

# AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION, JULY, 1950



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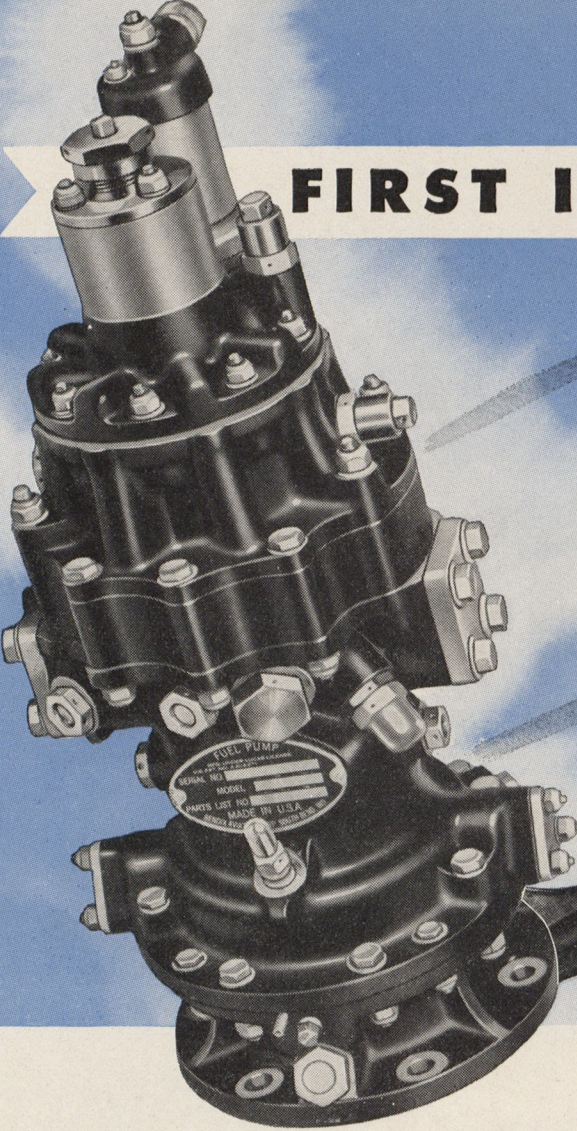
LT. GEN. LAURIS NORSTAD

No Beaches on His Invasion Map

AFA'S  
EVENT  
OF THE  
YEAR

Page 26





## FIRST IN FUEL METERING

### ***Precision Is the Keynote—in Production and Performance!***

The word *precision* perfectly characterizes practically every piece of fuel metering equipment manufactured by the Bendix Products Division. It starts with the business-like efficiency in which the many planning and manufacturing operations are carried out, but, this precision is most apparent in the *performance* of the finished product. The Bendix JP-A3 fuel supply

pump is typical: compact, light in weight, it nevertheless delivers up to 900 gallons of fuel (gasoline included) per hour, per unit. Its advantages include a variable pump output, an ability to work under high pressures (up to 1300 lbs. psi) and yet it needs no lubrication. Whatever your requirements, be sure to get *precisely* what you want from Bendix Products Division.

**BENDIX · PRODUCTS DIVISION · SOUTH BEND**



Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.

## LEADER IN

## LANDING GEAR



# *Bendix Products Division*



# AIRHEAD

Established and Maintained *Entirely by AIR!*

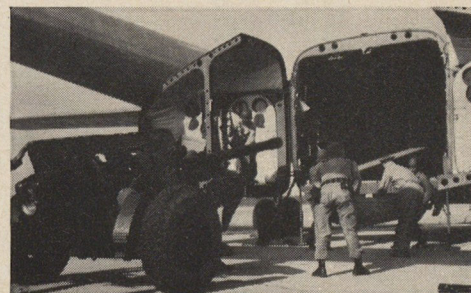


Exercise Swarmer, the all-air maneuver in North Carolina, closed in May on a high note of success. It proved that an entire air-head *can* be established . . . supplied . . . and re-supplied *entirely by air!*

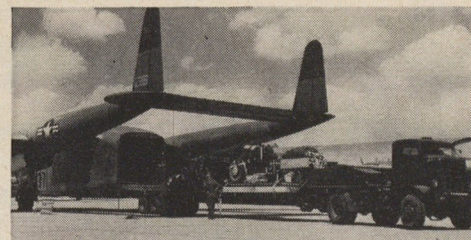
Contributing much to the success of "Swarmer" was the performance of Fairchild C-119 and C-82 Packets.

The new C-119's passed their initial tests with "flying colors" and well they might, because this was a *made-to-order* job for the Fairchild planes, with quick and easy-loading and unloading of men, equipment and other bulky supplies.

Packets, specially engineered and built for use by America's unified air and ground forces, are proving themselves every day, under all operating conditions.



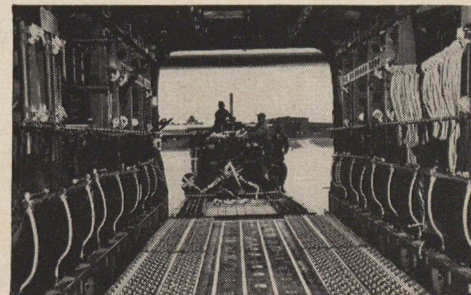
**HEAVY EQUIPMENT** such as 105 and 155 mm howitzers, 6000 lb. trucks and jeeps, rifles, ammunition, dropped from Packets—ready for use as soon as it hits the "drop zone" . . .



**EASE OF LOADING** from the rear of the fuselage allows for rapid loading and unloading in record time . . . Packets being airborne in as little as seven minutes after touch-down!



**PARATROOPERS** of the famed 11th and 82nd Airborne Divisions loading into FAIRCHILD Packets of the 314th Troop Carrier Wing during Swarmer's "D" day . . .



**BOXCAR FUSELAGE** permitted rapid loading of large, bulky equipment . . . no dismantling or ground handling equipment needed. Vehicles loaded and unloaded under their own power!

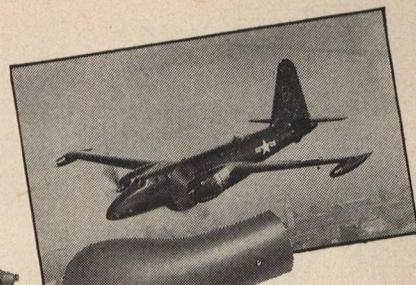
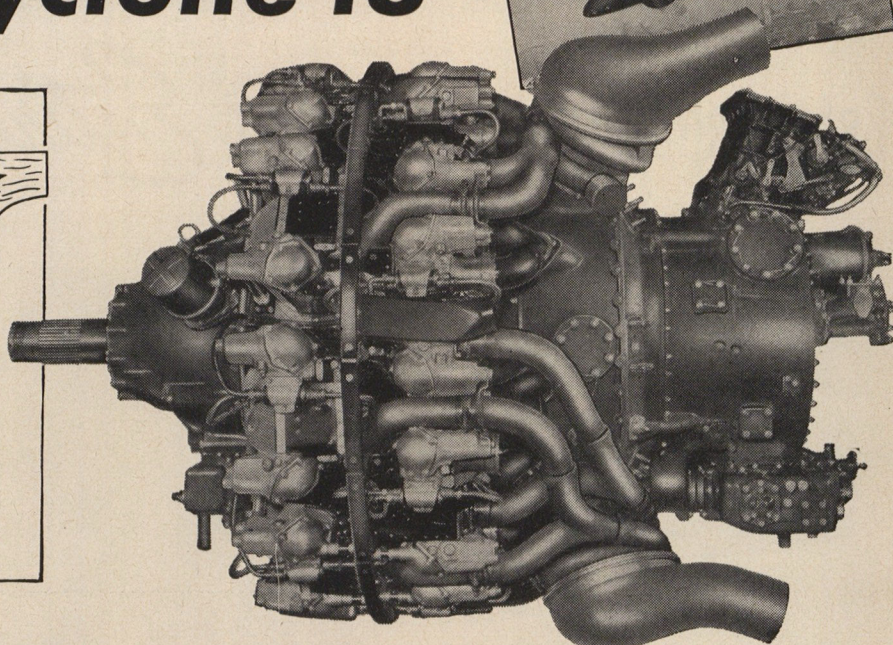
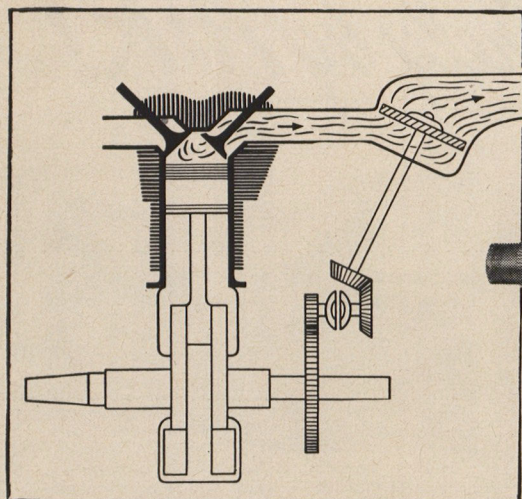
ENGINE AND AIRPLANE CORPORATION  
 **FAIRCHILD** *Aircraft Division*  
HAGERSTOWN, MARYLAND



Now in production for Lockheed P2V-4

THE WRIGHT 3250 H.P.

# Turbo-Cyclone 18



## THE FIRST PRODUCTION COMPOUND ENGINE

► Mount three blowdown turbines on a piston engine. Utilize the exhaust gases from the piston engine to turn the turbines. Then count the blessings... higher power... lower fuel consumption... longer range... for military and commercial operations.

### Another "First" for Wright Engineering

► The Wright Turbo-Cyclone 18—rated at 3250 horse-power—is the first and only aircraft "compound" engine to pass a military model test, go into production and fly in a production airplane.

### A Tribute from the Navy

► The Turbo-Cyclone 18 now powers the U. S. Navy's long-range patrol bomber—the Lockheed P2V-4—and the Martin P5M-1. It brings to these aircraft the proved reliability and operating economy of the Wright Cyclone 18 PLUS the lower weight and compactness of the gas turbine.

### Endurance—Range—Striking Power

► The selection of the "compound" engine for naval aircraft primarily designed to spearhead anti-submarine defenses is a tribute of which

Wright Aeronautical is justly proud. For in anti-submarine warfare operations, endurance, long-range and heavy striking power are basic requirements... and the choice of the Wright Turbo-Cyclone 18 is based on its unique adaptability to these exacting requirements.

### 3000 hours successful test time

► Behind the Turbo-Cyclone 18 are over 3000 hours of experimental ground and flight tests... plus the millions of flight hours amassed by the basic Cyclone in military and commercial service.

**BONUS**

in Dollars

in Miles

in Pounds

#### TAKE-OFF POWER

BASIC ENGINE	
TURBO-CYCLONE 18	20%

#### NORMAL RATED POWER

Low Blower { BASIC ENGINE 14%

TURBO-CYCLONE 18

High Blower { BASIC ENGINE 28%

TURBO-CYCLONE 18

#### FUEL CONSUMPTION

High Cruise Power { BASIC ENGINE 20%

TURBO-CYCLONE 18

Low Cruise Power { BASIC ENGINE 15%

TURBO-CYCLONE 18

Percentage Improvement

### WRIGHT IS PIONEERING IN ECONOMY

Apart from differences in operational requirements, the military and commercial operator share the same need for optimum economy and performance in long-range aircraft. The Turbo-Cyclone 18 is the most advanced aircraft power plant yet developed to fulfill these requirements. It reflects Wright Aeronautical's present and foreshadows its future leadership in creating new and more economical sources of power for air progress.

Wright Aeronautical Corporation • Wood-Ridge, New Jersey

**CURTISS**  **WRIGHT**



JULY, 1950

VOL. 33, NO. 7

## THIS IS AFA

The Air Force Association is an independent, non-military, airpower organization with no personal, political or commercial axes to grind; established and incorporated as a non-profit corporation February 4, 1946.

**Active Members** are men and women honorably discharged from military service who have been assigned or attached to the US Air Force or its predecessor services, or who are currently enrolled in the Air Force Reserve or Air National Guard. **Service Members** (non-voting, non-office holding) are men and women currently assigned or attached to the US Air Force. **Associates** (non-voting, non-office holding) are men and women not eligible for Active or Service Membership who have demonstrated an interest in furthering AFA's aims and purposes, or in proper development and maintenance of US airpower.

## ITS OBJECTIVES

To preserve and foster the spirit of fellowship among former and present members of the Air Force, and to perpetuate the identity and group solidarity of wartime Air Force units large and small.

To assist in obtaining and maintaining adequate airpower for national security and world peace.

To keep AFA members and the public at large abreast of developments in the field of aviation, and to stimulate community interest in Air Force activities and installations.

## AIR FORCE ASSOCIATION OFFICERS

### ROBERT S. JOHNSON, President

Regional Vice Presidents: Meryll Frost (Northeast); William Hensley (Southwest); Arthur Kelly (Far West); George C. Van Nostrand (Central East); Jay J. G. Schatz (Midwest); Jerome Waterman (Southwest). Secretary, Julian B. Rosenthal. Treasurer, Benjamin Brinton.

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## THE COVER

Exercise Swarmer tested for the first time in history the ability of air transport to deliver paratroopers with enough equipment to enable them to seize an airhead, to expand that airhead for the landing of transports with reinforcements, and to keep supplies coming for troops surrounded by hostile forces for a protracted period in any weather and against air opposition over which superiority but not supremacy had been attained.

READ "THUNDER OF A CONCEPT"—PAGE 19

## AIR FORCE STAFF

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A whimsical red-ink illustration serves as the background for the poster. At the top left, a hand holds a beer mug. In the upper right, an airplane flies across the sky. On the left side, a man in a tuxedo and a woman in a dress are dancing. Below them, a man in a suit and hat is shown in profile, looking towards the right. In the bottom left, a man stands at a podium with a microphone, appearing to give a speech. In the bottom center, a man is depicted falling into a body of water. On the right side, a man in a suit is running towards the left. In the bottom right corner, a tall, thin building with a cross on top is visible. The entire illustration is rendered in a simple, sketchy red-ink style.

Join Your Friends at

# AFA's 4th BIG CONVENTION

## **BOSTON**

Center of New England's Vacation Land

**AUGUST 25-26-27**

At the Peak of the Vacation Season

## **HOTEL STATLER**

The Perfect Convention Headquarters

*J. de M. H. H.*



# CONVENTION AND REUNION

## REUNIONS • REUNIONS • REUNIONS X-1 FEATURE OF AIR AGE EXPOSITION

Boston still hasn't solved the notorious Brink holdup, but there is nothing mysterious about the thunderbolt scheduled to hit Bean Town on August 25th.

It's the AFA Convention and it promises to be every bit as successful as the Columbus, New York and Chicago affairs of years gone by.

We're concentrating on reunions. It's been five years now since the end of the war and most wartime Air Force units are ready to make this their big year for get-togethers. Sixteen have already scheduled theirs, and more are coming in every day. . . .

There will be something for everybody in Boston. Out at Logan International Airport, the famous Bell X-1, first of the supersonic planes, will be on exhibit. In the air, for another "first" Canada will demonstrate its newest jet fighter, the CF-100.

Top this all off with a steady round of cocktail parties, banquets and balls and the more serious matter of business and policy meetings and you'll see why Boston on August 25th is a "must" for your summer plans.

*Clip and Mail to:*

RESERVATION DEPARTMENT  
HOTEL STATLER  
ATTENTION: AIR FORCE ASSOCIATION  
BOSTON, MASS.

AIR FORCE ASSOCIATION'S 1950 NATIONAL CONVENTION  
Hotel Statler—Boston—August 25, 26 & 27

Please reserve accommodations as checked (✓) below:

Name.....  
(Please Print)

Address.....

City.....State.....

Unless requested otherwise, we will only hold your reservation until 6 p.m. of the day of your arrival.

Date Arriving.....Hour.....A.M. P.M.

Date Departing.....Hour.....A.M. P.M.

Room and Bath  
For One—Per Day.....\$5.00 ☐ \$5.50 ☐ \$6.00 ☐  
Double-Bed Room W/Bath  
For Two—Per Day.....8.50 ☐ 9.00 ☐ 10.00 ☐  
Twin-Bed Room W/Bath  
For Two—Per Day.....10.50 ☐ 11.50 ☐ 12.50 ☐

More Than Two Persons in One Room:  
For each additional person in Double or Twin-Bed Room the extra charge is \$2.50 per day.

Name of person(s)  
sharing room.....

If a room at the rate requested is unavailable, one at the nearest available rate will be reserved.

If above accommodations are desired at other than The Statler, please list name of hotel:



# AFA's GLIDER MEET



Above, a BT-13 tows gliders aloft for the Boeing Speed Dash. Below, AFA Queen, Norma Wiehe presents trophy to Bikle.



Despite inclement weather, the four-day Second annual Wright Memorial Glider Meet sponsored by AFA's Dayton, Ohio, Squadron One and held over the Decoration Day weekend, was a pronounced success.

The weekend's outstanding performer was Paul Bikle, President of the Dayton Soaring Society, who set two new records and took the Grand Championship. Bikle personally scored triumphs in five of the contest's seven events, amassing a winning total of 966 points. Last year's Wright Memorial Winner, Major Scott Royce, placed second with 509 points.

Three of the events were sponsored: The Boeing Speed Dash by the Boeing Airplane Company; the Douglas Speed Dash sponsored by the Douglas Aircraft Company; and the Service Distributing Spot Landing sponsored by the Service Distributing Company of Dayton.

Bikle's new marks were set in the paper strafing event with a time of 11.7 seconds against last year's 18 seconds, and a spot landing average of just 7.1 inch from the marker. He also captured the endurance contest with a time aloft of 2 hours 13 minutes. This was four hours under last year's winning total but rain held down the soaring portion of the program. Bikle also took first place in the altitude event with a 6100 foot top, and won the climb-soaring event rising 4800 feet from his lowest air point.

One of the entrants from the Purdue University Glider Club set a new bomb dropping mark with an average of 44 feet eight inches, considerably less than the 69 foot previous record.

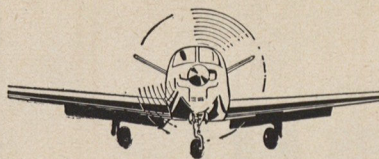
Winner of the final event, and also a member of the Dayton Soaring Society, was Marvin Frost who romped home first in the speed dash, after a series of elimination heats.

The Meet's static display included an F-86, a B-29 fuselage and a B-45 nose section. Wright Patterson AFB Band at left.





**Hitch your  
business to  
this star  
performer...**



**Stellar take-off and landing performance**

Short fields are no problem! New Beechcraft propeller develops greater static thrust. Flap travel is increased; action is faster.



**Plan long flights — you have the range!**

The Bonanza's 750-mile range can be increased to 940 or 1,145 miles by installation of 10-gallon or 20-gallon auxiliary fuel tanks.



**the**

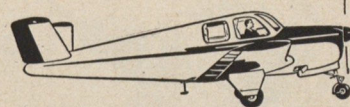
**Beechcraft**  
**BONANZA**

Beechcraft Bonanzas serve as company-owned planes in almost every field of American business. More than 2,400 are now delivered. They slice travel time by two-thirds; give key men the incalculable advantage of any-time mobility. *Features* put this trim, exceptionally fast plane at the "head of the class"; make it *the* outstanding buy. Here are just a few of the features that make this greater-than-ever Beechcraft a better-than-ever value.



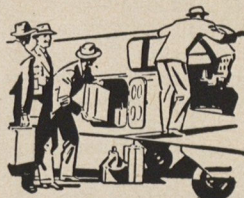
**Extra style and comfort features**

Touches of luxury: four arm rests, four individual ash trays, special coat hanger rod to carry clothes with never a wrinkle.



**Take-off horsepower rating increased**

Now 196 h.p. at 2,450 rpm. Landing gear action speeded up: lowered in 7½ seconds, raised in 8½ seconds at 105 mph.



**Room for all the luggage you need!**

Baggage compartment is accessible from inside or out. Room, too, for four big people in the smartly tailored *quiet* cabin.



**Sturdy framework gives you unsurpassable safety**

All-metal framework is stronger than conventional construction. Exceptionally rugged: Shock, stress tests far surpass CAA requirements.



**There's more** to the Bonanza story! Let your nearest Beechcraft distributor or dealer "fill you in" on facts about the Model B35 Beechcraft Bonanza's exceptional economy in operation. Or for more information, write on your letterhead today to Beech Aircraft Corporation, Wichita, Kansas, U.S.A.

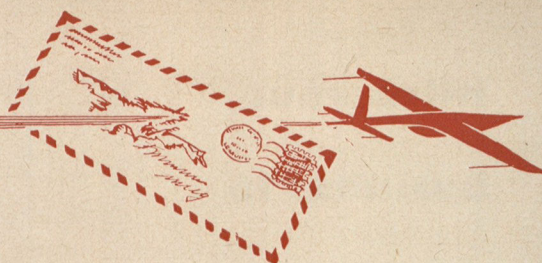
Top speed, 184 mph  
Cruising speed, 170 mph  
Range, 750 miles  
Fuel economy, 9.5 gph

**Beechcraft**  
**BONANZA**

**BEECHCRAFTS ARE THE AIR FLEET OF AMERICAN BUSINESS**



# AIR MAIL



## Error

**Gentlemen:** Page 40, March issue credits "Monk" Hunter with the D.F.C. with four Oak Leaf Clusters—this should read the D.S.C. (Distinguished Service Cross) with four Oak Leaf Clusters. He well deserves proper credit for them. There aren't many with five D.S.C.'s; in fact it's likely that only Eddie Rickenbacker can top that.

Herbert R. Talmage  
Short Hills, N. J.

## In Reverse

**Gentlemen:** Another ex-Air Force man and myself had a heated argument the other day about reversible props. I maintained that I had read an article that all four props had been reversed



on a four engine plane in tests to check steeper angles for landing with no increase in normal airspeed for a landing approach in a shorter field. My opponent in the argument maintained that no airplane ever has reversed its props except to shorten the landing roll on the ground. If you possibly can, will you please send me the right dope on the deal.

Einar C. Selberg  
Chico, California

• *You win the argument. Experiments on reversing props in mid-air began as long ago as the early 1920's.*

## Appreciation

**Gentlemen:** I have just received the April Issue of Air Force Magazine. I should like to compliment you on your keen perception and concise technique of writing that resulted in what I believe to be a most favorable article for not only part of my command, but for the Air Force as a whole. I am particularly grateful that you so well sensed and expressed the maturity, morale, and psychology of those Reservists which you observed. The emphasis that you put on the very important factors of the training proficiency attained for the dollar costs well points up a situation that needs developing very much if the training of our civilian components is ever to achieve its proper place in the support of our national concept of military security. Your article on the 63rd will always be highly prized by us here at Floyd Bennett Field because

we appear in it to have so well met the criteria or standards that have been set by such an independent voice as yours.

Brig. Gen. Robert L. Copsey, USAFR  
Floyd Bennett Field, New York

## Another Viewpoint

**Gentlemen:** Thanks for publishing Gen. Orville Anderson's article, "Air War and Morality," in your April issue. As an answer to the "lose the peace" fallacy, it is an excellent start. It is no fault of the article that it leaves this reader with a feeling that something more needs to be said. Aren't we about ready to chuck von Clausewitz in the ash can and produce an American theory of "peace-keeping" weapons, in line with our well-established practice? We sent the U. S. Cavalry on a punitive expedition against a border bandit in 1916, without any of the diplomatic trappings of classical war-making. In the opening of our own West, we supplied "law and order" in the form of Vigilante action by private citizens on horseback, but when public peace forces arrived on the scene we went on about our business and left horse-thieves to be dealt with in the civilized way of U. S. Marshals and County Sheriffs. For more than a hundred years we and our neighbors to the North have preserved an unguarded boundary some 3000 miles long without having to resort to war or an extension of diplomacy or national policy. There is a representative body of sorts in the U.N., ready in a generation or so to take on the role of peace-keeping, enforcing some kind of international law against breach of the peace.

In the interim, it might be profitable to find out whether our own experience offers a better guide to thinking about weapons than does the writing of a semi-feudal German who lived too close to European history to know much about the ways of the new world. Specifically, when is someone with the qualifications of a philosopher going to point out that strategic air power and atomic weapons offer us, for the first time in the history of man, a complete and effective international peace-restoring device? Use of these weapons to exact a quick fine—payable in factories—for a breach of world peace is the attainment of practically a moral millennium compared to the immoral waste and devastation of old-fashioned wars between land armies or the starvation-blockades of innocent people by sea fleets. It is likely that a future aggressive war will be started by an effort to cripple our production (even more likely, by an effort to destroy our mo-

rale) by long range delivery of atomic weapons. The point is that our retaliation, when it comes, should be from the point of view of punishing a breach of world peace for the purpose of discouraging aggressive war, not from the point of view of an old-fashioned declaration of classical war aimed at conquest of a remote, sprawling and populous territory. We would only dignify and reinforce a spirit of aggression if we invoked all the passions of a nationalistic war to the support of an instigator of a breach of world peace. Our aim should be to stop—not to destroy—an aggressor. What can the people of an aggressor nation do to stop rulers who rule by dictatorship and the iron controls of a police state? It is the dictators, not the victims of dictatorship, who are criminally responsible. It is their power which should be the object of our counter-attack. It is their factories and controlled production which we can and should strike. It is entirely feasible to warn civilians to stay away from the factories to be exacted as fines, as we did in the announcement of fire-bomb targets in Japan late in World War II. The only moral question lies in our self-appointment as the guardians of the peace, and that is a role thrust upon us by the existence of aggressors in the world, and by necessity until the U.N. or a successor has acquired the force and scope to step in and take over the job. Or have I been looking at too many Western movies?

Raymond S. Fanning  
New York, New York

## More on Saucers

**Gentlemen:** The article "Psychoanalyzing the Flying Saucers" made very good reading. However, I think the Air Force



either has its eyes shut or is trying to pull the public's eyes shut I can hardly reconcile myself to the conclusions in the article when two of our best pilots viewed one at startling close range several days ago. They weren't the type of guys to make up stories and their post-view reactions have been those of men who have been "converted" to believing in them, but definitely. I think we're all in for some surprises when the truth is found.

Lyle H. Gildermaster, C&S Airlines  
New Orleans, La.



## Systems Engineering

Guided missiles experience aids Martin in implementing this airplane design concept

Guided missiles were the first aircraft to attain supersonic speeds—the first to acquire fully automatic control—and the first to require the close design integration of components which The Glenn L. Martin Company calls *Systems Engineering*. Today, with piloted airplanes also passing the sonic barrier and being assigned increasingly difficult missions, it is essential that they, too, be designed as integrated air-borne systems, not merely as flying vehicles whose sole goal is speed.

With a background of demonstrated accomplishments on top level missiles projects, and continuous growth in this field . . . The Glenn L. Martin Company has carried over *Systems Engineering* from its missiles experience to its airplane designing. The Martin engineering staff has been shaped and manned to provide proper emphasis on all three of the basic types of functional elements involved in the production of a modern airplane—airframe and power plant—electronic flight and navigational controls—and military armament or passenger facilities.

Martin *Systems Engineering* recognizes that the immediate problem of aeronautical engineering is not to concentrate exclusively on airframe performance, but to integrate the necessary electronic and mechanical systems into the airframe design to produce a truly effective military weapon. And, whether the weapon is a manned airplane or a guided missile, it is imperative that the complete development be so scheduled that the end product represents a completely coordinated system. There is no advantage in having an airframe ready for flight testing while the guidance system, which may necessitate airframe changes, is still a gleam in the designer's eye.

That is Martin *Systems Engineering*. That is why radar, servo-mechanism, automatic control, automatic computer and antenna experts—as well as aerodynamicists, structural engineers and electrical, hydraulic, armament and power plant installation specialists—are all part of the well-integrated engineering team. The Glenn L. Martin Company offers its customers today.

## Martin Ads Tell Air Power Story

Reaching millions of informed, alert American magazine readers, Martin advertisements like this one highlight air power's important role in our country's preparedness program. And survey after survey has demonstrated that their fiction-style appearance attracts an extremely high readership.

The general public and business circles are reached through the pages of *Time*, *Newsweek* and *Business Week*. The men and women who write and edit the news are kept abreast of latest developments through *Editor & Publisher*, *American Press* and *Publisher's Auxiliary*.

# BLASTING BEAUTY!



*Sleek, high-speed, powerful—  
the Martin XB-51 is the Air Force's  
first postwar plane specifically designed  
for supporting our ground forces.*

**B**lasting enemy supply lines and installations to help keep our ground forces rolling—that's one of the roles the new Martin XB-51 is designed to play in America's preparedness program! It's a teamwork bomber—versatile, powerful, super-fast, highly maneuverable, designed to be capable of operating from combat area fields. Its lines are clean and graceful, yet radically different. A unique power plant arrangement includes two jets mounted on fuselage pylons and a third in the tail. Drastically sweptback wings, a T-shaped tail and tandem landing gear—plus many other features still classified under military security regulations—make it as modern as tomorrow!

Like all Martin developments, the XB-51 is the product of a highly skilled engineering team. Electronic, aerodynamic, metallurgy research, servo-mechanism studies—all play their parts in the technical leadership Martin offers its customers today. All play their parts as Martin extends research frontiers in advanced design aircraft, rocketry, jet propulsion, supersonic missiles and other far-reaching fields! **THE GLENN L. MARTIN COMPANY, Baltimore 3, Maryland.**



Powered for faster starts, the Martin XB-51 is designed to have great versatility for operations to and from smaller combat area fields. For landings, the new Martin bomber has a parachute stowed aft which may be released



at the pilot's discretion for more rapid deceleration.

**Martin**  
**AIRCRAFT**  
Builders of Dependable Aircraft Since 1909



**Manufacturers of:** Military aircraft • Martin airliners • Guided missiles • Rockets • Electronic fire control and radar systems • Precision testing instruments **Developers and Licensors of:** Mareng fuel tanks (to U. S. Rubber Co.) • Marform metal-forming (to Hydopress, Inc.) • Honeycomb construction material (to U. S. Plywood Corp. and Aircraft Die Cutters) • Structural adhesives (to U. S. Plywood Corp. and Bloomingdale Rubber Co.) • Permanent fabric flame-proofing (to E. I. duPont de Nemours & Co.) • Hydraulic automotive and aircraft brake **Leaders in Building Air Power to Guard the Peace, Air Transport to Serve It.**



# SHOOTING

## Good For What Ails You

Reunion Fever is a highly contagious and remarkably painless affliction common to those who have shared, in close proximity, the trials and tribulations of wartime service.

In treating the Air Force version of the fever, there is only one known cure—bring the Air Force gang together in the proper setting each year, isolate the fever victims in hotel rooms in groups of wartime Air Force units, and submit the patients to unlimited portions of old faces and fresh drinks.

Air Force Association, serving in the capacity of prescribing physician, has applied this hospitalization cure faithfully and with unqualified success ever since the outbreak of the fever at AFA's first national convention at Columbus, Ohio, in the fall of 1947.

The hotel lobby at Columbus was bursting with Air Force people of every description, and the air was thick with infectious talk of wartime experiences, so it was not surprising that the unit reunion germ should strike as hard and spread as rapidly as it did.

At that first national meeting of AFA, no provision had been made to bring members of wartime units together, and emergency measures had to suffice for isolating the patients. First aid was applied in the form of three or four large blackboards which were hastily secured and set up in the hotel lobby. Soon these blackboards were filled with scrawling chalk messages—"Big 9th AF reunion tonight at 8:30" . . . "376th Bomb Group! Ploesti! Room 847" . . . "Former POW of Bulgaria call Room 1223" . . . "451st Bomb Group! Come on up! Room 357" . . . "Anybody here from the 315th Wing (VH)? Call Room 1019" . . . and on and on across the blackboards and into the night.

These impromptu gatherings of 1947 revealed certain essentials to the cure. It was apparent, for example, that patients must be free of military barriers. We recall a brigadier general wandering about the convention hotel in Columbus searching for the reunion of his wartime outfit—a reunion called by a former corporal of his command. And it became clear that the Association



must set the stage for annual unit reunions and provide unit members with the means for communicating with one another.

At AFA's second national convention, the New York meeting in 1948, we initiated several procedures which have become part and parcel of our annual gatherings.

To begin with, we catalogue the wartime unit of everyone attending the convention at the time he registers, and we distribute periodically during the convention period current lists of delegates which report these unit identifications. Going a step further, we have dispensed with the traditional convention badge which hangs conspicuously heavy on the average conventioneer's lapel, and have replaced it with a simple lapel button which displays only a number—the number of the air force or command with which the delegate wishes to be identified. When men with like numbers on their lapels spot one another, a unit reunion is in the making.

For anyone who wishes, we make rooms available—at no cost to the unit—for reunion gatherings of any size, and we help groups arrange their reunion cocktail parties, reunion dinners, reunion dances, and the like. When lists are available, AFA Headquarters will circulate—at no cost to the unit—letters and other material announcing unit get-togethers at the convention.

The first night of the three-day convention period is set aside for the reunions of the wartime outfits, and these separate gatherings are preceded by a huge kickoff event—the Annual Reunion Cocktail Party for all convention registrants.

So it is that Air Force Association has become the vehicle by which members of wartime Air Force units can meet each year with maximum ease and at minimum cost, in a unique reunion atmosphere and with a full agenda of outstanding Air Force events as a backdrop. AFA's convention is, in effect, one

# THE BREEZE

big and boisterous Air Force Reunion.

Now if you think all this is a plug for AFA's fourth annual convention-reunion in Boston next month—you are dead right. On August 25, 26 and 27—five years to the month from the end of World War II—this convention will bring together the men and women who wore the wings of the Air Force in that war. And as you will note from our convention report on page 26 of this issue, Boston will see more reunions of wartime Air Force units than any previous convention city.

Members of your old outfit will be in Boston next month—ripe for a reunion. Come to Boston and join them. Come to Boston for your Reunion Fever. Our cure is guaranteed. We've never lost a patient.

## From the AFA Notebook

In response to our request of a few months ago, our readers are sending in names and addresses of prospective AFA members, and to them we are grateful. This cooperative effort is vital to our membership program. We can use more prospect lists. We hope you'll increase the flow of names for AFA.

Soon we'll announce a new and unusual service to members—a special type of accident insurance to be offered by AFA, through world-famous Lloyds of London, available only to Association members—insurance tailor-made for those who fly as crewmen or passengers in military aircraft, plus general accident protection, including private and commercial flying. Watch for the announcement in this magazine.

AFA's unique Airability Program, through which our squadrons will survey the aviation needs of their communities, is moving ahead in a healthy manner, and drawing nice comments everywhere. Comprehensive Airability work kits, with hundreds of survey questions, have been sent out to squadrons. It's a huge long-range program, and results are not expected for several months, but already several AFA squadrons are engaged in the survey work. They include San Francisco, Cleveland, Covington, Ky., Beckley, W. Va., Toledo, Harrisburg, Pa. We invite individual members to get into our Airability

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# GET A MEMBER FOR

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work. If you're interested, let us hear from you.

Our Book Department merits the attention of every member. Since the Association receives the normal sales commission from publishers on every book sold through this magazine, the Department can be an important source of revenue to AFA, as well as a worthy service to members. We ask you to remember, when you or your family are buying books, that AFA can supply you promptly with *any* book now available, whether or not it is listed in this magazine, at regular trade prices, sometimes at a discount. AFA's book sale income has grown steadily, but we've only scratched the surface. We're after bulk sales to commercial and private organizations. Some of you may be in a position to swing some bulk sale business this way. All of you can fill your own book needs here—and help AFA in the process.

### The Personal Touch

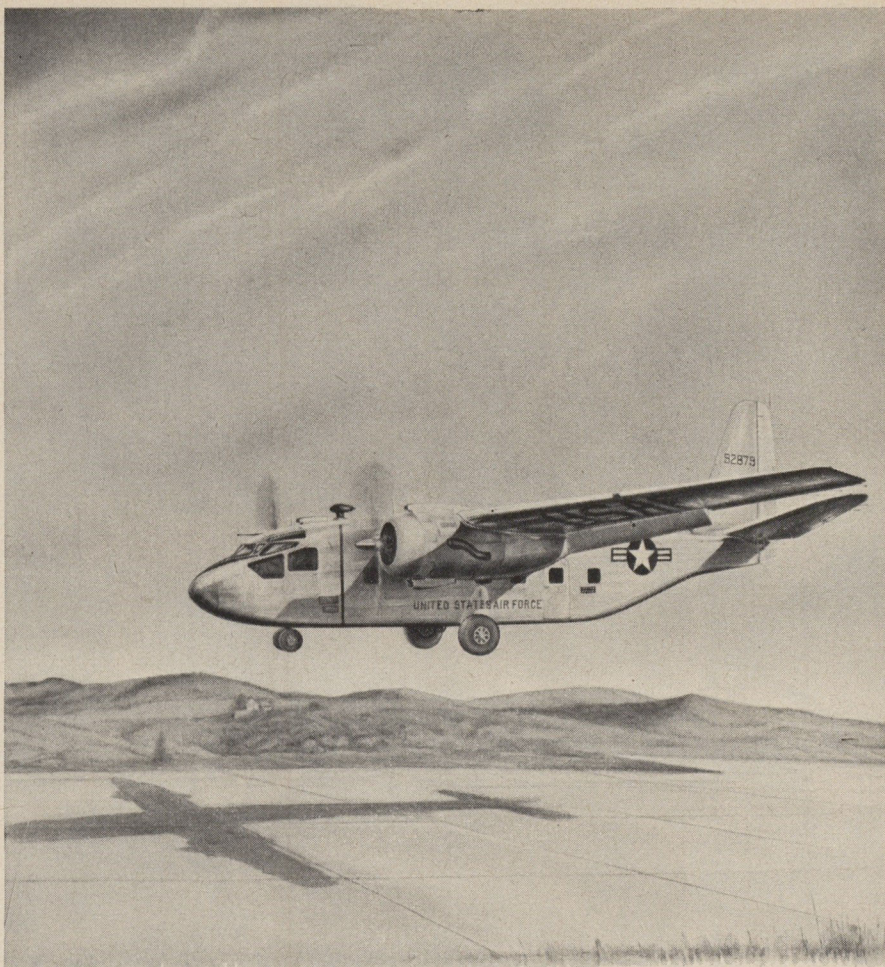
AFA's newest national director is **Dr. Paul C. Potter** of Denver, Colo., well-known wartime Air Force chaplain, scientist and psychiatrist, the country's foremost expert on panic control, who fills the unexpired term of **Henry C. Mulberger**, now on active duty with the Air Force as Secretary of the Air Staff Committee on Reserve Policy.

**Tom Campbell** of Hardin, Mont., AFA national director and the world's largest independent wheat farmer, has been awarded the French Commandeur of the Legion of Honor, for distinguished service to the French people during two wars, and postwar work on his own initiative in establishing new farming methods in North Africa.

**Gill Robb Wilson** of New York City, AFA national committeeman who served as chairman of our 1948 convention, has received the Gold Medal for Achievement of the American Legion's Aviators Post 743, New York City, for "distinguished journalism" as aviation columnist of the NY Herald Tribune.

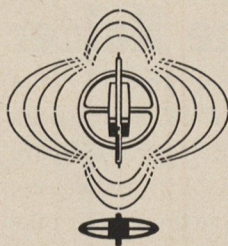
**Casey Jones** of New York City, former AFA Wing Commander of New York, is the new president of the Wings Club . . . AFA member **William Wyler**, who directed the famous **Memphis Belle** film for the Air Force in wartime, was named in a recent Hollywood poll as the greatest film director of the past 25 years . . . **Jimmy Doolittle**, first president and now a national director of AFA, and the highest ranking (Lt. Gen.) Air Force reservist in the country, recently served on the important Ridenour committee studying USAF research and development. His M-Day assignment is Deputy Commander of Strategic Air Command. J.H.S.

# AFA



The AVITRUC YC-122C

# STABILITY



AVITRUC troop and cargo transports are designed to perform with gyro-like stability. Whether the mission be transport or assault, Chase aircraft provide for safer operations and a resultant more efficient transport medium.

• AVITRUC—designed for the job •



**AIRCRAFT CO., Inc.**

WEST TRENTON, NEW JERSEY







## found only in the Raider

Outstanding one-engine-out performance of the Air Force's new Northrop Raider C-125 light assault and Arctic rescue transport gives an extra margin of reliability and safety.

With one engine inoperative the Raider pilot can land with a heavy load "up front" and can retain maneuverability in taxiing his aircraft—a feat impossible with twin-engined planes. After discharging his load he can then take off—on two engines—and get back to base. Even if a second engine is lost on the return trip, the latest model Raider can, under favorable conditions, still limp home for repairs.

Northrop Aircraft's design skill and manufacturing know-how have teamed up to produce this reliable and useful tool for U. S. airpower needs.

**NORTHROP AIRCRAFT, INC., Hawthorne, Calif.**

Builders of the Scorpion F-89 all-weather interceptor



## Airman's Calendar

- June 21-25—Ninety-Nines 1950 convention, Ft. Clark Guest Ranch, Brackettville, Texas.
- June 22-23—Mid-year meeting of Aviation Distributors & Manufacturers Assn., Edgewater Beach Hotel, Chicago, Ill.
- June 26-30—American Society for Testing Materials annual meeting and exhibit of testing apparatus and equipment, Atlantic City, New Jersey.
- June 29-July 1—1950 national meeting of Institute of Navigation, San Diego, Calif.
- July 7-8—Royal Air Force 1950 display, Farnborough airfield, England.
- July 10-28—Air Age Institute lecture series, Parks Air College, E. St. Louis, Ill.
- July 12-14—Annual summer meeting of the Institute of Aeronautical Sciences, western headquarters building, Los Angeles, Calif.
- July 14-16—National Pilots Air Meet and Races, Chattanooga Municipal Airport, Chattanooga, Tenn.
- July 16—Third efficiency race and air show, sponsored by Mansfield Aviation Club, Mansfield, Ohio.
- July 17—Conference of National Aviation Organizations first meeting, Washington, D. C.
- July 21-23—9th annual all-Ohio air tour, sponsored by Cleveland Junior Chamber of Commerce.
- July 25-30—Academy of Model Aeronautics national model airplane championship contest, Naval Air Station, Dallas, Texas.
- Aug. 2-13—17th national soaring contest, Grand Prairie, Texas.
- Aug. 19-20—California Air Freight Clinic, sponsored by Calif. Aeronautics Commission and Oakland Chamber of Commerce Aviation Committee, Oakland.
- Aug. 25-27—Air Force Association 4th Annual Convention, Hotel Statler, Boston, Mass.
- Sept. 2-4—National Air Races, Cleveland, Ohio.
- Sept. 4-6—National Flying Farmers Association annual convention, Bemidji, Minn.
- Sept. 5-10—Eleventh flying display and exhibition, Society of British Aircraft Constructors, Farnborough airfield, England.
- Sept. 28-30—International Northwest Aviation Council 14th annual convention, Sun Valley, Idaho.
- Oct. 2-4—National Association of State Aviation Officials annual convention, Minneapolis, Minn.



# AIRPOWER IN THE NEWS

VOL. 33, NO. 7

WASHINGTON, D. C.

JULY, 1950

IN A SWEEPING REORGANIZATION of its fighter, light bomber and troop carrier forces in Continental US designed to bolster air defense and give greater support to Army ground troops, AF has cut its regional units from six to four. 9th and 12th Air Forces will be eliminated; 12th AF Hq. at Brooks Field, San Antonio, will be shut down; 9th AF, with Hq. at Langley Field, Va., will be renamed 9th Tactical AF and moved to Pope Field, N. C. It will function as operational field force for TAC.

JOHN A. McCONE, Los Angeles business man, has been nominated by President Truman to post of Under Secretary of the Air Force. . . Maj. Gen. William E. Kepner scheduled to take over as Commander in Chief of the Alaskan Command with the rank of Lieutenant General. He succeeds Lt. Gen. Nathan F. Twining and will direct all three services in Alaska as executive agent for the JCS. . . Maj. Gen. Roger M. Ramey, CO of the Strategic Air Command's 8th AF at Carswell AFB, Fort Worth, Texas will become assistant to the Deputy Chief of Staff for Operations, according to an Air Force announcement. . . Maj. Gen. Samuel E. Anders, present Director of Plans and Operations in the Office of Deputy Chief of Staff, Operations, USAF, will take over command of the 8th about July 1. . . Naval Captain John G. Crommelin, center of inter-service row last December, has resigned his commission to run for the United States Senate from Alabama. He retired as a Rear Admiral.

BRITAIN HAS BEEN ASSIGNED A BOMBING ROLE IN NORTH ATLANTIC DEFENSE PLANS and will be given a ready-made strategic air force of more than 200 B-29s equipped to handle A-bombs. Seventy of them will be shipped out of this year's appropriations. . . Military Assistance Program is well under way including training of Foreign personnel. Ninety five French pilots will train at Randolph AFB. Weapons standardization proceeding slowly. . . USAF will soon start construction of three permanent bomber bases in England which may be capable of accommodating B-36s. Temporary bases in Lancashire, now occupied by B-29 groups, expected to be returned to the RAF.

NORTHROP AIRCRAFT, INC. has completed the first test phase of the X-4 and has turned the plane over to NACA for further flight testing. . . Sperry Gyroscope Co. has received a contract from North American Aviation for Zero Readers for F-95A's. This is the first military production order for the instrument. . . Navy has started tests of large-scale ram-jet engines at simulated altitudes of 100,000 feet and at speeds up to Mach 4 in newly completed test chamber at the Ordnance Aerophysics Laboratory, Daingerfield, Texas. . . Lockheed Aircraft Corporation's new F-97 jet fighter is back at the plant for tail modification after completing a series of flight tests at Edwards AFB, Muroc, Calif. . . The Navy's Martin Viking-Rocket has set a new altitude record for a single-stage, American-built guided missile. Fired from the deck of the USS Norton Sound, the Viking reached an altitude of 106.4 statute miles. Previous record was 78 miles, although two-stage rockets have hit 250 miles.

CONVAIR XF-92A, the Delta Wing experimental fighter, cracked up when the engine failed at 20 feet altitude during a test flight at Edwards AFB. Capt. Charles Yeager, Ace test pilot, made a successful belly landing without excessive damage to himself or the plane. . . Boeing Airplane Co., is installing a number of Sperry Engine analyzers in B-50Ds and C-97s for service testing. Analyzer helps locate "knock" and streamlines maintenance procedures by locating malfunctioning equipment. . . Westinghouse is perfecting a new high-thrust jet, the XJ-46, an advanced version of its J-34 and J-40 engines now in production.

(Continued on page 14)



## AIRPOWER IN THE NEWS CONTINUED

AF LEADERS, BACKED BY SECRETARY OF DEFENSE JOHNSON, have told Congress that unless substantially increased funds for new planes are appropriated, the nation's airpower will decline. They requested greater authority to obligate increased amounts for the next five years with authority to spend two billion dollars per year for procurement alone. . . Sir Richard Fairey, British plane builder, says Soviet Union and its satellites are producing between 25,000 and 40,000 warplanes annually.

BELL'S X-1A, tiny rocket research plane, will be flight tested by the Air Force early next year. Plane has been designed to hit a top speed of 1,700 MPH. . . Baby A-bombs, for US jet fighters may be the next atomic weapon to be officially announced. . . The new Engineering Development center in Tennessee, named in honor of Gen. H. H. Arnold, will devote itself in part to study problems dealing with the propulsion of aircraft by atomic energy, according to Maj. Gen. F. O. Carroll, the installation's CG. . . Army has a new anti-aircraft rocket that it hopes will knock anything down up to 60,000 feet range, Gen. J. Lawton Collins said recently in a radio interview.

USAF FIGHTER STRENGTH numbers about 1500 aircraft of which 1200 are jet propelled. One hundred fifty more will soon be added--half to go to Germany and half to the Pacific Northwest. . . Current heavy bomber strength is put at 500. These include some B-36s, but mostly B-50s and B-29s. Air Force believes present development of Russian air defenses are such that our bombers would get through with "acceptable" losses.

MATS HAS TERMINATED ALL SCHEDULED PASSENGER FLIGHTS within the US and will concentrate hereafter on training instead of transport in order to be ready to assume wartime assignments in case of emergency. MATS flew 81,000,000 passenger-miles in 1949. . . Representative Carl Hinshaw (R., Cal.) protested on the floor of the House AF practice of overhauling its military aircraft in its own depots. He pointed out that the President's Air Policy Commission recommended that much of this work be done by private contractors to keep them on a "ready" status in case of war. . . CAA has certified the Westinghouse J-34 jet engine for commercial use. It has a military rating of 3,000 pounds static thrust and weighs 1,200 pounds. . . Senate Commerce Committee has reported favorably on a proposed bill which would authorize \$12,500,000 to be spent by the government for testing jet and turbo-prop aircraft in simulated commercial use. . . Allison's new turbo-engine, the Turbo-Quad, will develop 11,000 equivalent horsepower.

FUTURE WAR GAMES TENTATIVELY SCHEDULED for early next year will see activity from the tropics to the arctic. Tentatively set for next January and February is an exercise, which will have as its assignment the building of a jungle airhead in the Panama Canal Zone. . . Next year's version of Swarmer will involve pitting two airborne divisions against each other for the possession of a mutually desirable objective.

THE AIR FORCE'S EXTENSION COURSE DEPARTMENT, formerly part of the CAC, has been transferred to jurisdiction of the Air University and redesignated USAF Extension Course Institute. New address is Gunter AFB, Montgomery, Ala. . . The USAF Band will leave for Europe on June 16 on a six week goodwill concert tour of Scotland, Ireland, England, Germany and Austria.

SECRETARY OF THE AIR FORCE THOMAS K. FINLETTER, in his first appearance before a Congressional Committee since assuming his new post, called for equality with the Army and Navy in the matter of three and four star generals. At present the Air Force is limited by law to 17 top ranking officers and compared to 27 for the Army and 26 for the Navy.



**WORLD'S FIRST**  
***Turbo-Prop***  
**ATTACK BOMBER**

**Douglas A2D Skyshark**

**M**ost powerful airplane of its size and type ever developed, the new Navy A2D-Skyshark is designed to fill the military need for all 'round tactical ground support and sea-air attack.

Powered by Allison's T-40 turbo-prop engine, driving two counter-rotating propellers, the A2D gives performance comparable to that of many operational jet fighters. The A2D can carry a greater payload than any known jet bomber or fighter for the same expenditure of fuel.

Offensive punch of the new plane is delivered by a variety of rockets, bombs, aerial torpedoes, or other weapons carried on external wing racks. Striking power is ideally adapted to air support of amphibious troops as well as to attacking targets at sea.

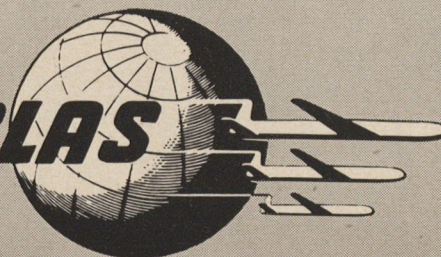
Thus the A2D becomes the proud successor to the versatile Douglas AD-Skyraider series of attack aircraft.

EL SEGUNDO PLANT OF DOUGLAS AIRCRAFT COMPANY, INC.



**DEPEND ON DOUGLAS**

**30<sup>TH</sup> ANNIVERSARY YEAR**





**WORLD LEADER IN JETS....LOCKHEED**





## T-33 JET TRAINER

The Lockheed Aircraft Corporation, largest producer of jet aircraft in the world, has built almost as many jet airplanes as all other U.S. manufacturers combined. In fact, Lockheed has built jets at the rate of more than one a day—every day for more than five years.

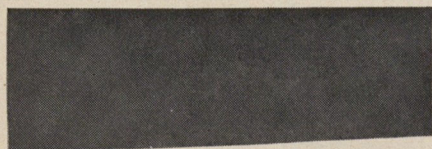
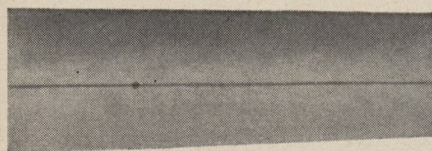
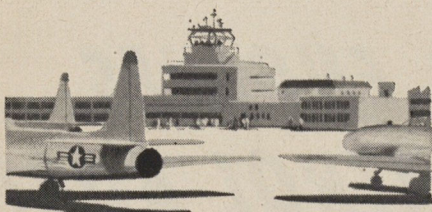
Important member of the Lockheed jet family is the two-place T-33 Jet Trainer (shown here), only jet trainer airplane built in America today (Navy designation: TO-2). This dual-control fighter-trainer now trains the pilots for the supersonic fighter planes of the Army, the Navy and the Marine Corps.

The experience obtained in the design, development and manufacture of jet fighter planes is invaluable in the Lockheed laboratories where the designs of the future are taking shape today.

## LOCKHEED

Aircraft Corporation, Burbank, California

*Look to Lockheed for Leadership*



## RENDEZVOUS

### Where the Gang gets together

**MORE REUNION:** The Second Air Division Association is having its annual reunion at the Hotel Statler, Cleveland, Ohio, October 20-22. Anyone interested in joining the association or attending the reunion is requested to write R. E. Strong, 2 Cobb Terrace, Chapel Hill, N. C.

**WEATHER BOYS:** A group of former 18th Weather Sq. personnel in New York and Chicago are planning reunions in both those cities during August. Those interested in further information please contact L. H. Leiberman, 150-76 Village Road, Jamaica 2, N. Y.

**CURLY'S CLASSMATES:** Would like to hear from old classmates of class 43-17 graduated from SPAAF in Lubbock, Texas and from former members of the 317th T.C. Sq. of the 2nd Air Command Gp. And does anyone know if there is a glider pilot reunion in the making? Douglas "Curly" Pursley, 10 Roosevelt Ave., Totowa Boro, N. J.

**KIA:** S-Sgt Warren Messmer reported missing on raid on Poznan, Poland, April 11, 1944. His B-17 last sighted being attacked by enemy aircraft over the Baltic Sea north of the mouth of the Oder River. Member of 412th Bomb Sq., 95th Bomb Gp. All crew members bailed out. Anyone knowing further facts please contact brother, R. J. Messmer, 1115 Doemland Street, Burlington, Ia.

**NEWSPAPER:** "The 379th Squadron News" is available to men of the 310th Bomb Gp., 12th AF at a cost of 25 cents for six issues or free if you're broke. Send along your history since you left the squadron, if possible. Joe Rademacher, 1202 North Woodford, Decatur, Ill.

**REUNION:** The 14th Air Force Association will hold its annual convention on July 1-3 at the Mayflower Hotel, Washington, D. C. All members are urged to make their reservations directly with the Mayflower Hotel. Membership open to all who served with the 14th AF, the China Air Task Force or AVG. Dues are \$2.50 annually. Harold Frazer, 175 Market St., Paterson, N. J.

**WAC WANTED:** Would like to hear from anyone knowing the whereabouts of Marge Jorgenson, a former WAC stationed in England and France. Believe her home town is Aurora or Peoria, Ill. E. L. Strautman, PO Box 346, Tarkio, Mo.

**AACS REUNION:** Anyone interested in an all-AACS reunion, especially the tropical bunch from the old 6th AACS, British West Indies, circa 1942-44, to run concurrently with the AFA reunion in Boston Aug. 25-27, please contact William E. MacLellan, 2129 Murrell Rd., Lynchburg, Va.

**PUBLICATION:** For information of officers of the USAFR and the ANG I am preparing a pamphlet covering data relating to retirement and benefits available to officers who are veterans and their dependents. To be sure that all possible questions are answered, I would greatly appreciate hearing from anyone interested in the proposed pamphlet. S. F. Tillman, 3000 Connecticut Ave., N.W., Washington, D. C.

**355TH:** Would like to hear from anyone who was in England and Germany with the 355th Fighter Gp., particularly members of the 358th Fighter Sq. If there is

enough response, I would like to organize a reunion in Boston in conjunction with AFA's. Incidentally, does anyone know where Steve Vica of the 358th is now? Erich W. Arje, 93 West Fordham Rd, Bronx, N.Y.C., N.Y.

**NEGATIVES:** Would like to borrow negatives taken at following 9th Air Force installations: AAF Sta 150 Boxed or AAF Sta 410 Lashenden in England, Grandcamps les Bains, Pontorson, Mont St. Michel, Rennes, Vermand or Riviera in France, Arlon in Belgium, Maas-tricht in Holland, Mun-chen-Gladbach, Munster, Brunswick, Munich or Furstenfeldbruck in Ger-many, or of area near these places. Also any taken on trip by boxcar from Mannheim to Le Havre with 566th SAW Bn. and trip home on USAT Geo. Washington. Any negatives loaned to me will be returned by registered mail and I will send list of my overseas negatives to AFA members who desire prints. Bill Cote, 616 Graydon Ave., Norfolk 7, Va.

**SOS:** Would like to contact any of the boys who were stationed at Lake Charles, La. in Class I training on A-26 aircraft who knew Sgt. Thomas G. Dorsey, or any of the boys stationed at Moody Field, Ga., who knew him. His wife, a former WAC, needs help due to his accidental death. Please contact Norman Perle (formerly Perlmut-ter) at 3045 Godwin Ter-race, Bronx 63, N. Y.

**REUNION:** Operators on duty December 7, 1941 at the Hickam Field T. H. Control Tower, don't forget our reunion Sep-tember 2, 1950, City Hall, Chicago. Neil A. Webster, Guttenberg, Ia.

LOOKING FOR SOMEONE? ANY ANNOUNCEMENTS TO MAKE? WRITE RENDEZVOUS AND RENDEZVOUS READERS WILL WRITE YOU.





## ***ALLISON TURBO-PROP ENGINES POWER NAVY'S GIANT PATROL BOAT TO AN AMERICAN "FIRST"***

**E**QUIPPED with four new Allison T40 Turbo-Prop engines, the Navy's 60-ton XP5Y Convair flying boat chalked up an American first in its maiden flight from the harbor base of the Consolidated Vultee Aircraft Corporation at San Diego, California.

This long-range anti-submarine patrol seaplane is the first American aircraft to fly solely with Turbo-Prop power.

With a total weight of only 10,000 pounds and developing a spectacular 22,000 horsepower, the four Allison twin-turbine engines establish a world's

record in a horsepower-to-engine-weight ratio — 2.2 horsepower for each pound of engine.

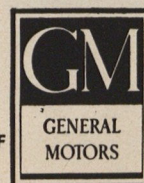
The power from one of these T40 Turbo-Props is greater than the total power of all four reciprocating-type engines in a B-17 Flying Fortress, with only a fraction of the piston-type engine weight.

This first flight of the Convair clearly demonstrates revolutionary design advantages, through the use of Allison Turbo-Prop engines, now applicable to all military transport, cargo and commercial aircraft in the high-power field.

*Allison*

Builder of Axial and Centrifugal Flow Turbine Engines

DIVISION OF



INDIANAPOLIS, INDIANA



**AIR FORCE**

JULY, 1950

*Exercise Swarmer:*

# THE THUNDER OF A CONCEPT

For the first time in history  
the AF has fully tested its  
long-contemplated theory  
of seizing a land position by  
air, and then expanding it  
into a full-sized invasion force

**E**xercise Swarmer, the 80,000 man maneuver recently completed in the Fort Bragg, N. C. area, would have delighted the heart of any airman. It had everything in just about the proper doses, from confusion to C-rations.

It had paratroopers, dropping for the first time with masses of heavy equipment:

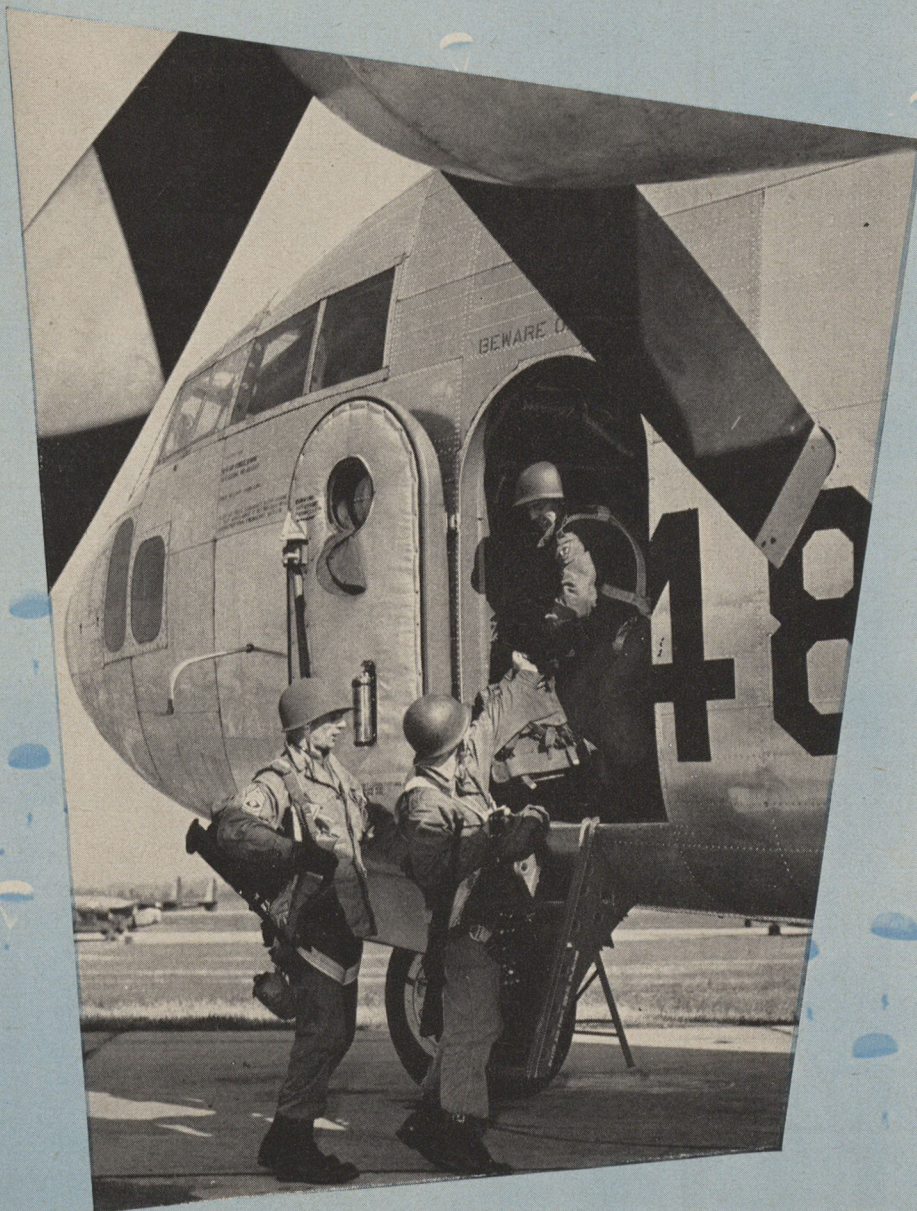
It had fighter cover of the deluxe variety, called to action on strikes by liaison pilot officers who had 'chuted in with the troops;

It caught one quick glimpse of heavy bombers heading home;

It had heavy cargo planes, fast-unloading medium cargo planes and putt-putt L planes;

It had generals who turned out to learn something, and, as will be seen, generals who did learn something.

Only a few weeks after Exercise





## THUNDER CONTINUED

Swarmer had been completed, the USAF announced that a Tactical Air Force (which would be given the proud designation of the Ninth Air Force) would be set up to replace the provisional headquarters that for the past several years has had tactical units assigned only for maneuver operations. This new Ninth Air Force, commanded by Brig. Gen. W. R. Wolfinbarger, will permit training of USAF and Army units down to small groups on a year-around basis. It will have Troop Carrier and Fighter Wing elements trained in working together with paratroopers and air-transported troops.

Exercise Swarmer was the test of a concept of strategy that, while not new, had never been put to large-scale test. It was successful both in the fact that it proved such an operation feasible, and that to be feasible *under combat conditions* would require some changes in planning, training and operations.

The concept of Swarmer had been a gleam in the eyes of top airmen for many years. Many of those close to General H. H. Arnold sought to have it tried in combat in the European theater. It was used in a partial sense in the CBI theater, in the occupation of Japan, and again partly tested with the Berlin Airlift. To a certain extent the concept was utilized in the capture of Crete, though not against normal defense capabilities and with supplies available within a short time by sea. Swarmer

"... by appraising the power of the A-bomb I am wondering whether we shall ever have another large scale amphibious operation. Frankly, the A-bomb, properly delivered, almost precludes such a possibility. I know that I personally hope that I shall never be called upon to participate in another amphibious operation like the one in Normandy."

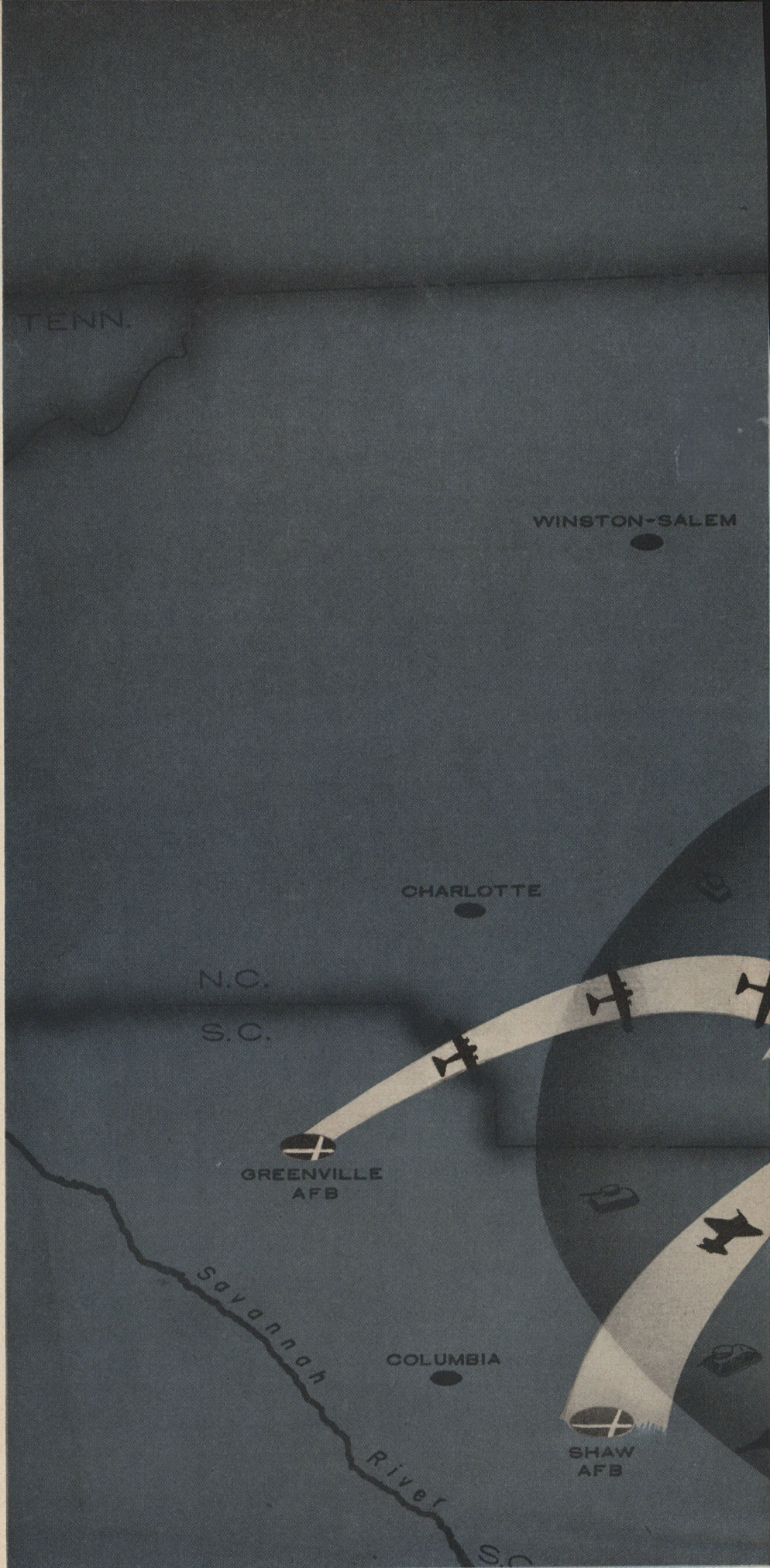
Gen. Omar Bradley

pulled together the various elements involved in each of these other tests; those of Sicily, Normandy, Holland, Luzon and the Rhine.

For the first time in history, then, Exercise Swarmer was to test the ability of air transport to deliver paratroopers to seize an airhead, to expand that airhead for the landing of transports with reinforcing troops, and to maintain resupply of troops surrounded by hostile forces for a protracted period in any weather and against air opposition over which superiority but not supremacy had been attained.

Probably the quickest way to give some impression of the spirit that surrounded Exercise Swarmer is to quote the maneuver commander, Lt. Gen.

(Continued on page 22)







## COUNTER-INVASION

Landing in mechanized force on North Carolina coast, the Aggressor in Exercise Swarmer moved to a position roughly 125 miles in radius from Wilmington. Objective of counter-invasion was to disperse the march by dropping men and equipment behind enemy's lines, seizing airstrips in proximity of drop zones, and building airhead to full-blown invasion force.





(Acme photo)

Above, Swarmer boss Norstad (right) points out interesting phase of game to Gen. Vandenberg, Air Secretary Finletter,



"Just a little off the top please."

## THUNDER CONTINUED

Lauris Norstad, now the Acting Vice Chief of Staff of the USAF, prior to D-Day: "We are trying some things we think may not work out . . . we are not sure of success in everything we undertake . . ."

Some things didn't work out, but there was an impressive amount of shifting and adjustment to correct wrong estimates and soft spots that developed as the play of the maneuver went on.

The set-up was roughly this: an Aggressor force, "played" by the crack 15th Infantry Regiment of the Third Division, had landed on the North Carolina coast and penetrated inland beyond the Camp Mackall area. It had been supplied with a quantity of tanks and was being supported by sea and from another invasion area consisting of the Florida peninsula. The gambit was to drop some 2,000 paratroopers, together with jeeps and 105 mm howitzers, early in the morning in the area of the Mackall airstrip with the initial objective being the airstrip. The schedule, which was better than met, was to

clear the strip in time for 75 C-54's carrying a regimental combat team of the 11th Division to land shortly after noon. This was accomplished and the attack toward the major objectives of Pope AFB and Fayetteville airport moved along during the afternoon. This same afternoon, some 1,700 paratroopers of the 82nd Division were landed east of the initial drop and a link-up with the 11th sought. Meanwhile, the airlift into the Mackall strip had begun. Initially there was some confusion, resulting primarily from the fact that troops who were expected to help unload transports vanished to the shooting war before port companies could be brought in to carry out the unloading. On D+2 a third paradrop of a regimental combat team was made still farther east, which cleared the way for seizure of Pope AFB, which in turn insured adequate re-supply and reinforcement of the committed units.

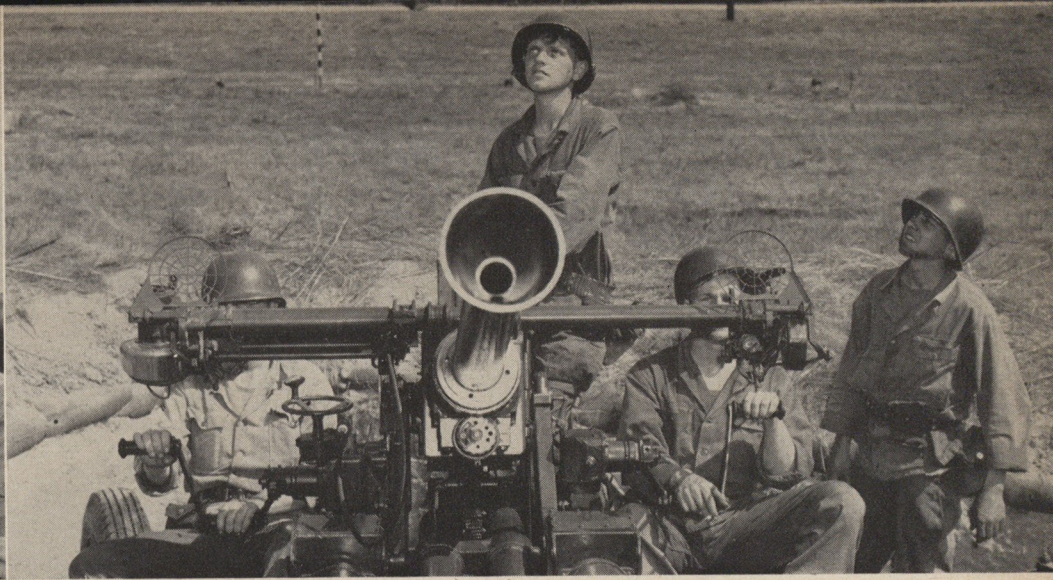
Some idea of the mobility provided by the Airborne troops can be gained from the vehicle landing figures: in one drop zone, 14 jeeps were delivered, together with four 105's and a 40 mm AA gun. More than 700 vehicles, ranging

Below, the center of an airhead. All this equipment was either para-dropped or brought in by Air Force transports.

(Acme photo)







Mexican Gen. Gilberto Limon. Center, Norstad gets a pointer himself—on shackling jeep. Right, an alert AA battery.

from jeeps to 2½ ton prime movers, had been landed by 4 a.m. on D+2. Of these latter, more than 400 were jeeps, about 200 quarter-ton trailers. More than 40 were 2½ ton prime movers and the balance three-quarter-ton trailers.

Another astonishing thing: the 2½ ton prime movers were brought in fully loaded by C-119s, backed up to the clam shell doors of another Packet landed alongside, attached to a 90 mm anti-tank gun in the second plane, boarded by its gun crew of eight men and moved into front line positions early in the maneuver when they were badly needed. It was the first time materiel of this type could be delivered, assembled and made ready to roll, by air. It took an average of seven minutes to unload the 2½ ton trucks—which explains the fact that the 314th Troop Carrier Wing was able to lug in 2158 tons of cargo and 1,243 personnel in three days, virtually all of the equipment being combat-type.

By May 2, or D+4, it was possible for the Maneuver Commander and his principal officers to present some definite conclusions.

Lt. Gen. John R. Hodge, USA, Com-

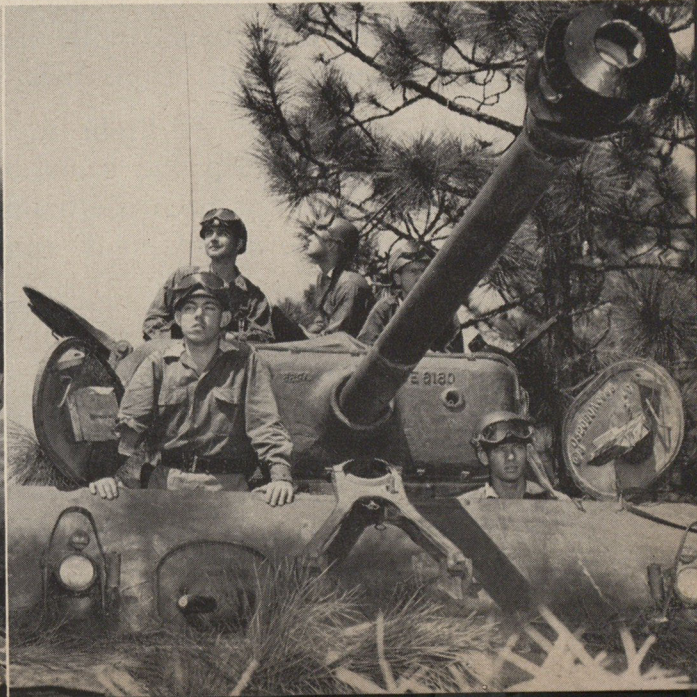
manding General of the V Corps and the Maneuver Task Force Commander summed it up: "The staff planning was rather tedious and long. It was without precedence in many cases. We started into the thing knowing we were going to make a lot of mistakes. The way the thing has worked out, there have been mistakes made. But, in my opinion, from the experience of considerable combat and many maneuvers, this is the best exercise I have ever seen for the purpose for which it was intended . . . we have learned some new organizations have to be set up for operations of this type . . . in our planning we set up for perfection. We set up schedules. We had to adjust as we went along—on the airlift, for example, due to weather and due to the fact that this unit wasn't where we would like to have it, we had to shuttle across sometimes to get a unit in. In that way we lost some little efficiency of the airlift. The technique remains and our schedule has been so near up to what we planned that to me it represents a high achievement in the young men who planned this exercise."

(Continued on page 45)



Friendly Sergeant gets enemy Captain.

Below, a large 6 x 6 rolls out the doors of spacious Packet. Right, an Aggressor tank crew watches for an air attack.





# WHAT'S DOING

## *at Pratt & Whitney Aircraft?*

The most powerful jet engine now streaking through the skies in the United States is the J-48 Pratt & Whitney Turbo-Wasp. Already it is flying in two of the most advanced special-purpose fighter planes for both the Navy and the Air Force.

One is the sleek Grumman Panther (F9F-5) for Navy carrier-based operations. Another is North American's swept-wing F-93A deep penetration fighter for the Air Force. Both of these first-line military aircraft are capable of speeds in the transonic range — 600 miles an hour plus. The J-48 gives to each of these airplanes more power than a four-engined bomber of World War II.

Two of the world's foremost aircraft engine manufacturers — Pratt & Whitney Aircraft and Rolls-Royce, Ltd. — pooled their engineering talents to develop the J-48. And, working independently of its British partner, Pratt & Whitney made a major contribution to improved performance by perfecting an afterburner. It provides greatly increased thrust for take-offs, climb and for short bursts of extra speed in combat.

This hands-across-the-sea teamwork saved time and money, produced a jet engine more powerful than its competitors, and made it available to military services of both countries much sooner than otherwise would have been possible.

Before its successful flights in military fighter planes, the J-48 had completed nearly two thousand hours of ground development testing and several grueling 150-hour endurance tests. During those tests, the engine delivered considerably more power than its guaranteed ratings, both with and without afterburner.

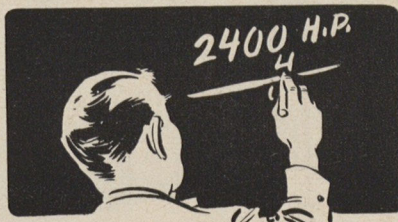
Such extensive flight and ground tests help make it possible to give the J-48 Turbo-Wasp the same built-in dependability and high performance that always has been the hallmark of Pratt & Whitney piston engines — engines that power so many military and commercial airplanes.

The J-48 is the logical successor to the J-42 jet, which has been in production for the Navy more than a year. But the J-48 is not the final answer to aircraft power requirements. Pratt & Whitney Aircraft's engineering and development teams have even further advanced turbojet and turboprop engines running as complete units on experimental test.



### HOW MUCH POWER IS PRODUCED BY THE J-48 TURBO-WASP?

- ☐ 8,000 Hp.?
- ☐ 9,000 Hp.?
- ☐ 10,000 Hp.?
- ☐ 11,000 Hp.?



Jet power is measured in terms of pounds of thrust, but, as you know, it can be translated into horsepower. The J-48, which has a basic dry thrust rating of 6,250 pounds, will provide the equivalent of about 11,000 horsepower for a fighter plane at high operating speeds. That's more than four times the power output of the most powerful fighter of World War II. Water injection and an afterburner give the J-48 even greater power increases for short periods.

### WHAT IS THE RATIO OF POWER TO WEIGHT OF THE J-48?

- ☐ 1 to 1?
- ☐ 2 to 1?
- ☐ 4 to 1?
- ☐ 5 to 1?



The goal of one horsepower for every pound of engine weight was reached by piston engine manufacturers only after years of effort. But in the field of jet power that ratio has already been far exceeded. The J-48 weighs less than 2,000 pounds and, at the high operating speeds of the fighters in which it is installed, it delivers the equivalent of more than five horsepower per pound of engine weight.

### HOW WAS THE J-48 MADE MORE POWERFUL THAN THE J-42?

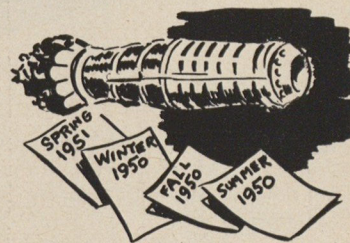
- ☐ Increased Airflow?
- ☐ Greater Diameter?
- ☐ Longer Turbine Blades?



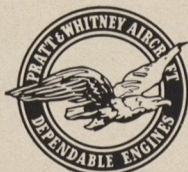
One of the toughest problems in designing the J-48 was to increase airflow without increasing engine diameter. By re-designing the impeller to compress more air and by lengthening turbine blades, the engineers increased air consumption by 30 percent and that, in turn, produced more thrust power. It sounds simple, now that it has been accomplished. But it required thousands of hours of designing and testing, first of component parts and finally of completed engines. And yet the over-all diameter of the J-48 is only 50 inches — almost exactly the same as the J-42.

### WHEN WILL THE J-48 BE IN ACTUAL PRODUCTION?

- ☐ Summer 1950?
- ☐ Fall 1950?
- ☐ Winter 1950?
- ☐ Spring 1951?



The first experimental model of the J-48 Turbo-Wasp was installed, after extensive testing, in a Grumman F9F in November, 1949. Next came the pre-production engines, several of which are now installed in combat aircraft. Currently, production tooling is well along and the first production engine is scheduled to roll off the line early this fall. Even as this work goes on, Pratt & Whitney engineers are following their historical pattern of simultaneously producing the best engines today and continuing research for even better power plants tomorrow.



**PRATT & WHITNEY AIRCRAFT**  
EAST HARTFORD, CONNECTICUT

ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION



# BEAN TOWN'S BIG PARTY

AFA's 4th National Convention Will Sparkle  
With Gay Unit Reunions and Airpower Events,  
Sober Up on Critical Problems of Defense



NEW YORK  
'48

In Boston, at the comfortable Hotel Statler headquarters, convention-goers will find a batch of reunions being held by wartime Air Force outfits. Three months before convention time, more reunion parties were scheduled than the total held at Chicago last year, and AFA Headquarters in Washington was prepared to make arrangements for many more. A letter to Headquarters can get a unit reunion started in short order.

Kickoff event for this phase of the convention will be the annual Air

COLUMBUS  
'47

combining summer vacations and their AFA convention trip this year, and that more than a few will bring the wife along. The vacationers are planning to feel the surf along New England's famous seashore, and see the sites in its quaint and historic villages.

CHICAGO

'49

**S**parked by more unit reunions than ever, AFA's fourth national convention promises to provide historic old Boston with a real wing ding of a tea party on the weekend of August 25-27.

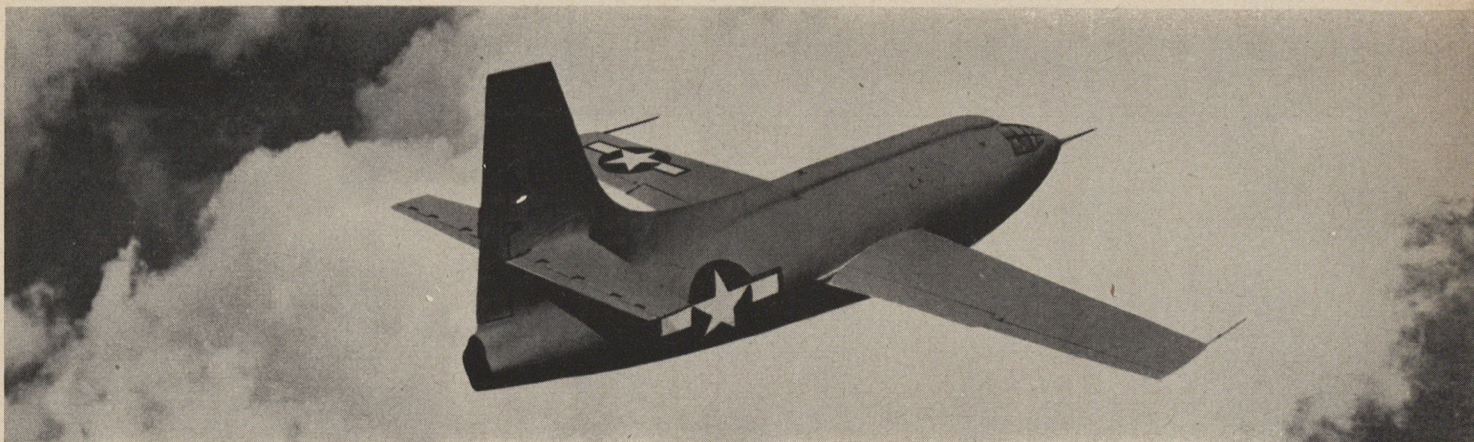
The City of Paul Revere and Bunker Hill, steeped in the military tradition, will play host for the first time to the Air Force gang, and the result may well be, as one joker put it, the shot-glass heard round the world.

That AFA's annual meeting will have its merry moments is assured, not only by past performance—as Columbus, New York and Chicago will attest—but by a fast moving program and the fact that the convention comes at the height of the vacation season, in one of America's favorite vacation centers.

Advance registrations have revealed that many AFA members are







Conventioners will see Air Force's famous X-1 presented to National Air Museum as monument to man's supersonic flight.

Force Reunion Cocktail Party for all registrants, scheduled for Friday evening, August 25. And to climax the night, an Air Force Reunion Ball is being shaped up by the convention committee.

These lighter aspects of the convention will be accompanied by several outstanding airpower events, not the least of which will be the first appearance off an Air Force base of the famous experimental aircraft, the Bell X-1, first plane to crack the sonic barrier. A few weeks ago the X-1 made its last flight. Now it goes to the National Air Museum of the Smithsonian Institution. The Air Force's formal presentation of the supersonic ship to the Museum will take place at the convention.

Another aviation "first" will be chalked up with a flight demonstration by the CF-100 of the Royal Canadian Air Force, a highly maneuverable twin-jet job billed as "the most powerful fighter in the world," which will be put through its paces in public exhibition for the first time in this country. And in a "command performance," the RCAF will show its crack four-plane team of jet Vampires, one of the world's foremost aerobatic outfits and a particular favorite of AFA members.

The annual Airpower Banquet, on Saturday, August 26, will again feature the appearance of leading national figures, and presentation of AFA's 1950 airpower awards.

Convention business sessions, highlighted by the annual election of officers, will climax AFA's busiest program year, and bring to focus AFA's position regarding many critical elements of our national security structure.

## UNIT REUNIONS

Here are a few of the unit reunions scheduled for AFA's Boston convention. If you identify yourself with one of these units, write directly—and immediately—to the contact listed. If you don't find your old unit here, write to AFA Headquarters for information. It's not too late to work up a reunion. Try it and see.

### UNIT

56th Fighter Group

First Air Commando Group

Flight Surgeons & Medical Personnel

Air Force Chaplains

315th Troop Carrier Group

The Ninety Nines

22nd Bomb Group (5th AF)

95th Bomb Group

451st Bomb Squadron Assn.

Arnold Air Society (AF ROTC)

Air Force Pawling Club

9th Air Force Troup Carrier Outfits

15th Air Force Society

Air Transport Command

353rd Fighter Group (8th AF)

9th Air Force

### CONTACT

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Chicago 11, Ill.

Chaplain Silas Meckel  
5500 Stevens Ave., South  
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Edward Connelly  
48 Perkins Ave.  
Malden, Mass.

Mrs. Blanche Noyes  
2120 16th St., N.W.  
Washington, D. C.

E. M. Connors  
2 Columbus Circle  
New York, New York

Jay J. G. Schatz  
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610 N. Fairbanks Ct.  
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Arthur D. Trottenberg  
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Boston, Mass.

Raymond F. Goetz  
3110 Brackenwoods Ave., Alane  
Cincinnati, Ohio

Timothy Sullivan  
12 Mystic Avenue  
Melrose, Mass.

Roger A. Krey  
M. E. Depot  
Clarkson College of Technology  
Potsdam, New York

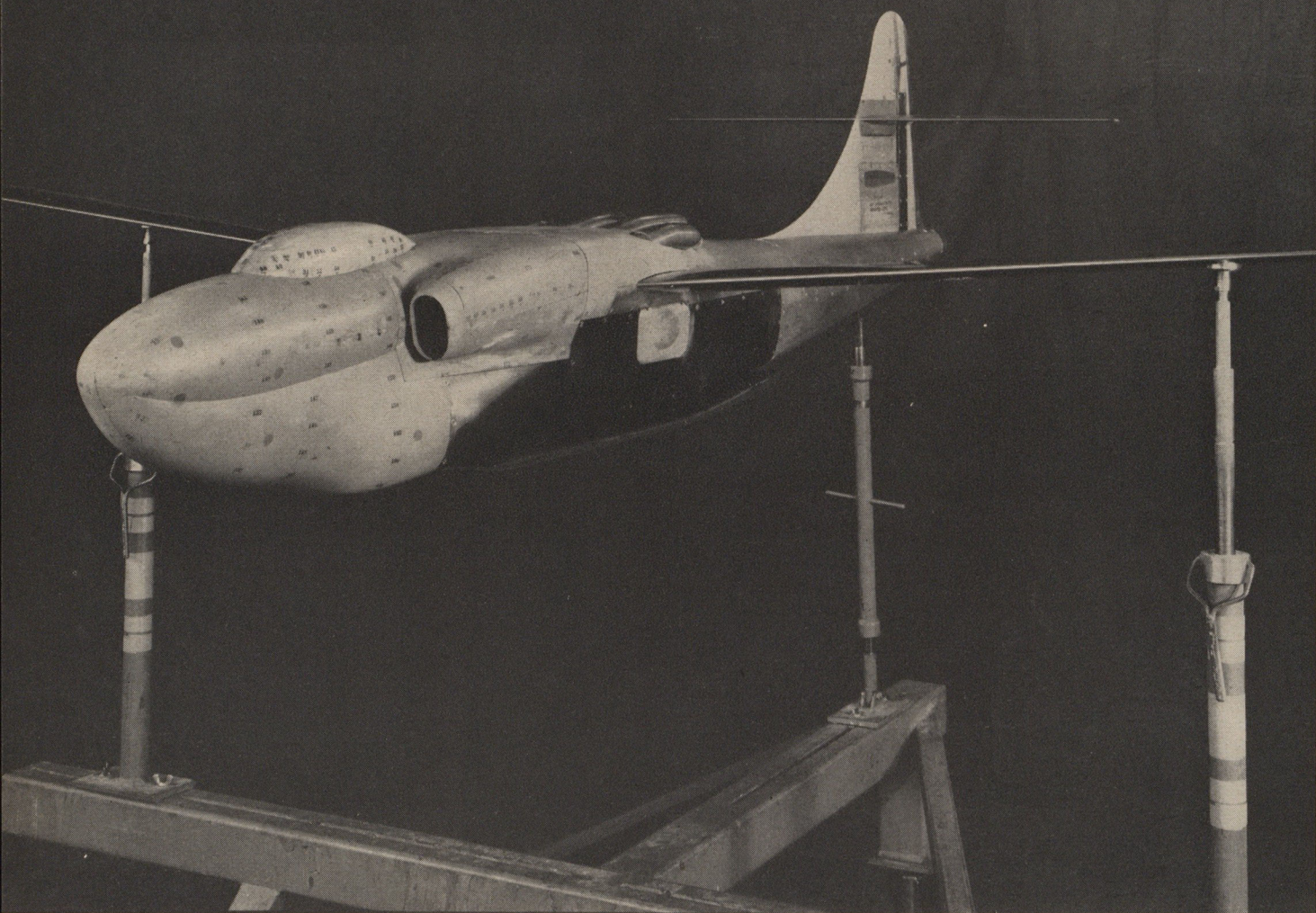
Robert L. Greene  
5857 No. Lawrence St.  
Philadelphia, Pa.

John O. Briggs  
c/o American Airlines  
30 Federal Street  
Boston, Mass.

Robert C. Strobell  
3919 Pennsylvania Ave. S. E.  
Washington 20, D. C.

Contact to be announced  
next issue. Those interested  
write AFA Headquarters.





Above, one of the early B-47 wind tunnel models. Jet intake was in fuselage, exhaust was atop the wing's center section.

# The Biography of a Bomber

The Boeing Stratojet, new pride of the US Air Force, will be nearly eight years old by the time the first group is activated. Thereafter its first-line life expectancy will be only six years

**I**n a few weeks now, the United States Air Force will take delivery of the first production model of its swept-wing Boeing B-47 Stratojet bomber. Some eight or ten months hence it expects to activate its first 47 group. Then, and only then, can the world's fastest bomber be considered a part of America's air strength in being.

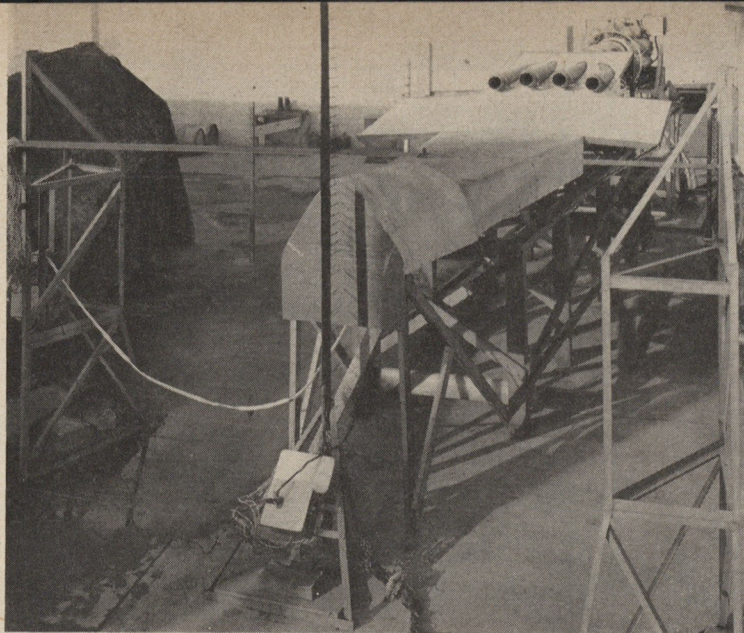
The interesting fact to contemplate at this point is that the gesta-

tion period of the 47 began in the Fall of 1943—shortly after Mussolini officially surrendered in Italy, and many long months before the Normandy invasion. It has taken that long to bring the plane this far. Furthermore, once it becomes operational its life expectancy as a first line combat plane will be only six years—about two years *less* than it took to get the ship on the flight line to begin with. The moral is obvious:

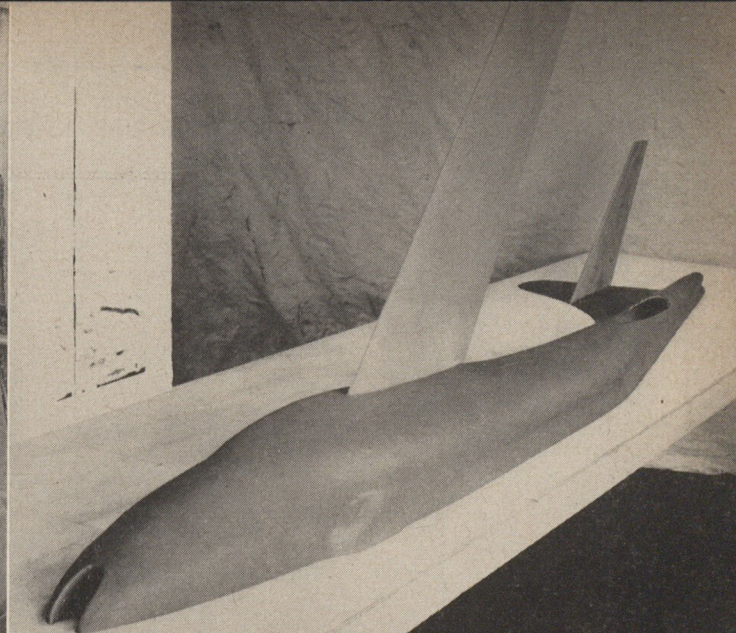
It takes a lot of time and a lot of money to buy technological superiority in the air for even a little while. And to this might be added the note that unlike buying a refrigerator on the installment plan, payments for a superior Air Force must be made in full *before* delivery. If you need a plane today that you haven't got, there's no way of buying it and *then* investing the necessary time and

(Continued on page 30)

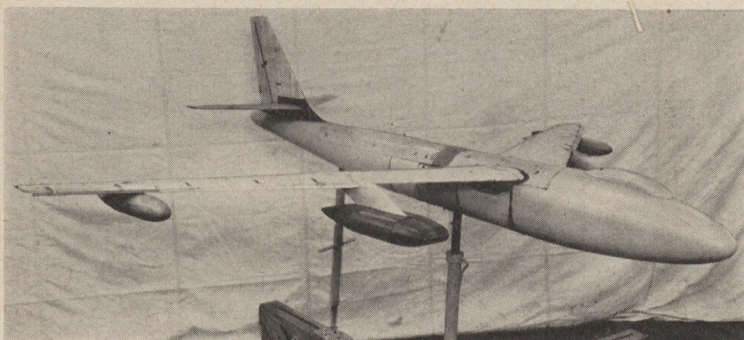




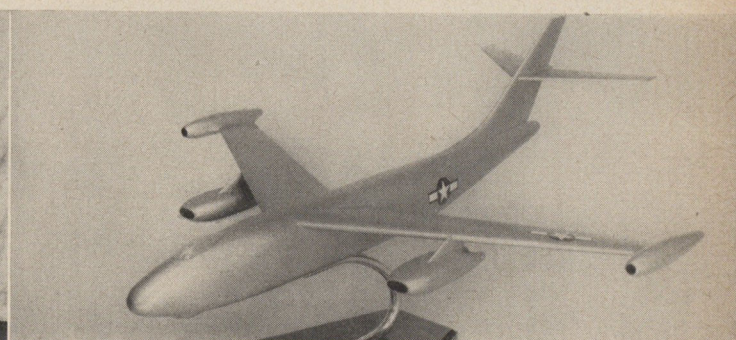
Late in 1945 a mockup was built to test jet outlets above wing section and study high air velocities in proximity of fuselage.



Further development saw jets moved from top of plane to two positions in nose and tail as shown in semi-span model here.



Wind tunnel model above was used in tests of the wing leading edge slots to assure builders of adequate control at low speed.



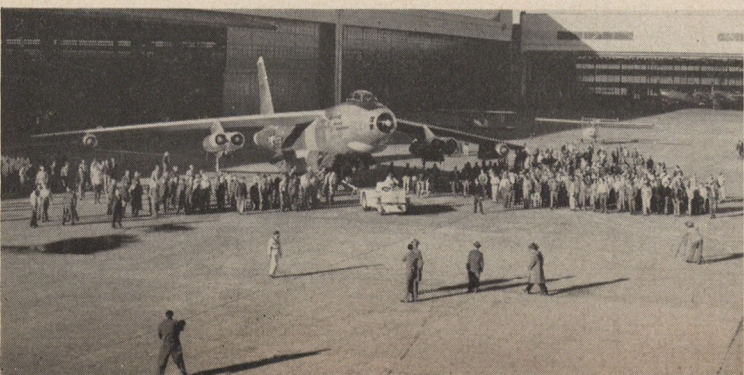
Above, model 450—the design finally selected as most proficient. Note that outboard engines are still on wingtips.



Above, the final model—the one actually used in wind tunnel tests before building a prototype. Above right, five years later a contract has been let and production at Boeing begun, but 47 still can't be counted as part of air strength in being.



Below left, the first completed B-47A Stratojet rolls off the assembly line for delivery to the Air Force. This was March, 1950—six and a half years after initial study had begun. Below, the Stratojet takes to the air with JATO.





## DESIGN & PROTOTYPE STAGE

### Fall 1943

Boeing Aircraft Company begins study of jet bomber designs at informal invitation of AF.

### January 1944

Design Model 413 (recon version of bomber design) submitted to AF and rejected because of lack of requirement for Photo planes.

### January - March 1944

Boeing conducts design investigations of four straight bomber models—2 jet and 2 turbo-prop.

### March 1944

Boeing submits Model 424 (jet) to AF.

### April 1944

Air Force establishes preliminary military characteristics for desired medium jet bomber. In the main, requirements already satisfied by Model 424.

### December 1944

Boeing submits design Model 432—an outgrowth of Model 424—in design competition with other firms.

### March 1945

Air Force issues contract for phase one study of Model 432, including mockup and wind tunnel models. Plane designated by AF as XB-47.

### September 1945

New agreement between Boeing and AF calls for XB-47 to be based on new Boeing Model 448 rather than 432, and for Boeing to submit construction proposal for 2 airplanes.

### October 1945

Boeing suggests Model 450 to be substituted for 448.

### November 1945

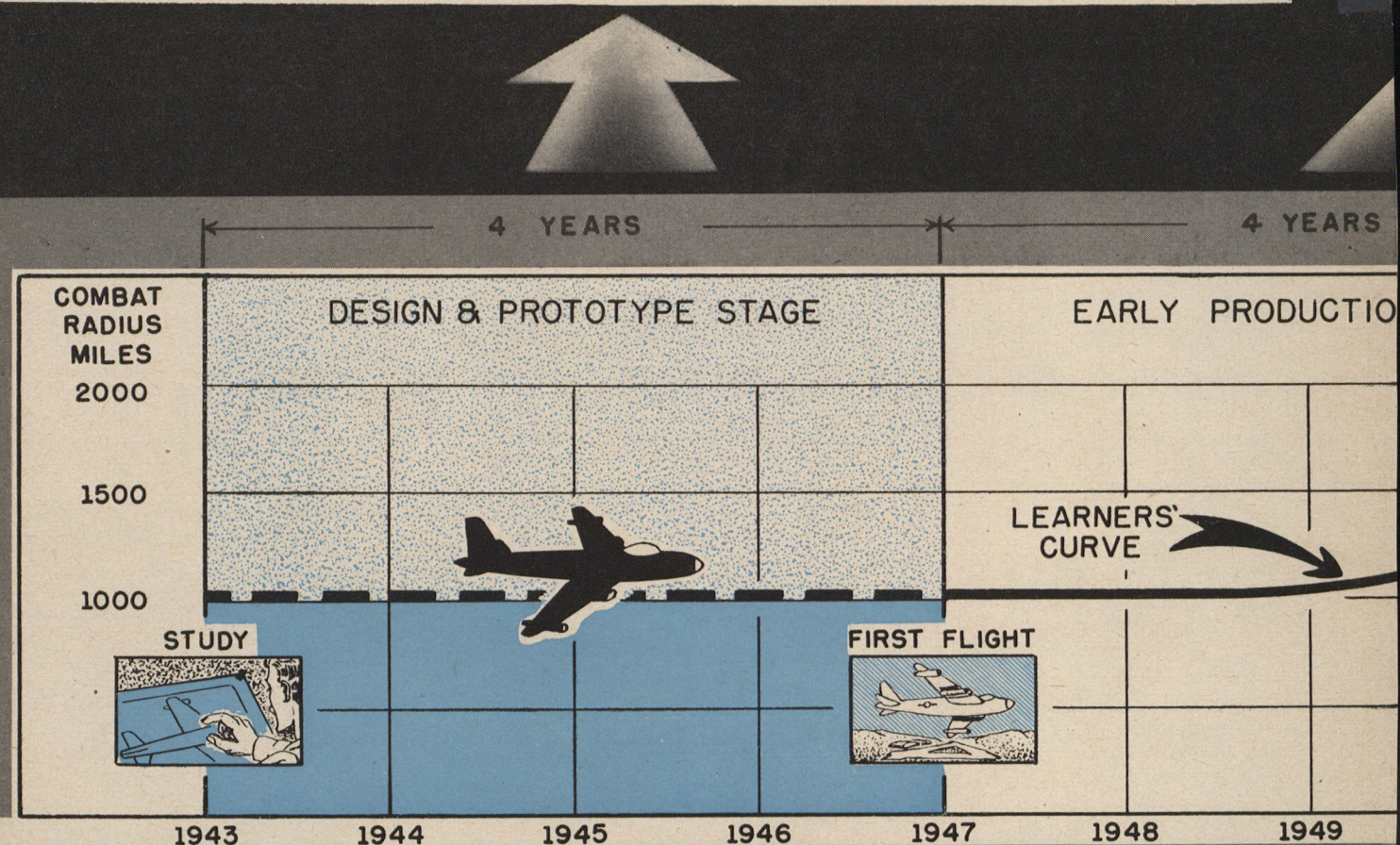
AF asks Boeing to submit proposal for 2 flyable planes based on Model 450.

### April 1946

AF makes inspection of XB-47 mockup.

### June 1946

Actual work on first 2 XB-47 planes begins.



R.L. Burleigh

## EIGHT YEARS TO BUILD, SIX YEARS TO FLY

dough. Lay those items on the line and the weapon will be forthcoming in eight or ten years. If that's too late, it's just TS as the saying goes.

Aside from the moral though, there are several other items of interest in the 47's biography. To begin with, the plane started out as a photo-recon ship rather than a bomber. The unacknowledged reason: there was no dough for the study of jet bomber possibilities at that time, so the reconnaissance designation was

used as a camouflage to make possible the filching of the necessary funds from another pot. Officially there was a "requirement" for the recon type—there wasn't for the bomber. But it was carefully stipulated that the photo ship should be readily convertible to a medium bomber. Actually by the time Boeing submitted its first sketches, the Air Force had found enough money to establish a bomber "requirement," and the need for a recon plane

quickly disappeared. Boeing therefore took its plans back for the necessary alterations.

From the first, one of the biggest problems facing the Boeing engineers was where to put the engines. Originally it was proposed to hang them in nacelles, but somewhere midway in the study, it was concluded that the nacelles would impose too serious an aerodynamic penalty, and that the engines therefore should be installed in the body to



## EARLY PRODUCTION STAGE

**December 1947**

The XB-47's first flight.

**September 1948**

AF contracts for 10 production type XB-47's.

**December 1948**

Second of first two planes delivered.

**February 1949**

47 sets record coast-to-coast flight. Average speed: 607.8 mph.

**October 1949**

Original contract for 10 planes upped to 15.

**October 1949 to June 1950**

82 additional planes contracted for.

**April 1950**

First production Model B-47 completed.

## OPERATIONAL STAGE

**January - March 1951**

Estimated time of activation of first B-47 group.

**1957**

Estimated date of obsolescence of B-47 as first line bomber.

6 YEARS

N STAGE

OPERATIONAL

STAGE

ESTIMATED  
ACTIVATION OF  
FIRST GROUP



OBSOLESCENCE



1950 1951 1952 1953 1954 1955 1956 1957

"make possible an aerodynamically clean wing." It was not until much later that they were taken back out of the fuselage and rehung under the wing where they now are. By putting them well below the wing and forward, it was found to everyone's happy surprise that there was hardly any compromise with the wing's inherent efficiency. Moreover, the nacelles provided an advantage not only of easy maintenance, but they made it possible to install more efficient engines as they became available without major modification of

the plane's configuration. Since jet engines were then, and still are, relatively young, this factor will become a major consideration in prolonging the useful life of the plane.

The B-47 was the first bomber to incorporate the high-speed swept-wing. It must be acknowledged, however, that original 47 designs called for conventional airfoils. It was not until late in 1945 after micro-film records of German progress in this field became available that the development was altered to incorporate the revolutionary concept. In

some respects the Nazis led us not only in guided missile development, but in aerodynamics as well.

Another point: In the beginning the 47 was designed to have a combat radius of 1000 miles. But by 1952, as indicated on the chart above, that figure will be at least doubled—a fair indication of the normal growth of a plane after its maiden flight. Research and development doesn't stop when an airplane rolls off the assembly line. It continues almost until the day the ship is carried off to the bone pile.



# Short Snorts from *AIR FORCE* Diary

## SCARE-BORNE

A young, hot-shot second-lieutenant pilot was ferrying an A-20 across the South Atlantic. After refueling at an island base, the impatient gentleman dashed to his plane and was splitting the runway before his crew chief had time to say Orville Wright. Gunning the engines, the pilot streaked down the black-top strip and, barely reaching flying speed, he pulled up his wheels. The ship sank a few feet, and the crew chief heard the propeller tips sputter a tattoo on the runway. When the chief opened his eyes he was amazed to find he was still in the air and the plane several miles out to sea. He roused the pilot on the interphone and ventured the mild comment: "Sir, when we took off, the propeller tips bit the runway. Shouldn't we go back to repair the damage?" "Back?" bellowed the lieutenant. "Hell, no! That's not our worry. Let them fix their own runway."



## BUSINESS AS USUAL

Almost every plane coming into a Thirteenth Air Force base in the Southwest Pacific was reported sighting emergency ground signals coming from an isolated island. Patrol planes reported yellow marker sheets and life rafts pulled up on the beaches. Mirrors flashed at every passing plane and blinkers twinkled through the night. Listening posts hear SOS signals which failed to stay on the air long enough to be pinpointed. Flares shot across the night sky.

When this bewildering state of affairs was brought to the attention of Lieutenant James F. Mattox, a pilot in the Crusaders, a B-25 outfit, he thought he had the solution. Shortly before, he and his crew had been forced down in the vicinity of the island from which the mysterious signals were coming. They had been in such a hurry to reach their rescue plane that they had left their emergency signaling equipment behind.

A party was sent out to the island, and sure enough, the natives were having a holiday with flares, rockets, mirrors and the Gibson girl. They were

also reluctant to give up the equipment.

"We need!" their chief insisted. "We try make fliers come down here so we can trade carved wood and sea shells!"

## TRIGGER-UNHAPPY

Staff Sergeant Walter J. Szulborski, of Bethlehem, Pennsylvania, is still trying to figure it out. At the height of the aerial war against Germany, Sergeant Szulborski flew fifty missions against some of the hottest and most heavily defended targets in the European theater. He participated in the first two bombing raids on Berlin. He flew repeated missions against the Ploesti oil fields. He was on the first shuttle-bombing raid from Italy to Russia.

Time after time, the vital and guarded industrial target of Brunswick felt the weight of bombs from his Fortress.

Yet, with more than 250 combat flying hours to his credit, Szulborski never fired a shot, never had an opportunity to shoot at either enemy plane or objective.

As a matter of fact, no member of his crew—except a nonconformist ball-turret gunner who got off a few desultory shots—ever had the opportunity to fire a gun in combat during their entire fifty missions.



## CURIOSITY

A Squadron intelligence officer who considered himself a student of human

nature couldn't get the air crews in his outfit to read the weekly intelligence summaries. He tried leaving them around the dayroom and he even tried putting little squibs on the covers, reading: "Study this. It may save your life." That didn't work, so he thought and thought and finally tore the covers off popular magazines and put the summaries under these. That didn't work either.

Finally his sergeant suggested an answer. And it worked beautifully. They got big red covers marked FOR THE COMMANDING OFFICER'S EYES ONLY, and hid them in the bottom shelves of the intelligence library.

Then they had 100 per cent readership.



## PRAYER MEETING

The story about all atheists being AWOL from the foxholes has been told in other words by the crew of a B-26 which ran into a particularly bad time over a strongly protected German air-drome. The group attacked successfully, but the flak was so intense that some fliers thought it contained even the sauerkraut barrels. Naturally, some of the planes were badly hit, including the Marauder piloted by Lieutenant Richard H. Lightfine. The plane returned to base, one crew member said, only because Providence had assisted them when it seemed as though nothing else would help. "The Reverend Lightfine held church services while we were over the target," the gunner explained.

## BLACKOUT

The copilot of a transport was making his virgin trip over the Alaskan run. Suddenly at 18,000 feet he realized that his vision was getting blurred. He had but one thought—anoxemia! The copilot hurriedly checked his mask. No leaks. He checked the regulator. It was O.K. But still it grew darker. Frantically he turned to the pilot and found him totally undisturbed. When our copilot felt himself about to blackout completely he prepared to gasp into the intercom for help. But before he got the chance he heard the flight engineer's voice come in: "Damn, this is the first total eclipse I ever saw!"



## SURRENDER

Two Seventh Air Force mechanics went souvenir hunting on the fringe of a newly won air base in the Marianas and came back with a couple of Japs.

Unarmed Sergeants William G. Pate and Roy F. Williams were beating around in the thick brush some distance from their base when a voice behind them sang out:

"Thank you, thank you."

"I whirled around," Williams related, "and saw a Jap marine about ten feet away. Just then, the bushes parted and another appeared. We thought it was a trap, so we raced toward the base."

"After a few steps I stumbled and fell, and the next thing I knew the Japs were standing over me, but nothing happened. As I got to my feet, Pate came walking back. The two Japs raised their hands in surrender. Then one saluted and grinned as he repeated: 'Thank you, thank you.'"

"I felt silly as hell."

## FROM THE INFANTRY

It was one of those hectic days during the Third Army's rush from Saint Lô to the German border. Nobody was very sure where the leading elements of the ground troops were, and our P-47s out ahead were having trouble identifying targets. Finally, one flight spotted a likely-looking column of troops using horse-drawn vehicles—usually a sign of Germans. The fighters dropped their bombs, which that day happened to include leaflets advising the enemy to surrender, promising good food and civilized treatment. The payoff came a few days later, when one of the forward command posts of the Tactical Air Force was visited by several dozen grimy Third Army infantryman. "O.K.,"

said an infantry sergeant, "we surrender. Now, where the hell is that good food?"



## BARTER

An AAF lieutenant had golf clubs, but no golf balls. Taking his problem directly to the English public, he inserted a want ad in a local newspaper. He received this reply: "Dear American Officer, I am Peter Turner, aged nine. I will trade my four golf balls for two packages of candy or chewing gum. But if you fly a B-17 or a B-24, you can have them for nothing."

## DEADLY HEADWORK

There are more ways to kill a cat than to drown him in butter, and pilots in India do not stand on ceremony when they polish off a Jap. When Captain Sydney Newcomb, commanding officer of a fighter squadron, got a Zero on his tail, he hit the deck and began pruning the shrubs and foliage, but the

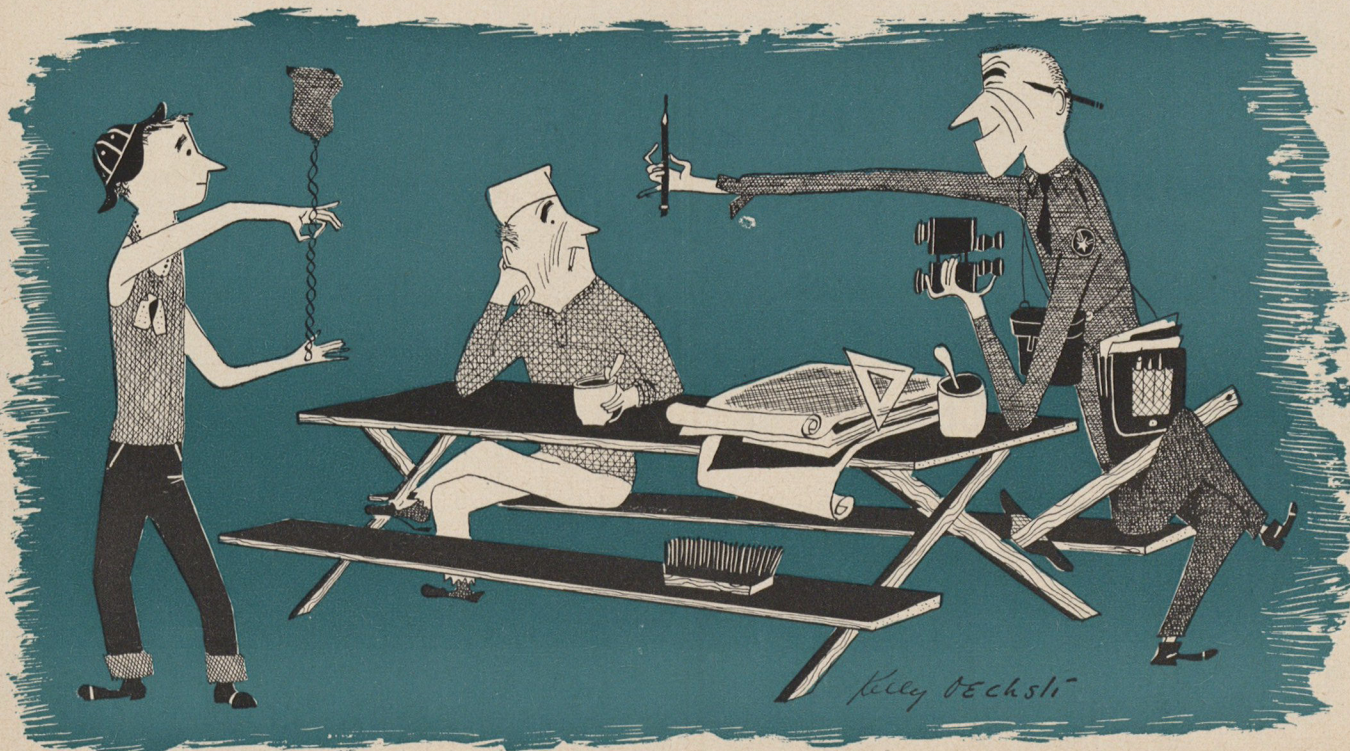
Jap hung on close, with guns blazing. Suddenly a Burmese pagoda loomed up in front, and Newcomb held the nose down until the last split second, then yanked back on the stick and zoomed over it. The Zero, not so quick at the stick, tried to clear the pagoda and failed. The result was a rather loose mixture of Jap and pagoda.

## THROUGH CHANNELS

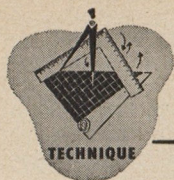
Lieutenant Waldo McCorkle was doing his bit as an operations officer when one day he went a little daft. McCorkle estimated that he had filled out 10,000 reports—more than anyone could possibly read. Ahead he saw nothing but more reports, so he decided to make a test to see if his reports were ever read. With a strange light in his blue eyes, McCorkle drew up a floor plan of the local enlisted men's mess hall and drew three small circles which he labeled Fly Trap No. 1, Fly Trap No. 2, and Fly Trap No. 3. Space on the report was provided for this information: Total flies caught from . . . to . . . Flies previously reported . . . and Total flies to date . . . The lieutenant then mimeographed this form. He filled in the spaces and placed this form on the top of his stack of official reports. This batch was sent along, through channels, fly figures and all.

Several months went by, and then it happened. An officer of another outfit on the port called McCorkle on the telephone. "What is all this fly report about?" he asked, his voice showing deep concern. "Our CO just got word from Washington wanting to know why we aren't on the ball. We must have lost the directive on that fly report. Can you give us a little help?"

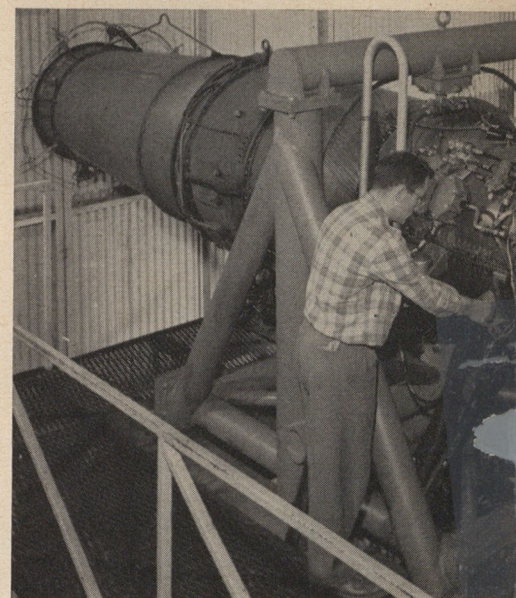
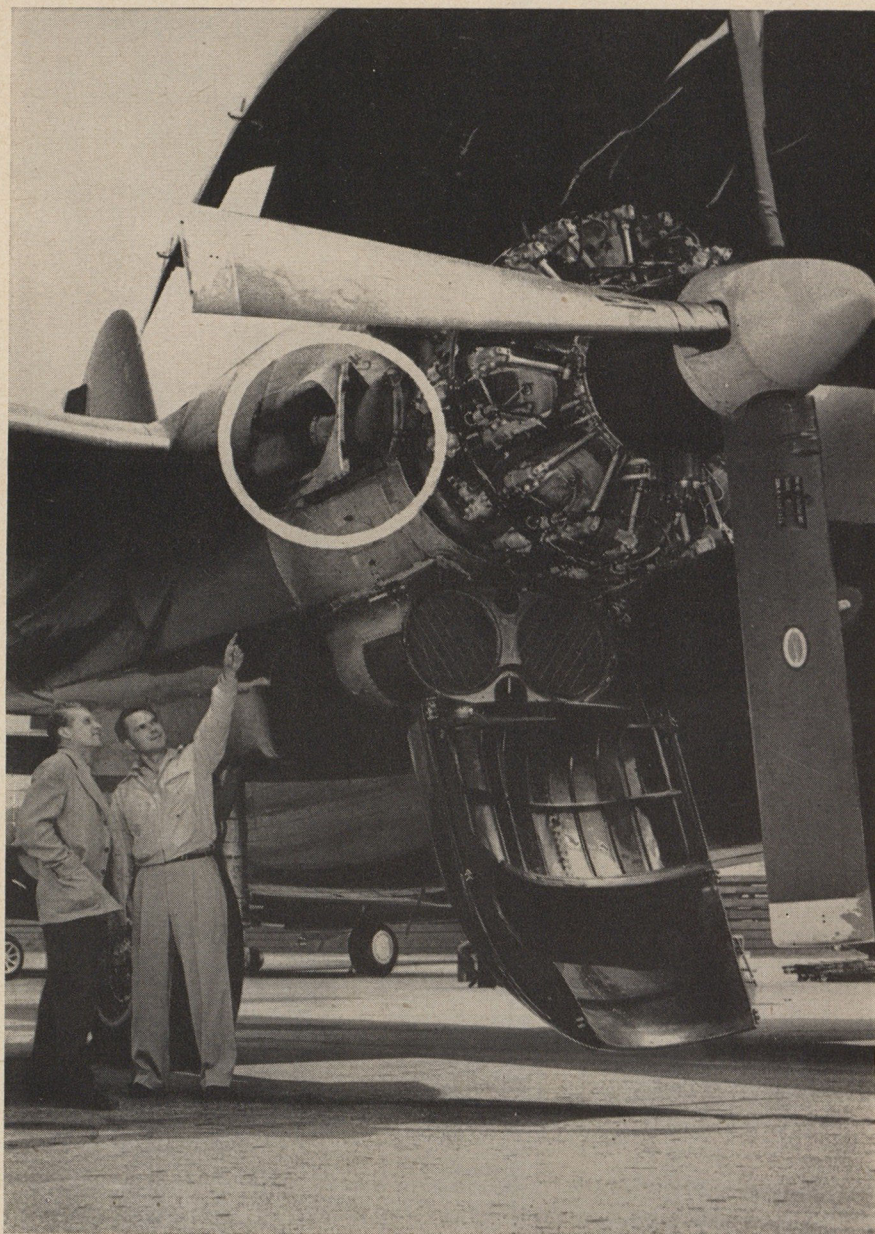
McCorkle's own CO was roundly congratulated for having such alert officers.







## TECHNIQUE PIXS



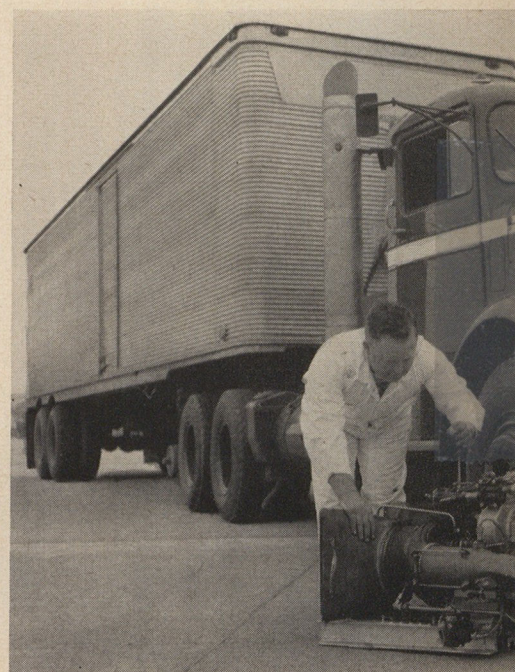
### XT-37 OK in Test

Northrop Aircraft's XT-37 Turbodyne engine (above), the world's most powerful propeller-type aircraft power plant, has successfully completed its 50-hour endurance proving program and is now fully qualified for preliminary flight tests, according to recent announcements. In certain trial runs the amazing engine actually delivered more than 10,000 hp. During its endurance trial it was incorporated in a complete power unit consisting of engine, reduction gears, propeller and control system, and set a record by delivering 7500 hp over extended intervals. No plans have been announced so far for incorporation of the mammoth engine in any current aircraft models.

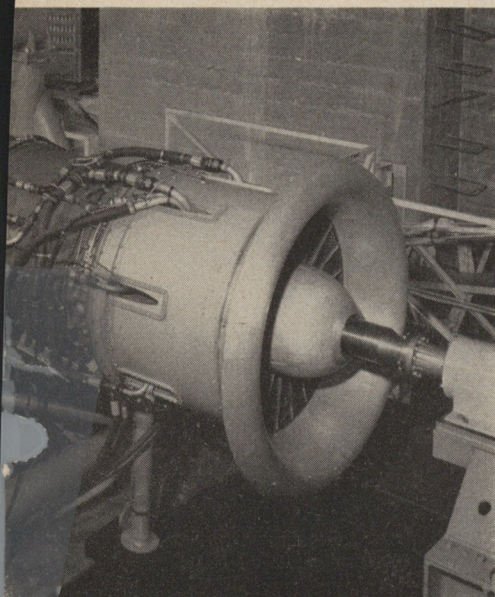
### Neptune Gets "Compound" Engines

The Navy's proud Lockheed P2V Neptune, which still holds the world's official distance record, was in the news again last month on two counts. First, it was being made ready for a carrier-deck landing, and second, it was being fitted with powerful new combination turbine-piston engines capable of developing 3250 hp at take off. The first item was regarded as something of a stunt since it was doubtful that carrier landings for the huge plane would ever

be operationally feasible. The second announcement, however, was no stunt. The big Wright Turbo-Cyclone 18 engines, first to be installed in production-type planes, will increase Neptune's performance by as much as 20 percent. The extra power is achieved by harnessing three small turbines to the engine exhaust gases. The force of the gases drives the turbine wheels, which are geared to the crank shaft, transmitting the extra power back into the engines.

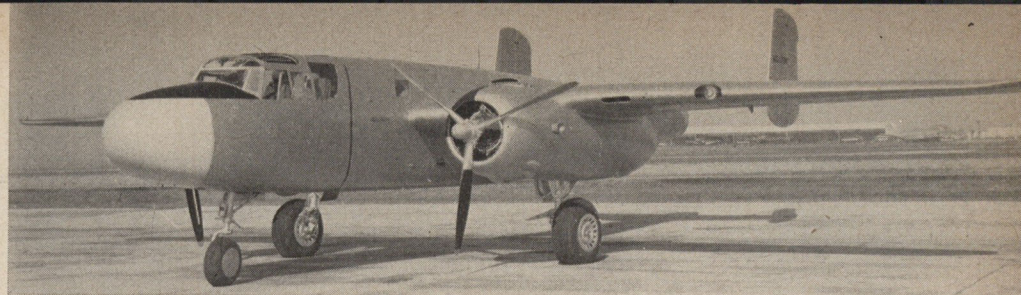
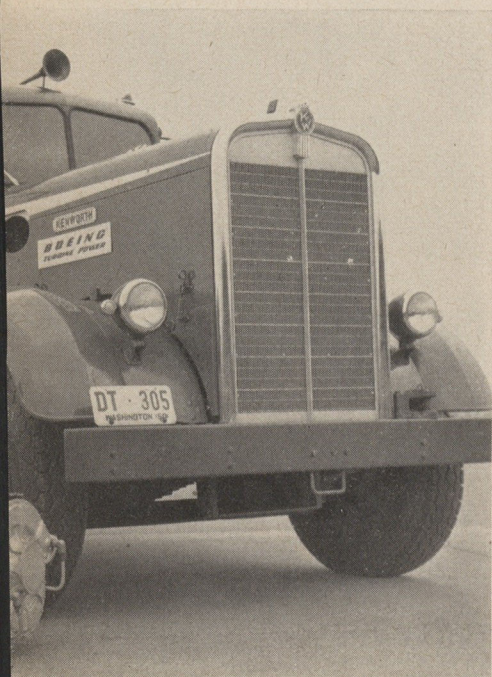






## New Turbo-Truck

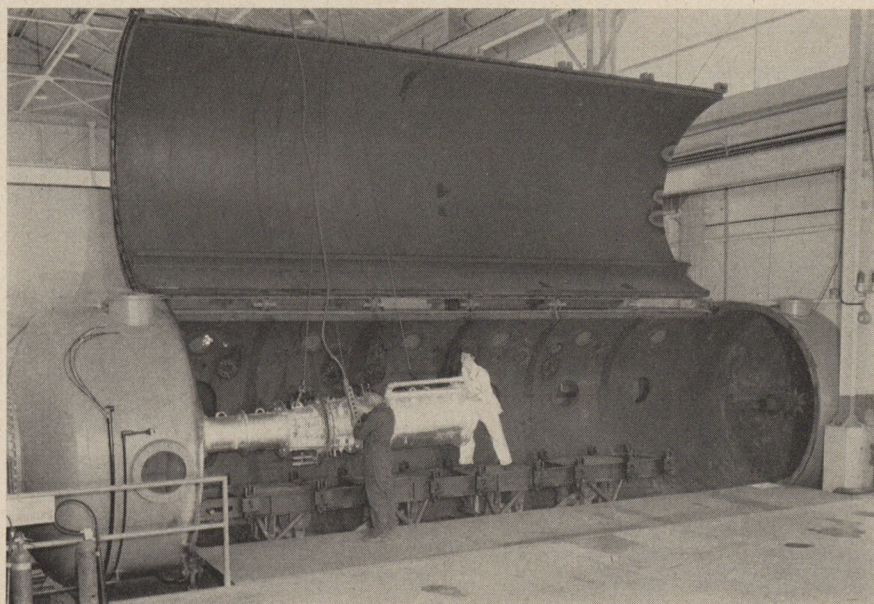
Preliminary road tests of the world's first gas turbine-powered truck below have been completed successfully by Boeing Airplane Company in Seattle. Trial runs of the new 200 pound power plant which develops 175 hp were made in a ten-ton Kenworth chassis. The gas turbine is similar to the jet airplane engine, but the power is harnessed by a secondary turbine to turn a shaft rather than being exhausted as jet thrust. It is expected that the next test for the mighty little machine will be as a power unit for boat propulsion. Additional possible uses include small aircraft, electric generating systems, pumps and compressors. It will be some time, though, before engine is ready for open market.



## B-25s Converted to Bomber Trainers

Modification of the war-honored B-25 bombers into training airplanes has been proposed by North American Aviation as a means of providing virtually new aircraft at great dollar savings. Principal

structural changes involve an enlarged and lengthened nose section which provides for four seats in the cockpit to provide maximum pilot-training facilities. No AF contract has been let.



## Navy Unveils Ramjet Test Chamber

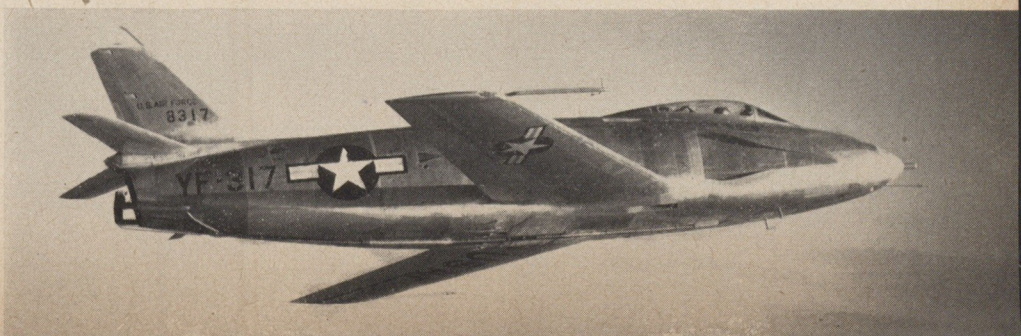
A newly completed engine test chamber built for the Navy by Consolidated Aircraft Corporation will make it possible to test ramjet engines at simulated altitudes of twenty miles above the earth and at four times the speed of sound it was announced last month. The chamber, located at Daingerfield, Texas, will

be under the technical direction of Johns Hopkins University Applied Physics Lab. It is ten feet in diameter and 125 feet in length, with a door at its side thirty feet long through which ramjet engines (primarily for use in guided missiles) up to 48 inches in diameter may be installed.

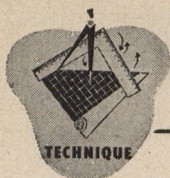
## F-93A Latest AF Penetration Plane

Newest AF penetration fighter is the North American F-93A, below, which has been designed for long range missions near the speed of sound. Built from the basic F-86 design, the 93 in-

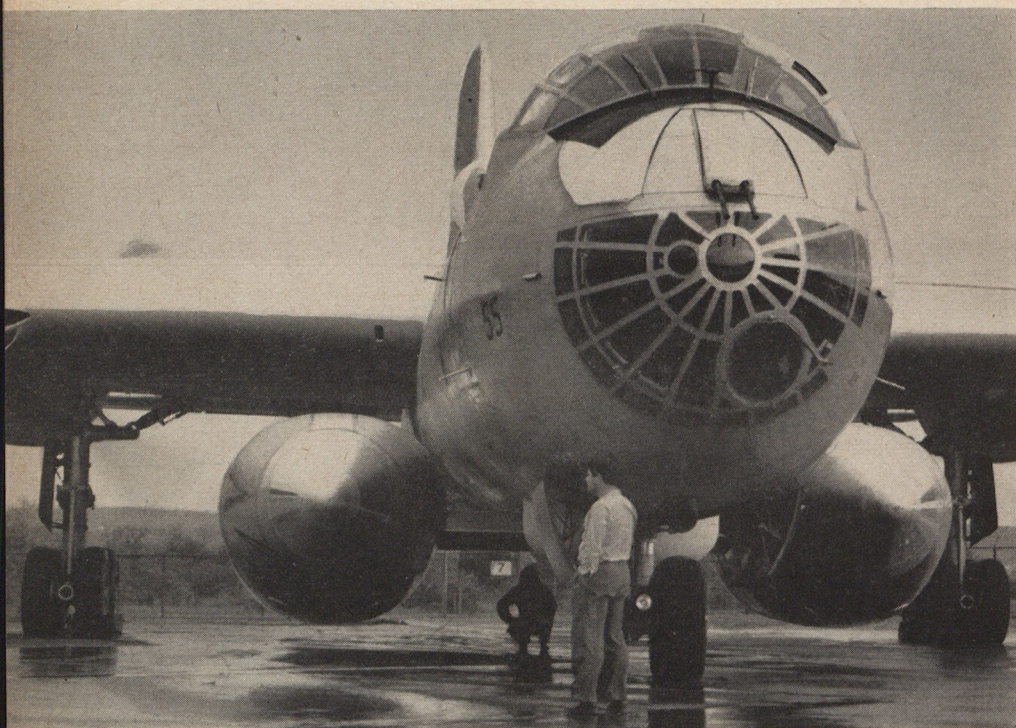
corporates side air-intakes, making nose room for radar equipment. It is powered by a Pratt & Whitney J-48 engine which develops 6250 pounds of thrust—further increased by an afterburner.







## TECHNIQUE PIXS



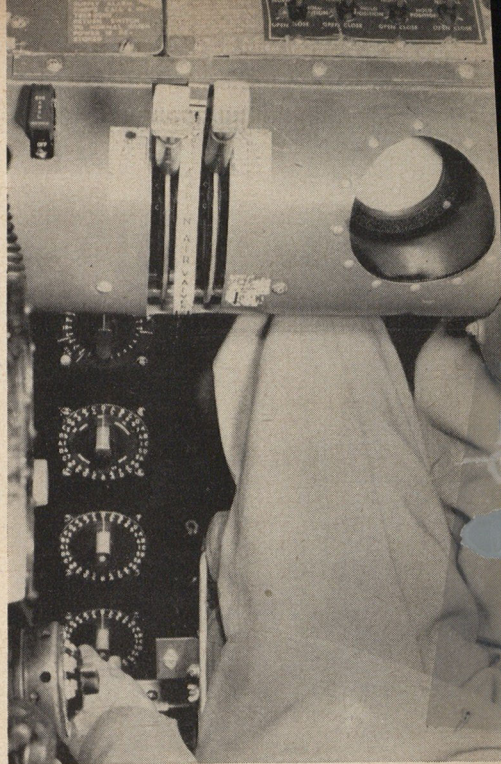
### 36 Now Carries Own Spare Engines

An externally slung nacelle which makes it possible for the giant B-36 intercontinental bomber to carry two of its own engines under each wing, above, has been developed by Consolidated Air-

craft Corp. First flight with the experimental carrier was made in mid-April. Each pod is 32 feet long. Weight of the two pods with four engines is about 25,000 pounds.

### Jumbo Tailpipes

Northrop Aircraft's F-89 Scorpion (left) one of the first post-war planes built from the ground up as an all-weather fighter, is the latest of the AF's string to incorporate afterburner attachments to its jet engines. The addition of the new equipment will boost the planes available power into a "bracket higher than that of a railway locomotive" Northrop officials state. The Scorpion's rate of climb will be greatly increased, enabling it to get upstairs quickly to meet possible enemy attack. After burners are enlarged exhaust pipes for powerful jet engines. Raw fuel is injected in metered quantities into the searing exhaust stream, greatly augmenting the power created. The device ordinarily is used only for short intervals when maximum performance is required. The 89 is heavily equipped with radar equipment for enemy detection.



### Order Analyzers

An order for 45 Sperry engine analyzers, above, was made by the AF recently for testing in planes of Strategic Air Command. Cathode-ray scope in upper right indicates ignition and vibration patterns in bombers four engines. Sensitive instrument can examine mechanical functions of every one of B-36s 168 cylinders. In addition to trouble shooting, it is effective cruise-control device.



### Test Globemaster

Last month, as the Douglas assembly line in Santa Monica groaned with the weight of half-finished fuselages of the AF's largest production transport plane, the C-124, it was announced that the Air Materiel Command had already begun a 150 hour service test of the first production 124 delivered in mid-May. The huge plane will carry up to 50,000 pounds of payload. Douglas has proposed that both payload and speed be upped even further by the installation of turbo-prop engines in future models.

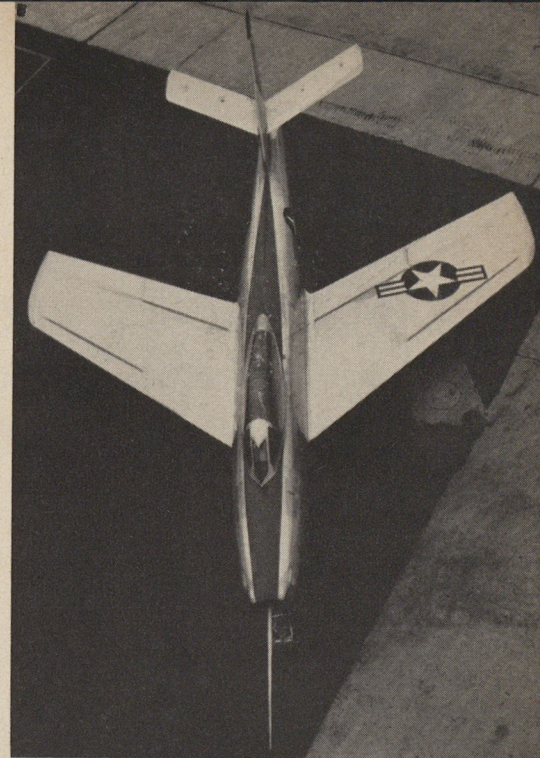
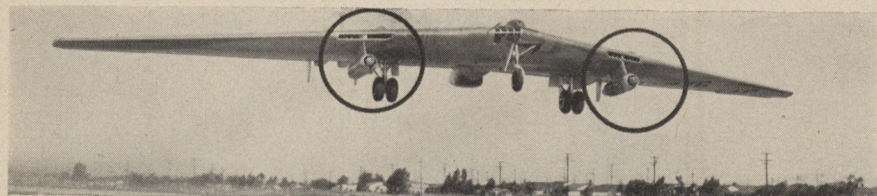




## XP5Y Makes First Hop in California

The US Navy's XP5Y-1 is shown above as it became airborne over San Diego Bay, California, in its initial test flight early last May. The 60-ton seaplane, built by Consolidated Aircraft Corp., and powered by four Allison turbo-prop engines, flew thirty minutes on its maid-

en hop. Longer and more slender than the traditional sea-based plane, the large flying boat is the first seaplane in this country to be powered by turbo-prop engines. Its mission is announced as long-range sea search and anti-submarine patrol.



## 96A Unwrapped

A swept-wing version of the Republic F-84 Thunderjet made its first appearance early in May in the form of the new F-96A, above. The 96 is powered by an Allison J-35 turbo-jet engine. The design of the wing permits additional fuel to be carried, and will also allow for additional external armament such as rockets and bombs, as well as external fuel tanks.

## AF Shows New Recon Flying Wing

The same week the Navy unveiled its new flying boat (top) the Air Force announced the first flight of its new reconnaissance bomber, the Northrop YB-49A, (above). First of the Flying Wings

to be equipped for full tactical operation, the 49 can photograph enormous expanses while flying at extremely high altitudes and speeds. It is powered by six turbojets; two of them in pods.



## Hiller 360 Shown

A new, improved 1950 "Hiller 360" 3-place helicopter (right) was announced recently by Stanley Hiller, Jr., President of the company. The new plane has a CAA approved gross weight of 2400 pounds, which raises the useful load from 815 to 968 pounds. Its normal cruising speed is 80 mph; range 200 miles. Service ceiling is quoted at over 10,000 feet. Plane has 60 inch cockpit, dual controls, claims distinction of being only rotary wing ship licensed by CAA as longitudinally stable.







### AFA Joins in Observing First Armed Forces Day

Squadrons Throughout the Country Work With Other Civic Groups to Make First "Unified Report to Nation" A Big Success



As hundreds of Floridians shade their eyes and peer upwards, a 12-plane group of B-29s return to MacDill Air Force Base from an Armed Forces Day mission over southeastern cities. MacDill had one of the nation's biggest programs.

Throughout the nation on May 20, 1950, AFA Squadrons joined with hundreds of civic, business and veterans organizations to pay tribute to the nation's military forces in observance of the first annual Armed Forces Day. Previously, the Army, Navy and Air Force had observed individually a day set aside in honor of their own service. Air Force Association was the official sponsor of Air Force Day.

In carrying out the principles of complete unification, however, Secretary of Defense Louis A. Johnson, with the concurrence of President Truman, abolished individual service days and designated the third Saturday in May as the occasion for all services in the Armed Forces to report to the people. Sponsorship of this single Armed Forces Day by any one civilian organization was discouraged and all community organizations were urged to join hands in working out appropriate programs and ceremonies in observing this day. Mayors of the various cities were asked to invite all organizations to work together in paying tribute to the thousands of men and women who make up our defense team of today. All this unity bore out the Department of Defense's theme for the day, "Teamed for Defense."

In Santa Monica, California, AFA members obtained model airplanes made by hospitalized veterans and displayed them in store windows throughout the city. For the principal speaker at the Armed Forces Day Luncheon, which they co-sponsored with the Rotary Club of Santa Monica, they invited Maj. Gen. William E. Kepner, Commanding General of the Air Proving Ground, located at Eglin Air Force Base in Florida. This event was held on May 19. The following day, the Squadron co-sponsored another luncheon with the Army and Navy Club and other community organizations. This affair was attended by over 250 people who gathered there to hear area military leaders report on today's forces. Among the special guests was Lt. Gen. Ira Eaker, USAF Retired, who headed one of the top Air Forces during the last war.

In Chicago, Illinois, all eight AFA Squadrons joined to help observe the occasion and participate in the program arranged at nearby O'Hare Field. The South Shore Squadron 21 flew in one of its recently-purchased small planes and parked it along side one of the C-46 transports for inspection by the public. Honorary AFA membership scrolls were presented by Wing Commander Charles Stebbings to Lt. Col. Donald R. Conrad, Capt. F. Voitmann and Capt. Samuel Elias. On Wednesday, immediately preceding Armed Forces Day, a plaque was presented to Colonel Victor Strahm, CO of O'Hare Field, for his cooperation with, and assistance to, the Air Force Association. Another plaque was presented to the men of the 2471st Reserve



Training Unit at O'Hare.

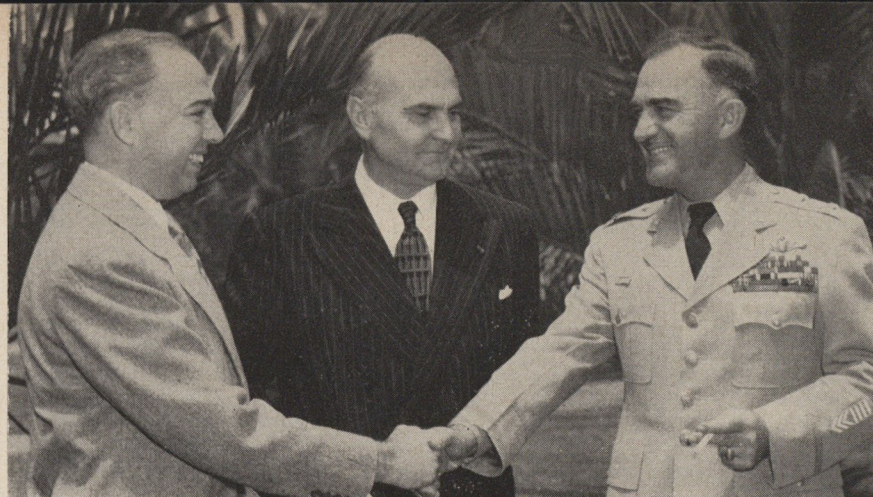
In Toledo, Ohio, members of the Toledo AFA Squadron met Maj. Gen. T. J. Hanley, Chief of Military Personnel Procurement Division, and principal speaker for the day, at 6 a.m. and then joined with other organization representatives for a breakfast in his honor. Following the completion of his lecture schedule, General Hanley was taken on a tour of Toledo's Art Museum and the Libbey Glass Company.

A 10' x 10' display booth was erected at MacDill Air Force Base by members of the Tampa, Florida, Squadron. Photographs, pamphlets, copies of Air Force Magazine, model planes and special membership invitations filled the booth, which was constantly manned by members of the Squadron. Jerome Waterman, AFA's southeastern vice president, donated a silver ice cube bowl and tongs for presentation as a door prize to a prospective member who filled out one of the invitation cards. The Squadron sent invitations to leading Florida legislators to be guests of the Squadron at the luncheon sponsored by the Chamber of Commerce. Lt. Gen. Curtis Le May, Commanding General of the Strategic Air Command, spoke at the luncheon. Squadron Commander Edgar M. Shirah, along with committee chairman Ralph H. Harrison and committee member Hugh A. Tate, offered the full cooperation of the Squadron to the Chamber of Commerce and MacDill Field's CO, Brig. Gen. James E. Briggs, to make this first Tampa Armed Forces Day a complete success.

Members of the recently chartered Taunton, Massachusetts, Squadron met as a group and motored in convoy style to Otis Air Force Base to participate in the observance of this first Armed Forces Day. Everett King, honorary member of the Squadron piloted his Cessna plane to victory in an efficiency race from Westfield to Boston. Winner of this race was determined on the basis of log fuel plus 2.5 log time. David W. Leckart, secretary of the Squadron, co-operated with Major John D. Harris, the project officer for the occasion.

In Washington, D. C., national headquarters of the Air Force Association joined with the Navy League of the United States and Military Order of the World Wars in a unified effort to observe this historic occasion. Together, they sponsored the National Armed Forces Day banquet at the Statler Hotel, at which President Truman and Secretary of Defense Johnson were the principal speakers. Approximately 700 leading military and civilian notables attended this event. One of the highlights of the evening was the presentation of the Colors of the Army, Navy, Air Force and Marine Corps. Dr. Vannevar Bush, noted scientist, was master of ceremonies.

Though it is located far from air fields and military installations, the City of Beckley, West Virginia, did its part to honor the services on Armed Forces Day. The AFA Squadron built a float, with an aviation and airpower theme, which participated in the parade, highlighting the occasion.



In Santa Monica, California, Joe Nadel, state Wing Commander, welcomes Maj. Gen. W. E. Kepner to local celebration as retired Lt. Gen. Ira Eaker looks on.



Tampa Squadron set up membership booth. AFAers are: Hugh Tate, extreme left; Kathryn Eblen, left table; Mrs. M. Trumbull, standing with cap; Edgar Shirah, Sqdn. CO, standing right center; Francis Causey, Treasurer, right table.



In Chicago, all eight AFA squadrons joined in the celebration. Above, South Shore Sqdn. members Bob Ryan and Edgar Zimot display one of club's own planes. Below, Chicago Sqdn. 41 supervises Curtiss C-46 display at O'Hare airport.







## AFA STATE ROUNDUP

### CALIFORNIA

**San Francisco:** The third annual California Wing convention will be held on September 9 and 10 at Arrowhead Springs Hotel, Lake Arrowhead, California, according to Thomas F. Stack, national AFA Director. Stack says the event will be a combination "vacation and convention."

All present and prospective AFA members throughout the state are urged to make plans to attend this event. More information will be forthcoming from the Wing on this affair.

Arthur F. Kelly, AFA's Far-West Regional Vice-president, was the principal speaker at a gala Membership Banquet in Room One of the War Memorial Building. The banquet climaxed an all-out membership drive by the San Francisco Squadron, which was launched on February 1, and netted over 60 new members. These new members were guests of honor at the banquet.

Maj. Gen. John E. Upston, CG of the Fourth Air Force, was given a special award in tribute to his recent elec-

tion as the Honorary Member of the Squadron. Other top officers of the Fourth AF were guests for the evening.

Mike Kavanaugh and Tom Stack were co-chairmen for the program. Mike Pisani, of 700 Montgomery Street in S.F., heads the Squadron.

**Oakland:** Members of the Eastbay Squadron were given the latest information on the Air Force Reserve program by Lt. Col. Ernest C. Chase, area Reserve leader, when he spoke at the first annual dinner of the Oakland AFA group. Augie Ong is commander of the Squadron and Fred Buecker is secretary.

### ILLINOIS

**Chicago:** Charles Stebbings, who commanded the Chicago Group for the past year, was recently appointed to succeed Ray Ireland as Wing Commander for the state. Ireland resigned just before leaving for Europe on United Airlines business. Stebbings will serve until such time as a regular Wing convention is called, and the new officers are elected. Prior to heading the Chicago Group,

Stebbing was commander of Squadron 41.

Stebbing recently announced that Squadron No. 21 of the Chicago Group will co-sponsor the ceremony for the official dedication of Merrill C. Meigs Field, located on Chicago's lake front, on June 30. Meigs, one of Chicago's top citizens, has long been an ardent believer in aviation, and has a number of aviation "firsts" to his credit.

Squadron No. 21 has made plans to fly in a special plaque, in one of the two planes the Squadron recently purchased, for presentation to Meigs. The two planes the Squadron purchased are L-4's; one with conventional type landing gear and the other with floats.

### MASSACHUSETTS

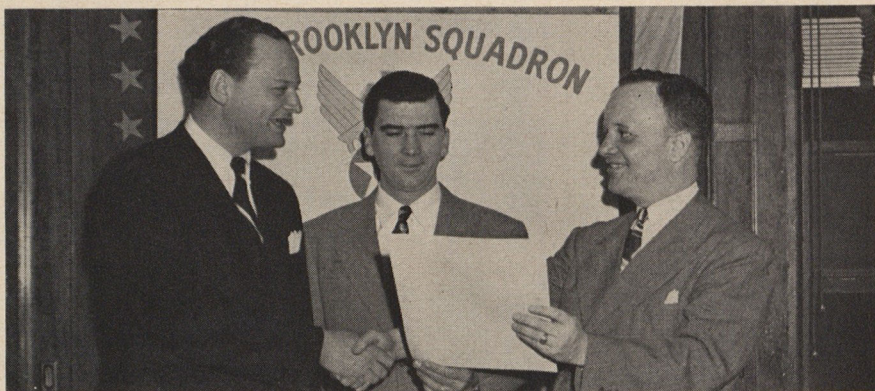
**Cambridge:** Clarence Dutton, Massachusetts Wing Commander for the past term, recently called a special state meeting in Cambridge for the purpose of electing new state officers and laying plans for helping with the forthcoming national AFA convention scheduled for Boston on August 25, 26 and 27, with headquarters at the Statler Hotel.

Following a dutch-treat dinner at the Central Grill, Albert Eldridge of 181 Marlboro Street in Boston was elected the new Wing Commander. The state was then divided into three AFA areas, with a vice-commander from each of the areas. Dudley Clark of Marblehead Neck will head the Eastern section; Thomas C. Stebbings of Worcester, the Central; and Ted Zolynski, the Western area. Paul F. Bartel of Boston was elected secretary-treasurer.

Eldridge immediately called for a Northeast AFA Conference to map plans for promoting the national convention. It was agreed that a conference would be held at the Statler Hotel in Boston on June 24 and 25, beginning at noon on the 24. All AFA Wing and Squadron officers are urged to attend this meeting.

**Salem:** The energetic Salem Squadron selected the occasion of the showing of "Twelve O'Clock High" to award three well earned Honorary Memberships in the AFA unit. The Salem group has worked diligently to further the objectives of AFA in that area and have gained the respect and support of the entire community. To those who continually answered the Squadron's call for assistance, Honorary Membership in the unit was awarded as a token of appreciation.

The first honorary scroll was presented to William B. Earle, Department of Salem Schools, for his cooperation in making the Squadron's tag sales day an outstanding success. The next scroll went to Editor James E. Fuller, who represented Myron R. Hutchinson, publisher of the Salem Evening News, for the paper's constant assistance in publi-



The First Brooklyn Squadron gets its permanent charter from Herbert Heimberg, left, Commander, 2nd Group, New York Wing. Recipients are Arthur Wegman and Lee Kranz, Vice-Commander and Commander respectively of the club.



Bob Brainard, left, receives ticket for sight seeing flight over Chicago from Kurt Kunau, operator of Chicago-Hammond airport, while Robert Ryan, CO of South Shore Sqdn. #21 looks on. Ticket was one of door prizes at recent dance.



cizing the objectives and activities of the Squadron. The third scroll was awarded to Angus F. Merrill, manager of the Paramount Theatre, for making it possible for the Squadron to enhance its community prestige by inviting leading citizens to be their guests at Paramount showings.

The awards were presented by Edward R. Tufts, past commander of the Squadron. Dr. Raymond A. Michaud, present commander of the group, officiated during the evening.

Salem's Mayor Francis X. Collins had this to say about the Squadron: "It is one of the most persistent and outstanding organizations in the city—the aims of this organization are worthy and are to be encouraged."

#### NEW JERSEY

**Newark:** The Newark Squadron recently changed its meeting place from the Robert Treat Hotel to the new half-million dollar Newark Boys Club. The Squadron has been offered a meeting room at the Club and also the use of the modern kitchen facilities.

Members of the Squadron have voted to sponsor a model airplane unit among the boys at the Club. Marty Wiegler is heading the committee in charge of this project. The Squadron is led by Jack Hagerstrom of 1639 Springfield Avenue.

The group's new monthly bulletin is progressing rapidly, especially advertising-wise. The last issue carried 10 1½ x 2½ inch ads.

**Asbury Park:** The New Jersey Wing will hold its annual state convention at the Berkeley-Carteret Hotel, Asbury Park, on October 14, Wing Commander Warren De Brown recently announced. All NJ Squadrons are urged to begin planning early for sending a large delegation to this year's conference.

#### RHODE ISLAND

**Providence:** Four Past Commanders of the Providence Squadron were recently honored at a dinner meeting of the unit at Johnson's Hummocks Grill. Highlight of the evening was the presentation of past commander pins by the present commander, N. Douglas MacLeod, Jr., to Charles W. Trowbridge, Winsor O. Coleman, James W. Redgate and Marcello A. Tropea. The evening featured an interesting talk by Terry Reardon, coach of the Rhode Island Reds.

Other officers recently elected to assist MacLeod are: Richard B. Birch, vice commander; William Phinney, secretary; J. Russell Gray, treasurer; William Thurber, Curtis Melton, Redgate, Coleman and Tropea as councilmen.

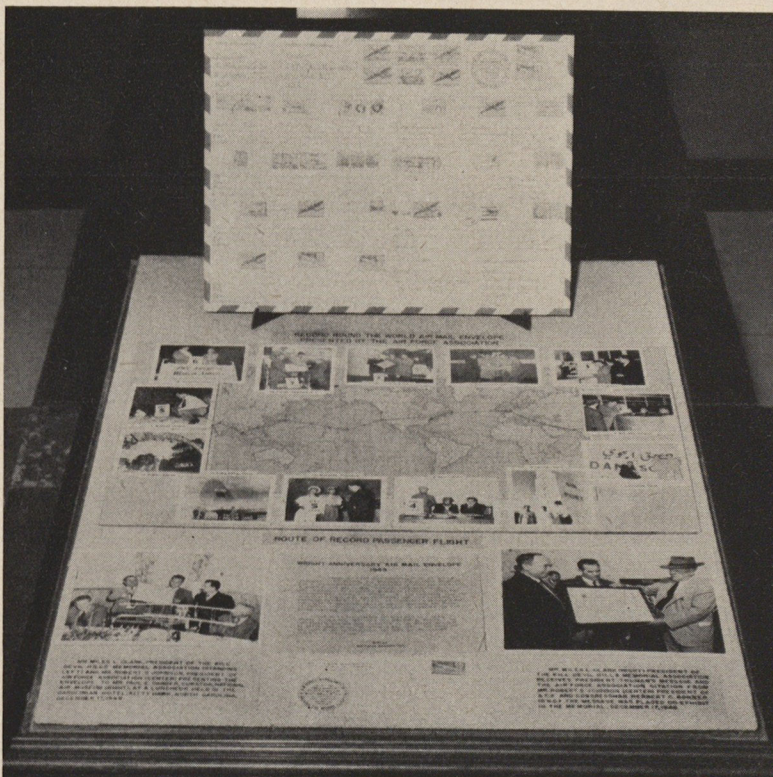
#### WEST VIRGINIA

**Charleston:** The Mountaineer State now boasts another active AFA unit. A recent meeting in the Capitol City resulted in the reactivation of the Kanawha Squadron and its renaming to the Charleston Squadron. The special meeting was sponsored by Lt. Leonard Thomas and Sgt. Regis Cole of the USAF Recruiting Station and Lt. Col. James K. McLaughlin, CO of the 175th Fighter Squadron of the W. Va. Air National Guard.

## AFA ENVELOP TO SMITHSONIAN



Visitors examine AFA exhibit placed beneath first Wright plane.



Closeup of case showing envelope and pictures of Lanphier route.

It was a solemn and historic moment for the Air Force Association during the 46th anniversary observance of the Wright Brothers flight at Kitty Hawk, North Carolina, when Paul E. Garber accepted, on behalf of the National Air Museum, of which he is Curator, the stamp-laden air mail envelope Tom Lanphier had carried around the world on his record-breaking airline flight by way of Pan American, United and American Airlines.

The envelope, in which was carried a special Kitty Hawk Day message from President Truman, was turned over to Miles L. Clark, president of the Kill Devil Hills Memorial Association, by Bob Johnson, AFA's head man. Clark in turn presented the envelope to Garber.

The AFA "Round the World" exhibit was placed under the wings of the historic Wright Brothers' aeroplane, in the North Hall of the Arts and Industries Building of the Smithsonian Institution in Washington. It remained there for several weeks, until it was transferred to the Aircraft Building of Smithsonian, where it will remain until the National Air Museum's permanent building is constructed.





## IN RESERVE

### Extension Course Institute Now Under AU

**Correspondence Program Removed From ConAC Control. Reservists Urged to Address Mail to Gunter AFB to Avoid Delay**

Transfer of the Air Force's Extension Course Institute from the Continental Air Command to the Air University was announced last month by Gen. George C. Kenney, AU Commanding General.

The Institute now stationed at Fort Benjamin Harrison, Indiana, will be moved to Gunter Air Force Base, Montgomery, Ala. Its personnel will include 17 officers, 155 airmen and 28 civilians.

In making the announcement of the switch, General Kenney urged all students regulars as well as reservists, now enrolled, henceforth to send their completed lessons and examination papers to the new Gunter AFB address. Approximately 50,000 students are now enrolled with the Institute and the number is expected to increase to 75,000. Both regular and reserve Air Force officers, as well as personnel of other services including Air National Guard, airmen and civilians employed by the USAF whose duties require knowledge available in the courses are eligible for enrollment.

For maximum benefit, the commis-

sioned officer (reserve or regular) may enroll in the Air Tactical School Extension Program during his first six years of commissioned service. In this program the officer is prepared for command of squadrons and for staff duties performed by captains, majors, or lieutenant colonels.

Upon completing six years' tenure of appointment, an officer may enroll in the Air Command and Staff School Extension Program. This program will prepare him for the command of groups and wings and for staff duties comparable to a colonel's grade.

After completing the Air Command and Staff School Extension Program, and ten years' tenure of appointment, lieutenant colonels and colonels are eligible to enroll in the Air War College Extension Course. Here the student is prepared for command and staff duties with large Air Force units. Emphasis is placed on promoting sound concepts on the broad aspects of air power in order to assure the most effective development and employment of the Air Arm.



**For his work in helping prepare a reserve training manual, Capt. Kenneth Cramer, 88th Air Depot Wing, Santa Monica, receives one of first commendation ribbons ever awarded men not on active duty. Cramer was one of five in 88th to get awards which were made by Maj. Gen. J. W. Jones, right.**

### New AF Reg Makes Major Overhaul of VARTU

**Order Provides for Full-time Liaison Officers and NCO's Assigned to Volunteer Groups and Squadrons, and Pay for Reserve COs**

Another revision in the AF's Reserve program was announced last month with the publication of AF Regulation 45-23 dealing with the administration of Volunteer Air Reserve units in the numbered Air Forces.

The new regulation provides, among other things, for full-time liaison officers and NCO's assigned to VAR groups and squadrons, and administrative pay for Reserve officers commanding these units.

Under the revised setup, it is proposed that there will be 100 groups in the Continental US, and that in most areas there will be 5 VAR squadrons per group. VAR group and squadron CO's (reservists) will be entitled to administrative pay up to \$240 a year.

No wings are authorized except Provisional Wings which may be established as coordinating agencies in areas where 2 or more groups exist close together. Provisional Wings will not have unit status.

Group headquarters will be composed of not more than 15 officers. The Gp

CO commands the component squadrons of his organization, and he will be directly responsible to the CG of the ConAC AF of his area. Gp Hq will have no internal training function; its mission being to supervise and assist in the organization, administration, and training of its squadrons.

VAR squadrons may be divided into flights of not less than 10 members each. Any number of flights may be established so long as the total authorized strength of the squadron is not exceeded, and so long as the required supervision of flights does not work an undue hardship on the AF liaison representative.

Flights may be set up on the basis of geographical location of the reservists; according to the specialized nature of the training to be presented; and in line with the practical limitations on the size of the classes.

ConAC has been charged with the establishment of a liaison office with each VAR Gp and Sq.

### New GI Home Loan Privileges

GI home loan privileges have been made notably more attractive with the recent Presidential approval of Public Law 475, which revises to considerable extent the old GI housing rules. The one hooker is that the privileges are not retroactive. They apply only to veterans who have not previously used their loan entitlements. The new law will:

(a) Raise from 50 to 60 percent the amount of guaranty for GI home loans, and up the maximum amount of guaranty from \$4,000 to \$7,500.

(b) Give the Veterans Administration authority to make home loans at 4 percent interest directly to veterans.

(c) Eliminate the unwieldy 505a combination VA-FHA loan which costs the veteran nearly 5 percent interest.

(d) Allow an unmarried widow of a veteran who died from service-connected causes apply for a GI home loan under the same provisions as would apply to the veteran himself.

(e) Allow the Veterans Administrator to prescribe minimum requirements for new construction guaranteed by the loans.

(f) Extend the length of maturity of loans from 25 to 30 years.

Under the new law, the present guaranty limit of 50 percent with a maximum of \$4,000 will be increased to 60 percent with a maximum of \$7,500.



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## THUNDER CONTINUED

There were two specific conditions that affected the airlift noticeably. One was that the MATS units, with their wealth of experience, had not been confronted with combat loading, with the result that more missions were projected than could be carried out. It meant also that tonnages based on full payload of airplanes were cut down by lighter but bulkier tactical equipment. The Army on its part had to revise its schedules, since availability of aircraft types affected the type of equipment that could be brought in. For example, the Army wanted more 2½ ton prime movers than could be carried by the available Packets and were forced to substitute jeeps that could be flown in in C-54's and C-74's, of which type there was a high availability. The incipient SNAFU was cut off by the establishment of SAPA (Swarm Air Planing Agency) with the job of assigning available space to the equipment and supplies desired by the Army, juggling both to achieve the closest approximation of perfection. The second condition that affected the airlift in its early stages was lack of an airstrip command and trained port units to do unloading. One potential trouble spot was solved by the irrepressible GI himself—at one stage every chart, graph and plan showed the forces running out of gasoline. Not enough had come in, and instructions to the troops had been to lug stipulated quantities of gasoline and no more. The first part of the order had been carried out, but the second had been stretched and it turned out that sufficient quantities had been "boot-legged" to carry the troops through.

The answer to the airhead problem will probably be a beachmaster set-up similar to that used by the Navy, with communications and staff to monitor airstrip operations.

General Hodge felt Swarmer had shown that there are no indications of limitations on the size of an airhead:

"It could be expanded. It's a matter of air fields, airplane and personnel. We are teaching all our troops air transportability so that they could move air-landed. We are making efforts with our equipment to get it as highly air transportable as we can. The Air Force is making efforts in the plane lines to get planes that will carry it."

Maj. Gen. P. W. Clarkson, commanding the V Corps in the maneuver, found one problem of great interest: "the airborne troops don't have tanks and the Aggressor has a lot of them. The anti-tank equipment we are using is the fighter aircraft equipped with rockets and bombs—primarily rockets—and maybe that is the whole anti-tank question. I don't know, but it certainly should be very effective. We have had great success in this exercise so far with our forward air controllers up with the front line infantry bringing in the Tactical Air Force of all sorts of strikes, anti-tank strikes and strikes against personnel. We know that it will work now—

(Continued on page 48)

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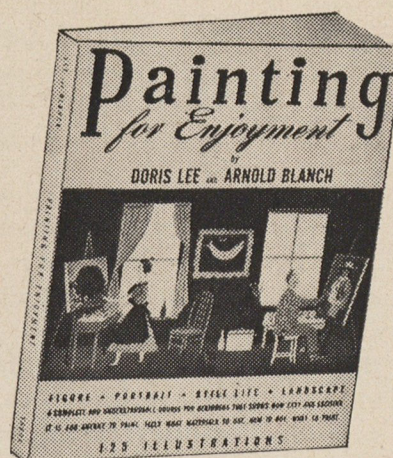
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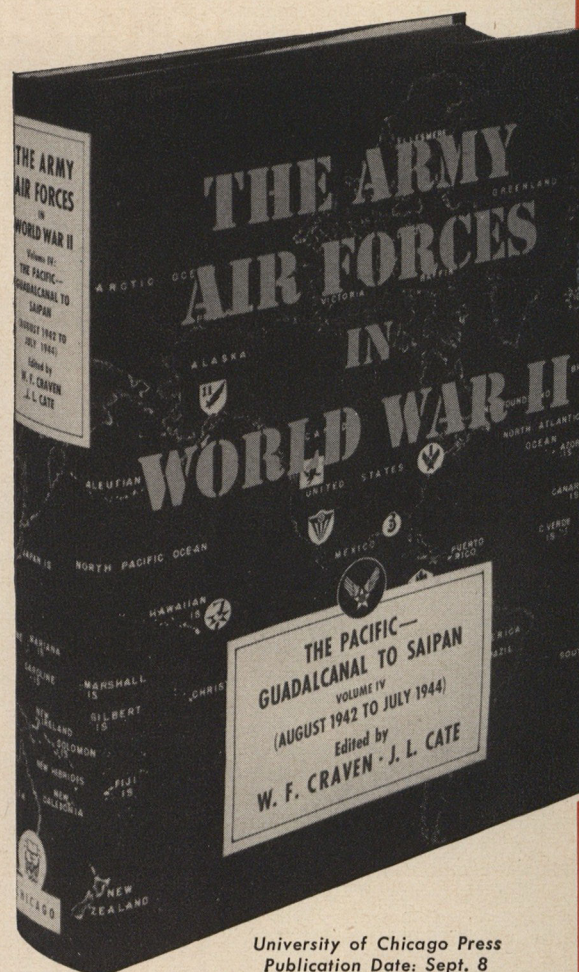


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## THUNDER CONTINUED

we can bring them in because we have  
done it."

(In one instance the Aggressor, com-  
manded by Maj. Gen. Robert M. Lee,  
normally the Commanding General of  
the Tactical Air Command, pulled a  
"fast" one on some National Guard  
planes not controlled by the Air Liaison  
Officers with the front line troops by  
doctoring their radar and vectoring  
them in on friendly troops massed on a  
simulated causeway.)

General Wolfinbarger covered the  
tactical air situation:

"From an Air Force point of view  
the most interesting and probably the  
most important lesson we have learned  
from this maneuver is how troop carrier  
aviation and strategic air lift aircraft  
can be wedded together in one opera-  
tion so that they complement each other  
and that the capabilities of both types  
of aircraft are enormously enhanced. I  
think that was clearly proven in this  
exercise . . . we find that the strategic  
airlift elements, the so-called MATS  
elements, learned a great deal from the  
Troop Carrier operations and, in turn,  
the Troop Carrier elements had an op-  
portunity to learn a great deal from the  
MATS technique. I think that both  
profited a great deal from this maneuver  
and certainly our Air Force concepts at  
large have profited from it. From the  
tactical air standpoint, I think one of the  
outstanding things of the maneuver is  
that we have, in my opinion, rather ably  
demonstrated the fact that our forward  
air controllers—that is, our plan of using  
forward air controllers with airborne  
units—is a success. I have numerous re-  
ports from front line troops that state  
that in many cases our pilot paratroop-  
ers, who jump with paratroopers and  
were with each forward battalion when  
they landed, were in operation and call-  
ing down air strikes within 10 minutes  
or less from the time they touched the  
ground. We consider that very good  
and we believe that our theory of jump-  
ing pilots to act as forward air con-  
trollers has been amply justified."

But General Wolfinbarger had a word  
of caution:

"In time of war it is doubtful that  
we will have as many aircraft available  
as we had in this particular maneuver.  
We probably will not be able to supply  
all the requests that are sent us. In this  
case we were able to do so 100 percent  
and it is extremely gratifying to us from  
an Air Force point of view to be able  
to do that."

For a man who was supposed to be  
critical, Brig. Gen. G. J. Higgins turned  
out to be fulsome in his praise of some  
of the various elements in Exercise  
Swarmer:

"Starting with the smaller unit, in  
my opinion, the combat effectiveness of  
the individual soldier and airman, offi-  
cer ground leader and officer pilot, has  
been very, very good indeed. As you  
know, we are short of equipment and  
we are short of personnel in our units,  
and as a result we must fill our units up  
and we must get our equipment before

we can say we are 100 percent effec-  
tive. I think that naturally follows a  
course.

"There was a question about whether  
or not the flying jet was capable of  
close support. Again in my opinion, the  
fast jet is capable of close support but  
we have a few kinks we must still iron  
out in coordination between the ob-  
server on the ground and the pilot in  
the air. None, however, that appear at  
present that we cannot overcome.

"I would say that the present com-  
mercial type transport—that is the C-54  
and C-74—has performed very well in-  
deed, but they lack ability to transport  
bulky tactical equipment needed by the  
Ground Forces. It limits their efficient  
employment in the early stages of an  
airborne operation. By the same token,  
the C-119 our new transport or troop  
carrier aircraft has been warmly re-  
ceived by the ground units and I think  
it has passed its initial mass employ-  
ment test with flying colors. As you  
know, that is the one that will take the  
2½ ton truck loaded with supplies and  
it has really proved itself in this opera-  
tion. I believe that it is certainly a far  
step forward—the best I have seen in  
the airborne game to date. I believe,  
however, there is still a need for an  
assault type transport to get in behind  
the troops as quickly as possible."

General Higgins had some words for  
the airlift itself:

"The Berlin airlift type of logistical  
support for an airborne operation is  
entirely flexible—with limitations, of  
course, and that limitation is that the  
airhead must be firmly held before the  
big transports are brought in in mass.  
In other words, it might boil down to  
the saturation of the field with the  
heavy type of transport we have, due  
to the difficulty of unloading our bulky  
equipment. I am quite certain that as  
we develop transports, that difficulty  
can be licked. At the same time, the  
C-54 and C-74 is particularly well  
adapted to long range buildup of type  
supplies such as rations, gasoline and  
ammunition. As you know, on the bat-  
tle field, after you get your personnel  
and equipment in, that type of supply  
constitutes about 90 percent of your  
requirements.

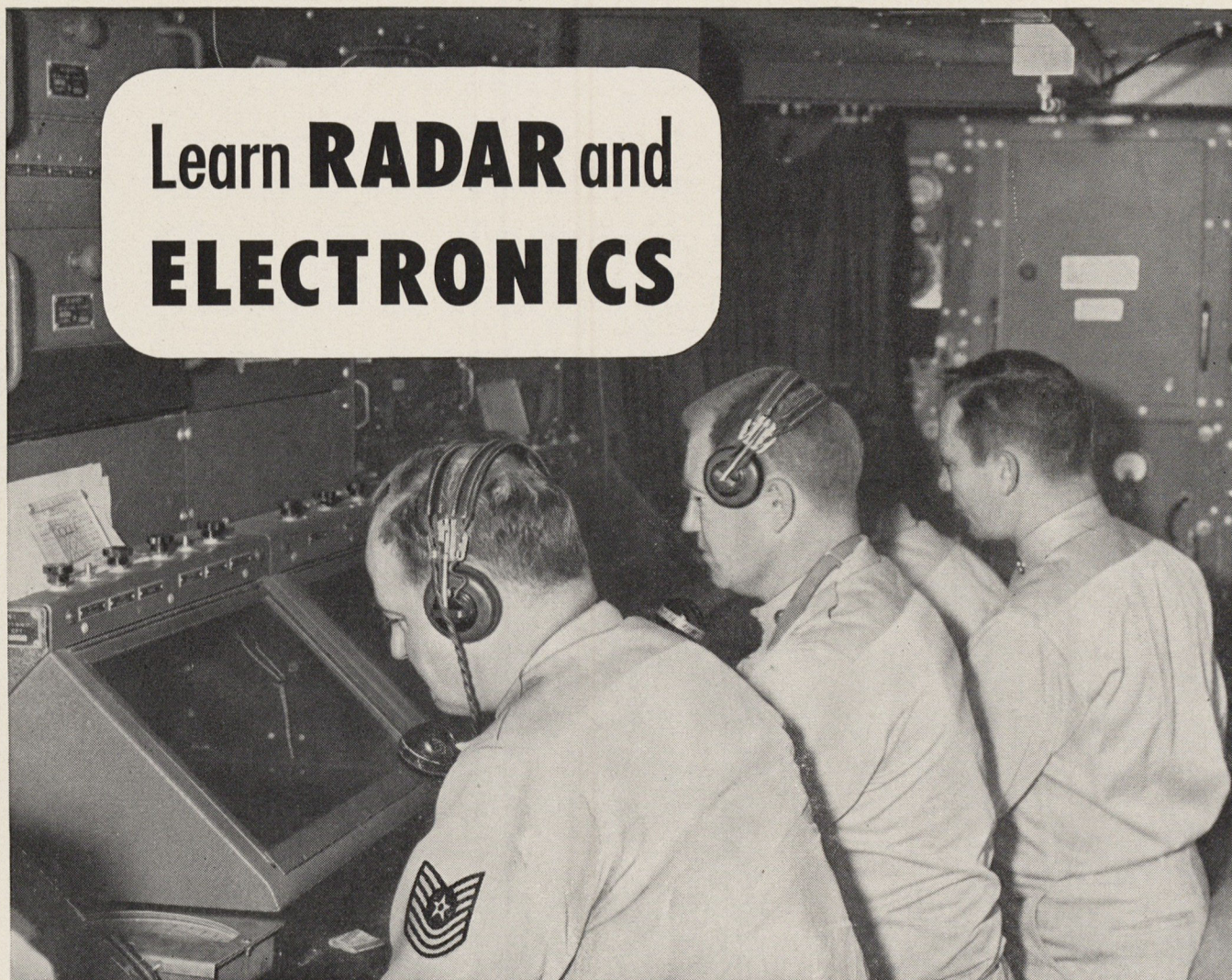
He also touched on the subject of  
heavy equipment drops:

"The success of the heavy equipment  
drops has been highly gratifying to all  
concerned. It leads us to believe it may  
solve the immediate pressing problem  
of providing long range anti-tank pro-  
tection for the parachutists. Also, by  
being able to get jeeps in early and  
dropping them right on the ground it  
increases the capabilities of reconnais-  
sance, which is very important to the  
parachute troops, of course."

Thus Swarmer, despite bad weather  
and the experimental character of its  
operation, could be written down as  
probably the most significant maneuver  
held in this hemisphere since the war.  
It was a distant thunder reflecting the  
character of an approaching storm. It  
proved that the Army and the Air Force  
are not planning to fight the next war  
with the last war's concepts.



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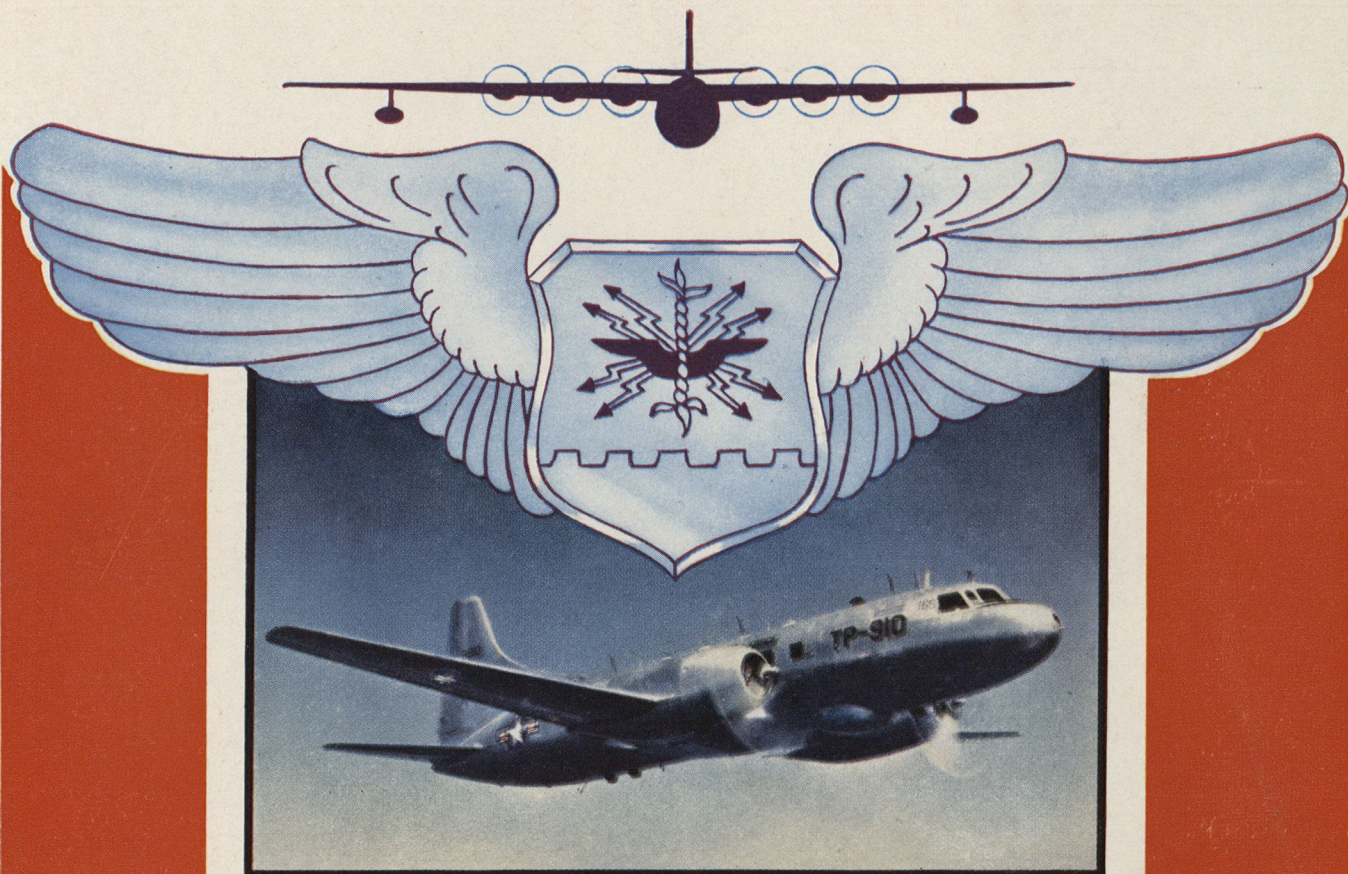
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