

AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION, JULY, 1948



OPERATION ASSEMBLY—PEACETIME'S LARGEST MANEUVER

**What Happens When You Reverse
Four Props at 15,000 Feet?**

See Page 26







PLAN FOR SECURITY...

The mission of the United States Air Force is to defend this country against foreign attack. THREE major operational commands synchronize to further this mission. ¶ The Air Defense Command . . . to protect continental United States against air attack. ¶ The Strategic Air Command . . . assigned to intensive, sustained long-range bombardment and fighter operations, alone or in cooperation with land and naval forces. ¶ The Tactical Air Command . . . for attacking enemy aircraft, wrecking hostile troop-lines of communications, and destroying supply concentrations. ¶ Republic's P-84 Thunderjet is designated for duty with ALL THREE commands. The fundamental versatility, ruggedness and striking power of its predecessor, the mighty P-47 Thunderbolt, is inherent in today's 600 MPH THUNDERJET. ¶ Through the closest cooperation between the Air Materiel Command and Republic Aviation Corporation . . . a rapidly increasing number of P-84's are daily going into active service at American Air Bases . . . to guard the security of our nation . . .

REPUBLIC AVIATION CORPORATION, FARMINGDALE, LONG ISLAND, N. Y.



"This Is the Year of the Thunderjet"

REPUBLIC  AVIATION 

Makers of the Mighty Thunderbolt • Thunderjet • XF-12

Alexander sized up the job . . . and wept



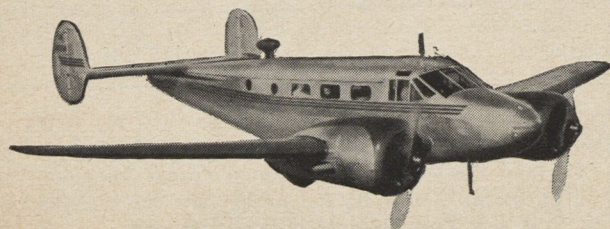
Legend has it Alexander wept when he decided there were too many worlds
for one man to conquer. Today's businessman often feels the same way
. . . when he faces one of those jobs that look impossible.

• • • • •

To equip executives and personnel to tackle "impossible" jobs, many of America's foremost corporations place company-owned air transportation at their disposal. Their nine-place Beechcraft Twin-Engine Executive Transports operate at 200 mph on the company's own schedules. They eliminate the waste of executive time and conserve energy as well. In the

comfort and swift convenience of a Beechcraft, executives and personnel find those "impossible" jobs often are the easiest of all.

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Here's why so many business men are buying and flying America's No. 1 Utility Plane

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for a living!*



1. "I learned to fly at 47," says manufacturer Howard M. Smith of Holly, Michigan. "Now I use my Stinson constantly, to contact customers in every part of a 400-mile area."



2. "One rush delivery of the small springs we manufacture kept a customer's plant from closing down, and resulted in doubling our business with that firm," he adds. "That one flight alone more than paid the cost of my plane."



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Stinson is one of the famous quality products of Consolidated Vultee, builders of the B-36 long-range bomber; the XC-99 400 passenger cargo-transport; the L-13 versatile new liaison plane; and the pressurized, 300 m.p.h. Convair-Liner commercial transport.

AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION

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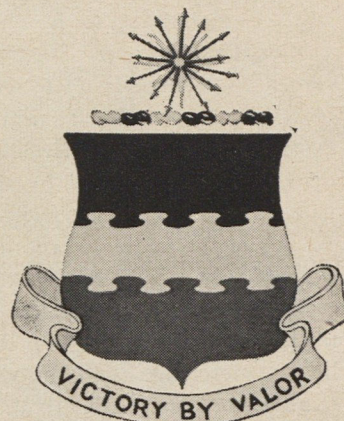
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20th Fighter Group



(Coat of Arms Approved 18 December 1934)

SHIELD: Per fess azure and gules, a fess nebule or.

CREST: On a wreath of the colors (or and azure) a sun in splendor proper, radiating from the center thereof thirteen darts gules.

MOTTO: Victory by Valor.

HISTORY: The 20th Fighter Group organized on the inactive list as the 20th Balloon Group, 18 Oct. 1927. Redesignated 20th Pursuit Group, effective 30 June 1929—ordered activated Mather Field, California, 15 Nov. 1930—ordered inactivated, 20 Feb. 1932—and activated at Albright Field, C. Z., 15 Mar. 1932.

The 20th Pursuit Group and the 71st Service Squadron were redesignated as Hq & Hq Sq. 20th Pursuit Group, 1 Sept. 1936; designation changed to 20th Pursuit Group (Fighter), 6 Dec. 1939, and to Hq & Hq Sq. 20th Pursuit Group (Fighter), the same day—subsequently changed to 20th Pursuit Group (I), 13 Mar. 1941—to Hq & Hq Sq. 20th Fighter Group, 15 May 1942—and the Hq Sq disbanded, 22 July 1942. Redesignated Hq 20th Fighter Group (Twin Engine), effective 5 Jan. 1943—inactivated 18 Oct. 1945, at Camp Kilmer, N. J., and authorized to be activated, effective 29 July 1946.

BATTLE PARTICIPATION

The Group is entitled to battle participation credit for the following World War II campaigns: Normandy, Ardennes, Central Europe, Northern France, Rhineland, Air Offensive Europe.

DISTINGUISHED UNIT CITATION: Awarded for action against the enemy Central Germany, 8 April 1944.

Distinctive Insignia

The distinctive insignia consists of the shield, scroll and motto adapted from the coat of arms.

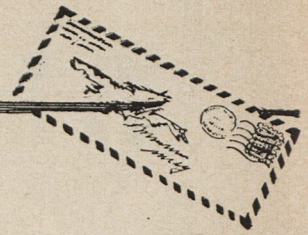
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It is plain that air freight's glamor days are over. "Rushing serum to Nome" is no longer front page news. Today, nearly every hour witnesses emergency deliveries of some kind by the nation's carriers of air freight.

However, such emergency shipments have ceased to be the vital part of the picture. Now the backbone of air freight is the leading merchants and industrial firms who have carefully analyzed their costs and have determined that the use of air freight for normal shipments is currently saving them money!

Of vital importance to the military is this rapidly expanding use of air freight. It was proved conclusively in the last war that air transport was essential for the movement of arms, equipment, and men. And it was fortunate that planes then flying for the airlines were able to meet the immediate needs of the army and navy.

Vastly larger numbers of transport planes will be needed if war ever comes again. And with aircraft in being, designed exclusively for air freight, a reservoir of air transport will be quickly available.

That is one reason why, right now, we are busy developing an air freight version of the giant Douglas DC-6. This plane will be capable of carrying up to 30,000 lbs. of payload at speeds exceeding 300 m.p.h. With fleets of such planes serving industry, the military could count on important reserves that might be needed at a moment's notice.

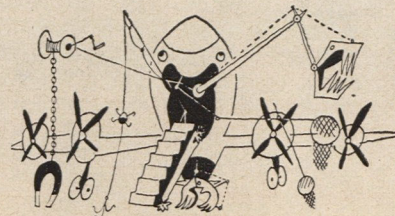
Charles W. Douglas
PRESIDENT
DOUGLAS AIRCRAFT COMPANY, INC.
SANTA MONICA, CALIFORNIA

Fine Point

Gentlemen: As a former member of the 315th Bomb Wing I feel you may have made an error in your June issue pertaining to the C-74. It is stated that the 74, tested in September, 1945, was the first ship ever built with its own cranes, hoists and cargo elevators. Our B-29s were brought to us long before September, 1945, and they were equipped with these devices.

W. C. Vogt
Buffalo, N. Y.

● *You're correct in that B-29s DID have hoists of course, but they were designed and used almost exclusively*



for bomb loading. We were speaking in the article of transport type planes, and in that field, the C-74 was the first.—ED.

Largest Command

Gentlemen: I enjoy the many articles in AIR FORCE and hope that they will continue to be as good in the future.

In the May issue there is a picture of General Carl Spaatz. I would like to know what the Air Force patch represents which is shown on his shoulder.

John Warren
Philadelphia, Pa.

● *The patch in question is the famed USSTAF shield—United States Strategic Air Forces—of which General Spaatz was boss until he moved into the Pentagon to succeed Hap Arnold as CG of the Air Force.*—ED.

Same Complaint

Gentlemen: You know one thing I never liked about AIR FORCE magazine? On the cover the left border shows the insignia of the Air Force as well as the insignia of the several Air Forces with the Force. However, it never has shown the insignia of the Air Transport Command. Having put in about three and one half years with ATC I have a feeling that that Command contributed in no small way to the success of the overall venture. If this is correct, why the discrimination?

Ralph B. Tew
Washington, D. C.

● *This is a perennial gripe among the thousands of men who served with such commands as ATC, MAAF, USSTAF, Training Command, AMC and so forth.*

Certainly no discrimination is intended. As we have tried to explain before, there would hardly be room in the entire magazine, let alone the cover, to display the insignia of all the commands. Therefore, we have been forced with reluctance to limit the strip to the insignia of the Air Force itself, and of the numbered units subordinate to it.—ED.

What's in a Name

Gentlemen: The pat on the back editorially administered to the AFA by your article "When The Chips Were Down" (June) was eminently deserved.

An innuendo contained in that editorial, however, I think is entitled to some comment.

You say that your plan—or our plan—to mobilize public support for adequate airpower included "no complicated public relations program." From that I infer that you do not conceive of the plan executed as a public relations program, nor are you inclined to believe that a program carrying the public relations name could have achieved the results desired.

Therein lies a common misunderstanding. The very thing which you did was a demonstration of public relations at its zenith. The fact that the plan was not complicated warrants all the more credit.

We had something good which deserved the interest and support of the general public. And that support was obtained by the unanimous effort of every individual part of our organization—rather than by the specialized



publicity of a press agent or an advertising campaign.

Such unanimity of action is the proper and by far the most effective public relations procedure ever utilized. With it, virtually anything may be accomplished; without it, the old "divided we fall" routine rears its head.

This is the essence of good public relations.

Paul C. James
Charlottesville, Va.

Rank Disagreement

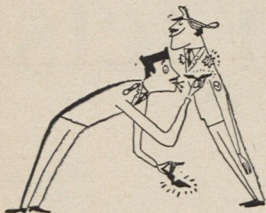
Gentlemen: The AIR FORCE for May containing the article "New Wings for



Peace" states that non-rated officers who take pilot training in grade must relinquish their rank, be it captain, major or colonel, upon completion of training and accept commissions as rated lieutenants. Would you please provide me with the numbers of the regulations that require this action.

Lt. Dale A. Britten
Keesler AFB, Miss.

Gentlemen: As an avid reader of Air Force magazine I could not refrain from calling your attention to an error



in the May issue. In the article "New Wings for Peace" you state "non-rated officers are eligible to take training in grade, but must relinquish their rank to accept commissions as rated second lieutenants." This is not true. In-grade training is exactly what it says. You go through in-grade, in a class (usually) of all officers. Now, if he desires, an officer may relinquish his commission and go through as a cadet, or if he is a former officer or a reserve officer on inactive status he may *not* be recalled to go through as an officer, but only as a cadet and graduate as a 2nd Lt.

Lt. William Hurley

Greenville AFB, Greenville, S. C.

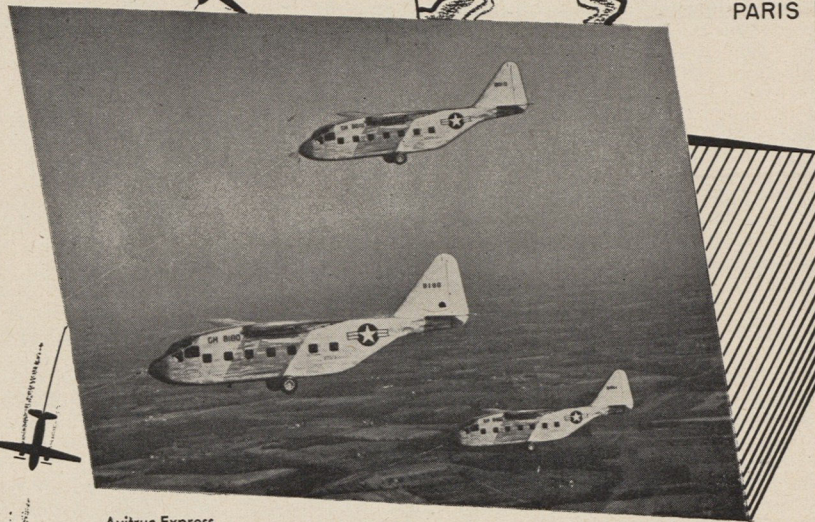
● We have checked, and Lt. Hurley is 100 percent correct. Officers on active duty, if they meet other requirements, may take flying training in grade, and will upon successful completion of their training be rated in the grade they hold. Reserve officers on inactive status, however, cannot be called to active duty to take in-grade training. They can train only as cadets, and upon completion of their course they must relinquish their former rank to accept a rated Lieutenant's commission.—ED.

Inventive Friend

Gentlemen: I have a friend who has an idea for a completely automatic gun director that from the information he has given me can be used with great success on aircraft turrets. He would like to contact the proper authority.

Robert H. Marriott
No. Adams, Mass.

● Drawings and descriptions of inventions of this type should be forwarded to the Air Force Board, Hqs., USAF.—ED.



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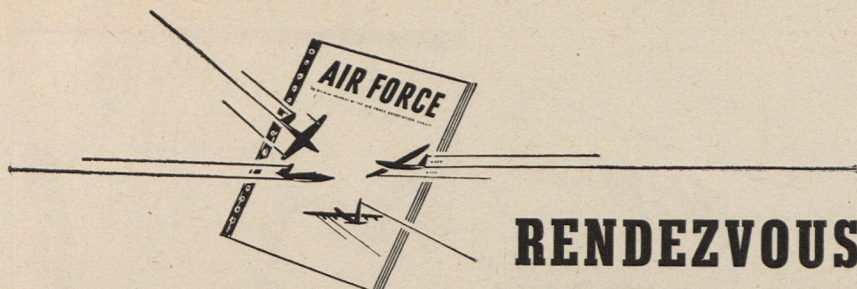
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JOB OFFERED: We are looking for a retired service man who is interested in a position as Assistant Military Property Custodian at this unit. The man should have wide experience in Air Force supply, and would be employed by Williams College with a starting salary of \$1800 annually. Address replies to: Lt. Col. Joseph A. L. Greco, Hq. Air Reserve Officers Training Corps, Williams College, Williamstown, Mass.

CHECKERTAILS: As chairman of a committee planning the 3rd annual reunion of the 325th "Checkertail Clan" Fighter Group alumni which is to be held at the William Penn Hotel, Pittsburgh, Pa., on July 30-August 1, I would appreciate having former pilots of the 318th Fighter Squadron contact me. Our committee has assembled nearly 1400 names of former 325th Group men, but are still about 90% short on 318th pilots who served with us in Africa and Italy. Stanley L. Wilson, 232 E. Newcastle St., Zelienople, Pa.

MORE REUN: The 376th Heavy Bombardment Group Veterans Association will hold its second annual reunion at the Congress Hotel in Chicago, July 30 to August 1. The group was the oldest heavy bombardment unit to serve in the European - African - Middle Eastern theater and is credited with fifteen battle stars and three presidential citations. Former personnel please write to: Frank Kuehn, 1752 N. Clybourn Ave., Chicago, Ill.

HY-YA: I would like to get some mail from fellows of the 414th Fighter Group which worked out of Iwo Jima and Clark

Field, P.I. Also from any of my old cadets from Basic School at Greenville, Miss. (1943-44). C'mon fellows, let me hear how civilian life is treating you. Robert (D'VT) Dunnivant, 3020 Maplewood Ave., Richmond 2, Va.

COMMOFF: I would like to get the gen to contact with any reader who might know the present address of Carl Eickmeyer, former communications officer with the 44th fighter Squadron, in the SP. Franklin C. Crain, 352 Glenwood Ave., Burlington, N. J.

SERGEANTS: Would like to hear from two buddies of whom I lost track during the war. They are: M/Sgt Edgar A. Jansen, who shipped from the Repl-Depl at Hickam Field, Hawaii, to Iwo Jima, and S/Sgt Alfred Tellman, formerly instructor in the AAF Armament School at Yale. He was last heard from in New Guinea. Both men lived in Denver, Colo. I would also appreciate hearing from any wartime buddies from Boca Raton, New Haven, Hickam and Iwo. Harold H. Holmes, 128 East Evans St., Florence, S.C.

FO WANTED: I would like to contact former Flight Officer Grady A. Eakin, 756th H. Bomb Sq., 459th Group, 304th Wing, 15th Air Force, based at Cerignola, Italy. His home address is either Ogden or Salt Lake City, Utah. Floyd Olen, Rt. 1, Box 205B, Marysville, Calif.

TCC: I am writing this department in the hope of contacting some of my old gang at the 84th Troop Carrier Squadron, 437th Group. I would especially enjoy hearing from Maj. William A. Black, Capt. Lawrence C.

Backman, 1st Sgt. Woodrow W. Beaird, M/Sgts Sckrocki, Reayson, Jackson, Flynn, and Shawlink, Sgts Towney, Copeland, Gerstenmier and PFCs Krypka and Bill Utz or any of the old gang who care to write. We were stationed at Ramsbury Base in England and Coulonmier, near Paris. Also if any of the gang have any pictures of the squadron, particularly ones with me in it, I'd like to arrange for a few prints for my album. Walter L. Mock, Jr., 21 Arnold Park, Rochester 7, N.Y.

EX-98TH BG PERSONNEL: Will former members of the 98th Bomb Group in N. Africa and Italy who are interested in having a 98th BG history published send their names and addresses to me at the address listed below. We have never had a history published because we were never able to locate a list of the names and addresses we once had. If the undersigned receives sufficient response, he may be able to effect the publication of such a history. Please pass the word along to any former members of the 98th whom you may know. Sending in your name and address will not constitute an order for the history. You will be contacted concerning an order when and if firm plans are made for its publication. Col. S. E. Manzo, Headquarters 15th Air Force, Colorado Springs, Col.

HOLA ALBUQUERQUE: Anyone knowing the whereabouts of Nell J. McReynolds, former AAF WAC Cpl stationed at Shaw Field, Sumter S. C., please contact the undersigned. She was a resident of Albuquerque, N. M. A. R. Yeatts, Jr., 5524 Up-land Street, Phila.

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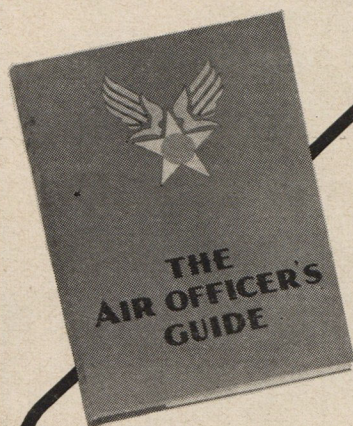
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"I am certain that it will be widely used by all members of this headquarters, both officially and personally." COLONEL N. C. PILET, PMS&T, Louisiana State University.

"It is so up-to-date that it contains information of vital interest not only to the new officers in the Air Force, but to every one of us regardless of our length of service." MAJOR RICHARD CURTIS, Washington State ROTC.

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IN | RESERVE



The SOP of AR and NG

Gentlemen: As a member of the Air Force Association, I am writing to ask your assistance in obtaining information relative to an application for a competitive tour of active duty for a regular Army commission. I am sincerely interested in returning to active duty with the USAF, and any information that you might be able to obtain for me will be deeply appreciated.

P. O. DeSilets
Galion, Ohio

● Effective as of 26 March 1948, no further applications for Competitive Tours for Regular Air Force Commissions will be accepted by Headquarters USAF. Headquarters USAF is now in the process of formulating new policies regarding the procurement of officers for the Regular Air Force.

If you are interested in coming on Extended Active Duty with the Air Force, apply direct to the Chief of Staff, USAF, on WD AGO Form 160, Application for Extended Active Duty.

Gentlemen: Are active Air Reserve pilots eligible to enter the Helicopter pilot course conducted within the Air Training Command at the Air Force Pilot School, San Marcos Air Force Base, Texas?

What privileges are authorized to active Air Reserve personnel under Par 1a(2) AR 95-90, 28 April 1947?

Kermit B. Housel
Crandall, Indiana

● Active Air Reserve pilots ARE eligible to attend the Helicopter pilot course. However, it is NOT anticipated that such quotas will be available for Air Force Reserve Officers during Fiscal Years 1948 and 1949.

In addition to par 1a(2), AR 95-90, wives, fathers, mothers, or children over the age of ten, of active Air Reserve personnel holding a currently effective aeronautical rating and on flying status may be carried as passengers, in military aircraft provided the flights do not extend beyond the local flying area, and these flights do not exceed more than one flight per year for any one person.

Gentlemen: In the April issue of AIR FORCE you state that at the present time TO&E Combat Units in the Air Force

Reserve are being formed. I am in the enlisted reserve but have not been assigned to a particular unit. Can you tell me what units are being organized in the Pittsburgh district and whom I should contact in this respect? Have you any information on 15 day active duty training for reservists?

Joseph F. Fitzgerald
Pittsburgh 27, Pa.

● Contact the Air Reserve Training Detachment at Greater Pittsburgh Airport for information regarding an assignment to a Reserve TO&E Unit and also for 15 days active duty training.

Gentlemen: I would like information on whether it is possible to transfer from the Naval Reserve to the Air Force Reserve. I am a former member of the 20th Air Force and served in the Mariannas. We have an Air Reserve unit (VH) Bombardment here and I could better serve if I were with it.

Dwight Cary
Coffeyville, Kansas

● You are not eligible to enlist in the Air Force Reserve in your present status. Request discharge from the Naval Reserve through Naval Reserve channels. Then, if discharge is granted, apply to the nearest recruiting office or Air Reserve Training Detachment for enlistment in the Enlisted Reserve Corps.

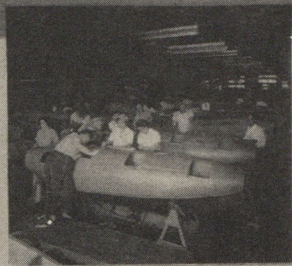
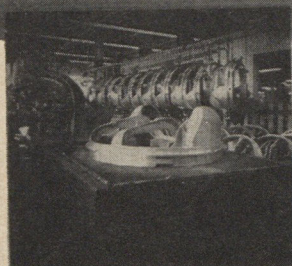
Gentlemen: I would like any information that you have concerning how a Flight Officer may join the Air Corps Reserve.

Ralph E. Bergin
Pittsburgh 16, Penna.

● You are eligible to apply for direct appointment in the Air Force Reserve under the provisions of WD Cir 101, 1947, as amended. Contact the Air Reserve Training Detachment at Greater Pittsburgh Airport for copies of WDAGO Form 170. Then apply to Headquarters 11th Air Force, Harrisburg, Pennsylvania to appear before their Interview Board.

Gentlemen: Throughout the war, I served as Medical Administrative Officer with ATC, and my present assignment (Continued on page 46)

HAVE YOU AN AIR RESERVE OR AIR NATIONAL GUARD QUESTION? WRITE AIR FORCE ANSWERS PREPARED BY HEADQUARTERS, AIR DEFENSE COMMAND



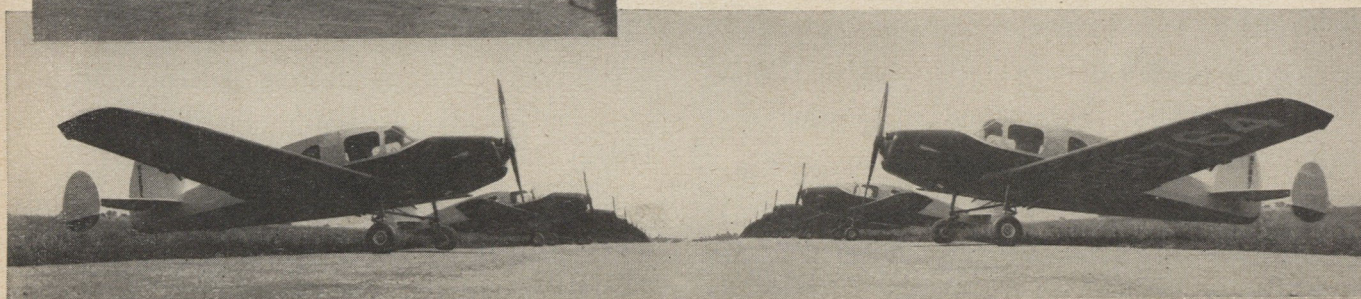
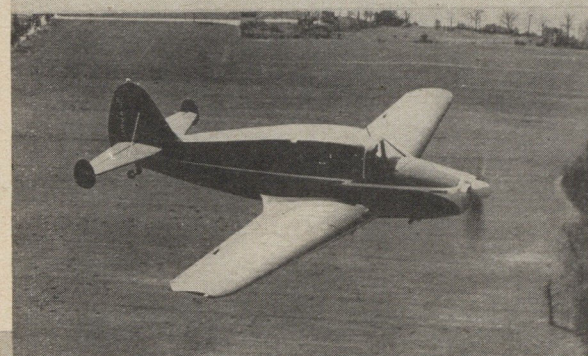
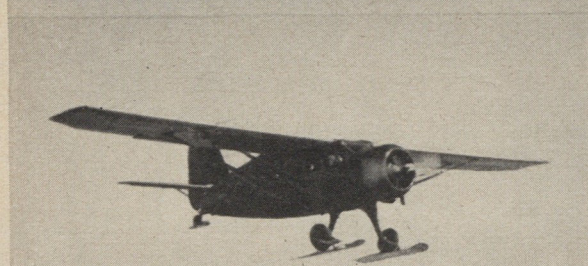
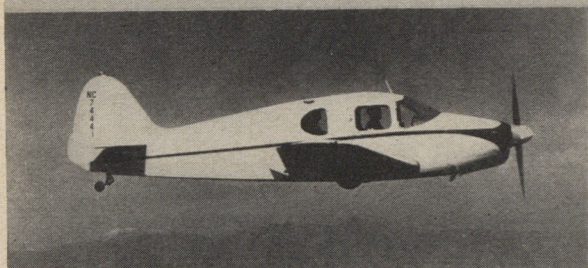
BELLANCA

SETS THE PACE...

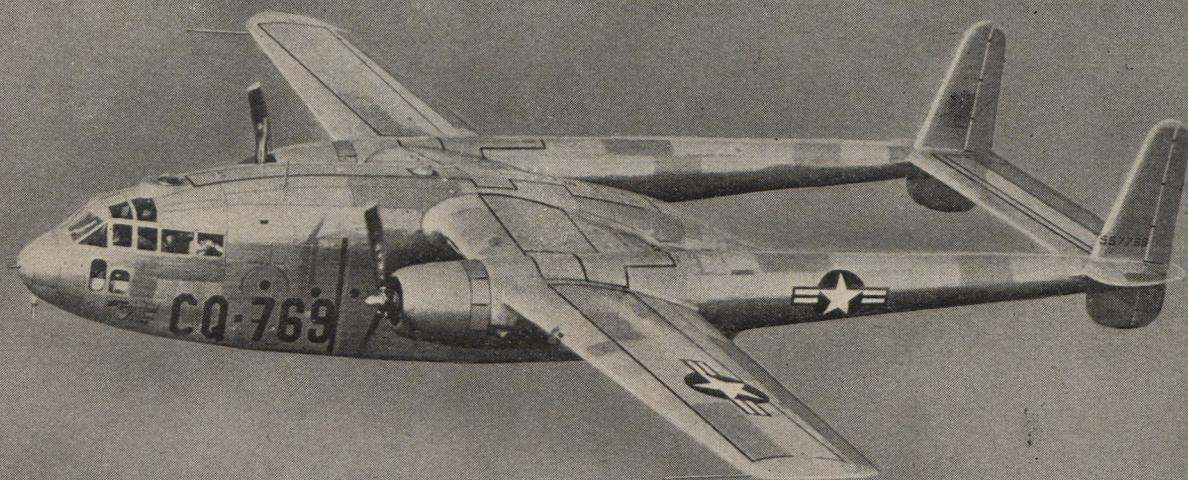
IN WAR — Bellanca delivered over \$44,000,000 worth of airplanes and components for the use of the Armed Forces and our Allies. Included were the AT-21-BL Crew Trainer; quantity production of .50 caliber gun turrets; floats for the Navy PBM-3 and MARS seaplanes, and a large array of other important equipment.

IN PREPAREDNESS — The facilities of Bellanca's engineering and production skills are always at the disposal of our Government in the design and supplying of various types of military equipment, including pilotless aircraft, cargo and utility airplanes, armament items, etc.

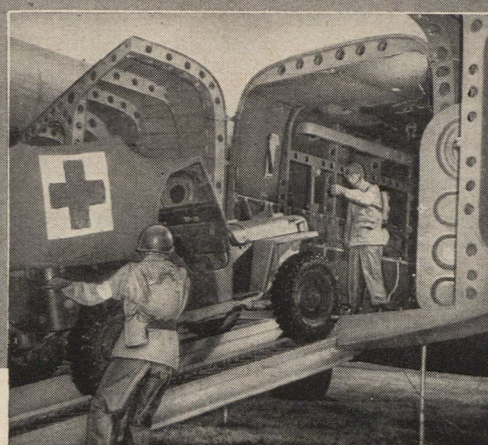
IN PEACE — The ocean-spanning flights of Chamberlin and Levine, Williams and Yancey, Pangborn and Herndon, Capt. James A. Mollison and a great many more—pioneering the globe-girdling air transport system of the present—were all made in Bellanca-built planes—a glowing tribute to the peacetime leadership of the Bellanca organization. The Bellanca Cruisair Senior—the first private plane featuring retracting landing gear—has ushered in a new era of business and personal transportation. Every pasture field becomes an airport to be safely used by the plane owner in pursuit of business, pleasure and recreation.



BELLANCA AIRCRAFT CORPORATION
NEW CASTLE, DELAWARE



Pattern for Swift Mobility



Speed is a prime essential in the modern concept of military maneuver. And speed, today, has to have wings.

In cooperation with the Air Forces and the Ground Forces, Fairchild research and engineering skill help provide those wings.

The rugged, hard-working C-82 Packet is now in service with the Troop Carrier Command as the standard transport for troops and guns, trucks and

supplies. Its fitness for this important assignment was demonstrated in practical maneuvers such as Operation Yukon and Exercise Snowdrop.

Now, Fairchild engineering ingenuity has created the C-119—a new Packet that flies faster and farther and carries an even greater load.

In these two airplanes our military minds have found new answers to old problems, and around them have built a new pattern for swift mobility.

 **Fairchild Aircraft**

Division of Fairchild Engine and Airplane Corporation, Hagerstown, Maryland



AIR FORCE



Some Unfinished Business

In this fight for adequate airpower there are two things we know for sure: You can't relax for a moment. You never run out of objectives.

Consider the 70-group Air Force. It's really only a 66-group program, and the money appropriated makes possible only a start toward that goal, but let this pass for the time being. Even its 66-group strength will lack the authorization needed for a permanent air establishment of adequate size.

It's true that the recently passed draft act permits a 502,000-man Air Force. But it is also true that existing statutory authority provides for—believe it or not—a grand total of 46,514 personnel and 6,000 planes as the authorized permanent strength of the Air Force. Any strength above that moth-eaten authorized total exists only by virtue of Presidential emergency powers and Congressional appropriations—an impossible basis for efficient planning.

The Navy, of course, has had adequate permanent strength backed up by law for some years now. But not the Air Force. The bill which would have authorized a permanent 70-group Air Force was passed by the House, then tabled in the Senate. AFA leaders can consider that piece of unfinished business a priority objective.

Consider the plane procurement program. With orders for new aircraft barely above the annual minimum set by the Air Coordinating Committee as necessary to keep the aviation industry alive, the President has directed the Secretary of Defense to review the entire program in September and again in December. The administration already has held up \$300 million appropriated by Congress for new military aircraft, and the Secretary's attitude on land-based airpower is about as friendly as the atomic bomb. This threat of an aircraft production cutback calls for a continuous red alert. And while you're up and about, don't forget that five-year procurement planning was considered indispensable by both the Finletter and Congressional air policy groups. Without it the Air Force continues to be saddled with a year-to-year, hand-to-mouth procurement system, both wasteful and inefficient. Don't forget that five year planning legislation also lies cold and still on the Senate table.

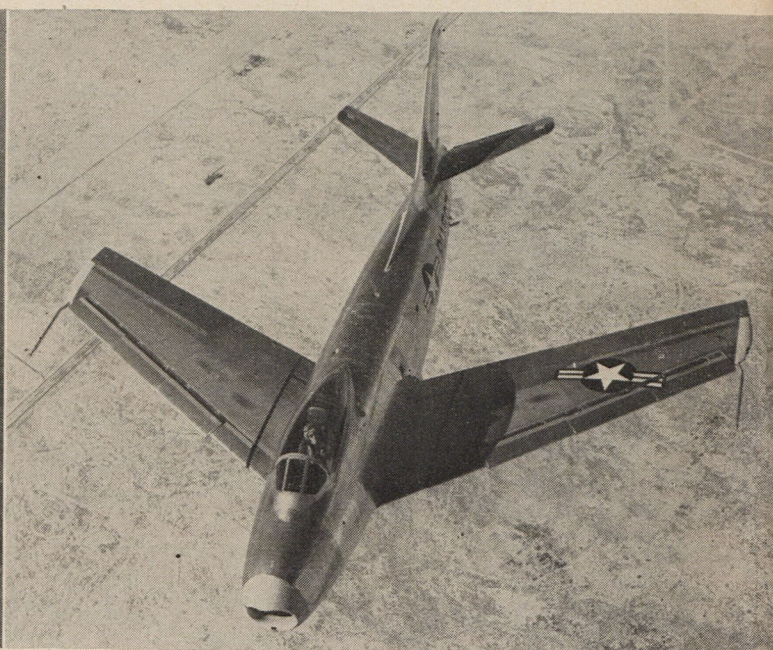
The list of unfinished airpower business is rather long and rather frightening. It includes authorization for an early warning radar screen covering continental US according to a plan of the Joint Chiefs of Staff; an NACA-approved project authorizing the Air Force to establish an Aeronautical Engineering Development Center; a joint long-range guided missiles proving ground to be monitored by the Air Force with the assistance of the Army and Navy; a program for government-financed development of passenger and cargo aircraft. All these projects demand legislation. But in the rush for adjournment all died on the Congressional vine. We think Congress has displayed the right attitude toward airpower, but we hope it will promptly handle this unfinished business.

As an organization we provided unprecedented grass roots support for airpower during the recent budget fight. What the outcome might have been had this type of support not been available, no one can say for sure, but we have ample evidence of its significance. Our next objectives are clearly visible. Our support of airpower is a year-round, all weather job.

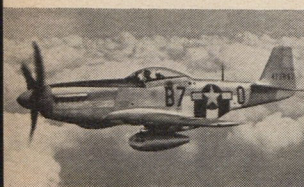
THE EDITOR



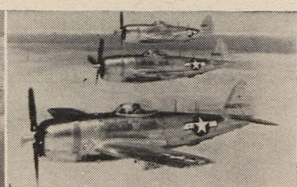
Lockheed F-80



North American F-86



North American P-51



Republic P-47



Lockheed P-38

▲ NEW
▼ OLD

The new look in fighter planes is strictly the jet trend. Under the new set of contracts, US air supremacy in the fighter class will be maintained by the same companies that gave the nation its edge in quantity and quality in the late war. Lockheed, producer of the P-38, is now up to series C in F-80s whose performance

THE NEW AIR FORCE

There is room for optimism bigger and faster, but their

By Ned Root

For three years now, the US has had what has been known officially as an "interim" Air Force. Interim has been a handy word. It has served good purpose in describing a component so completely ravaged by demobilization that more definite adjectives have either been inaccurate or have been dead give-aways of our impotence. It has also indicated a sort of stubborn hope on the part of our air generals that things might get better.

Fortunately things *have* gotten better. The end of the interim is now in sight.

This doesn't mean that by Christmas we will have a completely renovated and reorganized Air Force. We won't. At this moment, 95 percent of all USAF planes are still World War II types. It will take time to materially change such a deplorable situation, but at least we're on the way.

As of the 15th of last month, the Air Force had a total of 3923 new planes on order. Some of them, con-

tracted for over a year ago, were already coming off the line. More than 1400 of them will be delivered within the next 12 months. The balance of the order will be completed sometime between June 1949 and June 1951. The goal is to have 6869 modern planes to equip the regular Air Force exclusive of the Reserve and National Guard.

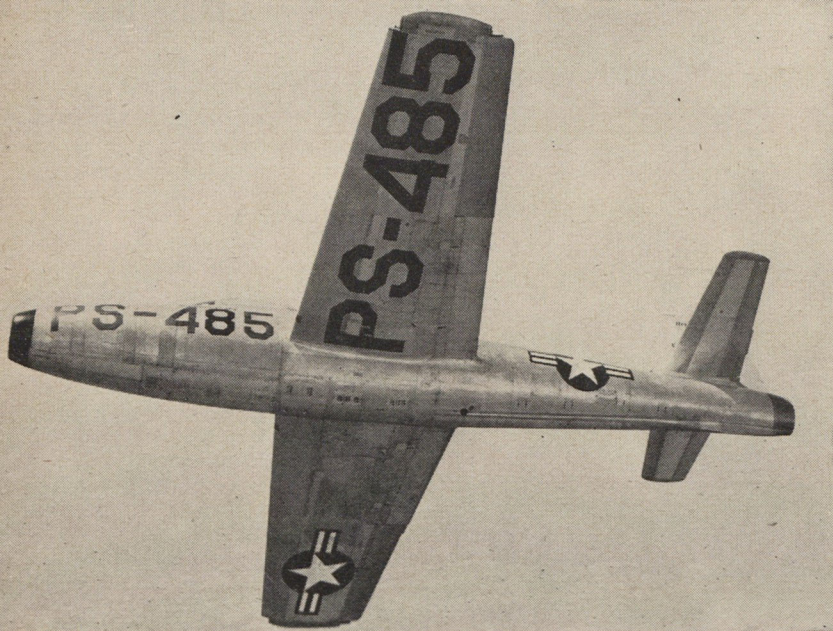
In the meantime, the Air Force is not awaiting the modernization of its equipment to hike its strength. It can now be revealed that the USAF has, within the last several weeks, activated eleven new groups, bringing its total up from 55 to 66. It is expected that the new units will be fully manned and equipped, and "in some degree of battle proficiency" by June 1949.

What kind of groups the eleven new ones will be, and how they will be deployed is something the Air Force is keeping to itself, but it would surprise no one if about half of them were assigned to the Far East Air Forces, where the USAF has already concentrated about a third of its 55-group strength.

Within a year then, the Air Force

will look something like this: There will be 21 heavy bomb groups, 3 light bomb groups, 22 fighter groups, 3 all weather fighter groups, 4 tactical reconnaissance groups, 5 long range reconnaissance groups, 8 troop carrier groups and an assortment of 20-odd separate squadrons for liaison, rescue and so forth. The total manpower figure will be about 453,000 officers and men.

Four additional groups for which Congress has appropriated funds have been "deferred" by the Secretary of Defense until such time as the 66-group program has, in his estimation, been fully assimilated. Since the units in question—two light bomb and two troop carrier groups—were to be used primarily for Army support purposes, the Air Force has raised no serious objection to date. However, there has been some rumor that Congress might, if it felt such a move to be in the national interest, direct purchase of the planes for the additional units, before the Secretary made a move. At such time as the Air Force is brought up to its full 70-group strength it will have approximately 502,000 officers and



Republic F-84

has been improved by the installation of the new Allison J-33-22 turbojet engine. Its top speed is now in the plus 600 mph class. The famed Thunderbolt is being replaced by the P-84 Republic Thunderjet, whose performance is being enhanced by additional power. Most radical of the three is the F-86, North American's substitute for the P-51 Mustang. Powered by the Allison TG-190 and using sweptback supersonic wing and tail, the new plane is reported to be first regular fighter-type airplane to be able to exceed the speed of sound. Enough planes to equip 8 groups are on order.

but not complacency. The Air Force's new planes will be numbers will constitute only a minimum margin of security

men, a boost of some 120,000 over the present strength figure of 382,000.

Of the 3923 planes now on order, but as yet undelivered, a total of 2861 were contracted for from appropriations—both original and supplemental—which were made available in 1948. Types are as follows:

Bombers

244 Boeing B-50s (including D and C models)
94 North American B-45s
30 Northrop B-49s

Fighters

563 Republic F-84s
457 Lockheed F-80Cs
641 North American F-86s
58 Curtiss F-87s
30 Curtiss RF-87As

Transports

27 Boeing C-97s
136 Fairchild C-119s
20 Fairchild C-82s
10 Lockheed C-121s
28 Douglas 124As
10 Northrop C-125s

Trainers

156 Lockheed TF-80s

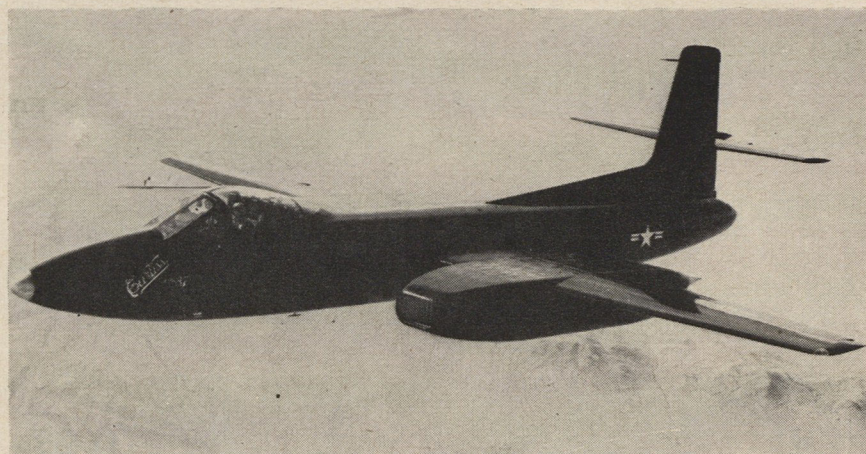
Miscellaneous

39 Sikorsky H-5Fs
52 Grumman SA-16s

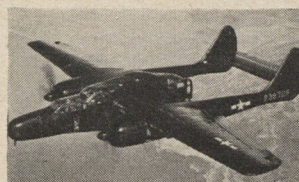
This leaves a balance of 1162 planes ordered prior to 1948 and as yet undelivered. Their types have not been officially revealed, nor has the Air Force announced the designation of the 1458 planes to be delivered in the next 12 months. It is reasonable to assume, however, that among the latter number will be a sizable group of F-80s, F-84s, B-50s, C-97s and C-82s. A few B-36s will also be added to the string. Most significant, perhaps, is the fact that before another year has passed the USAF will probably have its first jet bomber group, equipped with North American B-45s.

In the discussion of the purchase of new planes, it is well to remember a point made recently by Secretary of the Air Force Stuart Symington. It is this: The planes now on order are, for the most part, the most efficient craft available in the numbers desired. The contracts are not guaranteed against revision however. If, as might happen, the B-47 (for which no production money has been appropriated) proves in its tests to be a superior bomber to some other type we now have on order, the Air Force could cut the appropriation for the inferior plane so that money would be available to get into production on the 47.

Right now, however, when time is of such tremendous importance, a step such as this might only be taken in the event the 47s could be produced at about the same rate as the plane al-



Curtiss Wright F-87

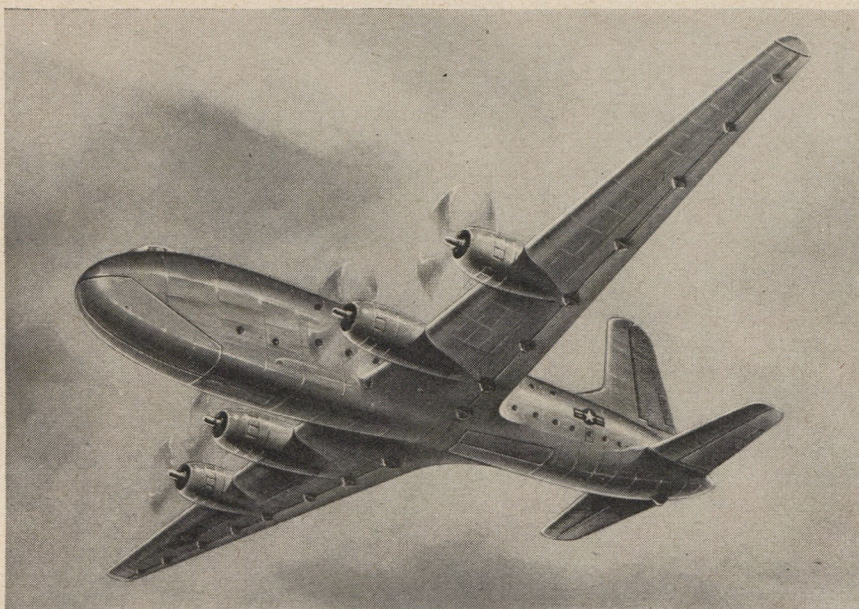


Northrop P-61

NEW
OLD

Curtiss Wright's F-87 with radar and heavy armament will be the night interceptor in the new Air Force just as the old Northrop P-61 was during the last war. There will also be a recon-fighter version of the big C-W powered by two big Allison turbojets.

THE NEW



Douglas C-124



Douglas C-54

▲ **NEW**

C-54 Skymaster yields to the C-124, a revision of the C-74 Globemaster. The main difference between the latter two planes is the fuselage. In the C-124, a truck and trailer can be driven up into the two-decked body on a retractable-type cargo ramp.

◀ **OLD**

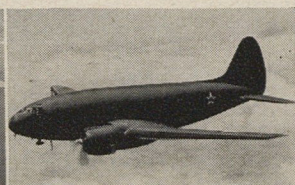


Fairchild C-119B

▲ **NEW**



Douglas C-47



Curtiss-Wright C-46

◀ **OLD**

For cargo-paratroop service, the newer Fairchild Packet, powered by 3250 hp P&W engines takes the place of the C-46 and 47, backbone of wartime Troop Carrier service. The new ship can carry 24,100 lbs 1500 miles at a cruising speed of 231 mph. Clamshell doors in the rear permit the loading of bulk cargo at truck level.

ready under contract. Superiority, in other words, must be weighed carefully against productability. This explains in part the reason why one airframe manufacturer is now turning out "C" models of a plane on one line and "A" models on another. He simply couldn't produce C's alone as fast as he is producing both the C and the A.

Almost as important as the number of planes being bought is the fact that an unusually high percentage of the money to be spent in procurement during the next year will probably go to manufacturers for tooling purposes. Normally manufacturers are not expected to tool up beyond a point that will enable them to turn out ten percent of the airframes contracted for in any one month, i. e., if a manufacturer is granted a contract for 100 planes he is not usually expected to produce them at the rate of more than 10 per month. Now, however, it is quite likely that several of the key airframe manufacturers will be instructed to prepare their factories so that in the event of an emergency they will be able to accept new and larger contracts and to produce even these more sizable orders at a tempo substantially in excess of the normal 10 per cent per month.

So much for the dimensions of the new air force. Compared to the 243 groups, the 2,500,000 men, and the 80,000 planes of the wartime component, it is not big. In groups it will be about one-fourth the size. In men (even taking the optimistic 502,000 figure) it will be about one-fifth as large, and in planes (even counting on the eventual 6869) it will be only one-eleventh as big. It will be a minimum force.

Small as it is, however, it will have certain advantages over its more bulky predecessors. Obviously it will be a faster air force. Its speediest fighters will operate in ranges half again as fast as their wartime counterparts. The production model of the F-86, for example, will probably knock off 600 miles per hour almost as easily as the P-51 did 400. In the bomber class the increase will be even greater. The B-47, when it comes along will be over twice as fast as the B-29 which "poked along" at 250. The catch to begin with will be that neither the F-86 nor the B-47 will have the range of the wartime planes, but in time that problem will also be taken care of.

Then too, the new air force will incorporate much larger planes. Its biggest bomber will be capable of carrying twice the payload of the largest bomber of World War II. Even its "medium" bombers will be able to carry as big a load as the heavies of the last war. One of its types, the Northrop B-49, will probably not only double the speed and the capacity of the B-17,

AIR FORCE

(Continued)

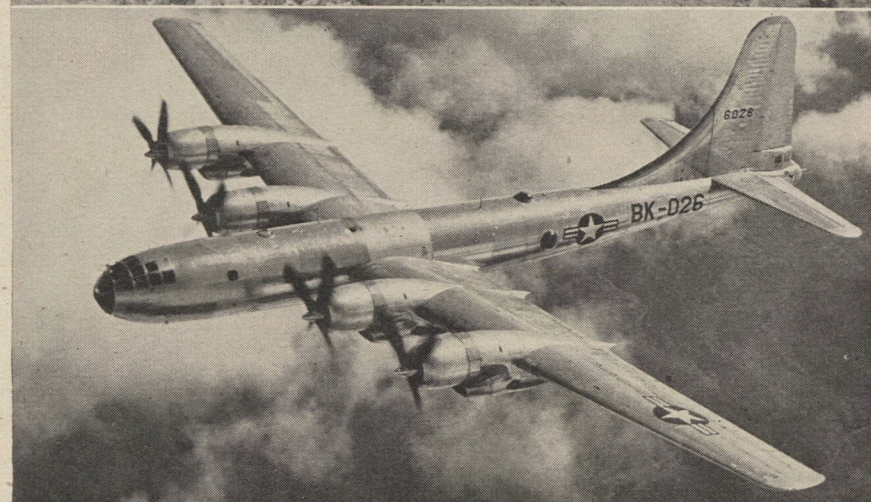
but may also be capable of equalling the 17's range—a phenomenal achievement for a jet.

The paucity of numbers in the new air force will also be compensated for by the fact that to some extent it will be designed to fight an atomic war. Obviously an atomic air force need not be nearly as large as one using conventional weapons, for as the stockpile of A-bombs grows, each plane becomes a more efficient weapon and the need for huge air armadas becomes proportionately less. Theoretically a one-plane atom bomb mission in World War III could do as much damage as a 270 plane mission in World War II. Carrying the comparison to an absurd extreme, 300 A-bomb planes, deployed around the enemy's perimeter, could do as much damage on a single raid as a single mission of the entire World War II Air Force of 80,000 planes. It would be convenient to conclude from this that we need only build 400 bombers to equal our World War II strength of 80,000 planes, but there are many reasons why such is not the case. Among them is the fact that conventional explosives (and therefore conventional mass raids) must be relied upon for strategic air decisions until such time as we can safely assume that we have sufficient numbers of A-bombs to class them as the primary Air Force weapon. Even then, the old fashioned TNT bomb undoubtedly would be used against targets "not worth" an atomic explosive.

None-the-less, there is a perceptive swing away from the 2000 plane concept toward the 2-plane concept of strategic bombing.

Perhaps one of the best indications of this is the Air Force's recent announcement that it is studying the possibility of converting the mammoth B-36 from a bomber into an airborne "tanker" to be used in air-to-air refueling of planes on long bombing missions. Obviously such a program would not be practical if large numbers of planes were involved. The tankers simply couldn't get around to all the planes before somebody's fuel gave out. However, if only a handful of planes were involved—say two fast bombers and three or four fighter escorts — there would be relatively little trouble. The tanker could rendezvous with the "mission" at a predetermined spot, refuel it, and be off about its business in short order. A home-bound refueling rendezvous would actually double the radius of the attacking planes.

The subject of range and radius brings up another point. In recent months some of our new long distance planes have been described for purposes of drama as being capable of flying non-stop from Chicago to Moscow and back, or from New York to

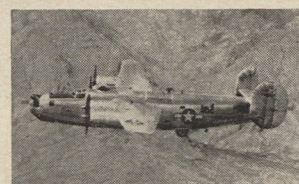


Northrop B-49 (Top)

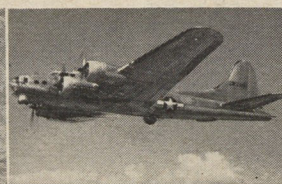
Boeing B-50 (Bottom)



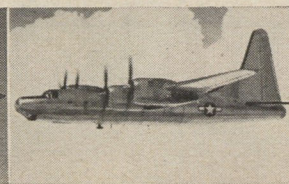
Boeing B-29



Convair B-24



Boeing B-17

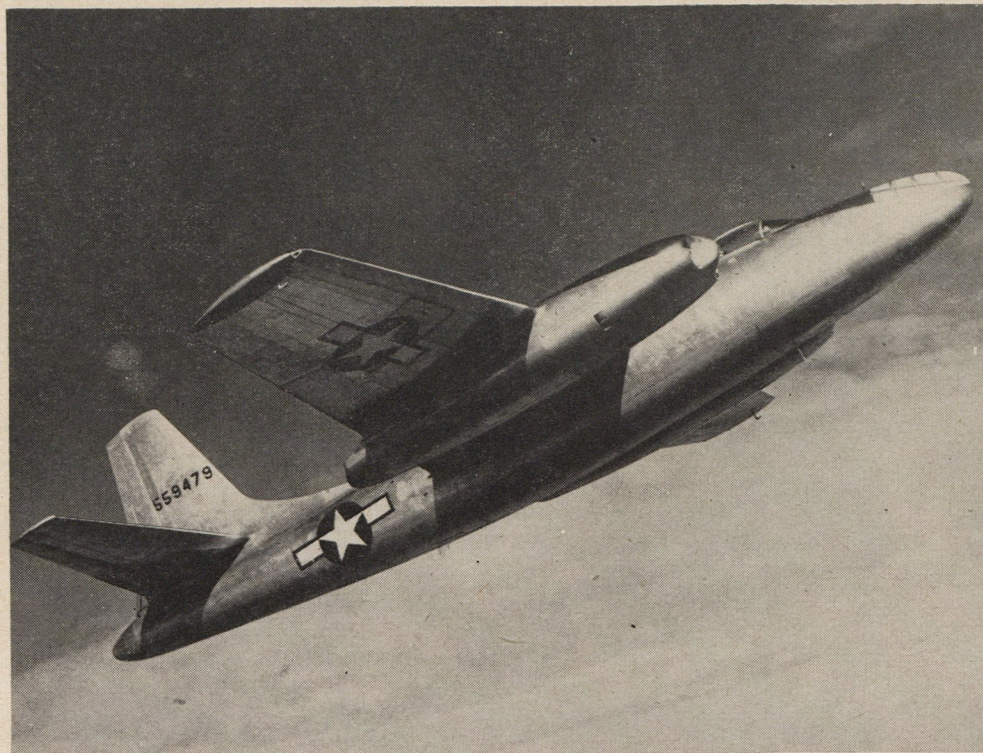


Convair B-32

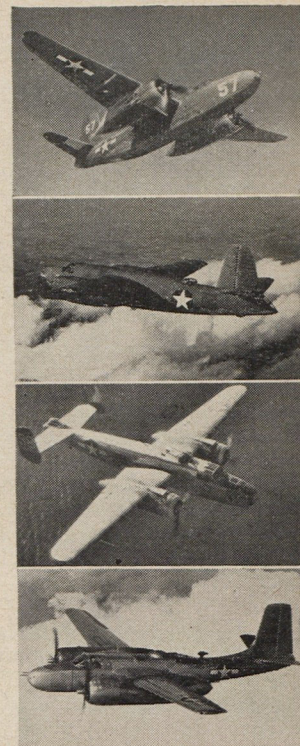
▲ NEW
▼ OLD

Conventionally-powered Boeing B-50s will make up the bulk of the new Air Force's heavies, but the 8-jet Northrop B-49 will not be neglected. Modernized B-29s will be used until new planes are available. B-17s, 24s and 32s are now considered obsolete.

THE NEW AIR FORCE (Continued)



North American B-45

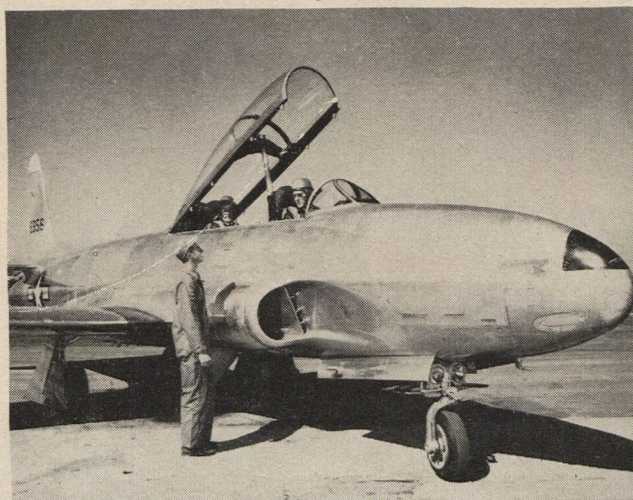


A-20, B-26, B-25 and A-26

NEW North American's B-45 will take the place of both attack and medium bombers in the new Air Force. Powered by four J-35 axial turbojets, the new design will carry a bomb load equal to the most potent missile in our possession. It will be manned by a crew of four. Top speed exceeds 500 mph according to best reports. Like the old Mitchell, its a pilot's plane.

Wartime operations closed the gap between attack and medium bombers. The A-20 proved the case for low-level attack, but it lacked the bombload to be really effective. For a time, B-25s and B-26s did important treetop and wavetop work, but they were admittedly stopgaps. When the A-26s arrived, the two classes were merged, making pattern for new jet-powered B-45.

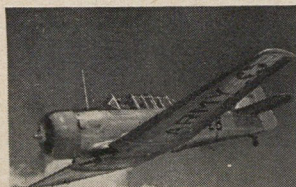
OLD



Lockheed TF-80C

North American T-28 Trainer

No picture available since prototype not yet completed. Ship will be two-place job with reciprocating engine and a tricycle landing gear. Will replace ATs and BTs.



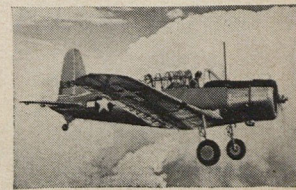
North American AT-6

NEW Wartime trainers are out. Cadets in the new USAF will go directly from North American T-28s to jet powered 2-Place TF80 Cs.

OLD



Boeing PT-17



Vultee BT-13

Still to Come



Capt. C. E. Yeager

Symbolic of things to come in the Air Force of some future date, is the Bell X-1 which has been flown successfully beyond the speed of sound "many times" by three Air Force officers and two test pilots for NACA. Capt. Charles E. Yeager (inset) was the first to crash the barrier.

But neither the X-1 nor the dozens of other experimental models are as yet a part of our striking force. None of them would serve any purpose in defending our borders from attack. They must not be linked therefore, with operational aircraft, despite all their accomplishments. It is for this reason that we have not dwelt in the accompanying article on the "drawing board" air force. It is too easily confused with the air force "in being" or "on order."

Yet the importance of research and



The supersonic Bell X-1

development can not be overestimated. Without it there could never be an "in being" air arm. Without it we would fall behind other nations in the race for perfection in a matter of weeks. Without it we would become vulnerable almost overnight. This is how fast things move in the research field: In a matter of days after the world stood agog at the achievement of the X-1, an announcement was made that within the foreseeable future an engine using atomic energy would probably be able to move a plane the size of the B-36 around the world several times at sonic speeds. The point is this: A strong "in being" air force and an energetic research program are both essential to national security. They are two different things, however, and scrupulous care must be taken that they are not confused.

Berlin and return. Not unaccountably this has given rise to widespread misconceptions that the Air Force plans to fight the next war from within our own borders. You can take it as official: There is no such plan. On the contrary, if war should come the Air Force would make every effort to es-

tablish bases of operations as far away from our own borders as possible both to facilitate strikes against the enemy and also to prevent him from striking at us. At this very moment 23 of our 55 battle-ready groups are stationed outside our own continental borders. It is no longer pretended that they are

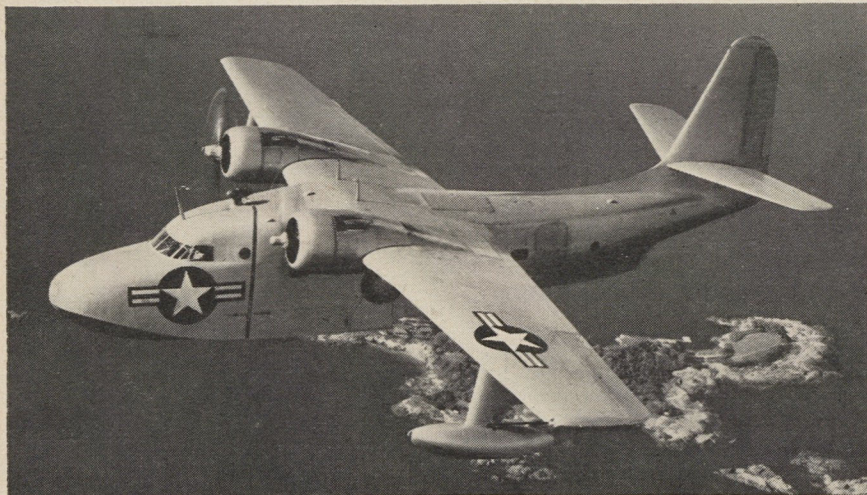
overseas solely—or even primarily—for occupation purposes. Even combat groups stationed within the US are getting overseas training by virtue of a rotation program which makes it possible for many of them to visit the European or Far East theaters for "turns" of a month or so each. No, the Air Force has no intention of fighting from our own back yard—unless it is forced to.

In the field of transports, the capacity of the strategic cargo ship is being upped from a wartime figure of about 20,000 pounds (the C-54) to a new air force figure of 50,000 (the C-124).

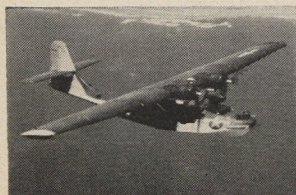
The capacity jump from 20 to 50 thousand pounds means more than being able to carry bigger loads. Actually it creates a whole new philosophy of air logistics. In the last war, only priority shipments were made by plane. Among the instruments of war there are now only a few, such as heavy engineering tools and large field guns, that cannot be moved by air.

In trying to delineate the status of the Regular Air Force there are enough confusing statistics involved without getting mixed up with figures on the Air Reserve and the Air National Guard too. That's another story. But in passing it should be mentioned that to chiefs of the Air Force a strong civilian component is an integral part of the seventy group program. Briefly, these are the Guard and Reserve requirements they have set up; for the Reserve: 34 groups of 122,000 officers and men; for the Guard: 27 groups of 58,000 officers and men; aircraft requirements: 8,100 planes. How far we are from meeting the requirements at this moment is difficult to say. There is still considerable administrative snafu in regard to both reserve units. Perhaps the best that can be said at this moment is that the situation is greatly improved over the muddle it was in 18 months ago. Within a year the program should be in fairly respectable shape.

Yes, the end of the interim is near. Its passing will be marked without regret. We are on the way, but it is now doubly important that we do not fool ourselves into thinking that we have secured the peace—that we are now so strong that no nation would dare attack us. We aren't. We are very little stronger than we were last week or last month or even last year. The difference is that at last the Air Force has a program. At last it has been given the money and authority to reconstruct its demoralized ranks and equipment to a level which for the moment, anyway, will provide a minimum insurance policy. Even this policy, however, will not become "effective" for several more years, and by that time the premiums may again be altered. There is no cause nor excuse for complacency. The most we can allow ourselves is a measure of satisfaction that we are headed in the right direction.



Grumman SA-16A. Below, OA-10



▲ **NEW**
◀ **OLD**

During the war, the USAF operated a few Catalina amphibians in air-sea rescue service. The bulk of this work was done by the Navy. Now that the Air Force operates its own pick-up, 32 twin-engined Grumman Albatrosses have been purchased for the A-R-S.

The **AFA** Nominates . . . Announcing the 1949

C. R. Smith, internationally-known air transport leader, is the nominee for President of the Air Force Association on the 1949 slate of officers and directors announced by the national nominating committee.

Smith was unanimously selected to head a list of AFA nominees from 18 states whose names will be presented for vote at the national convention in September.

At that time delegates will elect six officers and twenty-three members of the Board of Directors.

The nominating committee appointed by the President has named 13 men who would be new to national AFA posts, and provided for continuity of leadership through the re-naming of men who have long been close to the national activities of the Association.

Smith himself is currently AFA's Third Vice President and one of the most active men in its national affairs.

In addition, national President Tom Lanphier, Jr., who has led the organization through its crucial second year, has been nominated to serve as a director, and Jimmy Doolittle has been re-nominated for the position of Chairman of the Board.

Like these two men who have held the position of national President, C. R.



C. R. Smith



Meryll M. Frost

Smith is first and last a civilian—a soldier only when the shooting's on. And though he achieved the rank of major general, he was, like the rank and file of AFA membership, drafted from civilian life to serve the Air Force.

In the case of C. R.—as he is known throughout the aviation industry today—he had what the Air Force vitally needed when it began its wartime ex-

THE NOMINEES

OFFICERS

President: C. R. Smith, New York, N. Y.

1st Vice President: Meryll M. Frost

Worcester, Mass.

2nd Vice President: Arthur F. Kelly

Los Angeles, Calif.

3rd Vice President: Thomas J. McHale

Dallas, Texas

Secretary: Julian B. Rosenthal

Forest Hills, N. Y.

Treasurer: G. Warfield Hobbs III

Westport, Conn.

DIRECTORS

Chairman of the Board: James H. Doolittle, New York, N. Y.

John P. Biehn, Columbus, Ohio

Tom Lanphier, Jr., Boise, Idaho

John M. Boone, Baltimore, Md.

William R. Lovelace, Albuquerque, N. M.

W. P. Budd, Jr., Durham, N. C.

William Morrison, Woonsocket, R. I.

John H. Caldwell, Hartsdale, N. Y.

Robert Proctor, Boston, Mass.

Thomas D. Campbell, Hardin, Mont.

Earle P. Ribero, Albany, N. Y.

Edward P. Curtis, Rochester, N. Y.

James Stewart, Hollywood, Calif.

Sam Clammer, Tulsa, Okla.

Thomas Stack, San Francisco, Calif.

Burton E. Donaghy, New York, N. Y.

Jerome Waterman, Tampa, Fla.

John P. Edmondson, Scarsdale, N. Y.

John Waters, Chicago, Ill.

Robert Gross, Harrisburg, Pa.

Otto Wellensiek, Nebraska City, Neb.

William Joy, Detroit, Mich.

C. V. Whitney, Washington, D. C.

slate of national officers and directors offered by the nominating committee

pansion—air transport “know how” combined with top-drawer executive ability. The Air Force took him from his job as President of American Airlines and made him Chief of Staff of its Air Transport Command. He became its Deputy Commander and applied the organizational touch that was instrumental in the success of the Command, won the Air Medal for rescue operations in Burma, and the Legion of Merit for supply activities in North Africa. For his ATC work he received the Distinguished Service Medal with a citation from General Hap Arnold which termed him “one of the world’s greatest contributors to the development of military and global air transportation.”

Now Chairman of the Board of American Airlines and President of American Overseas Airlines, C. R. is a widely known leader in American air transport today and universally recognized for his business abilities. As one who has been active in aviation for the past 20 years, he has long been one of the nation’s foremost “pluggers” for adequate airpower. The Air Force Association idea he accepted wholeheartedly, and from its inception he has been one of AFA’s strongest boosters. In the last year he has taken an

In the First Vice President’s position on the slate is Meryll M. Frost, an AFA leader in the New England area and now national Second Vice President. Former sergeant and ball turret gunner and lone survivor of a combat crash, Meryll overcame major physical handicaps to star with the Dartmouth football team in 1945, and was voted the “most courageous athlete” of the year. On the Dartmouth coaching staff, he also works as Assistant Executive

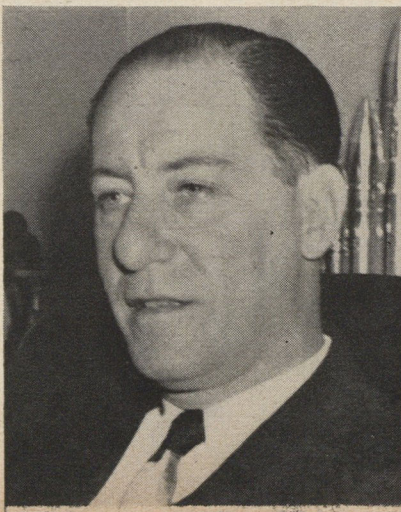


Thomas McHale

Director for the Bay State Society for the Crippled and Handicapped.

Nominated for the position of Second Vice President by virtue of his state and local work, is Arthur F. Kelly who heads the California Wing and is one of the Association’s top commanders. During the war Art was with ATC, as Deputy Chief of Staff of the European Division, and was cited for his work with advance units on the Continent. He is now Assistant to the President of Western Airlines in Los Angeles.

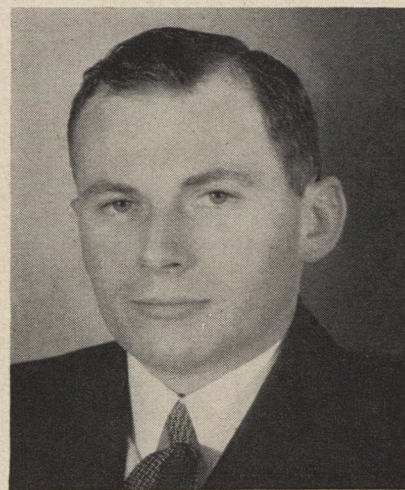
Julian B. Rosenthal



The nominating committee went to Texas for its Third Vice President, and named another former sergeant gunner who was shot down during the war. The nominee, Thomas J. McHale of Dallas, bailed out of a B-17 over Berlin on his 20th mission, and shortly after became editor of a POW camp newspaper. In business life he’s on another side of publishing—as advertising director of the Dallas Chamber of Commerce magazine.

Nominated to serve another hitch as national Secretary, Julian Rosenthal was on the original organizing committee of AFA, wrote the national constitution single handed, and chaired the resolutions committee that drew up the Statement of Policy adopted at the last convention. A Pfc during the war, Julian served as an attorney in procurement work, and was one of the few enlisted contract writers in the Air Force. He is now a partner in the Sol A. Rosenblatt law firm in New York City.

Also renamed to serve another term as a national officer is G. Warfield Hobbs III, better known as Gus, who is currently AFA’s Treasurer and who has been nominated to succeed himself in that position. Gus is another veteran of the Air Transport Command who



G. W. Hobbs III

saw service in the European Theater. He is a native of Baltimore who makes his home in Westport, Conn., and has a New York City business address. Gus is a vice president of the City Bank Farmers Trust Company.

Please turn the page for information on nominations to the Board of Directors.



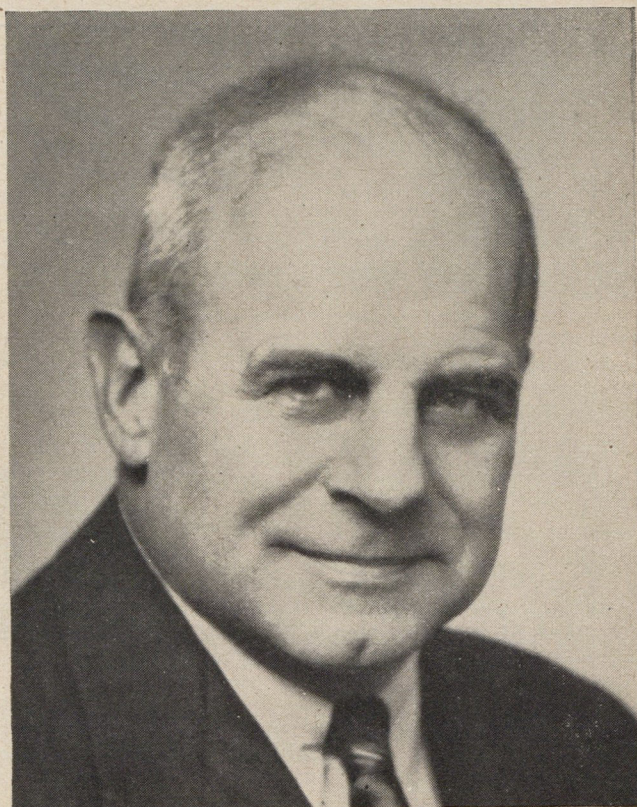
Arthur Kelly

active part in the reorganization of AFA’s national headquarters and has worked closely with President Tom Lanphier in streamlining procedures and strengthening the Association’s business structure. His first-hand knowledge of AFA matters and close interest in the AFA program were cited by the nominating committee in their choice of C. R. for the Presidency.

The AFA Nominates (Continued)



Tom Lanphier, Jr., AFA's national President who has been nominated to serve as a director of the Association in 1949.



Jimmy Doolittle, past national President, who has again been nominated as Chairman of the Board of the Association.

THE DIRECTORS

CHAIRMAN OF THE BOARD

James H. Doolittle, New York, N. Y.: First president of AFA, 1948 Board Chairman; wartime commander of 8th, 12th, 15th Air Forces; now oil company executive.

John P. Biehn, Columbus, Ohio: War-time Pfc cryptographer; bank executive; an organizer of '48 convention.

John Marshall Boone, Baltimore, Md.: Civic leader, organizer of AFA's first large squadron; 8th Air Force veteran.

W. P. Budd, Jr., Durham, N. C.: Troop carrier pilot in ETO; now Durham industrialist and AFA Wing commander.

John Caldwell, Hartsdale, N. C.: ETO airborne radar operator; now magazine executive and AFA squadron leader.

Thomas D. Campbell, Hardin, Mont.: Wartime presidential emissary; world's largest wheat farmer; Wing commander and squadron organizer.

Edward P. Curtis, Rochester, N. Y.: AFA founder, former vice president; industrialist; ex-Chief of Staff at USSTAF.

Sam Clammer, Tulsa, Okla.: Commanded Air Force radio intercept units in

ETO; on 1948 Board of Directors; attorney in Tulsa and Washington, D. C.

Burton E. Donaghy, New York, N. Y.: Sergeant in wartime Air Force; now director of an industrial association.

John P. Edmondson, Scarsdale, N. Y.: Publishing executive; heads AFA magazine committee; former intelligence officer with 8th Air Force.

Robert Gross, Harrisburg, Pa.: With AACS 17 months in Greenland; now vice president of marketing firm; squadron leader.

William Joy, Detroit, Mich.: Commands Detroit squadron; served with ATC during war; Detroit industrialist.

Tom Lanphier, Jr., Boise, Idaho: AFA's 1948 national president; Pacific fighter pilot veteran; now newspaper editor.

William R. Lovelace, Albuquerque, N. M.: Physician who headed AAF's Aero-Medical lab, made record chute jump in 1943 oxygen equipment test.

William Morrison, Pawtucket, R. I.: Wing commander; bank executive; ex-intelligence officer in SW Pacific.

Robert Proctor, Boston, Mass.: Attorney who was wartime special assistant to

the Commanding General; on AFA Board of Directors during 1948.

Earle P. Ribero, Albany, N. Y.: Sergeant in ETO service group; now heads tree surgery company; squadron leader.

James Stewart, Hollywood, Calif.: Movie star; 1948 AFA vice president; former pilot and group commander in the ETO.

Thomas F. Stack, San Francisco, Calif.: Deputy Wing commander; squadron leader; B-24 navigator in Italy, shot down and escaped; now an attorney.

Jerome Waterman, Tampa, Fla.: Department store executive and squadron founder; administrative officer during the war.

John Waters, Chicago, Ill.: Sergeant at bomb group headquarters in Italy; insurance adjuster; squadron commander.

Otto Wellensiek, Nebraska City, Neb.: Fighter pilot and squadron CO during war; now an attorney, AFA Wing commander.

C. V. Whitney, Washington, D. C.: Assistant Secretary of the Air Force who served in wartime as combat intelligence officer.



Close-up of the new Aeronca Sedan taken over New Haven, Conn. It is designed to handle like a light trainer.

AFA Acceptance Test

A team from the New Haven Squadron of AFA checks the Aeronca Sedan, newest of the nation's fours

EDITOR'S NOTE: This is another in the series of personal plane reviews, conducted in cooperation with test teams provided by AFA Squadrons. When a new personal plane is made available, we select a squadron to conduct the test. The squadron assembles a six-man test team consisting of qualified pilots, maintenance men and general observers from among its members, and brings them together with the airplane at a convenient airport. They examine the airplane, fly it, discuss the results. We then interrogate the team and compile the findings.

The Test Team

This month's team was provided by the New Haven, Conn., Squadron of AFA. It consisted of two pilots, two mechanics, and two general observers. The pilots were William H. Johnson of New

Haven, Conn., and Jerome A. Downs III of Milford, Conn. Bill was a C-46 and C-47 instructor for Troop Carrier Command during the war, and is still active in the 491st Bomb Sq. (Res.) in New Haven. He is married and has two children. He holds an active commercial pilot's rating.

Jerry Downs flew 11 sorties with the 27th Air Transport Group into the Ar-

dennes and the Rhineland during his Air Force career. Since his separation, he has kept up his flying both with the 140th Composite Sq. (Res.) and in civil aircraft. He maintains a commercial and flight instructor's ticket with instrument ratings.

The technical section of the team was unique in that both the members are Air Force personnel on active duty.

Francis J. LaPierre is line chief for reserve aircraft at the New Haven Municipal Airport. He was a bombardier during the war, and flew on 77 missions, many of them in the Po Valley and Northern Apennines campaign. He holds the DFC and the Air Medal with eight clusters. He is married and has two children. He is the holder of a CAA commercial pilot's rating.

Sgt. Bobby L. Diener of Prospect, Ohio, is also a reg-

AFA ACCEPTANCE TEST

Aircraft Aeronca Sedan
 AFA Test Team New Haven, Conn.
 Airport New Haven Municipal



Alfred B. Bennett, Sales Manager of the County Airport Corporation, points out the Sedan's interior features to the pilot members of the AFA test team, Wm. H. Johnson, center, and Jerome A. Downs, right.



Arthur Dean, left, and Samuel Gordon, general observers, inspect landing lights on the new Aeronca. One points straight ahead, the other is canted downward for taxiing. Wing skin is all metal.

AFA Acceptance Test (Continued)

ular on active duty. Bobby is typical of the postwar Air Force. He crews the AT 6s and 11s used by the reserves in the New Haven area, and is an enthusiastic member of the New Haven Squadron of AFA.

Samuel M. Gordon of New Haven, the first general observer, instructed aviation cadets during the war. He is an active pilot and puts in considerable time on commercial aircraft. The second observer was Arthur H. Dean, a former 20th Bomber Command parachute rigger. Art now studies photography under the GI Bill. While he was stationed in India he studied hypnotism.

The builders of the Aeronca Sedan—the plane being inspected—were represented by Alfred B. Bennett, popular sales manager of the County Airport Corporation, operators of Westchester County Airport at White Plains, N. Y. Al was one of the pioneers in the application of automotive sales methods to aircraft, and his individual record for unit sales, established while he was at Hightstown, N. J., remains virtually unchallenged in the field of light planes.

The Aircraft

The Aeronca Sedan is a four-place, braced high-wing monoplane powered by a 145 hp opposed-type continental engine. It was designed and built both

from the standpoint of operation and maintenance for the Sunday flyer.

The fuselage and tail surfaces of the Sedan are built of conventional steel tubing, covered in fabric. The structure was selected as the most desirable for personal aircraft because most damage inflicted to such planes occurs in the fuselage section, and most shops are equipped to handle this kind of repair.

The wing, which represents the greatest portion of the exposed surface, is all metal for minimum maintenance. It is a very simple structure made up of a single metal spar, stamped dural ribs and a flat rivetted skin. It is supported by a single steel strut on either side.

The landing gear is a single main strut affair, built for maximum ruggedness and simplicity of operation. Brakes are hydraulic, with toe-type control.

The fuselage is wider than most light fours, probably the widest seat allowance of any plane in its class. The rear two seats are removable so that the space allowed the 120 pound capacity baggage section can be enhanced for cargo haulage.

The door is unusually wide, allowing easy access to the rear seat, a feature not too frequently found in light planes.

During circuit inspection Bennett pointed out to the test team that the Sedan was not designed as a "hot" air-

plane; rather, its characteristics were matched to the Aeronca Chieftain in stall performance, take-off and economy. Flaps, gear retraction, movable pitch propellers were eliminated purposely, and the instrumentation was kept simple in order to create a plane that would be easy to fly and maintain.

The Sedan has a span of 37 feet 6 inches. Its overall length is 25 feet 3 inches and its standing height is 7 feet. Gross weight is 2050 pounds, useful load is 900 pounds. Loading on its 200 square feet of wing surface is 10.2 pounds per square foot. The fuel is stored in two twenty-gallon wing tanks, each of which is checked in the cabin by means of visual level gauges. These are plastic circuit-tubes connected directly to the tank, so that the pilot can read the actual level of fuel in the tank without reference to any mechanical transmission.

Performance was test flown against the following factory claims:

Cruising speed, sea level,	
gross weight	105 mph
Rate of climb for the first	
minute	650 feet
Top speed	120 mph
Stalling speed	53 mph

The special features which were brought to the team's attention for observation in flight were the engine mufflers and cabin soundproofing, the cockpit heaters and ventilation, and



The team technicians, Bobby L. Diener and Francis J. LaPierre, check over the power plant installation. They reported that the engine and accessories were unusually accessible for servicing.



Originator of the Acceptance Test idea, Technical Editor Blimp Friedman watches as Al Bennett (hand on prop) briefs the members. Standing, Johnson, Gordon; kneeling, Dean, Downs, LaPierre, Diener.

the balanced control system for easier flight operation.

The Findings

The team, as usual, accepted the test in two separate three-man teams of pilot, observer and mechanic. During the circuit inspection, La Pierre commented that the power plant was as accessible for maintenance as any he had ever seen on civil or military planes. His general comment was that the airframe had been kept simple and rugged for routine maintenance with simple tools. Both he and Diener commented that the hand and inspection hatches were well located and were large enough to permit work and adjustment as well as inspection. This was particularly true of the hatch under the stabilizer that allows access to the upper reaches of the tail-wheel assembly. The only addition proposed by the mechanical crew was a built-in support for the auto-type engine cowls.

Both Johnson and Downs found the cockpit comfortable. Leg room proved adequate for a couple of tall men. Jerry Downs, however, would have liked the door on the pilot's side rather than on the right, and would have added a rear view mirror. However, both pilots were surprised to discover the degree of circuit vision that the Sedan has for a high-wing monoplane. From the pilot's seat, the tail is visible,

Except for a slightly higher landing speed, the Sedan's characteristics are much like a light plane. Taxiing vision is good for a conventional landing gear airplane. The sloped cowl allows an average sized pilot to see an object on the ground adequately, about seven feet from the prop hub.

An ample fin gives the ship favorable take-off directional stability. Both pilots agreed that ground characteristics are good, generally like a light plane with the advantage of a little more weight.

On take-off, the Sedan made its 650 feet of altitude in a little under a full 60 seconds, probably due to a mild breeze. The plane was, at the time, carrying virtually its full payload. In both steep and shallow turns, the ship tended to recover laterally and longitudinally with a minimum of control. The ship approached stalls with adequate warning on controls and showed no tendency to fall off.

Bill Johnson stated that he liked the craft's general ease of handling, and, within design limits, its overall performance. Both pilots conceded that the plane fulfilled the manufacturer's claims.

From the back-seat department, the general observers thought adequate consideration had been given the passengers. Two better-than-average-beamed men sat in the rear on one trip and found themselves totally uncrowded in length and breadth. Passenger vision,

both from the side windows and the front proved adequate. Their complaints were minor. One was an urgent plea for bigger ash trays, the second was an mild criticism of an exposed aileron control cable, which was purely an esthetic argument. Conversation within the cockpit was conducted between all seats at ordinary levels under cruising conditions. Vibration was of very low magnitude.

Conclusions

The consensus was that the Aeronca Company had achieved its aim. The Sedan is a satisfactory vehicle for non-professional pilots who need ease of operation and maintenance. In the test the ship performed satisfactorily, was totally free from inherent flying defects and seemed capable of being maintained with relative ease. The general balloting averaged thus:

General performance: Superior.

Pilot vision: Excellent

Passenger vision: Superior

Cockpit comfort: Superior

Handling qualities: Superior.

Operational utility: Excellent.

Structural qualities: Superior.

Maintenance qualities: Superior.

Stall characteristics: Excellent.

Speed: Satisfactory.

Range: Satisfactory.

General fidelity to claimed performance: Complete.



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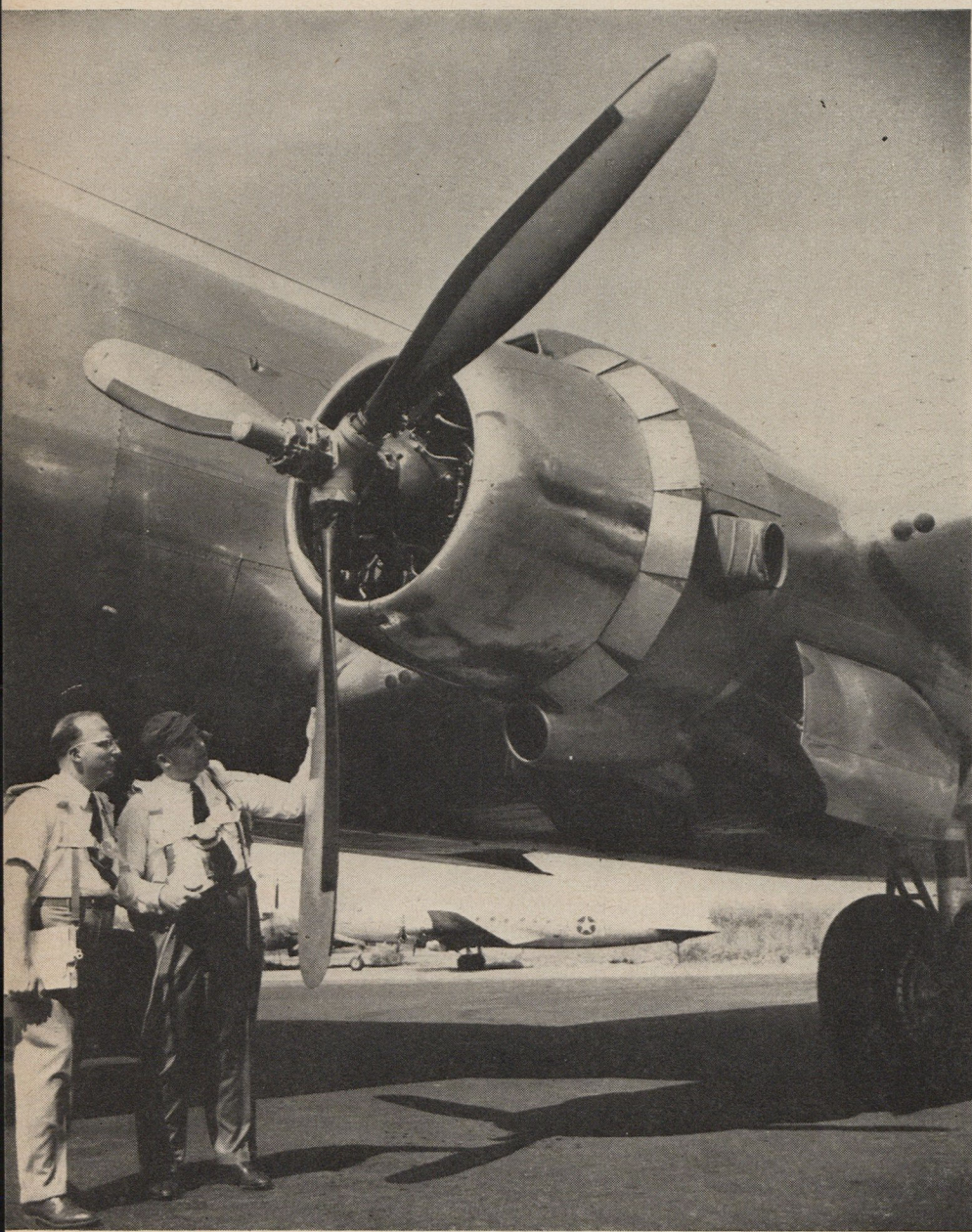
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Following one of the reversal tests, J. H. Kasley, aerodynamicist for the Propeller Division of Curtiss Wright, checks the power plant of the C-54 with chief test pilot Herbert O. Fisher (right), who conducted the experimental reverse-pitch flights.

The Situation In Reverse

Reversible propellers were designed to be used as ground brakes, but at Caldwell, N. J. they have found that it may also be possible to use them in the air

By William S. Friedman

Early in the last war, reversible propellers were installed by the Navy on a few flying boats to make it possible to back them up and generally maneuver them more handily on the water after landing. A little later on, some Army land planes were rigged with the same apparatus in an effort to reduce their landing runs.

At the time, both of these experiments were regarded—even by the experimenters—as something radically new, and as might be expected, there arose considerable speculation as to what would happen in the unhappy event the props reversed in flight.

The truth of the matter is, however, that both Army and Navy World War II experiments were late by about 25 years of being the first examination of the possibilities of reversible props. Actually the first investigation of the subject was conducted in World War I as a tactical expedient after the Germans had taken to bomb-pocking our airfields while our planes were on missions in the hopes that our ships would crack up in landing upon their return. To some extent, at least, the German tactic was successful. It behooved the US, therefore, to develop some means of minimizing landing runs, and ipso facto the chances of running into a bomb crater and cracking up. At that time, wheel brakes seemed out of the question, so someone thought of building a propeller that could be reversed to push backwards against the momentum of the aircraft as soon as it touched down.

In due time, the experimental shops at McCook Field, the predecessor of Wright AFB, produced a number of manually-operated reversibles which were fitted to Curtiss JN4Hs (Hisco Jennies) and the idea was tried out. Later the American Propeller & Manufacturing Co. of Baltimore, Md., developed a reversible propeller for a Liberty engined DeHavilland. Both of these planes demonstrated that reversible propeller would effectively minimize landing runs.

Then, very much against regulations (but very much as might have been expected) several pilots tried reversing pitch in flight. Uniformly, their planes lost altitude but didn't gain any speed. Normal flight was regained when forward pitch was resumed. It was noted, however, that the stalling speed of the airplanes rose to an appreciable degree when the props were placed in reverse. In those days of underpowered bird-cage biplanes, this increase constituted a genuine hazard. Under the best conditions, the spread between cruising and stalling wasn't enough for comfort.

Shortly after this series of experiments, wheel brakes were developed, and since the only contemplated use for reverse props at that time was in reducing ground run, the brakes were substituted and the switchable props abandoned. The fact that during this period one pilot (whose name has faded with the story) actually reversed his props at

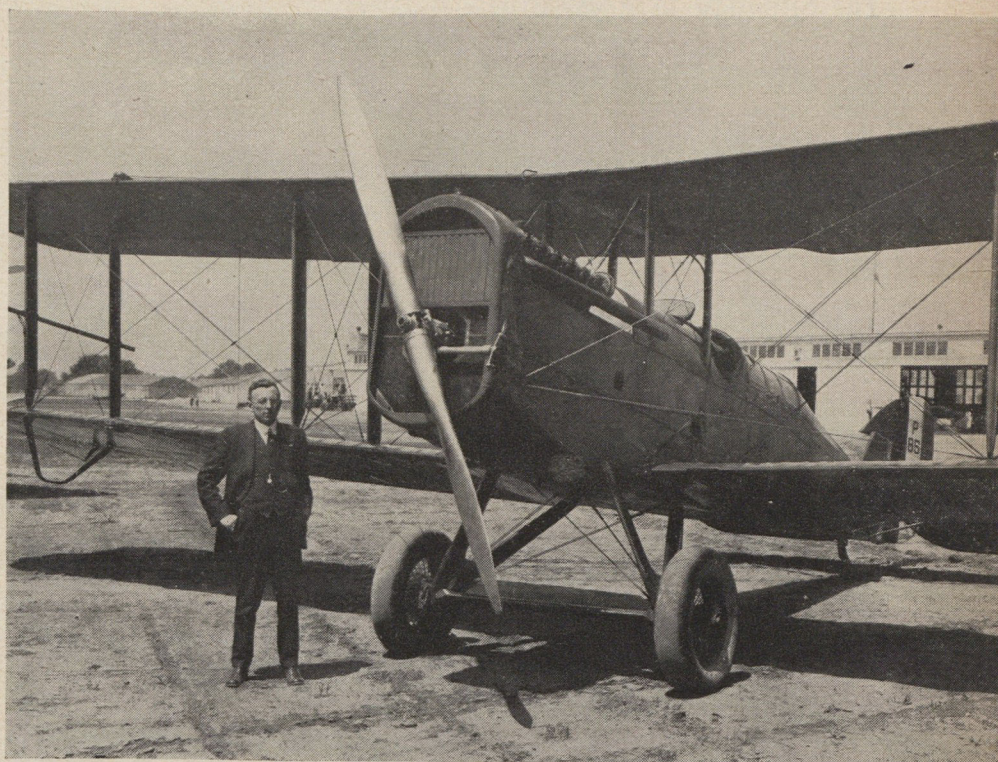
6,000 feet and landed safely with practically no approach was given no significance. Apparently it didn't occur to a single soul that here might be a means of cutting let-down and approach periods to a fraction of what it was normally.

In World War II, reversible props appeared again—this time on large transports whose landing runs, even with wheel brakes were still too lengthy. Again the question arose as to what would happen if a flak burst or some other mishap caused an involuntary reversal in mid-air.

In 1943 Col. H. H. McCoy gingerly tried reversing the inboard engines on a B-17E in flight—half expecting the worst. Somewhat to his surprise the plane merely lost altitude without gaining speed, even as its predecessors had done 25 years before. The stalling speed appeared to have gone up a bit, but little else happened. Progress had stretched the zone between stalling and cruising speed, so that a mild rise in “pay-off” was no longer an insurmountable hazard.

The next to do a little experimental work in this field were Ben O. Howard of Douglas Aircraft, and Herbert O. Fisher, test pilot for the Propeller Division of Curtiss Wright. They were doing power plant tests on the new DC-6 in 1946, when the problem of air reversal came up. They too tried reversing only the inboard props. The results were the same. This experience encouraged Herb Fisher to try a complete series of reversals on a four-engined plane. On returning to the east coast, he broached the subject to the executives at Curtiss Wright's Propeller Division, who granted permission to make a preliminary study.

The trials took place over Caldwell, N. J., late in 1947. The plane selected was a standard Douglas C-54 transport. It was equipped with a photographic setup to record the power and flight plant instruments in action. The only



1920 reversible. Thomas A. Dicks, chief engineer of the Standard Steel Propeller Company, examines a post World War I reversible developed in conjunction with McCook Field. It is fitted to a World War I Liberty-engined DeHavilland day bomber.

extra instrumentation was a pendulum-type altitude indicator and an inclinometer which showed the angle of the plane compared to the horizon.

The propellers used were the standard Curtiss Electrics operating at conventional operational angle ranges; high pitch was 47° , low pitch was 18° and full feathered was 86.5° . Reverse was the usual -18° used in ground-braking. Pitch changed at 8.8° per second. The tests were conducted at an altitude between 12,000 and 15,000 feet with the

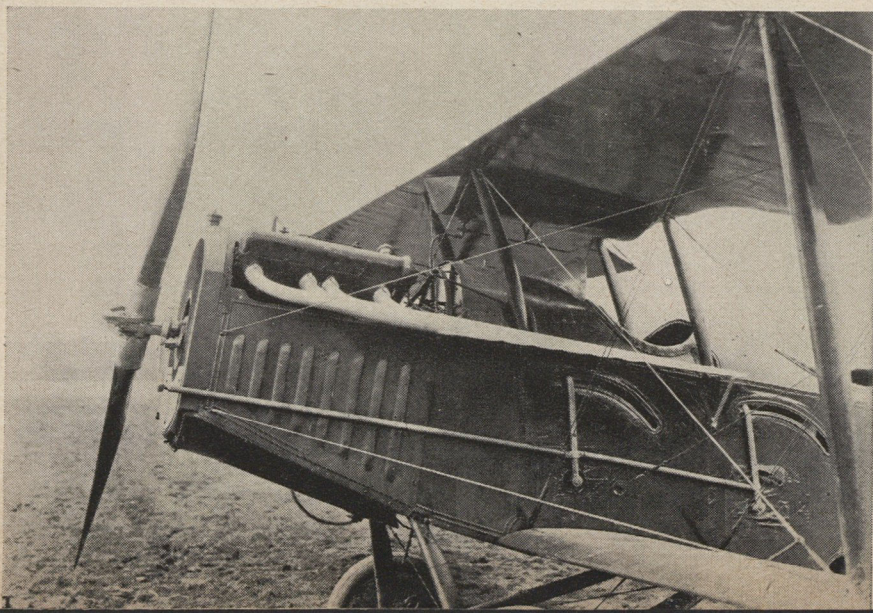
plane loaded to about 55,000 pounds gross. The plane carried a six-man crew, consisting of Herb Fisher, pilot; J. Olmstead, copilot; J. H. Kasley, aerodynamicist; W. J. Furlick, engineer; M. Pettersen, J. Burn, flight engineers.

While there had been previous flights with reverse pitch, this was to be the first scientifically observed and documented test of total and partial propeller reversal in a multi-engined airplane. The tests were laid out to get the following clearcut information:

- ▶ Answers for engineering and operating and personnel as to the possible aerodynamic and structural effects of propeller reversal on a multi-engined airplane;
- ▶ Determination of the best pilot technique required during and after reversal of any and all propellers on a multi-engined airplane during flight;
- ▶ The effect of reverse pitch in obtaining and controlling safely high rates of descent on multi-engined airplanes.

To get these three answers the test was divided into two phases. The first phase involved a study of the power plants themselves. It was necessary to determine the maximum speed at which reversal could be accomplished without the engine-speed exceeding the 2700 rpm take-off limit, or risking reverse windmilling which would “choke off” the engine. To do this, the team studied reversal on the number three engine specially equipped with recording instruments. They started reversing the

This reversible-pitch propeller was produced in 1922 for test on a Curtiss JN-4H (Hisso Jenny). Its blades were made of Micarta, a bakelite-canvas combination, which made a workable, highly satisfactory and weatherproof type aircraft material.

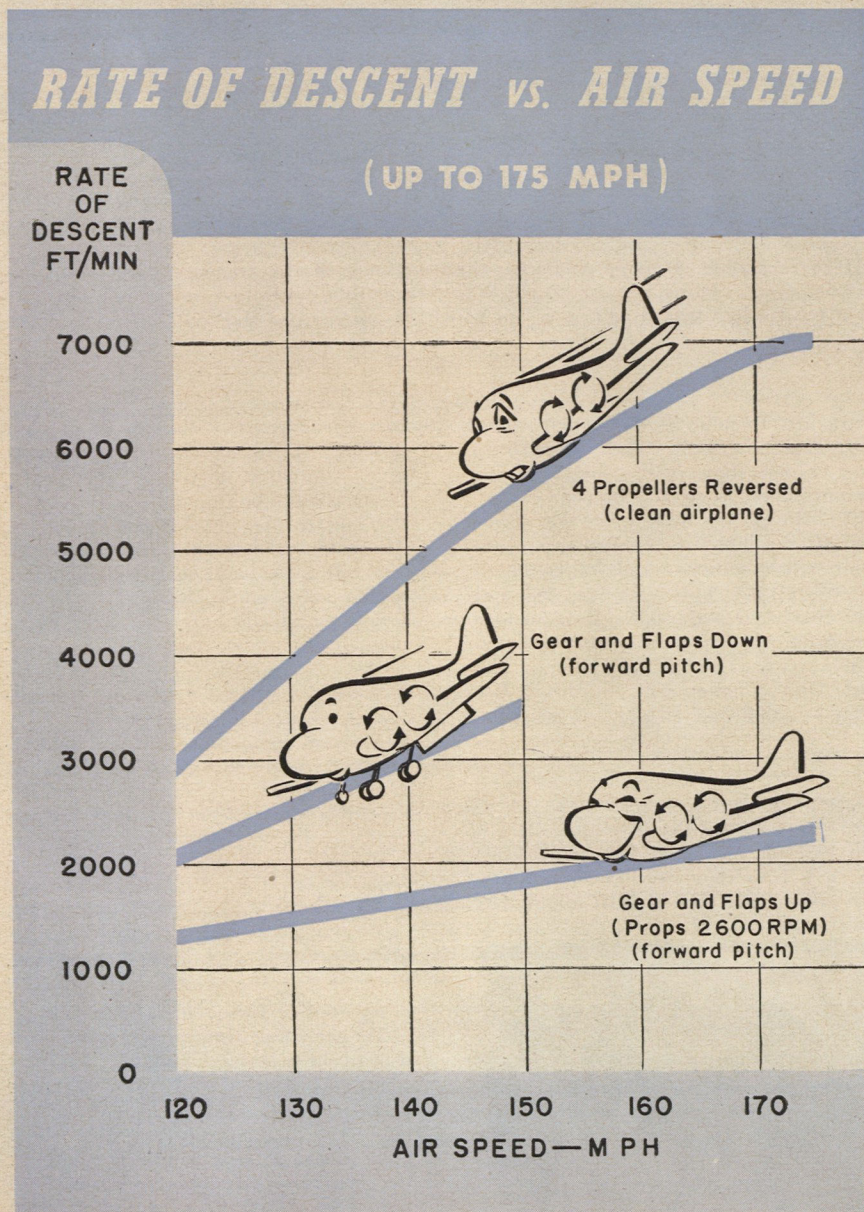


The Situation In Reverse (Continued)

power plant at a closed-throttle position, with the air speed indicating 115 mph, advancing the engine to full power as soon as reverse pitch was achieved. This maximum power assured power behind the blades and made reverse windmilling impossible. At 14 mph increments the air speed was increased, and reversal was again tried. Finally, it was determined that 205 mph indicated was the top speed at which reversal could be effected without overspeeding the engines. This phase also indicated definitely that the 18° reverse pitch set for ground braking was too coarse for air reversal; somewhere between 5° to 10° was found to be more suitable. For regular operation constant-speed in reverse range would be desirable.

Having determined the best procedure in handling the engines, Fisher proceeded to reverse them in all possible combinations of two. This was followed by the simultaneous reversal of all four engines.

The noticeable effect of reversal on the air-frame was virtually nil. As the propellers passed through zero pitch, there was a mild buffeting, not unlike the beginning of a stall, which passed just as soon as some negative pitch was achieved. During the reverse running, there was a mild vibration felt inside the pilot's cabin, but nothing appeared structurally dangerous. It was felt that, when the constant speed in reverse becomes available, this vibration will be reduced to a minimum.



Graphic presentation of rates-of-descent on a Douglas C-54 under various conditions of trim and power. Lowest is plane with gear and flaps up, props forward. Center, gear and flaps down; top, a clean plane coming down with its propellers in reverse.

Aerodynamically, the effect was a great increase in drag, resulting in a rapid loss in altitude on a curve rising sharply as the speed increased. (See graph.) The other effect was a 20- to 25-mph increase in stalling speed.

The best power technique for reversing was to throttle the engines back to idling, reverse pitch at idle power, and then open the throttles wide and leave them at maximum reverse power as long as reversal was desired.

Surprising as it may seem, the test proved that, aside from an increase in stalling speed, no unusual flight characteristics develop as a result of reversing props in mid-air. As long as the power pattern stays symmetrical, everything seems to remain under control. If power is reversed on one side only, a definite yaw develops. In the test this was fairly strong, but could be counteracted with the trim tabs. The obvious advantage of reverse-pitch operation is, of course, a much higher rate of descent. There are many experienced pilots who claim that they can stand a plane on its nose and achieve a similar result. This, according to Herb Fisher, is a misconception, stemming from an optical illusion present in almost all cockpits. Actual check against an attitude indicator shows that pilots seldom if ever get the nose down quite as far as they think during a prolonged dive.

The tests at Caldwell were in no wise conclusive. Fisher wants it understood that he heartily disapproves of anyone going out and throwing all his props in reverse simply because the results of initial trials have been slightly divergent from what might normally have been expected.

On the other hand, it isn't altogether premature to contemplate the advantages and possibilities of mid-air prop reversal—should further experimentation bear out the findings made to date. Think back to examples of fire in baggage compartments, loss of pressurization at 30 or 40 thousand feet, or bombers returning with wounded aboard. Getting down in a hurry and under control might have come in handy under these and similar conditions. After that, consider long-range fast transports operating at extremely high altitudes. Under ordinary operating conditions they would have to start letting down far from destination, finishing the last leg of a journey under conditions of less than maximum efficiency. If propeller reversal becomes practical, the super-speed transport could make high-altitude landfall over a radio marker indicating a clear area set apart for this kind of descent. The plane could then let down from its stratospheric cruising height to the traffic-pattern level.

While Herb Fisher does not claim to have presented anything more than a direction for further investigation, his research does clear up several important points in operational procedure and handling. And it indicates that more study certainly is in order.

SURVIVAL

Seminole Style

If you don't mind living in a swamp or eating wildcat there's a place for you in Air Rescue

Comparatively speaking, Saint Lo was a snap, Casino a breeze, an Iwo Jima a picnic. Judge for yourself. The men on this page are studying to become pararescue specialists in the Air Rescue Service of MATS. As such they will devote their careers to parachuting into jungles, swamps, rivers, snowbanks and the like to save the lives of stranded airmen. This is how their 8 weeks training program lines up: First they go to MacDill Field, Florida for two weeks of study including courses in how to cook rattlesnakes, water moccasins, wildcats, alligators and numerous other tempting dishes. From MacDill they move to a site near Lakeland where they make four deliberate jumps into the tree-tops of the jungle area. While they're here they also put into practice the culinary tricks they learned in class. Next they go to Lake Immokolee where they set up housekeeping in the swamps for five days. Then they are taken to the ocean to live for another five days on fish and vegetation from the sea. After all this they are flown to Colorado to see if they can survive the hardships of arctic conditions. And last they go to Texas to live on the prairie for a week. In payment for a total of eight weeks of hell they get a diploma and two weeks leave before assignment to a permanent rescue unit.



Breakfast in bed. Capt. E. L. Lindahl serves Lt. Rufus Hessburg a cooked water moccasin during the fresh-water phase of the paramedics swamp rescue course in Florida's Everglades.



Wearing the famed Smoke Jumper's rig for landing in treetops, Sgt. William E. Ristau prepares to make his jungle jump during the rescue course. Rope on right leg is for tree descent.



Survival trainees build a dispensary in the jungle for treatment of persons injured in "forced landings." The frame lean-to makes a workable shelter for wounded.

The Big Birthday Party

Record-Breaking



Parades can stir up interest in the Big Birthday, as did this Air Force Day affair in San Antonio, Texas, last year.



Los Angeles Squadron No. 1 invited patients from nearby vet hospital to its 1947 Air Force Day luncheon. A swell idea!

With the Air Force Association again designated official sponsor of the event, Air Force Day on Saturday, September 18, promises to be the greatest airpower demonstration ever held on a nation-wide scale. As plans for the annual observance take shape this month, these facts are significant:

- ▶ This Air Force Day will commemorate the forty-first birthday of the US Air Force,

- ▶ This Air Force Day will be the first anniversary of the US Air Force as an independent unit within the unified defense structure,

- ▶ This Air Force Day will climax one of the most significant years in the peacetime history of the US Air Force,

- ▶ This Air Force Day will mark the beginning of a new concept for the nation's peacetime air establishment.

From coast to coast, many AFA Squadrons are already preparing local celebrations befitting the occasion.

At a meeting held at AFA headquarters in Washington last month, AFA

President Tom Lanphier, Jr., discussed overall plans for the observance with top representatives of the American Legion, Veterans of Foreign Wars, Civil Air Patrol, American Veterans of World War II, Air Reserve Association, Military Order of World Wars, and the National Aeronautical Association. Lanphier asked for and received pledges of cooperation and assistance from all these organizations. In a message to all Wing and Squadron commanders of AFA he recently explained, "The assistance of these organizations will be of immeasurable help in obtaining our Air Force Day objectives. I want to stress the fact that, although AFA is the official sponsor of the Day, we should not only welcome but actively seek the cooperation of other interested organizations and individuals."

The invitation to again act as official sponsor of the Day came in a letter to Lanphier from W. Stuart Symington, Secretary of the Air Force. In that letter Secretary Symington stated, "I believe

the pattern for close cooperation which we established last year in connection with celebration of that date can again be followed."

The Air Force Day date itself had changed, as Mr. Symington explained, "from 1 August to 18 September, the date on which the Department of the Air Force was created under the National Security Act of 1947."

With last year's experience behind them, local AFA units promised that this year they would even exceed their 1947 performance. As one AFA leader put it, "The main idea is to celebrate Air Force Day somehow in every spot in the country, whether it means a banquet for 1000 people in the leading hotel or a simple toast by a couple of the boys in the back room."

As Squadron reports on the Day arrive at AFA headquarters it is obvious that large banquets are in the making, along with other community projects, big and small, of all conceivable types. The US Air Force is prepared to outdo

Air Force Day Planned for September 18, with AFA Again the Official Sponsor



Model building contests like this one at Woonsocket, R.I., last year are highly recommended as Air Force Day events.



Open House celebrations will again be featured on the Day. Worcester's municipal airport last year drew these crowds.

itself, within the scope of its finances and manpower, to properly celebrate the big day. Planned are world-wide aerial demonstrations in key geographical areas, open house tours of all USAF installations, participation in community celebrations, and the like. Air Force leaders will again be available for local and regional appearances as speakers, but Squadron leaders are advised by AFA headquarters that intricate scheduling of speakers is a "must" on the national program. Thus, Squadron leaders are asked to send in their requests for speakers direct to AFA headquarters—rather than to individual officers or to the Air Force—so the entire program can be coordinated.

One thing is sure. There is plenty of work ahead for everyone. As President Lanphier put it, "There will be a place in some Air Force Day activity for every member of the Air Force Association, other veterans, and every other citizen of the US interested in airpower and in the welfare of the nation."

COMMUNITY PROJECTS

AFA squadrons, functioning alone or in cooperation with other local organizations, can sponsor community projects of various types in commemorating Air Force Day. Here are some suggestions, based on local AFA activity on Air Force Day last year and on programs now being planned for September 18 by AFA units:

- Dinner and luncheon meetings
- Flight demonstrations
- Press, radio, television coverage
- Programs in veterans' hospitals
- Airpower forums
- Window displays
- Model plane contests
- Proclamations
- Aviation exhibits
- Parades
- Airpower editorials
- Sunrise memorial services
- School assemblies
- Dances
- Flag displays
- Aviation awards
- Airport ceremonies

tech topics

Nuclear engines, supersonic 'chutes and B-29 modifications feature the month's advances

Atom Planes

Andrew Kalitinsky, chief engineer of the highly-secretive NEPA project (Nuclear Energy for the Propulsion of Aircraft) told the summer meeting of the Society of Automotive Engineers a few weeks ago that within the foreseeable future, a nuclear engine weighing 50 tons might be built, capable of driving a plane the size of the B-36 on a number of round-the-world flights at the speed of sound.

He indicated that the direction of the NEPA project development was to harness the heat-producing power of an atomic pile or reactor rather than the detonant force, as in the atomic bomb. This heat could be fed into any of four fairly conventional conversion tools; a

closed-cycle turbine driving propeller, a turbo-jet, a ram-jet on a pure rocket, using pure hydrogen as a propellant. The first two would probably be used for inhabited aircraft, the last two for guided missiles.

Most of the problems involved in the solution of NEPA appear to be mechanical and capable of eventual solution. Greatest of these is that of reducing the weight of shielding to practical scale.

B-50 Maintenance Trainer

Boeing Aircraft has delivered to the Air Force Training Command a portable school on the B-50 bomber. Made up of full-sized systems, it is reduced solely in operational area and is displayed on plywood boards for easy explanation.

For instance, the complex B-50 fuel system with all of its essential parts, tanks (in reduced scale), valves, boost pumps, engine pumps, flow meters, pressure transmitters is complete with engineer's panel. The system is connected with transparent plastic tubing, so that the flight engineer can see the actual effect of every circuit closing and throttle action. The only difference in the layout panel and the actual circuit in the airplane is that the fuel lines are greatly shortened to allow the display to be mounted on a panel measuring 5 by 7½ feet.

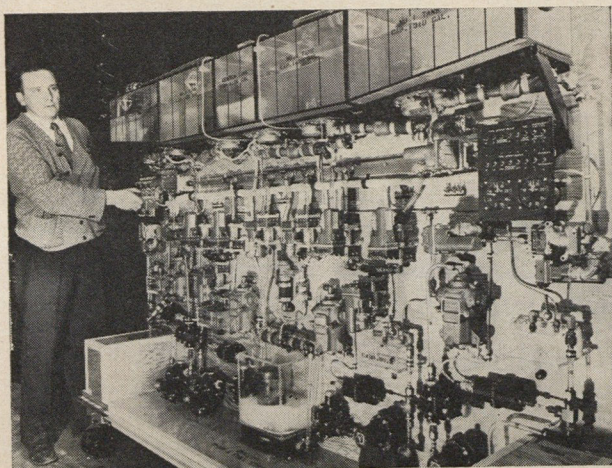
Similar systems are created for the oxygen, hydraulic, accessory and servo circuits, as well as flap and landing gear motivations and similar moving points on the airframe. In the few cases where facsimiles are used instead of the real parts, substitutions being made for portability, the part is painted black for purposes of identification. This layout panel system differs from the previously used "breadboard circuits" in that it is made chiefly of operating parts and can be worked on in most cases. The electrical system, for instance, is a "live" circuit, and the students must learn to adjust the circuit load. This system uses a regular engine-driven power generator, just like the regular B-50.

The fire extinguishing system simulates fires by means of red lights. When the student succeeds in activating the correct part of the extinguishing circuit, the light goes out.

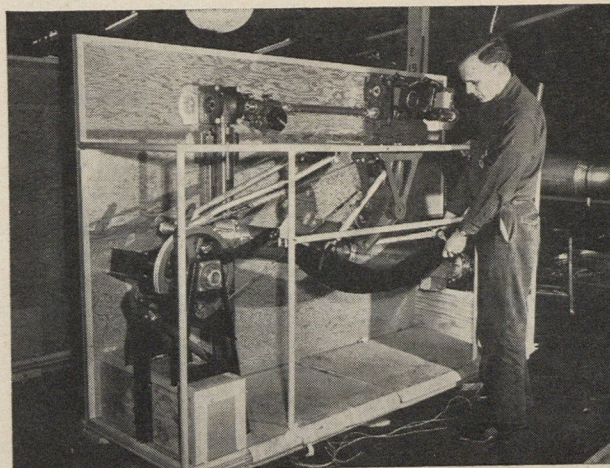
The display includes a weight-and-balance trainer, which is essentially a B-50 silhouette which pivots on a fulcrum. The load, fuel, crew, bombs, etc., are represented by weights, which are hung on the silhouette. From this, students learn the proper way of loading the airplane.

The first of these school units has been delivered to Davis-Monthan Air

THE NEW B-50 PORTABLE SCHOOL



Boeing speeds the task of training B-50 crews with a movable school. Above, mockup of the complete fuel system.



Landing gear and flap study unit, made up chiefly of actual B-50 parts. Substitute parts are all painted black.

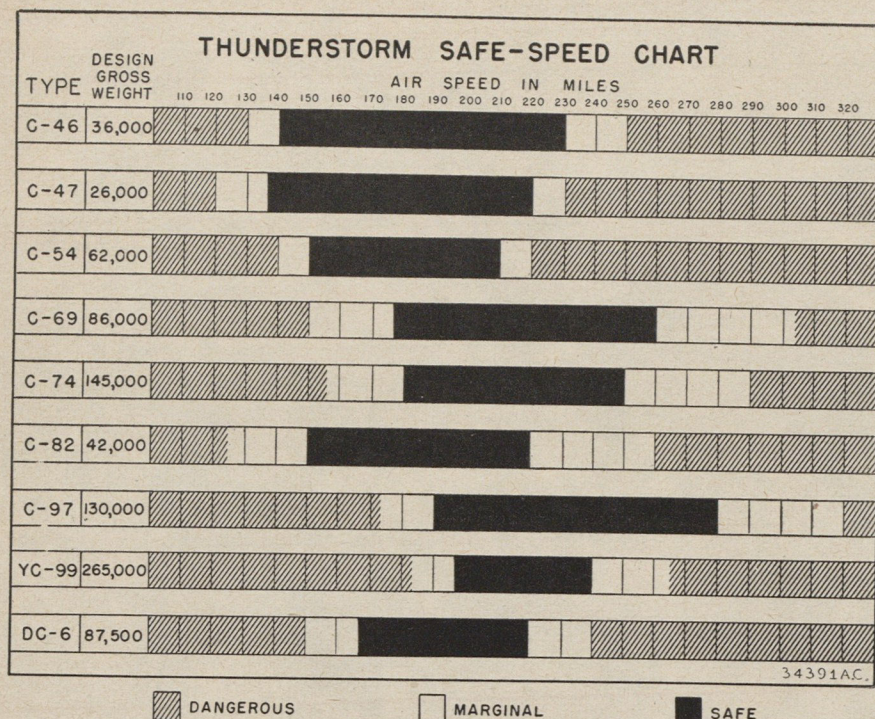


Chart designed by the Air Force's All-Weather Flying Center to indicate safe operating speeds of transports flying during thunderstorms. (See **Storm Chart**.)

Base at Tucson, Ariz., where it is being used in the B-50 training program.

High Speed Parachute

A new parachute design capable of producing the unprecedented variation in co-efficient of drag of 140-to-1 has been announced by Provost F. Smith, parachute engineer of Santee, Calif. Known as the "Lampshade" parachute, the fabric is cut and sewed in the shape of a lampshade, with the suspension lines attached to the larger diameter. It is packed and deployed so that the vent

is wide open. The skirt is held together with a device which does not release until the falling body decelerates to a handleable speed. Then the vent is closed at a rate proportional to the load and speed, resulting in a controlled opening. According to Smith, the design contains 15% less fabric than a conventional parachute. It is also stated that the new chute will effect a rate-of-decent half that of the German-designed ribbon-type parachute, now under test by the Air Force. While the Lampshade parachute was developed primarily for

high-speed missiles, other applications such as personnel-use for jet aircraft appear possible in the future.

B-29 Modernization

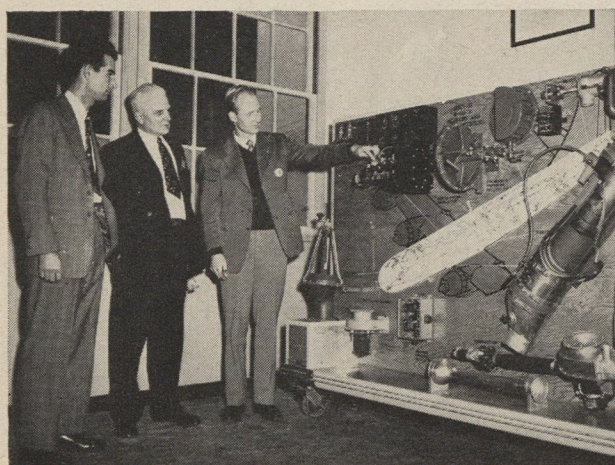
The Air Force has announced details of the general modification program for B-29s now under way at the Wichita, Kan., plant of Boeing. Alterations include improved electronic (radar) equipment, the addition of direct fuel injection and the installation of pneumatic bomb bay doors to those planes not already so equipped. The ships are also being modified for air-to-air refueling. The modernized Superfort planes are to be used as "attrition aircraft" to fill up the blanks in the heavybomber phase of the 70-group program until B-50s or other replacements arrive.

Storm Chart

A "Thunderstorm Safe-Speed Chart" to enable pilots to fly with a higher degree of safety under thunderstorm conditions has been developed at the USAF All Weather Flying Center at Clinton County AFB, Wilmington, Ohio. The chart shows the airspeed limits within which nine types of transport and cargo aircraft can be safely operated during a thunderstorm.

The limits of allowable speed for safe operations are outlined in green on the chart, while the ranges above and below the safe zone, situated to the right and left of the chart, marked in red. Between the safe and hazardous, a yellow band marks the marginal areas approaching the unsafe speeds.

Below the safe speeds, the plane moves so slowly that gust acceleration caused by rough air might bring the plane close to stalling. At speeds in excess of the safe zone, the same gusty conditions impose a greater-than-normal load on the structure.



AMC inspectors B. C. Siddle and U. A. Gnau check the heating-oxygen display with the unit's designer, Hugh Bauer.



Engineer Gene Whittington demonstrates hydraulic panel to B-50 crew at Davis-Monthan AFB. (See **B-50 Trainer**.)



Lights Out

This was one of the war's most tragic missions. It was a low-level B-26 attack on Ijmuiden, Holland, and not a single plane came back

By Lt. Col. Robert M. Stillman

The following story is condensed from Devon Francis' forthcoming book "Flak Bait," which was edited by Gordon Carroll with the assistance of Betty John. The book is a romantic chronicle of B-26 operations during the war. It will be published by Duell, Sloan & Pearce. The raid described almost led to the abandonment of medium bombardment in the ETO. . . .

I liked the idea of low-level bombardment. Putting the bombs on the target would be simplicity itself. You could push the bombs out of the plane with your foot, almost, and be sure that you wouldn't miss the target.

I had been in Washington for the first year of the war, writing movement orders—that is, orders for the transfer of units overseas—and like everybody else in the Air Forces who was chair-borne, I kept pulling strings trying to get into combat. What I really wanted was an A-20 group. The A-20 was a smaller airplane. It carried only three men. I thought the B-26 had too many people in it. For low-level work I didn't see any point in risking the lives of a half-dozen people. The A-20 was just as fast as the B-26, maybe faster, and it looked like just the airplane for the job.

Finally I got my chance to go overseas. At Marrakech, on the way over, I ran into Gen. Joseph Cannon who had gone through the North African campaign and now was running a replacement training center. They had tried low-level bombing in North Africa, and Cannon said it wouldn't work.

"It's too costly," he said.

I said, "Well, they seem to want to give it a try in England."

We went on up and landed in England. We went to Bovingdon for a ten-day course. Then I went to the group, at Bury St. Edmonds, and rode a couple of times with Glenn Nye to get the hang of things. It was a 26 group.

Glenn went back to the Wing after five days or so. I took over the group about 20 April. The briefing for that first mission, against Ijmuiden, was well ordered. We hit our landfall well. There was some flak. It was light. We didn't have any trouble finding the target. All we had to do was pick up a railroad track about eight miles in from the coast, and a canal ran along beside it, and then we made a turn, and there was our target. We dropped our bombs

and pulled up and then dived for the deck again.

On Sunday morning I got a call from Third Bomb Wing Headquarters. When I got there General Brady told me that the Group was going back on the same target. I asked why. He said we had missed it. I said we hadn't.

"You were right there at the tail end of the formation," I said, "and you saw the bombs go in."

He kept saying that we had missed the target. Under circumstances such as those of the moment, a man says a lot of things that he wouldn't say otherwise. I just couldn't believe that we hadn't destroyed that target.

Besides Brady, Col. Millard Lewis, the A-4, Col. Russell L. Maughan, chief of staff, and Col. Harold Huglin, the A-3, were there, too. I made the statement that going back to that target with the same fuses was stupid.

"You know that's stupid," I said to General Brady. Finally, I said, "Sir, I won't send them out."

There was a silence in the room. Brady finally said to me, "You will, or the next Group Commander will."

There was another silence. It's hard to explain how a man feels about his own command. There I had been in Washington for the first year of the war, wanting to get overseas and into combat, and now here I was overseas with my own outfit and I didn't want to give it up.

Finally, I said, "All right, we'll go."

We were to have two targets instead of one, six planes to a target. We would hit the same power plant at Ijmuiden and another one at Haarlem, Holland.

I was to fly with Lt. E. J. Resweber.

We piled into our planes and took off. Suddenly one of the planes aborted.

The aborting plane pulled up to about 1,000 feet of altitude, I learned later. In pulling up, the pilot gave

away our raid to the Germans. Instantly the enemy knew that we were on our way. We were practically on the Dutch coast now and doing about 210 miles an hour. The Germans were firing their coastal guns into the water ahead of us. When a shell hit, it raised a big spout of water, higher than the altitude we were flying at. I dipped my wings to spread out the formation in flights abreast so as to present a harder target to the guns. I opened up to forty inches of manifold pressure and 2,400 revolutions on the engines to pick up speed.

When we hit the coast we were indicating about 235 miles an hour. Our altitude was zero.

Just as we were about to cross the coast we ran into small-arms fire—machine guns. I'd estimate that we hit the coast at a point five miles northeast of The Hague. Evidently there were a lot of machine guns dug into the beach and camouflaged to look like sand. They were not right down on the beach but just a little way back of it. It looked like rolling dunes. I didn't actually see any gun emplacements, but I did see tracer fire coming from three humps of sand. So I let loose on the places where the tracers were coming from.

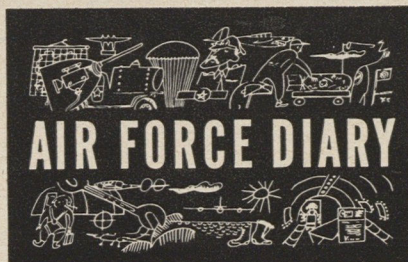
Then that third gun started firing at me. It was at about an eleven-o'clock position with relation to my nose. I had just swung my nose over to him when it happened.

The lights went out. I went out completely. I must not have been unconscious for more than a second or two. When I came to the ship was out of control. I tried the rudder. There was no response. I pulled the wheel. It was sloppy. It just went back and forth with no result. The elevator was out.

Resweber was slumped down in his seat. I didn't know whether he was dead or not. I didn't have time to find out. The ship started to snap-roll. A snap-roll is like a corkscrew. I wasn't scared. I didn't have time to be. But I knew this was curtains. I suppose I was still half groggy from having been knocked out. I remember thinking to myself, "Well, the Air Forces are losing a damned good man."

We hit upside down. I didn't know that until later. By all the rules, all six of us in the ship should have been killed outright. We had lost our place

(Continued on page 48)



CROSS



COUNTRY

Air Day Sponsor

The Air Force Association has been designated by the City of New York as the official sponsor of Air Force Day at the International Air Exposition on Sunday, August 1, at New York City's new International Airport (Idlewild). Not to be confused with national Air Force Day on September 18, also sponsored by AFA, the Exposition is part of New York's Golden Anniversary celebration.

Billed as the greatest airpower and air transport demonstration in history, the Exposition—especially Air Force Day—will carry an airpower theme of significance to national security. The Exposition Planning Board is headed by Thomas K. Finletter, who was chairman of the President's Air Policy Commission, and includes Tom Lanphier, Jr., AFA's national president.

The Exposition will run for nine days, from July 31 through August 8, and will feature flight demonstrations of leading aircraft in all categories including, according to present plans, some advanced planes that never before have been flown in public. The US Air Force, along with the other two services and the industry, is cooperating to the fullest and plans to send large formations of heavy bombers, jet fighters and new-type planes to the Exposition. On the ground there will be aviation exhibits of many types, including animated displays dramatizing air research.

Air Force Day at the Exposition, on Sunday, August 1, will feature accomplishments of the US Air Force and recognition of the first year of the organization's status as an independent fighting force within the Department of Defense. The Air Force Association, as official sponsor, will have charge of the ceremonies of the day, and will give special recognition to members and veterans of the US Air Force. Arrangements have been made for veterans and men in uniform to occupy a special section of the grandstand for the day's air show. AFA's message will be prominently displayed throughout the Exposition area.

Preceding Air Force Day will be The President's Day on July 31, at which the President will review the airpower of the nation in mass and precision flight at ceremonies marking the dedication and official opening of the new International Airport, largest air base in the world. Following Air Force Day will come the Borough Days—Queens, Brooklyn, Manhattan, Bronx and Richmond, in that order—then The Mayor's Day and finally Navy Day in honor of naval aviation and featuring demonstrations by flight teams of the Navy and Marine Corps.

Long Range Jets

The standing belief that jet power plants can be applied solely to short-

range aircraft took a severe jolting when R. P. Kroon, engineering manager of the aviation gas turbine division of Westinghouse, recently announced certain changes in design aimed at reducing fuel consumption. Addressing the annual convention of the Aviation Writers Association in New York, Kroon indicated that engineering improvements have reduced specific fuel consumption thirty per cent in the last three years, and that additional savings up to twenty per cent are possible in the near future. This fuel saving can be converted directly into range increases, which may easily make jet bombers with two or three thousand miles of range operationally possible.

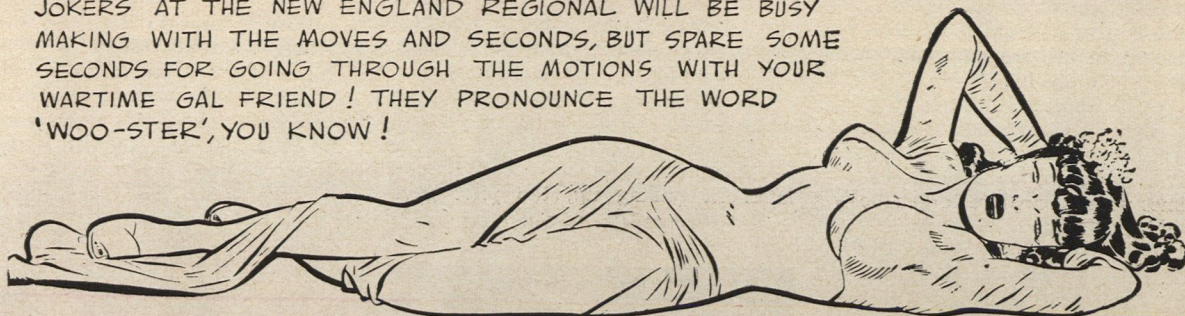
Back in High

Aircraft production resumed a tempo reminiscent of wartime last month when the first of a block of twenty C-82 Packets ordered by the Air Force from Fairchild came off the line only seventy days after the order was consummated. The plane was the 203rd Packet to be built. Two hundred and one of them have gone to the Air Force to become the standard air transport for the All-Air Army.

New 'Copter Use

Helicopters became part of the banana-growing industry late last month when a Bell B-47D general utility type flew

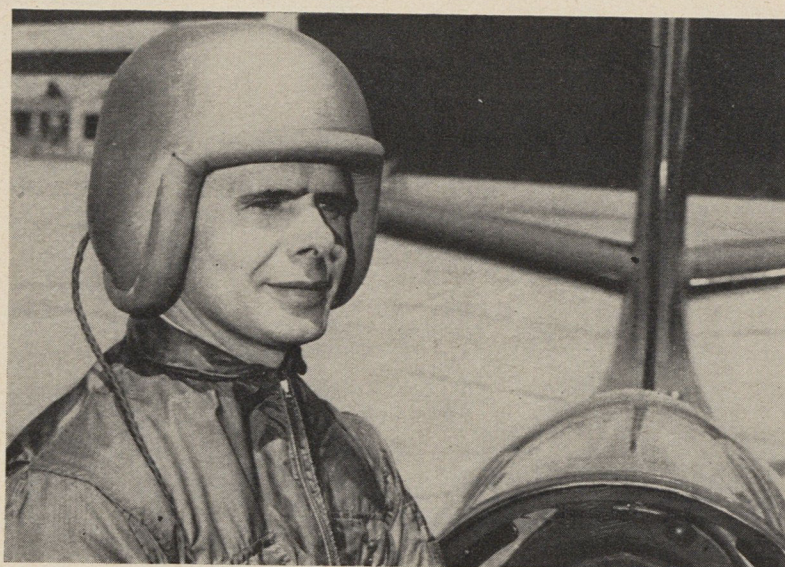
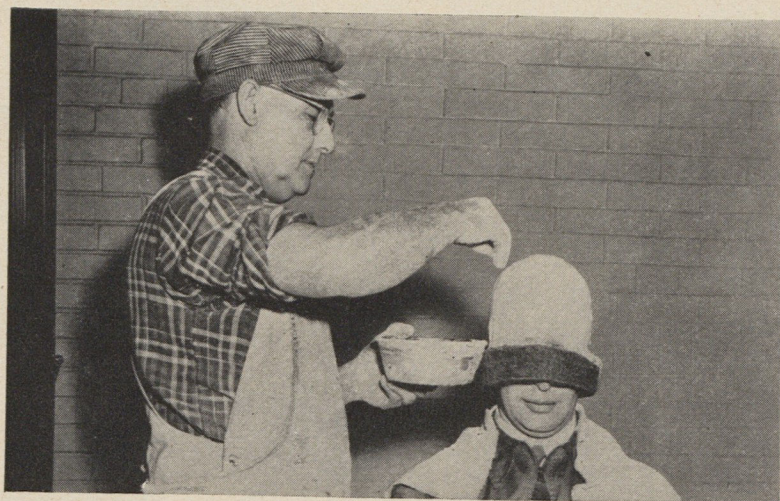
WELL LOOK WHERE LACE IS LOLLING TODAY! YOU AFA JOKERS AT THE NEW ENGLAND REGIONAL WILL BE BUSY MAKING WITH THE MOVES AND SECONDS, BUT SPARE SOME SECONDS FOR GOING THROUGH THE MOTIONS WITH YOUR WARTIME GAL FRIEND! THEY PRONOUNCE THE WORD 'WOO-STER', YOU KNOW!



Best wishes to the GANG AT THE MEMORIAL DAY CONFERENCE AT WORCESTER—from Lace AND

MILTON CANIFF

Heartthrob of World War II, Milt Caniff's immortal Miss Lace put in an appearance at the New England AFA Convention.



McDonnell Aircraft's chief test pilot, R. M. Edholm, "sits" for special cast from which a new type of crash helmet will be made. Below, finished job, with built-in earphones, ventilation and special anti-buffet protection.



mph, using a stripped-down surplus North American P-51. The former mark of 440.298 mph was established by Lt. J. J. Hancock of the USAF in a P-80 jet on May 19th, 1946. The record was attempted by Miss Cochran in order to point up how little actual progress had been made in jet planes at practical distances.

Two days later she established a new 1000 km mark for reciprocating engine aircraft in the same ship, averaging 431.094 mph. The jet record for this distance, 462.970 mph, was established by 1st Lt. H. A. Johnson on May 19, 1946, in a P-80. Miss Cochran bettered her own record, established in September, 1939, when she averaged 305.926 mph over 1000 km in a special Sever-sky racer.

Miss Cochran explained why the shorter of the two record runs clocked the slower time. In the first place, she calculated that the P-51 was incapable of topping the jet mark over the shorter course, so it was no sense running the engine at maximum boost. Furthermore both the thousand and two thousand km runs are U-shaped and have a single turn, so the longer flight has a greater opportunity to average out the time lost on the turn. With or without explanation, no one can deny that the resolute Miss Cochran ably proved her point.

in the famed Santa Marta valley in Panama, spraying fungicide onto the rich 50,000-acre banana stands located there. The object of the aerial attack was the sigotoka, a fungus which attacks the banana leaves, seriously curtailing production. Because the B-47D is licensed to fly at night, it can be used for banana-fungus spraying, which is done before dawn, so that the dew will bind it to the leaves.

GCA Graduates

The Air Force prepared to expand its utilization of Ground Control Approach when the first of a series of classes of officers and men graduated from the Factory Familiarization School conducted for service personnel by Gilfillam Bros., manufacturers of GCA equipment at March Field, Calif. Most of the per-

sonnel will come from the Airways and Air Communications Service. Classes are handled in units of twenty, and at least ten classes of operations and maintenance technicians will be conducted. These GCA operators were trained to handle the latest two-man consoles on a job that at one time required a five-man crew. They were also indoctrinated in the theory of the one-man outfit, currently under experimental operation.

Record Runs

Jacqueline Cochran, wartime commander of the WASPS, has reversed the usual procedure in world's records by exceeding a mark set by jet aircraft with a conventional reciprocating plane. On May 22nd, she covered a 2000 kilometer (1242.739 miles) U-shaped course at an average speed of 447.470



MM 2/c Eve Dunham and S/Sgt Esther Nelson admire the newly authorized MATS insignia.

afa news

Whitener Takes AFA Post

When Ralph Whitener swapped staff sergeant's stripes for pin stripes and returned home to Beckley, W. Va., in December of 1945 he knew—so he says—"only three or four people in town." That's obviously an understatement, but it's quite true that the town hadn't heard much from Ralph Whitener up to the time he founded Beckley's AFA Squadron a little over a year ago.

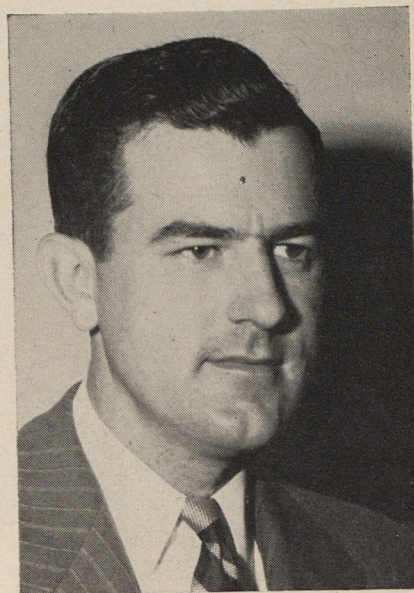
When he pulled out of Beckley last month this little mining town knew Ralph, and Ralph knew the town. Members of the Squadron he had organized and led to a position of local and national leadership feted him at a surprise banquet, and presented him with a 17-jewel gold watch with the simple but meaningful inscription, "With sincere appreciation." Even more important, they pledged continued support to the 10-point program Ralph had established to make Beckley airpower conscious ("AFA Mountain Style," April, 1948, AIR FORCE).

Ralph had left Beckley to become Organizational Director for AFA, succeeding Harry Hammer. He took over his new duties on June 1.

Six years before that Ralph had first met the US Air Force—when he enlisted

for service and was assigned to an aircraft armament school, then to the 20th Fighter Group at Myrtle Beach, S. C. Here he became an armament instructor and established the 3rd Fighter Command's first school on aircraft rockets. Later, at Pinellas Air Base, St. Petersburg, Fla., with the Command's 341st Base Unit, he developed eight recognized modifications relating to fighter aircraft armament, including relay switch assembly to synchronize rocket, camera, gun and bomb operations in the fighter wing-line method of approach. For these developments he was awarded the Legion of Merit, back when you had to work to get it. Ralph held the same rating—Staff Sergeant—for two and a half years and is very normal in his reactions to the EM promotion system.

Today Ralph is deep in his national AFA job. During his first two weeks he attended an Air Force Day organizational meeting in Washington, journeyed to New York City to attend a special meeting of the Board of Directors and to appear before a dozen squadron commanders from that area, and on to Albany to talk at a squadron meeting, and help organize a New York State convention. Back to his Washing-



Ralph Whitener, founder of the Beckley, W. Va. Squadron, who recently became AFA's Organizational Director.

ton headquarters to handle incoming mail and get more familiar with AFA's organization files, and then out to Cleveland, Detroit, Chicago and Springfield for meetings with AFA leaders. With Wing and Squadron activity booming in all sections of the country, there is a lot of work ahead. It reminds Ralph of an AFA job back in Beckley—on a national scale.

CALIFORNIA

The California Wing will hold its first state convention in Santa Monica on July 24th and 25th with the Santa Monica squadron playing host to California's 15 AFA squadrons and to the civic, governmental and military notables who will be in attendance. Headquarters will be the Ambassador Hotel.

With California a national leader in both membership and squadron activity, and boasting one of AFA's strongest Wing organizations, the convention promises to be a major event on the AFA calendar. The convention program shapes up as follows:

Friday, July 23—at night, "open house" at the new Army and Navy Club in Santa Monica.

Saturday, July 24—in the morning, registration at convention headquarters; at noon, luncheon at the Del Mar Beach Club; in the afternoon, panel discussions for convention delegates beginning at 2 p.m.; in the evening, an 8 p.m. banquet followed by a dance featuring the music of the 12th Air Force dance band from March Field.

Sunday, July 25—in the morning, panel discussions for convention delegates, with adjournment at noon.

Convention chairman is Bert Lynn of the Santa Monica Squadron, and convention host is Joseph Nadel, Squadron (Continued on page 42)



When band leader Skitch Henderson, center, an AFA member, needed to get to East Lansing, Michigan, in a hurry to make a dance engagement, members of the local AFA squadron flew him in from Detroit. Here they pose for a shot at airport.

Aviation progress can't wait...



...and isn't waiting
at Curtiss-Wright

Just as it has since the beginning,
so Curtiss-Wright today continues
its aggressive leadership . . .



...in the design of new
military fighter aircraft . . .

of which the XP-87, first four-jet
all-weather airplane, is the latest
announced example. This fast,
versatile model reflects the progress
and advanced thinking of Curtiss-
Wright designers and technicians.



...in the development
of new fields

of air transportation . . . with
the CW-32, first high efficiency
cargo transport. Years ahead
and alone in its category, this
ultra-modern design will open
an entire new era in aviation,
both commercial and military.



...in the research
behind guided missiles
such as the "Flying Stovepipe"
and "Bumblebee."



...in the interest of
national security
and commercial aviation progress.

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Airplane Division
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DEVELOPING
FLIGHT TO MEET
THE FUTURE



OPERATION ASSEMBLY

Peacetime's biggest game reveals
more progress in air transporta-
bility than in defense tactics

Theoretically, the purpose of Exercise Assembly, which wound up in the hills of Kentucky early last month, was to determine how efficiently the US Army could repel an enemy that had successfully planted itself within our own borders. According to the preconceived "situation that is assumed to exist," the aggressor force had, in an earlier attack, landed on the coast of Florida. For the most part the landing had been repulsed, but elements of the invasion unit had escaped to Kentucky and had marshalled sufficient strength to seize the airstrip at Camp Campbell. The task of the American force was to retake the strip.

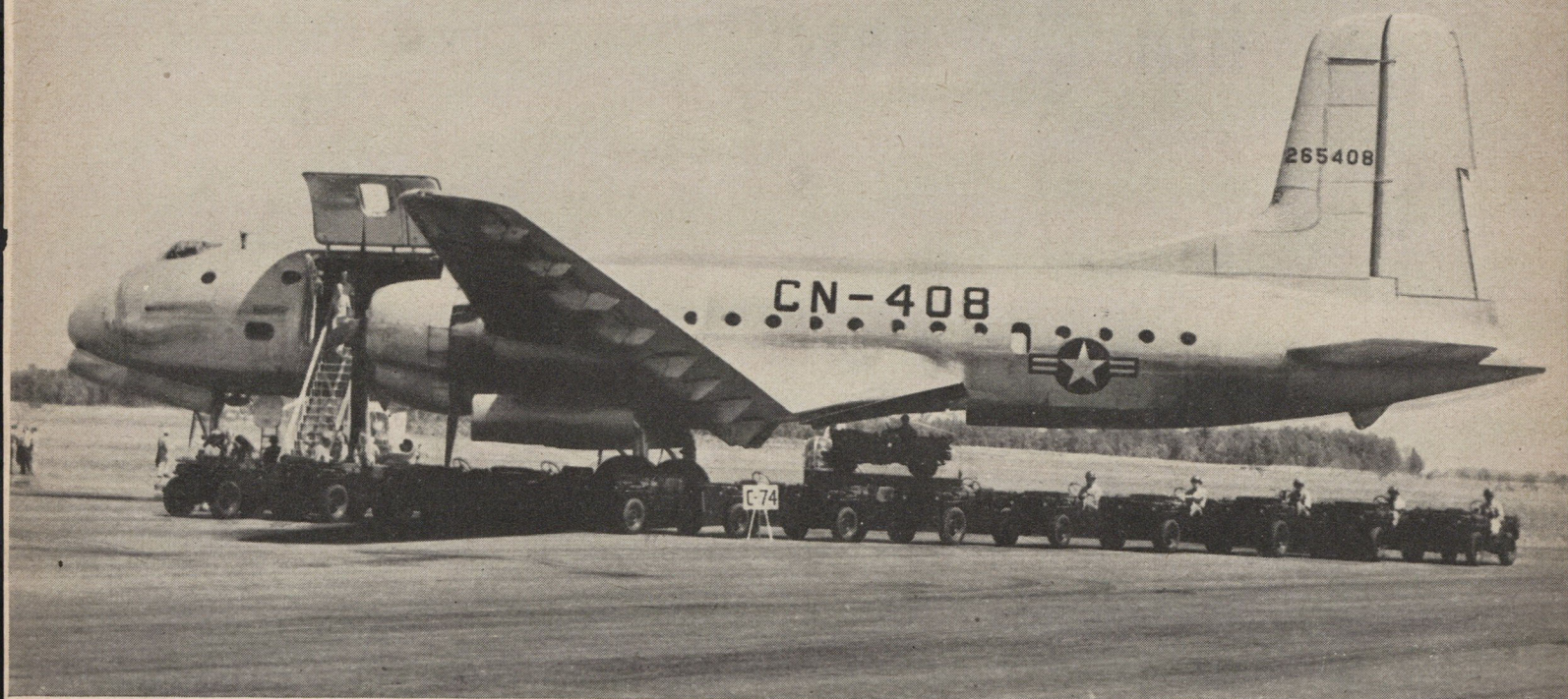
As a game, Operation Assembly was not easily distinguished from earlier exercises. Neither in its concept nor its execution did it visualize any radical departure from tactical operations of World War II. The enemy had no new tricks up his sleeve, nor did the "US" exhibit any new means of turning back the old ones.

But regardless of whether or not Assembly gave an accurate index of defensive strength, it *did* indicate quite conclusively the progress that is being made in making the Army completely air-transportable. In recapturing the enemy held airstrip, the 9th Air Force dropped a total of 2200 paratroopers and their equipment—including jeeps and howitzers—without serious mishap. It was the biggest of all peacetime air-drops. As was amply demonstrated, cargo planes have become larger since war's end while Army equipment has been getting lighter. Air Force and Army engineering in the field has now converged to the point where only tanks and heavy engineering equipment still must be transported by means other than airplane. Beyond doubt, this was the most significant finding of Assembly. It is not overly optimistic to predict that within the foreseeable future it will be possible to move an entire field army by air.

▲ One of several planes to make "combat" debut in Assembly was the Bell YO13 helicopter. Unique in many ways, the 13 is one of first rotor machines to be built with sizeable cargo space.

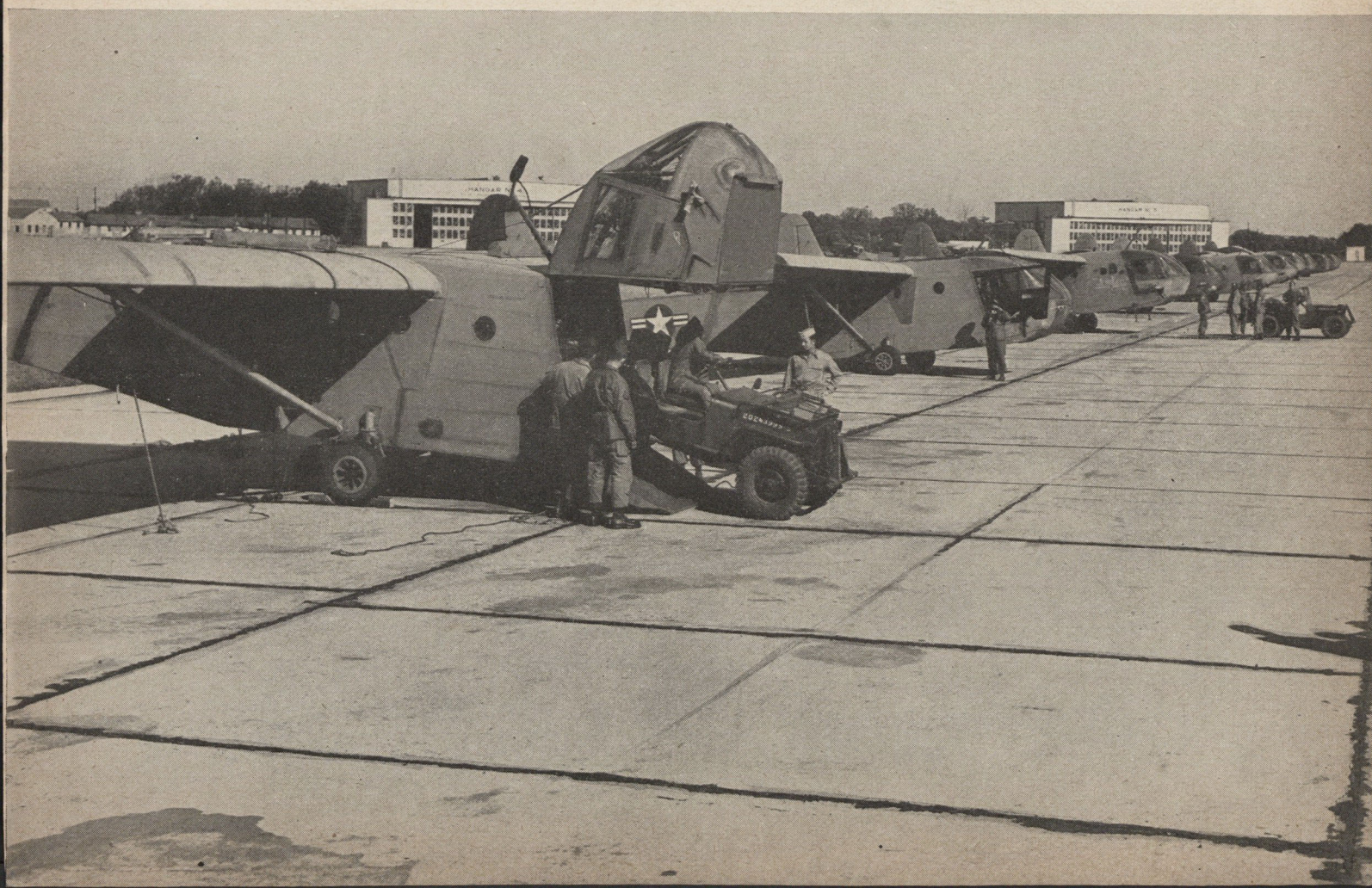


◀ The 82nd's Black Panther unit lines up for inspection. Nearly a hundred Fairchild C-82's were employed in flying 2200 paratroopers to the drop area.

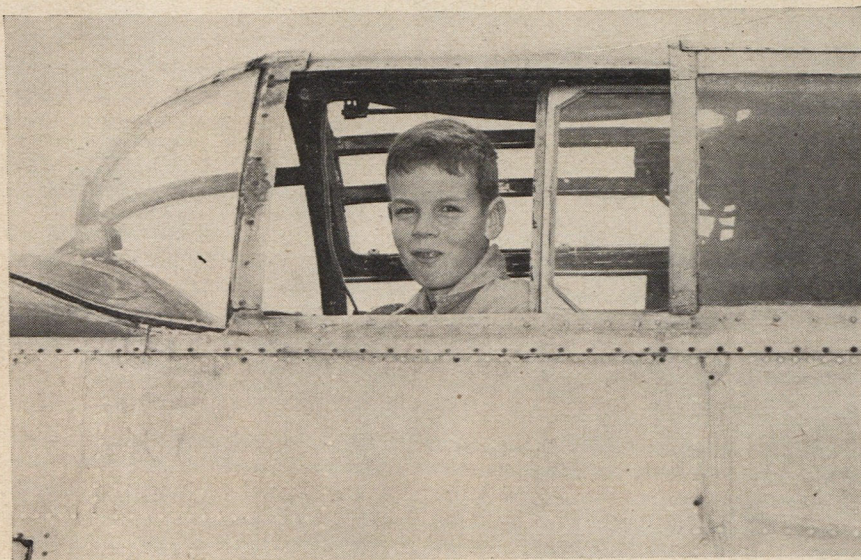


▲ Largest of the transports to be used in Operation Assembly was the Douglas C-74. In picture above, the huge plane has just unloaded 14 jeeps by means of its own belly elevator.

▼ Gliders, carrying jeeps and personnel, and towed in pairs by Fairchild Packets, arrived over the battle scene within minutes after paratroopers of the 82nd Airborne made their jump.



(Continued from page 38)



Ten year old Bren Sullivan of Mamaroneck, N. Y., winner of the Westchester Sq. AFA-White Plains Exchange Club model contest, sits in the cockpit of a B-25 at Mitchel AFR Training Detachment. A tour of Mitchel AFB was part of his prize.

commander. Committee work is being accomplished by the following: speaker invitations, Art Kelly; public relations, Bert Lynn; publicity and city liaison, Stuart Purcell; reception, Lt. Col. E. Louis Irvine and Leroy Clark; entertainment, Martha Stone, Harry Myers and John Wisher; finance, Bill Tobias and L. C. "Bud" Riley; transportation, Charles Randall and Carl Klein; reservations, William Myers; photography, Bill Walker and Chris Condon; membership, Mary Robertson and Lou Larson; dance, Danney Ellin and Jim Ellis; tickets, Dick Myers; display, Hal Engfer; centennial display, Lt. Col. Robert Schwarz.

Contra Costa Squadron, which received its national charter in June, has elected permanent officers, as follows: Commander, James F. MacNeill; Vice-Commander, T. S. Simpson; Secretary, E. A. Sargent; Treasurer, Robert Finley; Councilmen, James Skelly, Alexander Gabriels and Roswell Turner.

East Bay Squadron now meets the third Monday of each month at the Moose Club, 1428 Alice Street, Oakland. An anniversary dance was held June 26 in Beckley. On July 11 the group holds

its first annual picnic at Marsh Creek Springs.

HAWAII

Gilbert Cox has been named acting commander of the Hawaii Island squadron pending formal organization of the group, it is announced by Hawaiian Wing Commander Roy J. Leffingwell. Cox can be reached through Carlsmith & Carlsmith, 119 Wai'anenuue Ave., Hilo, Hawaii.

ILLINOIS

Squadron No. 23, representing the Hyde Park-Woodlawn section in the Chicago area, was erroneously announced as the Hyde Park YMCA Squadron in the June issue.

MASSACHUSETTS

The New England Regional Convention, first AFA conference of its type ever held, drew AFA representatives from six states to Worcester on Memorial Day, May 31. Sponsored by Worcester Squadron No. 1 and made possible through official cooperation of the City of Worcester, the convention featured a fast-moving business and reunion schedule that led to the strength-

ening of Wing and Squadron ties in the New England area.

Following flights over the city by AT-6s and AT-11s flown by Worcester Air Reservists, many of them members of the local squadron, and flights by P-84 Thunderjets of the 14th Fighter Group from Dow Field, Maine—the first jets ever to appear over Worcester—the convention opened with a luncheon meeting. Speakers included Mayor Charles F. "Jeff" Sullivan of Worcester, Congressman Harold D. Donahue, Representative from the Fourth Worcester District, and Maj. Gen. Robert M. Webster, Commanding Gen. of the First Air Force. Joseph T. Benedict of Worcester was toastmaster.

In the afternoon a regional AFA policy meeting was held under the chairmanship of Clarence Dutton, newly elected Wing Commander of Massachusetts. Acting on a resolution presented by Charles D. Briggs, Jr., commander of Worcester Squadron No. 1, the group engaged in a lively discussion on Wing and Squadron financing and expressed itself in favor of some form of such financing through national dues, with the details to be worked out by AFA Headquarters. Announcements and discussions at the meeting led to the plans for a huge New England observance of Air Force Day on September 18.

The Worcester squadron had contemplated that the holiday date would result in a large number of wives attending the convention—and made its plans accordingly. While the men were engaged in the afternoon business session, the ladies were entertained at a fashion show staged exclusively for the convention with models from the studios of Lennie Neval, a wartime Air Wac.

Climax of the regional convention was the evening banquet presided over by Meryll M. Frost, Second Vice President of national AFA, and featuring an address by National AFA President Tom Lanphier, Jr., who flew in from his home in Boise, Idaho, for the event. Lanphier reviewed AFA's nation-wide program for a 70-group Air Force and stressed the need for continued "grass roots" support in the interests of adequate airpower.

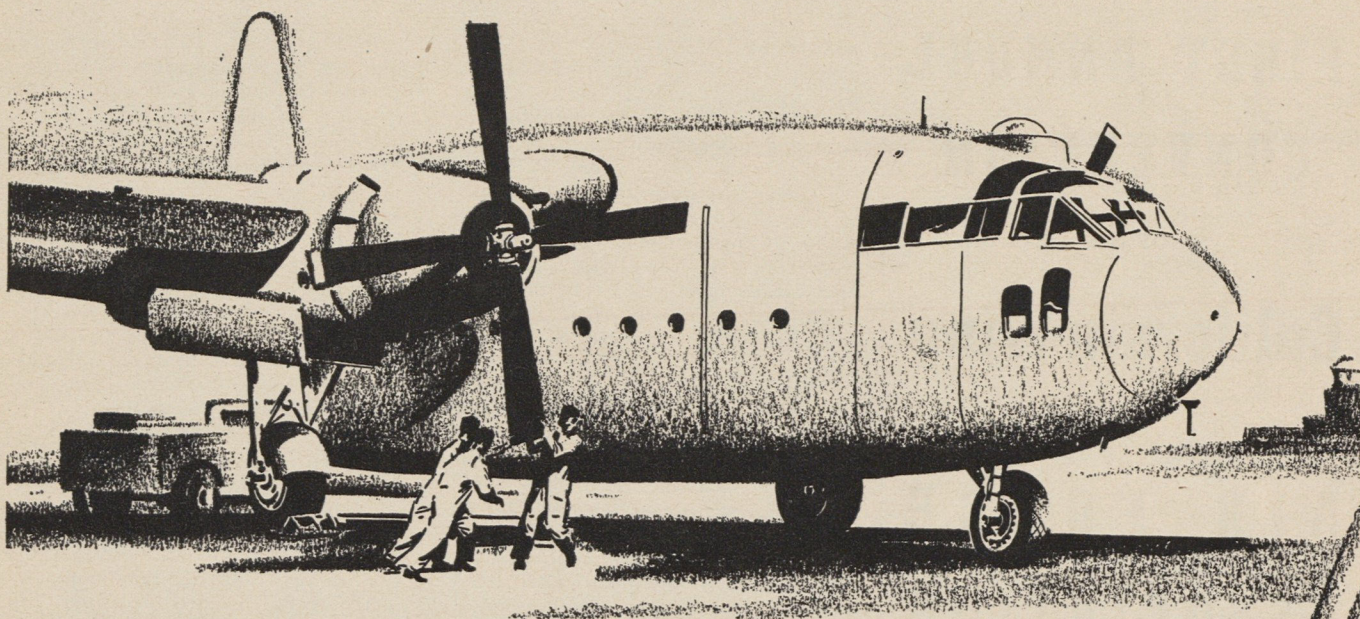
Convention chairman and spark-plug of the affair was George I. Alberts. Assisting him on the convention committee were Robert F. Kirkpatrick, Walter Allen, Jr., Kimball R. Woodbury, Stanley J. Davidson, George M. Betterly, Joseph Samra, Charles D. Briggs, Jr., Joseph T. Benedict, Raymond Harold, Charles F. H. Crathern and Robert W. Stoddard.

New Wing Officers for Massachusetts, elected by representatives of all squadrons in the state, are as follows: Commander, Clarence C. Dutton, 285 Massachusetts Ave., Arlington, who succeeds Crawford H. Hollidge of Boston, who organized AFA in Massachusetts; Vice Commander, Robert F. Kirkpatrick, 73 Eunice Ave., Worcester; Secretary-

(Continued on page 44)

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AIR FORCE ASSOCIATION

JULY 23, 24, 25

AMBASSADOR HOTEL
SANTA MONICA, CALIF.

California members of AFA invite Air Force veterans to join them in Santa Monica this month for a reunion that includes a luncheon at world famed Del Mar Beach Club, "open house" at Santa Monica's new Army-Navy club, and a banquet and dance featuring the music of the 12th Air Force dance band. AFA's National President Tom Lanphier will be on hand to give one of the principal talks, and First Vice-President Jimmy Stewart will be toastmaster at one of the other major events. **IF YOU'RE GOING TO BE IN CALIFORNIA DON'T MISS IT.**

Remember the time and the place:
July 23, 24, 25 at the
Ambassador Hotel
Santa Monica, California

AFA NEWS (Continued from page 42)

Treasurer, Charles F. Fiske, 63 Trowbridge St., Arlington; Public Relations, Robert Mee, Box 126, North Oxford. The Wing advisory committee has Crawford H. Hollidge, Charles S. MacLaughlin, Paul Bartel and Elmer Walsh.

MICHIGAN

Lansing Squadron No. 1 has elected Richard Goldfogle as its Commander, with Ernest Lutz as Vice Commander, Robert Emerson as Secretary and Douglas Ammons as Treasurer.

NEW YORK

The first New York state conference of AFA squadrons will be held in Albany on Saturday, August 21, with the Albany and Schenectady squadrons acting as co-sponsors of the event. Plans for the conference were discussed recently at a meeting of the First Division, composed of squadron commanders in the New York City-New Jersey area, and final arrangements made at the June meeting of the Albany squadron which was attended by a delegation from the Schenectady unit. Conference headquarters will be the Wellington Hotel in Albany. With 29 squadrons now chartered or organized in New York and considerable state business to attend to, including the election of Wing officers, the conference will forego usual convention entertainment functions and concentrate on business matters. All New York squadrons are asked to have representatives at the conference. Reservations should be made with Earle P. Ribero, commander of the Albany Squadron, 416 Delaware Avenue, Delmar, N. Y.

Manhattan Squadron No. 1 has elected as its Commander Robert S. Johnson, whose 27 confirmed victories in the air over Europe rate him as America's second ranking "ace" in the ETO. Other new officers are Martin Her, Vice Commander; Carl H. McClure III, Treasurer; William E. Lindenmuth, Corresponding Secretary, and Robert E. Timmerman, Recording Secretary. The Executive Committee is composed of Jackson Mathews, past Commander, Stephen Calhoun, Berton Donaghy, Amos M. Kidder, Reginald Sontenne, Robert Williams, Howard E. Norris, Theodore Kadin and Seward Heaton. Committee chairmen are as follows: Stephen Calhoun, membership; Seward Heaton, entertainment; William C. Fleming, legal; Carl H. McClure III, finance and housing; Alfred Evans, public relations.

OHIO

The Cuyahoga Founders Squadron of Cleveland, led by President Erwin H. Cooper, is expanding the junior aviation activities for which it already is well known in the Cleveland area. Its model building program has become the keynote for regular club activity, with AFA providing model club leaders for Boys Town units and Red Feather agencies of Cleveland. In addition to providing volunteer leaders, the squadron helps

furnish the many items needed for model plane building and sponsors aviation movies, model building contests and air meets. In weekly meetings club members are taught to build elementary flying models from kits furnished by AFA. Cooper himself is a volunteer leader and instructor of the club at the Bellefaire Jewish Children's Home. Among other AFA members who serve as model flying club supervisors are Joseph Horvath, at Blossom Boys Town, William Eden at Richmond Boys Town, and William Morgan at Theirbach Boys Town. In addition to this club activity, the Squadron is arranging to expand its annual indoor air meet for modelists in the Cleveland area to a state meet in Cleveland and is asking other squadrons in Ohio to participate.

PENNSYLVANIA

New officers of the Greater Wilkes-Barre Squadron have been elected, as follows: Commander, Michael Solomon; Vice Commander, Robert Bacon; Secretary, John Welker; Treasurer, Luther Gible. Council members are Fred Pool, Sam Kwotchka, Clyde Davis, William Cushner and Ralph Brown.

VIRGINIA

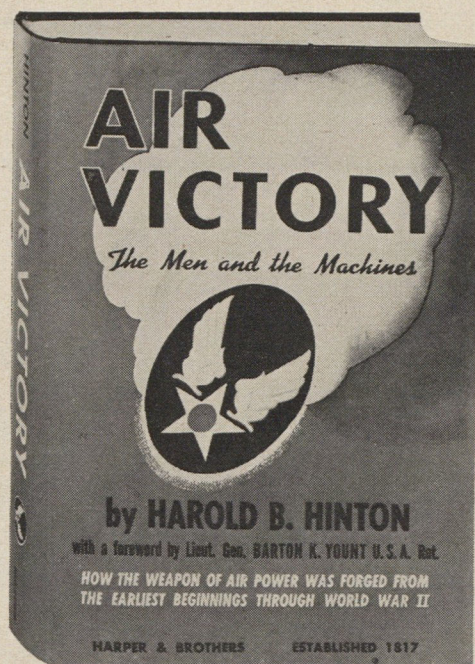
The Patrick Henry Squadron has been chartered at Martinsville with 23 members and the following officers: Commander, Arthur C. Richardson; Vice Commander, Robert L. Bondurant; Secretary, H. Ray Stinnett; Treasurer, Robert S. Morse. Council members are C. Clyde Peters, J. B. Jones and A. L. Philpott. The squadron's mailing address is Arthur C. Richardson, P. O. Box 846, Martinsville. Meetings are scheduled for the second and fourth Tuesdays of each month.

WISCONSIN

Airpower has an important spot on the agenda of Wisconsin's state centennial celebration this summer, with Wisconsin's AFA Wing under Commander L. A. "Duke" Larson and Milwaukee's local Billy Mitchell Squadron active in the program. The main aviation event, according to present plans, will be an Air Show and Air Races on August 8th at Billy Mitchell Field in Milwaukee. Larson reports that AFA, through this medium, will help stress the importance of airpower to the people of this area, and he invites AFA members from other states to join Wisconsin's in the celebration. The state will hold a series of colorful events to commemorate its 100th birthday.

WEST VIRGINIA

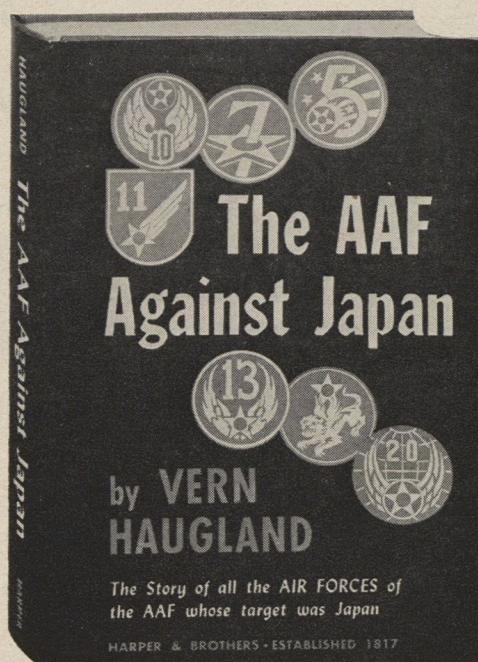
Hugh Williams was elected commander of the Beckley Squadron to succeed Ralph Whitener, who has resigned the office to accept the position of Organizational Director for AFA at national headquarters in Washington. Williams has been active in the squadron since its formation, has served on its council and on its high school aeronautics unit.



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IN RESERVE (Continued from page 8)

ment with the Reserve is in the Medical Battalion of the 79th Inf. Division.

Has the Air Reserve made any provisions for MAC's (who served with the wartime AAF) to take an active part in Air Reserve training rather than Ground Force training?

Further, can you tell me whether or not it is possible for me to apply for Recall to Active Duty with the Air Force, and whether such request would be forwarded to the Surgeon General, or AF Hq., or the Air Surgeon?

Joseph W. Hewitt
Philadelphia 36, Penna.

● There are two ways to participate in the US Air Force Reserve Program. Apply for transfer from AMS Reserve to Air Force Reserve, under the provisions of WD Cir 356, 1946, as amended, or request assignment to an Air Force Reserve Unit to fill a specific T/O&E Unit assignment. In both cases you apply to The Surgeon General.

Application for extended active duty with the AF in present status must be made direct to The Adjutant General, Dept. of the Army.

Gentlemen: During the war I served almost five years with the AAF as enlisted man and warrant officer. A little over a year ago I enlisted as Master

Sergeant in the Reserve (as there was no provision made for the rank of warrant officer) and for some unknown reason, and much against my desire, I was assigned to the Adjutant General's Department.

How is it possible for me to be transferred to the Air Force Reserve?

Robert F. Frazer, M/Sgt
Allendale, N. J.

● Apply for transfer from AGD Reserve to Air Force Reserve under the provisions of WD Circular 356, 146, as amended. Application should be made to Commanding General, First Army.

Gentlemen: I would like to receive some information about the reserves, such as: may I join; how would I go about joining; would I still hold my commission of 2nd Lt; etc.

I received my "Certificate of Service" from the Army of the United States on 9 September 1945 as a Second Lieutenant, Bombardier.

Raymond G. J. Landry
New Bedford, Mass.

● You are eligible for enlistment in the Enlisted Reserve Corps providing you do not hold a Reserve Commission. It appears that you only have an AUS commission. Report to the Air Reserve

Training Detachment at Bedford, Massachusetts, or the nearest recruiting station for examination.

Gentlemen: I was a flight officer in the Air Force and have been trying to get into the Reserve, have filled out a million forms, examinations, etc. I have nothing marked against me on my Army records, but it seems that someone forgot to give me an efficiency rating at the base where I was stationed. So, no reserve commission.

I have given up trying any more, but what I want to know now is: what kind of a rating will I be given if I am called back into the service?

Dale S. Opela
Harrison City, Pa.

● If you have no Reserve Status, you would be called back into the service in the lowest grade in the event of an emergency.

Being a former Flight Officer, you are eligible for enlistment in the Enlisted Reserve Corp in Grade one. See the nearest recruiting office for enlistment in the Enlisted Reserve Corp.

You may also be eligible to apply for direct appointment as a Second Lieutenant in the Air Force Reserve under the provisions of War Department Circular 101, 1947.

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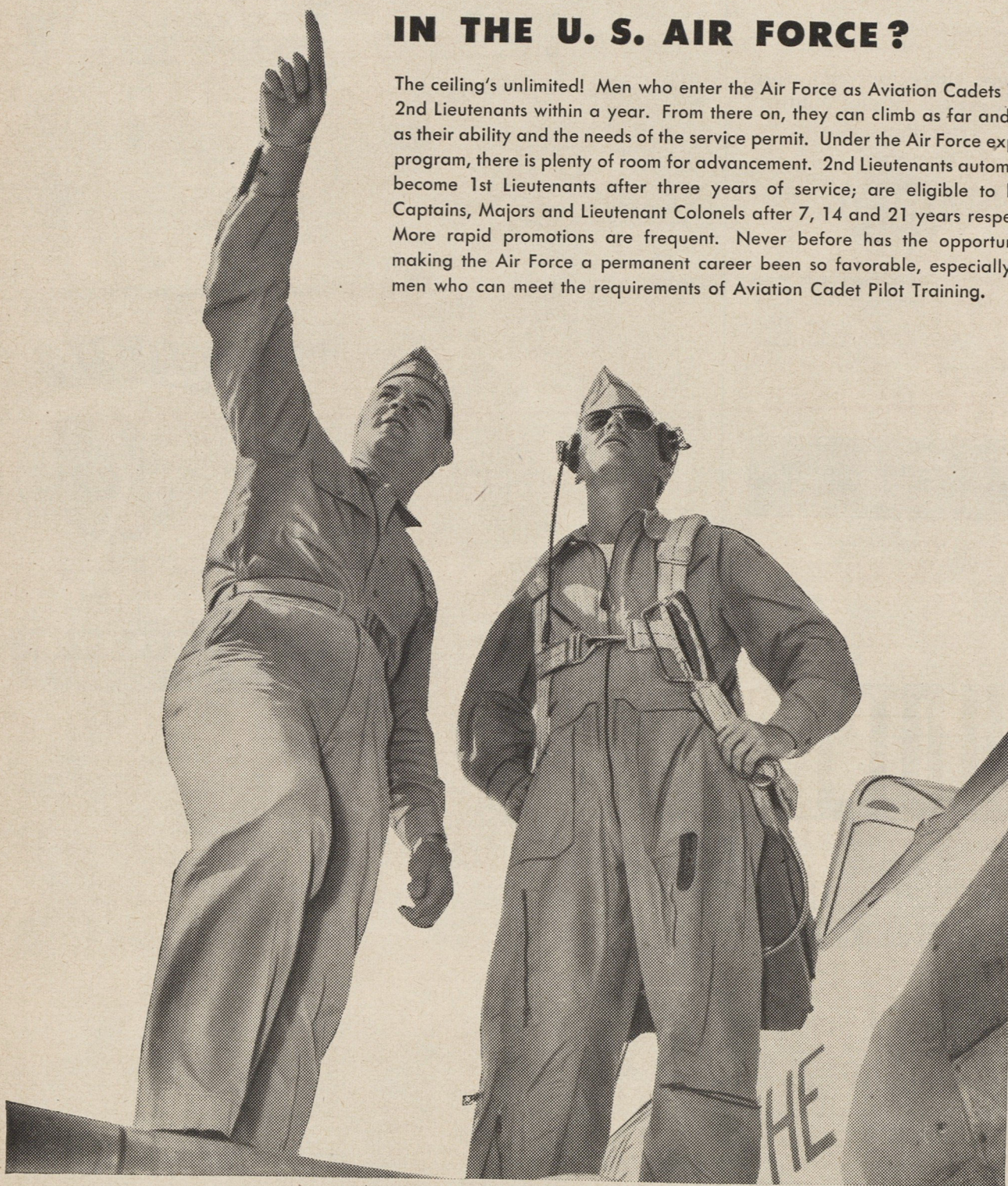
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LIGHTS OUT

(Continued from page 35)

in the formation. We had slowed up and dropped back a bit, but even so the plane must have gone in at better than 200 miles an hour, and upside down.

When I regained consciousness I was being carried from a dugout on a stretcher. I passed out again. Pretty soon I came to once more. It was about dark. I was in a hospital room. They were drawing the blackout curtains.

I looked around. There were seven other officers and enlisted men there, survivors of our group. I just lay there, not feeling badly in my body at all, and I thought, "So this is my contribu-
tion to the war effort."

The time came to leave the hospital. At *Stalag Luft III* I encountered Lieut. Col. W. R. Purinton of Tyler, Texas, who had led the second flight. He had been in command of the five planes that were to hit Haarlem.

Now, for the first time, we could piece together the complete story of our second raid. We could assess the size of the disaster. There were other men at the camp who had been along. I had come to the camp in the company of Lieut. W. C. Kinney of Georgia, Purinton's co-pilot. All together, there were nine of us officers present. The surviving enlisted men had been sent to another camp, in Austria.

Mine was the first plane down. The pilot leading the second element of two ships drew up as I went down and tried to assume the lead. That was the proper procedure. As my plane crashed my wing man was left sitting there alone. Either my wing man was taking violent evasive action or he was hit by gunfire. In any event, he did not see the pilot drawing up from behind to take my place in the formation. The two planes collided and exploded in mid-air. Fragments from this explosion knocked down a third ship.

That left only two planes in the first flight of six. They didn't make the turn for the target at Ijmuiden in time—the circumstances at the moment easily could have confused them—and they flew on into the suburbs of Amsterdam. The flak was very heavy there. Two more planes went down near Amsterdam.

Four planes were left, under Purinton's command. He led them to Ijmuiden. One was shot down over the target. Purinton himself had to crash-land at sea after he turned away from the target. He came down about a half-mile offshore and was picked up by a flak barge. The remaining two ships managed to get a start for home, but German fighters soon picked them off en route.

Of the sixty officers and enlisted men who crossed the Dutch coast, only ten officers and twelve enlisted men, including two enlisted men who got away from their wrecked plane in a raft and were picked up days later by a British destroyer, survived.

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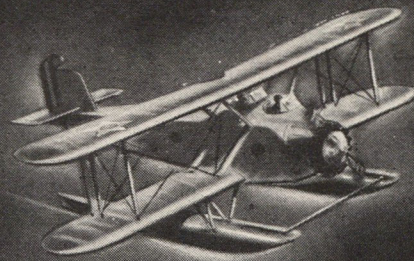
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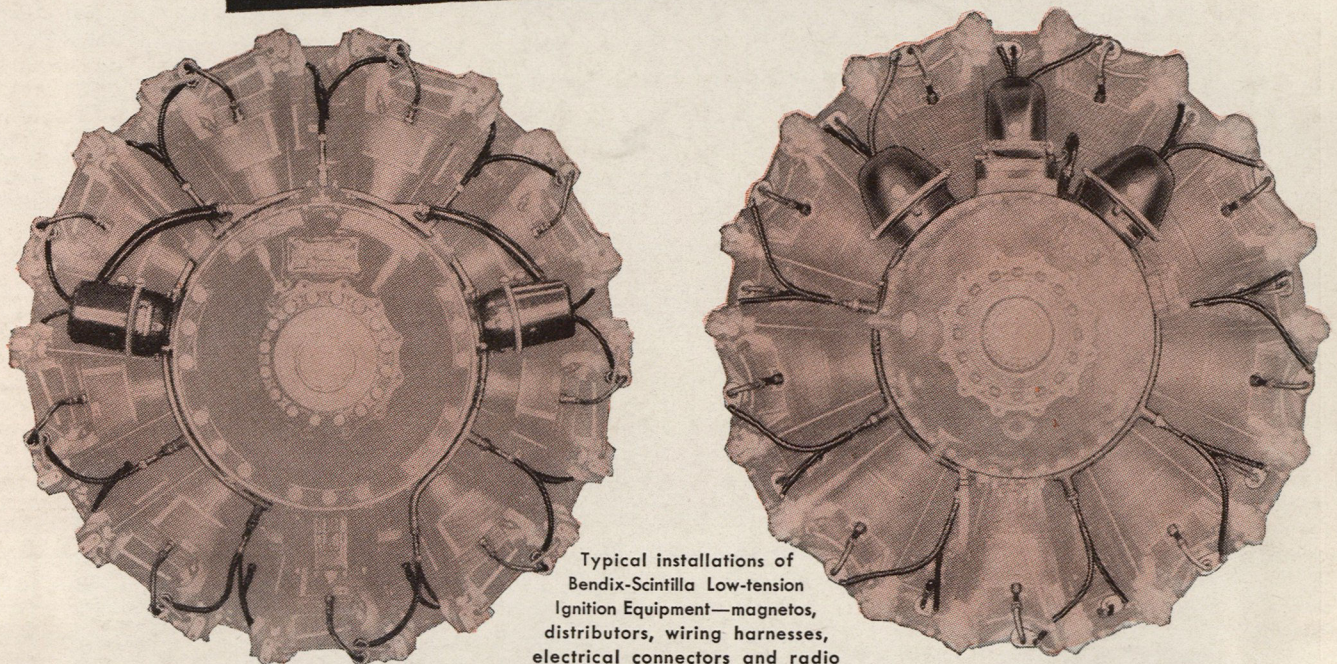


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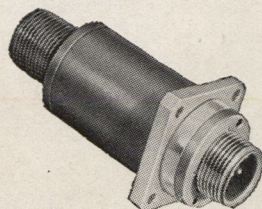


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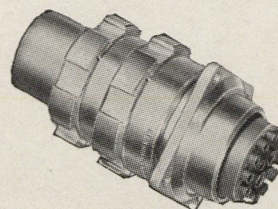
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