged since early June in cooperation with the river craft despatched by the Admiralty to take action against the Bolshevik river gunboats.

The duties of this flight have been arduous. A constant watch has been kept on the enemy vessels, not only by day, but throughout the semi-darkness of the Arctic summer nights; enemy vessels have been effectively bombed and machine gunned; spotting for the guns of our river flotilla has been directed by wireless, and photographic surveys regularly carried out.

The conditions under which this flight lives are somewhat novel. Their home consists of a barge, which moves up or down the river according to the situation; the difficulties consequent on a moving base have been cheerfully met by all ranks of this unit to whose cooperation a considerable share of the success of the River expedition is due.

5/9/19

INTERNATIONAL FLIGHTS

FLIGHTS TO BELGIUM

The Air Ministry announces that the report circulated in the Press a few days ago that a hitch had occurred in the signing of the International Air Convention is without foundation. It is pointed out that aerial communication between London and Brussels is permissable provided that no goods are carried.

5/9/19

GOVERNMENT RETAINS DESIGNER

OF LIBERTY MOTOR

J. G. Vincent, vice president of engineering of Packard Motor Car Company and co-designer of the Liberty aircraft engine, has been commissioned by the President a colonel in the Officers' Reserve Corps of the United States army. The appointment is to the aviation section of the Signal Corps and specified a flying status.

Taking service with the army in 1917, Mr. Vincent was given the temporary commission of major; later, he was promoted to lieutenant colonel for his signal services. When the armistice was signed, several of the regular army officers expressed the hope that he would accept a commission in the reserve corps, with the probable rank of major, which at that time was the highest which the general staff could recommend. A recent enabling act by Congress permitted his being commissioned a colonel.

"I am glad to accept this commission because I believe the officers' reserve corps offers the best opportunity that peace-time affords the citizen for service to his country," said Col. Vincent. "It is an effective means of lining up for the government, in times of peace, the men who, by special training or talent, should be immediately available to the government in time of war.

"Obviously, a complete organization for war is impossible, and perhaps undesirable. But our experience of the last few years must have taught us the value of a nucleus capable of rapid expansion in both numbers and abilities. The officers' reserve corps joins with the regular establishment and such other means as the national and state governments can provide to make this nucleus more comprehensive.

"Then, I think the corps offers men who are interested in special lines that from their nature are certain to be called on in war-time the best possible way of keeping in touch with government officials at work along the same lines.

"Besides, there are the physical and social benefits joined to the patriotic duty of service in this corps. I hope the young officers, especially those who were in the air service, will accept commissions in the reserve corps. The 15-days' service required annually will prove good for them, keeping them in practice and in touch with developments, and good for the country. I hope to see the aviation officers' reserve corps so active that soon it will form an independent, social organization, encouraging extra training".

Col. Vincent counts himself particularly fortunate in having in the Packard's new aviation field, soon to be formally dedicated, excellent facilities for maintaining and enlarging his experience as practical pilot and aeronautical engineer. He is employing these facilities, and devoting a great deal of his time, to experimental aircraft engineering development in the government's interest.

The following statement, contained in letter from The Adjutant General's office dated Washington, September 4, 1919, shows the present status of Air Service Stations, and is published for the information of all concerned:

Status of Flying Fields, July 30, 1919

1 Owned by U. S.
2 Being purchased
3 Purchase suspended by Act of Congress
4. Retained temporarily for storage
5. Retained temporarily
6. Being sold

AVIATION FIELDS, ETC.		AVIATION GEN'L. SUP. DEP. & BALLOON SCHOOL	
Wilbur Wright Field, O.	4	Middletown, Pa.	3
Barron Field, Tex.	4	Little Rock, Ark.	3
Bolling Field, D.C.	5	Richmond, Va.	1
Brooks Field, Tex.	3	San Antonio, Tex.	3
Call Field, Tex.	6	Dallas, Tex.	4
Carlstrom Field, Fla.	1	Montgomery, Ala.	3
Carruthers Field, Tex.	4	Fairfield, Ohio	1
Chapman Field, Fla.	3	Garden City, L.I.	1
Chanute Field, Ill.	3	Arcadia, Calif.	3
Dorr Field, Fla.	1	Lee Hall, Va.	1
Eberts Field, Ark.	4		
Ellington Field, Tex.	3		
Gerstner Field, La.	4		
Hazelhurst Field, N.Y.	5		
Kelly Field #1, Tex.	1		
Kelly Field #2, Tex.	3		
Langley Field, Va.	1		
Love Field, Tex.	4		
March Field, Calif.	3		
Mather Field, Calif.	3		
Mitchell Field, L.I.	1		
Park Field, Tenn.	3		
Payne Field, Miss.	4		
Post Field, Okla.	1		
Rich Field, Tex.	4		
Rockwell Field, Calif.	1		
Scott Field, Ill.	1		
Selfridge Field, Mich.	3		
Souther Field, Ga.	1		
Taylor Field, Ala.	4		
Taliaferro Field, Tex.	4		

Note: The Aerial Coast Defense station, New Dorp, Staten Island, N.Y., was omitted from the list. This station is owned by the U.S.

ACHIEVEMENTS OF THE LIBERTY

Two Packard-built Liberty aircraft engines propelled the winner and the runner-up in the Gold cup regatta for power boats on the Detroit River, Labor Day. The Gold cup is the American classic for motor speed boats regardless of class.

The victor, Gar Wood's Detroit III., racing under the colors of the Detroit Yacht Club, successfully challenged the three-year supremacy of the same owner's Detroit II., and roared past the finish buoy at 56 miles

per hour. Mr. Wood, who piloted the winner, says the race was almost entirely one of manoeuvre, the distance being 30 miles 'round-and-'round a two and one-half mile course, so that the contenders were turning at practically every stage of the run.

Mr. Wood has his own ideas as to what his older hydroplane, Detroit II, also equipped with a Liberty twelve built in the Packard factory, would do to the new flagship on a long straightaway. He says he has had both of them up to 72 miles an hour in unofficial trials on the St. Clair river, off Algonac.

The new champion is 20 feet long and of 6 foot beam, a Smith model hydroplane with one step. Its sides are of mahogany planking, with bottom of butternut and ribs of staunchest white oak. The great 12-cylindered engine, rated at 435 horse, transmits its power through a gear located in the front end of the boat, at a ratio of one and one-fourth to one; that is, the propeller turns at one and one-fourth times the speed of the engine. The propeller is a three-blade, 20-inch diameter, 38-inch pitch bronze.

The Detroit III's official speed of 55 miles plus per hour for the 30 miles is the fastest ever made on a short course.

TRAINING IN AERONAUTIC ENGINEERING

The bill (S.2733) to provide for the training of officers of the Army in aeronautic engineering and the issue of equipment and materials therefor was considered as in Committee of the Whole.

The bill had been reported from the Committee on Military Affairs with an amendment, on page 2, line 1, after the word "appropriated", to strike out "and he is authorized to furnish to institutions to which officers are so detailed such equipment and material belonging to the War Department for use in connection with courses in aeronautic engineering as he may deem advisable, subject to such rules for use, compensation for use, accounting, report, and return as he may prescribe," so as to make the bill read:

Be it enacted, etc., That the Secretary of War be, and he hereby is, authorized to detail such officers of the Army as he may select, not exceeding 25 at any one time, to attend and pursue courses of aeronautic engineering or associate study at such schools, colleges, and universities as he may select.

Sec. 2. The Secretary of War is authorized to pay tuition for the officers so detailed and to provide them with necessary textbooks and technical supplies from any moneys available for the Air Service of the Army not otherwise specifically appropriated.

The amendment was agreed to.

The bill was reported to the Senate as amended, and the amendment was concurred in.

The bill was ordered to be engrossed for a third reading, read the third time, and passed.

The title was amended so as to read: "A bill to provide for the training of officers of the Army in aeronautic engineering."

(Taken from Congressional Record, Sept. 8, 1919.)

LATEST LEGISLATION FOR AIR SERVICE

The committee of conference on the disagreeing votes of the two Houses on the amendments of the House to the bill (S2622) to provide necessary commissioned personnel for the Army until June 30, 1920, having met, after full and free conference have agreed to recommend and do recommend to their respective Houses as follows:

The Senate receded from its disagreement to the amendment of the House and agreed to the same with an amendment as follows:

In lieu of the matter proposed by the House, insert the following:

"That until June 30, 1920, the Secretary of War is authorized and directed to maintain such commissioned personnel in addition to the officers of the Permanent Establishment and to retain at their temporary grades such officers of the Regular Army as in his judgment may be necessary for the proper performance of the functions of the Military Establishment: Provided, That additional officers so maintained shall be selected, so far as practicable, from officers and enlisted men who served during the emergency and are applicants for appointments in the Permanent Establishment, Provided further: That after October 31, 1919, the total number of commissioned officers, exclusive of retired officers and disabled emergency officers awaiting discharge upon completion of treatment of physical reconstruction, shall at no time exceed 18,000: Provided further, That no officer on the active list shall be detailed for recruiting service or for duty at schools and colleges; not including schools of the service, where officers on the retired list can be secured who are competent for such duty; And further provided That hereafter officers retired for physical disability shall not form part of the limited retired list: And provided further, That 1200 emergency officers shall be assigned to the Air Service, of whom not less than 85 percent shall be duly qualified fliers."

And the House agreed to the same.

(Taken from Congressional Record, September 3, 1919)

ALL AMERICAN PATHFINDERS

Sept. 11, 1919

Lieutenant Karl D. Guenther Pilot and Sergeant Ricard passenger made a flight from Frankfort Indiana to Indianapolis, Indiana in twenty minutes, thus making a record. Distance 40 miles; visibility fair; tail breeze.

Pilot Lieut. Raymond F Pearson passenger M.E.S. Elzor Hall, Pilots Major Ora M. Baldinger and Lieut. James E. Adams made a flight from the Speedway, Indianapolis, Indiana, to Lafayette, Indiana, in one hour and twenty five minutes; distance 62 miles; altitude 2500 feet.

Lieutenants Karl D. Guenther pilot and Kenneth C. Leggett made a flight from Indianapolis, Indiana to Lafayette, Indiana, in one hour and forty minutes. Distance 60 miles; purpose mapping.

Pilots Maj. Ora M. Baldinger, Lts. James E. Adams, Karl D. Guenther and Kenneth C. Leggett made flight from Lafayette, Ind. to Grant Park, Chicago, Ill. Distance 100 miles in 130 minutes, altitude 5,000 ft. Lt. Marshall S. Boggs, Pilot and Sgt. Leonard passenger, made flight from Speedway, Indianapolis, Ind. to Fowler, Ind. Sept. 11th, distance 79 miles in 85 minutes, altitude 2,000 ft., also made flight Sept. 12th from Fowler Park, Chicago, distance 105 miles in 95 minutes, altitude 1,000 ft.

ALL AMERICAN PATHFINDERS (Continued)

Sept. 13, 1919

Pilot Lieut. Raymond I. Pearson passenger M.S.E. Hall made a flight from Lafayette Indiana to Erie, Illinois, stopping at Grant Park, Chicago for gas; distance 280 miles in 225 minutes. Altitude 3000 feet, light side wind, Curtiss J.N. Six H ship.

Sept. 15, 1919

Pilots Major Ora M. Baldinger Lieutenants Adams, Leggett, Guenther, Dudley and Tocher, Wise with passengers Sergeants Smith, Rector, Anderson made a flight from Chicago, Illinois to Milwaukee, Wisconsin, distance 90 miles in 110 minutes, altitude 3000 feet, Curtiss J.N. 4 H and J.N. 6 H I planes used.

Sept. 17, 1919

Lieut. George C. McDonald Pilot Sgt. Gorby passenger made flight from Chicago to Milwaukee, a distance of 90 miles in 90 minutes, altitude 4000 feet; Curtiss J.N. 6 H G I plane used.

Chicago, Illinois.
Sept. 17, 1919

Pilot Lieut. Marshall S. Boggs passenger Sgt. A. E. Matos made a flight from Chicago, Illinois, to Lafayette, Indiana, and return to Chicago, distance 230 miles in 210 minutes, altitude 2000 feet, Curtiss J.N. 6 H plane used.

DALLAS -BOSTON FLIERS

Mt. Clemens, Mich. Sept. 12, 1919.

Three Dehavilands arrived from Buffalo, distance 231 miles in 138 minutes. Pilots Col. H. B. Clagett, Major Simons and Lt. Adams; passengers Capt. Chandler, Sgt. Al[illegible]man and Smith.

Dayton, Ohio, Sept. 13, 1919

Five De Havilands arrived at eleven forty A.M. Left Selfridge Field at Nine Thirty six. Lieut. Ward F. Robinson remains at Selfridge Field for motor repairs. Six De Havilands leave McCook Field for Scott Field.

Scott Field, Belleville Ill.

Six De Havilands arrived from Dayton, distance 360 miles in 184 minutes.

ELLINGTON FIELD TRANSCONTINENTAL FLIGHT

Dallas, Texas, Sept. 9, 1919

Ellington Field Transcontinental recruiting squadron with pilots Lieut. Clifford C. Nutt, Lieut. Edward W. Killgore, Lieut. Charles V. Rugh, Lieut Erik H. Nelson and passengers Sergeant A. M. John Campbell, Sergeant A. M. Albert T. Vierra, Sergeant A. M. George W. Anderson and M.S.E. John J. Kelly in four De Haviland Four planes flew from Tulsa, Oklahoma, to Dallas, Texas, in 165 minutes, distance 240 miles, highest altitude 8000 feet.

Information Group, Air Service | SEPTEMBER 23, 1919 | Building D Washington, D.C.

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

BALLOON FLIGHT

A free balloon flight was taken September 19 in a 3500 cubic foot Spherical Balloon with Major E. W. Crockett as pilot and Lieut. P. Schneeberger as assistant pilot. Major H. S. Davis, Captain R. N. Francis and Lieut. Keenan were passengers on the trip. They started from Potomac Park, Washington, D.C. and a landing was made two miles north of Westminster, Maryland, covering a distance of fifty five (55) miles in two hours and fifteen minutes time. The maximum height reached was 3,600 feet. The balloon was ripped on landing, inasmuch as a twenty five mile wind was blowing, but an easy landing was made in a field of standing corn. This was the first free balloon flight made by any of the passengers, who are heavier-than-air pilots, and who enjoyed the novelty of traveling noislessly through space. A number of interesting pictures were taken along the route and attention was shown the aeronauts by the inhabitants of Westminster, who assisted them in rolling up the balloon and packing same for shipment.

THE ALL AMERICAN PATHFINDERS

On Saturday, September 13, 1919, the convoy left Blue Island, Illinois at 7:30 A.M. and proceeded to Chicago, Illinois, arriving there at 9:30 A.M., covering a distance of seventeen miles. Officers and men were quartered at the First Cavalry Armory, and the men were given week end passes in Chicago. No demonstrations were given in this city, although the planes created great interest where they were parked in Grant Park.

On Monday, September 15, 1919, both motor convoy and planes left Chicago for Milwaukee, Wisconsin, where they arrived at 7:00 P.M. The planes landed at the Milwaukee Air Port, eight miles from the city and the convoy was parked inside the city. Demonstrations have been given as the stay here is in conjunction with the recruiting campaign being carried on with the searchlight, machine shop truck, air inflated observation balloon and field lighting plant. Recruiting literature was dropped from planes flying over the city.

The Unit was scheduled to leave here for Minneapolis, Minnesota on September 19, 1919, via Madison, La Crosse and Winona, but departure is delayed owing to inability to secure replacements necessary for motor transport and continued rainy weather which has prevented completion of our aerial photographic work.

INTERESTING INCIDENT OF THE FIRST DIVISION PARADE.

During the recent historical parade of the First Division an incident occurred that was not understood by but few of the people who were within range. The public did not know that the big DeHaviland Battle Plane from Langley Field was equipped with radio telephone and that the pilot of this plane reported by telephone to the observation station located in the reviewing stand and on the big arch. These receiving stations equipped with amplifiers (or loud speakers of the magnovox type) automatically enlarged the volume of the voice of the pilot thousands of feet above so that those in the reviewing stand were actually able to hear the voice of the aviator far above them. The reports of the observing airplane as to the movements of the head of the parade continued to be delivered to the reviewing stand and to the people within range until the noise of the cheers to the General as the head of the column approached became so great as to drown out all other sounds. An intensely interesting feature was entirely unexpected as the high power transmission at the Arlington Station started to send to naval vessels and stations all over the continent and adjoining oceans at one P.M. the weather and hydrographic reports intended for ships at sea and these reports not intended for the observation plane were caught by the receiving station with the reports of the approach of the parade and the crowd in the reviewing stand and adjacent thereto received also the reports of the weather intended for ships at sea.

TRANSCONTINENTAL ENDURANCE TEST

The Air Service is contemplating a transcontinental endurance test one starting at New York and ending at San Francisco and the other starting at San Francisco and ending at New York. A wire has been sent to all fields outlining the probable route to be followed and some of the preliminary conditions and rules. The route contemplates starting from New York and flying to Binghampton, Rochester, Buffalo, Cleveland, Bryan, Chicago, Rock Island, Des Moines, Omaha, St. Paul, (Nebr.) North Platte, Sidney, Cheyenne, Wolcott, Green River, Salt Lake City, Salduro, Battle Mountain, Reno, Sacramento and San Francisco. Part of the machines will start from Nineola, Long Island New York and the balance from San Francisco, both following the same route. A stop of not less than thirty minutes and not more than forty eight hours must be made at each place.

The trans-continental race which is to be held by the Air Service beginning October 8, 1919, is an effort on the part of the Air Service to make available to the business interests of the United States and to commercial aviation, the knowledge and experience in Aeronautics which has been centered in the Air Service, as a result of the war. During the war, and immediately after the armistice, nearly 500,000 miles were flown by army aviators in carrying out the prescribed course of training. As a result, the experience gained has made it possible to put in a complete commercial air route between any two points without delay.

While the development of commercial aeronautics in the United States is not strictly a function of the War Department, commercial aeronautics is so intimately related at the present time to National Defence as to make it necessary and appropriate for the Air Service to do everything possible to assist commercial enterprises. There has been a long felt need for a transcontinental route between New York and San Francisco and, contrary to popular belief, much careful work must be done before an air route is practicable for every-day travel. As a result of the experience which will be gained during this speed and reliability test of Government planes, it will be possible for a commercial route to be placed in immediate operation. Municipalities along the route have, without exception, shown an intelligent interest in the problems which have been presented to them by Air Service officials in preparing for the race, and their cooperation has made the project possible.

COLONEL R. S. HARTZ

Bismarck, North Dakota.
Sept. 19, 1919

Flew today from Fargo to Bismarck a distance of 195 miles in 170 minutes. Maximum altitude 7,500 feet ; strong head winds; poor fields though possible landings. No reason why small planes cannot fly from Washington to this city if necessary keeping to southern New York and Minnesota.

Glendive, Montana.
Sept. 20, 1919.

Made a flight today from Bismarck, North Dakota to Glendive, Montana a distance of 230 miles in 180 minutes. Maximum 60, altitude 8200 feet. Remarkable experience. Flight over lands where no other people have flown.

Miles City, Montana.
Sept. 22, 1919

Made a flight today from Glendive, Montana to Miles City a distance of 85 miles in 45 minutes. Maximum altitude 4200 feet. Weather stormy, passed through several snow flurries. Will proceed to Billings and Helena tomorrow, weather permitting.

Billings, Montana.
Sept. 23, 1919

Made a flight from Miles City, Montana to Billings a distance of 146 miles in 116 minutes. Altitude 8700 feet, wonderful visibility. Picked up Rosebud snow capped mountains at Miles City. Flight of mountains 14000 a visibility of 264 miles. Begin flight over the Rockies tomorrow. Estimated necessary elevation 12000 feet. Wonderful fields on all table lands, never without emergency fields and all towns very enthusiastic about principal fields for future air routes. Passed directly over bad lands in last two days flight but small planes would also be safe. Report of emergency fields later by letter.

DALLAS - BOSTON FLYERS

Scott Field, Belleville, Ill.
Sept. 23, 1919

Lieut. Ward F. Robinson piloting a Dragon Fly Liberty made a flight from Indianapolis, Indiana to Scott Field a distance of 230 miles in 142 minutes. Elevation 3000 feet, atmospheric conditions hazy, visibility fair. Proceed to Springfield, Missouri this afternoon.

Springfield, Missouri
Sept. 24, 1919

Lieut. Ward F. Robinson piloting a Dragon Fly Liberty, belonging to the Dallas-Boston recruiting squadron flew from Scott Field to Springfield, Missouri this evening a distance of 270 miles in 132 minutes. Altitude 5000 feet, visibility clear. Minor repairs necessary will be able to proceed to Fort Sill or Dallas Friday.

MAJOR R. W. SCHROEDER'S RECENT TEST OF THE LE PERE.

It was officially announced at McCook Field that Major R. W. Schroeder had attained a true altitude of 28, 250 feet above sea level in his flight in a Le Pere Biplane with a passenger on September 6, 1919. Major Schroeder's altitude was originally announced as 29,300 feet, but when the proper correction were applied to his instruments it was found that he had actually attained an altitude of 28,250 feet. The pressure at the highest point reached was 10.22 inches of mercury and the temperature minus 29 degrees centigrade. This new mark beats the former two man altitude record held by Captain Lang of the Royal Air Force who ascended 27,300 feet on January 2, 1919.

Recent tests of propellers operated by noiseless electric motors demonstrate that much of the noise made by an airplane is due to the propeller. The effort to perfect a noiseless engine is apparently useless as nothing can be done to stop the noise made by the propeller.

FOOD CARRIED TO STRANDED INHABITANTS.

During the flood conditions on the Border, the Relief Unit flying from Corpus Christi carried food supplies to the stranded inhabitants.

On September 16th a Relief Detachment of 4 JN-4D planes and 4 JN-4H planes were sent from Kelly Field to Corpus Christi and thirty (30) pounds of yeast was dropped to Committee for the purpose of making emergency bread.

TRACK MEET AT FRANCE FIELD

Monday, September 1st, Labor Day, was designated as Field Day at France Field, Cristobal, Canal Zone. The program for the day consisted of the followi

Track and Field meet.
Aquatic events,
Trapshooting contest,
Basket ball game.

In spite of its being in the middle of the wet season, the day was bright and clear, almost perfect with every one eager for the contests. The spirit of the men reflects the spirit of their officers and the real success of this day was due to a large extent to the free and wholehearted competition offered by the officers of this command in each event.

The following prizes were awarded:

First Prize.

Captain. H.W. Holden 4
Sgt. Stevens 1
Chaufs. Wilson & Hogan 1
Sgt. Huston 1
Lieuts. Corzelius & Rogers 2
Chauf. Hogan 1

Second Prize.

Cook Blackburn 2
Capt. Holden 1
Lieut. Rogers 1
Lieuts. Corzelius & Rogers 1
Sgt. Angert 1
Col. Harmon 1
Lieut. E.F. Degon & Chauf. T.C. Wilson 1
Col. Harmon & Lieut. Bessley 1
Lieut. Whiteley 1

In the trapshooting contest between the officers team and the enlisted men the officers team made a total score of 192 and the enlisted men 152.

The biggest event of the day was the Basket Ball Game between the officers and the enlisted men at 4:00 P.M. Score Enlisted men 37, Officers 35.

The total points won, exclusive of the trapshooting contest and the basket ball game were; Officers 71 1/4, enlisted men 42 3/4.

The evening was devoted to moving pictures and a sketch entitled "Twin Beds" given by the enlisted men. It was indeed a big day and a huge success, showing a very close union between officers and men of the Post. "After the day was over", the aches and bruises incurred were borne with a great deal of pride and satisfaction.

IN THE HOUSE OF REPRESENTATIVES

September 18, 1919.

Mr. Kennedy of Rhode Island introduced the following bill; which was referred to the Committee on Military Affairs and ordered to be printed.

A B I L L

Granting one year's pay to all members of the military and naval forces of the United States who served during the present war.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED,

That all officers and enlisted men of the Army, Navy and Marine Corps, and all nurses who served honorably at any time between the 6th day of April, 1917, and the 11th day of November, 1918, shall, immediately upon the passage of this Act, if already discharged, or immediately upon discharge if still in the service, be paid the sum of three hundred sixty ($360) dollars each, in addition to the pay, allowances, and bonus already authorized under existing law.

SEC. 2 That the amount herein provided for shall be paid out of the appropriations for "Pay of the Army" and "Pay of the Navy" respectively, by such disbursing officers as may be designated by the Secretary of War and Secretary of the Navy.

The following officers have been honorably discharged from the services of the United States.

Donald B. Phillips, Second Lieutenant, A.S.A.
Edward A. Wine, Second Lieutenant, A.S.A.

BRITISH APPROVE AN INTERNATIONAL AIR CONVENTION

The Air Ministry announces:-

The Convention relating to International Air Navigation was formally approved subject to one or two minor reservations, by the Supreme Council of the Peace Conference, at a meeting held at St. Germain immediately after the signature of the Peace Treaty with Austria on Sept. 10th.

This document, which is one of the most interesting of the agreements made by the Powers taking part in the Peace Conference, is very comprehensive, and deals amongst other things with such subjects as Sovereignty of the Air, Space above Territory and Territorial Waters, International Air Law, Nationality of Aircraft, Certificates of Air worthiness, Conditions of Admission of Air Navigation above Foreign Territory, Rules to be observed on Departure; on Landing and When Under Way, Prohibited Articles and the Institution of an International Commission for Air Navigation.

There was little or no precedent to guide the Delegates in the framing of the Convention, and in its drafting it was essential that our Dominions, our Allies and as many as possible of the Neutral States should participate. To secure agreement in eleven weeks as was done on a subject affecting so many different interests is no mean achievement.

The signatories to what may be regarded as the Charter for Civil Aviation throughout the world are as follows:-

United States	Brazil
Great Britain	Cuba
France	Greece
Italy	Portugal
Japan	Roumania
Belgium	Serbia

PARACHUTE JUMPS TO BE MADE ONLY IN EMERGENCY

Parachute jumps from heavier-than-air craft will not be made for exhibition, test, or in any case other than emergency, unless the person making the descent wears two parachutes and harnesses complete, at least one of which shall be of a free type manually operated, preferably the U.S. Airplane Type A.

No live jumps will be made, except in an emergency, at an altitude of less than 1500 feet.

Vol. III AIR SERVICE NEWS LETTER V-965

Information Group SEPTEMBER 30, 1919 Building D
Air Service Washington, D. C.

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

BALLOON AND AIRSHIP ACTIVITIES

The Chief, Training and Operations Group, Air Service, has directed that a tactical inspection be made frequently of all Air Service organizations. The Balloon and Airship Companies will be inspected shortly, whenever possible by a Field Officer, and ordinarily by an Officer not stationed at the post which is being inspected. The Inspection Officers will be furnished a List of questions prepared in the Washington Office.

A recent communication from this Office enumerated the types of Radio equipment which will probably be furnished by the Signal Corps to each Balloon Company. Since then, the Chief Signal Officer has decided to supply Signal Corps Radio Type #62 instead of Type #54A, as previously reported.

In order to complete the enlisted strength of Balloon Companies, Lieut.-Colonel J. D. Carmody and Captain Ayling are now visiting heavier-than-air stations inviting volunteers to transfer to Balloon Stations. There are still needed about 800 to complete the complement of 32 Balloon and Airship Companies.

The three Mullion type airships and the three demountable airship hangars which were purchased from the Royal Air Force last January have just arrived in the United States. It is estimated that the large airship shed at Langley Field will be completed in about two weeks. The steel airship shed at El Paso has been somewhat delayed through non-arrival of steel; the foundations have been completed.

Colonel James Prentice has been appointed a member of the Board consisting of Artillery and Air Service Officers for the purpose of conducting experiments and determining the best means of communication between aircraft and artillery; this will be in addition to the present duties of Col. Prentice in establishing the Mexican Border airship stations.

A list of 1200 temporary officers to remain on active duty as authorized by recent legislation has just been distributed by the Director of Air Service. The temporary officers not listed will be discharged before October 31st; this will result in greatly stabilizing Air Service organizations. Training will be perfected of officers who are now to remain, and it will be practicable to assign officers to Balloon and Airship Companies, with reasonable prospects of their remaining on the same duty for a considerable period.

BRITISH AIRCRAFT ACTIVITIES

Use of Wireless Telephones and Telegraphs with Aircraft

The Air Ministry makes the following announcement:-

The form of licence to be granted for the use of Wireless to and from aircraft, and the conditions under which such licenses will be granted, are under consideration. In the meantime, pending the issue of the license by the Post Master General, temporary provisional authority for the installation and use of Wireless apparatus in aircraft can be obtained, in approved cases, by application to the Secretary of the Post Office.

For the present the wave length suggested for Wireless Telephony is 480 metres. This is the wave length which the existing Air Ministry W/T Stations at present employ for work with aircraft.

For the benefit of designers and others interested it may be said, that the Post Master General's license, when available, will probably contain provision to the following effect:-

The sending apparatus installed at any aircraft station shall be constructed so as to be capable of using waves of 600 metres interrupted continuous wave, and 900 metres continuous wave; such of the following wave lengths, namely, 220, 300, 450 and 800 metres interrupted continuous wave, and 200 - 550 metres, 650 - 950 metres, 2000 - 3000 metres continuous wave may also be used for transmission as are authorized in writing by the Post Master General.

The use of the wave of 600 metres (hereinafter referred to as the "aircraft-ship" wave) shall be confined to the use of the system known as "Interrupted Undamped Wave or Tonic Train, or I.C.W., and the use of 900 metres hereinafter referred to as the "Aircraft Normal Wave", shall be used only for continuous damped waves or Wireless Telephony.

Should an aircraft station be also fitted with a supplementary installation on long continuous waves, such installation shall be so constructed as to be capable of using the wave length of 2,400 metres.

The range of wave lengths for which the receiving apparatus may be constructed is not limited, but the apparatus must be capable of receiving on 600 metres and 900 metres, and on 2,400 metres when a transmitter working on this latter wave length is installed; it must also be made to embrace any other wave length on which a transmitter installed has been authorized to work.

The input of power to the licensed apparatus measured at the terminals of the power generator or battery shall not exceed 100 watts, provided always that when vacuum valves having heated filaments, constitute a part of the sending or receiving apparatus, or both, the power employed for heating the said filaments shall be excluded in computing the said maximum input.

R. 33 TO VISIT AMSTERDAM

A Commercial Demonstration.

Following upon the Conference held on the 8th September relating to the Government airship programme, it has been arranged that A.M. airship R. 33 shall carry out a flight of about 36 hours duration in order to demonstrate the capabilities of lighter-than-air craft and as a practical illustration of the comfort afforded to passengers travelling in airships. Invitations to take part in this voyage have accordingly been extended to leading members of industry and representatives of Home and Colonial Government Departments interested in the commercial development of this type of aircraft. On board also is Lieutenant de Vissonu Sable, Air Attache to the French Embassy in London.

In addition there are the following officers:-

Air Commodore E.M. Maitland, C.M.G., D.S.O., A.F.C.

Flight Lieutenant G. M. Thomas, D.F.C., who is captain of the R.33.

Flight Lieut. H.A.H. Leethem, (2nd officer)

Flight Lieut. S. E. Taylor, D.S.C. (3rd officer)

Pilot Officer W.E. James (Engineer Officer)
and the crew, which consists of 27 men.

The cruise of the airship will, it is intended, take place over the North Sea, Holland and France. Visits will be made to the Hague and Rotterdam, and opportunity has been taken to include a visit to the Amsterdam Aircraft Exhibition in response to an invitation from the Aircraft Exhibition authorities. A message will be dropped in the Exhibition grounds.

Thence the vessel will proceed to Paris, where a landing will be made probably at St. Cyr during Thursday afternoon, in order to take on board Major General the Rt. Hon. J.E.B. Seely, C.B., C.M.G., D.S.O., M.P., Under Secretary of State for Air, and Major General Sir Frederick Sykes, G.B.E., K.C.B., C.M.G., Controller General of Civil Aviation.

Returning homewards, R.33 will probably reach Pulham, from which station she started, late on Thursday night. With the comfort of the guests in view, a landing may be delayed until Friday morning.

The airship is a sister ship of the R.34; she was designed solely for war purposes and has been adapted to accommodate passengers. Every possible attention has been paid to the comfort of the guests. Sleeping berths have been rigged in the internal keelway of the vessel, in which the passengers will rest during the night. Meals will be served in the mess room (also in the keelway); hot and cold water will be available and the news of the day will be transmitted to the airship by wireless telegraphy.

ORGANIZATION OF AIR SERVICE UNITS

The following Air Service Units will be organized at the stations indicated, under Tables of Organization, 1919 for the Air Service:

Units.	Stations.
First Wing	Kelly Field, San Antonio, Tex.
Second Wing	Langley Field, Hampton, Va.
1st Day Bombardment Group	Ellington Field, Houston, Tex.
1st Surveillance Group	Kelly Field, San Antonio, Tex.
1st Pursuit Group	Selfridge Field, Mt. Clemens, Mich.
1st Army Observation Group	Park Field, Millington, Tenn.
1st Photo Section	Ft. Bliss, Tex.
2d Photo Section	Langley Field, Hampton, Va.
4th Photo Section	Langley Field, Hampton, Va.
6th Photo Section	Langley Field, Hampton, Va.
7th Photo Section	Langley Field, Hampton, Va.
11th Photo Section	Langley Field, Hampton, Va.
12th Photo Section	Canal Zone.
14th Photo Section	Langley Field, Hampton, Va.
15th Photo Section	Langley Field, Hampton, Va.

The First Wing will consist of all groups and organizations engaged on work in connection with border duty. The Second Wing will exercise supervision of all units on the Atlantic Coast. The 1st Day Bombardment Group will consist of the 11th Day Bombardment Squadron, 20th Day Bombardment Squadron, 96th Day Bombardment Squadron, and 166th Day Bombardment Squadron. The 1st Surveillance Group will consist of the 8th, 90th, and 104th Surveillance Squadrons. The 1st Pursuit Group will consist of the 27th, 94th, 95th, and 147th Pursuit Squadrons. The 1st Army Observation Group will consist of the 1st, 12th, and 258th Army Observation Squadrons. The squadron organizations of these groups have been previously authorized.

The commanding generals of the Phillippine, Hawaiian, and Panama Canal Departments will organize units in their departments as follows:

Units.	Stations.
1st Observation Group	Philippine Department.
2d Observation Group	Hawaiian Department.
3d Observation Group	Panama Canal Department.

The 1st Observation Group will consist of the 2d and 3d Observation Squadrons.

The 2d Observation Group will consist of the 4th and 6th Observation Squadrons.

The 3d Observation Group will consist of the 5th and 7th Observation Squadrons.

By order of the Secretary of War:

PEYTON C. MARCH,
General, Chief of Staff.

USE OF LANDING FIELD DONATED TO AIR SERVICE

Major W. R. Baldwin, Ordnance Department, U. S. A., has very generously offered to the Air Service the large pasture field owned by him in Elks Mills, Maryland, for the use of any pilot who may find himself in that neighborhood.

For the purpose of landing and examining the field, Colonel John N. Reynolds, A.S.A. and Captain Harry C. Drayton, A.S.A. recently flew a Curtiss airplane to Elks Mills, Maryland. These officers report the landing field to be on the direct route, from Washington to New York, being 52 miles northeast of Baltimore and on the main line of the B. & O. Railroad, and four miles directly north of Elkton, Maryland, is extremely easy to find. Also the Elk River runs past Elk Mills to Elkton and the Chesapeake. They found it to be a good place for a Curtiss to land but, are of the opinion, that a pilot flying a DH should not attempt to land there unless he is accustomed to making a slow landing with that type of ship.

Major Baldwin is most courteous in his offers to help and seems very anxious that the Air Service should take advantage of his field. He agrees to have a Tee placed on the field in the best place for landing, head to wind, if anyone calls him up stating that they are coming, and when. His telephone is Elkton 215, Ring 3.

It is hoped that other far sighted and patriotic citizens of the country will follow his example. Unless it is decided to give Federal Assistance to the development of commercial aeronautics progress will depend largely on the action of such public spirited citizens as Major Baldwin. Now that the Air Service is planning a permanent transcontinental route ample opportunity to help is open to those along the route.

COLONEL ARNOLD INSPECTS FOREST PATROLS.

For the purpose of inspecting forest patrols and looking over Camp Lewis as a possible site for Aviation field, Colonel H. H. Arnold, Department Air Service Officer, Western Department, made a trip by airplane from San Francisco to the forest patrols in Oregon and to Camp Lewis, Wash. The trip covered a period of five days, Colonel Arnold leaving San Francisco on September 5th and returning on September 10th. During the trip he visited the following places: Sacramento, Cal., Redding, Cal., Roseburg, Ore., Eugene, Ore., Portland, Ore., to Camp Lewis, Wash. On the return trip only two stops were made, Eugene, Ore., and Redding, Cal. Colonel Arnold reported that the country of Northern California and Oregon is very mountainous and wooded. In several localities on this trip the forest areas are so extensive that no landing places are available in case of motor trouble for one hundred miles at a stretch.

NEW R. M. A.'s

The following named Officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set opposite their respective names:-

1st Lieut. James A. Cashman, A.S.A.	Sept. 12, 1919.
Major John G. Whitesides, A.S.A.	July 24, 1919.
2nd Lieut. Burdette A. Palmer, A.S.A.	Sept. 16, 1919.
1st Lieut. Richard J. Kirkpatrick, A.S.A.	Dec. 28, 1918.
1st Lieut. Frederick Merriman, A.S.A.	Sept. 24, 1918.
Major Jenner Y. Chisum, A.S.A.	Aug. 27, 1919.
2nd Lieut. Silas C. Hyndshaw, A.S.A.	July 12, 1919.
2nd Lieut. Fred Lester Smith, A.S.A.	July 12, 1919.

The following officers have been honorably discharged from the services of the United States:

Arthur D. Butterfield,	Lieut. Colonel, A.S.A.
Earl N. Findley,	Captain, A.S.A.
William E. Nieman,	Captain, A.S.A.
Floyd N. Shumaker,	Major, A.S.
Charles S. Shotwell,	Captain, A.S.P.
John B. Markley,	First Lieutenant, A.S.A.

THE FIRE PATROLS

In a recent communication from the Department of Agriculture, Forest Service, great credit is given the airplane fire patrols. It states that the airplane patrol has been invaluable and that the District Forester is extremely desirous of having the Air Service continue its cooperation in the future. The results obtained from the airplane fire patrol have far exceeded the expectations of the District Forester in its value and use for fire protection. Furthermore, it has been the universal comment of all the Forest Officers connected with the patrol that the educational and phychological effect of having an airplane hovering over the Forests has been one of the most striking results obtained by the patrol. It has stood as a constant reminder to the public that the National Forests were being watched and it has not only greatly increased public cooperation in the matter of fire protection and prevention, but also acted as a detriment to campers and other transients who are prone to leave camp fires unextinguished. It is very strongly felt that the loss of this patrol in the coming season would be most unfortunate indeed and would deprive the Forest Service of one of its most valuable agencies for Forest protection.

That the Fire Patrols are giving great satisfaction to the forest rangers is evidenced in letters from the different Forest Supervisors. A letter from Los Angeles National Forest Supervisor states that "it is the most efficient system of fire detection that they have yet found at their disposal, and the fact

that during June and July it has resulted in reporting twelve fires, is conclusive". The Eldorado National Forest Supervisor reports "the air patrols have particularly been serviceable to us in detecting fires outside the Forest boundary. These fires, if not handled quickly by outside agencies, as the Farm Bureau with whom the Forest Service has a cooperative agreement, affect the usefulness of our primary lookouts. This is caused, of course, by the great amount of drift smoke that works up from the foothills into the mountain canyons. Another service which the air patrol is performing is keeping us informed of the size and severity of fires which are being handled by our forces. The central office at Placerville is thus able to get a broad gauge view of the fire situation. Generally, the aviator's data on the location of fires is close enough for our purposes. Another feature which has great educational value is the fact that the people have before them constantly a reminder that a patrol-force for the prevention of fires is hovering over them. I consider the airplanes one of the big advertising mediums that we have for fire protection." In a letter from the San Francisco Forester he states most emphatically that he considers aerial forest fire patrol, both as a detection agency, as a positive preventive measure, and as an educational feature, to be invaluable in California during the fire season. He is most desirous that nothing will interfere with the efficient manner in which the patrol is now covering practically all National Forests of that state.

Vol. III AIR SERVICE NEWS LETTER No. 2

Information Group
Air Service

OCTOBER 8, 1919

Building D
Washington, D. C.

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

ARMY AND NAVY BALLOON RACE

A Free Balloon Race between representatives of the Army and the Navy under the auspices of the Missouri Aeronautical Society was held on September 26, 1919, starting from St. Louis, Mo. Three balloons were entered representing the Army and three representing the Navy, each of 50,000 cubic feet capacity, using coal gas and each carrying one officer as pilot and one as aid. The object was to cover the greatest distance in any direction from St. Louis and time was not a factor in the contest. Of the Navy balloons, one was unable to leave the park, owing to a leaking bag; one landed at Menon, Mich.; and the other, piloted by Lt. Emerson, landed at Stittsville, Mich. Of the Army balloons, one was forced to land in the heart of St. Louis, after 20 minutes flight; another landed at Green Bay, Wis.; and the third, piloted by Captain E. P. Phillips with Lieut. B.T. Burt as aid, landed in the waters of Lake Michigan off Death's Door Bluff just north of Dorr Peninsula. The agreement was that in such an event the point on the shore line crossed just before reaching the water was to be taken as the end of the race, so that the farthest point credited to the Army balloon is the northernmost tip of Dorr Peninsula, and it appears from the incomplete information at hand that the result is practically a tie between Lieut. Emerson, of the Navy, and Captain Phillips and Lieut. Burt, of the Army. The officials of the Coast and Geodetic Survey are computing the exact distance and to date the official announcement of the winner has not been made.

It is understood that all of the landings were without incident except in the case of the Langley Field pilot, Captain Phillips and Lieut. Burt, whose landing presented a very narrow escape from drowning.

The following is Lieut. Burt's account of their experience during the race:

"We left the ground at 6:12 P.M. September 26th at St. Louis, Mo. traveling in a north westerly direction throughout the night with an average elevation of about 700 to 1000 feet. From nine o'clock on we encountered very strong currents of winds some of which took us up over 2000 feet, while others drove us almost on the ground. We crossed the Mississippi River three times, once at St. Louis, once at Davenport and again at Dubuque.

"After midnight we made fast time some times going between 60 and 70 miles per hour. The early part of the morning we went so fast that we could not get our location but knew that we were going in a north easterly direction toward Lake Michigan. About eight in the morning we sighted Lake Michigan. We only had

six bags of ballast but Captain Phillips and myself decided that we would try to get across. We soon crossed the shore line at Ocompto on Green Bay at an elevation of 6000 feet. At this time the balloon was riding easily under full expansion and we had hopes of getting across the lake.

"About nine o'clock just after passing overtne promontory at the north part of the Derr Peninsula, the balloon contracted and began to fall very rapidly. In spite of throwing out of the remaining bags of ballast and cutting off the drag rope we fell into the water in just a few minutes. We struck the water with such force that the basket was completely submerged so that we were compelled to stand on the rim of the basket and hold on to the concentration ring. The balloon was acting as a parachute and pulling us through the water at about five miles per hour. A heavy wind was on the lake throwing the waves anywhere from six to ten feet high. After a half hour's pounding around, a boat was sighted within two miles but failed to heed our signals of distress.

"About this time things looked pretty bad as we were seven miles off shore and the balloon was rapidly being pounded to pieces and the rigging commencing to break. After the boat passed us by we cut two of the ropes of the basket with the intention of cutting the basket free and riding the concentration ring if it came to the worst.

"Something was then sighted on the horizon but we did not know whether it was coming or going. After about a half hour more we could see that a boat was rapidly approaching us and when it came within a half mile of us they started to whistle as an encouragement to hold on. It was indeed a welcome sight as we were now low in the water. Part of the time when the balloon rolled over Captain Phillips would go under and then would come my turn but through it all we hung on as this was our only hope.

"When the tug came along side we were both in the water hanging on the rigging. When the crew threw a life buoy and line I wrapped the line around the rigging which proceeded to break and threw Captain Phillips over into the water. He went under but came up and fortunately caught the life buoy while I was hanging to the remaining ropes of the balloon. After what seemed a year or more the tug was turned around again and threw us another line, which we both caught and were dragged aboard the tug. We were both in a very weak condition and exhausted after being in the water so long. The crew of the boat then proceeded to rescue our balloon as we explained to them that we would be disqualified from the race if it were lost. We were then taken to Washington Island where we remained in our rooms until Tuesday afternoon. While there we received the best of treatment from the inhabitants. The water that we landed in was called Port des Mortes 'Door of Death'."

THE TRANSCONTINENTAL RELIABILITY RACE

The Trans-continental Reliability Race started on October 8th. At the request of the Department Air Service Officer of the Western Department the time for the start from San Francisco was changed to 6:00 A.M. Pacific Coast time because an advantage would be given to the racers leaving New York if the planes were dispatched from both New York and San Francisco at 9:00 A.M. eastern time as the difference in time between New York and San Francisco would put the San Francisco planes three hours behind the former. By this new arrangement the planes took the air at Hazelhurst Field and the Marina at San Francisco at the same moment. Apparently this gave the San Francisco planes an advantage, as they had

three hours more daylight the first day than the New York planes, but this apparent advantage will be offset by the fact that the west bound planes will be flying with the sun and the east bound planes against it, so that the west bound contestants will have more daylight than the east bound every day after the first day. The flight of the planes across country will be in the nature of a triumphal reception for these airmen of the American Army who made such excellent records on the Western Front.

General Thomas Barry, Commanding Officer of the Eastern Department, and Brig. General William Mitchell, Director of Military Aeronautics, Washington, D.C. were designated as starters for the race.

The pilots starting in the race from New York will take with them letters appropriate to the occasion addressed by Senators and Representatives to various state and municipal officials in the western states. Each of the 22 stops across the continent has a landing field that has been classified and numbered, except in a few instances toward the western coast. Each pilot will be given the number and general characteristics of each field and will, therefore, be able to locate them easily from the air.

The request of a moving picture firm for permission to have its camera man fly as a passenger in the huge Martin bombing plane, which is to be one of the contestants, had to be denied by the Director of Air Service, but wishing to satisfy the keen interest of the public in this epoch-making aerial contest, certain airplanes not contestants in the race have been assigned at both San Francisco and Hazelhurst Field to carry representatives of all the moving picture companies during the first part of the race. The planes carrying the movie men from New York will go as far as Binghamton, New York, the first control stop, and possibly to Rochester or even to Cleveland. The movie planes from San Francisco will probably go as far as Reno, if conditions prove suitable. It is certain that some very interesting photographs will be taken and highly valuable information may be obtained from this motion picture record, as the race is first and last a reliability contest, as well as a sporting event. The signal Corps, whose photographers made such a wonderful pictorial record of the war, and of all the American activities, will make the official pictorial record of all phases of the race, though the staff of photographers of the Signal Corps has been so depleted by demobilization that it is doubtful if enough men can be mustered to perform the necessary duty.

Captain de La Vergne, the French Air Attache, has definitely accepted the invitation extended to him to participate in the race. He has had many months experience on the front commanding different units of the French Air Service and at one time had in his command twenty of our American flyers. He has numerous decorations both of his own and other countries and is very much an Ace in all respects.

The entries are as follows:

NAME	RANK	PASSENGER	RANK
Culver, C. C.	Colonel		
Brant, Gerald	Colonel	Nevitt, W. H.	Sgt.
Brown, Wm. C. Foskett	2nd Lt.	Robbins, Elmer J.	Corporal
Nelson, Fred C.	2nd Lt.	Lunt, Sam M.	1st Lt.
Abbey, Henry	Major	Etheridge, Asa J.	Capt.
Pearson, Alexander Jr.	2nd Lt.	Atkinson, Royal	Sgt.
Charlton, L. E. O.	Brig. Gen. (British)	Traill, T. C.	Capt.
Gish, D. B.	1st Lt.	de Lavergne	Capt.
Hartney, H. E.	Lt. Col.		
Reynolds, John N.	Lt. Col.	Bagby, R. B.	1st Lt.

NAME	RANK	PASSENGER	RANK
Webster, L. S.	2nd Lt.	Tindell, Charles	Sgt.
George, H. H.	1st Lt.	Parrish, Lee N.	Sgt.
Machle, J. B.	2nd Lt.	McClure, Jessie D.	Sgt. 1st Cl.
Francis, Roy N.	Capt.	Saunders, W.H.-Keesling, L.N.-Rosa, N.F.	Maj.-Capt.-Sgt.
Simons, J. W. Jr.	Maj.	Martin, Wm.	M.E.
Marquette, John J.	Capt.	Horton, C. F.	2nd Lt.
Benedict, Chas. C.	Lt. Col.	Lee, Rex, C.	Sgt.
Steinle, Felix	Capt.	Myhres, H.	Sgt. 1st Cl.
Bowen, T. S.	Lt. Col.	Young, D. H.	Capt.
Sneed, A. L.	Maj.	McClure, Worth D.	M. E.
Williams, J. G.	2nd Lt.	Hitt, J. L.	2nd Lt.
Miller, Henry J. F.	Maj.	Simonin, A.E.	Capt.
Lyon, Edwin B.	Maj.	Chandler, H. B.	2nd Lt.
Smith, Harry	Capt.	Allen, T. W.	Capt.
Osbourne, Chas. L.	1st L.	Maucher, C. A.	Private
Maynard, Belvin W.	1st L.	Richards, W. E.	2nd Lt.
Roullett, J. P.	1st L.	Haynes, Orvil W.	M. E.
Langley, N. H.	1st L.	Clowder, H.	Sgt.
Roberts, A. M.	1st Lt.	Elliott, M. L.	2nd Lt.
McDonald, G.C.	2nd Lt.	Kline, Wm. E.	M. E.
Beau, L. V., Jr.	2nd Lt.	McVeigh, J. J.	Private 1st Cl
Norris, H. D.	2nd Lt.	Meyer, H. J.	M. E.
Torney, S. W.	2nd Lt.	Vanatta, E. R.	Sgt. 1st Cl.
Manzelman, E. H.	2nd Lt.	Goodnough M. C.	Civil Service Mech
Sheridan, H. W.	2nd Lt.	Nelson, F. W.	2nd Lt.
Kirkpatrick, R. C.	2nd Lt.	Marshall, R. E.	Sgt.
Wright, J. B.	2nd Lt.	Colman, B.	Sgt.
Downes, P. L.	2nd Lt.	Bruce, E. J.	M. E.
Kirby, F.	2nd Lt.	Miller, S.C.	2nd Lt.
Hynes, T.	2nd Lt.	Mathews, T. K.	2nd Lt.
Gale, G. H.	1st Lt.	Howie, G. N.	Corpl.
Drayton, H. C.	Capt.	Sweeley, L. J.	2nd Lt.
Smith, H. D.	2nd Lt.	Hunter, E. A.	Corpl.
Kindley, F. E.	Capt.		
Donaldson, J. O.			
Bartholt, J.C.P.	Major		
Queen, H. E.	2nd Lt.	Bishop, L. E.	M. E.
Nassamer, A.J.	Cadet	Robinson, G. M.	Sgt.
Rice, S. E.	2nd Lt.		
Hall, S.	2nd Lt.	Bevan, Wm.	1st Lt.
Hall, J. G.	1st Lt.	Moon, F. D.	M. E.
Seifert, F. W.	2nd Lt.		
Smith, L. H.	Capt.	Ruggles, F. W.	1st Lt.
Kauch, R.	1st Lt.	Maxwell, W. A.	2nd Lt.
Worthington, R. S.	2nd Lt.		
Spatz, C.	Maj.	Tanner, E.	Sgt.
Kiel, E. C.	2nd Lt.	McKee, F.	Sgt.
Wales, E. V.	1st Lt.	Goldsborough, Wm.	2nd Lt.
Cardiff, J. A.	Cadet		
Richter, J. P.	1st Lt.	Patrick, J. B.	2nd Lt.
Crissey, D. H.	Maj.	Thomas, V.	Sgt. 1st Cl.
Taylor, W. R.	2nd Lt.		
Gilkeson, A. H.	Maj.	Garrett, K.	2nd Lt.
McDermott, C. W.	2nd Lt.		
Stewart, M. N.	2nd Lt.		
Maughan, R. L.	1st Lt.		
Johnson, J. T.	1st Lt.		
Haynes, B.	2nd Lt.		

MOVEMENTS OF THE PATHFINDERS

On September 24, 1919, Lieut. Raymond I. Peterson with one passenger, made a flight from Erie, Ill. to Milwaukee, Wis. stopping at Elgin and Chicago for supplies. A Curtiss J.N.6-H machine was used. They covered a distance of 220 miles in 170 minutes. On September 27, Major M. L. King and Lieut. James E. Adams in two planes with Lieut. Kenneth C. Leggett and Sergt. Nichols as passengers made a flight from Madison, Wis. to La Crosse, Wis. covering a distance of 130 miles in 120 minutes. Two days later three planes with Major M. L. King, James E. Adams, Carl D. Guenther and Kenneth C. Leggett, made a flight from Milwaukee, Wis. to Madison, Wis. meeting with a slight accident when landing. Plane 45006 crashed and damaged fuselage and propeller. Other motors and planes O.K. On the same day, Major O. M. Baldinger, 1st Lieut. Marshall S. Boggs, 2nd Lieuts. Raymond Pearson, William Dudlet and Bernard Tocker with three passengers, made a flight from Milwaukee to Madison, Wis. in one hour. On October 2nd, Lieuts. James E. Adams, Geo. T. Wise, William Dudley, Raymond F. Pearson, Karl O. Guenther, Bernard F. Tooser, Marshall S. Boggs, with passengers Lieut. Clayton C. Shangraw, J. L. Derosier, Major C. M. Baldinger, Lieut. Kenneth C. Leggett, Sgt. Nichols, Sgt. A.E. Matos, Sgt. Homer Gorby made a flight from La Crosse, Wis. to Winona, Minn., a distance of 35 miles in 30 minutes.

DALLAS-BOSTON FLYERS

On the morning of September 23, Lieut. Ward F. Robinson, piloting a Dragon Fly Liberty, made a flight from Indianapolis, Ind. to Scott Field, a distance of 230 miles in 142 minutes. The next day in the same type machine he flew from Scott Field to Springfield, Missouri, covering a distance of 270 miles in 132 minutes. The flight was made at an altitude of 5000 feet. On September 26, at 9:40 A.M. Lieut. Robinson arrived at Chelsea, Okla., having flown from Springfield, Mo., a distance of 156 miles in 98 minutes, at an altitude of 4000 feet, and on the evening of the same day, piloting the same type machine, arrived at McAlester, Okla., from Chelsea. He covered the distance of 120 miles between these two places in 72 minutes. With one stop at Sherman to tighten oil connections, Lieut. Robinson flew the same type machine at an altitude of 1200 feet from McAlester, Okla. to Dallas, Texas on the afternoon of September 28th. The distance covered was 205 miles and total time for flight 122 minutes.

THE CLOSING OF THE COOPERSTOWN, (N.Y.) MILITARY HOSPITAL

Officers of the Air Service will regret to learn that the hospital at Cooperstown, New York, will be closed on or about October 15, 1919. This hospital was leased to the Government by the Clark estates, Cooperstown, New York, for a dollar a year, and was limited to the use of aviators who required rest and treatment because of nervous breakdown or allied troubles, resulting from crashes or long continued stress.

About ninety-eight per cent of the cases treated were officers who had returned from overseas. The results obtained in the treatment were most remarkable, as shown by the statistics given below.

Number of cases treated at the hospital up to August 30, 1919,	335
Number returned to duty, cured,	327
Number remaining with a partial permanent disability,	8
(Of these cases, 260 were of a serious nature and 97 of them had a fixed conviction that they were permanently disabled.)	
Number of crashes represented,	363
Number of patients who have crashed,	189

It has become necessary to close this hospital since all overseas patients have been disposed of, and because there are not enough patients of this class belonging to the Air Service to warrant the continuance of the work.

It is hoped that a hospital of this kind will be established for the Army at large. There has always been a great need for such an insitution for the treatment of officers of the service whose nervous system had been racked by strenuous duties or other causes. When the records made at Cooperstown are appreciated it is believed that the hope for the establishment of such a hospital will be realized.

PARIS-MILBOURNE AIR RAID.

At this time when the interest in long distance flying is at its height, comes the announcement in the Paris newspapers that Pulet, a French airman, intends to attempt to carry out an air raid upon Melbourne from Paris, starting sometime about the first of October. The distance to be covered will exceed 20,000 kilometers. This is a more stupenduous undertaking than any long distance flight yet made. Its magnitude can be appreciated by comparison with recent famous flights. In the Paris-Dakor raid the distance did not exceed 5000 kilometers. The air distance across the Atlantic Ocean is 3000 kilometers. The distance which will be covered in the Trans-continental Reliability contest is only about 4350 kilometers. For length this is the most daring flight yet proposed, and its accomplishment is fraught with military significance and for danger, it is not surpassed by the recent trans-oceanic flights by Lieutenant Brown in the Vickers-Vimmy or Commander Reed in the Naval plane, as the route lies over the immense desert region between Bagdad and Bangkok and over Honde Isles. Although Pulet is fully aware of the difficulty of the undertaking he is a skilled airman who during the war was engaged in reconnoitering expeditions and later in experimenting with new machines and note-worthy accomplishments in connection with this flight will not be at all surprising.

GENERAL FUNCTIONS OF THE NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

In addition to the functions specifically defined previously, for its various subcommittees, the general functions of the National Advisory Committee for Aeronautics may be stated as follows:

First: The furnishing to any department or agency of the Government interested in aeronautics of information or assistance in regard to scientific or technical matters relating to aeronautics, and of assistance for the investigation and study of problems in this field with a view to their practical solution.

Second: The committee may also exercise its functions for any individual, firm, association, or corporation within the United States, provided that such individual, firm, association, or corporation defray the actual cost involved.

Third: The committee institutes research, investigation, and study of problems which, in its judgment are needful and timely for the advance of the science and art of aeronautics.

Fourth: The committee endeavors to keep itself advised of the progress made in research and experimental work in aeronautics in all parts of the world, particularly in England, France, and Italy, and will extend its efforts to the securing of information from Germany and Austria.

Fifth: This information is made available promptly to the military and naval air services and other branches of the Government, university laboratories, and aircraft manufacturers interested in the study of specific problems.

Sixth: The consideration of special problems which may be referred to it by the President, the Congress, and the executive departments of the Government such as rules for international air navigation, regulation and development of civil aerial transport, technical development policies of the military, naval, and postal air services.

The following officers have been honorably discharged from the service of the United States:

George M. Beers,	Captain, A.S.A.
Oliver S. Ferson,	Captain, A.S.
William L. Symons,	Captain, A.S.A.P.
Everett W. Snyder,	2nd Lieut. A.S.A.
Charles R. Cameron,	Major, A.S.A.
David L. Ryan,	2nd Lieut. A.S.A.
Henry B. Dabney,	Captain, A.S.A.P.

CHANGES OF STATION

Orders have been requested of the Adjutant General for the following named field officers to change station as follows since September 5, 1919:

September 10, 1919.

Major Thomas G. Lanphier, J.M.A., Infantry, from Washington, D. C., to March Field, Riverside, California.

September 16, 1919.

Major Maxwell Kirby, J.M.A., S.C., from Hazelhurst Field, Mineola, Long Island, New York, to Washington, D. C.

September 18, 1919.

Major Howard C. Davidson, J.M.A., S.C., from Washington, D. C., to Dayton, Ohio.

Major John W. Simons, Jr., J.M.A., A.S.A., from Park Field, Millington, Tennessee, to Washington, D. C.

September 19, 1919.

Major Clarence H. Maranville, A.S.A., from Army Balloon and Airship Detachment, Akron, Ohio, to Army Balloon School, Fort Omaha, Nebraska.

September 23, 1919.

Major Robert Soubiran, A.S.A., from Hazelhurst Field, Mineola, Long Island, New York, to Kelly Field, San Antonio, Texas.

INFORMATION FOR RESERVE OFFICERS.

Attention is called to the fact that Officers of the Aviation Section, Signal Officers Reserve Corps, have been authorized to wear the insignia now worn by Officers of the Air Service in addition to the letters "U.S." with superimposed "R".

Vol. III AIR SERVICE NEWS LETTER No. 9

Information Group Air Service | OCTOBER 18, 1919 | Building D Washington, D.C.

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

TRANSCONTINENTAL RELIABILITY TEST.

First Lieut. Belvin W. Maynard, pilot, with Second Lieut. W. E. Richards as passenger, in DH-4 No. 31, flying westward, was the first contestant in the Transcontinental Reliability Test to complete the journey across the continent; Second Lieut. E. C. Kiel, pilot, and Sgt. F. McKee, passenger, in DH-4 No. 62, flying eastward, was second; and Major Carl Spatz, pilot, with Sgt. E. Tanner, passenger, in DH-4 Bluebird No. 61, flying eastward, finished third. It so happens that of these three, Lt. Maynard started last, Lt. Kiel next, and Major Spatz first.

The following figures have been determined from official telegraphic reports to the Director of Air Service from the control stops, and show the actual flying time and rate of miles per hour for each of the first three contestants to complete the trip of 2,701 miles, subject to correction upon review of pilots' and control commanders' log books:

	Actual Flying Time			Rate of Miles per Hr.
	hrs.	min.	sec.	
Lt. Maynard,	25	11	8-1/2	107.45
Lt. Kiel,	28	22	14-2/5	95.30
Major Spatz,	28	56	47	93.24

There is a remote possibility that some other contestant who has been held a long time in the eastern controls, may make faster actual flying time than Lt. Maynard; but this is very doubtful.

EAST TO WEST PHASE OF THE RACE.

Forty-nine (49) contestants actually got away from Hazelhurst Field, and Lt. Maynard No. 31, Capt. H.C. Drayton No. 47, Capt. J. O. Donaldson No. 50, 2nd Lt. L. S. Webster No. 15, 2nd Lt. Alexander Pearson Jr. No. 8, 2nd Lt. H. W. Sheridan No. 40, and Capt. Harry Smith No. 20, gained a substantial lead on the other contenders during the first day and definitely broke away from them the second day. Thus they avoided heavy rainstorms between Buffalo and Rock Island, which seriously held up the other competitors.

Lt. Maynard, arriving at Cheyenne at 6:27 P.M. Thursday, stopped there for the night, but apparently did not empty the drain pipe of his radiator, which froze and broke during the night, and the necessary repairs delayed him until 12:34 P.M. Friday. This enabled Capt. Drayton, who had stopped at Des Moines Thursday night, to reach and leave North Platte at 12:30 Friday, four minutes before Lt. Maynard took off from Cheyenne, 205 miles further west. At that time Lt. Webster No. 15, was in third place, having left Omaha 20 minutes before

and Capt. Donaldson No. 50, was at that moment on the ground in a forced landing between Rock Island and Des Moines, but reached Des Moines at 1:08 and was again actively in the race at 1:39.

Throughout Friday afternoon, these five were running relatively very close together, with all of them driving forward consistently. At sunset Friday night, Maynard was at Salduro, arriving 6:02:05. Drayton had stopped at Rawlins, Wyoming, 355 miles behind, at 4:13:10. Webster, at 5:44:30, was at Sidney, 225 miles behind Drayton, and Donaldson at 5:56 was at North Platte, 112 miles behind Drayton.

Saturday morning, October 11th, Lt. Maynard was first to leave, getting away from Salduro at 6:47:55 A.M. Webster was next from Sidney at 7:48:45, Donaldson got away from North Platte at 7:50:32, and Drayton from Rawlins at 8:07. Maynard stopped only the required thirty minutes at each of the three control stops between Salduro and San Francisco, and reached the end of his journey at 1:12:07 P.M. At that moment, Drayton was his nearest competitor, being about half-way between Salduro and Battle Mountain, approximately 437 miles away. Webster, in the control at Green River, was next; Donaldson, between Rawlins and Green River, was third; Donaldson reached Green River at 1:41:30 while Webster was still at that stop.

WEST TO EAST PHASE OF THE RACE

2nd Lt. E. C. Kiel, driving DH-4 No. 62, was the first east-bound entrant to complete the journey, and was second to Lt. Maynard, the west-bound winner, in time of arrival and actual flying time. Major Carl Spatz, driving DH-4 Bluebird No. 61, was the second to arrive on the eastern coast, arriving just twenty seconds behind Lt. Kiel. Major Spatz landed at Hazelhurst Field by mistake, and had to rise again and go to Roosevelt Field, and this delay cost him first place in the east-bound flight, but did not effect his standing as third in actual flying time.

Capt. L. H. Smith with 1st Lt. F. W. Ruggles as passenger, in DH-4 Bluebird No. 58, led the east-bound contestants at all stations as far east as Rock Island, where he landed at 10:43:20 Thursday. At that time the field at Chicago was so wet that all contestants were being held at Rock Island and Bryan respectively. Lt. Kiel No. 62, caught up with Capt. Smith at this point at 12:42:25, being followed by Major Spatz at 12:52:30. When arrangements were made for the use of the postal field at Chicago, these flyers were sent out in the order in which they had arrived, Captain Smith taking off at 1:46:40, followed by Lt. Kiel at 1:48:20, and by Major Spatz at 1:48:50; thus Capt. Smith was robbed of the two-hour lead over his fellows from the west.

Capt. Smith maintained his lead into Chicago by 7 minutes, 16 seconds, being followed by Major Spatz who nosed out Lt. Kiel by 11 minutes, 26 seconds. These contestants maintained the same position in leaving Chicago, and in arriving at Bryan, where all three spent the night. This gave Smith "the honor" and he led off next morning at 6:41, followed by Major Spatz at 6:48:05, and Lt. Kiel at 6:48:50. Going into Cleveland, Capt. Smith lost his way in a rain-storm, made a forced landing, breaking his propeller, got another from Cleveland by automobile and flew into the field at 12:48:30, and here it was that Major Spatz took the lead.

Major Spatz led Lt. Kiel into Cleveland, two sets of time being reported for this arrival. One reports Spatz arriving at 3:16:35, the other at 8:19:20, and Lt. Kiel was first reported arriving at 3:34:12, and later at 8:32:12. Between Cleveland and Buffalo, Lt. Kiel took the lead, landing at the latter place at 11:48:50, with Major Spatz following at 11:51:05. Captain Smith left Buffalo at 4:32:15. Major Spatz was able to get away from Buffalo at 12:40:30, while Lt. Kiel was delayed until 1:11:31. At Rochester, Spatz arrived at 1:17:30-1/5, Kiel at 1:53:20-2/5, and Smith at 5:41:40-2/5. Spatz departed from Rochester at 1:48:30-2/5, Kiel departed at 2:23:56-3/5, and Smith remained for the night.

Spatz led Kiel into Binghamton by 14 minutes, 28 seconds, and led out at 4:58 by 8 minutes, 5 seconds. It was thus a wing and wing race to the finish, where Major Spatz made the mistake which cost him the race by landing at Hazelhurst Field instead of Roosevelt Field, and before he could hop out and get to the latter field, Lt. Kiel had beaten him in by 20 seconds.

At the instant Lt. Maynard's wheels touched the ground at San Francisco, (4:12:07 Eastern time) Major Spatz and Lt. Kiel were on the ground at the control stop at Binghamton, New York, 142 miles from the eastern finish, having landed there at 2:51 and 3:45:32 respectively. Major Spatz flew the distance from Binghamton to New York City in 1 hour, 37 minutes, 30 seconds. Had he remained only the required 30 minutes at Binghamton and gone into New York in the same time, he would have ended his journey at 4:58:30, Eastern time, or 1:58:30 Pacific time, 46 minutes 23 seconds after Lt. Maynard reached the western coast.

Of the fifteen planes starting from the West, seven were still in the race, four being east of Chicago at the moment Lt. Maynard landed at San Francisco.

Of the forty-nine planes actually starting from New York, thirty-seven were still in the race when Lt. Maynard finished at San Francisco; seventeen of these had passed Chicago.

COLONEL TOWNSEND F. DODD

Colonel Townsend F. Dodd, who was killed in an airplane accident at Bustleton, Penn., October 5, 1919, entered the army as a first Lieut. in the Coast Artillery Corps stationed at Fort Totten New York, when on March 18, 1912 he made application for assignment to duty at the Signal Corps Aviation School for instruction as an aviator. He was 26 years old at that time and had attended the Engineering School of the University of Illinois taking the degree of B.S. in Electrical Engineering in 1907. During the period from 1907 to 1909 he was employed in the Civil Service under the Navy Department engaged in electrical and mechanical designing, inspection, and testing. His experience had gained for him in addition to his education a practical knowledge of gas engines, photography topographical work and a general knowledge of telegraphy and wireless, thus giving him a substantial qualification for the service which he desired to enter.

On May 9, 1913 special orders were issued relieving Lieut. Dodd from assignment from the 114th Company of the Coast Artillery Corps and detailing him for aviation duty with the Signal Corps. He was ordered to proceed to Texas City, Texas for assignment to duty with the First Aero Squadron of the Signal Corps. His first flight alone was made on Sept. 18, 1913, and he was rated as a military aviator on December 30, 1913.

He was soon promoted to the grade of Captain on September 8, 1915 and was ordered to proceed to Brownsville, Texas and assume command of the detachment of the First Aero Squadron of the Signal Corps at that point. Captain Dodd's progress in his work in connection with the Signal Corps Aviation Section was continual and rapid. His advice was frequently sought by the Chief Signal Officer upon matters of great importance. His indispensability to the service was indicated in a reply of the Chief Signal Officer to the University of Illinois on May 15, 1917 after that institution had requested that Captain Dodd be detailed for assistance in the aviation school at that institution, in which reply it was stated that "It is impossible in consideration of the best interests of the country as Captain Dodd is now entrusted with one of the most responsible positions in the entire aviation section of the army and cannot be spared from this position"

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at the present time". The position which Captain Dodd held at that time was that of Department Aviation Officer, Southern Department.

Captain Dodd was promoted to the grade of Major while he held this office, from which he was relieved by orders dated May 31, 1917.

Shortly thereafter Major Dodd was sent to France with the American Expeditionary Force, having been chosen by General Pershing to go with him as Air Service Officer when General Pershing left the United States for Europe on May 28, 1917. He had not been long in the service in France when he was raised to the grade of Lieut. Colonel on Sept. 4, 1917 with rank from August 5, 1917. Just as he had done in the service at home, he continued in France to render important services upon matters of considerable moment. The important duties to which he was detailed in France were various matters in connection with the establishment of the Air Service there together with the matter of purchasing of military equipment from the French Government and membership in the Joint Army and Navy Aircraft Committee in Paris of the Aircraft Production Board. He was promoted to the grade of Colonel on September 9, 1918.

When Brig. General William Mitchell assumed command of the Air Service, Group of Armies, consisting of all Air Service units assigned or attached to the First and Second Armies he assigned Colonel Dodd to duty as his Chief of Staff.

On December 2, 1918 General Mitchell recommended that Colonel Dodd be awarded the Distinguished Service Medal upon the following:

"Colonel Townsend F. Dodd, Military Aviator, an officer of exceptional ability and devotion to duty, Commanded the 1st Aero Squadron during the punitive expedition into Mexico. Aviation Officer, Southern Department under General Pershing, also a member of General Pershing's Staff, as Aviation Officer in France from May 1917 to July 1st, 1917. Material Officer under General Kenley and General Mitchell, July 1st, 1917 to November 20, 1917, during which time large A.S. projects in France were commenced. Under his direction the training school at Issoudum was started, and the first airplanes were purchased from the French Government. From November 20, 1917 to April 3, 1918 Chief of Supply Section, Air Service, under General Foulois, During this time, he handled all questions of supplies for the entire A.S. and was instrumental in starting such projects as the First Air Depot and the Production Center at Romorantin. He established the principles upon which the present A.S. supply is based. From May 1st to June 15th President of the Board appointed to investigate and recommend the progress for the future production of planes of every description for the American A.S. June 15th to August 10, 1918 Engineering Officer for the Chief, A.S. First Army at that time under General Foulois. Technical Adviser to General Foulois. August 10th to August 29th, Appointed Information Officer on the Staff of the Chief of Air Service First Army. Acted in that capacity through the St. Mihiel Offensive and in the early operations on the Meuse and in the Argonne. October 3rd to October 21, 1918 Operations Officer for the Chief of A.S. First Army Oct. 21st, 1918 Chief of Staff for General Mitchell, A.S. Army Group. Colonel Dodd has been untiring in his devotion, and there is no officer with the A.S. who possesses a more complete technical knowledge of airplanes or is more familiar with the history of Aviation in France in which he has played so great a part".

On November 9, 1918 the general staff requested of the Chief of Air Service American Expeditionary Force a recommendation of an officer for duty as Chief of the Air Service on the staff of the third Army and in response Colonel H.C. Whitehead submitted the name of Colonel Dodd for detail as army Air Service Commander of the 3d American Army. On November 13, 1918 Colonel Dodd was ordered to report to Commander General of the Third Army as Chief of the Air Service of that army but was unable to do so at that time owing to a nervous collapse which necessitated revocation of the order. Owing to this illness sick leave was arranged for him. This illness prevented his return to the United States, for the time being, which was desired at that time. On January 13, 1918 Colonel Dodd was placed in charge of the Paris Office of the Chief of Air Service of the A.E.F. as representing the Chief of that service.

Pursuant to the above mentioned recommendation of General Mitchell Colonel Dodd was awarded the distinguished services as follows:

"He organized the aviation training school at Issoudon and successfully conducted the negotiations for the first purchase of aeroplanes from Allied Governments, for the use of the American Expeditionary Forces. He later served with distinction as Chief of Supply Section, Air Service, American Expeditionary Forces, and as Technical Advisor and Information Officer of the Chief of Air Service, First Army".

On July 2, 1919, after Colonel Dodd had, since his return to United States, been rendering important services in the Office of the Director of Military Aeronautics, orders were requested that he proceed to Langley Field, Hampton, Virginia and assume command. He was transferred to this station July 10, 1919. September 4, 1919 he organized at this post the headquarters of the Second Observation Wing. He was, in pursuance of his duty as commanding Officer at Langley Field that he started on the trip by airplane to Mineola, New York, which resulted in the accident in which he met his untimely end. Possessed of aeronautical knowledge of unusual extent, combined with great breadth of view and remarkable ability, his loss will be keenly felt at this critical period of the Air Service and is as well a personal bereavement to those who have been associated with him.

DEMOBILIZATION REPORT, AIR SERVICE
October 16, 1919

Officers honorably discharged from the Air Service under the provisions of Section 9, Act of Congress, May 18, 1917, and Circular 75, War Department, 1918.

	Maj. Genl.	Brig. Genl.	Col.	Lt.-Col.	Maj.	Capt.	1st Lt.	2nd Lt.	Total
Strength on November 11th, 1918.									
DMA	1	1	37	81	271	905	4,381	13,011	18,688
BAP	0	0	7	19	45	185	280	306	842
SPRUCE	0	0	1	6	22	119	181	695	1,024
TOTAL	1	1	45	106	338	1,209	4,842	14,012	20,554
Strength on March 15th, 1919.									
DMA	0	1	33	86	189	647	2,065	3,848	6,869
BAP	0	0	0	7	16	103	209	209	544
SPRUCE	0	0	1	1	5	24	15	47	93
TOTAL	0	1	34	94	210	774	2,289	4,104	7,506
OFFICERS ATTACHED TO AIR SERVICE									
	1	1	0	0	5	12	81	111	211
AIR SERVICE OFFICERS ON DETACHED SERVICE IN THE UNITED STATES									
	0	0	3	6	14	48	78	134	283
Losses reported to-day									
Discharges						5	18	13	36
Casualties									
Transfers									
By promotions									
Total						5	18	13	36
Discharges since Mar. 15, 1919	1	8		18	82	466	1,660	2730	4965
Total losses since Mar. 15th	1	15		39	118	527	1,871	2980	5551
Additions reported to-day									
Additions reported since Mar. 15th.		10		13	42	131	171	13	380
Net losses since Mar. 15th, 1919.	1	5		26	76	396	1700	2967	5171

Strength To-day						COMMISSIONED AIR SERVICE		
Maj. Genl.	Brig. Genl.	Col.	Lt.Col.	Maj.	Capt.	1st Lt.	2nd Lt.	Total
0	0	29	68	134	378	589	1137	2335

P. S. S.O.S. No. 21,157, Sept. 13, 1919. 2 Lt. Cols., 3 Majs., 33 Captains, 41 First Lts., 34-2nd Lts. Total 113.

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OUTLINE OF THE WORK OF CAPT. O. J. MAY

Captain Oscar J. May, before his entry into military life, was Chief Lubrication Engineer, of the Chicago Division of The Texas Company, and had held that post for many years. Shortly after the entry of the United States in the great war, Captain May being an experienced engineer and a patriotic citizen, filed his application for a commission in the Officers' Reserve Corps, and in July of 1917 received the commission of Captain in the Reserve Corps of the Engineers Corps, subject to call at any time.

When Mr. W. F. Parish started his work in Washington on the subject of solving the lubrication of the Liberty Motor, it was necessary to run a series of tests on various aeronautic motors and to have these tests in charge of an expert lubrication engineer. Mr. Parish was familiar with Captain May's work and his reputation as a lubrication engineer, and he, therefore, requested the transfer of Captain May from the Engineer Corps to the Signal Corps to take charge of this very important work. This transfer was secured and Captain May was called into active duty in the Signal Corps in October, 1917.

Captain May was given entire charge of the actual conducting of these tests. Speed and accuracy were the essential features, and Captain May's handling of these tests showed that his reputation for both was justified. During twenty-five working days in November and December, 1917, thirty-seven complete engine tests were made; these tests consisted of five hours each, during which time many observations were made and two hundred and twenty-one samples was entirely dismantled, photographed, then cleaned, reassembled and placed in readiness for the next test. In order that the variation of the human element might be as little as possible, Captain May personally supervised the crew conducting these tests. It was often remarked that Captain May was on the job from sunrise until sunset conducting the tests, and from sunset until sunrise plotting the findings, making charts, and working with Mr. Parish on the results. The tests were finished in the aforementioned time, and Specification 3501 Liberty Aero Oil resulted.

There was also the important question of gasoline for use in aeroplanes before the Signal Corps for settlement. The Allies were using close distillation range gasolines for this class of work, quite different from the gasoline used in this country. It was, therefore, necessary to run tests on gasolines made according to the various specifications. These tests were run with the same crews as had worked with Captain May on previous tests, making block tests on aeronautic engines using commercial gasoline and special gasolines made according to the French and German specifications. These tests were run with the same continuation of service as the oil tests, but as very little difference in power could be shown on the block tests, it was decided to have further tests made in the altitude chamber at the Bureau of Standards with the different grades of gasoline operating under various altitude conditions.

A program was immediately laid out for day and night testing from Friday to Monday, and Captain May, with his same crew, took charge of the altitude chamber at the Bureau of Standards. An incident happened during these tests which illustrates the indomitable energy of Captain May and his belief that work for Uncle Sam booked no interference by anyone. On Sunday of the test, the electric company furnishing the power telephoned that they would have to shut off the power for the day to do some repair work on the line, but Captain May after protesting finally advised them that while it would add considerably to his work if it were necessary to do so to keep the tests going he would send a crew of engineers with sufficient soldiers to take over and run the central power plant until the tests were finished. Needless to say, the power stayed on! During these tests, Captain May stood an actual watch of 65 hours without rest.

After the block tests in the altitude chamber were finished, it was necessary to make final flight tests at Dayton, using various gasolines. Captain May then sent an engineer to start these tests, while he made a short round of the fields. He went from the fields to Dayton to finish observations on the tests, and was the actual observer on the last of these tests. The flying at such high altitudes, combined with the strenuous work he had done in the previous months, affected him physically to such an extent that the day he returned to Washington from these flight tests he was taken with pneumonia, which resulted in his death.

Captain May was a young man, being only 43 when he died, with a great deal of reserve energy, but his patriotic impulse did not know the word "Stop" and he gave his life to his country in as noble, courageous sacrifice as had he been the direct victim of a German bullet.

(Signed) W. F. Parrish.

ENLISTED CANDIDATES FOR PILOTS' SCHOOLS

A Pilots' School will be opened at Carlstrom Field, Arcadia, Florida, in the near future, and another at March Field, Riverside, California at the same time. The instruction given at these schools is the latest standardized method, calculated to turn out pilots of the very first quality.

You will immediately submit to this office by mail the following lists:

(a) All enlisted men now undergoing pilot instruction at your station.
(b) All enlisted men at your station awaiting assignment to pilot instruction.
(c) All enlisted men at your station who have qualified for pilot training but have not yet been approved.

In each case you will list the names of these enlisted men in the order in which they can be spared for assignment to the nearest Pilots' School as flying cadets, stating at the same time the total number which can be spared from your station at one time for this purpose.

It is not intended to entirely discontinue training of enlisted pilots at other stations but all enlisted pilots undergoing training at present who can possibly be spared must be listed for transfer to nearest Pilots' School as flying cadets. No enlisted men who have not already started training at your station will be given pilot training until such time as they are assigned to regular Pilots' School.

Regulations have been prepared and are now in the hands of the General Staff which will lay down the requirements of future candidates for these courses. Those requirements provide not only for enlisted men of the Air Service but for enlisted men and officers of the Air Service or any other branch of the Army desiring instruction at these schools. The regulations referred to govern the Air Service training policy and it is expected that they will be ready for issue by the time the above lists have been submitted.

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ACTIVITIES AT KELLY FIELD

The students taking the course in aeronautical engineering are completing their final week of instruction. In spite of the lack of equipment and personnel, the course has been a decided success and the graduates are enthusiastically awaiting assignment to active duty where they can apply their recently acquired knowledge.

Two new classes of students have been formed, one to take the course in aeronautical motors, and the other to take the Airplane Course. The recruits assigned to the Airplane and Flying Departments have been given some very valuable instruction on S.E.-5's and D-H 4's. Since all of the re-enlisted men of the school are Instructors, the recruits working under them have been carefully coached on all the details of these airplanes.

Two Le Pere airplanes were received at this field recently and their assembly and alignment have been completed. These planes arrived just in time to give the students in the Course for Aeronautical Engineers an opportunity to study the details of the construction of this sturdy ship.

There are at present eight classes of Hispano-Suiza students doing trouble shooting on the blocks. These men will soon be ready to take over any Hispano-Suiza Motor work for which they may be needed.

R. A. F. RECRUITING CAMPAIGN

Satisfactory Result.

A report from the British Air Ministry relative to a Recruiting Campaign, which was opened by the R.A.F. a short time ago, gives the following account of the results:

"It is only a few weeks since the R.A.F. opened its special recruiting campaign but recruits have come forward in such numbers that the Force is now up to its present authorized strength.

Accordingly all recruiting has now been suspended except for carpenters, cooks and clerks, for which trades, a certain number of vacancies still remain.

The attractive new conditions of service and rates of pay are, of course, largely responsible for this satisfactory result and the authorities are extremely pleased with the class of men who have come forward.

As the number of applications still being made show no sign of diminishing men of the trades for which vacancies still exist and who desire to enter the R.A.F. would be well advised to apply without delay."

THE ALL-AMERICAN PATHFINDERS

A report dated October 10th received from the Commanding Officer of the All-American Pathfinders gives an account of the activities of this squadron of planes since Sept. 25th as follows:

"Left Milwaukee, Wisconsin September 25th at 6:20 P.M. over Yellowstone Trail to Menomonee Falls, Wisconsin, arriving there at 8:30 P.M. Distance covered 15 miles.

Left Menomonee Falls, Wisconsin for Appleton, Wis. at 7:45 A.M. and arrived at Appleton, Wis. at 6:30 P.M. Distance covered 93 miles.

Left Appleton, Wis. for Marshfield, Wisconsin at 9:45 A.M. and arrived at Marshfield at 11:00 P.M. Distance covered 112 miles.

Left Marshfield, Wis. at 9:40 A.M. Oct. 6, 1919, arriving at Eau Claire, Wis. at 1:00 A.M. Oct. 7, 1919.

Left Eau Claire, Wis. at 10:00 A.M. for Hudson, Wis., arriving at Hudson at 5:45 P.M. Distance covered 73 miles.

Left Hudson, Wis. at 9:45 A.M. for St. Paul, Minn., arriving at St. Paul, Minn. at 1:30 P. M. Distance covered, 29 miles."

The following officers have been honorably discharged from the services of the United States:

J. Bayard H. Smith	Captain, A.S.A.
James H. Sullivan	1st Lieut., A.S.A.
Charles M. Wharton	Captain, A.S.A.
Roscoe L. Catley	1st Lieut., A.S.M.A.

NEW R. M. A'S.

The following named officers, having completed the required tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

Captain Hugh M. Pierce, A.S.A.	November 26, 1917
First Lieut. Joseph L. Stromme, A.S.A.	June 21, 1919
First Lieut. Edward Schumacher, Cavalry	June 21, 1919
2d Lieut. Fred Nelson, A.S.A.	May 10, 1919
First Lieut. Thellert Martin, A.S.A.	June 17, 1919
First Lieut. Solomon Lee Van Meter, Jr. A.S.A.	April 11, 1919

Vol. III

AIR SERVICE NEWS LETTER

No. 10

Information Group
Air Service

October 25, 1919

Building D
Washington, D.C.

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

LIEUT. MAYNARD'S ACHIEVEMENT - THE AIR SERVICE.

Lieut. Maynard's great achievement in crossing the continent in a little over 24 hours is practically invaluable to the Air Service inasmuch as by his ability as a cross-country flyer he collected data which will prove very valuable to airmen who will attempt the flight in the future.

Lieut. Maynard's wonderful time was due to the fact that he took advantage of the splendid services rendered by the Weather Bureau in sending the weather forecasts to all of the Control Stops. If he had been informed that the weather would be bad for the next Control Stop he would immediately take off and get to this stop before the storm had approached. This enabled him to gain a distinct advantage over the other participants at the very outset of the race.

It would have been much easier for Lieut. Maynard to have made stops every 250 or 300 miles but in order that we should know the condition of the landing fields and the general conditions regarding aviation at the various Control Stops, it was necessary to have him stop according to the rules of the race. He was compelled to stop at these Control Stops for economy, safety, and investigation. This great flight certainly proves that the contemplated aerial route from the United States to Alaska is not merely a dream but is very practical and can be easily accomplished.

The following distances compare in distance with that traversed by Lieut. Maynard in his trip from New York to San Francisco:

Brazil	Morocco
Venezuela	Newfoundland
Newfoundland	Africa
St. John N.F.	Brest, France.
Rio Janeiro	Cape Horn
San Francisco	Alaska
San Francisco	Cuba
San Francisco	Costa Rica, Central America.
San Francisco	Honolulu
New York	Greenland
New York	Azores
New York	Central Northern Canada
New York	Equador & Brazil
London	Jerusalem
London	Archangel
London	Timbuctu
Paris	Bagdad
Christiania Norway	Suez Canal
Europe	Suez Canal
Africa	China
China	Australia

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It is of interest to note that in covering the distance from New York to San Francisco, a distance of 2700 miles, Lieut. Maynard covered almost one-ninth of the earth's circumference. In covering the distance of 5400 miles or that of the entire course, he covered almost one-fourth of the earth's circumference. It does not seem that the time is far off when the entire circumference of the earth will have been circumnavigated by airplanes.

It is worth while mentioning the fact that planes flew over parts of the United States, the inhabitants of which in some places, have been unaccustomed to seeing the different types of planes in use at the present time. This would be both instructive and interesting to people unfamiliar with the sight of airplanes. That airplanes could be used for commercial purposes was more or less looked down upon as a dream by the people in the far west, but this accomplishment proves beyond a doubt that in the near future there will be extensive aerial routes for both passenger and commercial purposes.

The advantage of the airplane over the railroad is very evident especially in the case of transporting medical aid in emergency cases. It is not necessary to follow fixed courses and a plane can fly in a bee line in any direction desired, thus materially shortening time and distance.

During the present race the participants have often flown over parts of the country entirely unfamiliar to them. In doing this, their direction and location was guided entirely by means of maps. If this were possible in the United States why should not they do the same thing in less known parts of the world. The possibility of photographing remote and inaccessible parts of the country will be appreciated in this respect.

If there is one thing more than any other which this race drives home, it is the necessity for adequate municipal landing fields. Several of the more serious accidents and many of the minor mishaps which have occurred thus far might at least have been avoided or certainly minimized had there existed municipal landing fields properly equipped and marked for identification. So far as any difficulty inherent in the route chosen is concerned, it may be remarked that this present flight is pioneer work as to a large part of the route and will be of great value in charting air routes. It has been repeatedly emphasized that proper landing fields lessen the chances of accidents and fatalities.

PEARSON'S TIME BEST IN CONTINENTAL RACE

Second Lieutenant Alexander Pearson, Jr., who flew as entry No. 8 in a De Haviland 4 plane, according to telegraphic reports from Control Stops, made the best flying time recorded in the transcontinental air race. Lt. Pearson's time was as follows:

New York to San Francisco - - -	26 hrs.	45 min.	52 seconds
San Francisco to New York - - -	21 "	51 "	24 "
Total - -	48 "	37 "	16 "

This record beats that of Lieut. Belvin W. Maynard, even after subtracting the eighteen hours spent in replacing his motor in Nebraska. Lieut. Maynard's time being as follows:

New York to San Francisco - - -	25 hrs.	11 min.	8-1/2 seconds
San Francisco to New York - - -	41 "	52 "	32 "
Total - -	67 "	3 "	40-1/2 "

Captain J. O. Donaldson an "American Ace", and the second Transcontinental flier to complete the trip, reporting to the Director of Air Service, gave the following account of his trip.

"I left about one o'clock Wednesday, October 8, from Roosevelt Field, Mineola. Made Buffalo that night, no startling adventures except some delay at the Control Stop due to the congestion of machines. Left early next morning from Buffalo for Cleveland, encountered driving rain storm and from height of from 300 to 500 feet barely caught glimpses of the ground. Of the six or seven machines that started in front of me not one reached Cleveland. One man starting behind me reached Cleveland about the same time I did. From Cleveland to Chicago there were slight head winds against me. I stayed over night in Chicago. I had some difficulty in getting off the field here as the field was covered with water. Three ships were unable to take off at all. Luckily, in my single seater which is a light machine, I was able to get off successfully. I passed Major Miller at Rock Island where he was down. This left only Drayton and Maynard ahead of me. From Rock Island on the mountain scenery was beautiful. I flew very low over the mountains, as low as I could in order not to get the full force of the wind against me. On arriving at Salduro my goggles were covered with oil. Just about the time I landed I got some of the oil in my eyes and cracked my under-carriage and broke one center section. The next day I made a right leg for my under-carriage from pine board. The left one, which was slightly cracked could be bound up with fabric and doped. We obtained home made piece of cable with home made turnbuckle on the end. Luckily, this being Sunday, I was not delayed. I left Monday morning for Reno. The east side of the mountains were covered with rocks which for the most part were buried in snow and the western slopes were covered with fir trees. There was no possibility of obtaining a good landing place there in case of motor trouble. This being the case, I flew low in order to avoid the fog and also to encounter the least resistance from head winds, sometimes just skimming over the tops of the peaks. I arrived at San Francisco at 2:49 Oct. 13th, left Wednesday afternoon about 3:30. I was only able to make Sacramento the first night on account of having to make a forced landing on the way.

"Coming back was a repetition of the trip going West, except that before getting into Cheyenne, I encountered two very severe snow storms. From Cheyenne on, nothing startling happened. The country between Rock Island and Bryan was very bumpy. I covered a distance of 848 miles between Reno and Rock Island in one day, and the next day covered 838 miles between Rock Island and Binghampton, New York."

"In Chicago the landing park was in very good condition, being in an ideal location. Between Salduro and Battle Mountain I saw numbers of wild horses. My machine was an SE-5 with 180 H.P. motor. It is in good condition right at the present time. The engine is also in good condition. All landing fields were good throughout the trip, with the exception of those located at Green River and Rawlins."

Time taken from telegraphic reports from the Control Stops show Captain Donaldson's time for the entire trip as follows:

New York to San Francisco	31 hrs.	37 mins.	19 seconds
San Francisco to New York	25 "	56 "	38 "
Total	57 "	33 "	57 "

HAD ONLY ONE WHOLE DAY'S FLYING FROM NEW YORK TO OMAHA

In an interview with Captain Francis, one of the participants in the Transcontinental Race, he stated that due to the unsettled weather conditions, he only realized one whole day's flying from New York to Omaha, that being from Cleveland to Des Moines. The rest of this distance was made between showers and fog.

"The people were all very enthusiastic along the line. We were received by the Red Cross at Buffalo, Rochester and Binghamton and other towns. Pronounced enthusiasm was shown at Omaha, where the Chamber of Commerce extended the privilege of the use of the Omaha Athletic Club to every man. The same may be said of San Francisco, where the Chamber of Commerce extended to the men the courtesy of the Palace Hotel and, in addition, paid all their expenses.

"The beauty of this trip was particularly manifest from New York to Rochester; especially so from Binghamton to Rochester through the lake country. At Rochester I picked up Captain de La Vergne, the French Attache, whose ship was wrecked due to it catching fire in the air. This made a total number of five in the Martin Bomber. At Chicago, Captain de La Vergne received a wire from his Commanding Officer that he was to return that day to Washington. He continued on the trip until we reached Des Moines that night and there left for Washington. Before leaving, Capt. de La Vergne expressed his opinion of the Martin Bomber as a very comfortable ship to fly cross-country in.

"Throughout the trip the motor worked perfectly, the mechanical system functioned well and it gave no trouble.

"During our navigation post route maps were used which served their purpose well, and we were able at all times to keep our ship within a quarter of a mile of our true air line compass course. The post route maps do not take in sufficient detail but, it is the only map we were able to get in quantity that covered every state in the Union. In time it is hoped that these maps will be improved by adding to them more important data and adjusting all the state maps to one scale.

AIR SERVICE LEGISLATION

A bill was introduced in the House of Representatives on October 22, 1919 and referred to the committee on Military Affairs to the effect that the Secretary of War be authorized and directed to acquire for the United States, by purchase or condemnation, for use as an Aeronautical Experimental development and Engineering plant, the following pieces of real estate:

The Dayton-Wright Airplane factory and plant situated on Edison Street, Dayton, Ohio, consisting of about thirty three (33) acres of land at a cost not to exceed three hundred ninety thousand ninety dollars and eighty cents ($390,090.80); the land adjoining the Dayton Plant known as the Moraine Tract consisting of about eight hundred thirty six acres (836) at a cost not to exceed one million sixty six thousand six hundred thirty six dollars and ninety four cents ($1,066,636.94); also the tract adjoining and north west of the Moraine Tract comprising about seven hundred sixteen (716) acres at a cost not to exceed five hundred nineteen thousand six hundred forty eight dollars and fifty cents ($519,648.50)

That the unexpended balance of appropriations made heretofore for aeronautical purposes by the Act authorizing the president to increase temporarily the Signal Corps of the Army, shall be made available for the purposes set forth; that the sum of one million one hundred twenty nine thousand five hundred dollars ($1,129,500) be appropriated from any money in the treasury not otherwise appropriated for construction work on structures and utility or alteration or expansion thereof, or the installation of such equipment necessary for the establishment of an experimental engineering plant on the above described land. Two hangars, one at a cost not to exceed two hundred thousand dollars ($200,000) and the other not to exceed three hundred seventy five thousand ($375,000) dollars.

HISTORY OF FOREST PATROLS

In cooperation with the Forestry Bureau and to determine the value of aircraft in forest patrol work, the commanding officers of March, Mather and Rockwell Fields and Ross Field Balloon School were instructed to work out forest patrol routes with the assistance of the District Forester. These patrols were inaugurated on June 1st, and have been very successful in locating fires, reports of fires reaching the District Forester sometimes within fifteen minutes after their origin.

Radio equipment was supplied to all fields and a system of co-ordinates worked out, the observer to check in by radio over a designated place, rendering it possible to trace a plane over its entire mission and in case of a forced landing determine the approximate position of the plane.

A letter received from the Forestry Service is quoted in part herewith: "The value of timber given protection by forest patrols in the Tahoe National Forest is estimated at $18,000,000 and the value of farm property and crops is estimated at the same figure, to that date thirty fires being reported, twelve being inside forest. In the Stanislaus National Forest the value of timber protected is estimated at $19,280,000 and in the Eldorado National Forest at $25,000,000. Aircraft having proven of such value in reporting fires, the Department Air Service Officer was given authority to establish additional patrols during the time when fires were most serious in the forest areas of California. During the week of the Oregon patrols (which were organized later) sixteen patrols were made and 28 fires located. A patrol of the whole state began on August 9th, with bases at Roseburg and Salem, and a consolidation of the daily report shows the following data for the month of August: A total of eighty-two patrols were made, one hundred ninety fires reported and thirteen thousand eight hundred thirty-five miles flown. During the latter part of August, Salem and Roseburg were abandoned and a new base established at Redding, California, also one at Fresno, Calif. On Sept. 17th the base at Redding was changed to Redbluff, California, and this patrol has since reported as many as ten fires in a day.

The Acting Forester, in a letter of September 23rd, stated that the results obtained from the forest patrols have far exceeded the expectations of the Forestry Bureau. Both he and the supervisors of the various forests are unanimous in their praise of the work of the patrols, bringing out the fact that a patrol over a forest increases the public cooperation in fire prevention and has acted as a deterrent to intentional burners. The Supervisor of the Cleveland National Forest has commented very favorably on the attitude of those connected with the forest patrol work, stating that they are intensely interested in the work and anxious to cooperate in every way possible for the betterment of the Service.

Mr. Hammatt, in charge of Information in San Francisco comments on the value of the patrol in reporting the condition of fires already burning. Reports from the Los Angeles National Forest state that the March Field patrol has been exceedingly accurate, and it is noted that one patrol from the field covers 300,000 acres twice each day. The same report also states that the only drawback in the patrol system is that there is not enough of them.

The Acting Forester stated that the Supervisors of the Angeles Forest and of the District Offices were allowed to accompany the pilot on observation trips during recent fires in the Angeles Forest, and that they were able to obtain up to the minute information. The District Forester, in a letter to the Commanding Officer of March Field commented most favorably on the assistance rendered by the field during the recent fires which he claims were the worst in eighteen years. The Field not only maintained the usual patrols but made observation trips over the fire area and the forester states whereas in other methods of obtaining information of the line of fire, twenty-four hours were required, he had been able from the observation plane to get a complete view of the line of the two largest fires and place it upon a map in a one and one-half hour flight, and the entire flight was directed by information gained on these trips. During the month of September, a total of 249 patrols were made, 160 fires reported and 67,511 miles flown by the patrols.

1. Orders have been requested of the Adjutant General for the following named field officers to change station as follows since October 7, 1919.

October 11, 1919

Lieutenant-Colonel John S. Sullivan, A.S.A., from Langley Field, Hampton, Virginia, to Dayton, Ohio.

Lieutenant-Colonel Joseph T. McNarney, J.M.A., A.S.A., from Godman Field, Camp Knox, Stithton, Kentucky, to Gerstner Field, Lake Charles, Louisiana, to assume command.

Major John W. Simons, J.M.A., A.S.A., from Washington, D.C., upon completion of his temporary duty, to Buffalo, New York.

Major Frank D. Lackland, J.M.A., S.C., from Ellington Field, Houston, Texas, to Aviation Repair Depot, Montgomery, Alabama, to assume command.

Major Jacob H. Rudolph, A.S.A., from Ellington Field, Houston, Texas upon completion of his temporary duty, to Aviation Repair Depot, Speedway, Indianapolis, Indiana, to assume command.

Major Junius H. Houghton, J.M.A., S.C., from Kelly Field, San Antonio, Texas, to Scott Field, Belleville, Illinois, to assume command.

Major Ora M. Baldinger, A.S.A., is relieved from further duty at Washington, D.C., and will proceed from St. Paul, Minnesota, where he is now on temporary duty with the All American Pathfinders, to Taylor Field, Montgomery, Alabama, to assume command.

Major Elbe A. Lathrop, A.S.A., from Air Service Mechanics School, St. Paul, Minnesota, to Washington, D. C.

Major Clinton W. Russell, J.M.A., A.S.A., is relieved from further duty at Call Field, Wichita Falls, Texas, and directed to proceed upon expiration of his present leave of absence, to Barron Field, Everman, Texas, to assume command.

Major John G. Thornell, A.S.A., from Langley Field, Hampton, Virginia, to Brooks Field, San Antonio, Texas to assume command.

October 15, 1919.

Major George H. Brett, J.M.A., A.S.A., from Kelly Field, San Antonio, Texas, to Air Service Depot, Morrison, Virginia, to assume command.

2. So much of letter orders dated October 14, 1919, as directs Major Elbe A. Lathrop, A.S.A., to proceed from St. Paul, Minnesota, to Washington, D.C., is amended to direct him to proceed to Aviation General Supply Depot, Middletown, Pennsylvania.

NEW R. M. A.'S.

The following named officers having completed the required number of tests, are rated as Reserve Military Aviators, to be effective from the dates set after their respective names:

1st Lieut. Daniel L. Dwyer, A.S.A.	August 15, 1919
Capt. Miller Robert Taylor, A.S.A.	September 11, 1919
Capt. Gordon F. Willey, M.C.	August 19, 1919
Capt. Fred G. Rand, Chaplain	August 19, 1919
1st Lieut. John A. MacDonald, A.S.A.	August 19, 1919
2nd Lieut. Rosenham Beam, Field Artillery (Attached)	August 19, 1919
2nd Lieut. Norman L. Roddy, A.S.A.	August 19, 1919
2nd Lieut. David G. Lingle, A.S.A.	August 19, 1919

Thomas F. Egan, formerly Second Lieutenant, Air Service, Aeronautics having completed the required tests before the date of his separation from service by honorable discharge, August 22, 1919, is rated as a Reserve Military Aviator to date from August 19, 1919.

Major William H. Saunders, Junior Military Aviator, Air Service Aeronautics, having completed the required tests, is hereby rated as an Aer Observer to date from October 20, 1917.

Vol. III AIR SERVICE NEWS LETTER No. 11
Information Group
Air Service
OCTOBER 31, 1919
Building D
Washington, D.C.

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

AIRPLANES SAFER THAN AUTOMOBILES

By Glenn L. Martin

(Mr. Martin is the pioneer flyer and builder of airplanes who as long ago as 1912 made the statement that an airplane was safer than an automobile providing the automobile was being driven faster than 30 miles an hour. He is the builder of the 800 h.p. Martin Bomber in which Col. R.S.Hartz is flying around the Rim of the United States)

The recent New York-Toronto and New York-San Francisco aerial races have developed the fact, startling to most people, that as far as speed contests are concerned the airplane is not only faster than the automobile but from the standpoints of safety and reliability has it all over the motor car. The deaths and injuries per mile are not only smaller but the percentage of contestants finishing is greater in aerial racing and this despite the unquestionable fact that the conditions under which the two kinds of speed contests are conducted vastly favor the automobile.

Before presenting the figures to prove my assertions I suggest that you consider the conditions under which these events were held and get clearly in your mind the fact that the New York-Toronto and New York-San Francisco aerial Derbies were races and not tours and as such can no more be compared to commercial aviation than the speedway events of motordom be used to prove the dangers of boulevard touring. The Air Service of the United States Army staged these two races deliberately for the purpose of gaining information and results which could be obtained in no other manner.

Let us compare the conditions under which the air and speedway races were held. In the first place take the matter of distance. The New York-Toronto event covered 1042 miles and the New York-San Francisco contest 2700 miles whereas the longest automobile contest of the year was the 500 mile race on the Indianapolis Speedway. The advantages in favor of the automobile and its driver are obvious as the strain on men and machines is manifestly greater with the distance travelled.

In the second place consider the physical conditions of the course. The automobile speed kings on a bright clear day, after weeks of practice which had made them familiar with its every well paved inch, circled a banked course which at a cost of hundreds of thousands of dollars had been prepared for them. In their pits were high priced racing mechanics with expensive tool kits and a vast heap of spare parts. In other words at Indianapolis conditions were as nearly ideal as ten years of racing experience could make them in order to insure perfect performance from men and machines.

Just compare these conditions with those under which the aerial races, particularly the Transcontinental event, were held. In place of a million dollar banked speedway on which they had practiced for weeks the flyers were required to make twenty-one stops on as many different fields, no two of the landing places resembling each other and on all twenty-one of which the amount of money expended in preparation was so small as to be hardly worth mentioning. Ninety percent of the pilots had never seen more than four or fi of these fields and their only guides were maps, compasses and their own ability to judge a good landing field from the air. Such conditions were calculated to show what their military training had done for them and bring ou the individual initiative so essential to a military pilot. The entrants were 62 volunteers almost entirely without racing experience and probably 20 percent of whom were ranking officers whose year or more at a desk job had not cooled their sporting blood and who had the authority and red-blooded sportsmanship to enter themselves as contestants. They flew in all kinds of weather in military machines scarcely designed for long distance flights and crossing three ranges of mountains which forced them to an altitude of 10,000 feet and better.

Think over these conditions which in every respect favored the automobile and their drivers and then look at the following facts. In figuring the machine-miles per death I have figured the full distance, of course, for the machines which finished and half the distance as a general average travelled by the machines which failed to complete the course.

Indianapolis automobile race

Distance	500 miles	
Highest speed	110 m.p.h.	
Winning average	88 m.p.h.	
Machines started	33	
Machines finished	15	(45 percent)
Deaths	3	(4000 machine-miles per death)

New York-Toronto aerial race

Distance	1042 miles	
Highest speed	135 m.p.h.	
Winning average	128 m.p.h.	
Machines started	52	
Machines finished	30	(59 percent)
Deaths	0	(42,722 machine-miles and no death

San Francisco aerial race

Distance	2710 miles	
Highest speed	135 m.p.h.	
Winning average	120 m.p.h.	
Machines started	62	
Machines finished	31	(50 percent)
Deaths	7	(17,940 machine miles per death)

And now for a comparison remembering all the time that the aerial races each had nearly twice as many contestants as the automobile event and that they were respectively twice and five times as long. In other words in the Transcontinental air race, all other conditions forgotten for the moment, the number of entries and the distance travelled gave ten times the opportunit for accidents and failures that the Indianapolis race gave. The speed figures show that the flyers travelled faster than the motorists so that the strain on airplane and engine was quite as great as that on racing car and engine. Yet the greater percentage of flyers able to complete the course despite bad weather, bad fields and inexpert pit service shows that wonderful strides have been made in the construction of airplanes and airplane motors and speaks volumes for the ability of the pilots to nurse their engines along.

The deaths, while by no means a pleasant topic, furnish by all odds the most interesting and illuminating comparison of all. Out of 33 starters at Indianapolis, 3 were killed during the 500 miles. In the transcontinental air race with nearly twice as many starters over a course five and a half times as long, 7 lives were lost. In other words the figures indicate that had an equal number of automobiles and airplanes been racing over a distance of 2700 miles and the deaths continued in the same ratio as at Indianapolis 30 out of the 62 automobile drivers would have been killed whereas only 7 aviators lost their lives. Such figures are, of course, only theoretical but the fact remains that any way you want to figure it the deaths per mile in automobile racing outnumber the deaths per mile in air racing despite conditions which greatly favor the motorists.

However in my opinion it is hardly right to compare air and automobile races in view of the fact that the general conditions and purposes are not identical. The United States Air Service had a number of purposes in mind in staging the New York-San Francisco aerial race. These purposes, I think, can be divided under two main heads-Experimental and Educational. The experimental purposes of the Air Service were many and are more or less technical but the amount of information that has been gathered by means of this race and that could have been gathered in no other way will be found to have justified whatever the race may have cost. For instance this race has proven beyond a question of a doubt the liberty motor's supremacy. A large percentage of those who completed the race were riding behind the big twelve cylinder power plants which came into being soon after our entrance into the great war and the ability of the Liberty motor to stand up under the gruelling strain of a long race at high speed has been wonderfully demonstrated by the race.

The race has also served to lay out the first transcontinental air route in any way resembling the aerial highways of the future. The experiment of laying out a course with stops at intervals of not more than 180 miles and then having the pilots find these spots by means of maps, compasses and general sense of direction was successful and what the possibilities of transcontinental aerial travel will be when these fields are properly levelled off, connected up by emergency fields between them and then flown over by pilots familiar with their every feature just as locomotive engineers know every bend in the rails.

Other points learned by means of the race are more technical and include the necessity of giving pilots more practice in flying by map and compass and more practice in making landings at high altitudes such as are found in the Western states. Certain types of airplanes whose construction is such that the pilot's death is almost certain in case of even a slight "crash" will be abandoned because of their showing in this race. The need of copper tipped propellers for flying through the rain was thoroughly proven by the experiences of the pilots. The necessity of providing better weather reports and other meteorological information for pilots on cross country flights and the necessity of educating pilots in the use of meleorological data was still another thing emphasized. In short the amount of technical information gathered by means of this race will mean the saving of hundreds of lives and thousands of dollars in the future and more than justifies the event.

The educational purpose of the event was first-to stir up a general interest in aviation; second-to show what has been accomplished and what strides in the art of flying have been made; third-to awaken the American people to the possibilities of aviation commercially and the necessity of taking the proper steps to insure the continued advancement of aviation. These three purposes have undoubtedly been well served by the race. There is no question but that more people are thinking and talking aviation now than ever before. It is equally true that the crossing of the continent by half of those who started and the remarkable individual performance of Lieut. Maynard was splendid proof of the strides that have been made in perfecting the art of building and operating aircraft. As for the third point, it is easy to see that if half of these planes, all of them built for war purposes and with no thought of commercial flying entering into their design and construction, could succeed in accomplishing the great feat of flying from ocean to ocean flights by large multi-motored passenger, mail and freight planes built for this specific purpose will be a common thing as soon as proper terminals and terminal facilities are provided.

The greatest danger to aviators right now, and the chief hindrance to the progress of commercial aviation, is the lack of proper landing facilities. When railroads were first built the government not only gave them their rights of way but also thousands of square miles of valuable land on either side and the amount of government assistance to the development of railroads amounts to hundreds of millions of dollars. The second great means of land transportation is the automobile and our federal and state governments are spending approximately $200,000,000 annually for the building of good roads by means of which the development of the automobile and its uses can be advanced. And now comes aviation,

still another stride ahead of the railroad and the automobile, with possibilities so great that those who realize them scarcely dare to think, and yet the development of this wonderful science is being hampered by lack of landing fields whose cost, under the direction of a government aerial department, would be infinitesimal as compared with the vast financial outlay involved in promoting the development of the railroad and the automobile.

TRANSCONTINENTAL RACE ENDS OCT. 31st.

At sundown tonight the Transcontinental Race starting on October 8th will come to a close. No official flying will be permitted after this date. The four remaining contestants going from west to east, and the one going from east to west must drop out of the race.

The latest telegraphic reports received in the Office of the Director of Air Service indicate that Lt. D. B. Gish in ship #38 with observer Pomeroy reported by phone to the Control Stop Commander at Chicago that he had a forced landing at Naperville, Ill. 30 miles west of Chicago with broken air pump assembly and damaged radiator. Lt. Gish landed in a plowed field and stated his ship was up to hubs in mud. Assistance was sent to him at once.

It is expected that Lt. Col. H. E. Hartney piloting a German Fokker and Lt. R. B. Bagby in a D.H.-4 who have been flying as a team since meeting at North Platte will complete the trip today, as they were last reported at Binghamton.

Lt. R. S. Worthington the one remaining pilot going west was last reported at Salduro.

Latest reports indicate that Capt. F. Steinle had reached Omaha, Neb.

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20 FIELDS CLASSIFIED BY ALL-AMERICAN PATHFINDERS

The All-American Pathfinders, with Major Ora M. Baldinger in command, who have been touring cross-country, reported to the Director of Air Service from Fort Snelling, at which place they ended their trip, a detailed account of their tour.

The nature of the work carried on by this squadron of planes in their flight cross-country since August 6th, covered the collection of aeronautical information as regards aerial routes and landing fields; encouragement of municipalities in the establishment of landing fields as per government specifications; inspection of proposed landing field sites and the drawing up of recommendations for the establishment, improvement and maintenance of same; recording on existing base maps the salient features, existing landmarks, nature of terrain and location of existing landing fields along routes traversed.

At the various places visited, the fliers conferred with Representatives of Aero Clubs, Chambers of Commerce and other civic organizations, which include the following cities, which were classified according to government classification in classes of 1, 2, 3, and 4:

Lebanon, Pa.	3	Newark, Ohio	2	Milwaukee, Wis.	1
Harrisburg, Pa.	1	Columbus, Ohio	3	Madison, Wis.	3
Huntington, Pa.	3	Mansfield, Ohio	3	La Crosse, Wis.	1
Altoona, Pa.	2	Minerva, Ohio	3	Eau Claire, Wis.	1
Johnstown, Pa.	3	Richmond, Ind.	1	Winona, Minn.	1
Pittsburgh, Pa.	4	Frankfort, Ind.	3	St. Paul, Minn.	1
Coshocton, Ohio	1	Lafayette, Ind.	3	Minneapolis, Minn.	

This brings a total of 8 1st class fields, 2 second class, 9 third class, 1 fourth class.

On this trip records were made over the following routes:

1. York, Pa. to Bustleton, Pa. to Philadelphia, Pa.
2. Bustleton, Pa. to Lebanon, Pa. to Harrisburg, Pa.
3. Harrisburg, Pa. to Huntington, Pa. to Altoona, Pa.
4. Dennison, Ohio to Coshocton, O. to Newark, O. to Columbus, O.
5. Columbus, O. to Dayton, O. to Indianapolis, Ind.
6. Indianapolis, Ind. to Frankfort, Ind. to La Fayette, Ind.
7. La Fayette Ind. to Chicago, Ill.
8. Chicago, Ill. to Milwaukee, Wis.
9. Milwaukee, Wis. to Madison, Wis. to La Crosse, Wis.
10. La Crosse, Wis. to Winona, Minn. to St. Paul, Minn.
11. St. Paul, Minn. to Eau Claire, Wis. to Wabasha, Minn.

At all points visited, keen interest and enthusiasm were manifested by not only commercial organizations but also by the municipalities direct. Each city had made a more or less detailed study of the landing field problem in and about their locality and were only lacking proper guidance in establishing municipal fields.

This squadron report that a letter which was sent to the various cities allotting them an aerial number and announcing the approach of this unit did much to stir up interest and increased activity. In every case an effort had been made to provide at least a temporary field and steps were taken thru committees appointed from various civic organizations for the establishment of a permanent field. The very fact that the government gave its approval to their efforts was an added incentive for greater action.

It was found that in the choice of fields, ignorance was displayed as to the conditions necessary for safe aerodromes. Government specifications, although detailed, failedto convey the proper demands of the situation. Only personal contact, conversation and actual demonstration could convince and properly present to the laymind what requirements are actually necessary. With scarcely a single exception, the question arose as to the future and feasibility of commercial aeronautics. An intelligent answer, presenting the present success and future possibilities of the aerial mail and aeronautics in general, was sufficient to clear their minds on this point. However, by convincing them that all future development is directly dependent upon facilities offered at various points, and that the establishment of a landing field is the most important step, the duty of the individual municipality was thus clearly demonstrated.

The value to the pilot of aerial information regarding landing fields, intervening terrain, and marks and meteorological conditions cannot be over estimated. Success in cross-country flying can only be assured when this knowledge is available to flyers of all classes.

ARMY AND NAVY TO COORDINATE ON HELIUM GAS ACTIVITIES

A joint Army-Navy Board has been created by the Secretary of War and the Secretary of the Navy "for the purpose of coordinating the various helium gas activities and requirements of the various Government Bureaus, including full control over the operation of the present and future Government owned helium production plants, disposition of helium products, the conduct or supervision of conduct of further experiments undertaken with a view toward increasing the efficiency of the production plants and to control further steps for conserving such sources of helium as may be deemed expedient".

Colonel C. DeF. Chandler, Air Service, Chief, Balloon and Airship Division, is Chairman of the Board, with Major P. Pleiss, Air Service, as alternate. Commander A. K. Atkins, U. S. N., is a member with Commander H. T. Dyer as alternate. Because of the fact that so many of the problems in connection with helium gas concerns the Department of the Interior, the Bureau of Mines of that Department has been invited to have a representative meet with the Board. Dr. F. C. Cottrell, Assistant Director of the Bureau of Mines, has been named as representative, with Dr. R. B. Moore, Chief Chemist of the Bureau of Mines, as alternate.

At the meeting of the Helium Board held on October 23rd, 1919, it was decided to have an extensive exploration program carried out in order to locate all sources of helium gas in the United States. The details of the program will be under the direction of the Bureau of Mines and will be carried out by a field force visiting all localities suspected of having helium gas possibilities. It is estimated that approximately a year and a half will be required to analyze all gases suspected of bearing a workable amount of helium. The present helium laboratory at Forth Worth, Texas, will be enlarged to handle the test of all gas samples sent to the laboratory. Dr. Seibel, one of the first scientists to discover helium in workable quantities in natural gas, is in charge of the analytical work at the laboratory. It is aimed to secure the full cooperation of all oil and natural gas production companies in the United States to the extent of their sending in to the laboratory, samples of their gas. Considerable work has already been accomplished on estimating the extent of our helium resources, but the present program will be in the nature of a complete inventory.

The value of non-inflammable helium gas as a military asset can hardly be exaggerated. Its use in airships for commercial purposes will provide a safe, reliable and speedy means of transportation. The removal of the fire hazard of airships means a tremendously increased field of activity, military and commercial, for Lighter-than-Air Craft.

THE LUCIAN GYROSCOPIC STABILIZER FOR AERIAL CAMERAS

Sept 1919

Tests are being made of a gyroscope with a new dampening device built according to plans and under the personal direction of Dr. A. N. Lucien, Experimental Branch of the Photographic Section, Air Service. This gyroscope stabilizes a small 5 x 7 inch aerial camera swung in gimbal brackets. Preliminary tests of this instrument are now being made over Washington from Bolling Field and if the apparatus lives up to the expectations, it will completely revolutionize the present methods of aerial surveying. The first tests show that the camera will not deviate from the horizontal plane even when the airplane is banking. This gyroscopic camera is purely an experimental model.

AIR SERVICE RATINGS AND INSIGNA

The War Department authorizes publication of the following information from the Office of the Chief of Staff:

The Secretary of War directs that (Paragraph 1269, Army Regulations, be rescinded and the following substituted therefor: Examinations for ratings of Military Aviator, Junior Military Aviator, Military Aeronaut, and Junior Military Aeronaut, will be held at such times as exigencies of the service require. Such officers as are recommended for these ratings by their Commanding Officers will be ordered by the Chief of Air Service before an examining board, to be composed of two officers of experience in Air Service and one medical officer, and to be convened from time to time by the Chief of Air Service to conduct such technical and physical examinations as may be prescribed. The Medical officer of the board will takepart only in the physical examination. The examination will be prescribed by the Chief of Air Service and will be both theoretical and practical and will include a demonstration of fitness of the candidate for advanced rank and command, if any be involved in the appointment. No officer shall receive the rating of Military Aviator or Military Aeronaut until he shall have served creditably for three years as an aviation officer, with the rating of a Junior Military Aviator or the rating of a Junior Military Aeronaut, except that in time of war any officer or enlisted man who especially distinguishes himself in active service may be rated as a junior Military Aviator, Military Aviator, Junior Military Aeronaut or Military Aeronaut, without regard to examination or to length of service.

The Chief of Air Service will from time to time submit names of aviation officers qualified for rating as Military Aviators, Junior Military Aviators, Military Aeronauts and Junior Military Aeronauts. Such rating to be announced in special orders, which orders shall cite the date of the rating in the case of each officer so rated. Each officer so rated shall receive a certificate to the effect that he is qualifiedfor the rating, and while so rated is entitled to the rank, pay and allowances authorized by Acts of Congress approved July 18, 1914, June 3, 1916 and July 24, 1917.

(Paragraph 1584-3/4 is amended as follows): An officer of, detailed in or attached to the Air Service, who has demonstrated that he possesses the required qualifications, shall, under such regulations as may be prescribed by the Chief of Air Service, be rated as "Airplane Observer", "Balloon Observer", "Aerial Gunner", "Aerial Bomber", "Airplane Pilot", or "Dirigible Pilot", as the case may be. The fact of such rating and date thereof, which is the date of final qualification, will be published in orders by the Chief of Air Service and a copy of the order will be forwarded to The Adjutant General.

The Secretary of War directs that no additional badges will be employed. The present authorized badge for military aviator (the double wings and the U.S. Shield) will also be used by Junior military aviators and airplane pilots. The aeronaut's badge (double wings and a spherical balloon) will be used by junior military aeronauts and dirigible pilots. The observers badge (the letter "O" and one wing) will be used by airplane observers, balloon observers, aerial bombers and aerial gunners.

Conference of Dominion Meteorologists.

During the past week there was held in London the first conference of Representative Meteorologists from the Dominions under the presidency of Sir Napier Shaw, Director of Meteorological Office and Acting Controller of Meteorology, Air Ministry.

There were representatives present from all the dominions except Newfoundland, from the Crown Colony of Ceylon, and from India and Egypt.

At the opening meeting held on Tuesday, September 23rd, the Delegates were welcomed by General Sir F.H.Sykes, G.B.E,K.C.B. C.M.G., Controller-General of Civil Aviation, and Sir Napier Shaw.

Colonel L.F.Blandy, D.S.O., R.A.F., then read a paper on arrangements for transmission of meteorological information by Wireless. He outlined a scheme covering the whole of Europe, Mediterranean and North Africa. In the discussion which ensued the delegates expressed their opinions as to how far the scheme could be adopted in the various Dominions. The afternoon discussion was directed to a discussion of transmission of observations by W/T from ships at sea. The delegates then visited the Radiotelegraphic Station at the Air Ministry.

On Wednesday morning, 24th September, 1919. Squadron Leader A.D Spiers, R.A.F. opened a discussion on the aerial routes Cairo - Karachi and Cairo to the Cape. The subject was discussed from a meteorological standpoint, and the delegates concerned emphasied the interest of their respective governments in the proposed routes. Subsequently Sir F. Stupart (Canada) raised the question of instruments and equipment for upper air observations by means of pilot balloons. A decision was also reached on the best form of report for aviation purposes. The afternoon was devoted to the selection of stations for the general study of climatology of the globe. Later the delegates visited Kew Observatory, Richmond.

Thursday was devoted to visits to the Kite Balloon testing station, Kingston Hill and the R.A.F. Meteorological Station, Bedford.

On Friday, the 26th September, the Conference discussed the Convention for International Aerial Navigation. It was difficult to enter into a detailed examination of the meteorological clauses of this Convention, as these had not been seen by the Dominion Meteorologists before their arrival in England. Consideration of the International codes was left over for the International Meteorological Conference which started in Paris this week. On behalf of the hydrographer of the Navy a paper on hurricanes and hurricane conditions was circulated. It was obvious that a considerable amount of information on this subject was already navailable and it was decided that records and the reports of all hurricanes observed in the future should be sent to the Meteorological Office, London, with a view to analysis and investigation.

On the question of further co-operation on meteorological matters of the several parts of the Empire, Colonel Bates (New Zealand) proposed "that the Conference of representative meteorologists of the British Empire assembled together for the first time should agree to continue as an association for the exchange of views from time to time upon scientific matters concerning the achievements, requirements and organisation of their services". This was carried unanimously Sir Napier Shaw was elected the first President, members were invited to submit rules for the guidance and acceptance of the Association.

The conference has been beneficial in bringing together the various meteorological organizations of the Empire, and it is confidently anticipated that as a result complete co-operation will be maintained between Dominions, Crown Colonies and the Mother Country. It is unnecessary to point out the need for this co-operation in view of the development of the great aerial routes of the Empire.

The following were the delegates present:-

Sir Napier Shaw, Great Britian (Chairman), Captain A. J. Bamford (Ceylon), Lieut-Colonel D. C. Bates (New Zealand) Mr. H. D. Grant (Admiralty), Mr. H. A. Hunt, (Australia,) Mr. H. Knox-Shaw (Egypt). Mr. C. Stewart (South Africa) Sir F. Stupart (Canada) Dr. G. T. Walker (India) Captain D. Brunt of the Meteorological Office and Captain R.M.B . Mackenzie, R.A.F. of the Air Ministry, acted as Secretaries to the Conference.

BRITISH AIR ACTIVITIES

THE R.A.F. CADET COLLEGE.

The Air Ministry has just issued a small booklet containing the regulations for the Royal Air Force Cadet College. It is obtainable from H.M. Stationery Office or their Agents and from any Bookstall at 3d.

The R.A.F. Cadet College has been instituted for the purpose of affording special education to candidates for Commissions in the R.A.F. and is intended exclusively for those who desire to make the R.A.F. their permanent profession in life.

The limits of age for admission to the College will be from 17½ to 19 years with the exception of those who have served or are serving in the forces, and are recommended by their C.O. for a permanent commission in the R.A.F. in which case the upper age limit will be 21. All applications for the printed form of application for admission to the examination should be made to the Secretary, Civil Service Commission, Burlington Gardens, London W.1.

The booklet sets forth in detail the subjects for examination and possible marks. The subjects for the entrance examination which are obligatory are English, English History and Geography, elementary mathematics, and one modern language. The optional subjects are Latin, Greek, another modern language mathematics (elementary, intermediate and higher), Science and Elementary Engineering. All the obligatory subjects must be taken but not more than three of the optional class may be taken, and candidates will be expected to qualify (to obtain not less than 33 per cent of the total marks allotted) in each of the four obligatory subjects. Candidates will receive extra marks if they hold Certificate A from the O.T.C. or if they have served in the senior division of the O.T.C. or if they have completed four months continuous service as Officers, Warrant Officers, or Non Commissioned Officers and men in the services. A certificate to this effect must be furnished on a form supplied to applicants by the Civil Service Commissioners.

A certain number of prize Cadetships will be awarded, to successful competitors in order of merit at such examination, carrying certain emoluments and financial benefits. These are designed to give assistance to those who stand in need of the emoluments attached to them. Each candidate for Cadetship will be examined by a Medical Board.

There will also be a King's Cadets appointed by the Secretary of State for Air and Honorary King's Cadets nominated by the Secretary of State for Air and a limited number of Cadetships will occasionally be filled by suitable candidates specially nominated by the Air Council, such recommendation being submitted by the Candidate's Headmaster.

The course of studies at the R.A.F. College during the first year will include:-

English literature and language.

The British Empire.

Practical Mathematics - including Mechanics and Draughtsmanship.

General Elementary Science.

History of the R.A.F.

Outline of Army and Navy organization and characteristics of the various arms and types of ships.

Map Reading.

R.A.F. Law and Administration.

Drill (with rifles) and Physical Training.

Hygiene and Sanitation

Practical Work in the workshops.

The Morse Code.

Passengers flying with instruction in Map reading, and use of Compass and Machine Gun.

During the second year the Course will be:-

Theoretical and Practical instruction in Engines, including Magnetos and their management.

Theory of flight.

Practical Rigging.

Advanced work in Wood and Metal Workshops.

Wireless Telegraphy and Telephony.

Machine and Lewis Gun.

Instruction in Aviation.

The terms of payment are under consideration and will be issued shortly. They will correspond generally with those at the Royal Military Academy and Royal Military College excepting that the R.A.F. Cadets will draw pay at 5/-s a day during their first years course, and 10/-s a day during their second years course. Other details concerning the syllabus of instruction at the College, government and organisation discipline etc., will be found in the booklet.

START OF THE AUSTRALIAN GOVERNMENT FLIGHT COMPETITION.

In spite of the great difficulties attending a flight to Australia at the present time, four machines have been entered for the Australian Government's prize of £10,000 for a flight in thirty days from Britain to Australia, a distance of 11,500 miles, and the pilots have notified their intention to start shortly. The successful completion of the flight will establish a new link in the chain of Empire, which has already been forged by the recent Transatlantic flights and the trips to Egypt and India.

The names of the pilots and crews and details of the machines entered for the competition are as follows:-

Pilot	Navigator.	Crew.	Machine	Engine.
Capt. Cedric Ernest Howell. D.S.O., M.C., D.F.C.	-	Henry Fraser (Mechanic)	Martinsyde	275 h.p. Rolls Royce "Falcon".
Capt. George Campbell Matthews.	-	Sergt. Tom Kay	Sopwith	350 h.p. Rolls-Royce "Eagle" 8
Lieut. Valdemar Rendle) Lieut. D.R. Williams.)	Capt. G.H. Wilkins.	Lieut. G.H. Potts (Engineer)	Blackburn Kangaroo	Two 250 h.p. Rolls Royce "Falcon".
Lieut. R.M. Douglas, MC., DCM., (Aus. Flg. Corps)	Lt. J.S.L. Ross (Aus. Flg. Corps).		Alliance.	450 h.p. Napier "Lion".

With the existing facilities for refuelling and landing in emergency especially at the eastern end of the route between India and Australia, this journey is a most rigorous test of physical and mechanical endurance, as may be judged from the fact that in the case of aeroplanes the last lap of the course, 1750 miles from Bandoeng (Java) to Port Darwin (North Australia), coming as it does after some 10,000 miles of flying, is in itself comparable in severity with the flight by aeroplane across the Atlantic.

Every assistance possible has been given by the Air Ministry, in conjunction with the Royal Aero Club and the Commonwealth Government, towards lessening the risk to competitors. Among the duties undertaken by the Air Ministry have been arrangements for the supply of fuel and the use of R.A.F. personnel, where available, at stopping places, a survey of the route between Calcutta and Australia, and an investigation of the many problems of Meteorology, Navigation and Wireless and cable communications; all factors essential to success.

The Competition was initiated by the Australian Government in March last, but the flight did not take place earlier partly because the International Air Convention, permitting flying over foreign countries, was not signed until September 10, and partly because no ground organization (including necessary supplies) existed East of Delhi, and no survey had ever been undertaken. The Air Ministry had previously decided to carry out a survey of this section across Burma, the Malay Peninsula and the Dutch East Indies, and Brig. Gen. A. E. Borton, D.S.O., and Capt. Ross-Smith had been despatched to carry out the work as speedily as possible.

On his return, Gen'l. Borton reported that the construction of aerodromes at distances of approximately 400 miles apart over this section was highly desirable but if this plan was to be carried out before flying was permitted, no flights would take place this year and the favourable weather which prevails generally along the route during November, would have passed.

Therefore, although the competitors have been warned that the route is largely unready they have chosen to make an attempt at once; recognizing and accepting gallantly the risks attending the long flights over this region of rugged volcanic islands, jungle and swamps. But while the ground organization is still imperfect, arrangements have been made for the race courses at Rangoon and Singapore to be used as landing grounds, and the Netherlands Government has consented willingly to place its aerodrome at Bandoeng (Java) at the disposal of competitors. Even by following this route however, aeroplanes will have great distances to fly between each landing station, especially between Bandoeng and Port Darwin. In view of this, the Air Ministry has suggested that it would be advisable for competitors to convert their aeroplanes into seaplanes by the substitution of floats for wheels at Calcutta or another suitable point, so that the machines would be able to use the many available harbours and sheltered inlets along the route.

The route which the Air Ministry has advised competitors to follow between England and Australia is summarized below but the Royal Aero Club does not compel them to adhere to it except that they must stop at Singapore, which is the only control station under the rules of the contest.

The first section which passes over France, Italy, and Malta to the North Coast of Africa and to Egypt at Aboukir, was the route followed by Brig. Gen'l. Mac Ewan and Maj. Maclaren some months back. The aerodrome at Suda Bay (Crete) is unfortunately reported flooded - which prevents that route being taken.

From Aboukir to Karachi the route follows that explored by General Salmond a year ago, by way of Damascus, Baghdad, Basra, and the coasts of Persia and Baluchistan. More than one flight has been made over this section, but it cannot be regarded as fully organized, and special arrangements have had to be made by the Air Ministry for the preparation of landing grounds and the supply of fuel. The landing grounds available are generally good and landing on the desert is usually practicable in emergency, but the possible unfriendliness of the inhabitants, not less than the shortage of water and the absence of means of communication, add to the risks of a forced landing.

On leaving Karachi, the next stage lies across India to Calcutta via Nasirabad, Delhi and Allahabad, and the Indian Government has promised all possible assistance from the Royal Air Force in India. No aerodrome exists in Calcutta but the competitors will be able to land on the racecourse.

Beyond Calcutta competitors are responsible for making their own arrangements for the necessary supplies of fuel, spares, etc. in view of the fact that no British Official aerodromes exist.

Some of the difficulties which competitors may expect on the Calcutta - Australia Section are indicated from the following notes. On the aeroplane route there is a landing ground at Akyab, 280 miles from Calcutta, but it is far from wise for a pilot to attempt to land there unless he has previously inspected the surface. No other landing ground is available for over 500 miles until Rangoon Racecourse is reached; here, also the pilot should know the ground.

There is another long stretch of more than 1300 miles to Singapore where once more the only possible landing ground is the racecourse. The authorities have kindly consented to do a certain amount of work which is required to clear these race courses in order to fit them as landing grounds.

The next possible stopping place for aeroplanes is a Dutch Flying School at Bandoeng (Java), which the Dutch Government have kindly put at the disposal of the Competitors.

This competition resembles others in that the hardest task is at the end. Between Bandoeng and Port Darwin, a distance of 1750 miles, of which 500 miles are over the sea, there are no aerodromes of any description. Under these circumstances the successful accomplishment of this section of the flight alone will mark an epoch in the world of aviation and will tend to advance still further the high standing of British aircraft firms.

General Borton considers that at least three quarters of the whole section between Calcutta and Australia, over Burma, Malay and the East Indies, offers but slight chance of a successful emergency landing in an aeroplane, and warns pilots against being deceived from the air; particularly against attempting a landing on the seashore or on the paddy fields.

On the other hand, machines equipped with floats, have the advantage of being able to alight in many sheltered harbours between Calcutta and Port Darwin and may stop at will for refuelling at Akyab, Rangoon, Mergui, Penang, Singapore, Banka, Batavia, Surabaya, Bima

and Koepang Bay (Timor), the distance between each being comparatively short, no stage exceeding 500 miles.

Apart from the difficulties outlined, good weather will be an important factor to success, and one of the reasons why competitors have decided not to start until this month is the fact that, taken all round, the weather during the latter part of October and in November is reported to be better than at any other period of the year. Notwithstanding this, competitors may have to contend with adverse conditions on some sections of the route. The Air Ministry will assist pilots to obtain weather reports at different points on the journey.

AIR MINISTRY ROUTE FOR COMPETITORS

The Aerodromes or emergency landing grounds available are as follows. (Places printed in capital letters are main stopping places: places where fuel and oil are available are marked with an asterisk. The distance in miles from London is shown in each case.)

LONDON to ABOUKIR (EGYPT)

Miles.		
0	x	HOUNSLOW.
	x	LYMPNE.
	x	MARQUISE.
240	x	PARIS (LE BOURGET.)
415		Beaune.
603	x	LYONS.
755	x	MIRAMAS.
844	x	ST. RAFAEL (or FREJUS).
1050	x	PISA (ST.GIULIANO).
1225	x	ROME (FORT BARACA).
1340	x	NAPLES (CAPODICHINO).
1424	x	FOGGIA (SOUTH).
1562	x	BRINDISI (or TARANTO).
1624		SICILY.
1742	x	MALTA.
2157		Ben Ghazi.
2475	x	SOLLUM.
2525		Sidi Barani.
2595	x	MERSA MATRUH.
2675		El Dabaa.
2729		El Hamman.
2755	x	EL AMRIAH.
2827	x	ABOUKIR.

ABOUKIR to KARACHI

2933	x	KANTARA.
3259	x	DAMASCUS.
3527	x	ABU KEMAL.
		Hit.
		Ramidieh.
3742	x	BAGHDAD.
4047	x	BASRA.
4253	x	BUSHIRE.
4660	x	BANDAR ABBAS.
4933	x	CHABBAR.
5401		KARACHI.

KARACHI to CALCUTTA.

5375		Nasirabad.
6093		Delhi.
6325		Cawnpore.
6375		Fateh Pur.
6443	x	ALLAHABAD.
6895		CALCUTTA (FORT WILLIAM).

CALCUTTA TO PORT DARWIN.

The routes proposed for aeroplanes and seaplanes are shown separately. (Favourable alighting conditions for seaplanes are to be found at any of the places mentioned. Fuel supplies are known to exist at the places marked with an asterisk. The Competitors have arranged with the Shell Marketing Company to provide petrol on this section.)

AEROPLANES

Miles		
7688		RANGOON
9011	x	SINGAPORE
9549	x	BANDOENG (Java)
11294		PORT DARWIN

SEAPLANES

Miles		
7342		AKYAB. (Burmah)
7688		RANGOON
8046		MERGUI
8576	x	PENANG
9011	x	SINGAPORE
9242		BANKA
9549	x	BATAVIA
9987		SURABAYA
10419		BIMA
10776		KOEPANG BAY
11294		PORT DARWIN

DISBANDMENT OF THE W.R.A.F.

AIR COUNCIL APPRECIATION.

The Air Ministry announces:- An Order has been issued for the final disbandment of the Womens' Royal Air Force, which has already been reduced to small proportions through rapid demobilisation during the past few months.

The new Order that demobilisation of the large majority of officers and other ranks will be completed by November 8. A small number will be temporarily retained for the purpose of closing records, and winding up the affairs of the Force, and other special duties.

The Air Council has also issued the following special order:- "The Air Council desire to express their appreciation of the good work done by the Force both during and after the period of hostilities.

"In spite of much difficulty and in face of hostile and unjust criticism, the W.R.A.F. has left a record of which they can feel well proud. During hostilities the good work they accomplished went far towards enabling the R.A.F. to reach the dominating position in the air, which had such a direct influence in the achievement of the final victory.

"Subsequent to the Armistice, when it was necessary to disperse a large portion of the Airmen to civil life, it was the W.R.A.F. who made it possible for the R.A.F. to meet the demands made upon it and maintained the services at the Aerodromes until new male personnel could be enrolled.

"The necessity for the demobilisation of the W.R.A.F. is now imperative, but in returning to civil life, Commandant Dame Helen Gwynne-Vaughan, D.B.E. Officers and Members may feel assured that they carry with them the good wishes of the Air Council and a debt of gratitude from the Nation."

STATUS OF PLANES AND ENGINES, OCTOBER 15, 1919

The Air Service reports 9,586 planes and 32,033 engines of all types on hand; 54 per cent of the planes and 57 per cent of the engines are of the active class.

Airplanes and engines are classified as "Active", "Obsolescent" and "Obsolete". Obsolescent types will be used until the supply is exhausted, but no extensive repairs are to be made or additional spare parts manufactured. Obsolete types are those no longer used. They will be held until final disposal has been authorized.

PLANES

CLASS	In commission	In reserve	Out of commission	Total	Per cent In com.	Per cent In reserve	Per cent Out com.
Active	337	4,091	739	5,167	7	79	14
Obsolescent	177	2,057	266	2,500	7	82	11
Obsolete	3	677	699	1,379		49	51
Experimental	15	242	283	540	3	45	52
Total	532	7,067	1,987	9,586	5	74	21

ENGINES

CLASS	In commission	In reserve	Out of commission	Total	Per cent In com.	Per cent In reserve	Per cent Out com
Active	414	15,833	2,100	18,347	2	86	12
Obsolescent	114	6,481	1,244	7,839	2	82	16
Obsolete	1	353	2,400	2,754		13	87
Experimental	8	1,562	1,509	3,079		51	49
School		14		14		100	
Total	537	24,243	7,253	32,033	2	75	23

NEW R. M. A.'S.

The following named officers, having completed the required number of tests, are hereby rated as Reserve Military Aviators, to dates set after their respective names:

2nd Lieut. James A. Storer, A.S.A.	Sept. 6, 1919
1st Lieut. James A. Cashman, A.S.A.	August 2, 1919
1st Lieut. Francis E. Fensch, A.S.A.	June 17, 1919
2nd Lieut. Harris S. Bigelow	Sept. 29, 1919
2nd Lieut. Robert W. Paden (discharged)	July 22, 1919.

The following officers have been honorably discharged from the services of the United States:

Horace Green,	Captain, A.S.A.
William N. Cunningham,	1st Lieut., A.S.A.
Thomas S. Baldwin,	Major, A.S.A.P.
Bernard W. Emmons,	2nd Lieut. A.S.A.
William H. Shutan,	Lieutenant Colonel, A.S.A.
Otho W. Cushing,	Captain, A.S.A.
William O. Farnsworth,	Captain, A.S.A.
Herbert J. Jacobi,	Second Lieutenant, A.S.A.
George W. May,	Captain, A.S.A.
George W. Harvey,	First Lieutenant, A.S.A.
Robert C. Hilldale,	First Lieutenant, A.S.R.
John H. Hoeppel,	First Lieutenant, A.S.A.
Jesse A. Sutton,	First Lieutenant, A.S.A.

FORMER DIRECTOR OF MILITARY AERONAUTICS DECORATED BY BRITISH

Colonel William L. Kenly, field artillery, formerly a Major General and Director of Military Aeronautics, was presented yesterday with the companion of the Order of the Bath by Air Commodore L.E.O. Charlton, C.B., C.M.G., and D.S.O., British Air attache.

The decoration took place in the office of the Director of Air Service, Col. Kenly is assigned to recruiting service in Washington.

Vol. III AIR SERVICE NEWS LETTER No. 12

Information Group, Air Service — NOVEMBER 7, 1919 — Building D, Washington, D. C.

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

SILVER TROPHY PRESENTED TO BALLOON DIVISION, AIR SERVICE

The Missouri Aeronautical Society of St. Louis, Mo. have advised the Balloon Division, Air Service, that this society are having prepared a silver trophy as a souvenir of the Army and Navy Balloon Race, to be presented to the Balloon Division. The letter received reads as follows:

October 28, 1919.

"War Department,
Balloon Division,
Washington, D.C.

Gentlemen:-

On behalf of the Missouri Aeronautical Reserve Corps, I desire to present to the War Department, Balloon Division, a silver trophy as a souvenir of the Army and Navy Balloon Race, which took place from St. Louis, Mo., September 26th, 1919. I have had inscribed on this plate the names of the three Army Teams and have designated the winning team. In accordance with Army Regulations, the individual members of these teams were not presented with any prizes, much to our regret. We hope the Balloon Division can accept this plate and that it will always remind you of the valor and efficiency of your Balloon Pilots in the fact that Captain Phillips and Lieut. Burt took every chance to win this race, even to the extent of falling in Lake Michigan at a risk of their lives.

We sincerely hope that the Army and Navy Balloon Race will be an annual event and for that purpose we will place at your disposal at any time, our Camp and our grounds and will always be ready to supply, at our expense, the cost of operating and conducting the race and the gas."

Very truly yours,

(Signed) A. E. Lambert.

HIGH SPEED WIND TUNNEL EXPERIMENTS AT McCOOK FIELD

A report on high speed wind tunnel experiments has recently been prepared by Messrs. F. W. Caldwell and E. N. Fales of the Engineering Division at McCook Field by authority of Colonel Bane, and submitted to the National Advisory Committee for Aeronautics for publication. This report is accompanied by photographs showing in a remarkable manner the actual flow of air passed in aerofoil and the vortices that result.

The visualization of this phenomonen is made possible by the freezing of the rarefaction resulting from a wind velocity of over 400 miles an hour at the throat of the wind tunnel.

This report is accompanied by notes prepared by Dr. de Bothezat, aerodynamical expert of the committee, at present temporarily in charge of special experiments at McCook Field.

V-1172
A.S.

COLONEL HARTNEY'S TRIP IN THE GERMAN FOKKER

Colonel H. E. Hartney, one of the contestants in the Transcontinental Race, who completed the trip across the continent and return, upon reporting to the office of the Director of Air Service gave the following account of his flight:

"From a training standpoint the race was a decided success. It taught us a lot about the principles of motors and planes, about meteorology and landing fields, and it educated the Air Service personnel directly concerned in their duties The success of the race taught the possibilities and the casualties only went to emphasize the problems which have to be solved before we can hope to reap the benefits of this new and complicated service with a minimum of loss.

"I was fortunate or unfortunate enough to fly the German Fokker. It was one of their first type and had a 160 H.P. Mercedes low compression motor. Were I flying the race over again in a Fokker, I would insist on a high compression motion for the high altitude work and take one of the 180 Fokkers of which we have a number on hand. The performance of the latter is more than in direct proportion to the increased horse power.

"Leaving Mineola second I flew without incident to Binghamton where I was much surprised to find a wonderful landing field. Captain Moseley, who had charge of the Control Stop there, succeeded in getting some of the citizens interested at Endicott and selected one of the finest fields on the route, enlisted the cooperation of the Red Cross and gave us a wonderful reception. I believe I was first out of this stop and made the distance to Rochester in very fast time. Maynard overtook me at this point but he had made slower time than I from Binghamton despite the fact that his machine was rated at 10 miles per hour faster. I had great difficulty filling my gas and oil tanks quickly. They were very inaccessible and meant that I had virtually to teach the mechanics a lesson at each stop. Buffalo is only a short hop from Rochester and I arrived there shortly after Maynard getting away second to him.

"I made a mistake here when flying down Lake Erie on the direct compass course of rising too high where the winds were not so favorable. On the surface that day there was a drift from the east but at high altitude the usual west winds prevailed though not very strong. Running my engine at 200 revs. above normal, I found that I had only about 1½ hours gas capacity and when I reached North East, Pennsylvania, about 60 miles from Buffalo, I saw that I would not be able to get to Cleveland on my gas capacity, and I landed receiving a great reception from a large body of citizens who were waiting in the hopeful expectancy that somebody would favor their place with a landing. My porcelain spark plugs were giving me a little trouble and I was delayed 1½ hours at this stop. This was very unfortunate as it enabled Maynard to get away from me. I flew into Cleveland as soon as I coul and soon found that many of my porcelain plugs had shattered being unable to stand the strain. I had my "New York-Toronto Race" K.L.G. mica plugs in my pocket, so I put them on but it was too late to proceed that evening to Bryan. Before going to bed I took a test flight and found to my astonishment that these particular plugs gave me about 50 additional revolutions per minute and I rejoiced at the thought of the extra mile or so per hour speed. That same evening several more pilots flew in and joined me at Cleveland and we all arose before daybreak the next morning hoping to get away with the rise of the sun. Then I had my first taste of what was to be my "greatest bugbear" bad weather. It rained cats and dogs and they would not let us go on. As a matter of fact I did not care to go on as there was a slight head wind and I knew that better weather would come and bring favorable wind which of course is more conducive to good flying time. Several machines attempting to get away from Buffalo to catch us up were driven down in the rain and lost a great deal of time between stations. I foresaw then that I would have a great deal of bad weather and was faced with the hazard of a shortage of fuel on some of the long hops. Mr. Martin, of the Martin Aircraft factory, told me that he could install a small tank behind my seat in the fuselage and increase my cruising radius. This was done in very short time and the machine was ready to take off at daybreak the next morning. But a stiff wind was blowing when we got up the next day and I had made litt or more headway than Toledo, Ohio, fighting bitterly the storm and endeavoring to locate a favorable air course at different altitude when I switched on my emergenc tank and used up the little gas which I had placed in there merely as an experimen

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or test for this comparatively short hop. At Wauseon I discovered that I was completely out of gasoline and picked a field near the town and made the first of my seven forced landings and the only one where I did not have the use of my motor. The farmers who brought me the gas did not seem to be able to appreciate the necessity for speed in filling me up and I got away after losing one hour only of flying time. I flew into Bryan and found that my actual flying time had been as good if not better than the D.H.4, so that I felt that I had gained something in seeking favorable air strata.

Bryan was a cold dreary dismal place that morning with its driving west rain, and it did not seem probable that other contestants would fly. Some of us went over and saw a high school football game and forgot about our worries temporarily. Next afternoon, Saturday, we all took off and made Chicago about five o'clock. In our rush to make the next control stop, Rock Island, I made the mistake of not checking my main tank for pressure and I took off from there with gas in my reserve and emergency tank only. Everything was going nicely and I was making great speed to Rock Island racing to beat the sunset, on switching to my main tank I found that I could not keep pressure and there was nothing to do but go down and fix it. This I did but the sun was just dipping over the western horizon when I was ready to take off again and as the rules forbade landing after sundown, I accepted the invitation of a farmer to stay the night. He told me that as I flew over he remarked to his wife: "Don't I wish one of them flying men would pay us a visit," and with those words my motor sputtered and I complied with his wishes. Neighbors kept the rural telephones busy that night inquiring what time I should leave in the morning. I set the hour at 9:30 and when I went out to warm my engine a large crowd was there waiting and eager to ask questions. When everything was ready I stood up in the back of the machine, thanking the people for their courtesy and incidentally telling them a little about the machine and the race. This, the farmers seemed to appreciate immensely, for one of them to whom I had given 50¢ for a telephone call offered it back to me with the remark: "By George, I'll pay for that call myself".

On taking off I made a few maneuveres to show the extreme control of a light ship of this nature and then hopped into Rock Island there to be greeted with a fine field and a hearty welcome from the Red Cross. Some of the officers accompanied me that night to hear Billy Sunday and when he heard that we were among the crowd clamoring to get in his tabernacle, he made way for us and gave us a seat on the platform. Next day better weather favored us and with the exception of a slight delay on account of fog at North Platte, where I had the misfortune to lose my sense of direction in chasing a D.H.4, and where I had to make two forced landings on the same field to get my bearings, there was little out of the ordinary. I arrived at Sidney that evening put up at a small hotel there and arose the next morning to be greeted by hopeless weather. At three o'clock, Lieut. Kirby, who next day was killed, pushed on to the next stop. I warmed up my machine and took after him a half hour but ran into a snow storm about ten miles out and returned to the field with a loss of 20 minutes flying time. The snow storm followed me in and continued all night. Next morning it was bitter cold but we covered our radiators and hopped off for Cheyenne. By this time I was beginning to appreciate the necessity of a high compression motor. It was only with the greatest difficulty that I could lift my Fokker from the ground at a speed of less than 80 miles per hour, and realizing that the altitude was continually getting higher, I did not look with pleasure on the prospect of the landings in the mountains. I found one thing in my favor and that was that I did not consume more than 80% of the gas I consumed at sea level and this was one consolation. Rawlins, the most difficult field in the whole course, gave me a thrill that day, on taking off I had to warm my motor very thoroughly and get as many revolutions as possible out of it on the ground before attempting to take off at this place. Then I had the mechanics hold the wings and when my tail was up I bounced along on the race track towards the mountains which block one end barely skimming over the chimney tops and bearing down the canyon on toward Green River. I was surprised however at the number of possible landing fields in the Rockies, fields that might not insure a safe landing so far as the machine was concerned, but certain to afford a refuge for a scared pilot who would not mind crashing his machine when his motor quit.

"I arrived at Green River shortly before dark and found that few pilots had been landing at this place. Many of them had been "passing it up" much to the disgust of the enthusiastic citizens who had turned out in a body, men and women

alike, to clear the landing field of the sage brush. There were no hotels in this town but we found a most hospitable family by the name of Couzens, who took all the pilots in and gave us the most wonderful dinner of wholesome food, including real thick Jersey cream and made us happy that we had stopped there for the night. I had to solder my tanks next morning and this delayed me in getting off but after a very delightful trip over the mountains on a true compass course, sometimes miles from the railway, I crossed the last high range and there below me much to my surprise and delight was Salt Lake City, my next stop. I had a little difficulty finding the field at this place but did not lose more than three minutes. Here to, the people were most enthusiastic and made us disinclined to hurry on. I found my competitor, a broken down Fokker being flown by a cadet and was astonished to see the difference in sizes of propellers used by his 180 motor compared to my 160 motor. I made a quick jump to Salduro a tiny village which lies on the railway in a dessert of hard shiny salt and there I saw Captain Donaldson on his way back from San Francisco. Single-seaters find it very difficult to land on this place and I had experienced the same trouble that he had in doing what is known commonly in aviation as ground loops, on the hard salt.

That night I hopped into Reno and felt that some of my trouble at least, was over as the climate was getting warmer and the altitudes lower. My propeller appeared to me dangerously warped and scarred. The Germans evidently did not know much about wood lamination because the seams were beginning to give way. Much to my astonishment and delight I discovered a Fokker propeller which had been sent on from McCook Field, but I had a delay next day of four to five hours, pulling off the old boss to enable us to use the new one. It is delays of this nature which tell most on the pilot. The strain of the anxiety coupled with the worry about the weather tell on him more on occasions of this kind than when he is actually in flight. Personally, I found it best on occasions of this nature to take the name of a mechanic, give him a particular job to do, let him have the responsiblity and then go away myself and forget about things by answering questions for the spectators and generally keeping them interested.

"The hop over the Sierras was most pleasant except for the first few minutes out of Reno endeavoring to get over the mountains, the old Fokker in a stalling position heaves and bounces beyond conception and was anything but pleasant. At this place mountain tips seem to creep by much too slowly and it seemed that one was making very little progress when in reality his speed was little less than normal. The drop down to Mather Field, Sacramento, was surprising in that it is so much lower than Reno and one's altimeter seems so deceptive. The trip to the Golden Gate and Francisco was most delightful and I arrived there happy in the fact that I was the only Fokker to get across the continent.

"My trip back was marked by two very narrow "shaves", one at Rawlins where taking off at high altitude in a cross wind I very nearly hit the grandstand and the other at Poole, Neb., where I lost all sense of direction in a driving mist and only recovered on finding myself diving vertically into a river when my pitot tube registered only 60 miles an hour because it was frozen up and I imagined I was flying level. I estimate that on the return trip I flew 400 miles at an altitude of not more than 200 feet, and one time in that driving mist I was so low down that I could not believe my eyes when I could see people's faces quite distinctly and their movements, as they seem to step back to avoid the swift plane as it zigzaged across country to avoid obstacles in the driving freezing mist. I made very good actual flying time on my return journey but I lost a total of about four hours in forced landings and several days due to rain and snow.

"I do not think anything of the casualties in the first place because I think everyone of them was unnecessary and in the second place because I believe there is less danger in aeroplaning than in fast or careless automobiling. When I was on the ground at North Platte there were two automobile accidents within a radius of 100 miles of me while I was there. In one case seven people were killed and in the other five, a total of 12 deaths about which the public hears little or nothing. One death in an airplane is noised broadcast throughout the land and creates the impression that flying is hazardous and that we have a long way to go before it will be a success commercially; a conception which is entirely bad and one tending to stiffle progress of this great and up to date science, which is developing despite its setbacks."

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DEPARTMENT OF AGRICULTURE PRAISES AIR SERVICE FOR WORK IN CONNECTION WITH FOREST FIRE PATROL

The following letter was received by the Secretary of War from the Secretary of the Department of Agriculture, in which the Department of Agriculture expresses their appreciation for the splendid work and untiring effort of the Air Service personnel in making the Forest Fire Patrol a success:

October 29, 1919.

The Honorable

The Secretary of War.

Sir:

"During the past forest fire season in the West, which has been unusually severe in the Northwest and in California, the Forest Service has cooperated with the Air Service in the use of airplanes in fire detection and suppression. Patrols were operated from Rockwell, March, and Mather Fields, and from temporary bases at Red Bluff, California, and Salem and Eugene, Oregon. Also, as a part of the cooperative plan a captive balloon was maintained at Arcadia, California, for observation.

The desirability of using aircraft in fire detection and suppression was clearly demonstrated by the project. Development of aircraft for this purpose as a regular feature of fire detection and suppression is highly desirable. Its most advantageous features are the speed with which distance can be covered, the large extent of territory visible to the observer, the short period elapsing between the time of detection of a fire and the notification concerning it to the suppression force, the opportunity afforded to survey a fire situation within a short period, and the psychological effect the mere presence of the machine on patrol has upon those who might be inclined to set fires maliciously.

The success of the project was due in no small measure to the spirit and enthusiasm with which the personnel of the Air Service entered into it. This type of observation was new to them and involved for success full appreciation of the character of information needed by Forest officers in meeting the fire situation and earnest cooperation to bring about good team work. I desire to convey to you and to the personnel of the Air Service my sincere appreciation of the cooperation afforded and of the untiring effort and interest of the Air Service personnel in making the project a success."

Respectfully

(Signed) D. F. Houston,
Secretary.

In response to the above letter Secretary Baker sent the following reply:

November 4, 1919.

My dear Mr. Secretary:

"I have received your letter of October 29, with regard to the cooperation of the Air Service in the detection and notification of forest fires during the past season. It is a matter of deep satisfaction to the War Department to feel that its officers and men have been able thus properly to cooperate with the Forestry Service in the important work with which the latter is charged. Undoubtedly the men in the Air Service realized the great national interest involved in the preservation of the forests and shared with their associates on the ground the feeling of usefulness which the service entailed.

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I am giving myself the pleasure of sending your letter to the Chief of the Air Service, in order that it may be published for the pleasure and interest of all concerned."

Cordially yours,

Newton D. Baker,
Secretary of War.

MAJOR SAUNDERS DIES FROM INJURIES

Major William H. Saunders, who died on November 5, from results of injuries received on October 27th when the plane in which he was flying crashed to the ground, was one of the most efficient though unassuming officers in the Air Service. Major Saunders was taking a test flight with Lt. Colonel Brereton at Post Field, Fort Sill, Okla. when his plane crashed to the ground and caught fire. He was hemmed in the wreckage and Lt. Col. Brereton received slight burns in rescuing him. Major Saunders was one of the passengers in the Martin Bomber which was piloted by Captain Roy N. Francis in the recent Transcontinental Race.

Major Saunders, who was 27 years old, is a descendant of one of the oldest and most aristocratic Southern families of Wedgefield, S.C., his grandfather being the late General Anderson, famous confederate leader. He is a graduate of West Point, class of 1917, and trained as Aero Observer in France at Valdanon Aeronautical Observation School, 2nd Aviation Instruction Center. He was rated as Reserve Military Aviator at Tours, France, on July 17,1918.

After completing his training as aerial observer at Valdanon, France he reported to a French Squadron in November,1917. Later, he reported to the 12th Aero Squadron, arriving at the front about May 1,1918. Major Saunders, then Captain Saunders, was made Chief Observer of this organization. He had the greatest love for dangerous work of any officer in the outfit, and was credited by many high ranking officers, who were in a position to know, with being the very best observer in the American Army. It was not an unusual thing for him to fly from six to eight hours a day regulating artillery fire and co-operating with the infantry. He participated in the battles on the Champagne-Toul Sector, Lunerville Sector and at Chateau-Thierry.

Undoubtedly, there was no more disappointed officer in the American Expeditionary Forces than Major Wm. H. Saunders when about July 18, he was ordered back to the United States. There was no misunderstanding his situation. He would rather have stayed where he was, according to his own words, than to have the choice of anything in the world. Similar things have been said about others but, words cannot convey the undaunted application and devotion of Major Saunders while serving with the 12th Aero Squadron. He was recommended for the D.S.C. and Croix de Guerre several times and received a rating as Junior Military Aviator for distinguished service and extraordinary devotion to duty, and received a special citation from General Pershing.

Major Saunders was appointed on June 24,1919, Assistant to Chief, Operations Division, in which capacity he served up until the time of his death. He was one of the most beloved officers in the Air Service and his death will be keenly felt by those who came in contact with him during his brief career.

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PROF. GEORGE W. LEWIS APPOINTED EXECUTIVE OFFICER OF THE NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS.

The National Advisory Committee for Aeronautics has recently established the position of the Executive Officer and has appointed Prof. George W. Lewis to fill the position. Prof. Lewis was formerly general manager of the Clarke Thomson Research of Philadelphia. The funds and facilities of the Research were during the war devoted entirely to the development of aircraft engines and in connection with this work Prof. Lewis served throughout the war as a member of the Committee on Power Plants for Aircraft of the National Advisory Committee.

PROMINENT AIR SERVICE MEN HONORED BY BRITISH GOVERNMENT.

A letter received by the U. S. Secretary of War from the British Government quotes the British Ambassador in a report to the British Government in which several prominent Americans are warmly commended for the aid they gave the British Government during the war.

Included in the list is Colonel J. G. Vincent, Vice President of Engineering, Packard Motor Car Company. Colonel Vincent who recently was honorably discharged from the service, is co-designer of the Liberty Aircraft engine. He joined the army in 1917 and was given temporary commission of major; later, he was promoted to lieutenant colonel for his signal services. Colonel Vincent was an enthusiastic worker during the war and since leaving the service has been devoting a great deal of his time to experimental aircraft engineering development in the government's interest.

Other names on the list are:

Mr. William C. Potter, formerly Assistant Director of Aircraft Production.
Brig. General Bryce P. Disque, formerly Commanding General of the Spruce Production Division.
Colonel Leonard S. Horner,
Colonel Edw. A. Deeds,
Lieut. Harold H. Emmons,
Captain Raymond E. Carlsson.

NEW R. M. A. 'S.

The following officers having completed the required tests, are hereby rated as Reserve Military Aviators, to dates set after their respective names:

Major Geo. E. A. Hallett, Signal Corps,	October 14, 1919
2nd Lieut. Norman F. Crawford, A. S. A.	September 25, 1919
2nd Lieut. John M. Devors, A. S. A.	October 9, 1919
2nd Lieut. Valentine J. Drougard, A. S. A.	August 27, 1919
2nd Lieut. Hugh C. Minter, A. S. A.	September 26, 1919

CONCERNING THE WEARING OF MEDALS AND DECORATIONS.

The War Department authorizes publication of the following information from the Office of the Chief of Staff:

The new Army uniform regulations and specifications are now in course of preparation but, pending issuance, the following changes in regulations concerning the wearing of medals and decorations is in force.

When dress and blue uniforms of the Army were abolished, it became impossible for any officers or men to wear the medals awarded them, as these were only authorized for wear on full dress uniforms, the ribbons, representing the medals only, being worn on field and service uniforms. It is now the intention of the War Department to provide for the wearing of medals and decorations as follows:

In the field no medals will be worn. It is optional with the individual whether or not he shall wear his ribbons. On certain formal occasions the Commanding Officer may require the wearing of medals and decorations. On social occasions their wearing is optional with the individual. On evening clothes, military and civilian, these decorations and service medals are worn only on the left lapel.

Decorations, service medals and badges, except Aviation badges, will not be worn when equipped for the field, neither will they be prescribed for troops in the field. Officers suspended from rank and command and enlisted men serving sentence of confinement are prohibited from wearing any decorations, medals, badges, or substitutes therefor.

Decorations and service medals will be worn when in uniform on the following occasions, unless especially prescribed otherwise: On state occasions at home and abroad; when receiving or calling officially upon, or acting as escort or aide to the President of the United States; the sovereign or chief executive of any foreign country, or any member of a reigning royal family; at all official and social functions at the White House; at escort to the color.

They may be prescribed by the Commanding Officer on the following occasions, when in uniform; For evening parades, formal reviews and inspections and funerals; on ceremonial and social occasions of a general and formal nature. They may be worn when in uniform, at the option of the wearer, on social occasions of a private nature and on holidays when not on duty with troops under arms.

When decorations and service medals are worn under provisions of the above paragraphs, all those to which the wearer is entitled will be worn by officers and enlisted men in formation; officers and enlisted men not in formation, including reviewing and inspecting officers and their staffs, may omit the wearing of some for purpose of specially emphasizing or giving special honor to those which they individually consider particularly appropriate to the occasion. On evening clothes, military or civilian, only one full size decoration or service medal may be worn on the lapel; any number of miniatures may be worn, but full size and miniatures must not be worn together on the lapel. Service ribbons may be worn, on the white and service uniforms. When any decorations or service medals are worn, all service ribbons will be removed or hidden from view. They will not be worn on the white mess jacket nor on civilian clothes. Badges, not to exceed three in number, may be worn on white and service uniforms, but not on white mess jacket nor on civilian clothes. Badges of societies will not be worn with decorations, service medals or substitutes therefor except at meetings, ceremonies or functions of the society in question. Civilian clothes, lapel buttons may be worn. The wearing of decorations, service medals or miniatures should be limited to ceremonial occasions, then only when strictly appropriate to the occasion.

A foreign decoration or service medal will not be worn alone, at least one American decoration or service medal (or miniature in evening clothes) must always be worn with a foreign award.

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The following officers have been honorably discharged from the services of the United States:

William A. Burbank,	Major, A.S.A.
George F. Lyon,	Major, A.S.A.P.
Leonard H. Johnson,	Captain, A.S.P.
Joseph E. Menrath,	First Lieutenant, A.S.A.
Edward J. Steichen,	Major, A.S.A.
Charles W. Drew,	Capt. J.M.A., A.S.A.
Charles B. Cox,	Capt. A.S.A.P.
Donald B. Williams,	Capt. A.S.A.
Harry E. Radcliffe,	1st Lt. A.S.A.
Fred Browne,	2nd Lt. A.S.P.
Corydon P. Cronk,	2nd Lt. A.S.A.P.
Norvell W. Dennie,	2nd Lt. A.S.A.
Robert E. Dennison,	2nd Lt. A.S.A.P.
Harry L. O'Neil,	2nd Lt. A.S.A.
Van V. Straub,	2nd Lt. A.S.S.C.
George D. Wait,	2nd Lt. A.S.A.P.

AWARDS OF DISTINGUISHED SERVICE CROSS

By direction of the President, the distinguished service cross was awarded by the Commanding General, American Expeditionary Forces for extraordinary heroism in action in Europe, to the following named officers:

ARTHUR E. EASTERBROOK, first lieutenant, Infantry, observer, 1st Aero Squadron, Air Service. For extraordinary heroism in action near St. Mihiel, France, September 12, 1918. Because of intense aerial activity on the opening day of the St. Mihiel offensive, Lieut. EASTERBROOK, observer, and Second Lieut. RALPH E. de CASTRO, pilot, volunteered to fly over the enemy's lines on a photographic mission without the usual protection of accompanying battle planes. Notwithstanding the low-hanging clouds, which necessitated operation at an altitude of only 400 meters, they penetrated 4 kilometers beyond the German lines. Attacked by four enemy machines, they fought off their foes, completed their photographic mission, and returned safely.

Lieut. EASTERBROOK is also awarded an oak-leaf cluster for the following acts of extraordinary heroism in action near Exermont and Varennes, France, October 8, 1918: Lieut. EASTERBROOK, with Lieut. ERWIN, pilot, successfully carried out a mission of locating our Infantry, despite five encounters with enemy planes. During these encounters he broke up a formation of three planes, sending one down out of control, killed or wounded an observer in an encounter with another formation, and sent a biplane crashing to the ground, besides driving away a formation of two planes and several single machines. Home address: Maj. E. P. Easterbrook, father, Fort Flagler, Wash.

ORA R. McMURRY, first lieutenant, 49th Aero Squadron, Air Service, For extraordinary heroism in action near Romagne, France, October 4, 1918. He was a member of a patrol of seven machines which attacked 17 enemy Fokkers. After shooting down one of the enemy, this officer returned to the fight and shot down another.

RALPH A. O'NEILL, first lieutenant, Air Service, pilot, 147th Aero Squadron. For extraordinary heroism in action near Chateau-Thierry, France, July 2, 1918. Lieut. O'NEILL and four other pilots attacked 12 onemy battle planes. In a violent battle within the enemy's lines they brought down three German planes, one of which was credited to Lieut. O'NEILL.

A bronze oak-leaf cluster is awarded to Lieut. O'NEILL for the following act of extraordinary heroism in action: On July 5, 1918, he led three

other pilots in battle against eight German pursuit planes near Chateau-Thierry, France. He attacked the leader, opening fire at about 150 yards, and closing up to 30 yards range. After a quick and decisive fight the enemy aircraft fell in flames. He then turned on three other machines that were attacking him from the rear and brought one of them down. The other five enemy planes were driven away.

A bronze oak-leaf cluster is also awarded to Lieut. O'NEILL for the following act of extraordinary heroism in action near Fresnes, France, July 24, 1918; Lieut. O'NEILL, with four other pilots engaged 12 enemy planes discovered hiding in the sun. Leading the way to an advantageous position by a series of bold and skillful maneuvers, Lieut. O'NEILL shot down the leader of the hostile formation. The other German planes then closed in on him, but he climbed to a position of vantage above them and returned to the fight and drove down another plane. In this encounter he not only defeated his opponents in spite of overwhelming odds against him but also enabled the reconnaissance plane to carry on its work unmolested. Next of kin: Mrs. R. L. O'Neill, 218 Sonoita Street, Nogales, Ariz.

STATISTICS SERIES

(Prepared by Statistics Branch, General Staff, War Department - Oct. 25, 1919).

AUTHORIZED ENLISTED STRENGTH OF ARMY COMPARED WITH NEW ENLISTMENTS

Estimates of the authorized enlisted strength by arm of service are based on proportionate strength under the National Defense Act. The total of 278,000 is the approximate strength permitted for the remainder of the year under the appropriation act.

	Authorized strength for fiscal year	New enlistments to Oct. 21	Per cent of authorized strength
Air Service	11,300	9,372	83

CHANGE OF STATIONS

Orders have been requested of the Adjutant General for the following named field officers to change station as follows since October 15, 1919.

October 18, 1919.

Major William A. Robertson, S.C., from Rockwell Field, San Diego, California, to Mather Field, Sacramento, California, to assume command.

Major Lawrence S. Churchill, S.C., from Love Field, Dallas, Texas, to Americus, Georgia, to assume command.

October 24, 1919.

Lieutenant-Colonel Charles C. Benedict, A.S.A., from Washington, D.C., to Dayton, Ohio.

Lieutenant-Colonel Rutherford B. Hartz, A.S.A., from Anacostia, D.C., to Dayton, Ohio.

Lieutenant-Colonel Lawrence W. McIntosh, A.S.A., from Ellington Field, Houston, Texas, to Dayton, Ohio.

Lieutenant Colonel Ira A. Rader, A.S.A., from Souther Field, Americus, Georgia, to Dayton, Ohio.

Major Walter H. Frank, A.S.A., from Washington, D.C., to Dayton, Ohio.

Major Albert L. Sneed, A.S.A., from Washington, D.C., to Dayton, Ohio.

Extract from Lt. Franklin 319.1

Vol. III AIR SERVICE NEWS LETTER No. 12
Information Group NOVEMBER 15, 1919 Building P
Air Service Washington, D.C.

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

LEAVES HOSPITAL TO BE IN RACE

That the aviator's blood is still warm and his enthusiasm still runs high is particularly manifested on the part of 1st Lieut. D. B. Gish, who though sick in the hospital and still showing signs of the results of injuries received while serving overseas as a member of the First Night Pursuit Group, sometimes known as the "Suicide Club", because of the great risk of flying the fast Sopwith "Camel" pursuit planes at night, secured a month's leave of absence from the hospital to participate in the recent Transcontinental Race.

Lieut. Gish is one of the oldest fliers in the army, having flown at College Park, Maryland, in 1911. While he did not come in the front lines as a winner in the race, his trip was of an unusually interesting nature, considering the difficulties under which he endeavored to make the ocean to ocean flight and return.

Upon reporting to the office of the Director of Air Service, Lt. Gish gave the following account of his trip;

"I left New York second on October 8th with Captain de le Vergne as passenger, in a D.H.4 Liberty motor. When about 40 miles out of Binghamton my plane took fire due to lack of air pressure. I cut the gasoline in switch and dove to the ground landing on top of the mountain and turned over a ravine. I went back to New York, secured another plane of the same type and started out again When out 50 miles I ran into heavy snow storm which continued and I landed the second time in Binghamton with very bad weather. Had to change propeller there, and started out the next morning. When within a few miles of Ithaca, oil all ran out through hole in one of the studs and I was forced to land and plug up the hole with a six-penny nail. I reached Rochester in due time and left Buffalo expecting to reach Cleveland, but owing to heavy head wind it took one hour to fly to Buffalo. Was held at Buffalo because of rain and snow and did not get off until the following afternoon, flying into Cleveland at an altitude of 200 feet. I stayed over Sunday in Cleveland as the plane was in very bad condition, all tires being badly loosened and the motor not in good working order, also had a defective radiator. This work taking all day Sunday and all Sunday night. I left a few minutes after seven Monday morning, stopping at Bryan, Chicago, Rock Island, Des Moines, and Stopped at Omaha early the next afternoon because of heavy fog and rain ahead of us. Was unable to leave Omaha until next afternoon when we left and flew at from 100 to 200 feet altitude to St. Paul. Left St. Paul for North Platte but was unable to reach North Platte owing to a heavy fog forcing us to fly a few feet from the ground. Landed to refill radiator, which was leaking badly and returned to St. Paul.

Held at St. Paul for 2 days leaving the third day after daybreak for North Platte. Unable to proceed for a couple of hours owing to blizzards between North Platte and Sidney, finally getting off flew to Sidney, Cheyenne, Rawlins and stopped at Green River. Left Green River next morning early for Salt Lake City, Salduro, Battle Mountain and stayed over night at Reno. Unable to proceed because of storms in the mountains between that point and Sacramento. Left next morning for San Francisco arriving about noon.

"After three day's rest, I left San Francisco in a standard type of D. H. plane. While flying over the bay, my motor began missing; caused by low air pressure. After that had no more trouble. Passed through Reno, Battle Mountain, Salduro, Salt Lake City, and stopped at Green River. This was the longest flight made from San Francisco coming east. Left Green River next morning at daybreak in strong cross wind. Upon reaching Rawlins found 35 mile cross wind blowing and attempted landing from three different angles, field commander waving me to go on owing to several crashes already, one man having crashed 20 minutes before my arrival. I landed and rolled the length of the field and owing to the rough ground one wheel gave way, breaking propeller, radiator, front edge of back support and entering edge of upper and lower left hand wings. The plane was repaired, putting on new radiator, wheel and propeller and by cutting out sections of two wings from planes of other crashes, we built our own wings.

We left 2 days later in a foot of snow. Before leaving, I closed up lower half of our radiator. As Elk Mountain lies between Rawlins and Cheyenne, I decided to fly over the snow storms from Cheyenne. At the altitude we were forced to fly at, our temperature dropped 45 degrees and with the radiator completely closed off from the air, it froze up, the water pump froze breaking off the impeller blades. Both my mechanician, Sgt. G.C. Pomeroy and myself suffered severely from the cold. When we landed at Cheyenne the plane was covered with a sheet of ice. I soldered the radiator and changed propeller which was badly nicked and stayed in Cheyenne over Sunday. I took off from Cheyenne early Monday morning and was forced to return on account of fog and snow storm. Left Monday about noon for Sidney and made Sidney and North Platte that night. Resoldered radiator and flew to St. Paul next morning. Left St. Paul for Omaha at which place radiator had to be soldered again. I flew to Des Moines that day and stayed over night. Left Des Moines, flew to Rock Island and because of fog and rain between here and Chicago, had forced landing within 27 miles of Chicago owing to motor failure. Was pulled out of field by three horses, and flew to Chicago next day after repairing motor. I had three forced landings at Chicago owing to motor trouble.

As the Transcontinental Race officially closed on October 31st, the date of my arrival in Chicago, I took off from the Chicago field at 1:45, directing my course toward Cleveland, arriving there after dark. I had difficulty in locating the field but after flying around for ten minutes, I located it by the rays of the lights from the hangars and made a safe landing. I left next morning and flew direct to Washington."

Lieut. Gish made the trip from Chicago to Washington in 5 hrs. 56 minutes with one stop at Cleveland, while his time from San Francisco to Washington was 22 hrs. and 23 minutes.

BRITISH AIRCRAFT COMPETITION.

The Air Ministry makes the following announcement:-

A Committee composed of members of the Air Ministry and of the Aviation Industry has been sitting for the past two months under the chairmanship of the Under-Secretary of State for Air to consider the question of encouraging the future development of aviation on the lines of increased s[illegible]ty. A large number of witnesses has been called including constructors and [illegible]signers and representatives of public who are interested in aviation. It has been decided as stated in Parliament, to institute a competition open to the British Empire.

Prizes to the value of £64,000 will be awarded by the Government under the conditions which are set out below.

NOTES ON THE COMPETITION.

(a) The aim of these competitions is to obtain a real advance in the efficiency and design of aeroplanes and seaplanes, more especially with the view of increasing the safety of air travel. The rules drawn up are intended to secure this object.

(b) As regards the rules for aeroplanes it is recognized that the conditions are generally speaking easier for the small machine than for the large. The object in this is to attract a large number of competitors from amongst designers of small machines.

(c) The present competitions are not directly aimed at engine reliability not at economy in fuel and oil consumption although these are of the first importance but chiefly at the attainment of efficiency in the machine itself. A much longer time is required to produce radical improvements in engines than in machines, and since it is intended that the present competitions should be held early next year, it has been decided to concentrate attention on the machine on this occasion.

- RULES-

AEROPLANES.

1. A competition will be held commencing on 1st March 1920, with the object of ascertaining the best types of aeroplanes which will be safe to travel in, and in particular be capable of alighting in and rising from a small space.

2. Two types of aeroplanes will be entered for the competition.

(a) Small type with a total carrying capacity of 2 persons (including pilot)

(b) Large type with seating accommodation for 15 persons (exclusive of crew)

3. Machines and engines must have been designed and constructed within the British Empire. This rule will not however, apply in the case of such secondary equipment as ignition system carburetors and instruments.

4. Machines are to fulfill all conditions required for a certificate of airworthiness, and are to carry parachutes for all persons for whom accommodation is provided, including crew.

5. Each machine must be capable of flying level at or above the following speeds with full load at ground level.

Small Type	Large Type
100 m.p.h.	90 m.p.h.

and must also be capable of flying level at or below the following speeds with full load at ground level.

Small Type	Large Type
40 m.p.h.	45 m.p.h.

Each machine must also be capable of climbing not less than:-

Small Type	Large Type
500 feet in the first minute, starting from ground level.	350 feet in the first minute, starting from ground level.

6. Landing and Getting Off Test

(a) A circle will be marked out on open ground to represent a field surrounded by obstacles. This circle will be of the following diameter.

Small Machines .....175 yards.
Large Machines.....275 yards.

The obstacles will be represented by a continuous string or tape with streamers attached 50 feet from the ground, of such a nature as to be easily broken by an aeroplane.

(b) The landing to be made in still air. Still air includes any wind not exceeding 5 miles per hour at ground level.

(c) During landing the machine is not to side slip nor to turn, after reaching the obstacles until it is on the ground. Once it has touched the ground the machine may turn in any direction.

(d) The machine to come to a standstill before reaching the marks representing the boundary of the field.

(e) After landing, the machine to get out of the same field over the 50 feet obstacle in still air, (as defined in sub- para. (b), no turn to be allowed until clear of the obstacle on the far side.

(f) No breaking device operated by the engine may be used during landing.

(g) Any landing or taking off gear used, must be integral with the machine.

(h) No landing apparatus may be used that in the opinion of the judges would be liable to cause undue damages to an aerodrome, e.g., a claw attached to the machine as used on certain types of German machines would not be allowed, but the ordinary knife edge on a tail skid would be allowed.

(j) Both landing and taking off to be with full load.

(k) Each machine will be allowed two trial attempts (which are definitely not to be counted as tests) and thereafter will be allowed four attempts, of which two must be successful.

7. Reliability Test.

(a) In the case of the small type, each machine must carry out a series of two flights of 3½ hours each at a speed, through the air, of not less than 80 miles per hour starting with full load. Between flights machines will be left untouched, and under seal if necessary, a period

of not more than 30 minutes being allowed before the second flight, for the purpose of filling up and normal examination.
No parts of the machine to be adjusted or changed without permission from the judges.

(b) In the case of the large type, each machine must carry out 1 flight of 7 hours duration at a speed through the air of not less than 75 miles per hour starting with full load. Pilots may be changed during these flights.

8. Machines must be capable of landing from a height of 500 feet, with their engines switched off or completely throttled down.

9. In a machine having two or more engines, the stoppage or retardation of any one engine must not prevent the machine from flying level nor cause it to get out of control.

10. Machines must be capable of being started from the cockpit or cabin without undue muscular exertion on the part of the pilot.

11. Machines to be capable of flying at cruising speed for 5 minutes without the use of any controls or stabilizing devices. Controls may be locked during this test.

12. Machines to be capable of standing unattended and not fastened down in a wind of 10 miles per hour, blowing in any direction with reference to the machine.

13. The design of the machines to be such that the risk of the machines turning over on rough ground, is reduced to a minimum.

14. Each machine to be provided with a complete outfit for pegging it out in the open. This outfit will not be carried as part of the load during tests.

15. In order to be eligible for prizes, machines must fulfil the conditions and tests laid down in Rule 3 to 14 inclusive. Marks will be awarded for soundness and quality of construction, for general features and for exceeding the specified requirements in rules 5 and 6.

16. "Soundness and quality of construction" will include:-

(a) Fire protection, including use of self-sealing tanks, position of tanks, (from the point of view of safety from fire in event of a crash;) fire-fighting appliances and accessibility of same.

(b) Reliability of petrol, oil, and water system, and facilities for seeing if all tanks are full.

(c) Durability of machine including propeller (any advantages due to metal construction may be taken into account).

(d) Simplicity of design and accessibility of parts.

(e) Absences of vibration in the machine.

17. "General features" will include:-

(a) Efficiency and ease of control.

(b) Unrestricted field of view to the front for the pilot.

(c) Silence affecting occupants of the machine including crew.

(d) Comfort generally including warmth.

(e) Self-starting device.

(f) Method of wind screening adopted.

(g) Convenience for use of instruments.

(h) Freedom of entry and exit for occupants.

18. With reference to rule 6, marks will be allotted for the capabilities of machines to land in an area more restricted than that used for the tests.

In judging this, the point vertically below the point where the centre line of the machine crosses the tape will be marked on the ground and the maximum distance reached by the wheels of the undercarriage will be measured in a straight line from this point.

19. Marks will be allotted for exceeding the minimum high speed and for flying less than the maximum low speed.

20. The judges will have regard to the method of fitting parachutes and especially to the means of exit by parachute afforded to the occupants of the large machine, and will allot marks for the same.

21. Marks will be allotted for the convenience of pegging out the machine in the open and for the lightness of the apparatus necessary for pegging down.

22. Marks will not be given on account of the number of engines installed.

23. The following will be the allotment of marks:-

Soundness and quality of construction (Rule 16).

Sub-para.	(a)	Maximum	8.	
	(b)	"	8.	
	(c)	"	6.	
	(d)	"	6.	
	(e)	"	4.	Maximum total 32.

General Features. (Rule 17.)

Sub-para.	(a)	Maximum	6.	
	(b)	"	6.	
	(c)	"	6.	
	(d)	"	5.	
	(e)	"	5.	
	(f)	"	3.	
	(g)	"	3.	
	(h)	"	2.	Maximum total 36.

High Speed.	For each m.p.h. in excess of required minimum (Rule 5)	$\frac{1}{2}$	No Maximum
Low Speed	For each m.p.h. below required maximum (Rule 5)	1	do
Landing.	For every complete 3 yards less than the distance allowed in 175 yards for small and 2.5 yards for large machine. (Rules 6 and 18).	1	do

	Max. Marks.
Method of fitting parachutes. (Rule 20)	5
Convenience of pegging our (Rule 21)	3

Forfeiture of Marks.

	Max. Marks.
Adjusting or changing parts in reliability test. See Rule 7 (a)	8
For every two minutes or portion of 2 minutes in excess of the maximum time allowed for filling .....1 mark. See Rule 7 (a)	8

24. With reference to Rule 6, when carrying out the landing, and getting off test, machines will start with the full load of petrol and oil and will be allowed to fly for 20 minutes. If they have not carried out their tests by the end of that period, they must land and fill up again.

25. The type of propeller used on any machine must be the same for all the tests.

26. Full load is to include:-

Instruments as under:-

Revolution counter.
Aneroid.
Air Speed Indicator.
Turn Indicator.
Compass.
Watch.
Oil pressure gauge (when necessary).
Air pressure Indicator do.
Radiator thermometer do.

Small Type	Large Type
Petrol and oil sufficient to fly 450 miles at 3,000 ft. In addition, a load of 440 lbs. to include weight of pilot and passenger, if carried, and parachutes.	Petrol and oil sufficient to fly 600 miles at 3,000 feet. In addition, a load of 3,000 lbs. to include weight of passengers if carried, and also to include parachutes but not to include the weight of crew.

27. Petrol and oil for the tests and as far as possible accommodation (at owners risk) for the machines will be supplied free by the Government.

28. The judges shall have the right to disqualify any machine that is very seriously defective in any respect.

29. The judge shall have the right to put up a service pilot to fly any of the machines, should they consider it desirable to do so at Government risk.

All tests will, however, be carried out by the entrant's pilot.

30. During or on completion of any flying test if it is necessary to effect any repairs to the machine after landing it will be considered to have failed in that particular test.

This does not apply to cases where the machine is by the judges instructions being flown by a pilot, other than the entrant's pilot.

31. Any entrant may enter more than one type of machine.

32. If a machine is wrecked during the competition, it may, at the discretion of the Judge, be replaced by another but the replacement machine must carry out the whole programme of tests.

33. The decision of the judges shall be final in all matters affecting the competition.

34. The Government do not accept any liability in respect of accidents during the competition, whether resulting in injury to personnel or damage to the machine, except as specified in rule 29.

35. The Government reserve the right to adjourn the Competition.

36. The Government reserve the right to with-hold any or all of the prizes if in the opinion of the Judges, no real advance on existing designs is shown.

37. The Government will if the entrant agrees, buy the machine of each type winning the first prize the designs to remain the property of the manufacturers. The maximum prices payable under this head will be:-

Small Type	Large Type
£4,000	£10,000

38. The following prizes are offered:-

	Small Type	Large Type
1st Prize	£10,000	£ 20,000
2nd "	£ 4,000	£ 8,000
3rd "	£ 2,000	£ 4,000

39. Entries to close December 31st.

RULES
SEAPLANES

1. A competition will be held on 1st March 1920 with the object of ascertaining the best types of Float Seaplanes or Boat Seaplanes in which it will be safe to travel, and in particular to be capable of alighting on and rising from land as well as water.

2. Each machine entered for the competition will be provided with seating accommodation for 4 persons exclusive of the crew.

3. Machines and engines must have been designed and constructed within the British Empire. This rule will not apply in the case of such secondary equipment as ignition system carburetors and instruments.

4. Machines to fulfil all conditions required for a certificate of airworthiness, and to carry parachutes and lifebelts for all persons for whom accommodation is provided including the crew. The boat or floats must be so sub-divided that if perforated in any one part each float still remains positive buoyancy.

5. Each machine must be capable of flying level at or above a speed of 80 knots with full load at sea level, and must also be capable of flying level at or below a speed of 40 knots with full load at sea level.

Machines must be capable of climbing not less than 350 feet per minute in the first minute.

6. Alighting and Getting Off Tests.

(a) Getting off test (sea).

Machines will be required to take off with full load and clear an obstacle 25 feet above sea level in a distance not exceeding 300 yards from a position of rest.

(b) Alighting test (land).

Machines will be required to land on a smooth aerodrome over an obstacle 25 feet in height and to come to rest in a distance not exceeding 400 yards, measured in a straight line from the point where the obstacle is crossed. For this test machines will be required to carry full load less 50% total and oil.

(c) Getting off test (land).

Machines will be required to take off a smooth aerodrome with full load and clear an obstacle 25 feet in height in a distance not exceeding 400 yards from a position of rest.

(d) The above tests are to be made in still air which for the purposes of this competition will be regarded as any wind velocity not exceeding 5 statute miles per hour.

(e) During landing the machine is not to side slip nor to turn after reaching the obstacle until it is on the ground. Once it has touched the ground the machine may turn in any direction

(f) No braking device operated by the engine may be used, during landing.

(8) Any landing or taking off gear used must be integral with the machine.

(h) No landing apparatus may be used that, in the opinion of the Judges would be liable to cause undue damage to an aerodrome.

(i) In test (a), (b), and (c) above, machines will be allowed four attempts of which two must be successful.

(7) Test of Reliability in Flight.

(a) Each machine must carry out a flight of 5 hours at a speed through the air of not less than 70 knots starting with full load.

Pilots may be changed during this flight.

(8) Mooring out Tests.

(a) Fair Weather. Each machine will be moored to a buoy by its own crew and using its own mooring tackle (other than the buoy and its moorings) for a period of 24 hours during the first 23 hours of which time it will be left unattended. The crew will not be allowed on board to pump out the bilges at any time during this test except with the permission of the judges in case of emergency.

At the conclusion of the 24 hours period the crew will be allowed on board the machine and will be got under way by its own crew and under its own power and will be required to carry out a short flying test within a period of one hour from the conclusion of the 24 hours period.

The test will be carried out under fair weather conditions. Marks will be allotted for rapidity in getting under way.

Moderate weather. Each machine will be moored to a buoy for a period of not less than 12 hours, unattended under the following conditions:-

Locality - Roadstead sheltered from the open sea.

Wind - From 4 to 6 on the Beaufort Scale.
Marks will be allotted for the general condition of the machine at the conclusion of this test, and its behavior during the test.

In both the above tests the ordinary average tidal currents existing round the coast of the British Isles may be experienced.

(9) Rough water getting off and alighting test.

Each machine will be required to carry out a test of getting off and alighting on disturbed water, which in the opinion of the judges constitutes a moderate sea. The condition in any case will not exceed state 4 in the sea disturbance scale. (Waves under 4 feet in height).

(10) Machines will be required to carry out a test of being towed in a moderate sea as defined in paragraph (9) in a circle of approximately 3/4 mile radius.

(11) Each machine must make a figure of eight course round two buoys 100 yards apart and within a rectangle measuring 200 yards by 100 yards, in a wind not exceeding 15 m.p.h. The sea to be smooth and the tide at slackwater.

(12) Each machine must be capable of moving on the water, under its own power; for a period of at least 30 minutes and at a speed of not less than 10 knots, and not greater than 20 knots.

(13) Each machine will be required to carry an anchor and sea anchor as well as its own mooring tackle and to anchor on good holding ground with its own gear and remain fast in a wind of 10 m.p.h. and with tidal current not exceeding 3 knots.

(14) In a machine having two or more engines, the stoppages or retardation of one engine must not cause the machine to get out of control.

(15) Machines must be capable of flying at cruising speeds for 3 minutes without the use of any control or stabilizing devices. Controls may be locked during the test.

(16) Machines, in the round flying position, must take up and maintain a gliding angle, when the engine or engines are cut off without the use of any controls or stabilizing devices.

(17) After stalling, (1) machines must be capable of recovering flying speed and complete control without a loss of more than 500 feet of height.

(18) Machines must be capable of being started from the cockpit or cabin, without undue muscular exertion.

(19) 1. In order to be eligible for prizes machines must fulfil the conditions and carry out the tests laid down in paragraph 2 to 18 inclusive. Marks will be awarded for soundness and quality of construction, for general features, for general behaviour afloat, and for exceeding the specified requirements in Rules 5 and 8 (a)

(20) 2. Soundness and quality of construction will include:

(a) Fire protection, including use of self-sealing tanks, position of tanks, (from the point of view of safety from fire in event of a crash); fire-fighting appliances and accessibility of same.

(b) Reliability of petrol, oil and water systems, and facilities for seeing if all tanks are full.

(c) Durability of petrol, oil and
(c) Durability of machine including propeller (any advantages due to metal construction may be taken into account.)

(d) Simplicity of design and accessibility of parts.
(e) Absence of vibration in the machine.

(f) Ease of repair, especially in regard to the hull of floats.

(21) III. General features will include:-

(a) Efficiency and ease of control.

(b) Unrestricted field of view to the point for the pilot.

(c) Silence as affecting occupants of the machine.

(d) Comfort generally including warmth.

(e) Self starting devices.

(f) Convenience of mooring and anchoring arrangements.

(g) Method of wind screening adopted.

(h) Convenience for use of instruments.

(i) Freedom of entering and exit for occupants.

(j) Bilge pumping arrangements.

22. Behavior afloat will include:-

(a) Stability at rest.

(b) Water stability at all speeds.

(c) Minimum spray at all speeds.

23. Marks will be allotted for exceeding the minimum high speed and flying less than the maximum low speed.

24. The judges will have regard to the method of fitting parachutes and especially to the means of exit by parachute afforded to the occupants and will allot marks for the same.

25. Marks will not be given on account of the number of engines installed.

26. The following will be the allotment of marks:-

Soundness and quality of construction (Rule 20)

Sub-para.	(a)	8.	
	(b)	8.	
	(c)	6.	
	(d)	6.	
	(e)	4.	
	(f)	4.	Max. total 36.

General Features. (Rule 21).

Sub-para.	(a)	6.	
	(b)	6.	
	(c)	6.	
	(d)	5.	
	(e)	5.	
	(f)	5.	
	(g)	3.	
	(h)	3.	
	(i)	3.	
	(j)	3.	Max. total 45.

Behavior Afloat (Rule 22).

Sub-para.	(a)	6.	
	(b)	6.	
	(c)	6.	Max total 18.

High Speed (Rule 5).

For each knot in excess of required minimum $\frac{1}{2}$)
Low Speed (Rule 5).) No Maximum
For each knot below the required maximum 1)

Mooring out Test (Fair Weather). (Rule 5a)

For each complete 5 mins. less than the hour allowed from the completion of the 24 hours period, to the moment when the machine leaves the water. 1 Mark.

Mooring test in Moderate Weather. (Rule 8b)

For behavior of machine during Test. Max. Marks 5.

For condition of machine at end of Test Max. Marks 5.

Method of fitting parachute (Rule 24) Max Marks 5.

27. With reference to rule 6 when carrying out alighting and getting off tests, machine will start with the load of petrol and oil specified and will be allowed to fly for 20 minutes. If they have not carried out their tests by the end of that period they must alight and fill up again.

28. The type of propeller used on any machine must be the same for all the tests.

29. Full load will include:-

Instruments as under:-

Rev. Counter
Aneroid.
Air Speed Indicator.
Compass.
Watch.
Turn Indicator.
Bearing Flats.
Sextant.
Oil Pressure Gauge (When necessary).
Air Pressure Gauge (" ")
Radiator Thermometer (" ")

Petrol and oil sufficient to fly 450 nautical miles at 1,000 feet.

In addition a load of 1000 lbs. to include passengers if carried and lifebelts and parachutes, but not including crew or any gear specified in Rules 8 (a) and 13.

30. Petrol and oil for the tests and as far as possible accommodation (at owners risk) for the machines will be supplied free by the Government.

31. The Judges shall have the right to disqualify any machine which is very seriously defective in any respect.

32. The Judges shall have the right to put up a service pilot to fly any of the machines, should they consider it desirable to do so at Government risk.

All tests will, however, be carried out by the entrant's pilot.

33. During or on completion of any flying test if it is necessary to effect any repairs to the machine after alighting it will be considered to have failed in that particular test.

This does not apply to cases where the machine is by the judges instructions being flown by a pilot, other than the entrant's pilot.

34. An entrant may enter more than one type of machine.

35. If a machine is wrecked during the competition it may, at the discretion of the judges, be replaced by another, but the replacement machine must carry out the whole programme of tests.

36. The decision of the judges shall be final in all matters affecting the competition.

37. The Government do not accept any liability in respect of accidents during the competition, whether resulting in injury to personnel or damage to the machine (except as specified in Rule 32.

38. The Government reserve the right to adjourn the competition.

39. The Government reserve the right to with-hold any or all of the prizes if in the opinion of the judges, no real advance on existing designs is shown.

40. The Government will if the entrant agrees, buy the machine winning the first prize, the design to remain the property of the manufacturer. The maximum price payable under this head will be £8000.

41. The following prizes are offered:-

1st prize	£10,000
2nd prize	£ 4,000
3rd prize	£ 2,000

42. Entries to close December 31st.

The following officers have been honorably discharged from the services of the United States:

Captain Horace N. Helson, A.S.A.
2nd Lieut. Lucien Waterson Moore, A.S.A.
Major Cushman A. Rice, A.S.M.A.

PRINCE OF WALES DECORATES AIR SERVICE OFFICERS

The Companion of St. Michael and St. George, the Distinguished Service Order, Distinguished Flying Cross, etc., were some of the decorations conferred by the Prince of Wales on a number of Air Service Officers during his visit to the National Capital. The conferring of these decorations took place in the ball room of the Belmont residence and include the following list of officers and the decoration each received:

Brig. General William Mitchell,	C.M.G.
Colonel Walter G. Kilner	C.M.G.
Major Russell W. Bryant	D.S.O.
Major Reed G. Landis	D.F.C.
Lieutenant Lawrence K. Callahan	D.F.C.
Lieutenant Jesse O. Creech	D.F.C.
Lieutenant Elliott W. Springs	D.F.C.
Lieutenant William D. Tipton	D.F.C.
2nd Lieut. Howard C. Knotts	D.F.C.
2nd Lieut. Howard Burdick	D.F.C.

Nov 1, 1919

MAJOR LYON TO BE RED CROSS MANAGER FOR EASTERN SIBERIA

Major George F. Lyon, recently discharged from the U. S. Air Service, has accepted the position of Division Manager of Eastern Siberia for the American Red Cross with Headquarters at Vladivostok. Major Lyon was assigned to active duty with the Air Service, Aircraft Production, in August, 1918. Before becoming attached to the Air Service, he served for sixteen years as quartermaster, executive, officer, etc. with the Philippine Government.

Rt: Franklin 319.1

Vol. III AIR SERVICE NEWS LETTER No. 22

Information Group NOVEMBER 18, 1919 Building D
Air Service Washington, D. C.

Weekly News Letter

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

COLONEL HARTZ'S REPORT

ON

ROUND THE RIM FLIGHT

Approximately 9,823 Miles Flown

The flight commenced at Bolling Field, Anacostia, D.C., July 24, 1919, in Martin Bomber No. 39056, crew consisting of Lieutenant Colonel R. S. Hartz, J.M.A., A.S.A. Commanding, 2nd Lieutenant Ernest E. Harmon, R.M.A., A.S.A., Assistant Pilot, and Mechanics M.S.E. Jack Harding and Jerry Dobias 312th Aero Squadron.

Flight left Bolling Field 10 a.m. July 24, 1919, and flew as follows:

Rim Flight

Date	From	To	Approx. Miles	Max. Alt. Ft.	Time H	Time M
July 24	Bolling Field, D.C.	Hazelhurst Field, N.Y.	235	5000	2	50
" 25	Hazelhurst Fld. N.Y.	Augusta, Maine	384	3000	4	46
" 26	Augusta, Maine	Jay, New York	352	11500	5	00
Aug. 27	Jay, New York	Plattsburg, New York	35	1000	0	14
" 29	Plattsburg, N.Y.	Gasport, N.Y.	306	8400	4	35
Aug. 29	Gasport, N.Y.	Buffalo, N.Y.	20	2500	0	25
" 30	Buffalo, N.Y.	Niagara, N.Y. & Return	44	4500	0	35
" 30	Buffalo, N.Y.	Willoughby, Ohio	176	4500	2	57
" 31	Willoughby, Ohio	Cleveland, Ohio	12	3000	0	25
Sep. 3	Cleveland, Ohio	Detroit, Mich.	143	5400	1	45
" 5	Detroit, Mich.	Camp Custer, Mich.	134	500	1	15
" 5	Camp Custer, Mich.	Chicago, Ill.	143	6400	1	43
" 6	Chicago, Ill.	Milwaukee, Wis.	85	3500	1	53
" 14	Milwaukee, Wis.	La Crosse, Wis.	176	4500	2	34
" 15	La Crosse, Wis.	St. Paul, Minn.	132	6500	1	56
" 17	St. Paul, Minn.	Montevideo, Minn.	132	6500	1	24
" 17	Montevideo, Minn.	Fargo, N.D.	158	4000	1	40
" 19	Fargo, N.D.	Bismarck, N.D.	187	6500	2	54
" 20	Bismarck, N.D.	Glendive, Mont.	176	8200	3	00
" 21	Glendive, Mont.	Miles City, Mont.	86	6200	0	45
" 22	Miles City, Mont.	Billings, Mont.	132	8700	1	56
" 23	Billings, Mont.	Helena, Mont.	220	8200	2	40
" 25	Helena, Mont.	Missoula, Mont.	90	8200	1	40
" 26	Missoula, Mont.	Dixon and return	100	7200	1	20

Date		From	To	Approx. Miles.	Max. Alt.	Time h	Time m
Sept.	28	Missoula, Mont.	Spokane, Wash.	220	7200	2	45
"	29	Spokane, Wash.	Coeur D'Alene, Idaho	22	3700	0	20
"	20	Coeur d'Alene, Idaho	Spokane, Wash.	22	3200	0	17
Oct.	3	Spokane, Wash.	Loveland, Wash.	264	7200	4	22
"	4	Loveland, Wash.	Camp Lewis, Wash.	6	500	0	11
"	6	Camp Lewis, Wash.	Portland, Oregon	154	7000	1	42
"	9	Portland, Oregon	Medford, Oregon	300	13000	2	20
"	9	Medford, Oregon	Sacramento, Calif.	308	10000	3	15
"	10	Sacramento, Calif.	San Francisco, Calif.	88	7500	1	05
"	15	San Francisco, Cal.	Fresno, Calif.	198	5000	2	25
"	16	Fresno, Calif.	Los Angeles, Calif.	220	5000	2	50
"	18	Los Angeles, Calif.	Santa Ana, Calif.	40	4500	0	40
"	18	Santa Ana, Calif.	San Diego, Calif.	95	500	1	12
"	28	San Diego, Calif.	Los Angeles, Calif.	135	7000	1	30
"	29	Los Angeles, Calif.	San Diego, Calif.	135	6000	1	23
"	30	San Diego, Calif.	El Paso, Texas	857	10000	7	10
Nov.	1	El Paso, Texas.	Fort Worth, Texas	572	10200	5	40
"	2	Fort Worth, Texas	Dallas, Texas	42	4500	0	50
"	3	Dallas, Texas	Houston, Texas	220	6000	2	50
"	4	Houston, Texas	Lake Charles, La.	154	6000	2	30
"	6	Lake Charles, La.	New Orleans, La.	198	10000	3	20
"	7	New Orleans, La.	Montgomery, Ala.	297	7000	4	00
"	8	Montgomery, Ala.	Pinehurst, N.C.	456	5600	5	35
"	8	Pinehurst, N.C.	Raleigh, N.C. & return	144	5000	1	05
"	9	Pinehurst, N.C.	Bolling Field	352	5000	4	12

Rim Flight

Total number of flights made ---------- 100
Total approximate miles flown ---------- 9823
Total hours to circumnavigate U.S. ---------- 104 hrs. 24 min.
Total hours flown ---------- 114 " 25 "
Total gallons gasoline consumed ---------- 5225
Total gallons oil consumed ---------- 294
Greatest altitude - coast range ---------- 13000 ft.
Warming time motors ----------24 hrs. 45 min.

Forced landings and why:

Jay, New York--lost in storm
Gasport, New York---failure gasoline gauges
Willoughby, Ohio---Electric and rain storm
Missanda, Montana---forest fires and blizzard
Midland, Washington--fog
Fort Worth, Texas---darkness and approaching electric and rain storm
Pinehurst, N.C.--fog--rain storm north of Raleigh, N.C.

Delays enroute

Jay, New York, July 26 to Aug. 27, 1919---crack up.
Cleveland, Ohio, Sept. 1st to 3rd--doping and varnishing.
Detroit, Mich., Sept. 4th -- repairing radiator.
Milwaukee, Wis. Sept. 7th - 14th--blew four tires, waiting replacement.
St. Paul, Minn. Sept. 16th--speech to Rotary Club.
Fargo, N.D. Sept. 18th--Rain.
Helena, Mont., Sept. 24th--speech-Chamber of Commerce.
Missanda, Mont. Sept. 26th and 27th-- forest fires and blizzard.
Camp Lewis, Oct. 4th and 5th--overhaul and speech at Aviation Club, Seattle.
Portland, Oregon, Oct. 7th and 8th--rain and Chamber of Commerce Lunch.
San Francisco, Calif. Oct. 12th to 14th--Awaiting Director of Air Service.

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Los Angeles, Calif., Oct. 17th--rest.
San Diego, Calif., Oct. 19th to 29th--overhaul.
Lake Charles, La., Nov. 5th--fog.

ACCOUNT OF WRECK OF MARTIN BOMBER

While enroute from Augusta, Maine, to Cleveland, Ohio, July 26th, 1919, several small storms were encountered while crossing the White and Green Mountains, but owing to report from Weather Bureau of fair weather, nothing was thought of them.

After crossing Lake Champlain, at Essex, a slight rain was encountered accompanied by mist, and as it was thought to be of a similar nature to those already passed, the flight was continued. The rain, however, became more severe and the mist denser: - About this time the tape became wet and allowed the magnets to fall from the compass and become lost.

From then on an attempt was made to fly clear of the storm, this at 2:20 p.m. It was impossible to go down as the mountains were below us, so an attempt was made to climb above it, but after reaching an altitude of 12,000 feet with no sun visible, we knew this to be hopeless, and therefore dontinued flight at about 11,500 feet.

At 3:45 p.m. there was a rift in the storm and we could see a valley below us, so attempted to descend, but the storm closed in again just as the mountains came in sight, and we were forced to climb again. At 4:05 p.m. we again found a clear spot below us and dived through into the valley. The mists were about 500 feet from the surface of the valley and again descending. This valley we circled four times, but found no possible field and passed into a second valley with the same results. From there we went into the third and found a fairly good field. This field we circled four times, coming lower each time, and at the fifth turn, were forced to land as the mists were again upon us.

The landing was a perfect three point landing, but after a run of about fifteen feet, the brazing at the upper end of the right strut broke, followed by the collapse of the second and then by that of the third wheels. The plane suddenly dipped to the right catching the right wing, turned 90 deg. to the right and went up on her nose, crushing it in.

Lieutenant E. E. Harmon, who was piloting the ship was hurled over my head to the left; instinctively I threw out my hand and by chance gripped his collar, this turned him over in the air, so that his feet struck first, partially breaking his fall. The remainder of the crew remained seated amid the wreckage.

Except for Lieutenant L. A. Smith having a very slight bruise on the foot, no one sustained any injury. We immediately crawled from the wreckage and examined the field and ship for a cause for the accident.

The tracks proved absolutely that a perfect landing had been made - all four wheels having touched on the same line and the imprint of the tail skid being its correct distance in rear. The ship was then examined and we found the landing gear to have been the cause.

The damage had evidently been done at some former time, and the break completed while taking off at Augusta, Me., the strut holding by a single piece of metal only. This break must have been internal as after landing at Augusta and receiving a very bad shaking up, each member of the crew examined the landing gear, and found it apparently all right.

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REPORT OF LANDING FIELDS.

Washington -- New York

This part of the trip has been traveled too often to warrant any very particularly detailed description of the available landing fields. Leaving Bolling Field the first landing field available is that at the mail station, seven miles out of town. The field is about twenty rods east of the B & O Railroad. This field is well marked with two hangars and some other smaller buildings, a large white circle, and cinder runways out to the field proper. The field is in rather low ground, but has an excellent approach and if one lands as near as possible to the end of the runways, the ground will be found hard enough.

At Baltimore there are several fields that will do nicely. The Pimlica race track is rather rough but large enough, and has good hard ground. Clifton Park, a few rods west of a large oval reservoir is an excellent landing field if there are not too many baseball games going on on it. The golf course there is ample in size for any light ships. Six miles from the center of the city and just off the National High Way, is a large field that is being prepared as the Municipal Landing Field.

From Baltimore to New York the fields are larger and a landing could be made at almost any place from a good cross country altitude. Aberdeen proving grounds are eight miles southeast of the bridges where the railroads cross the Susquehanna River. There are several hangars there and a well marked field. The best part of the field is right adjacent the hangars.

Good country prevails from thereon with the next gas station at Bustleton which is northwest of the City of Philadelphia. From Philadelphia, follow the Broad Street Boulevard, a very distinct road with two sets of parking in it until reaching a large circle. Follow in a direct line the north fork of the road and Bustleton is just three miles from the circle. The two hangars are not well marked and the field is an easy one to miss. It is exactly half way in direct line towards the Philadelphia County Race Track. Good fields prevail from there to New York with the exception of the country right around Perth Amboy. On Long Island there are many fields the best of which are Belmont Park, the mail station and the field at Mineola.

CLEVELAND TO DETROIT 1:20

Flew over lake shore and found landing fields all the way.

DETROIT - CAMP CUSTER

9:13 a.m. Landing fields everywhere. Following Michigan Central double track railway.
Michigan City and Gary, 2:40. Only very few fields as country is well built up from here to Chicago.
Landed Washington Park - large park with a great many baseball diamonds. Field eleven hundred yards long. Perfect. Police object to landing here, as field is usually crowded. Jackson Park one mile south is not so crowded and is big enough.
The Chicago Aero Club field about 1½ miles southwest of city, has one large hundred foot wide hangar, several small hangars, and a field one mile square. Best place to land is directly in front of hangars where a place 1000 ft. square has been carefully rolled.
I took up the question thoroughly with the Chicago Aviation Club with the idea of improving the entire mile square field. This they intend to do at once, putting in the markings as prescribed by the Air Service.

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CHICAGO TO MILWAUKEE

Left Chicago Aero Club field 12:15:-- Flew over city taking pictures.
Arrived Camp Sheridan 12:52, never being out of gliding distance of excellent fields, C. & N.W.R.R. tracks. At Waukegan, 12:58
Excellent field one mile due south of town.
Arrived Milwaukee 1:08.
Landed Milwaukee Country Aero Club grounds at 1:15
Landing field is one mile north of city limits, and four and one half miles west of lake. Has several very long runways in the shape of the letter M with a line drawn through it as shown ---M-- . Field is well drained and high. Adequate provision for staking planes down provided by iron rings set in cement on grounds.

This field is to be known as the Milwaukee County Air Port, and is to be handled and controlled by the county officials. I have just finished two long sessions with these officials and have written by their request a series of recommendations for them to follow in constructing a model field, and if these instructions are followed out, as apparently they intend to do, it will be an excellent field, except for the fact of its distance from town and the absence of transportation.

In reference to the transportation the officials of the Air Port state that they will make arrangements in the near future and also that they will make arrangements for supplies and for adequate guarding.

De Sota 12:40 Hills everywhere, no timber, possible landings.

La Cross 12:50 Excellent field under preparation by city.

LA CROSS TO MINNEAPOLIS, MINN.

Left La Cross 12:15 p.m. Good field for any class ship two miles north of city and east of river. Large valley ten miles north of La Cross, east of Mississippi. Many large fields.

North Cross, Wisc. 12:25 Large valley east of river contains many good fields.

From the St. Croix River the fields are about perfect, being large, continuous with no fencing. The soil a rich loam and generally put to wheat.

This continues to within five miles of St. Paul.

ST. PAUL, MINN. TO MONTEVIDEO, MINN.

Left St. Paul 11:22.

Montevideo, 1:35 Excellent fields.

MONTEVIDEO TO FARGO

Following Minnesota River (approximately) all fields are perfect, as they contain from 60 to 160 acres, without fencing. They are smooth and firm, planted mostly in wheat.

This is exceptionally wonderful country to fly over.

FARGO TO BISMARCK

Left Fargo 11:50

Fargo: Excellent field nearly three quarters mile square, heavy in wet weather as it is new, but will be good when rolled.

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Jamestown. Two good fields six miles east in River Valley. On northern Pacific Railway a good field one-fourth by one-half mile, three miles S.E. of Jamestown. Six excellent fields east edge of Jamestown.

Landings can be made practically any place, but pilots must be very cautious as country is deceptive, owing to color and has many sharp ditches and Aroyas.

BISMARCK TO GLENDIVE

Left Bismarck 12:52

Flew miles west of Dickinson, excellent fields are abundant, but be careful not to select one containing any contours.

GLENDIVE, MONT. to MILES CITY, MONT.

Left Glendive 11:55

Following down the Yellowstone River there are many excellent fields, principally on table lands to south.

MILES CITY TO BILLINGS, MONT.

Left Miles City 11:00

Very good field, can be made excellent on reservation at Fort Keogh, Montana.

The fields on the table lands to the south of the Yellowstone continue good and in most cases are excellent. There are also a few good fields on the north bank.

BILLINGS TO HELENA, MONTANA.

Left Billings 12:00

There are two fairly good fields about four miles west of town in bottom lands, these, however, would be bad in wet weather.

One excellent field approximately 640 acres on top of Table Rock just north of City. This is being prepared by city as municipal field, and will be retained as such.

HELENA, MONT. to MISSOULA, MONT.

Left Helena 9:44 a.m.

Excellent 2,000 ft. square field east of fair grounds and adjoining them. Excellent, large field in reservation at Fort Missoula---if dragged.

MISSOULA, MONT. to SPOKANE, WASHINGTON.

Left Missoula 3:15

At Bismarck, North Dakota, there is an excellent field on the Government Reservation. The city is willing and anxious to maintain this field as theirs, providing the Government will authorize them to do so. The Government is all cases to retain the deed to the property.

The field at Miles City, Montana, is also located upon Government property, and lies on the Fort Keogh Reservation near the fair grounds. If Miles City can be authorized to set aside a piece 2000 feet square, they and the Garrison could grade it into an excellent field, otherwise they must cross the Yellowstone and use a table land on the buttes.

The only field near Helena, Montana, is the Fort Harrison Reservation. This at present is very poor, being crossed by ditches, trees and telephone wires and halved by a snake rail fence. If Helena can get the authorization to remove these obstructions and grade the field they would be glad to do so, and there would be an excellent field for future service conditions.

Throughout, the people of the West have been very enthusiastic in regards to fields.

La Cross, Wisconsin, is putting in an excellent one. The property being donated by one of the citizens.

Glendive, Montana, set aside the piece selected by me and the next day notified me by long distance that work had commenced.

Billings, Montana, notified me the day after my departure that the piece of ground I had selected had been presented to the city. That work of grading, putting in a concrete road leading to it, and installation of lighting system would start at once.

Missoula, Montana, has two excellent prospects, one the ground on the reservation, second a large piece adjoining the fair grounds. If the Government is willing for them to grade the reservation they will do so or they will prepare the other piece.

Coeur d'Alene, Idaho, had me select a field, and I selected the one in which we landed--this will be graded and rolled at once.

By following the course reported in this and former report--safe flying can be had from Washington, D.C. to Spokane, Washington.

Great difficulty is being encountered in this section owing to lack of supply of satisfactory gasoline and oil.

The district offices of the oil companies object to shipping their drums beyond their district lines. The Express Company will not handle high test, and it is hard for the Commercial Clubs or Chambers of Commerce to procure it and it is therefore recommended that for future flights the Supply Section send such supplies ahead to each point or make definite arrangements for transportation.

The Supply Section had a sufficient supply of gasoline at Helena, Montana, to carry me through to San Francisco, but the Contanental Oil Company would not authorize the shipment of their drums beyond the district line and so the supply was worthless to me after taking a full load.

The gasoline arrived here today from Lewiston, Idaho, on a special order from me. This, together with rain, has caused a three days' delay, but even if the weather had been good in Seattle I would have been forced to remain here, owing to lack of gasoline.

I would recommend, that if future flights are contemplated arrangements be made with each Chamber of Commerce to keep a permanent supply of highest gasoline and standard oils on hand at all times for use of Government planes only. This could be purchased by the Supply Board and stored at certain central points along the line of flight.

REMARKS

At the time the flight commenced this bomber had had approximately 110 hours and 39 minutes with only the fabric being changed on part of the wing and tail surface. This, added to the time of flight while circling the United States, or 114 hours and 45 minutes, makes a total flying time for this ship and its fabric of 225 hours and 24 minutes, or approximately 19,195 miles.

The motor had had 2 hours and 40 minutes test time at Dayton, Ohio, the flight from Dayton to Washington, covering five hours and 25 minutes, 22 minutes test time in Washington, or a total of seven hours and 27 minutes during the flight. They had warming time of approximately 24 hours and 45 minutes plus time during the flight, 114 hours and 25 minutes, which gives a total motor time of 146 hrs. and 57 minutes.

The spark plugs were BG plugs. They were tested for 30 minutes in a DH prior to the flight. While on the flight they had 24 hours and 25 minutes warming time and approximately 114 hours and 45 minutes flying time, total of 140 hours, which brings the cost for plugs per hour to 2.14¢.

It might be well to call attention again to the fact that these plugs were outdoors with the exception of two nights, from July 24th to November 9th; in a storm, the duration of which was over two hours; and stood out for 31 days before the flight was resumed, in practically all possible climatic changes in the United States for this season of the year and not once during the entire flight was there a spark plug miss. After standing out for 31 days in all kinds of weather it was found that the first time the left motor was cranked it took and the second time the right motor was cranked it also took. During the entire flight whenever it was hard to start the motors we found it was gasoline and not motor ignition trouble that caused it. The longest sustained flight made during the trip was, from ground to ground, 7 hours and 20 minutes.

It is recommended that all pilots flying cross country be required to place on the map certain symbols which will indicate the location of cross country fields and that this map be turned in to a central office where these marks can be transferred to a permanent record map, thus making it possible to furnish pilots with accurate data. This can very easily be done by pilots if they follow the method used by me during this flight. "T" indicates where a pilot could save his life but would lose the ship. "T" with one circle around it indicates a possibility of saving the ship. Two circles surrounding the "T" indicates a field where a pilot can land without any danger of having a crack-up. Three circles surrounding the "T" indicates an excellent field where supplies can be obtained. Then by simply observing the ground during the flight an accurate report can be written by the pilot, this report describing the manner of country over which he has flown, its condition, supplies, etc.

It is recommended that the Department of Air Service make arrangements with the railroads so that the dispatchers thereof will give the necessary data to cross country pilots covering the division over which said pilot is about to fly. Over the Rocky Mountains we used this method for determining weather conditions, smoke, etc., and found it the most satisfactory method of any.

It is recommended that in the future every pilot of the Air Service be given a thorough course in engineering, this course to include all manner of motors used by the Air Service and the actual construction and repair of the plane itself.

WINNERS OF THE TRANSCONTINENTAL RACE

WINNERS OF HANDICAP - EAST to WEST

	PILOT	PASSENGER	TYPE OF MACHINE
1	1st Lt. Belvin W. Maynard	Sgt. W. E. Klein	DH-4
2	" " H. H. George	" Lee N. Parrish	DH-4
3	2nd " Alexander Pearson, Jr.	" Royal Atkinson	DH-4
4	Lt. Col. J. N. Reynolds	1st Lt. R. B. Bagby	DH-4
5	Lt. Col. H. E. Hartney	None	Fokker
6	1st Lt. R. L. Maughan	None	Spad
7	2nd Lt. S. W. Torney	Sgt. E. R. Vanatea	DH-4
8	Lt. Col. T. S. Bowen	Capt. D. H. Young	DH-(Bluebird)
9	2nd Lieut. H.W. Sheridan	2nd Lt. F.W. Nelson	DH-4
10	Capt. H. C. Drayton	2nd Lt. L.J. Sweeley	DH-4
11	1st Lt. G. H. Gale	2nd Lt. W. E. Richards	DH-4
12	Major Edwin B. Lyon	2nd Lt. H. B. Chandler	DH-4
13	2nd Lt. E. H. Manzelman	CSM M. C. Goodnough	DH-4
14	Capt. Felix Steinle	Sgt. H. Myhres	DH-4
15	Capt. John O. Donaldson	None	SE-5
16	2nd Lt. L. V. Beau, Jr.	Pvt. J. J. McVeigh	DH-4
17	2nd Lt. L. S. Webster	Sgt. Chas. Tindell	DH-4
18	2nd Lt. J. B. Wright	Sgt. B. Coleman	DH-4
19	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4
20	2nd Lt. Wm. C. F. Brown	Corp. Elmer J. Robbins	DH-4
21	2nd Lt. T. Hynes	2nd Lt. T. K. Mathews	DH-4
22 *	1st Lt. J. T. Roulott	Me Orville W. Haynes	DH-4
23	Capt. Perry Smith	Capt. T. W. Allen	DH-4
24'	2nd Lt. Fred C. Nelson	1st Lt. Sam M. Lunt	DH-4
25'	1st Lt. G. B. Newman	Capt. H. H. Page	DH-4
26'	2nd Lt. J. B. Machle	Sgt. J. D. McClure	DH-4

* Disqualified for not circling landing field.
' Disqualified - away from Control Stop for over 48 hours.

WINNERS OF HANDICAP - WEST to EAST

1	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH (Bluebird)
2	2nd Lt. R. S. Worthington	None	SE-5
3	2nd Lt. E. C. Kiel	Sgt. F. McKee	DH-4
4	1st Lt. J. P. Richter	2nd Lt. J. B. Patrick	DH-4
5	2nd Lt. H. E. Queen	ME L. E. Bishop	DH-4
6	Major C. Spatz	Sgt. E. Tanner	DH-(Bluebird)
7	Major J. C. P. Bartholf	None	SE-5

WINNERS OF HANDICAP

ROUNDTRIP

	PILOT	PASSENGER	TYPE OF MACHINE
1	2nd Lt. Alexander Pearson, Jr.	Sgt. Royal Atkinson	DH-4
2	1st Lt. Belvin W. Maynard	" W. E. Klein	DH-4
3	Lt. Col. H. E. Hartney	None	Fokker
4	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH(Bluebird)
5	2nd Lt. R. S. Worthington	None	SE-5
6	Capt. John O. Donaldson	None	SE-5
7	2nd Lt. H. E. Manzelman	CSM M. C. Goodnough	DH-4
8	Lt.Col.Reynolds - 1st Lt.Bagby	Sgt. Lee N. Parrish	DH-4

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ENDURANCE TEST

All pilots completing roundtrip within time limit:

1. Lieut. Pearson
2. Lieut. Worthington
3. Capt. L. H. Smith
4. Capt. Donaldson
5. Lieut. Maynard
6. Lieut. Manzelman
7. Lt. Col. Hartney
8. Lt. Col. Reynolds - 1st Lt. R. B. Bagby

Those completing roundtrip but not within time limit:

1. Lieut. Gish
2. Capt. Steinle

WINNERS OF SPEED TEST - FLYING TIME

FROM EAST TO WEST - ALL TYPES

	PILOT	PASSENGER	TYPE OF MACHINE	TIME Hrs.	Mins.	Sec.
1	1st Lt. Belvin W. Maynard	Sgt. W. E. Klein	DH-4	25	16	47
2	1st Lt. H. H. George	" L. N. Parrish	DH-4	25	29	48
3	2nd Lt. Alexander Pearson	" Royal Atkinson	DH-4	26	46	01
4	2nd Lt. H. W. Sheridan	2nd Lt. F.W.Nelson	DH-4	28	59	53
5	Capt. Harry Smith	Capt. T.W.Allen	DH-4	29	44	36
6	1st Lt. G. H. Gale	2nd Lt. W. E. Richards	DH-4	29	56	09
7	Major Edwin B. Lyon	2nd Lt. H. E. Chandler	DH-4	30	36	02
8	Capt. John O. Donaldson	None	SE-5	31	19	44
9	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4	32	17	46
10	2nd Lt. L. V. Beau, Jr.	Pvt. J. J. McVeigh	DH-4	32	26	51
11	2nd Lt. S. W. Torney	Sgt. E. R. Vanatta	DH-4	36	53	20
12	2nd Lt. Wm. C. F. Brown	Corp. Elmer J.Robbins	DH-4	41	02	19
13	2nd Lt. T. Hynes	2nd Lt. T. K. Mathews	DH-4	41	22	55
14	2nd Lt. E. H. Manzelman	CSM M. C. Goodnough	DH-4	44	21	14
15	2nd Lt. J. B. Wright	Sgt. B. Coleman	DH-4	44	29	06
16	2nd Lt. L. S. Webster	" Chas. Tindell	DH-4	46	18	27
17	Lt. Col. T. S. Bowen	Capt. D. H. Young	DH-(B)	48	04	43
18	Lt. Col. H. E. Hartney	None	Fokker	48	23	03
19*	1st Lt. J. P. Roullot	ME Orville W. Haynes	DH-4	49	50	36
20	1st Lt. R. L. Maughan	None	Spad	51	03	39
21	Capt. Felix Steinle	Sgt. H. Myhres	DH-4	52	05	19
22	Capt. H. C. Drayton	2nd Lieut.L.J.Sweeley	DH-4	53	54	25
23	2nd Lt. J. B. Machle	Sgt. Jesse D. McClure	DH-4	57	20	15
24	Lt. Col. J.N.Reynolds	1st Lt. R. B. Bagby	DH-4	57	32	09
25'	2nd Lt. Fred C. Nelson	1st Lt. Sam M. Lunt	DH-9	123	56	36
26'	1st Lt. G. R. Newman	Capt. H. H. Page	DH-4	147	32	41

* Disqualified for not circling landing field.
' Disqualified - away from Control Stop for over 48 hours.

WINNERS FROM WEST TO EAST - ALL TYPES

1	2nd Lt. R. S. Worthington	None	SE-5	25	23	19
2	2nd Lt. E. C. Kiel	Sgt. F. McKee	DH-4	26	17	03
3	Major Carl Spatz	Sgt. E. Tanner	DH-(B)	26	34	57
4	1st Lt. J. P. Richter	2nd Lt. J. B. Patrick	DH-4	27	23	00
5	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH-(B)	28	27	21
6	Major J.C.P. Bartholf	None	SE-5	36	06	56
7	2nd Lt. H. E. Queen	ME L. E. Bishop	DH-4	43	52	28

WINNERS - ROUNDTRIP - ALL TYPES

	PILOT	PASSENGER	TYPE OF MACHINE	TIME Hrs.	Mins.	Sec
1	2nd Lt. Alexander Pearson	Sgt. R. Atkinson	DH-4	48	14	08
2	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH-(B)	54	14	13
3	2nd Lt. R.S.Worthington	None	SE-5	54	21	55
4	Capt. John O. Donaldson	None	SE-5	56	16	12
5	2nd Lt.E.H.Manzelman	CSM M. C. Goodnough	DH-4	67	37	49
6	1st Lt. Belvin W. Maynard	Sgt. W. E. Klein	DH-4	68	29	58
7	Lt. Col. H. E. Hartney	None	Fokker	77	17	20
8	Lt. Col. Reybolds - Lt.Bagby	Sgt. L. N. Parrish	DH-4	82	09	10
	Completed roundtrip but not within time limit:					
9	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4			
10	Capt. Felix Steinle	Sgt. H. Myhres	DH-4			

WINNERS OF SPEED TEST - FLYING TIME

FROM EAST TO WEST - VARIOUS TYPES

1	1st Lt. Belvin W.Maynard	Sgt. W. E. Klein	DH-4	25	16	47
2	1st Lt. H. H. George	Sgt. L. N. Parrish	DH-4	25	29	48
3	2nd Lt. Alexander Pearson	Sgt. Royal Atkinson	DH-4	26	46	01
4	2nd Lt. H.W.Sheridan	2nd Lt. F. W. Nelson	DH-4	28	59	53
5	Capt.Harry Smith	Capt. T. W. Allen	DH-4	29	44	36
6	1st Lt. D. H. Gale	2nd Lt. W.E.Richards	DH-4	29	56	09
7	Major Edwin B. Lyon	2nd Lt. H. B. Chandler	DH-4	30	36	02
8	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4	32	17	46
9	2nd Lt. L. V. Beau, Jr.	Pvt. J. J. McVeigh	DH-4	32	26	51
10	2nd Lt. S. W. Torney	Sgt. E. R. Vanatta	DH-4	36	53	20
11	2nd Lt. Wm. C. F. Brown	Corp. Elmer J. Robbins	DH-4	41	02	19
12	2nd Lt. T. Hynes	2nd Lt. T. K. Mathews	DH-4	41	22	55
13	2nd Lt. E. H. Manzelman	CSM M. C. Goodnough	DH-4	44	21	14
14	2nd Lt. J. B. Wright	Sgt. B. Coleman	DH-4	44	29	06
15	2nd Lt. L. S. Webster	Sgt. Chas. Tindell	DH-4	46	18	27
16	Lt. Col. T. S. Bowen	Capt. D. H. Young	DH-(B)	48	04	43
17*	1st Lt. J. T. Roullot	ME Orvill W. Haynes	DH-4	49	50	36
18	Capt. Felix Steinle	Sgt. H. Myhres	DH-4	52	05	19
19	Capt. H. C. Drayton	2nd Lt. L. J. Sweeley	DH-4	53	54	25
20	2nd Lt. J. B. Machle	Sgt. Jesse D. McClure	DH-4	57	20	15
21	Lt. Col. J. N. Reynolds	1st Lt. R. B. Bagby	DH-4	57	32	09
22'	2nd Lt. Fred C. Nelson	1st Lt. Sam N. Lunt	DH-9	123	56	36
23'	1st Lt. G. R. Newman	Capt. H. H. Page	DH-4	147	32	41

* Disqualified for not circling landing field.
' Disqualified - away from Control Stop for over 48 hours.

1	Capt. John O. Donaldson	None	SE-5	31	19	44
1	Lt. Col. H. E. Hartney	None	Fokker	48	23	03
1	1st Lt. R. L. Maughan	None	Spad	51	03	39

FROM WEST TO EAST - VARIOUS TYPES

1	2nd Lt. E. C. Kiel	Sgt. F. McKee	DH-4	26	17	03
2	Major Carl Spatz	Sgt. E. Tanner	DH-B	26	34	5[illegible]
3	Lt. J. P. Richter	2nd Lt. J. B. Patrick	DH-4	27	23	0[illegible]
4	Capt. L. H. Smith	1st Lt. F. W. Ruggles	DH-B	28	27	21
5	2nd Lt. H. E. Queen	M.E.-L.E. Bishop	DH-4	43	52	2[illegible]
1	2nd Lt. R.S.Worthington	None	SE-5	25	23	19
2	Major J. C. P. Bartholf	None	SE-5	36	06	56

WINNERS OF SPEED TEST - FLYING TIME

ROUNDTRIP:- VARIOUS TYPES

	PILOT	PASSENGER	TYPE OF MACHINE	TIME Hrs.	Mins.	Sec.
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4	1st Lt. Belvin W. Maynard	Sgt. W. E. Klein	DH-4	68	29	58
5	Lt.Col.Reynolds -Lt. Bagby	Sgt. L. H. Parrish	DH-4	82	09	10
	Completed roundtrip but not within time limit:					
6	1st Lt. D. B. Gish	Sgt. Pomeroy	DH-4			
7	Capt. Felix Steinle	Sgt. H. Myhres	DH-4			
1	2nd Lt. R. S. Worthington	None	SE-5	54	21	55
2	Capt. John O. Donaldson	None	SE-5	56	16	12
1	Lt. Col. H. E. Hartney	None	Fokker	77	17	20

DIRIGIBLE PROSPECTS IN UNITED STATES AND ENGLAND

In view of the fact that the Navy has put in an order for a 2,000,000 cubic foot rigid dirigible to be constructed by England, a few facts relative to the present status and prospects of rigid dirigibles in the United States and England are pertinent. English dirigibles patterned after the approximate plan of the German Zeppelins, have been constructed to a size of 2,700,000 cubic feet. The speed of ships of this size is about 75 miles per hour and their endurance about 175 hours. This gives a possibility of a cruising radius of over 13,500 miles, more than half the distance around the earth.

Ships of still greater size and capacity are already being constructed in England, keels have been laid for ships of 5,000,000 cubic feet, and all new hangars in England are being constructed to accommodate ships up to that size.

While the total lift of the gas in a 2,000,000 cubic foot capacity ship is over 60 tons, that of a 5,000,000 capacity ship is nearly 152 tons. Thus an increase in size of dirigibles gives an added increase in total, as well as useful, lift.

Airships of still greater size are contemplated and plans for a 10,000,000 cubic foot dirigible ship have already been completed in England. The figures for the dimensions and possibilities of this ship are extremely interesting. Its length would be about 1100 feet, - slightly less than one-fourth of a mile, - while the total lift of the gas would be more than 300 tons, and the useful lift would be approximately 200 tons. This useful lift could be used for transportation of troops and equipment, or for a cruising radius of over 20,000 miles, if such were desirable.

Lt. Franklin 3191

Vol. III AIR SERVICE NEWS LETTER No. 15

Information Group
Air Service

NOVEMBER 25, 1919

Building D
Washington, D.C.

Weekly News Letter

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

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570 FIRES DISCOVERED BY FOREST FIRE PATROLS

In cooperation with the Forestry Bureau and to determine the value of aircraft in forest patrol work, the commanding officers of March, Mather and Rockwell Fields, and Ross Field Balloon School were instructed to work out forest patrol routes with the assistance of the District Forester. These patrols were inaugurated on June 1st, and have been very successful in locating fires, reports of fires reaching the District Forester sometimes within fifteen minutes after their origin.

Radio equipment was supplied to all fields and a system of co-ordinates worked out, the observer to check in by radio over a designated place, rendering it possible to trace a plane over its entire mission and in case of a forced landing determine the approximate position of the plane.

The following report received from Colonel H. H. Arnold, Department Air Service Officer, Western Department, gives a detailed account of the splendid work performed by the divers Forest Patrols from April 1st, to October 31st.

The dry season in the Western Department extends over the period from April 1st to October 31st, practically seven months. During this time the fire hazard in the forest areas is very great and forest fires are numerous.

MARCH FIELD

The first forest fire patrols were established out of March Field on June 1, 1919. These patrols were independently operated under the Commanding Officer of March Field until September 7, 1919, covering a period of three months and seven days. Two patrols a day were operated with Curtiss JND airplanes. Fires were reported by small specially constructed parachutes and by telephone after the plane landed. Data covering this period is given as follows:

(a) Distance covered	46,297 miles
(b) Flying Time	466 hrs. 56 min.
(c) Number of fires discovered	75
(d) Accidents requiring major repair	3
(e) Number of fatalities	None
(f) Average number of airplanes in daily use	3
(g) Type of plane	JN4H

ROCKWELL FIELD:

The first forest fire patrols were established out of Rockwell Field on June 1, 1919. These patrols operated independently under the Commanding Officer of Rockwell Field until September 7th, 1919, covering a period of three months and seven days. Data covering this period is given as follows:

(a) Distance covered	36,854 miles
(b) Flying time	410 hours
(c) Number of fires discovered	24
(d) Accidents requiring major repair	None
(e) Number of fatalities	None
(f) Average number of planes in daily use	2
(g) Type of plane	JN6H

On August 27, 1919, authority was given the Department Air Service Officer to direct all forest patrol operations in this department. Upon receiving this authority this office ordered the patrols out of Rockwell and March Fields consolidated, - all operations to be conducted from March Field. The patrols were extended to cover the Santa Barbara forests in addition to the forest areas North and East of March Field. This consolidation was effected and the patrols started over the new areas on September 8th, 1919. This office also ordered that De-Haviland-4 airplanes be used for patrolling instead of the Curtiss planes. The patrol routes were mapped out to cover the Santa Barbara forest. This plan, as outlined by this office, called for two patrols each day. By this change the patrols covered an additional stretch of forest area, about one hundred fifty miles in length.

The following report covers the operations of the forest patrols at March Field from date of consolidation to October 31st, 1919, the date the patrols were withdrawn, a total of one month and twenty-three days:

(a)	Total number of patrols	87
(b)	Total distance covered	22,252 miles
(c)	Total flying time	265 hrs. 54 min.
(d)	Total number of fires discovered	72
(e)	Total accidents requiring major repair	None
(f)	Total number of fatalities	None
(g)	Average number of airplanes in daily use	2
(h)	Type of plane	DH-4

Mather Field:

The first forest patrols were established out of Mather Field on June 1st, 1919. These patrols operated independently under the Commanding Officer of Mather Field until September 2, 1919, covering a period of three months. Data covering this period is given as follows:

(a)	Distance covered	31,128 miles
(b)	Flying time	452 hrs. 56 min.
(c)	Number of fires discovered	85
(d)	Number accidents requiring major repair	1
(e)	Number of fatalities	None
(f)	Average number of airplanes in daily use	2
(g)	Type of plane	JN4D

On September 3, 1919, the operations of forest patrols at Mather Field were reported through Department Air Service Officer.

For the period from September 3rd to October 31st, 1919, the following data is given:

(a)	Total number of patrols	84
(b)	Total distance covered	16,530 miles
(c)	Total flying time	270 hrs. 34 min.
(d)	Total number of fires discovered	70
(e)	Total number of accidents requiring major repair	None
(f)	Total number of fatalities	None
(g)	Average number of airplanes in daily use	2
(h)	Type of plane	JND

OREGON FOREST PATROLS:

About July 24th, 1919, telegrams were received by this office from the Governor of Oregon and different Forestry Officials in Oregon requesting aeroplane assistance in locating fires which were raging in Oregon at that time. Authority was requested by this office to send planes to Oregon for forest patrol work and received in telegram from the Director of Air Service dated July 30, 1919. Lieutenant E. C. Kiel and Sergeant Frank McKee with two airplanes were at that time at Camp Lewis, Washington, on recruiting work. These two pilots were ordered by this office to fly to Salem, Oregon, and consult with the Forestry officials at that place with a view of establishing routes for patrols. They arrived at Salem on July 31st, 1919, and commenced operations on August 1st, 1919. On their first trip they took with them two forestry officials. Six fires were located. Their preliminary report to this office showed the necessity of ordering more planes to Oregon. Accordingly Major A. D. Smith was ordered by this office to Mather Field to prepare five JN4D planes and one JN4H plane for forest patrol operations in Oregon. On August 6, 1919, Major A.D.Smith, with five pilots, five mechanics and six aeroplanes flew to Salem, Oregon. They reached Salem on October 7th.

Major A. D. Smith took charge of the patrols in Oregon on this date. He established one base at Salem and one base at Roseburg. This arrangement was continued until August 26th, when by orders from this office the seven JN4D airplanes were replaced by five DeHaviland-4 planes, and all operations consolidated at Eugene, Oregon. The operations with the JN4D planes were unsatisfactory because of the limited area which they could cover without landing for gasoline and oil. By changing to DeHaviland-4 planes greater depth was made possible into the mountains, and as a consequence more of the heavily timbered areas are placed under patrol. The cruising radius of the patrols was changed from one hundred miles to three hundred fifty miles.

The JN4D planes, upon being replaced by DeHaviland-4 airplanes were ordered by this office to Redding, California, for the purpose of establishing forest patrols out of that point. At the same time it was decided by this office to replace all JN4D planes on forest patrol work with DeHaviland-4 planes as soon as they could be assembled and made ready for this work. Accordingly Captain Lowell H. Smith was ordered to Mather Field for the purpose of taking charge of the assembling and testing of DeHaviland-4 planes for forest patrol work.

The following operations data is given on the Oregon Forest patrols to cover the period from date of its inauguration, August 1st, 1919, to October 8, 1919, the date it was discontinued, two months and eight days:-

(a)	Number of patrols	127
(b)	Distance covered.....	33,715 miles
(c)	Flying time.....	411 hrs. 24 min.
(d)	Number of fires discovered.....	128
(e)	Accidents requiring major repair ...	1 Curtiss and 1 DH-4
(f)	Number of fatalities.....	1 - Lt. H.W.Webb
(g)	Average number airplanes in daily use	2
(h)	Type of plane,.....	JN-4 to Aug. 26th DH-4 to October 8th.

The patrols were discontinued on October 8, 1919, because numerous rains and snows removed the danger of fire and at the same time made flying impracticable.

REDDING AND RED BLUFF, CALIFORNIA

Patrols at Redding, California, were established by this office on August 31st, 1919, with the seven JN4D airplanes which were replaced in Oregon by DeHaviland-4 planes. Lieutenant E. C. Kiel was placed in charge of this patrol. Major A. D. Smith was temporarily ordered to Redding to assist in the organization of patrols at that place. On September 6th by orders from this office the seven JN4D planes were replaced with five DeHaviland-4 planes and patrols continued with DeHaviland-4 planes until October 31st. Lieutenant J. S. Krull relieved Lieutenant E. C. Kiel as Commanding Officer on the same date. On September 15th the patrol base was changed from Redding to Red Bluff. This change was made after an inspection by the Department Air Service Officer because better facilities for a base existed at Red Bluff than at Redding. A complete report of the operations of this patrol from the date of its inauguration to the date of its discontinuance follows:

(a)	Number of patrols	93
(b)	Distance covered	29,239 miles
(c)	Flying time	340 hrs. 39 min.
(d)	Number of fires discovered	107
(e)	Accidents requiring major repair	2
(f)	Number of fatalities	None
(g)	Average number of airplanes in daily use .	2
(h)	Type of plane	JN4D to Sept. 6 DH-4 to Oct. 31

FRESNO, CALIFORNIA.

Forest patrol at Fresno was established by this office on August 28, 1919. Two airplanes, two pilots and two mechanics were the personnel and equipment at first. JN4D airplanes were used. Lieutenant Robert Kauch was the senior pilot. On September 14th this detachment was increased to four JN4D airplanes, four pilots and six mechanics . Three DeHaviland-4 planes replaced the JN4D planes on September 21st, 1919. This patrol was discontinued on October 31st. Following operations data covering period of operations is given:

(a)	Number of patrols	85
(b)	Distance covered	19,709 miles
(c)	Flying time	254 hrs. 26 min.
(d)	Number of fires discovered	9
(e)	Accidents requiring major repair . . .	0
(f)	Number of fatalities	0
(g)	Average number of planes in daily use .	2
(h)	Type of plane	JN4D to Sept. 21 DH-4 to Oct. 31

Summing up the forest patrol operations this season it is desired particularly to commend the pilots and mechanics on their excellent work. Practically all of the forest areas are over mountainous terrain. The number of available landing places in case of motor trouble are very few. Skillful piloting is necessary to avoid being lost in the smoke and fog which prevails when large fires are burning. The pilots and mechanics have performed this work with a willing spirit and it is by their efforts principally that the successful results obtained during the season were made possible. The mechanics, as a rule, acted as observers for their pilots. On account of this fact orders were issued placing all mechanics who made such flights on flying status.

That the airplane patrol has aided materially in checking the number and extent of forest fires is an unquestioned fact. Forestry officials have expressed themselves as being very much pleased with the results obtained this year.

SUMMARY OF FOREST PATROL OPERATIONS, SEASON 1919

	Rock. 6/1-9/7	March 6/1-9/7	March 9/7-10 31	Mather /6/1-9/ 2	Mather 9/2-10 31	Red Bluff 8/31-10/ 31	Fresno 8/28-10 31	Oregon 8/1-10/ 8	Total
Distance Covered	36,854	46,297	22,252	31,126	16,530	29,239	19,709	33,715	235,724 Miles
Flying Time	hrs 410	466 hr. 56 m	265 hr 54 m	452 hr. 56 m	270 hr. 34 m	340 hr. 39 m	254 hr 26 m	411 hrs 24 m	2872 hrs 49 m
Fires Discovered	24	75	72	85	70	107	9	128	570
Accidents Involving Major Repairs	0	3	0	1	0	2	0	2	8
Fatalities	0	0	0	0	0	0	0	1	1
Airplanes used Daily	2	3	2	2	2	2	2	2	17

V-1241 A.S.

AIRPLANE SQUADRON INSIGNIAS APPROVED BY WAR DEPARTMENT

The War Department authorizes publication of the following from the Operations Division of the General Staff:

The Secretary of War has approved the insignia for forty-four airplane squadrons, submitted by the Director of Air Service. These insignia are for use only on planes and on baggage for the purpose of distinguishing the different squadrons, and will not be worn as shoulder insignia by individuals. They comprise the insignia used in the A.E.F. by the squadrons actually organized in France, which saw action at the front. The insignia selected for the First Aero Squadron is the American flag.

FIRST

The First Aero Squadron was organized and operated as a Corps Observation Squadron. It arrived on the Front at Ourches April 4, 1918, and was assigned to the First Corps April 8, 1918. The First was engaged in the operations in the Toul Sector, Chateau-Thierry, St. Mihiel, and the Argonne-Muese first and second offensives, and after the armistice it was assigned to the Army of occupation on November 20, 1918. This squadron suffered 26 casualties, consisting of 15 killed, 8 wounded, 2 prisoners and 1 missing. Having engaged in 94 combats it was officially accredited with having shot down thirteen enemy aircraft. The First Air Squadron was a continuation of the First Squadron in the United States Air Service beginning its service on the Mexican Border.

EIGHTH

The insignia for the Eighth Aero Squadron is a great American eagle, with the wings spread, holding the American Liberty Bell.

The Eighth Aero Squadron was of the Corps Observation type. It arrived on the Front at Ourches on July 31, 1918 and was assigned to the 4th Corps, Observation Group, 1st Army on August 14th. The Eighth was engaged in the Operations in the Toul Sector, Chateau-Thierry, St. Mihiel, and the Argonne-Muese first and second offensives, terminating its work on February 5, 1919. It suffered twelve casualties, consisting of 4 killed and 8 prisoners.

NINTH

The insignia for the Ninth Aero Squadron is a silhouette showing the beams of three search lights pointing upward and forming the numeral IX.

The Ninth Aero Squadron was organized as a Night Observation Squadron. It was assigned to the 1st Army Observation Group August 26th, 1918, and reached the Front at Amanty on August 28th. The Ninth was engaged in the operations at St. Mihiel, and the Argonne-Muese first and second offensives. During this time it made 70 reconnaissances into the German lines, engaged in numerous combats but never received official confirmation for any victories. It received its demobilization orders May 1, 1919. The Squadron suffered six casualties, consisting of 1 killed, 4 wounded and 1 prisoner.

ELEVENTH

The Eleventh Aero Squadron is represented by a cartoon of Mr. "Jiggs" carrying a bomb under his arm.

The Eleventh Aero Squadron was a Day Bombardment Squadron assigned to duty in the First Day Bombardment Group, First Army on September 5, 1918. It had already reached the Front at Delouze on August 26th. The Eleventh was engaged in the operations at St. Mihiel and the Argonne-Muese first and second offensives. It made 32 bombing raids, engaged in 17 combats and received official confirmation for 13 victories. It ceased operations December 11, 1918. The Squadron suffered 20 casualties, consisting of 10 killed, 1 wounded, 8 prisoners and 1 missing.

TWELFTH

The Twelfth's insignia is not given.

The Twelfth Aero Squadron was a Corps Observation Squadron. It was assigned to the First Corps on April 30, 1918 and three days later, May 3rd reached the front at Ourches. This squadron was engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel and the Argonne-Meuse first and second offensives. During its long period of activity it engaged in numerous reconnaissances, fought many combats and received confirmation for three victories The Twelfth suffered heavy casualties, consisting in 8 killed, 9 wounded, and 4 prisoners. It received its demobilization orders April 1, 1919.

THIRTEENTH

The insignia for the Thirteenth Aero Squadron shows the figure of death depicted by a skeleton running at full speed with a bloody scythe in his hand.

The Thirteenth Aero Squadron was a Pursuit Squadron. It was assigned to the Second Pursuit Group, First Army on June 28, 1918, reaching the Front the same day. It engaged in the operations in the Toul Sector, at Chateau-Thierry, St. Mihiel, and the Argonne-Meuse first and second offensives. During this period it made 179 patrols and War Missions, fought 89 combats and received official confirmation for 29 victories. It ceased operations on December 5, 1918. The Thirteenth suffered 13 casualties, consisting of 5 killed, 1 wounded and 7 prisoners.

SEVENTEENTH

The insignia for the Seventeenth Aero Squadron is the great snow owl flying through the air ready to pounce upon the enemy.

The Seventeenth Aero Squadron was a Pursuit Squadron, assigned to the Second Army on November 4, 1918 and reached the American Front at Toul on the same day. This squadron had been assigned first to the Royal Air Force on July 15, 1918 and had operated with them until November. During its period of activity it had engaged in 110 combats, and received official confirmation for 54 victories. The Seventeenth ceased operations December 11, 1918. Since July it had suffered 24 casualties, consisting of 10 killed, 5 wounded, 7 prisoners and 2 missing.

TWENTIETH

Three legs in a circle arranged in pin wheel fashion comprise the insignia adopted by the Twentieth Squadron.

The Twentieth Aero Squadron was a Day Bombardment Squadron. It was assigned to the First Day Bombardment Group, First Army on September 5, 1918, and reached the Front at Amanty two days later. It was engaged in the operations at St. Mihiel and the Argonne-Meuse first and second offensives. It carried on numerous bombing raids into German territory, engaged in eleven combats and received confirmation for eleven victories. The Twentieth received demobilization orders on December 11, 1918. This Squadron suffered 25 casualties, consisting of 13 killed, 3 wounded, 8 prisoners and 1 missing.

TWENTY-SECOND

A number of stars in a ring with a large star with a tail, evidently a comet, superimposed, represents the 22nd Aero Squadron.

The Twenty-second Aero Squadron was a Pursuit Squadron. It reached the Front at Toul on August 16, 1918, and on August 22nd was assigned to the Second Pursuit Group, First Army. It was engaged in the operations in the Toul Sector, at St. Mihiel, and in the Argonne-Meuse first and second offensives. During its period of activity it performed 117 patrols and War Missions, fought 90 engagements, and received official confirmation for 46 victories. It ceased operations April 4, 1919. It suffered 9 casualties, consisting of 6 killed, 2 prisoners and 1 wounded.

TWENTY-FOURTH

The Twenty-fourth Aero Squadron is represented by an American eagle pouncing upon the German dachshund which is running away with its tail between its legs.

The Twenty-fourth Aero Squadron was an Army Observation Squadron. It was assigned to the First Army Observation Group on August 14, 1918 and reached the Front at Condroville on August 22nd to take part in the operations at St. Mihiel and the Argonne-Meuse first and second offensives. Before the armistice it had carried out more than 80 reconnaissances, fought 54 combats and received official confirmation for 12 victories. The Squadron suffered 7 casualties, consisting of 1 killed, 1 wounded, 3 prisoners and 2 missing. On April 10, 1919 it was assigned