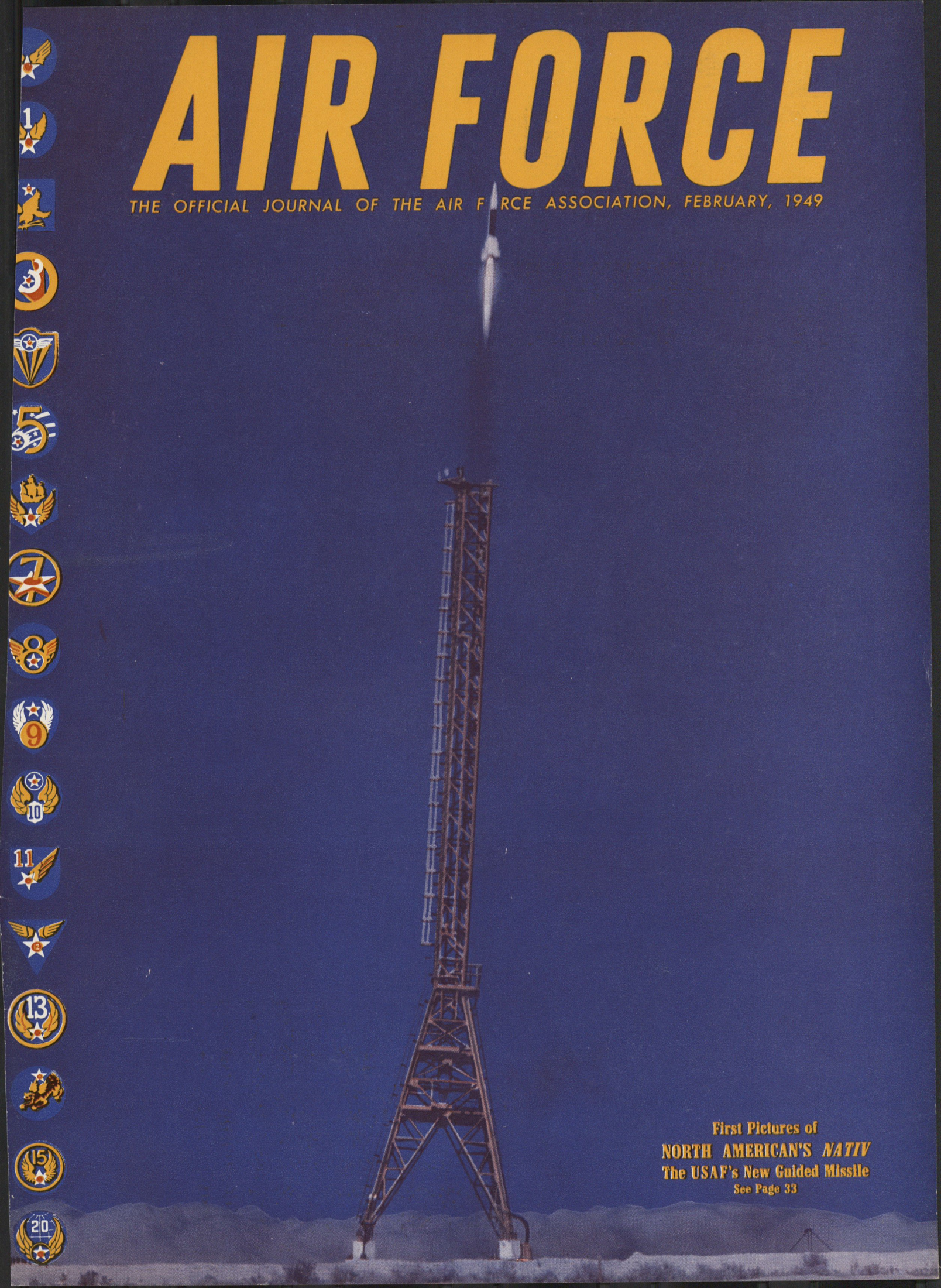
AIR FORCE

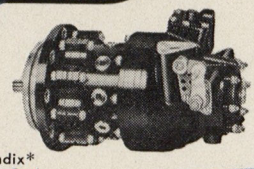
THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION, FEBRUARY, 1949



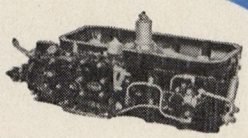
First Pictures of
NORTH AMERICAN'S *NATIV*
The USAF's New Guided Missile
See Page 33

Bendix Products

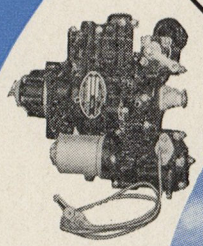
AIRCRAFT FUEL METERING SYSTEMS



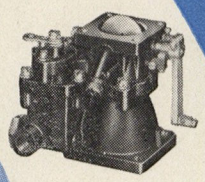
Bendix* Direct Fuel Injection Pump.



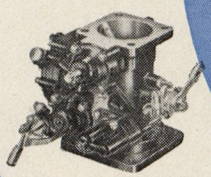
Stromberg* Injection Carburetor for large engines.



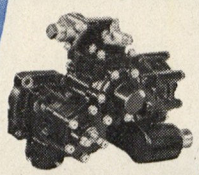
Bendix* Speed-Density Fuel Metering Unit.



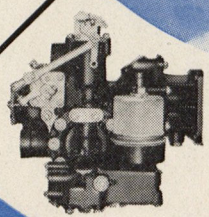
Stromberg* Float Type Carburetor.



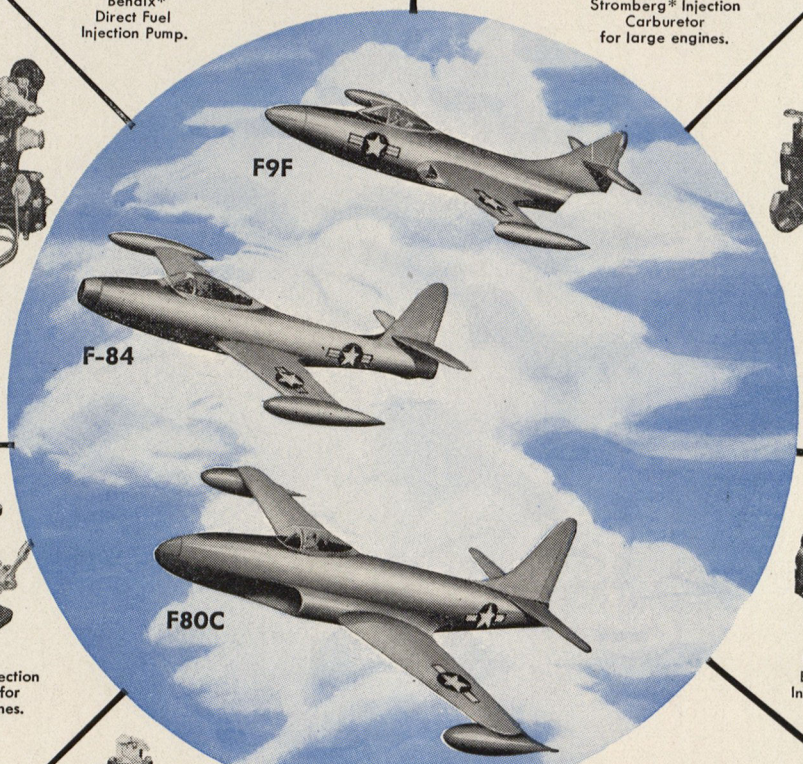
Stromberg* Injection Carburetor for personal planes.



Regulator for Bendix Water Injection System.



Bendix* Fuel Metering Unit for jet engines.



BENDIX FUEL METERING CONTROLS

Performance-Proved on Leading Jets

In two years of flight use, Bendix Fuel Metering Controls have set a remarkable record for *efficient, versatile,* and *dependable* operation. Today they are continuing to set the pace on such planes as the F9F, the F84, and the F80C.

Efficient: New use of altitude compensation . . . practically isochronous in operation . . . constant air-fuel ratio and temperature for acceleration.

Versatile: Work equally well with gasoline or kerosene . . . With or without water injection . . . Adaptable to various exhaust nozzle areas . . . Can be modified to handle surge limitations.

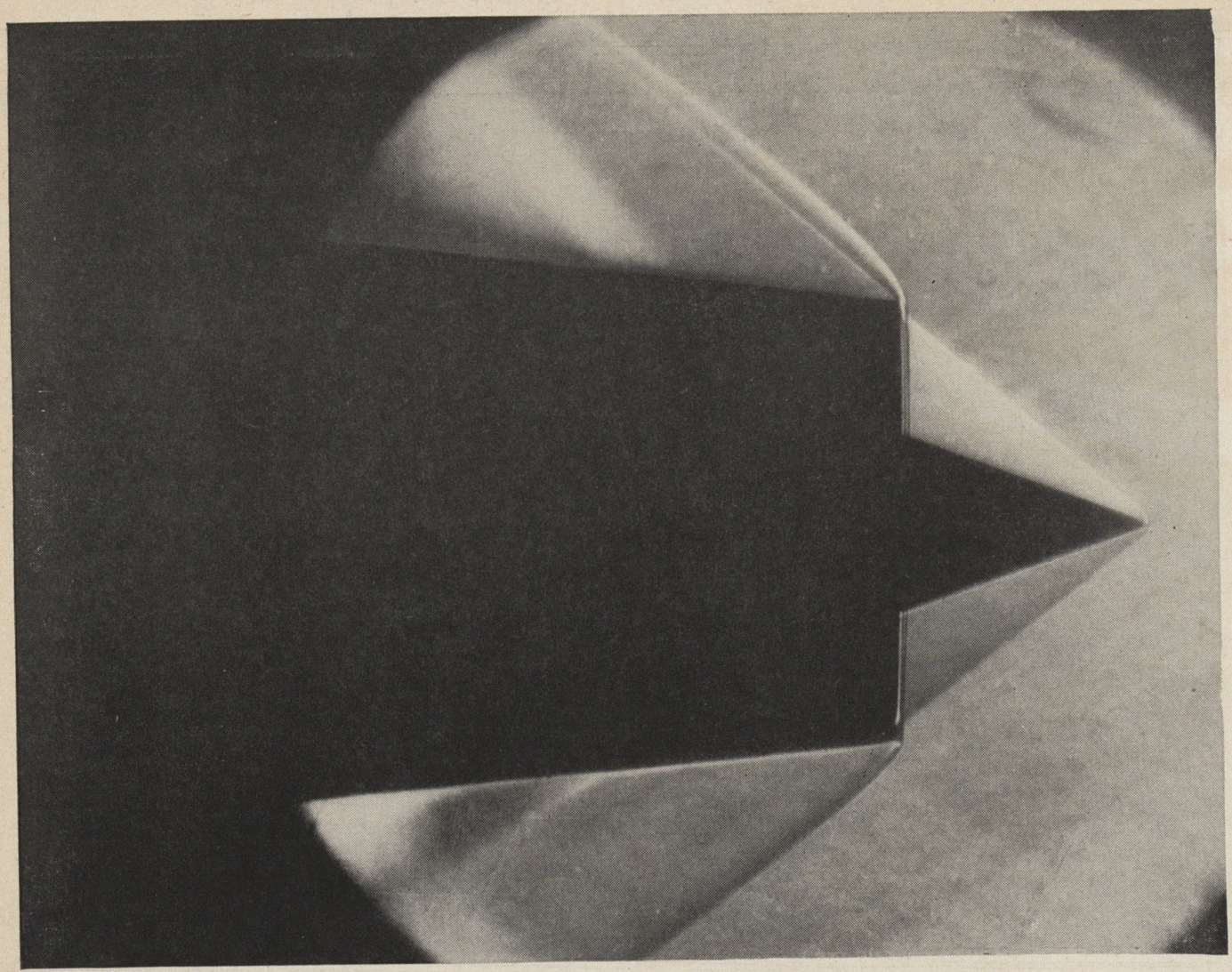
Dependable: A record of dependability beyond all expectations—comparable to that of other Bendix Fuel Metering Equipment over the years.

*REG. U. S. PAT. OFF.

BENDIX PRODUCTS

DIVISION of Bendix AVIATION CORPORATION

SOUTH BEND 20, INDIANA



This is an actual photograph of the flow pattern of air moving at twice the speed of sound.

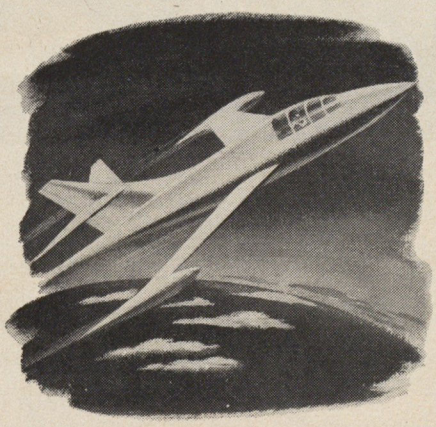
TWICE THE SPEED OF SOUND

▸ A small-scale model of a ram jet inlet is mounted in Wright's supersonic wind tunnel. As the air flows at mach No. 2 (twice the speed of sound) through the tunnel, *schlieren* apparatus — an optical instrument — accurately photographs the influence of the jet's body lines upon the flow pattern of the air. The oblique lines in picture represent shock waves created by impact of body on air.

▸ These *schlieren* pictures provide valuable new data on the phenomenon of compressibility — a condition that exists at the speeds attained by jet and rocket propelled aircraft and guided missiles.

▸ From them, Wright design engineers can determine the most efficient passage shapes for ram jets and other types of supersonic power plants.

▸ Another example of the integrated research that enables Wright Aeronautical to provide better power plants for the aviation industry.

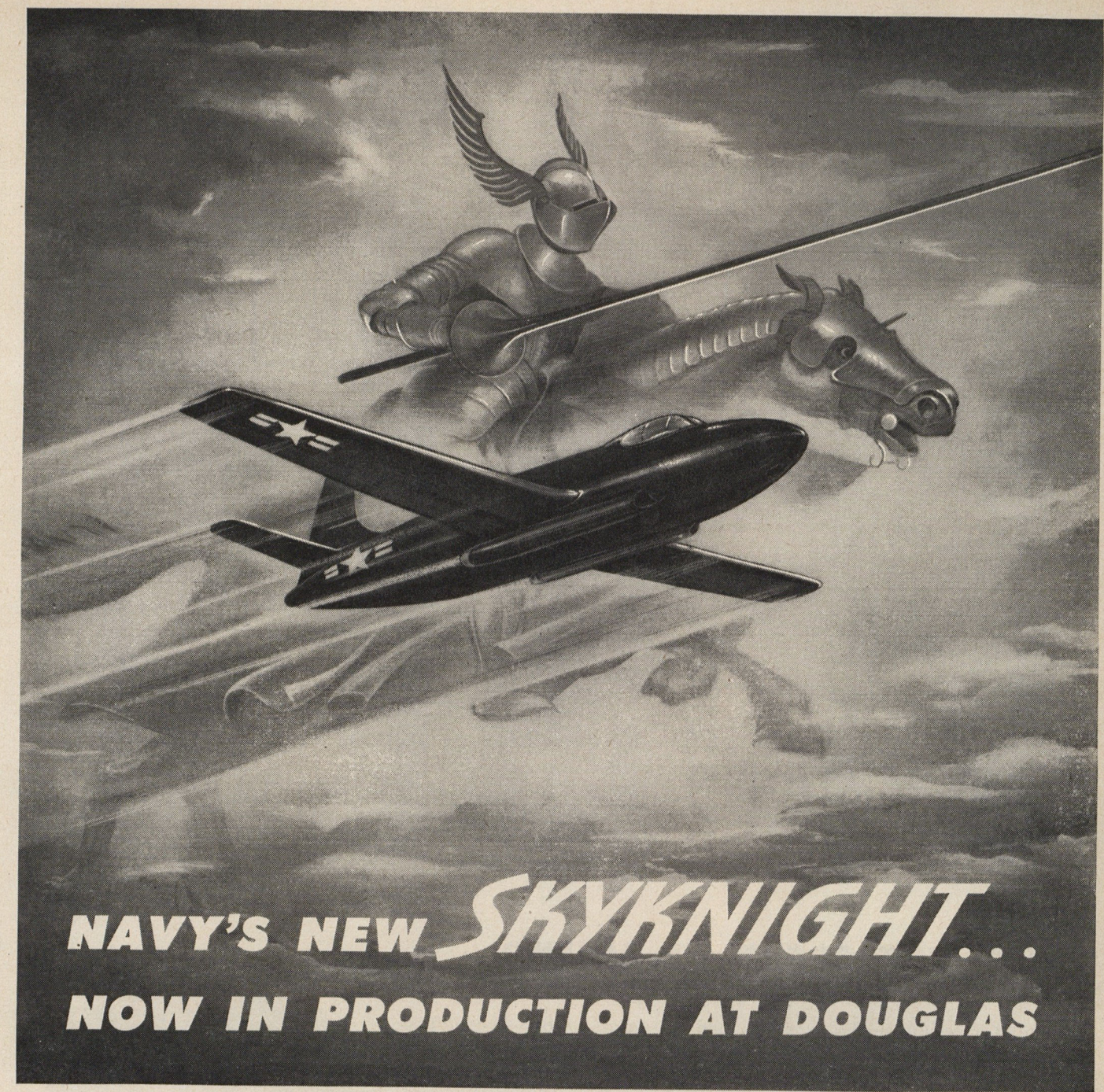


POWER FOR AIR PROGRESS

WRIGHT

Aeronautical Corporation • Wood-Ridge, New Jersey

A DIVISION OF
CURTISS WRIGHT
FIRST IN FLIGHT



More speed... more range... more altitude—characterize the powerful new twin-jet fighter now being built by Douglas for the U. S. Navy.

Christened F3D *Skyknight*, the two-place combat craft is designed to equip Fleet carriers for 24-hour, all-weather operations. It is adaptable as an attack fighter, long-range patrol or reconnaissance plane, or as a long-range fighter escort.

The *Skyknight* is the newest in a long line of dependable aircraft built for the Navy by Douglas Aircraft's El Segundo plant, producers of military aircraft for 17 years.

EL SEGUNDO PLANT OF **DOUGLAS**

VOL. 32, NO. 2 FEBRUARY, 1949

AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION

FEATURES

DEPARTMENTS

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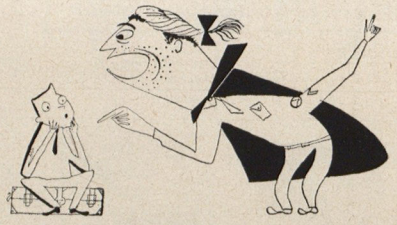
AIR FORCE IS PUBLISHED BY THE AIR FORCE ASSOCIATION

AIR MAIL

Legal Clarification

Gentlemen: Let AIR FORCE stick to airplanes and leave legal advice to us former Pfcs who were once "dime a dozen" lawyers in the Air Force. Michi-



gan WWII Bonux being Act 12 1947 and Section 4.1093 (21) Esq. Michigan Statutes Annotated provides: $10 for each month of service or major fraction for domestic duty and $15 for foreign from Sept. 16, 1940, to June 30, 1946. $500 is the maximum.

Kenneth T. Hayes
Grand Rapids, Mich.

• *All figures quoted were maximums only. No attempt was made to give a detailed breakdown.*—ED.

No Alternative

Gentlemen: I have just finished reading the December issue. If you continue to publish such articles as Editor Straubel's comments in "Shooting the Breeze" and Chairman Doolittle's letter on "Wasted Defense Billions," you give me no other alternative than to renew my membership in the Air Force Association. Please accept my check for $4.

Capt. Benjamin F. Gregory
Greenville, S. C.

Left Limp

Gentlemen: "Shooting the Breeze" in the December issue is very timely and well written. Jimmy Doolittle also presented a potent package of information that we all wish could be presented in all its stark reality to the complacent public. W. B. Huie also hits the high spots of the futility surrounding all the items involved in unification. His revelations regarding Navy plans plus other information I've studied led me to write a letter of protest to my congressman. The situation in its entirety is a dangerous one with which to contend at this crucial time in our history. The 81st Congress can clear up this situation, if it chooses. Having flown a B-24 on several combat missions, and knowing the horrors of war, the prospect of what could happen with national defense in such a muddle, leaves me limp.

Samuel S. Froehlich, Jr.
Harrisburg, Pa.

Cover Kudos

Gentlemen: That December cover's the best I've seen—ever.

Herbert Ringold
Philadelphia, Pa.

Gentlemen: Seldom I write letters to editors, but I thought you might like to know that there has been a tremendous amount of comment on the excellence of the December cover. Feeling around here is that it's about as good as any cover anywhere in a long time. Who's the guy?

Wm. McVey
Bloomfield Hills, Mich.

• *Thank you both. We thought it was pretty good ourselves. Name of the artist is Kelly Oechsli, known around the office as Kelly O'Shelly. Mr. Oechsli also does the "Air Mail" cartoons—of which, incidentally, we are quite proud. Stick around; there will be more O'Shelly covers before long.*—ED.

Sex, Inside and Out

Gentlemen: Enjoyed reading Miss Fleshman's account of her dry run in a B-29. In my day, femininity was restricted to exterior adornment only (see cut).

Howard S. Cook
Berkeley, Calif.

Proud of the Club

Gentlemen: Just finished reading the December issue and I think it was the greatest ever (including the wartime issues), but that is as it should be. When I first sent in my application to AFA, it was with the thought in mind that my $4 was a year's subscription to magazine I had zealously read during the war. Now I am more than proud to belong to a real organization after seeing its policy stands and its accomplishments.

Morton H. Lieberman
Bridgeton, N. J.

Fine Start

Gentlemen: The January issue was one of the best I have seen. A fine start for 1949; keep it up. I also want to congratulate Tom Lanphier for his splendid article "48 Air Forces Too Many," on the merging of the Air National Guard and the Air Reserve. It's about time some changes were made in order to make it possible for more than a lucky few to get in some much needed and much wanted flying.

Richard N. Lowe
Ripon, Wis.

Boiled Reservist

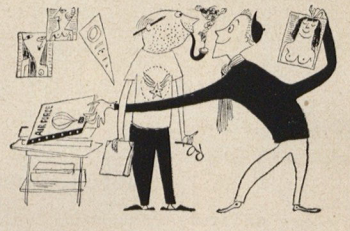
Gentlemen: In the January issue Tom Lanphier expressed not only his own opinion about federalizng the Air National Guard and establishing a single civilian air component, but also the opinion of several thousand Air Force Reservists. Here in Indiana the Reserve units, as in other states, have very little training equipment. We do have several AT-6s and a couple of beat-up transports that can be used for training if anyone dares fly them. The Air Guard is stationed at the same fields as the Reserve units and when Reserve pilots report for flying and see the Air Guard unit's F-51s sitting idle on the flight line, they boil under their collars but good.

Members of Terre Haute Sq. AFA
Terre Haute, Ind.

Elated Hurricane Hunters

Gentlemen: The story "Giants of the West Indies" by Clarence Owens appearing in your January issue has done a great deal to stimulate *esprit de corps* among the airmen of the 373rd Reconnaissance Sq. These members of the Hurricane Hunters are pleased to find their work so ably explained to the readers of your magazine.

Lt. Marvin P. Thompson
Hq. 373rd Recon Sq.



Liberal Education

Gentlemen: Thanks for a better all-around magazine. My younger friends in college "liberate" each monthly addition. How glad I am to know AIR FORCE is now available to all.

William G. Kindle
Richmond, Va.

Blazers of the trail

Everyone who has ever flown has his eyes on Boeing's great new Stratocruiser as it moves up toward the commercial flight lines.

The reason is easy to see. For the twin-deck Stratocruiser culminates 32 years of trail blazing in aircraft design and production. Into its building has gone all of Boeing's vast wealth of knowledge, skill and experience.

Among its predecessors was the Boeing Monomail, introducing a design formula that's been followed ever since. From it evolved the Boeing 247, America's first three-mile-a-minute transport. Then came the ocean-spanning 314 Clippers, and the Boeing Stratoliner, first pressurized-cabin transport.

In the military field, Boeing leadership has been just as pronounced. The early B-9 bomber established the modern trend in bombardment aircraft. From it developed Boeing's great warrior team, the B-17 and B-29, the new B-50 Superfortress and the radical new 600-mile-an-hour B-47 Stratojet.

Now, the Stratocruiser inherits the design knowledge gained from development of the whole proud Boeing line. Already proved in exhaustive flight tests, this fastest, most powerful, most comfortable of all commercial transports will soon go into service on the airlines of the world.

A. Monomail
B. 247 Transport
C. Stratoliner
D. 314 Clipper
E. Stratocruiser
F. B-9 Bomber
G. B-17 Flying Fortress
H. B-29 Superfortress
I. B-50 Superfortress
J. B-47 Stratojet

Boeing is building fleets of Stratocruisers for these forward-looking airlines:

PAN AMERICAN WORLD AIRWAYS • SCANDINAVIAN AIRLINES SYSTEM • NORTHWEST AIRLINES
AMERICAN OVERSEAS AIRLINES • UNITED AIR LINES • BRITISH OVERSEAS AIRWAYS CORPORATION

BOEING

For the Air Force, the B-50 Superfortress, B-47 Stratojet and C-97 Stratofreighter; for the Army, the L-15 Scout liaison plane.

SHOOTING THE BREEZE

Storm Warning

There's a storm brewing over the kind of civilian air force we should have, and it's about time.

After three years of bungling and fumbling, the Air Force digs in to implement the Executive Directive for merging Air Guard and Air Reserve.

The job itself is much bigger than that. It calls for complete re-examination of the mission and for re-organization solely on the basis of what is needed, regardless of what has been.

That's when all hell breaks loose around the conference table.

The Block Buster

Tom Lanphier's article of last issue on the Air Guard situation and the need for federalization fell like a block buster on Air Guard ranks. We have been looking over the many replies to that article from Air Guardsmen. They reveal unit pride *esprit de corps* in abundance. How much of that pride will be applied to overall defense needs remains to be seen. How much more *esprit* than *corps* exists must wait the cold light of inspection. But one thing we're sure of —misunderstanding is rife, and there is a general reluctance to face the defense issues involved.

On The Table

The great need at the moment, as we see it, is to clarify the issues, think them through, talk them out.

This whole business must be given a thorough airing, and we intend to do just that.

In coming months AIR FORCE will act as a sounding board for men who wish to speak their minds on these matters.

Reply From Idaho

First crack at Tom Lanphier's article goes to the top Guardsman in Lanphier's home state. So this month we present the reply of John E. Walsh, the Adjutant General of Idaho. You'll find it on page 20.

General Walsh differs quite strongly with some of Lanphier's arguments. We also note that he comes out for Guard federalization of a type and for merger of the Guard and Reserve—both ground and air mind you. Under "joint state and federal control."

He doesn't clarify, for us at least, just what he means by his compromise control plan, but the very fact that he supports a merger of any type is revolutionary in adjutant general circles. In fact, General Walsh comments, in the Lanphier vein, that "If this is heresy for an old National Guard officer who is supposed to be neck-deep in states' rights, so be it." He explains: "I do not see how the states' rights argument can apply to the Air National Guard."

Organized Confusion

The organized force opposing federalization of the Air Guard hinges its argument on the states' rights issue. We mean of course the tradition-bound, ground-minded National Guard Association whose widely recognized power in Congress is a tribute to the operations of its president, E. A. Walsh.

To the Guard Association all this merger talk is a dire plot to usurp the sovereign power of the states, a plot that does not permit separation of air and ground. Give in on Air Guard federalization, so that Association holds, and the next thing you know the villians will be after the ground Guard. Therefore, maintain a united front.

Message to Adjutants

As a rather pertinent sidelight on the National Guard Association's activities, we publish the following teletype message sent out on January 7 to the Adjutant Generals of all the forty-eight states: "As the result of a very satisfactory conference between the Secretary for Air and Chief of Staff of the Air Force and Generals Record, Cramer and Finch (of the Guard Bureau—Ed.) on 6 January it would appear that substantial progress has been made toward a better understanding between the Air Force and the states and the National

MR. SYMINGTON AND AN OUTSTANDING JOURNALIST

Last month the USAF presented Tom Lanphier Jr., Editor of the Idaho Daily Statesman and AFA's 1948 president, with its exceptional civilian award for "outstanding journalistic endeavor in support of airpower and his dynamic leadership of the Air Force Association." The award was made by Secretary Symington at a Washington party given by Jacqueline Cochran and Floyd Odlum, who presented Lanphier with a Paul Revere silver bowl uniquely engraved with more than 150 signatures, including those of Eisenhower, Arnold, Baruch, Spaatz, Hope, as well as AFA and Air Force leaders. The inscription paid high tribute to Lanphier for "extraordinary accomplishment during the year ending September 26, 1948, as President of the Air Force Association."

Guard which conceivably might lead to a solution of present difficulties pertaining to federalization of the Air National Guard.

"Among other things, the Secretary for Air has agreed to the establishment of a special committee on which the Guard will be represented by Generals Cramer and Finch to re-examine the whole matter and especially the matter of possible amendments to the National Defense Act or other applicable acts which Guard representatives contend will permit the Air Force to do all that they desire and require with reference to the readiness of the Air Guard to perform its federal missions and instantaneous passage of control of the Air Guard to the Federal Government in the event of an emergency. Pending action by this committee, action on legislation pertaining to federalization of Air National Guard will be suspended.

"Generals Record, Cramer and Finch are to be commended for a splendid piece of work and it is confidentially hoped that a satisfactory solution for this vexing problem will be found."

The name at the bottom of that message was "E. A. Walsh."

It is interesting to note that the President of the National Guard Association has informed the Adjutant Generals of an important development in Air Force-National Guard negotiations which at this writing, two weeks later, has still not been announced by either the Air Force or the National Guard Bureau.

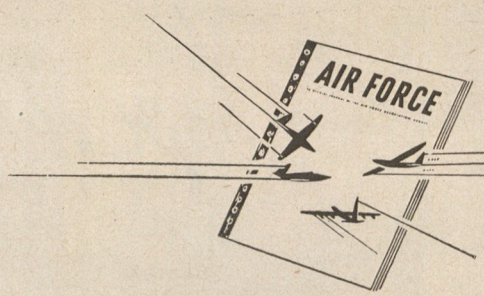
But the important thing is the content of this message, and its little innuendos. It implies that despite the Air Force's directive from the Defense Secretary to implement a merger, the Air Force has become party to what is made to sound like a "deal." What's more, the message states without reservation that the committee has suspended action on legislation to federalize the Air Guard.

We have an entirely different understanding of this conference. We are informed, first of all, that it was called by the Air Force as a necessary first step in the preparation of legislation for federalizing the Air Guard and merging it with the Air Reserve. We understand that rather than having the effect of "suspending" legislation, the committee referred to was formed for the specific purpose of hastening legislation; that its job will be to outline what is desired through a merger and prepare in writing for those who draft legislative documents the foundation on which a federalization law should be based. Further, we are assured that the Air Force is carrying out to the letter the Forrestal directive on this subject.

Fair Warning

We don't much care just how federalization is accomplished. But if anywhere along the line we find that the Air Force is deviating from the overall objective, we will oppose the Air Force just as strongly as we now support constructive steps toward establishment of a single federalized civilian air component.

J. H. S.



RENDEZVOUS

Where the Gang gets together

LIBERATED BY TIMBERWOLVES: I am writing in the hope that I'll be able to locate some pictures taken of me the day I was liberated. I was a POW in Germany and was liberated by the 101st Timberwolf Division at the Muhle River near Bitterfeld on April 26, 1945. We had to cross a temporary wooden bridge over the river and as we reached the shore an Army captain snapped several pictures of about six of us. He then gave the roll of film to one of the boys who in turn took our names and addresses and was to send us prints. I would appreciate hearing from any of the group. *Harold J. Boland, 5 N. Tyson Ave., Floral Park, L. I.*

BUCHAREST MEMORIES: I'm the fellow who transferred from the RCAF to your outfit. Would sure enjoy hearing from some of my old buddies of the 16th Recon Sq. (H). We had a fine time together in North Africa and Italy. That trip to Bucharest is something none of the lads who made it will ever forget. How about dropping me a line; maybe we can stage a reunion. *Jack M. Grossman, 422 N. Hartley St., York, Pa.*

KIA: Could anyone tell me of any organization of former B-29 fliers? I lost a son, Lt. Sterling Branson, who was a pilot on a B-29. I would very much appreciate hearing from those who knew him. *Mrs. F. T. Branson, Keysville, Mo.*

IMPORTANT: It is very important to me to obtain the address or any information about Maj. O. P. Weyland, formerly of the 19th Tactical Air Command, 9th Air Force. *Guido Dandreta, 54 Pomona Ave., Providence, R. I.*

STRIPERS WITH WINGS: All ex-flying sergeants of Class 42C—the best damn pilots in the business—are invited to attend the first and biggest damn class reunion on record in Washington, D. C. this coming April 15th. Place to be announced later. Make your plans now. Write: *Capt. Emory C. Morgan, Apartment One, 102 North Wayne, Arlington, Va.*

COMBAT FILM WANTED: For the past year I have been trying to track down the combat films taken by the group photographer with the 323rd Bomb Gp. (M). This was a B-26 outfit with the 9th Air Force in the ETO. I am primarily interested in obtaining the movie films taken in the spring of 1945 while the group was located at the Denain-Prouvy airfield at Valenciennes, France. I am compiling a movie library of the 323rd and am quite anxious to include some of the missions I flew. I want to have the films copied and will return the originals to the owner. The group markings of the 323rd can be identified by a broad white strip across the vertical fin. *C. B. Holland, Jr., 530 Magazine St., Beaumont, Texas.*

BETTER THAN WHO? Would like to get in touch with one of the better pilots I met in service. He is Lt. Edward R. Lawrence whose home was in Elmira, N. Y. *Theadore Levandoski, Jr., 44 Bay Ave., Bloomfield, N. J.*

WILL ROGERS REUNION: The "Boys from Pennsylvania" who were stationed at Will Rogers Field back in 1941 are organizing a reunion next July, probably at Harrisburg, Pa. This concerns chiefly the officers and men of the old 37th Service Gp., but there are many others who will likely be interested too. For further information, contact *George E. Reed, 239 North St., Harrisburg, Pa.*

STUMPY: Would like to hear from any former member of the old Hq. and Hq. Sq., 5th Air Base Gp., stationed in the Philippines at the beginning of the war. *Robert (Stumpy) Wantland, Box 1051, Thermopolis, Wyo.*

THEY DANCED AT HIS WEDDING: Would like to get in touch with one or both of the following men: Ex-Sgts. Couch and Burris. I don't remember their first names, but we were stationed together in Presque Isle, Maine in 1944. They were witnesses at my wedding. *A. G. Witt, Jr., 618 Lake Murry Drive, Ardmore, Okla.*

CONTACT WITH A PURPOSE: Would like to contact former members of the 504th Bomb Gp. (VH) who were in the 398th Sq. and 421st Sq. at Fairmont, Neb. Purpose—correspondence file and potential reunion. Address letters to: *Orville M. Wycoff, 441 Gough St., San Francisco, Calif.*

OLD FRIEND FROM PA.: Would like to locate an old friend of mine named Edward Reifer who hailed from somewhere in Pennsylvania. Last known address of Reifer was at Bombardier school at Deming, N. M., where he graduated as a 2nd lieutenant the latter part of July 1944. I believe he left Deming to go to Lincoln, Neb., and from there, no one knows. I would be more than thankful for any information about him. *M/Sgt. Edward F. Levanda, P.O. Box 618, BAFB, Barksdale Field, La.*

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

Disraeli went out on a limb... £4,000,000 worth!

A 100-mile ditch was dug across the Isthmus of Suez . . . and the world was made 5000 miles smaller. Prime Minister Disraeli realized the vast importance of the Suez Canal—a *faster* way to reach the markets of the East. So in the name of the Cabinet, he bought part of the Canal . . . to the tune of £4,000,000! Parliament, fortunately for him, backed up his wisdom with hard cash.

Disraeli, like any man with vision, knew that markets are most productive when you utilize the fastest way of getting at them.

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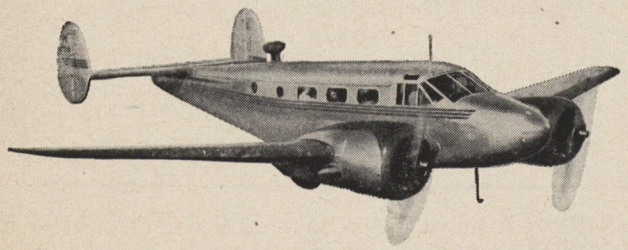

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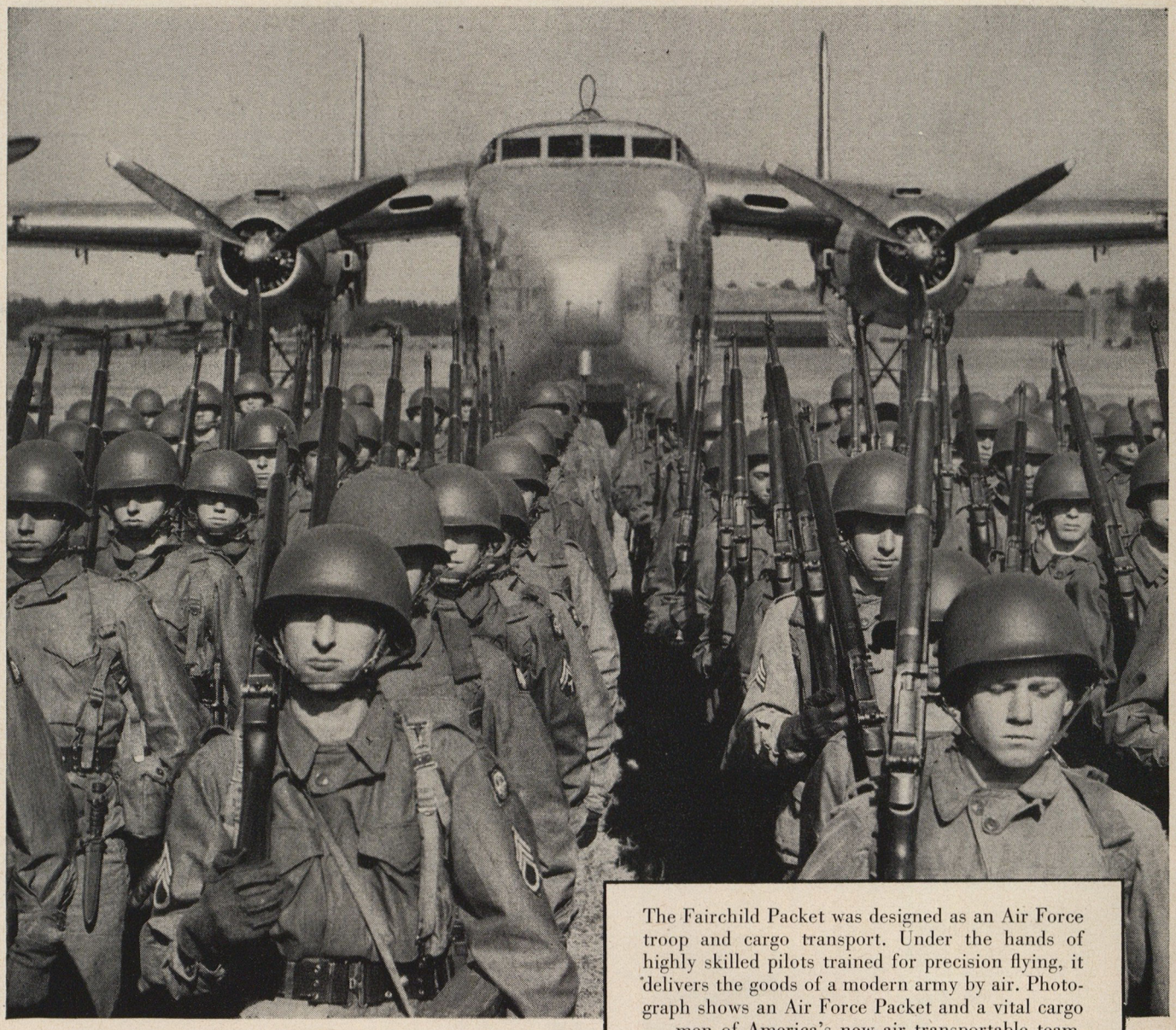

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AIR FORCE
FEBRUARY, 1949

THE CASE AGAINST FLAT-TOP

This broadside of cold hard facts helps explode a wartime Navy myth and clears the air for judging the structure and cost of our peacetime defense establishment

BY JAMES H. STRAUBEL

That national defense package on the budget shelf with the "balanced force" label and the $15,000,000,000 price tag won't stand up under inspection, and you should tell your friends about it.

Examiners whose job it is to protect the customer from false claims and see that he gets his money's worth should roll up their sleeves and go to work on this one.

Under the red, white and blue wrapping they will discover that the package contains three parcels, each almost exactly the same size. The salesmen will explain that this is the beauty of the product: Equal portions of land, sea and air to maintain the proper "balance."

Balance for what, the examiners should inquire. Military balance or political balance? Balance to appease the three services or balance to accomplish the job for which the package was designed? Balance based on military tradition and prestige or balance that is based on modern military weapons and strategy?

The examiners will learn that the parcel marked "Sea" actually is 60 percent "Air." This "Sea" label is a flagrant false claim. And the parcel itself contains a second full-fledged air force that duplicates the regular air force. This is double-charging, a serious offense in any business.

Finally, after complete investigation, the examiners should instruct the salesmen to scale-down the over-weighted airpower of the "Sea" and scale-up the short-weighted airpower of the "Air" without increasing the price of the defense package itself. Only then will it be ready for the taxpaying customer.

It's probably too much to ask that our national defense merchandise be accorded the same careful scrutiny given the products we eat and wear. And yet the price tag is so high and the defense product so vital that the least we can do is study the information available and separate fact from myth.

FLAT-TOP CONTINUED

Of the military myths to come out of World War II, the most expensive and most dangerous and the one most pertinent in the current defense controversy is the myth of the aircraft carrier's effectiveness as a strategic weapon.

Hitherto unpublished facts presented in this article will help explode that myth. They are presented as vital statistics in the current appraisal of the structure and cost of our defense establishment.

This myth of the carrier's strategic accomplishments in wartime is the backbone of the Navy's cleverly presented program for a strategic air force centered in the so-called super-carrier. Accept the myth and the program is a logical projection of combat-proved carrier operations against strategic targets. Deny it and the program is all theory, a paper plan.

The myth is built around the Navy's carrier assaults on Japan proper. The reason is obvious: To sell strategic bombing you must talk in terms of destruction to the enemy's homeland. The Navy can make no strategic claims for its carriers in the war against Germany. That leaves Japan. Now let's look at the record.

The first time US aircraft carriers approached the mainland of Japan in World War II was on April 18, 1942. Two carriers were involved, the Hornet and the Enterprise. In the task force were two heavy cruisers and two light cruisers. Eight destroyers that were to have accompanied them could not survive in the heavy seas and were left behind. Aboard the Hornet were 16 B-25 bombers of the Army Air Force. This was the Joint Navy-Army Tokyo Operation, conceived by President Roosevelt and best known as the Doolittle Mission in honor of the man in command of those bombers, Jimmy Doolittle, then a lieutenant colonel.

The mission has been referred to as "the most audacious, glamorous and romantic single exploit of World War II." Perhaps so. It was also a carefully calculated operation employing a high degree of technical skill, and one that accomplished all that could have been expected: It made the Japs believe they were open to air attack; forced them to keep ships and planes in Japan for home defenses; deflated Jap morale, and inflated American morale.

Against these accomplishments stands the now well-known story of the mission's tragic ending. Of the 16 B-25s that bombed Japan from their base on the Hornet all made forced landings, most of them bail-outs. Of the eighty men who flew the planes, two were killed in the crashes, several were injured; eight were taken prisoner, and of these one starved to death and three met death through torture and execution.

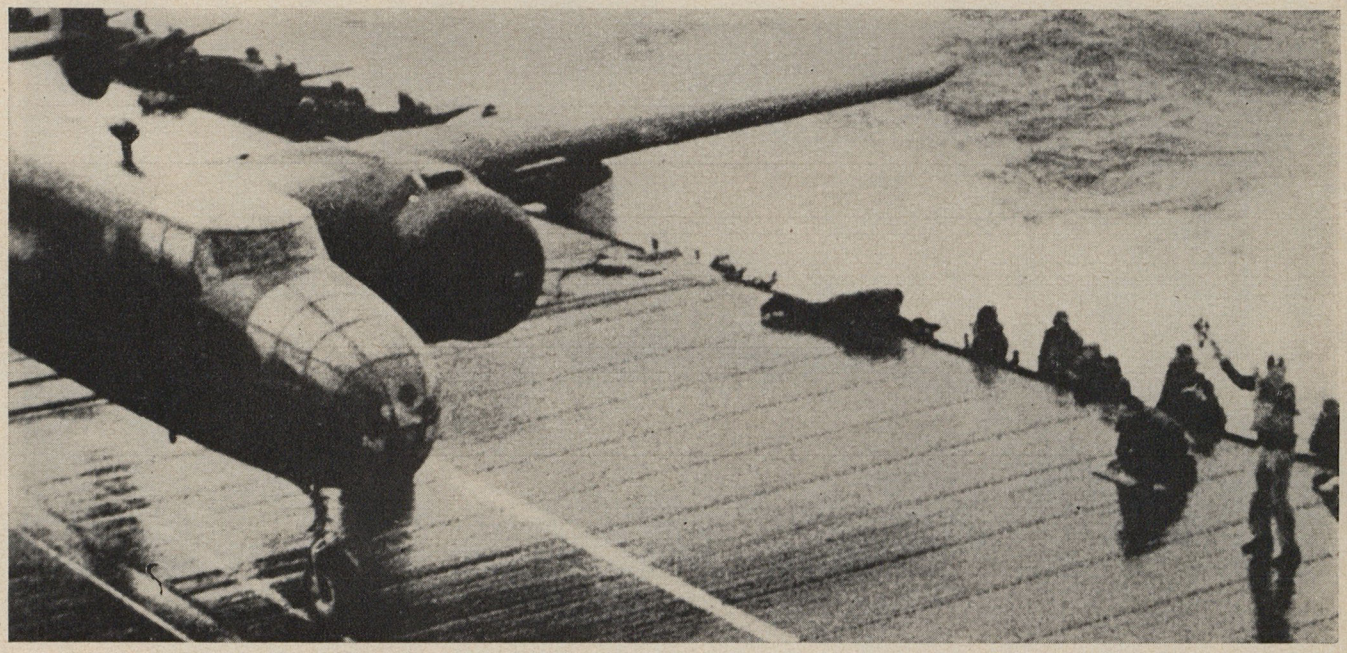
Yet, the precisely-trained crews took their planes off the Hornet without a hitch, and performed unusual feats of flying skill under the roughest possible conditions. The planes themselves performed up to expectations, produced even more range than had been counted on. What went wrong on that mission?

Jimmy Doolittle now reveals just what happened. "We were to take off approximately 400 miles from the Japanese mainland," he explains. "Take-off was scheduled for sunset so we could be over our targets in the early evening and so, after dropping our bombs, we could fly toward China under cover of night. We were to land on pre-selected fields in Jap-free China, gas up and proceed to Chungking.

"This plan was completely dependent on the ability of the aircraft carrier Hornet to get us within striking distance of the Japanese mainland. In late March of 1942, the month before the mission, I met in San Francisco with Admiral Halsey, the competent and courageous commander of this Tokyo operation. He explained that with the bombers on its deck the Hornet was helpless; that they made it impossible to bring up the Hornet's own fighters from their hangars between decks. The Enterprise, of course, had her fighters available for immediate action. We agreed that in case the task force was intercepted by enemy air or surface craft, our bombers would be immediately cleared from the deck of the Hornet. If interception occurred within range of Tokyo we would take off and bomb our objective even though we would be unable to go further. If interception came before this, while we were still within range of Midway Island, we would take off and return to Midway. If it came while out of B-25 range of any land our planes were to be pushed overboard into the sea. Admiral Halsey made it clear that while Navy was as anxious as we were to light a fire under the Japs, the safety of his ships and his two aircraft carriers came first.

"Actually, we were intercepted by Japanese surface craft while 837 statute miles from Tokyo and more than 300 miles before we had intended taking off. The intercepting vessels were small patrol boats, which the task force promptly sank, but we were told that they could have flashed a radio warning to Japan, leaving the carrier task force open to counterattack from the enemy's land-based Air. All our planes took off as quickly as they could clear the deck.

"The 300 mile handicap meant that we would be attacking Tokyo in daylight instead of at night, and that it was questionable whether any of our planes could reach their intended landing



First flat-top operation against Japan proper, Doolittle Mission of 1942 revealed extreme vulnerability of carriers.

places in China. Naturally our crews were disappointed because they knew the great likelihood of having to ditch their aircraft before reaching land. But our men realized, as did the Navy crews, the extreme vulnerability of aircraft carriers and the necessity of their immediate withdrawal."

US aircraft carriers did not again approach the mainland of Japan until mid-February of 1945, two years and ten months after the Doolittle Mission.

Just as that mission had revealed the high vulnerability of aircraft carriers and their inability to approach a hostile shore undetected, this 34-month span between carrier attacks on Japan proper underlined the significance of these intrinsic weaknesses in carrier operations.

In this 34-month period aircraft carriers proved themselves extremely effective against surface craft, against other carriers and against islands where their aircraft could overwhelm the land-based aerial defenders. By mid-February of 1945, the value of the carrier against tactical targets was well established. But that wasn't enough for the Navy high command. The Army Air Force with its B-17s and B-24s in Europe and now its B-29s in the Pacific had produced revolutionary strategic bombing results that threatened the whole future of the Navy. The Admirals decided that bombing of strategic targets from aircraft carriers had to be accomplished. The Japanese mainland offered the targets. And time was running out.

The setting was perfect for the big show. By now the backbone of Japan's air and submarine defense was broken. Two vital carrier weaknesses—vulnerability and detectability—had thus been overcome. Now the Navy's aircraft carriers, for the first time in almost three years, could dare to venture close enough to carry out strikes against the Jap mainland.

The Navy had an ideal combat outfit for the assignment—Fast Carrier Task Force 58, the most powerful striking unit of its type ever assembled. It consisted of 116 warships, in addition to supply ships and submarines, including 16 aircraft carriers (11 heavy carriers and 5 light carriers), 8 battleships, 17 cruisers, 75 destroyers. Task Force 58 was assigned to mass bomb the Tokyo area.

There were two complications in the scheme: The first was Iwo Jima, the Jap's isolated volcanic island stronghold some 750 miles off the coast of Japan. As the spearpoint of the Central Pacific thrust toward Japan it was given top strategic importance in our Pacific war plan. Admiral Chester Nimitz, commander-in-chief of Pacific Ocean Areas, had been assigned the primary mission to take Iwo Jima at the "lowest possible cost."

The Marine commander responsible for the ground assault on Iwo was General Holland M. Smith, veteran of the bloody battles for Tarawa and Saipan. He knew that the geographical makeup of Iwo would permit a relatively small ground garrison to inflict severe casualties on a much larger attacking amphibious force, that the advantage would be heavily on the side of the defender. Accurately forecasting the toughness of the coming Iwo Jima assault, and aware of the Navy's primary mission, General Smith asked for 10 days' concentrated pre-invasion bombardment by naval gunfire and carrier-based air attack.

The Navy high command turned down General Smith's request. Instead of 10 days, his Navy superiors allowed him 3 days' bombardment.

"It was a shocking situation," General Smith recalls. "We were haggling like horse traders, dealing with irreplaceable lives and replaceable ammunition."

The Navy high command held fast. It refused his repeated pleas for adequate pre-invasion bombardment of Iwo Jima. In an exposé of the incident, published in the *Saturday Evening Post*, General Smith has explained the refusal—because the Navy desired added strength for the Task Force 58 attack against the Japanese mainland.

"Admiral Spruance," he said, "insisted that the importance of the strike was so great that he must give Task Force 58 all possible assistance to insure a successful outcome." But as General Smith has noted, "There was no Japanese naval threat great enough to require him to send so many heavy ships with Task Force 58."

"To me," he said, "Naval insistence upon the priority of the strike against Japan was incomprehensible. It simply weakened the power we could use at Iwo Jima." He added, "Limited against our better judgment to only three days' preliminary bombardment, there seemed nothing to do but make the best of the situation."

That the best was none too good is evident in the fact that 4189 American lives were lost in the assault on Iwo Jima. The attacking Marines, lacking adequate support from the Navy, suffered 32.6 percent casualties in 26 days—the highest casualty rate of the Pacific war. And the shocking truth, as it has been expressed by General Smith, is that "Iwo Jima cost too much."

The other complication in the Navy plan was the B-29 operation of the 20th Air Force in the Marianas. It was now eight months after China-based B-29s had first bombed the Japanese mainland, and the third month of sustained strategic bombing of the mainland by the Superfortresses operating out of Guam, Saipan and Tinian. This was still the "build up" period of the B-29 operation. At this time it consisted of

(*Continued on page* 46)

Thirty-four long months later carriers next attacked Jap mainland, and then at expense of Iwo Jima invasion, above.

In Yukon a glider (left) slides to stop on Stewart River to pick up airmen who crashed in C-47 squatting at right.

Twelve Cold Little Indians

For nineteen days the Greenland air rescue copped banner headlines in the nation's press. But across the Arctic another rescue went unobserved

After three abortive passes the C-54 tow ship successfully snags glider from frozen river and makes for Ladd Field.

Above is the C-47 which got itself out of the mud in Illinois and then went on to get airmen off Greenland ice cap.

For two and a half weeks last December the nation's newspapers focused banner-line attention on a wind-swept ice cap on the southwest coast of Greenland where the Air Force was enacting the drama of Ten Little Indians—but in reverse.

On December 9, a C-47 with seven men aboard made a crash landing during a routine flight between Bluie West Eight and Bluie West One. Quickly the Air Force dispatched a B-17 with pilot and copilot to the rescue, but the Fort cracked up too, and then there were nine. Next a glider pick-up was tried, but it, too, failed, and then there were 11. A second futile glider attempt added Indian 12. The scene of the crash rapidly approached the proportions of a full-size reservation.

With the stranded flyers, still brave but getting colder and colder, and a Navy rescue ship, Saipan, getting closer and closer, the Air Force sent a C-47 equipped with JATO bottles into the breach. Strangely enough, this C-47 from Wright Field had made a crash landing in a short, muddy wheat field in Illinois on December 9, the same day as the Greenland mishap. Capt. James H. Doolittle, son of the General, had flown it out with jet assist. Happily the take-off in Greenland was as successful as the one in Illinois.

The Greenland rescue proved many things. One, if it needed proving, was that Air Force-Navy rivalry is as intense as ever, if not more so. Another is that the Air Force, having conceived the Arctic Concept, still has a long way to go in perfecting Arctic rescue. For the operation, despite its success, was expensive and far from battle-efficient.

But of all the lessons learned, none was more evident than the fickleness of American newspapers. For while wire and radio facilities burned with minute-to-minute flashes of the Greenland crackup, not a word was heard of a nearly identical accident 3700 miles across the Arctic in Alaska. There, on the night of December 13, another C-47, with 6 passengers lost and without instruments, made a wheels-up landing on frozen Stewart River near Dawson in the Yukon. By dawn of the next morning the crash was spotted by a searching C-54. By 11:30 AM a glider had been towed to the scene and dropped. Late in the afternoon the C-54 returned and, after three attempts, successfully snatched the glider off the ice. (See pictures opposite.) By nightfall all concerned were back at Ladd Field, and the incident was promptly forgotten.

In Greenland glider rescue attempts were a flop. Here men huddle beside CG-15A which tried twice but didn't make it.

For a good part of the nineteen days the disabled Douglas C-47 was home for the airmen. Later they built snow hut.

The BON BON BOMBER

Operation Little Vittles has outgrown its name. Candy and handkerchiefs are sent from world 'round

Answering letters from grateful Berlin kids who have received "candychutes" is a sizable job. Above, Lt. Halvorsen goes over the morning mail with two assistants. Below, Halvorsen drops candy cargo as he approaches Templehof.

At first Lt. Halvorsen had one spot to drop chutes, but because of crowds he later dropped them at random throughout city.

Frankfurt, Germany—"Uncle Pilot" and his "Operation Little Vittles" have become a symbol of American generosity and goodwill and to tall, shy, personable 1st Lt. Gail S. Halvorsen, Rhein/Main airlift pilot from Garland, Utah, goes all credit for the story that has warmed the hearts of two continents. To the sweets-starved children of harassed Berlin, Halvorsen also is the "Raisin Bombardier," the "Bon Bon Bomber" and "Uncle Wiggly Wings." To his buddies of the old 17th Squadron of the Military Air Transport Service, he's the "Kandychute Kid"—with a smile!

It began with an air-going busman's holiday when, last July Halvorsen, off-duty from his Berlin airlift job, hitch-hiked a hop to Tempelhof Air Force Base to indulge his now second-best hobby of photography. He wanted to get some closeup action pictures of Air Force planes coming in for a landing or taxiing for takeoff.

Just before he started back to the terminal for the return flight to Frankfurt, he noticed a solemn group of children watching him. Unlike most German kids, they did not approach him begging for "chocolate . . . chewing gum . . . cigarettes." Instead they stood a little apart, in a silent cluster, following him with their eyes but making no move in his direction.

Lieutenant Halvorsen found this a more eloquent plea than any of the broken-English appeals which usually accosted him. He searched his pockets and offered them the two sticks of gum he found there, genuinely sorry that he had no more.

Their intense delight and surprise at this unexpected windfall and the sorrow of those who didn't get any gum made Halvorsen resolve to bring his entire candy ration the next time he made the Wiesbaden-Berlin vittles flight.

He told them to stand out at the same clearing the next day and he'd drop them a package of candy. Wide-eyed, the children made him repeat his promise about 10 times. They couldn't believe he meant it. They thought it must be their English which was at fault. When, at last, they saw this young pilot was serious in his intent to drop them a present they began to worry about how they could tell which plane would be his. Planes were scheduled into Tempelhof every three minutes. Halvorsen told them he'd be there between 2 and 4 PM and that he would waggle his wing before he dropped the candy.

The following day was a busy day for Tempelhof and plane after plane landed with food and coal and other invaluable supplies for Berlin. One plane, however, varied the pattern ever so slightly. As it approached the runway its wings seemed to wiggle and on the far side of the field a small bundle floated to the ground, its fall broken by a GI handkerchief tied around it parachute fashion.

Back in the Officers' Club at Rhein/Main that night some of the pilots asked each other about the crowd of kids standing down at the edge of the field in Tempelhof. "I didn't know what to make of them," one pilot said. "As I took off over the field they stood down there waving like mad."

"Yes, I saw them too," another joined in. "Something must have been up but I don't know what. They were waving and hollering at every plane.

And every day the waving and the hollering kept up with an ever increasing crowd of children anxiously watching for the plane with the wiggly wings.

Halvorsen was a little nonplused by this, for he had not planned more than one drop. After missing a day or two, he managed to get some extra candy rations (his own 15 bars a week had gone on the first day), and with the help of his crew members he made five or six more drops. By now the men around the barracks had made a habit of leaving handkerchiefs, old shirts, candy and gum in his room. His outfit, the 17th Squadron of MATS, captured the spirit of this personal touch with the children in Berlin and they named it "Operation Little Vittles."

This interest was not limited to Rhein/Main Air Force Base, for the story of Operation Little Vittles was picked up by American newspapers. First result of this stateside publicity was a drive from Lieutenant Halvorsen's home base, Brookley Air Force Base, Mobile, Ala., which resulted in 1000 handkerchiefs and 400 pounds of candy.

Next, came a letter to Halvorsen from the Commanding Officer of the Panama Canal Zone area saying that one of the officers at his station was, in addition to his other assignments, the Little Vittles officer in charge of collecting candy and handkerchiefs for Halvorsen's project.

But by now the parachute situation was becoming critical. Rhein/Main men had exhausted their supply of pseudo-parachutes and candy was beginning to pile up. Halvorsen couldn't drop the packages without some windbreak, for by now the crowd of children meeting his plane at Tempelhof was pretty solid and he had to be very careful about what he turned loose into the eager, milling throng.

Someone suggested old parachute flares from the salvage yard and discarded scraps of real parachutes. But, as the squadron got together to fix up these bundles, the men found themselves a little reluctant to part with such

BIG VITTLES REACHES A MILESTONE

LAST month Lt. Gail Halvorsen was getting ready to turn over the reins of Little Vittles to someone else. He was through with the run and was scheduled to return to the US. As he packed his bag three of his Airlift buddies (above) were busy in another matter—officially recording the 100,000th flight of big Vittles in typical Air Force fashion. The men involved were (from left) S/Sgt. Richard Hosmer, New Haven, Conn., Capt. Gene M. Patton, Harlingen, Texas and Lt. Robert W. McGuire, Clifton Forge, Va. Together with the crews of several hundred other Vittles planes they were visibly proud of their fete. They smiled too because by now they had "broken the back" of the bad winter months. There was no longer any fear that Vittles would fold.

The BON BON BOMBER

CONTINUED

big squares of beautiful parachute silk.

"Couldn't we fasten notes in German asking the kids to please return the silk to the guards on the field?" Halvorsen raised a storm of laughter from his friends at this suggestion.

"Why, before you ever got off the airport those chutes would be made into shirts and pants!"

Halvorsen stood his ground. "I'm willing to bet any of you that we get back at least 10 percent." So, for the first try the pure silk chutes were dropped and the bets were made.

Then came one of the high points of Operation Little Vittles. Halvorsen's eyes shine when he tells of it.

He hardly had left his plane and proceeded to Tempelhof Operations to fill out his return clearance papers when telephone calls started coming from the Air Police.

"Say, we've got some funny little silk chutes out here addressed to some guy called "Uncle Sam Who Wiggles his Wings."

And, a few minutes later, more silk came addressed to "Wiggly Wings, Tempelhof Airport," the "Chocolate Pilot" and the "Bon-Bon Flyer." Within half an hour, 50 percent of the chutes had been returned and Halvorsen had not only won his bets, but had had a genuine token of faith.

By this time the German papers discovered the name of "Wiggly Wings" and fan mail started swamping Halvorsen from children and parents all over Berlin.

Children of all ages at Tempelholf had become almost unmanageable in size. As many as 500 people a day waited to greet "Wiggly Wings" and Halvorsen was afraid that smaller youngsters, might get hurt by the pushing mob when he dropped candy. Instead of always making his target the side of the field, he had his engineer drop the packages in scattered parts of the city, wherever he saw open places and children playing.

One day an official from the Department of Public Health sent letters to Halvorsen which had been given to him by bed-ridden children in one of the Berlin hospitals. These letters implored Halvorsen to try to drop a bundle in the hospital yard because some of them could walk well enough to go out and get it, and then they could see one of these famous packages and divide the candy.

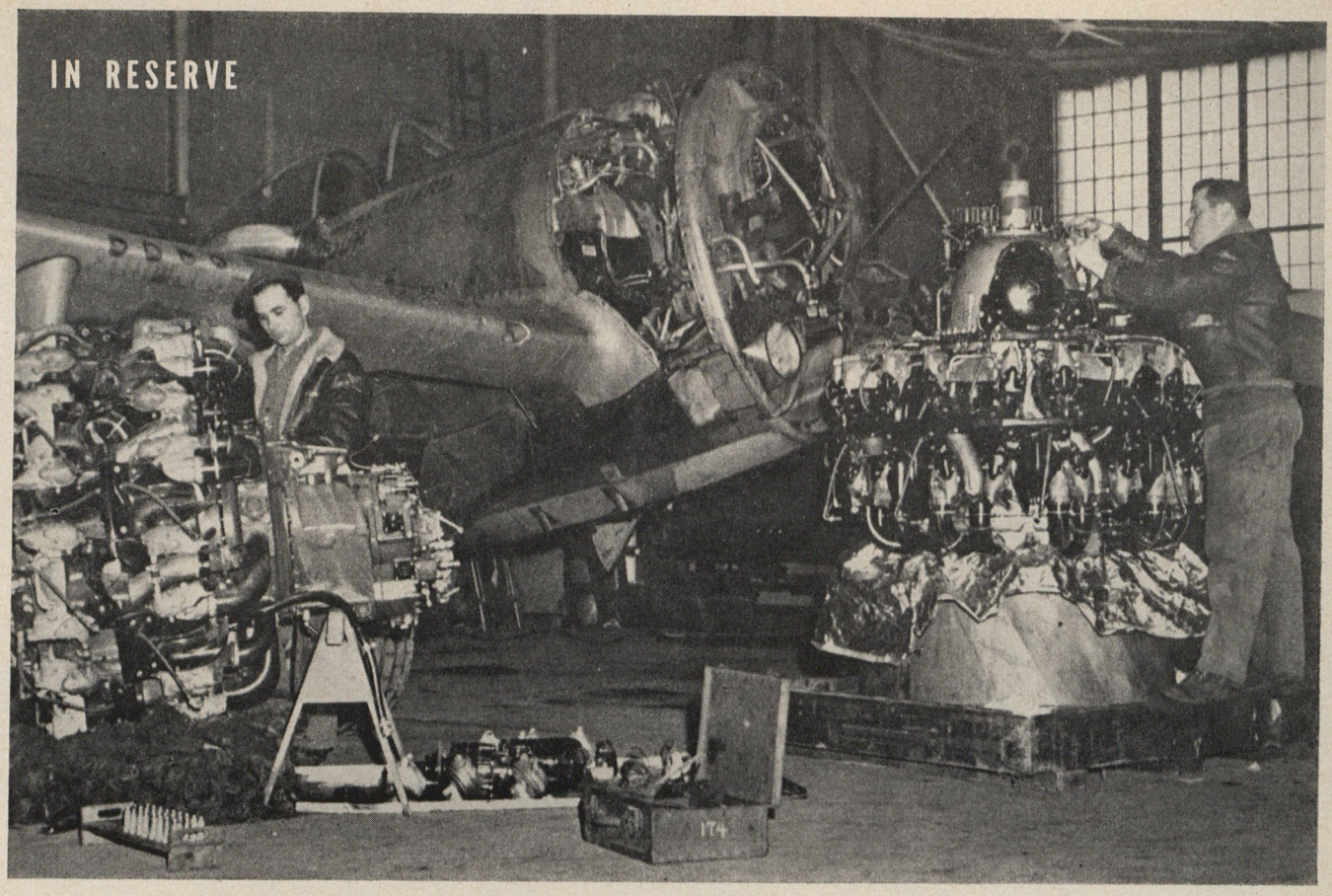
Halvorsen waited for his next 12-hour leave and once again hitch-hiked to Berlin. He and the health official went out to the hospital taking the letters with them and asking to meet the children who wrote them.

Halvorsen would show the letter to a child and say, "Did you write this?"

(Continued on page 44)

In Reserve

AN *AIR FORCE* DEPARTMENT



"Why destroy a force in being, the Air Guard—poor as it may be, to experiment with a speculative substitute program?"

A US NATIONAL GUARD

Idaho's Adjutant General replies to his Air National Guard Commander

and presents a compromise plan for merging the USAF's reserve forces

By John E. Walsh *The Adjutant-General of Idaho*

I am what you might call the commanding general of one of those 48 little air forces referred to by Tom Lanphier in his article in the January issue of AIR FORCE Magazine.

Colonel Lanphier flies an F-51 with his 190th Fighter squadron of the Idaho National Guard. Like a good many generals, I drive a desk.

But, I am just as thoroughly convinced that this nation needs an air arm in being and in reserves second to none as any Air Force man today, and that includes Colonel Lanphier, for whose forthrightness I have the greatest respect.

However, I differ with his argument on federalization of the Air National Guard with the Air Force Reserve, or their combination, however you want to put it. And, I differ quite strongly with some of the contentions in his article.

I believe the Air National Guard should keep its identity. Why not merge the Reserve and the Guard with joint state and federal control as the National Guard of the US? To take a leaf from Lanphier's book, if this is heresy for an old National Guard officer who is supposed to be neck-deep in states' rights, so be it.

But we'll get to that later. I have studied Tom's article, and underlined certain portions of it I believe should receive prompt answer. I will screw down my swivel chair and dig in.

Throughout his article, the colonel refers repeatedly to the shortcomings of the Air Force in asserting its control over Air National Guard units which, he says, makes the units "luxurious flying clubs."

Let me quote: "The service's ingrained fear of asserting itself too positively in National Guard affairs, lest it stir up political resentment in the form of a crimped Air Force budget sometime later, results in an unfortunate hands-off policy toward Air Guard training and leaves every state on its own."

I would ascribe this as a shortcoming of the Air Force, and not anything that would make the Air National Guard suspect. Lanphier says the Guard lacks specific and continually renovated training programs from the Air Force. In effect, he says the Air Force does not interfere because it is afraid to. Yet the Air National Guard is supposed to comprise some two-thirds of Air Force readiness.

It appears to me that the Air Force is thus under a charge of lacking the moral courage, the character, the aggressiveness and the leadership required to keep its Air National Guard components at high level.

This is a poor reflection upon the Air

Force that is, by all competent observation, the backbone of our national defense. If the Air Force cannot lead an Air National Guard unit (or 48 of them) in training programs designed to improve Guard proficiency in combat-type planes, what could the Air Force do with a multiplied membership in a combined Reserve-Air National Guard structure?

It does not appear to me that any Air Force man who overlooks Guard shortcomings because of any fear of political repercussion is worth the position he holds. He is the one who is a member of a flying club, not the Air National Guard personnel who expect some form of direction from above.

The colonel says the only F-51 directive he has is one he wrote himself five years ago. If that is so, what does the Reserves have? Does it have any? All I know about this is that at present Idaho (although one of the 48) has a group of young men who have the airplanes and are getting in the practice under a competent leader, who is Lanphier. Yet if he himself assesses lack of direction to the Air Force, I submit that the Air Force is not doing its duty, and should begin to do it. This is no time to tolerate officers in an air arm who are afraid of politics in the training of men who may be called upon to go out and fly and die in the defense of their country. It is shameful.

That "flying club" business galls me. I do not see it that way. I do not believe that any young man who flies two or three hours a week in a fighter plane because he feels incumbent upon himself the necessity of staying in fighting trim is a member of any flying club. If there are men in Air National Guard units who merely are "logging time" for the fun of it, they should be dismissed immediately. They are not the ones upon whom we depend.

Colonel Lanphier speaks of the Idaho Guard's inability to fly its aircraft enough. He says that instead of 27 pilots he should have 100. I agree with that wholeheartedly. But I am just as firmly convinced that if those 100 pilots were members of the National Guard, and the Air Force was doing its stuff in directing them, they would be just as valuable as any federalized Guard-Reserve unit ever could be.

We must not overlook the fact that a framework is basic. We have in the Air National Guard a framework that is working at the present time. If what the colonel says about lack of Air Force direction is the actual picture, the framework literally is pulling itself up by its own bootstraps. But it is there. What does the Reserve have? Not much. What would you have if you dumped into this framework the Reserve boys and tried to stretch it out to contain them all? I think you have something like a dollar with 300 pennies.

I believe we could just as economically make of the National Guard a National Guard of the United States, retaining its character, its unit identity, its spirit of locally-generated recruitments, as we could make of the National Guard a Reserve unit.

Let's take those Reserves, eager and willing to fly, into an expanded National Guard. Let's not stop what we are doing now and start all over again.

I do not see how the states' rights argument can apply to the Air National Guard. I don't know of anyone who would be foolish enough to argue in time of emergency that state lines can hamper a fighter plane or a light bomber. The men who would do so are incompetent and bumbling and have no place in a defense based on wings. I think that point does not belong in any discussion of Air National Guard-Reserve combination.

The real trouble with both Reserve and Guard components is that no one is really satisfied with the training program. Peace time training lacks the motivation, emotional and financial, found under war conditions. It is like trying to coach a football team who knows it may never play a game, yet might—just might—be asked to fly some day and shoot the guns.

Could we call the 190th Fighter squadron of Idaho, for instance, a happy lot of sandlot amateurs? Not specifically, yet they might have that attitude. And, perchance, could *that* be ascribed to lack of Air Force leadership? What would the Reserves bring to us?

I think conversion of the 190th Idaho National Guard to the 190th Organized Reserve corps would make it worse. It would cost the squadron the only tangible source of motivation it now has, and that is community pride. We can keep the community pride by opening up the National Guard quota. Open it up, and get the live wires out of the Reserve into the Air National Guard.

It is damnably unfortunate that Reserve pilots have not been permitted to fly and train with Guard units. On several occasions both the Senior Air Guard officer in Idaho and the State Adjutant General made such a proposal to higher headquarters. Nothing came of the proposal.

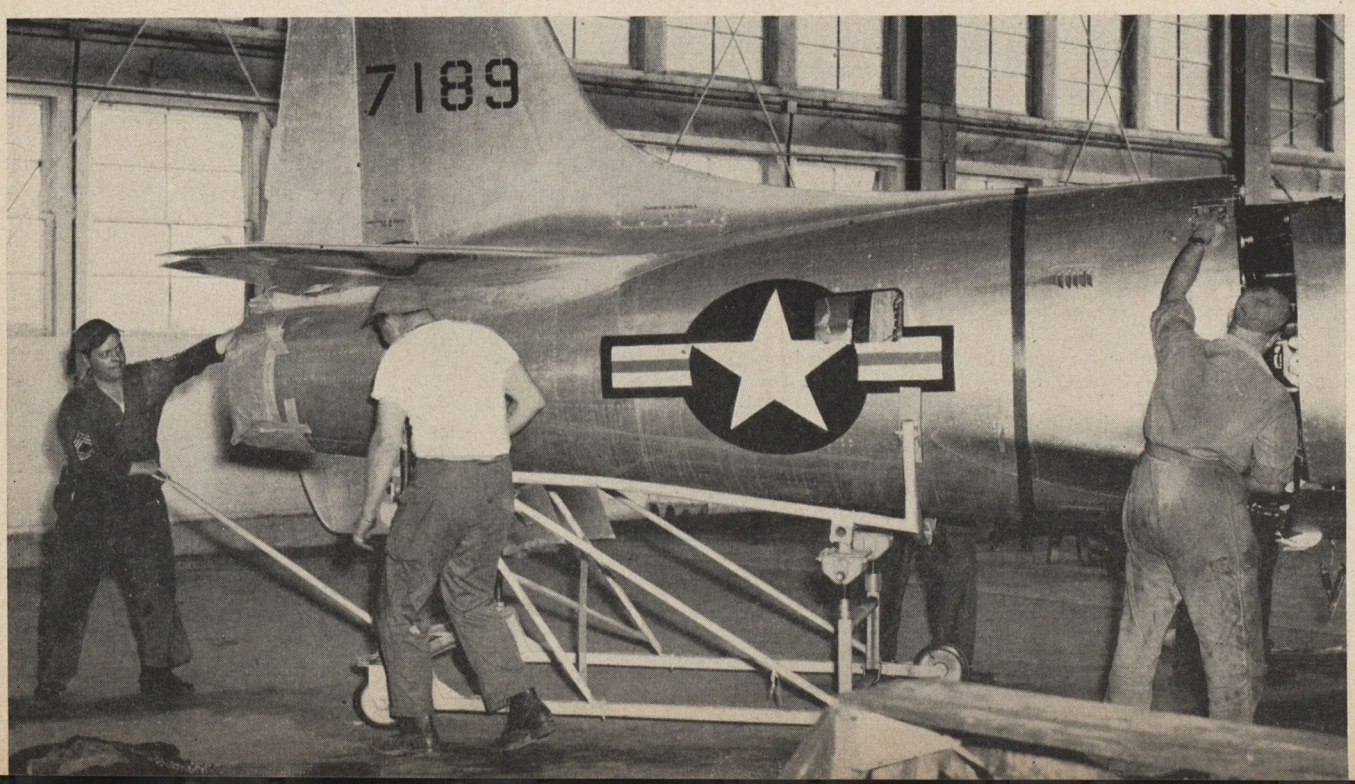
In order to eliminate the waste of duplication, Reserve and Guard *should* be merged in ground as well as air units, but not under absolute federal control. As Lanphier points out in his article, the Air Reserve program is not particularly "setting the world on fire."

Why destroy a force in being, as poor as it may be, and I mean the Air National Guard, in order to experiment with a substitute program?

I repeat, why not merge the Reserve and the Guard with joint state and federal control as the National Guard of the United States? Such a merger with suitable compromises is both feasible and practicable.

Thanks for the opportunity to reply to Colonel Lanphier's brilliant article. From such debates as these come the things that make us strong as a nation —and that is freedom of expression.

"We have in the Air Guard a framework that is working at the present time. What does the Air Reserve have? Not much."



IN RESERVE LETTERS

The SOP of AR and NG

Gentlemen: Since receiving my Air Force Reserve commission in June, I have completed a 20-week Intelligence Training course, and have been awarded a 9300 MOS (Mil. Intell.). How many credit points do I receive for completion of the course? Is there any way I can request and hope to receive the 25-week aerial photography course at Lowry Field upon requesting extended active duty? Any information will be greatly appreciated.

G. J. Raymond
Columbia, Mo.

• *Par 8, AF Reg 45-5, 6 July 1948, states that a maximum annual credit of 260 is allowed for successful completion of extension courses. For each extension course sub-course successfully completed, the number of credits specified for such sub-courses will be awarded. At the time you submit a request for extended active duty on WD AGO Form 125 you may make a request, under the remarks column, for the aerial photography course at Lowry Field. At this time no assurance can be given that you will attend this course.*

Gentlemen: Please give me more information on the retirement pay for Reservists.

K. R. Stratford
Euclid, Ohio

• *Information regarding retirement pay for Reservists may be found in AR 615-395 and AR 35-3420.*

Gentlemen: I am a member of a Reserve squadron but am thinking of applying for a change from my present MOS (1034-Navigator) to that of pharmacist. Is this possible, and what procedure should be followed? Would I then be in the Air Force Reserve or the Army Reserve? If the Army Reserve, what are chances of being attached to the Air Force?

Joe A. Arwine, Jr.
Floydada, Texas

• *You may apply for a change in your present MOS or request an additional MOS. In any event you will remain a member of the Air Force Reserve. For further information check Continental Air Command letter 45-2 "Change in primary MOS and award of additional MOS to personnel in a Reserve status."*

Gentlemen: I was discharged from active service on June 28, 1945, as 1st lieutenant ORC with MOS 1035. In April 1948 I inquired about my Reserve status and was told that it terminated in December 1946. I took a physical in April 1948 for Reserve and to date have had no acknowledgment. How can I expedite same so that I can get back on active duty either in my MOS or some other category in line with my civilian experience?

David Lieberman
Bronx, N. Y.

• *You should submit application for a Reserve commission to Headquarters, 1st Air Force, Fort Slocum, N. Y. This may be accomplished by WD AGO Form 170. A report of your physical examination must accompany this form. Contact 1st Air Force as your records will be on file there.*

Gentlemen: Could you give me information regarding the story that ex-prisoners of World War II can collect rations and quarters for the time spent in prison camps?

Joseph Lane
New York, N. Y.

• *Ex-POWs can apply for repayment of rations (not quarters) under the provisions of Circular 289. P.L. 896 also provides for POWs to make claims for maltreatment, loss of possessions, etc. Details can be obtained through Base personnel officer or by writing to AGO, Operations Branch, USAF Hq., Washington 25, D. C.*

Gentlemen: With regard to the Air Force Technical School at Wright Field, I would appreciate whatever information you can send concerning enrollment and requirements.

W. H. Barnes
1st Lt. AFR

• *USAF Letter 50-70 provides detailed information relative to requirements at the Institute. Reserve officers must be on a tour of extended active duty to be eligible to apply. Because of the large number of applicants for admission to the Institute, competition is very keen for the openings which occur. Enrollment is currently limited to approximately 300 students.*

Gentlemen: I was F/O in the AAF. I sent in my application, and took all the tests for a commission in the Air Force Reserve. Everything went through in fine shape except for the fact that I did not finish high school; so, the application was sent back to me without action for disposition. The question is, could I take the GED test mentioned and send the papers back, or have they rejected me completely?

Harold L. Hale
Alamos, Colo.

• *GED test can be taken and if passed will serve as credit for high school education.*

Wanna know how to collect in the Reserve? It's in Regs

Next toughest thing to finding out how to get in and work with the Reserve is finding out how to get paid after you're in. In an effort to help clarify the situation, AIR FORCE herewith publishes pertinent extracts from AF Regulation 45-10. If this doesn't help write us a note about your particular problem and we'll see what we can find out for you. The extracts follow:

Policy: (a) USAFR personnel assigned to the Organized Air Reserve will be eligible to receive inactive duty training pay. (b) Personnel will be paid, on a quarterly basis, in accordance with the following priorities: (1) Individuals who have a mobilization assignment. (2) Individuals who have an assignment to a USAFR T/O&E unit.

Inactive Duty Training Pay: (a) Mobilization assignments. (1) * * * * (2) Not more than 48 training periods per fiscal year will be authorized personnel with a mobilization assignment for inactive duty training pay purposes. (3) In order to qualify for inactive duty training pay personnel holding mobilization assignments will attend a minimum of eight training periods per quarter per fiscal year. (4) Rated personnel with other than aircrew assignments will not be considered to have participated in a training period by virtue of individual flight training activities. (5) Rated personnel with aircrew assignments will not be considered to have participated in a training period by virtue of flight activities unless such training is authorized by competent authority and accomplished with the organization to which assigned or with a similar organization.

(b) USAFR T/O&E Unit Assignment. (1) * * * * (2) T/O&E units will be authorized unit training assemblies for pay purposes as follows: (A) Class A units specifically designated for prompt mobilization by the Department of the Air Force will be authorized a maximum of 48 unit training assemblies in each fiscal year of which not less than two or more than six will be conducted in any calendar month. (B) Class A units not specifically designed for prompt mobilization and Class B units will be authorized a maximum of 24 unit training assemblies in each fiscal year of which not less than one or more than three will be conducted in any calendar month. (C) Class C units will be authorized a maximum of 12 unit training assemblies in each fiscal year of which not less than two or more than four will be conducted in any fiscal quarter. (3) In addition to the other requirements listed in this directive, personnel of T/O&E units will qualify for inactive duty pay, not including additional pay for flight training, when at least 60 percent of the officer strength and 60 percent of the enlisted strength assigned as of the date of such assembly, attend an authorized unit training assembly.

USAF Gives Latest Poop on Recall to Active Duty

These days it's tougher to get in than it is to get out. Field grade officers have had it. So have rated men of all grades

Since the US Air Force last October offered former officers an opportunity to return for extended active duty, thousands have responded. As we were going to press, the Air Force informed us that many of the vacancies have been filled—including some of the vacancies that were open when the AIR FORCE advertisement was prepared for this issue.

All assignments available to field grade officers have been filled. Also filled are all vacancies for rated officers in all grades, except rated officers with experience in radar navigation. Specialties in which vacancies no longer exist include supply, inspection, intelligence and public information.

The Air Force informs us, however, that vacancies still exist in professional and technical fields. Officers commissioned in the Air Force Reserve or the Air National Guard still have the opportunity to volunteer for three years of active duty in the highest grade held prior to relief from wartime active duty, if they meet these requirements:

Grade—First and second lieutenants.

Age—Applicants should be under the age of 40.

Rating—All applicants must have high efficiency ratings.

Commission—Officers must be commissioned in the Air Force Reserve or the Air National Guard of the United States. Former officers who do not now hold commissions may apply for US Air Force Reserve commissions at the same time they volunteer for duty.

Experience—Special consideration will be given to applicants who are college graduates and who have military or civilian experience in communications, chemistry, weather, air installation, radar navigation, aeronautical engineering, photography, physics, or law.

The Air Force still is seeking former servicemen whose experience qualifies them for immediate assignment to the United Kingdom and Western Europe in support of "Operation Vittles" and the B-29 training program.

Qualified veterans will be accepted for enlistment in grades commensurate with their ability and military experience. Unmarried men will be accepted in grades up to and including technical sergeant. Married men must qualifiy for grades of staff sergeant and technical sergeant. Dependents of these men cannot presently be sent overseas.

Skills needed include aircraft maintenance; radio, radar; automotive equipment operators; repairmen; typists and cooks.

55th Wing now completed

The 55th Fighter Wing of the Air National Guard has completed the organization of all of its units, it has been announced by Maj. Gen. Kenneth F. Cramer, Chief, National Guard Bureau. The 55th Wing is the seventh Wing of the Air Guard to complete its organization.

Under the command of Brig. Gen. Errol H. Zistel, the 55th Wing is headquartered at Columbus, Ohio, and has units in Kentucky, West Virginia, and Ohio. The Wing includes one light bomber and five fighter squadrons and supporting units and has an approximate strength of 2670 officers and airmen.

Air National Guard organization is now more than 94 percent complete, with 485 of its 514 units federally recognized. Of the 84 Air Guard fighter and bomber squadrons, 80 have completed organization. Air Guard strength is now approximately 36,000 officers and men. The budgetary ceiling established for June 30, 1949, for the Air Guard is 51,118 men.

Air NG gets Radar from WAA

Electronic equipment has been obtained from the War Assets Administration for distribution to Air National Guard units in the US, the District of Columbia, Puerto Rico, and Hawaii.

Made up of radio and radar receiver and transmitter component parts, power supplies, and a large quantity of electronic spare parts, the equipment has been shipped to Griffis Air Force Base, Rome, N. Y., for inventory, screening, and processing.

It will be sorted for material suitable for use by the Air National Guard radar and communications network, for fighter and bombardment squadrons, Aircraft Control and Warning and Communication Units, weather stations, and other units. Eventually the screened electronics material will be distributed among the several states, to be used for training of the Military Amateur Radio System of the Air National Guard and maintenance of equipment already on hand for which spare parts are not readily obtainable.

Legally 'tain't possible, but Navy airman transfers to USAF

Legally there is no provision for transferring from the Navy air force to the USAF or vice versa. Last month, however, Senior Navy Lt. Howard K. Hoover of Arlington, Va., got his picture in the papers by doing just about that. Hoover was in the Naval Air Reserve and was recalled to active duty as a captain in the USAF for assignment to the Berlin airlift. How did it work? Like this, the Air Force explains: Individuals with honorable and creditable service as commissioned officers in any of the armed service of the US may, if found eligible, be appointed in the USAF Reserve. If individuals are physically and otherwise qualified, it is the policy of Headquarters, USAF, to tender appointment to applicants of the US Naval Reserve in the grade corresponding to that held in that component.

Before an individual in the US Naval Reserve may be considered for appointment in the USAF Reserve, however, it is necessary for him to resign his present commission. Applicants (in the event there are any Navy readers) should submit their resignations to the Secretary of the Navy, Washington 25, D. C., through local Naval Districts and Bureaus of Navy Personnel, stating they are under consideration for appointment in the USAF Reserve and desire their resignations be effective preceding appointments in the USAF.

Upon receipt of a conditional resignation from the Naval Reserve, the applicant should complete DA AGO Form 170, in triplicate of course, and forward direct to Chief of Staff, USAF.

Truman budget message asks 35% more for Reserves

In his annual budget message to Congress, President Truman last month asked for 35 percent more funds for the Air National Guard, Air Reserve, and Air ROTC than were appropriated for fiscal 1949. He asked for $82,000,000 for the USAF Reserve, $115,000,000 for the Air National Guard, and approximately $11,500,000 for Air ROTC. This, he said, would provide for a 27 group Air Guard and Reserve and an Air ROTC program twice the size of the present one. There was no indication of how these figures compared with requests submitted by military chiefs of the Reserve components.

The estimates for the civilian components, he declared, will enable the Air Force to place a higher emphasis on the degree of training and will insure the building up of an adequate Air National Guard and Reserve.

Although combined with Army appropriations for the current fiscal year, allocations to the Air Force for these same programs in 1949 included $71,330,395 for the USAF Reserve, $78,045,522 for the Air National Guard, and $6,089,000 for the Air ROTC.

The 1950 estimates, according to President Truman, will provide for a training program averaging 125 flying hours per year for the pilots in the Air Guard; 100 hours per year for pilots in the Air Force Reserve; inactive duty training in drill pay for 49,500 in the Air National Guard and 67,512 in the Air Force Reserve. The funds also provide for an increase to 63,000 personnel in the Air Reserve Officers Training Corps students enrolled at 139 universities and colleges.

WHAT'S DOING

at Pratt & Whitney Aircraft?

Frequently, people ask us, "What's doing at Pratt & Whitney Aircraft?" It is a thought-provoking question and perhaps you would be interested in some of the answers. Through messages like this we hope to share with you some of our aims, some of our problems, and some of our achievements.

As you know, Pratt & Whitney is in the business of producing horsepower and thrust. It is highly complex — this work of designing, developing, testing and producing aircraft power plants. Even long after an engine has reached the production stage, a corps of engineers is hard at work refining its design in the light of the latest knowledge and experience. Simultaneously, another group of engineers is concentrating on the engines that will be put on the production lines tomorrow.

As matters stand today, we are hard at work in three major fields. First, we are delivering the Turbo-Wasp*, the first turbo-jet engine to bear the famous Pratt & Whitney emblem. This project involves an entirely new set of problems and responsibilities, since completely new production techniques are being developed and proved. This engine is designed to power some of today's fastest fighter aircraft.

Second, we are producing and continually refining the Pratt & Whitney reciprocating engines which have become known the world over for their dependability. These engines will continue to power the long-range, load-carrying aircraft for a long time to come. A new member of this famous family — the Wasp Major-VDT — brings to it some of the advantages of turbines while retaining the advantages of the piston type.

Third, we are devoting hundreds of thousands of man-hours of engineering to the design and development of new turbine types to meet the needs of America's future airplanes, still shrouded in secrecy.

To keep all this going on smoothly, thousands of our employees are engaged in production. Other thousands are busy in our various test sections, wind tunnel experiments, flight test activities and field service branches — all contributing to the hum of activity at Pratt & Whitney, all helping to make our engines the finest that engineering skill can produce.

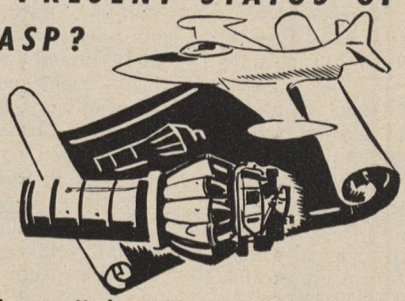
WHAT IS VDT? WHAT ARE SOME OF ITS BENEFITS?

- ☐ A piston engine?
- ☐ A turbine?
- ☐ Combination of both?
- ☐ High octane fuel?

Several months ago we announced the development of a new type engine. This is a combination of a conventional piston engine and a turbine. It is called VDT — or Variable Discharge Turbine. A highly developed form of this engine is the R-4360 Wasp Major-VDT. This power plant gives promise of adding considerably to the range of heavy bombers and strategic transports.

The first installation of the Wasp Major-VDT is in the Boeing B-54. With its four engines, this bomber will have more than 16,000 horsepower at takeoff and will show substantially improved performance.

WHAT IS THE PRESENT STATUS OF THE TURBO-WASP?

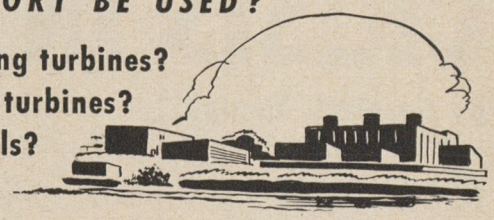


- ☐ Design stage?
- ☐ Development?
- ☐ Testing?
- ☐ Production?

In a sense the answer is — all four. The Turbo-Wasp has passed its official Navy 150-hour type test and engines are coming off the production lines. At the same time, engineers are hard at work on the same type power plant to make it more efficient, more powerful, more dependable. Already some of these engines have been delivered to Grumman for their latest shipboard fighter, the F9F Panther. The type on the production lines right now is known as the Turbo-Wasp JT-6 ("J"-jet, "T"-turbine, "6"-sixth model). This engine has the highest thrust rating of any turbine engine in production in this country.

FOR WHAT WILL THE NEW TURBINE LABORATORY BE USED?

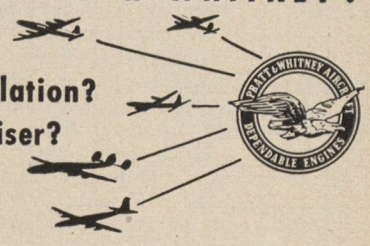
- ☐ Producing turbines?
- ☐ Testing turbines?
- ☐ Materials?
- ☐ Fuels?



On the bank of the Connecticut River, not far from the main plant, the second unit of our new Turbine Laboratory is now more than half finished. The first unit, which has been supplementing our other test facilities, has been in operation for more than a year. Already it has proved invaluable. The new lab will be used entirely for testing turbine-type aircraft engines and their component parts. It will be one of the largest and most completely equipped laboratories of its kind in the United States. To dissipate the tremendous heat generated by the engines under test, huge pumps will draw from and return to the river 7,500,000 gallons of water every hour; nearly four times as much water as is used by the entire city of Hartford in the same period of time. The entire unit is scheduled to be in operation by September of this year. From it will come new, more powerful, more dependable aircraft power plants for the future.

WHICH OF THE NEW AIRLINERS ARE POWERED BY PRATT & WHITNEY?

- ☐ Douglas DC-6?
- ☐ Lockheed Constellation?
- ☐ Boeing Stratocruiser?
- ☐ Martin 202?
- ☐ Convair-Liner?



All but the Constellation are powered by Pratt & Whitney — the Stratocruiser by 3500 horsepower Wasp Majors and the others by 2400 horsepower Double Wasps. Virtually every airline in the world is now employing Pratt & Whitney-powered transports. In the Berlin Airlift, well over 90% of all airplanes participating — both American and British — are powered by dependable Pratt & Whitney engines.

PRATT & WHITNEY AIRCRAFT

EAST HARTFORD, CONNECTICUT

ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION

Boeing C-97 has a payload of approximately 20 tons—twice that of the C-54. But AF has less than dozen operational.

CRISIS IN AIR TRANSPORT

By Harold L. George,
Lt. Gen., USA (Ret.)

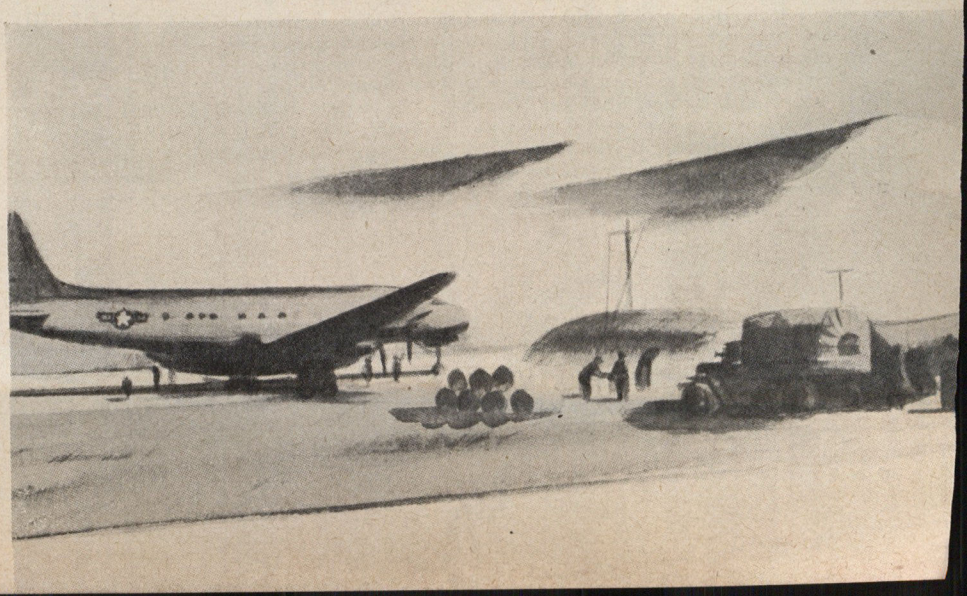
Although the future will provide our airpower with types of aircraft and weapons which will enable this nation to apply force to any part of the world from North American bases, it is recognized by everyone that some years will elapse before such airplanes and weapons become available in quantity.

If war should occur within the next two or three years, it undoubtedly will be fought with the types of aircraft and weapons which are now being produced by our aircraft and allied industries. That means that such a war, to be successfully prosecuted, will demand secure bases in other continents. It will require, also, the ability to support logistically from the US the forces located on those bases. Although the size of those forces (which will consist of organizations of the US Air Force supported by adequate ground forces to insure their security) will not compare in numbers to the military forces which this nation maintained in Europe during World War II, their logistic requirements in tons will be tremendous. Also, there must be no interruption in the flow of supplies to those forces if they are to continue uninterrupted air operations into the vital parts of the economic, social and industrial structure of the enemy.

We all know the nearly disastrous losses sustained by our Merchant Marine during the early part of World War II in its efforts to maintain the movement of war supplies and materiel across the Atlantic Ocean. There were times when the monthly losses were so tremendous as to be almost prohibitive. Hundreds of thousands of tons were the monthly toll exacted by the German submarines along our supply line across the Atlantic Ocean. Just how many submarines are now in the possession of Russia and how many of these are of a type that would make detection difficult, if not impossible, is a matter of conjecture. It is known that at the end of the war Germany had produced a type of submarine that almost, if not actually, defied detection; in other words, a submarine capable of operating with practical immunity. Further, these submarines had developed underwater speeds well exceeding the surface speeds of our cargo vessels, removing at one jump the greatest barrier to their effectiveness in the past. With such a weapon in Russia's possession in reasonable numbers, the logistical problem of maintaining a large air force with its ground supporting forces through the use of surface transport, either in North Africa or in the British Isles, might become impossible.

It is my opinion, however, based upon a knowledge of the new type of large military transport aircraft now in existence and which could be immediately placed in production, that the support of the air and ground forces mentioned could be accomplished, in major part, through the medium of air transportation. Admittedly this is a large order, but we must also admit that it might be the only way in which our offensive operations in the event of a war can be accomplished.

It is more difficult than navigating between Scylla and Charbydis for a military man to turn a large part of his financial resources into the building of a logistical agency when his organization for the application of military power against the vitals of an enemy is inadequate to carry out his plans. I, for one, am not suggesting that the funds now available, which in my humble opinion are inadequate, for building our US airpower should be diverted to build a strategic air transport organization for the support of that airpower on distant overseas bases. However, I do believe that the absolute necessity for the existence of such a strategic air transport agency, and the size of that air transport agency, must be immediately brought to the attention of the people who control our military appropriations. The building of a strategic air transport command, upon which the logistical support of our overseas air forces and supporting military forces may depend, will probably cost several billions of dollars. However, it may well represent the difference between a speedy victory or a long drawn out costly war, and even spell the dif-



ference between victory or defeat.

No overseas military operation on a large scale has ever been possible without a gigantic logistical organization supporting it. In the past that logistical organization has consisted of millions of tons of seaborne commerce. We are now in a new era—although some of our thinking people refuse to recognize it—and to tie the effectiveness of our airpower to the success of a seaborne Merchant Marine is a strategic error. It would be like the knight of old attaching the point of his javelin or the head of his ax to a flimsy reed that might break the first time the knight had occasion to use those weapons for his own protection.

Airlift was a new factor which deeply affected the last war; should there be another war, its whole character will be changed by this element. Yet, air transportation has reached its present importance in so short a time that even many highly placed military men are not fully aware of its significance and capabilities.

Prior to 1942 the principal military exploitation of airlift was tactical, as in the German invasion of Crete. In July 1942 the Air Transport Command was organized. For the first time there came into being an organization explicitly formed to exploit the fullest strategic value of this new mode of military transportation. Although ATC operated under the direct control of the Commanding General, Army Air Forces, it was in fact an instrumentality of the so-called High Command and actually functioned as such. It was the War Department which allocated the available airlift to the various theaters. The theater commanders, in turn, assigned priorities within the allocated lift to the personnel and materiel they wished to have carried. Thus, the Air Transport Command retained the flexibility possible only under single control at the highest level, while remaining responsive to the needs of each theater of war.

The history of the last war is replete with innumerable instances of where strategic air transportation had a decisive influence upon the carrying out of vital operations throughout the world. Everyone is acquainted with the historic performance of ATC in maintaining the logistical life line between

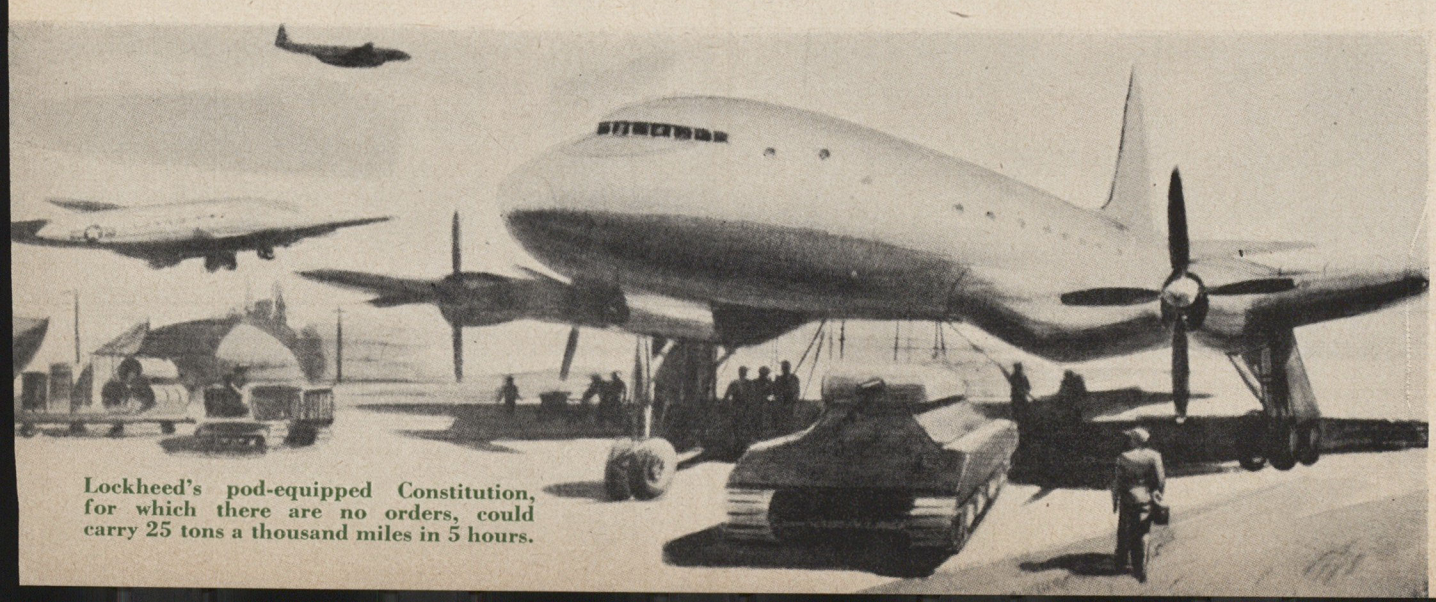
(Continued on page 48)

Above is first picture released of mock-up of new Douglas C-124, an improved and bigger version of the DC-7. So far Air Force has ordered only 28 of them.

In mid-December the Military Air Transport Service made its quarterly report to the Secretary of Defense. Of paramount importance to the security of the nation were two paragraphs in the middle of the paper. "There exists in MATS" the statement said, "a positive requirement for aircraft replacement and modernization during the next five years.

"The obsolescence of the C-54 fleet is such that by July 1952 all the present aircraft will be second line planes and, as long as the Airlift continues, the rate of obsolescence will continue to increase."

Believing that the logistics of any future war will be *air*-logistics, and that any potential enemy would like nothing better than for us to deplete our "rolling stock", AIR FORCE asked Gen. Harold L. George, war-time commander of the ATC, to give his views on the matter. Here they are.



Lockheed's pod-equipped Constitution, for which there are no orders, could carry 25 tons a thousand miles in 5 hours.

"IN CASE OF ACCIDENT"

By Flight Officer Eddie Wilczynski
As told to Lieutenant Lynn C. Mahan

When you're lost for 19 days in northern snows, you can still crawl home—even with a broken leg

February, 1943: This was the month after the first 8th Air Force mission against Germany proper. Colonel Curtis LeMay had been in command of one of the groups. It was a milk run he said. It was also the month the 12th Air Force and units of the RAF merged as the Northwest African Air Force. And in the Arctic it was the month of big snows. . . .

My biggest worry was whether I'd ever be able to fly again. I wasn't so scared of dying as I was of losing that leg. A wooden-legged pilot couldn't fly for the Army.

You know, the day we got back to the hospital here in Edmonton, I received the two best pieces of news I ever expect to hear. One was that they wouldn't have to take off my leg. The other was that my staff-sergeant days were over—I had got my flight-officer commission. Can you tie that—after lying up there in the snow for nearly three weeks?

You want to know what we did to save ourselves. I'll tell it the best I can because it might help somebody else in a similar jam. As I figure it, the crash happened this way. We were in a cargo ship, and the Captain, pilot John Hart of Minneapolis, was making an instrument landing because of the snow that had been falling for several hours after we headed south out of Fairbanks. We had delayed a couple of hours, looking for a lost bomber which later turned up.

When we got over the field where we were landing for the night, we were up about 8000 feet. I was standing in the companionway just in front of our passenger, Robert Alexander of Denver, and telling him about how the instrument let-down was made. The last time we went over the field, I calculate we were around 1000 feet and losing air speed fast. I could hear the copilot, Kenneth W. Jones of Elyria, Ohio, calling off our speed—100, 90, 80, and so on. That was when I first got worried and thought we would crash. The last count I heard was 60, and then we stalled. We fell off on the left wing, but the Captain brought her out of the spin, and she was going nose first and level when she began to clip off the trees. This made a noise like spanking the wings with the palm of your hand. Then she hit a big tree that didn't clip off. She stopped—and suddenly.

I had started to back up in the companionway when I first saw we were in for it. I kind of pushed Alexander to the rear, so both of us could lie down. We were flat on our backs with our feet braced, and I guess that saved us. Afterward, my left foot was so tangled in wires and controls around the instrument board that I had a devil of a time getting it loose. My head was alongside the front baggage door, which had been torn off. The plane's nose was cut off from the front edge of the pilots' seats. They had been killed instantly.

My first thought was to get out of the ship. I didn't feel any pain and didn't know my leg was broken till later. I put my hands out through the baggage doorway and tried to touch the ground, but it was too far—three feet, I gu ss. Then I scrunched forward out of the door and let go. That's how I hurt my shoulder, which is better now.

Gasoline was leaking as if it were coming out of a water faucet. I was afraid of fire. I dragged myself 10 or 15 feet off to the side and then stopped and hollered, "Anybody else alive?" There was no answer. I yelled again. Alexander, who was still in the plane, called back, "Can somebody give me a hand?" I started to crawl to the back of the plane, thinking I could help him out of the rear door, which would be lower to the ground. I bumped into the trailing edge of the left wing and somehow caught some deicer fluid in my mouth. Did it burn!

The crash, which occurred in attempting to make an instrument landing during a heavy snowstorm, was only six miles from base, but unapproachable by air.

In this battered hulk, F/O Wilczynski and his friend met their darkest hour.

It was Arctic-dark, and I was afraid to light matches. While I was lying there, Alexander found the same door I came out of. We listened to the dripping gasoline until we decided it wasn't going to catch fire, and then we crawled back into the plane.

We didn't sleep that night. We figured we had crashed at 11:20 PM, and it was a half hour later now. We were dog-tired from the shock and everything (crawling isn't any picnic, as we found out later), but we were afraid we'd freeze to death if we went to sleep. Every 15 minutes one of us would call to the other to make sure he was all right. By this time I knew my leg was busted and I wondered about that, too. What would I do with a wooden leg, anyway? Alexander didn't know his foot was hurt at first. It was numb, and he thought one of his Arctic boots wasn't zippered up right. I tried to fix it for him—one of his arms had been paralyzed from a previous sickness—and then I told him, "Your foot is broken, too."

The next day we just tried to keep warm. It was still snowing—and kept at it off and on for five days. I heard from the airport later that it was 40 below that second night. We did manage to find the Army emergency rations and we nibbled at them for all the 19 days. For water, we ate snow. I'd scoop it off the wing through the emergency window, but it was full of pine needles and bark.

When no more snow was in reach, I beat the ceiling of the plane with a shovel and knocked more of it down off the roof. We didn't get enough and we were all dried up when they brought us in. I might add that we found the Army emergency bottle of brandy. It was frozen, but at the rate of two or three teaspoonfuls every hour we finished that in one day—for frostbite, you know.

Funny, how an experience like this changes your way of looking at things. Once I got a can of snow and tried to boil it on a little stove there in the plane. The hot can fell right side up on the back of my hand. Instead of jerking my hand away to keep it from burning, my instinct was to save the water. That's how I burned my hand.

We found a bed roll in the plane and used it for a mattress. Alexander got the wing covers, which we put over us, and that way we kept fairly warm. Anyway, it saved us from freezing. This second night we heard airplanes go over. I discovered we were so near the field that in the quiet of the woods I could tell when they taxied out to the end of the runway and revved up the motors. It was awful to lie there in the wilderness and hear civilization pass you by. Each night several planes would go. I got to timing the take-off and would calculate how long it took them to pass overhead. I figured 120 miles per hour, counting take-off and climb, and it took them three minutes to come over. This would mean about six miles to help. We thought they'd find us sure.

Trouble was the new snow covered up the plane. Then, too, the right wing was broken off and was standing up against a 60-foot spruce tree. It didn't look much like a plane even if they could see it. They didn't either, till the 18th day, and by that time we had almost given up hope. We had taken off—I mean crawled off like hurt dogs—when they found the ship. But I'll come to that later.

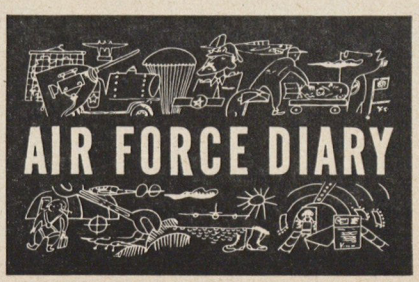
Mostly we stayed in the wreck under heavy covers, the first six days. I hadn't been able to find the flare pistols but did locate some warning signals like railroad fuses. When a plane was coming over, I'd light one of these and hold it out the window. But the light wouldn't even shine above the trees. We found the same trouble later when we built fires outside — the smoke wouldn't go above the forest.

During the second week we'd built a fire whenever it was clear. Dry wood was hard to find near the crash, and we'd burn crates from the plane. After a time we began to wonder whether they would find us. What did I think about? Mom and Dad back in Wisconsin—they were born in Poland, you know; my girl, Eleanor, whom I met in Hollywood during basic training; my kid brother, who's in basic training now. Then I would wake up thinking about hamburgers, and malted milks after basketball games. Or Mom's doughnuts after my cousin, Kuba, and I would return from hiking. We'd go every Sunday when I was off work at the paper mill. A funny thing happened once. At the mill I guess I handled tons of what we called blue batting. When Alexander's fingers froze I got out the first-aid kit and unwrapped the gauze. I noticed the paper wrapping was made by the mill where I had worked.

Well, on the 11th day we thought we'd better try to crawl to the airfield. Alexander, though, was afraid he couldn't keep up. He's older, you know, and he wanted me to go ahead alone. I didn't want to go off and leave him, but on the 13th day I started out, sort of on my hands and knees. I strapped my bad leg to the little toboggan sled, which the planes carry, and put a ski on my right foot. I'd lift the sled forward with my left foot, then slide ahead on my right foot. Three times I fell down, and it would take fifteen or twenty minutes to get up again. My broken leg would get tangled. About a quarter of a mile out I heard a plane testing its magnetos. The sound came from straight ahead, so I thought I was on the right track. But when the plane took off it showed up to the rear, and I knew I'd been thrown off by echo. I'd been out three hours in the wrong direction. It was uphill all the way, but I made it to the plane just after dark.

It was warm that day—maybe as high as 50 above. My clothes were wringing wet, and Alexander made me undress.

(Continued on page 44)



Capt. Reuben Baer, who headed research, checks exam with basic trainee. Tests were adopted after two years trial.

NO BUTCHERS AS BAKERS

Extensive research has led USAF to conclusi on there is no such thing as general aptitude

By Robert J. Boylan

It's an old gag. They used to say there's only one thing that fits you worse than the shoes they give you in the Army—and that's your job. Ph.Ds driving trucks, lawyers on kitchen detail (and vice versa!), and bookkeepers building runways and taxi strips. The truth is that the Army and now the Air Force have had few responsibilities that they have approached more conscientiously than the one of "fitting the job to the man." It is obvious that an air force made up of men enthused in their work is a more efficient organization than one composed of malcontents—square pegs in round holes, to use an old bromide.

Until recently the most efficient instrument by which an individual's capabilities and aptitudes could be gauged was the Army's General Classification Test. But the Air Force felt something more was needed. GCT proved to be better at determining overall ability than it did in indicating an aptitude for a particular job.

So, an outfit called the 3309th Research and Development Group was activated and stationed at Lackland Air Force Base in Texas. Capt. Reuben A. Baer, a member of the Johns Hopkins

staff for seven years, was placed in charge. For two years Captain Baer and his staff studied the problem. During that period experimental questions were given to about 100,000 basic airmen. The result: A new "battery" of 29 tests scientifically designed to "prove" the field in which an airman can achieve the greatest success.

In an abstract of their report Baer and his crew of psychologists say quite firmly that "There is no such thing as general aptitude or general learning ability." They admit that a general classification test has considerable value in some fields but not in selecting careers or in determining specific aptitudes. As they explain it "each task requires its own unique pattern of aptitudes."

The group started on the premise, simply expressed in their report, that new tests had to be devised to determine an airman's career field. They had the benefit of wartime tests, used in selecting air crews but never extended to thousands of other enlisted men. They also had available research of other psychologists on the challenging subject of matching men with career fields.

Finally, after two years of testing airmen and improving examinations they decided their methods had reached a high enough degree of efficiency to permit use on an operational basis. Consequently, shortly before Christmas 1948, all airmen began taking tests during their indoctrination period of 13 weeks.

Furthermore the psychologists reported "the adoption of the Airman Classification Test Battery (the official name for the square pegs in square holes process) should result in a substantial economy in the limited resources of talented personnel available to the Air Force."

Instead of scoring an airman's *ability* to learn, the new battery of tests examines him in 14 fields, requiring 3 to 60 minutes each to complete. Two days of the indoctrination period are set aside for these written examinations, given in classrooms.

Results of these tests accurately graded on IBM machines can give the psychologists just about everything they need in determining which of eight general fields an airman should enter for the greatest success.

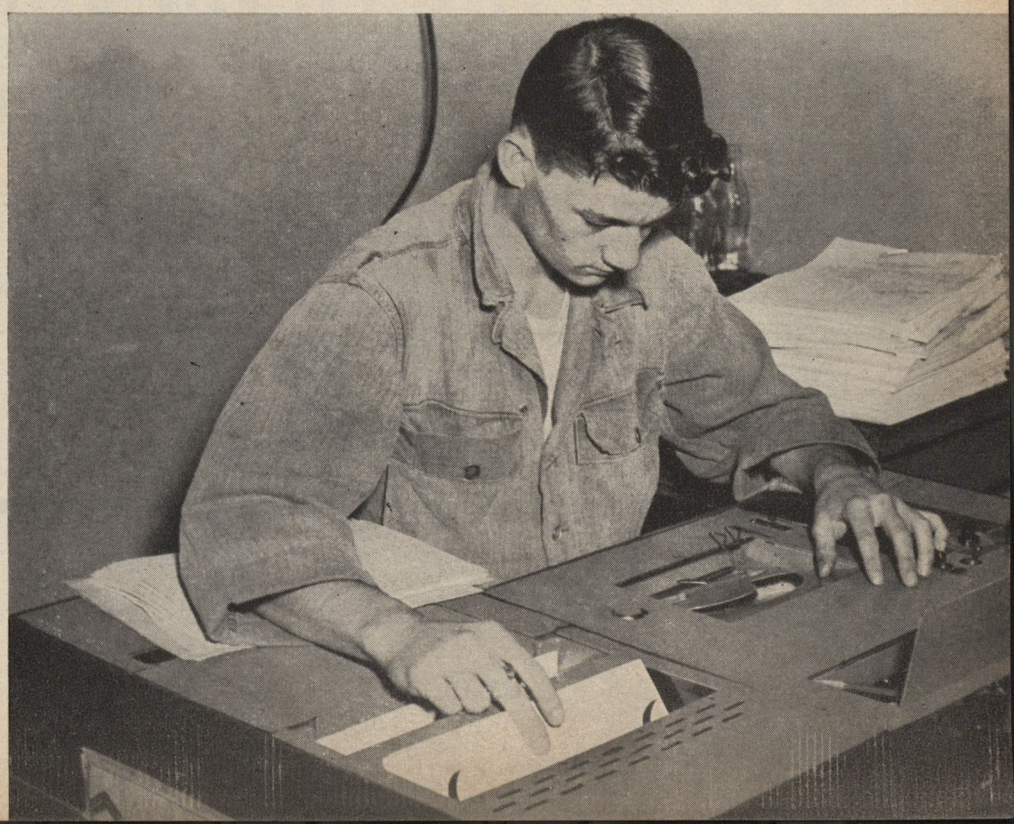
For a while the Air Force permitted high school graduates to enlist and choose their own fields of training. The new testing method shows that men who are not high school graduates make good grades in some tests and that high school graduates sometimes have little or no aptitude in fields in which their interest is high. Psychologists believe that the new testing and assignment method is fair to the greatest number of airmen because it classifies all men entirely on their ability.

Of course even the scientifically designed and evaluated tests will not please all airmen. There still will be men with a high clerical aptitude and a heart set on being a mechanic. The Air Force has thought about that, too. At Lackland there are trained and experienced vocational guidance counselors who meet with recruits about ten days after aptitude tests are taken. These counselors, armed with test results, try to persuade the airman that his best bet is in the field in which he made the highest score.

The Air Force is quite happy with its new program, and the long reports that discuss "spatial relations" and "perceptual speed" but it is not content to stop there. It has an added follow-through to insure that airmen eventually get the appropriate square or round hole for which their aptitude fits them. The recruits are under the careful eye of Lackland for only the first 13 weeks of their Air Force careers. Therefore a task force of experienced and fatherly sergeants has been trained as vocational guidance counselors at all Air Force bases. It is their responsibility to see that new recruits reporting to their first base get on-the-job training in their proper success field until there is an opening for them in technical schools.

Results of some of 150,000 experimental tests are gone over by Capt. Baer and assistants. "Guinea pigs" were carefully watched after permanent assignment.

Corp. Robert Shubert of Topeka, Kansas, compiles group test scores with the aid of automatic IBM machine that does everything but answer the telephone.



Get on the Flight Line

In the NEW Air National Guard

The backbone of the Nation's Air Defense, the fighter planes of the Air National Guard stand ready on the flight line for any emergency.

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YOUR GUARD'S IN THE SKY!
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See the Air National Guard Commander at the Air Base in your community or write the Adjutant General at the capital of your State.

Technique
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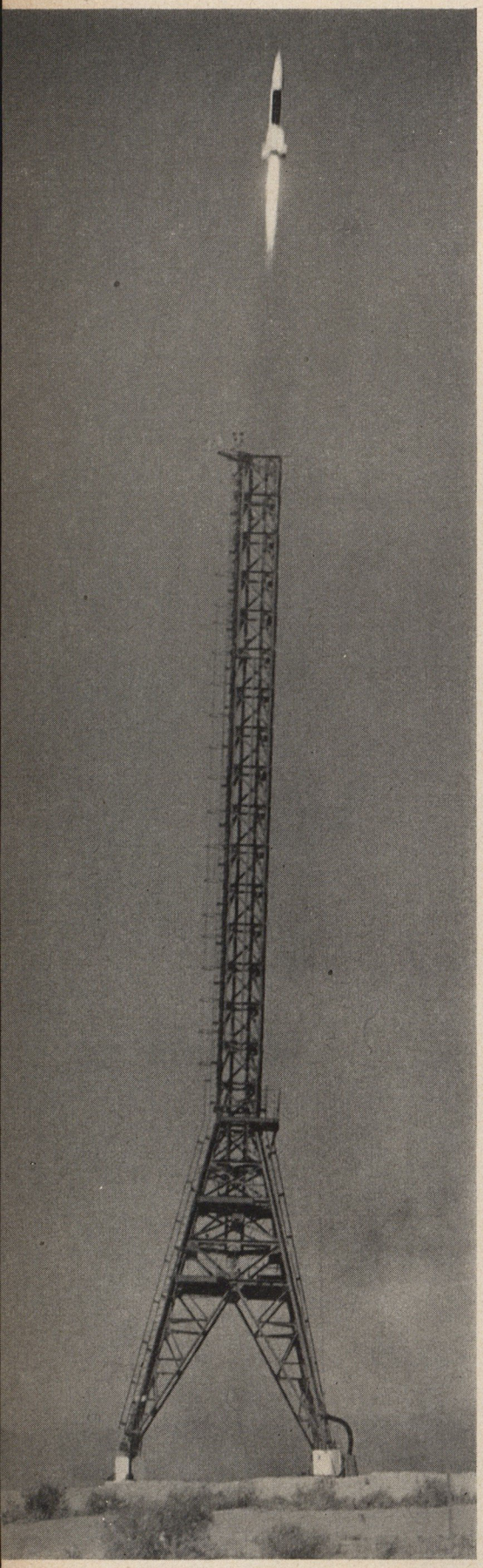


TARGET DATES for

Here, we believe, is the clearest statement yet written on exactly where we stand and where we're going in the missile program

The aim of our guided missiles research and development program is to develop weapons which will implement the primary mission of the US Air Force. The scope of this mission is divided into three distinct phases—the air defense of the continental US, the tactical support of ground forces, and strategic air warfare to destroy any enemy's capacity to wage war and his will to fight. To accomplish these threefold objectives, four major types of missiles must be developed—air-to-air, surface-to-air, air-to-surface, and surface-to-surface missiles.

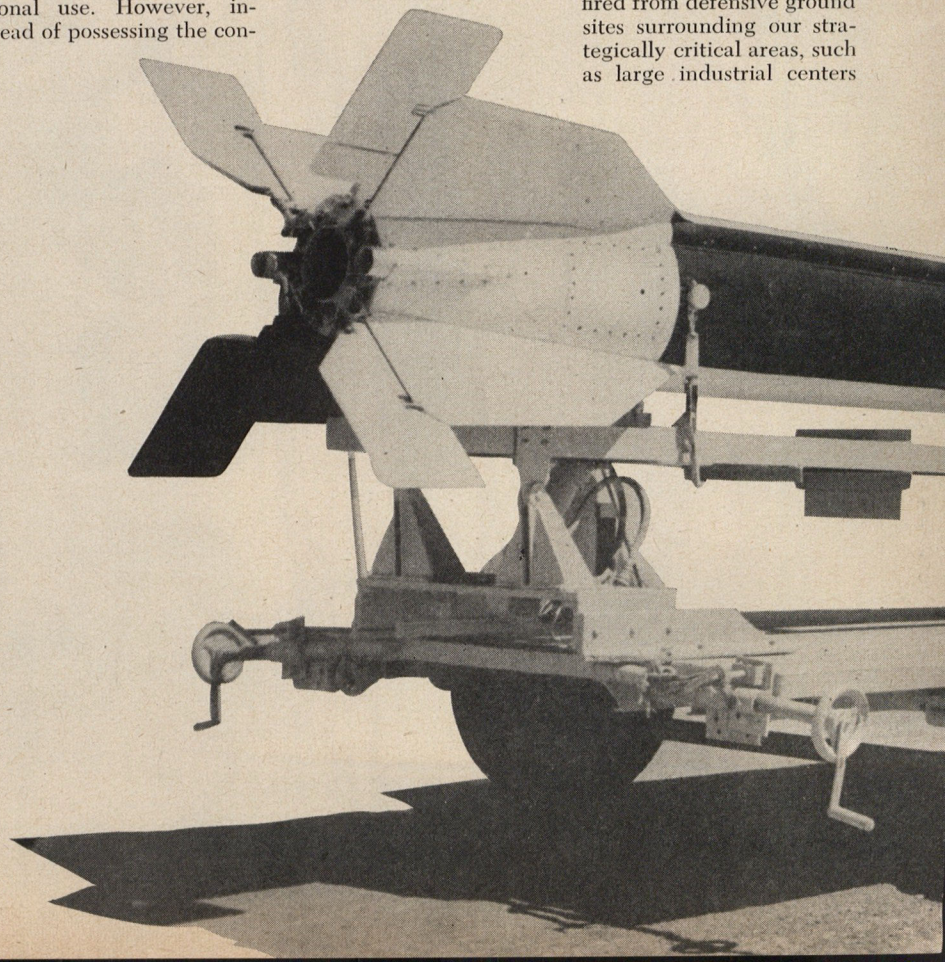
Let us consider first the problem of air defense of the US and the requirements which it imposes on the development of guided missiles.

Visualize an enemy bombing raid on this City of New York, or Washington, or Chicago, or Los Angeles—or, perhaps, all four cities simultaneously. Such an attack is within the realm of possibility at this very hour when we consider the long distance feats already accomplished by our own B-29 Superfortresses, which are even now being relegated to the realm of obsolesence. How would we repulse such an attack by the use of guided missiles?

Having electronically detected the approach of enemy formations, the Air Force would first dispatch high speed interceptors, such as our F-80 and F-84 jet aircraft which are already in operational use. However, instead of possessing the conventional 50 caliber of 20mm guns of World War II with an effective range of only 300 or 400 yards, these aircraft would carry air-to-air missiles which could be launched from our interceptors and proceed under their own rocket power at supersonic speeds to targets several miles from our launching aircraft. By means of a radar homing device within the missiles, they will track down the enemy even though he may be engaged in evasive action; and, by means of a proximity fuze, they will be detonated when within lethal range of the enemy. Necessarily, such missiles must be as small and as compact as possible to allow the maximum number to be installed on our interceptor aircraft. With the basic knowledge now available, we can visualize the size, configuration and performance of such a missile. Its development into an operational missile will take only a relatively short period of time.

Experience during Word War II indicated that in the face of a determined enemy attack, no bombing raid could be completely stopped by aerial defense and that some planes would get through to the target. Let us assume that this will also be the case in the future. Then what? If the enemy gets through our interceptors with their air-to-air missiles, then our surface-to-air missiles will come into action.

Our surface-to-air missiles will be fired from defensive ground sites surrounding our strategically critical areas, such as large industrial centers



Pictures of the North American *NATIV*, test missile, above, right and on preceeding page are first released by AF.

GUIDED MISSILES

By General Joseph T. McNarney

Commanding General, Air Materiel Command

This article was condensed from a speech delivered by Gen. McNarney before the National Association of Manufacturers.

and military installations. They will be guided to their targets by riding along a movable radar beam, the center line of which is kept on the approaching enemy aircraft. However, as a radar beam goes out from the launching site it gets wider. Thus the missile is actually going out of a funnel in the wrong direction. However, when the missile gets close enough to the target a radar seeker will be activated. This will, in effect, turn the funnel in the proper direction, and will carry the missile into the target, or at least close enough to permit a proximity fuze to detonate a lethal warhead and strike the enemy from the sky.

Our present idea is a quite small winged missile powered with rocket and ram jet motors now available. It will fly at supersonic speeds, and should be available for operational use within the next few years.

The problem of defense against attack by enemy missiles of the V-2 rocket type, as used by the Germans in the last war, is a considerably more complex problem. It will require the development of a missile much like the V-2 itself. This missile must be launched with split second timing to intercept its target which will approach at supersonic speeds of at least 3600 mph. Our defensive missile must, therefore, be capable of supersonic speeds of approximately 4000 mph and of operation beyond the earth's atmosphere. Consequently, such a missile must be a multistage rocket with provisions for control out of the atmosphere where aerodynamic control surfaces are of no use.

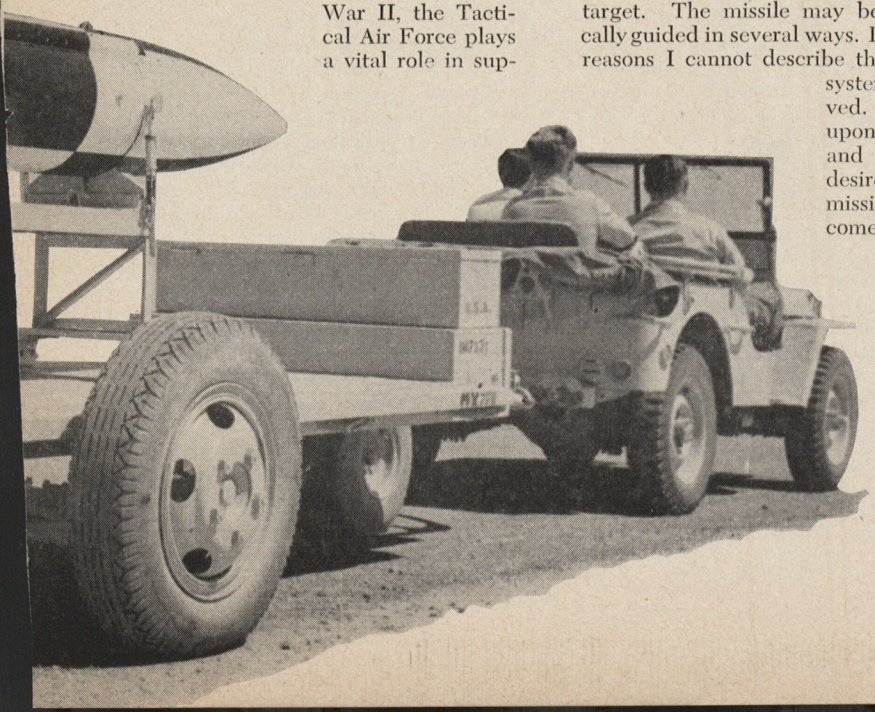
The technical complications involved in this problem render such a missile unattainable for perhaps a decade.

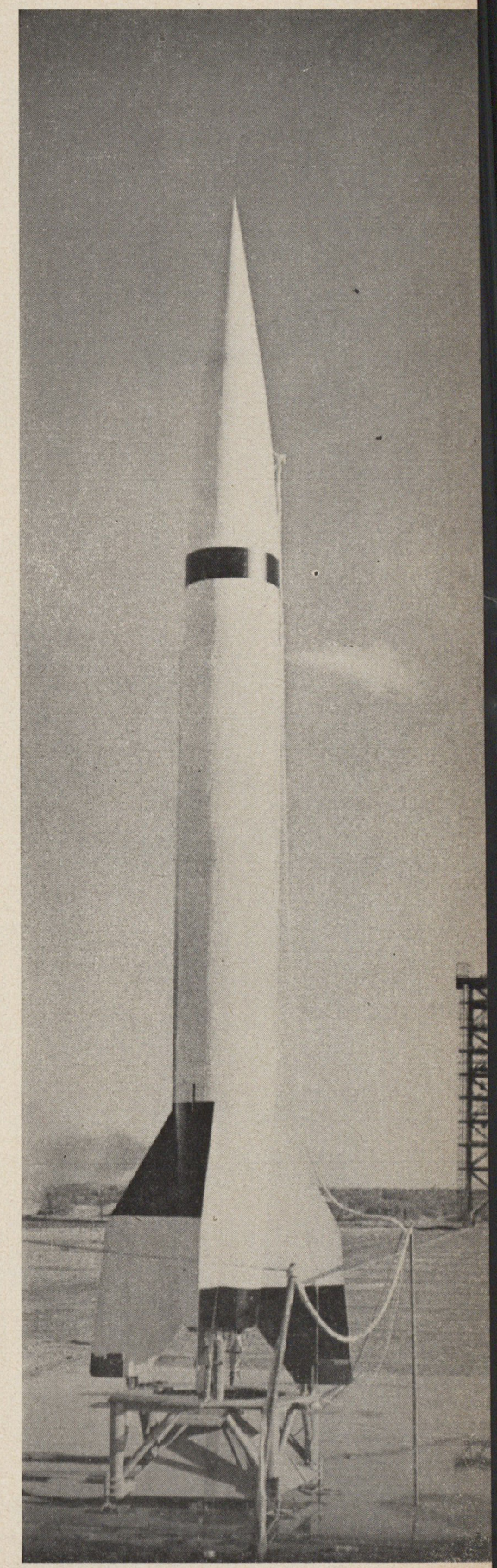
Now consider the problem of tactical support of ground forces. As demonstrated in World War II, the Tactical Air Force plays a vital role in supporting the ground forces on the field of battle. The development of air-to-surface missiles which can be pinpointed on both fixed and moving targets will be of inestimable value in such operations. Since such missiles are also applicable to the conduct of a strategic bombing operation, let us also consider now the problem of strategic air warfare.

Strategic air warfare imposes on the Air Force the requirement of striking the enemy at home—to destroy his industrial areas, his lines of communications and his will to fight. The 8th Air Force over Germany and the 20th Air Force over Japan demonstrated the effectiveness of strategic bombing operations.

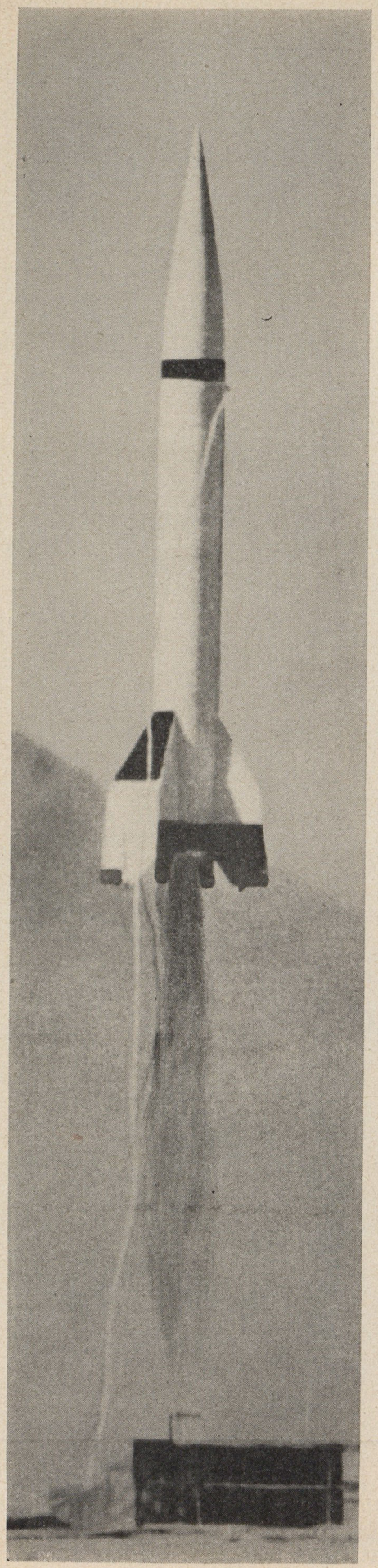
The weapons of the future, however, will be more effective than those of the past. Air-to-surface guided missiles will be developed which can strike a specific enemy target with high accuracy. The first in line of such types of weapons will be large bombs of the 12,000-pound, 22,000-pound, and 43,000-pound class, which can be deviated in their downward course to the target by electronic controls. These missiles will not have any means for propulsion—they will be free fall bombs. Such developments are in the immediate future, with the 12,000-pound bomb being available within the next year.

The next development in line, timewise, will be missiles which contain their own means of propulsion. Such missiles can be launched from a carrier airplane outside the enemy's highly defended areas and rocket propelled, or ram-jet propelled, at supersonic speeds to the target. The missile may be electronically guided in several ways. For security reasons I cannot describe the guidance systems involved. Depending upon the range and warhead desired, these missiles will become progress-





Missile above which looks like German V-2 but isn't was built by Consolidated for upper atmosphere research.



Consolidated missile gets up steam.

ively operational over the next few years.

In evaluating the relative tactical merits of the vertical controlled bomb and the jet propelled air-to-surface missile, each is found to have its advantages. The vertical controlled bomb would be highly effective in the close support of ground forces where precision accuracy is all important.

The jet propelled missile, which can fly a considerable distance to the target, however, is valuable in the strategic bombing of well defended targets.

To protect our bomber formations, which are carrying our air-to-surface missiles to their point of launching against the enemy, we must look to the air-to-air missile as a defensive weapon. This weapon will be similar to that used by our fighter or interceptor aircraft in the air defense of our home territory.

Finally, we come to the weapon that all of us visualize when we hear the words "Push Button Warfare"—the surface-to-surface missile. This is the weapon which would be launched from our own territory, maybe Omaha, Neb., maybe Alaska—by the push of a button and travel to distant targets at ranges up to 10,000 miles away from the launching site. Such a weapon, we feel, must be a weapon of accuracy rather than one of area bombardment such as the German V-2. It must be able to deliver a knockout punch on a specific target if it is to pay off in terms of the vast amount of manhours and materials invested in each missile.

The first missiles of this type to be available will probably be of conventional aircraft design with swept back wings, operating at subsonic speeds of six to seven hundred miles an hour, powered with turbo-jet engines such as are used in our present day jet fighters. Their size will depend upon the range and weight of warhead desired. At the shorter ranges guidance may be accomplished by presently known electronic means.

There is little doubt that several nations have the know-how to develop, along the same lines, missiles of conventional aircraft design capable of carrying 5000-pound warheads at subsonic and supersonic speeds up to ranges of 5000 miles. The problems of speed, range and payload can probably be solved with relative ease. The critical problem, however, is guidance. As ranges increase, the accuracy of radio and radar guidance schemes decrease. Therefore we must turn to other means for guidance. Ideally, the optimum guidance system would be one which is self-contained within the missile and is non-jammable by the enemy. A promising solution seems to be automatic celestial navigation.

An automatic celestial navigation system does the job of a skipper on a sailing vessel. It continuously determines the position of the missile by celestial fixes and transmits signals to the autopilot in the missile to make corrections and keep the missile on course.

Obviously, the technical difficulties to be solved in long range guidance systems cannot be overcome in days or weeks. The time lag must be measured in years.

Therefore, we must not consider ourselves as prepared for the era of push button warfare today. Surface-to-surface missiles may be available in three years on our shorter range subsonic weapons, but I cannot predict the decade in which we cross the threshold of true push button warfare.

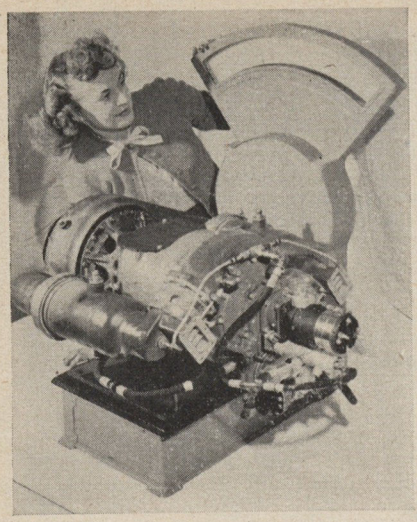
While we are enthusiastic and confident in the successful development of the four types of missiles described, we realize that there can be no overnight technical revolution—that guided missiles will only gradually take over the jobs of more conventional weapons as they prove themselves with time.

There is an old and significant saying that the military always starts a new war with the strategy, tactics and weapons of the last. Broadly speaking it is a true statement, for in time of peace a nation hesitates to devote scientific and industrial resources to economically wasteful products such as new and improved weapons of war. Consequently, a new war starts with weapons left over from the last.

There are many new fields of development facing science, industry and the armed forces. The guided missile development field is commonly accepted as the most complex and difficult of all, since in no other area are there so many branches of physical science directly or indirectly involved.

The concept of guided missiles is not a relatively new one, contrary to casual popular belief. It did not originate with the German V-1 and V-2. In fact, as far back as the period of World War I, during the years 1918-1919, the idea was being worked on in the US.

With the end of World War II, a new and more visionary program designed to satisfy all the foreseeable applications of guided missiles was established. Many of the goals set up in this program are still way out in the blue, as far as present day technical knowledge is concerned. Nevertheless, after two years of study and evaluation we believe we have now established a realistic development program by initiating projects which are steps or increments, toward the ultimate goals. Our program is providing test vehicles from which to obtain the "know-how" to take the next step, as well as insuring a tactical weapon immediately available, if required. This Air Force program has been closely coordinated with the programs of the Army and Navy through the Research and Development Board, by interchange of technical reports and joint use of technical facilities. However, some duplication does exist, which while desirable in preliminary study stages, should progressively be eliminated as we get into the hardware stage.



Florence Miller, AiResearch technical assistant, checks weight of new gas "self-starter" for jet-type planes.

Eighty Pound Starter Makes Jets As Easy to Start As Automobiles

Pilots who fly the fast new jet jobs won't have to wait anymore for ground crews to wheel out heavy initial starting carts to kick over the turbines and get them revved up to power. Now they can climb into the cockpit, step on the starter and presto—jet propulsion!

It's all possible because of a new self-starter developed for jet engines by the Air Research Manufacturing Company and the Navy Bureau of Aeronautics researchers. Consisting of a small gas turbine engine that weighs only 88 pounds, the new starter eliminates the use of cumbersome storage batteries and other heavy auxiliary power units.

The device is fastened directly to the jet or turbo-prop engine. Thus, the jet plane always has its starter unit with it, permitting use of remote bases and other landing sites which might not normally be equipped to start the engine. The starter requires only a three-fourths horsepower engine and an average size storage battery for its own operation.

Air Speeds Recorded in Knots

Observations of upper wind air speeds are now reported in knots instead of miles per hour, the US Weather Bureau has announced. The change was made to conform to international practice.

The change has been decided upon as part of a program which recognizes that international air transport required a continuous exchange of meteorological information throughout the world.

To make full use of the many thousands of weather observations made throughout the world each day, the adoption of international meteorological codes, definitions, and units of measure is not only desirable but practically mandatory, Weather Bureau officials said.

TECH TALK By Douglas J. Ingells

The next time someone starts talking about the future of airborne operations, you can throw some of these figures at him: It would take 9600 of the C-82 cargo planes to transport one full army including several infantry divisions, an armored division and necessary complements of service organizations. To support the aerial invasion and guarantee it: 21,000 fighters. You might do the same job with 900 of the bigger C-99 cargo carriers. It would still take 8000 fighters—quite a sizable air force—to furnish safe protection!

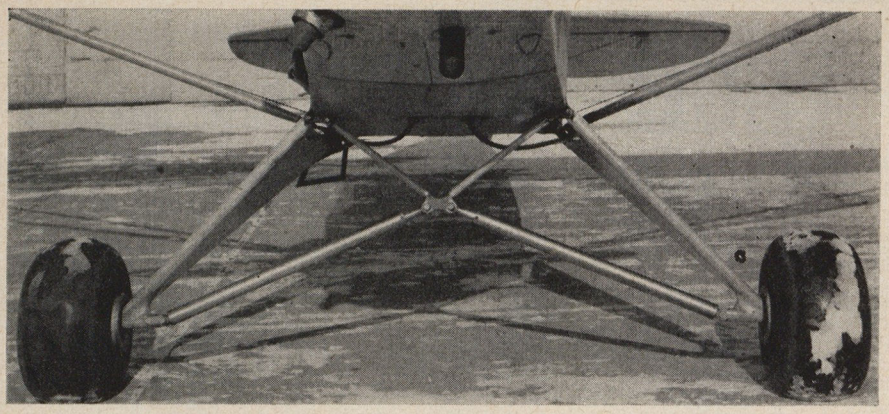
That's from the "Bible" at the Staff and Command School, according to one tactician who should know.

Fairchild, builders of the C-82 of which, on the basis of splendid performance of its mission as a cargo carrier they are justifiably proud, are even prouder of their bigger C-119. Pointed up is its capability of transporting the 155mm field piece. The C-82 could do this but you had to take the wheels off the big gun and it took several hours to assemble the gun and put it into action, a time factor that couldn't be bargained for with an enemy. But the C-119, the Packet's big sister, can lug the gun intact; fly in, land, wheel it out on a special rampway and BOOM, lookout!

Not to be outdone, the Navy, too, is considering plans for its own airborne activities and large flying boats may enter into the picture as airborne's LSTs. One design which looks not unlike the huge Mars may incorporate bow-first doors which swing open like the doors on a garage and permit unloading troops or heavy equipment the same as the operation of a sea-going assault craft. In operation, the pilot would need only to pick out his shoreline and land, taxi right up onto the beach or into shallow water, shoot out a portable rampway and roll out his fire power or troop units. Gaining favor for the flying boat is the fact that there is no limit to the size you can build the aircraft now that power plants are available and you don't have to worry about runways; oceans and harbors provide the longest natural landing fields in the world.

ATTENTION ALL PILOTS, COPILOTS AND NAVIGATORS! You had better brush up on your common denominators. How many miles in a knot? Or, try this on your slide rule: A knot (quote Mister Webster) is equal to a nautical mile or 6080.20 feet. A mile is 5280 feet. What's going to happen when you look at your air speed and see that you're going 670 knots an hour? That's 4,073,734 feet an hour or 536,134 feet (11 miles) faster than if the air speed said 670 miles per hour! Am I going too fast? Well, throw out your anchor because they're changing the readings on some new air speed indicators from mph to kph (knots per hour), and the next thing you know the clock on the instrument panel will chime . . . One of the new instruments is a lulu; it puts the sensitive air speed indication and the maximum allowable air speed all on a single dial face. It's designed to simplify the pilot's job. It indicates air speeds from zero knots to 650 knots per hour; from mach number .6 to mach number 1; from zero altitude to 50,000 feet. Already tested in B-29s, A-26s, C-54s, and the F-80s, pilots like it. And why "knot"?

The Air Materiel Command's Equipment Laboratory is working on a new type gyro compass which incorporates many improvements and perfections over previous designs, soon to be announced in detail. The instrument people are also concerned with an extensive new test program which they call "vibration isolation." It involves numerous new test methods to determine the effects of vibrations on various types of instruments. The advent of the jet engine which greatly reduced vibrations in aircraft, principally through the elimination of the high-speed propeller centrifugal forces, has necessitated completely new studies for the detection of vibration characteristics.



An "Air-N-Oil" shock absorber to be mounted between the axles and the center "Vee" under light plane fuselage was introduced last month by Ohio company.

Aero Medical Lab Installs High-Speed Centrifuge

Among other features, new machine offers opportunity for more varied tests, has improved "built in" safety and goes faster

The advent of high-speed aircraft and radical new designs and the need for a more comprehensive study of "G" tolerances and their effects on the personnel who will man the super-fast fighters and bombers has led to the development of a new type centrifuge for physiological tests by Aero Medical Laboratory experts at Wright Field.

With its tubular type structure and design replacing the former beam-type, the new machine, according to the laboratory technicians offers opportunity for more varied tests, has improved safety features, permits higher rates of acceleration, has simplified control features and greatly reduces maintenance cost and operation. It will be used for simulating the positive and negative G forces that react upon personnel during sharp turns, pull-ups and dives or other sudden, quick maneuvers at high speeds.

Although the same power plant and gear box, that for five years has whirled the old centrifuge in thousands of tests is to be used, the new test rig takes on an entirely different outward appearance. By comparison, it actually looks like the skeleton frame of an aircraft whereas the old centrifuge appeared to be a big ladder mounted on a central pivotal point, whirled around at high rpm like a merry-go-round.

Engineers list several advantages of the new design:

► It can permit heavier loads in the cabs which are simulated "cockpits" where subjects are strapped in for the tests. The new type can carry 700 pounds in each cab against a 400 pound safety limit for the old centrifuge. Likewise, it is possible to push the accelerations up to 20 Gs with the new structure and still maintain necessary safety factors for the mechanism as against a safety factor of 10 Gs for the old machine.

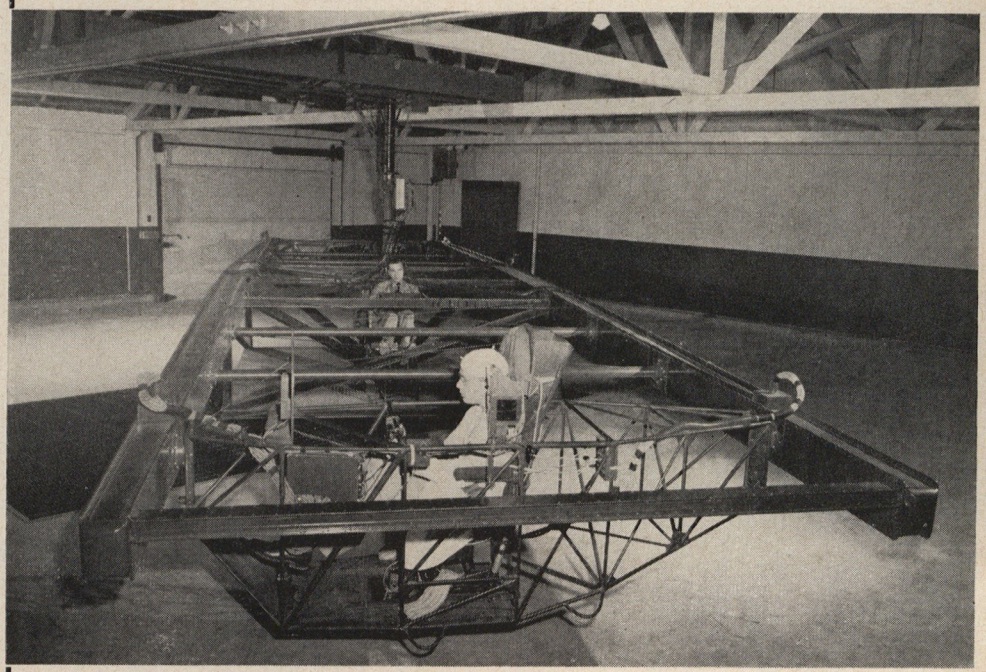
► Previously the control room was located at the side of the big auditorium-like room where the test machine is located in a separate laboratory building and this necessitated long lead wires and complicated maintenance problems. To repair a simple wire connection, for instance, a worker had to climb onto high scaffolding in order to reach the main power plant location. On the new machine, the control room and all wires and machinery is situated in a large enclosed structure suspended from the ceiling in the center of the room directly above the pivotal point of the centrifuge. Maintenance is simple.

► With the new test device it is possible to change the position of the cab—to make positive or negative G forces—while the centrifuge is in motion whereas previously the design would permit only one test to be run at a time and the cabs were mounted to throw the subject "out" or "in" (that is, with head *out* or head *in* the prescribed arc which produces simulated positive G or negative G effects), but only one phase could be accomplished during one test. Now, by the use of hydraulic and electrically controlled boosters an operator can go from positive G to negative G in approximately two seconds. It is also possible to accelerate from zero to 10-Gs in one second, which is a higher rate of acceleration than was possible with the first machine.

► The design of the new centrifuge and location of its control room also permits greatly improved observation positions for engineers and cameras to give more detailed results of the various tests and experiments. Two large observation windows in the suspended control room, for example, permit observers to be directly above the subject at all times and provide unobstructed view of the test.

► The most important advantage of the new machine, however, is its rigid structure which permits high-speed acceleration with high-degree of safety precautions against structural failure.

OLD



Here are the "reciprocating" and the "jet" type centrifuges. The old and the new. The gawky looking contraptions are used to study the "G" tolerances and their effects on personnel in flight. For years the centrifuge above was good enough to test probable reactions in the hottest airplanes the Air Force had. But today it will no longer do. The new model (right)

Air Force "Abandons" Jet Bomber in Favor of B-36

In surprise move USAF cancels $300 million in Flying Wing, B-45, and other contracts to make funds available for biggest bomber

Secretary Symington said it was "in line with the President's budget message to achieve a more effective Air Force in being with minimum delay." Sideline observers, completely surprised, had several different explanations. Some said it was a logical step in the development of the longest range, "most strategic" Air Force possible. Others thought that it was the opening play in a move to nip the proposed AF cut to 45 groups. Whatever the reason the AF has now decided to abandon temporarily a good part of its jet bomber program in favor of more Consolidated B-36s and Boeing B-50s.

The reallocation of presently available aircraft procurement funds involves contract cancellations totaling approximately $300,000,000. This would have provided the Air Force with 30 Northrop RB-49 jet Flying Wing bombers; 51 North American B-45 jet bombers; 118 North American F-93 jet fighters; 30 Northrop piston-powered tri-motored light transports; and 10 Kellet H-10 helicopters.

Procurement readjustments thus announced swings Air Force air war strategy to dependency on long-range strategic bombing. The readjustment of the procurement funds, the Air Force stated, "frees the $300,000,000 for procurement of a substantial additional number of B-36s and extensive modernization and improvement of other B-36 and Boeing B-50 bombers, which are now on contract."

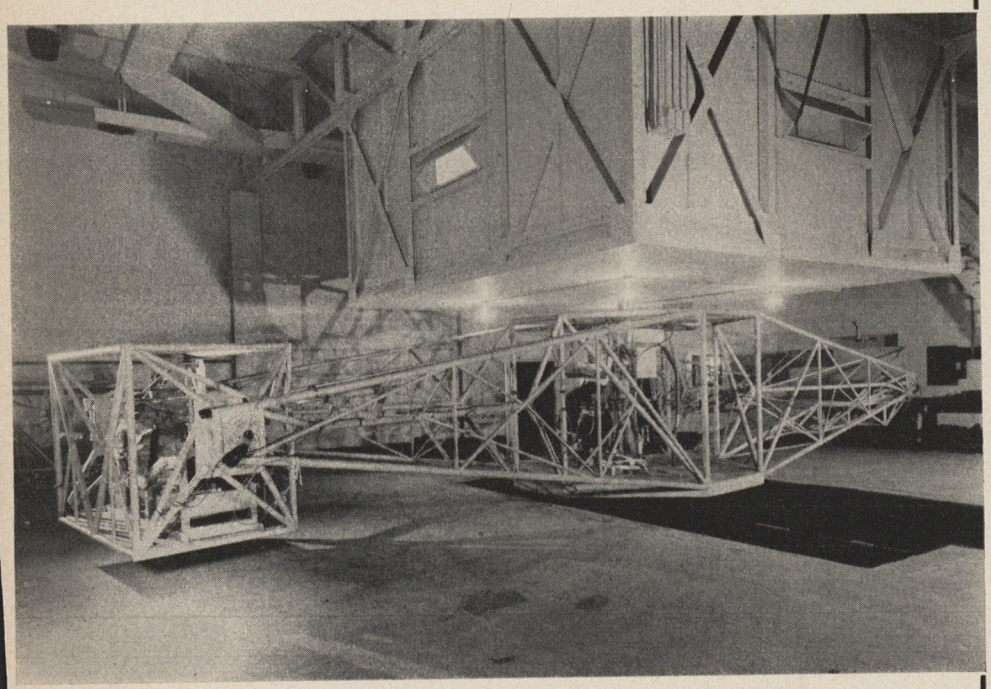
X-1 Sets Rate-of-Climb Mark

Capt. Charles Yeager, the first man to fly faster than sound, last month became the first man ever to leave the ground in a rocket propelled aircraft.

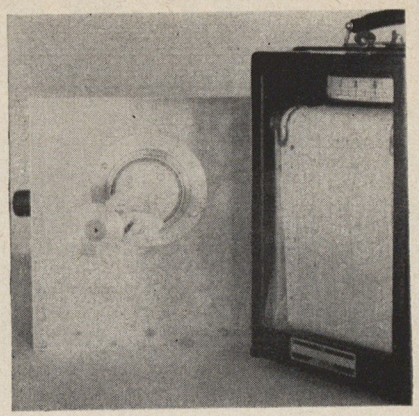
The feat was accomplished in the USAF's X-1. Heretofore the X-1 had been dropped from a B-29 undercarriage. In addition to proving that the X-1 was something a little more than a "rocket test stand" Yeager's flight racked up a new rate-of-climb record. He obtained an altitude of 23,000 feet in 1 minute and 40 seconds after engine start.

Because exact performance data of the Bell plane is still classified, the Air Force will make no official record claim since such a claim would require full disclosure of performance information.

NEW



can carry up to 700 pounds in its "cockpit" whereas the old had a limit of 400. Further, it is possible now to extend accelerations up to 20 G's and still maintain adequate safety factors, while the old machine had a limit of ten. Another advantage of the new centrifuge is that by changing position of its cab, both positive and negative forces can be measured.



The new General Mills ice meter which permanently records accumulation.

Meter Measures Icing Rate

Long a hazard to the flier has been the accumulation of ice on wings and propellers. Still not whipped, the problem has excited numerous experimental instruments into being to help scientists determine the rapidity of ice accumulation and its dangers. Pictured above is the latest type ice rate meter which permits accurate measurement of ice accumulation and registers it on a graph for permanent study. Developed by General Mills, the new test instrument is undergoing experimental evaluation by instrument engineers of Wright Field's Equipment Laboratory Instrument and Navigation Branch.

In operation it can tell how much ice is forming on certain surfaces and the rapidity of accumulation. In the future it may supply basic formulae for the development of a simplified instrument which can be mounted on the pilot's instrument panel and tell him critical information about ice.

B-36 Gets Portable Cargo Unit

The military utility of the Convair B-36 bomber has been considerably increased by the development of specially designed cargo carriers which can be suspended in its bomb bays, the Air Force and Convair have announced.

These carriers make it possible for the six-engine bomber to operate also as a transport with a maximum capacity of 80,000 pounds of cargo. This extends the utility of the B-36 beyond its potential as a bomber so that it can (1) supplement existing military air cargo facilities when extreme range is required, or when very heavy loads or large equipment must be handled, and (2) take along substantial quantities of its own supplies when moving to operating bases.

Each cargo carrier is an all-metal rubber-tired wagon capable of carrying a 14,000 pound load. It is approximately 13 feet long and 5 feet wide, with sides 2 feet high. Volume is 100 cubic feet, but this can be doubled by adding sideboards.

AFA News Briefs

Members of the New York Wac Squadron ready to serve Christmas party cakes.

A CHRISTMAS POSTSCRIPT

A letter from J. V. McLoone, Recreation Director of the Veterans Administration, to Mary Gill Rice, Commander of the all-WAC AFA Squadron in New York City, has officially recorded the appreciation for the Christmas party the Squadron held at the Halloran Veterans Hospital at Staten Island. But the appreciation expressed on the faces of the veterans in this hospital as Christmas was brought to their bedsides, meant more to the members of the New York WAC Squadron than all the letters.

Shortly after this lady AFA unit was chartered, officially known as the New York Squadron No. 1, its members began looking for special projects for Squadron activities. Besides many other activities during the early months of the Squadron's formation, the members gave a Christmas party for the patients at the Halloran Hospital. The party was such a success that it was voted to make it an annual affair. So, even in the early months of last year, the Squadron was busy making plans.

Here are some of the items the Squadron obtained to make sure these patients hold to the belief that there is a Santa Claus: For the 1450 patients, 1700 gifts, each neatly wrapped, were spread around the tree the Squadron had placed in the auditorium. The gifts ranged from radios to cigarette lighters. Hats for the men and hats and plaid dresses for the women, flannel robes, cash and many other items were among the presents. Special cakes and candies were obtained for the diabetic patients. Good food was everywhere. One noted firm donated 1700 individually wrapped bananas.

For the patients who were unable to get out of bed, their Christmas was brought to their bedsides. Top radio and Broadway personalities were on hand to entertain. Drawings were held in each ward for special prizes for the patients who were unable to go to the auditorium for the big show.

Before the party was over, the AFA Squadron double-checked to see that not one patient was overlooked, and that each was given his share of the Christmas program. There were even some gifts left over, which the girls left with the hospital officials for distribution on Christmas Day.

Besides the warm appreciation expressed by the patients, the members of the AFA unit were touched by the spirit of generosity of the many persons who contributed the hundreds of gifts which made the party possible.

The Squadron has just held its annual election of officers, and Mary Gill Rice has been re-elected to head the unit. She has headed the Squadron since its formation. Other officers of the Squadron are: Helen Watson, vice-commander; Joan Berton, treasurer; Louise Mercep, recording secretary; and Ruth Stern, corresponding secretary. The Squadron can be contacted through Mrs. Rice at 77-15—113th Street in Forest Hills, New York.

SQUADRON ACTION . . . . The AFA News State Roundup section of Air Force is for reporting activities of and giving recognition to the AFA Squadrons throughout the country. From time to time, AFA headquarters learns that one of its local Squadrons has been engaged in a very active program in its community, but has not been forwarding any information on such activities. AFA headquarters strongly urges each of its Squadrons to forward any information on its activities. News to be printed in Air Force should reach headquarters by the first of the month for use in the succeeding month's issue . . . . Also, headquarters urgently needs the latest information on the status of the AFA Squadrons who have held elections but have not forwarded the information. All Squadrons who have not recently forwarded headquarters an information report similar to the following one, should complete and return the following report immediately:

AFA SQUADRON INFORMATION REPORT

NAMES, ADDRESSES & TELEPHONE NOS.: DATE.....

COMMANDER:.....

VICE-COMMANDER:.....

SECRETARY:.....

TREASURER:.....

NAMES ONLY—COUNCILMEN:.....

NUMBER OF PAID-UP SQUADRON MEMBERS: ACTIVE..... ASSOCIATE.....

MEETINGS: DATES:..... PLACE:.....

SQUADRON'S CORRECT NAME:.....

SQUADRON'S MAILING ADDRESS:.....

REPORT SUBMITTED BY:.....

State Roundup

CALIFORNIA

Burbank: According to Robert D. Martin, acting director of publicity for the San Fernando Valley Squadron Number One, a grave error was committed when the December issue of Air Force titled the newly formed Squadron as just the San Fernando Squadron. Martin states that there is quite a difference, in that the Squadron's territory includes Burbank, North Hollywood, Van Nuys and San Fernando. As it is the first AFA Squadron to be formed in this area, the members want it clearly designated as such. Eligible members of AFA in the localities mentioned are urged to get in touch with commander Stiles B. Merrill at 5446 Colfax Avenue in North Hollywood.

Sacramento: The active Sacramento Squadron recently gained the distinction of doing things in a big way, by staging a dance that turned out to be the largest ever held in the history of Sacramento; 3500 persons attended. This dance, plus another project the Squadron had underway at the same time, which involved giving away a personal type airplane, boosted the Squadron's treasury to over $2500, which makes its members quite happy.

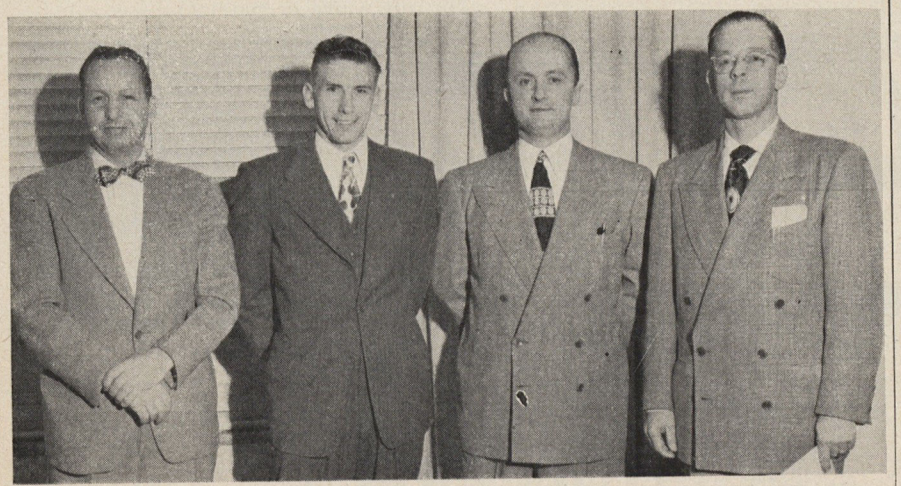
San Francisco: Members of the San Francisco Squadron recently took advantage of the showing of one of Hollywood's latest flying pictures, "Fighter Squadron," to publicize the Squadron in that area. Through the cooperation of the local theater management, the Squadron displayed a huge AFA sign in the lobby and had a table filled with literature and membership forms, attended by several Squadron members and their wives, at a very advantageous spot. Various questions relative to AFA and new aviation developments were answered by the Squadron members present in the audience. Over 30,000 persons attended the showing of this movie, which meant that over 30,000 persons were informed about AFA and its aims and purposes.

Members of this Squadron were very pleased with the results of this venture to spread more knowledge about the existence of AFA and their local Squadron. They urged other AFA Squadrons throughout the country to take advantage of any good aviation films which might be showing at their theaters as a means of publicizing their own AFA outfit. The Squadron suggested that AFA units be on the lookout for these latest Hollywood aviation movies: Warner Brothers' "Fighter Squadron," The March of Time's "America's New Air Power," 20th Century-Fox's "Jungle Patrol" and MGM's "Command Decision." The story of the latter was written by William Wister Haines, whom AFA awarded a trophy at the recent national convention in New York.

Los Angeles: The California Wing recently held an Executive Committee meeting, at which the following state committees were established and committee chairmen appointed, according to Tom Stack, newly elected commander of the Wing: Constitution, Paul Lessinger of Sacramento; Wing Convention, Don George of San Francisco; Election and Nominating, J. Walden Thompson of East Bay; Finance, LeRoy J. Johnson of Sacramento; Membership, Arthur F. Kelly of Los Angeles Publications, Tom Wade of San Francisco; and Public Relations, Jim McReynolds of Los Angeles. George Mantell, deputy-commander of the Wing, will head the general committee which is composed of all the committee chairmen.

FLORIDA

Miami: The first of a group of planned AFA Squadrons for the Miami area



Officers of the Dayton, Ohio, Squadron: Dr. J. H. Meyer, Commander; H. E. Miller, Treasurer; R. L. Abshire, Vice-Commander; J. W. Greason, Secretary.

has been chartered. Under the organizing supervision of Norman Curtis, the Miami Air Sea Rescue Squadron was formed, with James C. Rosser of 2411 Tigertail Avenue heading the outfit. Other officers elected to assist Rosser are: Oscar Morris, vice-commander; J. Allan Cross, treasurer; Edwin S. Baltier, secretary; and W. A. Hampe, Leo Barker, Joseph P. Hanks and Charles S. Wilson, Jr. as councilmen.

Curtis, who is organizing AFA in the Miami area, announces plans for a new organization movement to begin in the very near future. He is being assisted by S. C. Huffman, director of the Miami All-American Air Maneuvers.

GEORGIA

Atlanta: An organized movement is well underway in Georgia for the formation of an AFA Squadron in the City of Atlanta, according to W. F. Shipman of Augusta, temporary Wing Commander for the state. At a meeting of the AFA members in the Atlanta area on December 23, the following committees were designated and chairmen appointed: Organization, Joseph T. Brown, and Harry D. Copeland as co-chairman; secretary, Charles T. Johnson; advisor, W. L. Plummer; and a membership committee, with the chairman to be appointed later. All present and eligible members of AFA in the Atlanta area are urged to contact Brown at 136½ Marietta Street N. W.

ILLINOIS

Chicago: Another of the proposed Squadrons of the Chicago Group has been chartered. It is the State Street Squadron, and is headed by Jack S. Williams. Other officers of the Squadron are: Bert Stom, vice-commander; Joseph F. Minardi, treasurer; Robert W. Rooney, secretary; and Edward C. Healy, Edward T. Keane, J. W. Mackemer and Arnold H. McKay members of the council. Contact may be made with the Squadron by getting in touch with Williams at Marshall Field & Company, 111 North State Street in Chicago.

KANSAS

Wichita: Out in the mid-western state of Kansas, where we usually think only of wheat-growing, a group of AFA members are thinking of aviation and its role in the future, for both commercial and military purposes. Though the Wichita Squadron, being organized by a committee headed by B. G. Rowe of 2970 South Pershing, Planeview Station, has not officially received its charter, it has made itself known in that area. Members of the Squadron were recently invited by Continental Airlines to inspect the new Convair Liner plane at the Municipal Airport. During their inspection of this plane, the Squadron members checked it from the viewpoint of its quick adaptability to military use as well as being a suitable commercial plane. The group spoke very favorably of the plane, and were glad to have the opportunity to make the inspection.

William S. Oman, chairman of the Public Relations Committee of the Squadron, says the AFA membership potential is very large in the Wichita area, and that the new Squadron has a big job ahead in its support of aviation and Reserve training.

KENTUCKY

Covington: Since the Covington Squadron staged one of the greatest air shows in the state a short time ago, its members have designated themselves the job of supporting and furthering the development of aviation throughout the state. At a recent meeting of the Squadron, a committee was appointed to plan a program for getting more information into the public schools in the state relative to aviation and the Association. A committee was appointed to locate and obtain permanent housing for the Squadron. The active Kentucky Squadron has also accepted the sponsorship of a model plane club. The club already has 17 young boys enrolled. Present plans call for making this club available to as many youths in the Covington area as desire to participate. John Klette, Harry Johnson and Henry Gross are heading a committee to plan the celebration of the Squadron's second anniversary.

MINNESOTA

Bemidji: AFA headquarters was recently informed that though it might not have heard very much about Bemidji, Minn., such was not the case in Bemidji of the busy AFA Squadron there. Headquarters was also informed that though the Bemidji Squadron might not have yet gained national recognition was no sign that the AFA members in this mid-western city were not united in their support of the country's air power.

The Squadron had been in operation but a short while when it held a venison dinner, at which over 50 persons were on hand to enjoy this special treat. The event was such a success that the Squadron decided to make it an annual affair.

The small but active group of AFA members also aided in the dedication of the new administration building at the City's airport. The Squadron was also very active in getting a Reserve train-

Members of the newly formed Wichita, Kansas, Squadron during recent inspection of the Convair liner at Municipal Airport. This event marked the first participation of the local AFA group. P. V. Row, third from left, Commander.

ing program established at the local airport. All present and eligible members of AFA in the Bemidji area may get in touch with the local Squadron by contacting Earle J. Froyd, secretary of the Squadron, at Associated Drugs, Inc. in Bemidji.

OHIO

Columbus: According to the Columbus Squadron's newsletter, "Hangar Flying," members of the Columbus Squadron and the Ohio Wing are working on plans for a State convention to be held in the near future. All Ohio Squadrons should contact either Ferd Pickens of 2007 Arlington Avenue, or John Biehn of 51 North High Street, both of Columbus, for further information on the State convention.

The Columbus Squadron recently held its annual election of officers. Frank A. Harrison of 585 East Town Street in Columbus was elected to succeed Ferd Pickens as commander. Other new officers of the Squadron are: John W. Davis, vice-commander; Edmund M. Kagay, treasurer; Ann L. Griffin, secretary; and Ernest M. Khourie, Lloyd M. Parcher and Ferd M. Pickens as councilmen. The Squadron may be contacted either through Harrison or Griffin of 122 South Sandusky Street in Columbus.

OREGON

Portland: The newly formed Portland Squadron is already making itself known in the State. At a recent meeting, the Squadron adopted two resolutions pertaining to aviation in that area. Gordon Reevees, chairman of the Legislative Committee, was instructed to present to the State Legislature of Oregon a resolution calling for the establishment of an independent and coordinate branch of the State military system, with the appointment of an officer of equal rank with the State Adjutant General to command the State's Air Force.

The Squadron also adopted a resolution urging the early establishment of a landing field on or in the vicinity of Swan Island. The members feel that such an air field as formerly existed contributed greatly to the development of the City and to the public use of aircraft.

CREDITS

COVER—USAF; Page 6—USAF; Page 11—US Navy; Page 12—USAF; Page 13—Wide World; Pages 14 thru 17—USAF; Page 18—Acme; Pages 19 thru 21—USAF; Page 26—Boeing; Page 27—Douglas, Lockheed; Pages 28 thru 36—USAF; Page 37—US Navy; Page 47—Wide World, Strohmeier, Beech, Acme, AIR FORCE.

IN CASE OF ACCIDENT CONTINUED

Next day, he said he'd try it with me. It was 1 PM before we got off. I took the sled, which we loaded with rations. We took four packages of dried nood soup, seven squares of bouillon cubes, and a three-inch length of summer sausage. We also took matches, a hunting knife, the .38 Colt, an extra parka for me and a leather flight jacket for Alexander.

I went ahead. I took the lead rope of the sled and tied it to my wrist. Then I fixed a strap to the rear of the sled and tied it to the same wrist. This way I could push the sled ahead with my arm as I crawled forward and yet keep the sled from getting away. I'd dig my elbows into the snow and pull forward. It worked.

Alexander used snowshoes on his hands. First day he put his arms through the foot fastenings up to his elbows, then rested his knees on the "heel" of the shoe. This was a mistake because he skinned his knees very badly. Next day he just grabbed hold of the bindings and used the shoes on his hands to pull himself forward.

We crawled this way for four days. The Canadian Mountie and US Army lieutenant who found us the morning of the fifth day said we had made four miles. We knew we were close, for the night before we'd seen a plane overhead with his landing lights on.

That fifth morning of the crawl we had gone 100 feet. There was a shout: "Hello, there!" The Mountie came through the brush, and I said: "Gee, am I ever glad to see you!"

That's about all. Mac, the Mountie (Constable N. S. MacWhirter) and Lt. Felix Davis had run across the trail I had made on my false start. They traced it to the plane, then picked up our new trail, which was four days old. The Mountie went off for more help, and Lieutenant Davis stayed with us. Soon a plane flew over and dropped a mailbag full of rations. We fought to stuff food into our mouths. Then the rescue party came—14 of them—with a toboggan and sled. They pulled us to the edge of a near-by lake, where a ski plane waited. It flew us to the field, and we were put in the base hospital. Next evening we left for a hospital in Edmonton. And, boy, did they treat us good!

The newspapers always tell about the notes you leave when things look black. Well, I left one, too. It said:

"In case af accident please send baggage to Mr. Stanley Wilczynski, Nekossa, Wis. Also have baggage at Curtis Hotel, Minneapolis."

You know, I forgot to tell them where to send me!

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THE BON-BON BOMBER CONTINUED

"Ya! Ya! Ya!" Each child was breathless with excitement over the American pilot with the silver wings, standing right by his bed.

"We really caused pandemonium in the hospital that day. Those kids had never seen bubble gum before." Halvorsen laughed as he went on to say that he wasn't able to demonstrate it to them very well. "But, the Public Health official could really blow bubbles and we went all over the hospital giving them gum and teaching them what to do with it."

By December Halvorsen found himself with three tons of candy on his hands, and much more en route. He'll continue to scatter a few packages around Berlin, but he intends to take the bulk of it to the schools and hospitals and GYA groups throughout the city.

And so, Lieutenant Halvorsen flys the Berlin airlift day in and day out performing two great missions—Operation Vittles which is one of the most successful and gigantic tasks of the Air Force and, on his own time, he delights thousands of kids trapped in the Berlin blockade by his generous and imaginative Operation Little Vittles.

T29

Newest Classroom of the USAF

THE T-29 is an aircraft you are going to hear about, more and more. It's the fast new Navigational Trainer of the United States Air Force.

Its commercial transport version—the Convair-Liner shown above—is already in use on airlines all over the world. It's "The World's Most Advanced Twin-Engine Airliner."

The T-29 is designed to provide Loran, Radar, and Driftmeters for each of fourteen navigation students. It will simulate conditions met in fast tactical aircraft where navigation problems must be solved rapidly.

Convair

Consolidated Vultee Aircraft Corporation • San Diego, Calif. • Fort Worth, Texas

only one-fifth its ultimate striking force. But the 29s were mounting more powerful attacks daily, and were rapidly taking over the climax job against the Pacific enemy.

The Navy admirals decided to shoot for the moon. They presented Maj. Gen. Curtis LeMay, the B-29 commander, with one of the oddest requests of the war, now told for the first time. They asked General LeMay to employ his strategic B-29s in "support" of the tactical planes of Task Force 58. They asked him to have his B-29s bomb Japanese airfields, principally in the Tokyo area, simultaneously with carrier strikes of Task Force 58 against this area.

General LeMay's objections were voiced in a reply that pointed out: First, that enemy airfields were not proper strategic targets and not included in the Joint Chiefs of Staff target system directive under which he and his B-29s were operating; and second, that since his B-29s were mounting attacks many times more powerful than could Task Force 58, it was illogical to ask that these B-29 operations be diverted from their primary purpose of bombing the industrial heart out of Japan.

Instead, General LeMay proposed that concentrated B-29 attacks against legitimate strategic targets on the Japanese mainland be coordinated with strikes by Task Force 58. The Navy command could do little else but accept his proposal. The B-29s attacked Japan on February 15, Task Force 58 on February 16; both organizations attacked it on February 19 and 25.

Thus it was that carrier-based and land-based aviation struck strategic targets on the mainland of Japan during the same period under the same weather conditions. It was a test in combat the like of which even Billy Mitchell could never have hoped to achieve.

Budget-makers and budget-examiners will find an interesting comparison in the monetary value of the two air organizations. Task Force 58, with its 116 warships and supporting supply vessels and submarines, represented a total investment, afloat, based on 1945 prices, of $2,635,000,000; the 20th Air Force a total investment of $468,000,000—less than 18 percent the monetary value of the carrier force.

Task Force 58 was populated by from 90,000 to 100,000 people, all afloat in enemy waters and subject to enemy air and submarine attack. The 20th Air Force was composed of 54,560 people, including some 15,000 men of advanced ground elements not engaged in the operation; and of the 54,560 total only 1837 were subject to enemy attack. Each of the organizations lost approximately 100 men in the 3 attacks (accurate figures are not available on the men rescued from downed planes).

Task Force 58 made 1091 carrier-based aircraft available for combat, launched 2074 effective sorties; the 20th Air Force made an average of 167 B-29s available, flew 439 effective sorties, all unescorted. The carriers lost 102 of their planes, a loss rate of 10 percent; the 20th Air Force lost 10 B-29s, a loss rate of 2¼ percent.

The 1091 carrier-based aircraft destroyed 416 Jap aircraft in the air; the 167 B-29s destroyed 46 enemy aircraft and probably destroyed 24 more in the air.

The carrier aircraft delivered 513 tons of bombs and rockets (including 2610 rockets), an average of 1/5 ton of bombs and 1 rocket per sortie; the B-29s delivered 1220 tons of bombs, an average of 2¾ tons per sortie.

The important facts: That the 20th Air Force, at one-fifth its maximum wartime strength, with land-based B-29s, delivered two and a half times the bomb tonnage at less than one-fifth the investment in money and one-half the investment in manpower than did Task Force 58, at maximum wartime strength, with carrier-based aircraft, against the same target area in the same period under the same operational conditions.

These were the 16th, 17th and 18th times that B-29s had bombed the Japanese mainland. These were the first three carrier-based attacks against it since the Doolittle Mission of early 1942. And this B-29 effort was only a hint of what was to come. On August 1, at the height of its aerial invasion of the Japanese Empire, the 20th Air Force in a 24-hour period placed 851 B-29s in the air and dropped 6521 tons of bombs on Japan. This was a maximum effort. Compare it with the maximum effort of Task Force 58. In a single day land-based B-29s delivered more than 12 times the total bomb tonnage delivered by carrier-based aircraft in 3 separate attacks against the same target area. With such attacks the 20th Air Force destroyed the industrial capacity of Japan's 61 principal cities in a matter of a few months.

And it can never be forgotten that while strategic bombing was the assigned role of the 20th Air Force, the Navy high command sent Task Force 58 on its strategic bombing assignment at the expense of the Navy's primary mission—to take Iwo Jima "at the lowest possible cost"—and that "Iwo Jima cost too much."

The Navy's determined effort, at almost any cost, to convert the aircraft carrier from a tactical weapon to a strategic force is a regrettable fact to come out of the war, a dangerous threat to national security, and an expensive item in the postwar defense budget.

In evaluating the Navy's current fight for survival two basic points must be recognized: First, our only potential enemy, Russia, has no Navy or merchant marine to speak of, and her self-sufficiency eliminates the use of superior sea power for blockade; therefore, the need for a powerful US surface Navy cannot be defended; second, Russia does not offer the only targets—surface craft and island-type land masses—against which aircraft carriers proved successful in wartime. Therefore, the need for a powerful US Navy featuring carrier aviation of the World War II variety cannot be supported. It may be several years before these facts are generally recognized, and Naval appropriations scaled accordingly, but the long range implications are obvious.

To offset these weaknesses the Navy has built up the myth of carrier aviation's strategic accomplishments during the war, as the foundation upon which to base its peacetime program, and has made its bid in the strategic bombing field. This program envisions the use of super-carriers capable of launching bombers of B-29 size and larger against strategic targets anywhere in the world.

The Navy fell so in love with this idea that it actually insisted carrier aviation could do the whole strategic bombing job better than land-based aircraft. This proposal kicked around behind the scenes for a year or more after the war. When it was exposed, the Navy issued official denials and then fell back on its compromise plan: To have its super-carriers serve as an immediately available "holding force"; that is, to hold the fort until land-based airpower could be brought to bear against an enemy. This theory was based on the belief that come an emergency, carriers could get there "fustest with the mostest." To all of this the Navy adds the enticing proposition that with atomic bombs one plane has the destructive value of hundreds of planes during wartime. Wrap it up and you have large atomic bombers operating from large mobile air bases and conducting strategic air warfare efficiently and economically.

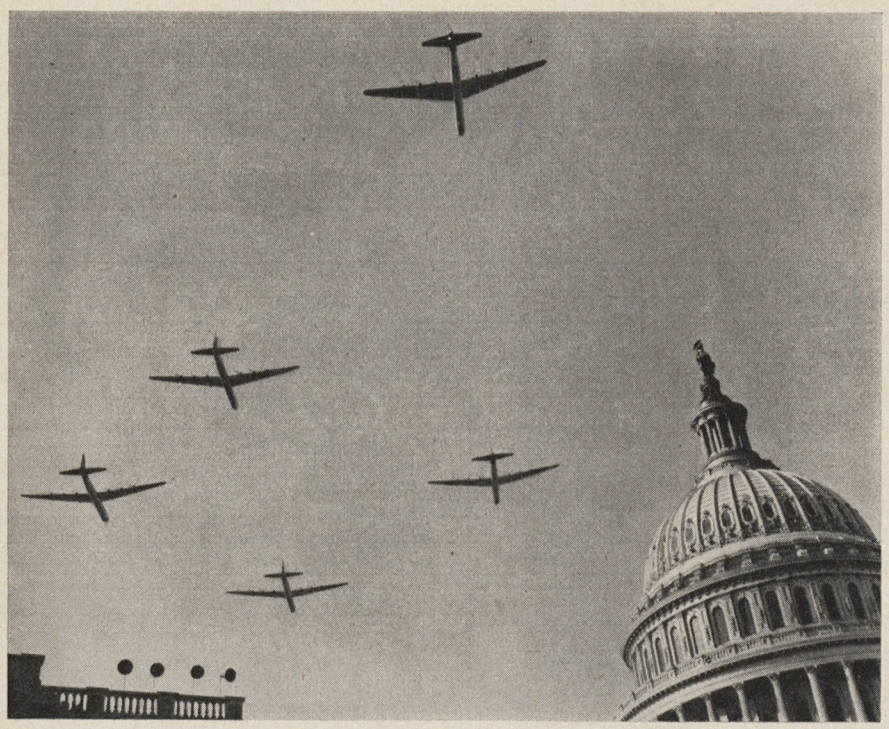
You can have it all as a combat-tested program for national security *if* you accept the myth of wartime strategic accomplishments.

The myth falls apart when you consider the comparative results of Task Force 58 and the 20th Air Force against the Japanese mainland, results that prove conclusively the relative inefficiency and high cost of carrier aviation against strategic targets.

As for the Navy's interest in atomic bombs, Jimmy Doolittle has pointed out the grave danger to national security of emphasis on carrier aviation in an atomic age. In a statement to the Joint Congressional Aviation Policy Board of 1948, now published for the first time, he said: "Improper preparation for air defense was the primary cause of our first Pearl Harbor. An attempt to use carriers, improperly, in a strategic bombing role might well move an important part of our supply of atomic bombs to a place where it could be most conveniently sunk.

And still the myth of the aircraft carrier as a strategic weapon persists, and in fact exists in the 1950 national defense budget now before Congress—a budget that provides for a Navy appropriation of virtually the same size as the Air Force appropriation, for a Navy Air Force which would cost taxpayers well over two billion dollars during the next fiscal year, and for construction of a super-carrier designed for strategic bombing with atomic weapons. That myth is the real joker in the $15,000,000,000 defense package now up for sale to taxpaying customers, and you should tell your friends about it.

From Tokyo AIR FORCE correspondent Charlotte Knight sends this exclusive picture of late Russian Ilyshin 12 transport.

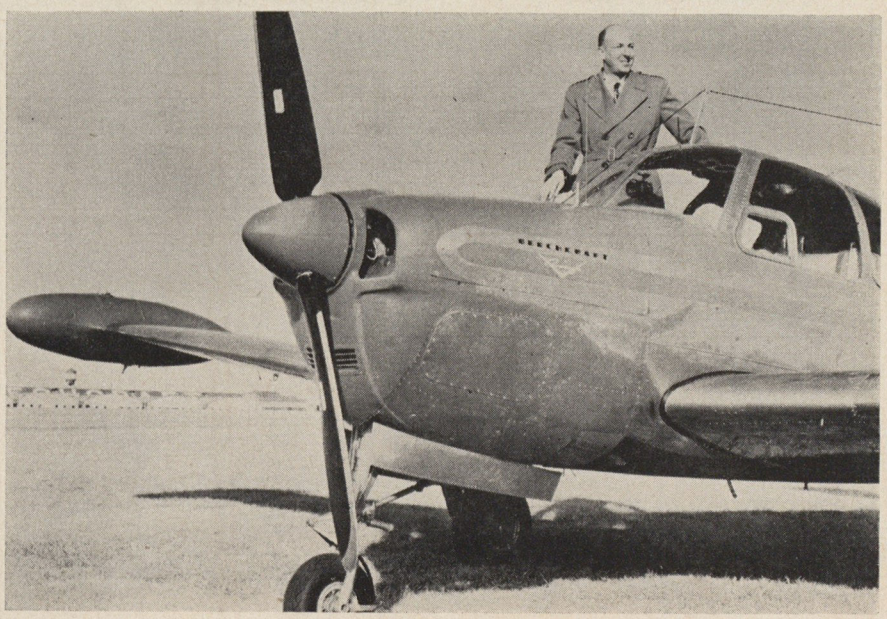


RECON SHOTS

Random camera records of the events of the month in the air from the four corners of the globe

The Air Force and Navy put 700 planes above Pennsylvania Ave. inaugural day. Leading the procession and stealing show was Convair's B-36.

Maj. J. Ohlinger congratulates singer Fran Warren, Miss Air Guard of '49.



Capt. Bill Odom stands by the cockpit of his standard-type Beechcraft Bonanza in which he busted light plane distance record in Honolulu-US hop in January.

CRISIS IN AIR TRANSPORT

CONTINUED

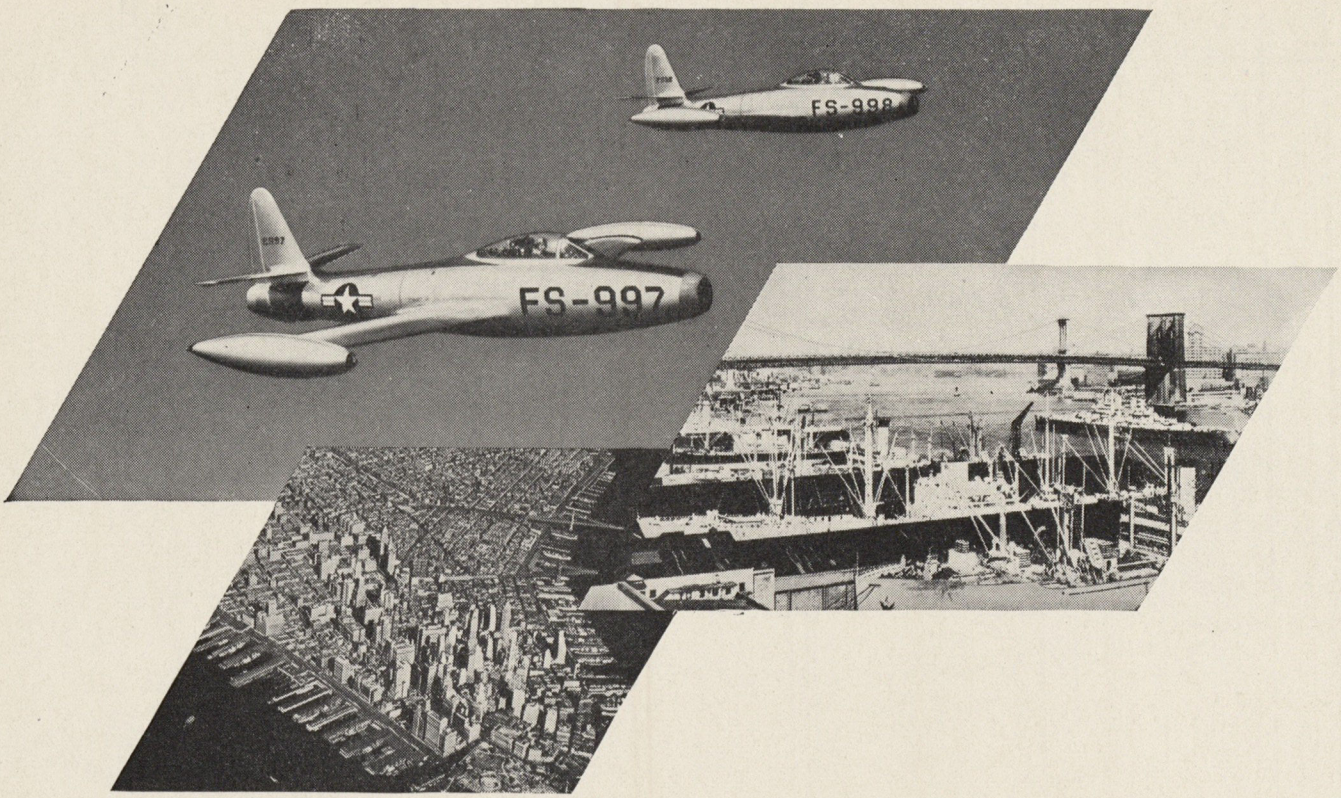
this country and China in its operations over the "hump," the high ranges of the Himalayas which separate India from China. Although this was one of the most difficult flying areas in the world, ATC reached a peak lift, in one period of 24 hours, from its bases in India to its bases in China of more than 5,000 net tons. This represented a yearly potentiality of more than 2,000,000 tons of supplies over that one route. Following V-E Day, it became necessary to speed up redeployment of military forces from the European theater of war to the Pacific. Because of the flexibility and central control of ATC, it was possible to superimpose on its world-wide air transport operations the movement of more than 50,000 troops each 30 days across the Atlantic Ocean. In August of 1945, ATC was given 12 days' notice of General MacArthur's plan to move the first wave of his occupation troops into Japan by air. Within that period 249 four-engine and 372 twin-engine transports were assembled in Okinawa. In the 10 following days almost 25,000 troops with full equipment, together with several thousand tons of cargo, were flown from Okinawa to Japan.

The above cited illustrations of the strategic employment of air transportation were impressive at the time of their occurrence. However, they will be relegated to insignificance compared to what will be possible in the relatively near future if our logistical planning is inspired by vision and imagination coupled with the utilization of the type of air transportation which can now be procured in vast quantities.

Air transportation is very definitely a part of airpower. Don't let us kid ourselves into believing that we are powerful in the air unless we possess a strategical air transport command capable of supporting our Air Force from those overseas bases from which it will have to operate in the event a war with Russia should be forced upon us in the not too distant future.

Don't let our eyes be opened upon another major conflict with a major deficiency in any vital part of our airpower at least so far as *building* it is concerned. We all know we don't now *possess* it. The responsibility of expediting its creation most certainly rests heavily upon the shoulders of those responsible for our national security. God pity us if we fail.

Remember that "Where there is no vision, the people perish." Don't let the lack of vision on our part fail to create immediately a modern strategic air transport command capable of supporting the kind of air operations from overseas bases which this nation will have to employ in the near future if our survival in this unsettled world is to be assured and not left to the winds of chance.



THUNDERJETS OVER AMERICA

Daily . . . from well staffed, busy fields of the U.S.A.F. throughout the country squadrons of new Thunderjets are in operation . . . ¶ Proven in service . . . and now being supplied in ever increasing  numbers their greater range . . . speeds of over 600 M.P.H. and tremendous fire power are the obvious warnings to aggressor nations. ¶ Thus the Air Force  assures protection to our greatest centers of population. The metropolitan area which houses the life line of two thirds of the world's financial markets . . . and the greatest seaport on the face of the earth . . . New England's harbors of the fishing trades  and inland . . . the many productive farms . . . and the heavy industries which turn out everything from cotter pins to high speed bearings. ¶ All are in turn part of the treasure trove whose safety is assured only through the growing acceptance by the American people of the vital need for a modern dominant air force . . . 

Republic Aviation Corporation, Farmingdale, L. I., N. Y.

"This is the year of the Thunderjet"

REPUBLIC AVIATION

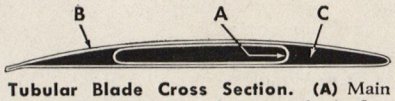
Makers of the Mighty Thunderbolt • Thunderjet • XR-12

Greater Blades for Bigger Jobs

Now—A New Blade Construction Principle Opens New Horizons for the Aeroprop

With the successful development of the tubular blade principle, Aeroproducts announces another great stride forward—Aeroprops with tubular blades engineered for engines up to 10,000 horsepower.

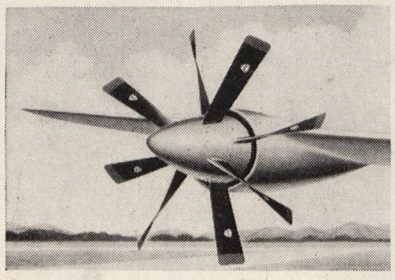
There are two salient advantages offered by the Aeroprop with tubular blades. It gives high power-absorption at high efficiency. It gives strength-weight ratios comparable to or better than those of ordinary hollow blade construction, yet it is available in larger sizes. Thus engines of greater horsepower may be used within diameter limitations of present propeller installations while larger blades for more powerful engines become feasible.



Tubular Blade Cross Section. **(A)** Main structural member—seamless tapered tube flattened and formed. **(B)** Air-foil contour—one-piece die-formed sheet of steel silver-brazed to tube; trail edge roll-welded. **(C)** Aeroproducts' light, cellular blade-filler material bonded to steel stabilizes secondary vibratory stresses.

Tubular bladed Aeroprops have passed all required military tests. Like all Aeroprops, they are produced with selected features—reverse pitch, instant-feathering, de-icing, etc. Models with application up to 10,000 horsepower are in production or design.

Like all Aeroprops these propellers demonstrate again that Aeroproducts—backed by the vast research facilities of General Motors—can help today with your planning for tomorrow.



The Aeroprop is available in single or dual-rotation with instant-feathering, reverse pitch, electric de-icing, and all other features required for any installation. Regulator, hub and blade assemblies are designed for unit installation or replacement. It is strong, light and simple.

Aeroprop

BUILDING PROPELLERS FOR AIRCRAFT TODAY
DESIGNING PROPELLERS TO MEET TOMORROW'S NEEDS

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