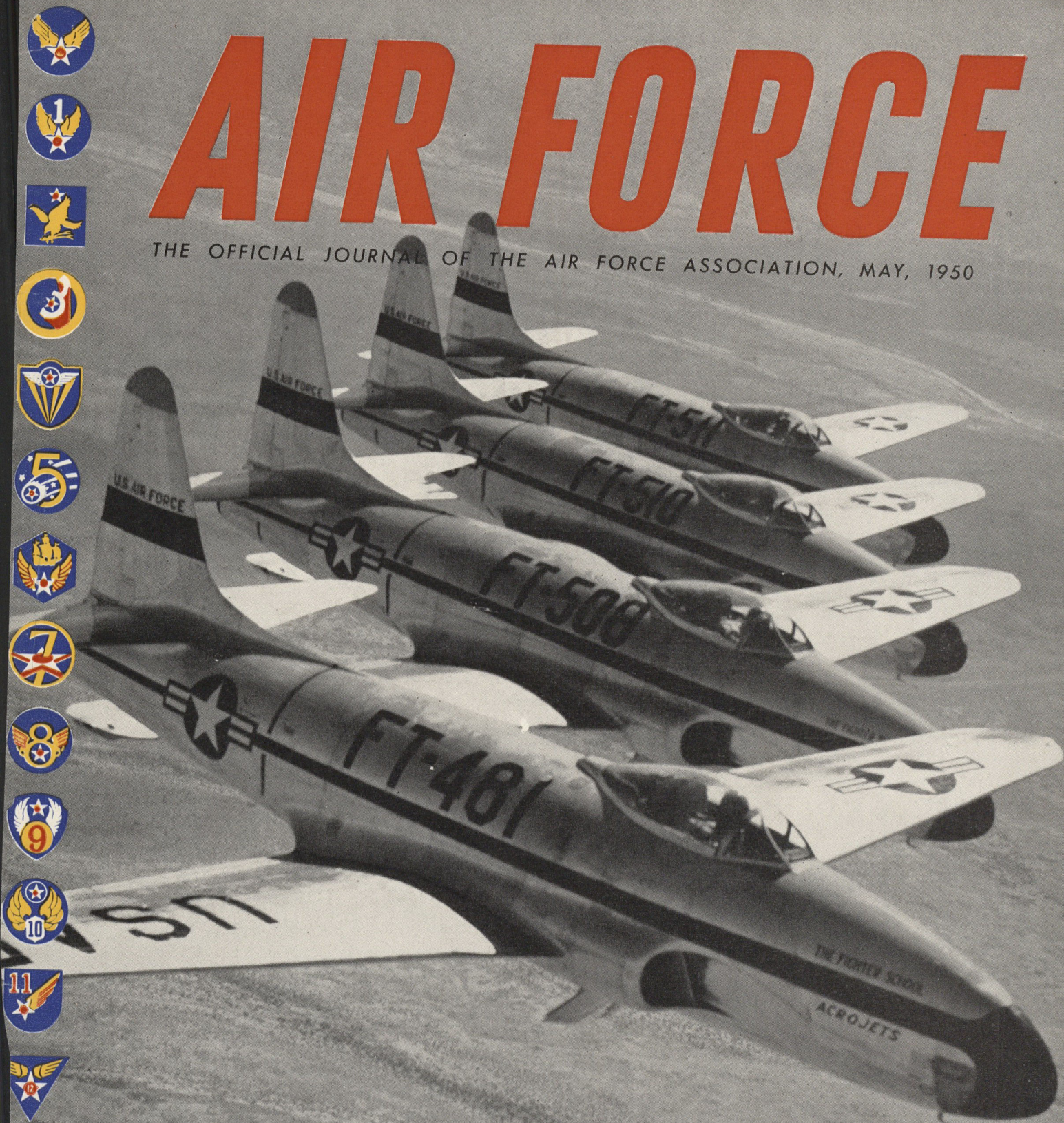


AIR FORCE

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

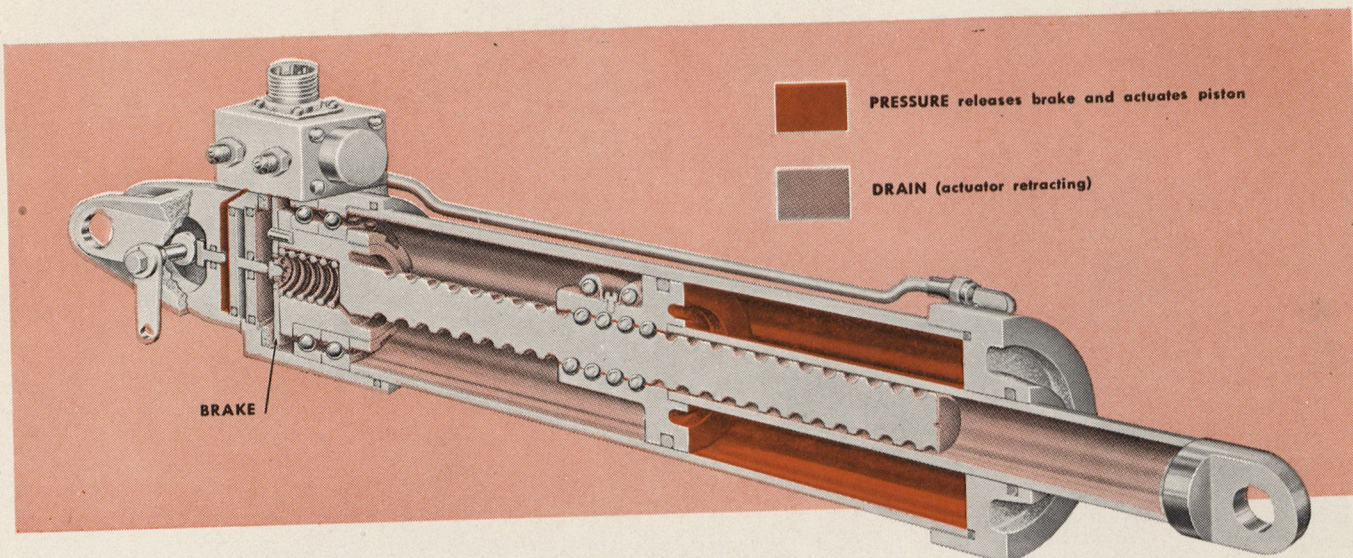


The AF's Acrojets
Tops in Caliper-Spaced Formations

In This Issue:

CIVIL DEFENSE IS HERE TO STAY

Page 17



Inside Story of the Aeroproducts Locking Hydraulic Actuator!

CHECK THIS AEROPRODUCTS ACTUATOR design for your most critical positioning needs—such as stabilizer control, sweep back and wing incidence. It offers these unique advanced Aeroproducts operational and safety features.

- Actuator is locked in position by mechanical brake in event of system failure.

- Can be operated at reduced rate of travel by either electrical or manual power drives through ball screw.

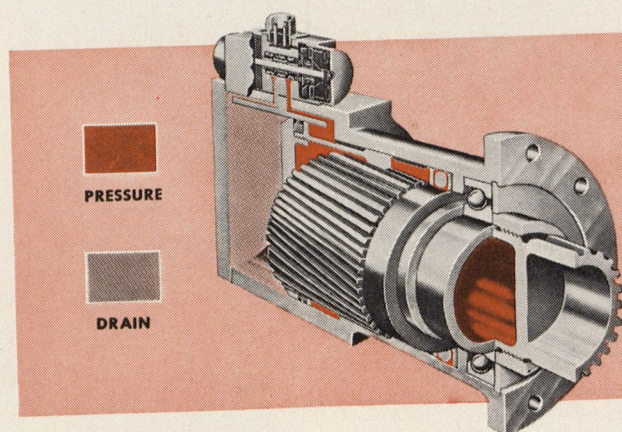
- The high efficiency ball nut screw can be equipped with a centrifugal brake governing maximum rate of travel.

- Easily synchronized for two or more units.

- Can be remotely controlled by a Solenoid Valve.

- A mechanical brake is effective at every point in the operating range.

This design is satisfactory for operation at 3000 psi; stroke rate and thrust are limited only by available flow and pressure. Like all Aeroproducts actuators, it can be produced in sizes and modifications to fit your needs. Your inquiry will receive prompt attention.



ROTARY... HYDRAULIC OR PNEUMATIC ACTUATORS

TORQUE CAPACITY:

- From a few pound inches to 250,000 pound inches.
- Operating pressures: to 3000 psi.
- Rotary action up to 500°. Time dependent on flow and pressure.
- Proportional flow Solenoid Valve available for remote positioning.

SEE AEROPRODUCTS FOR EVERY TYPE OF ACTUATOR. ELECTRO-MECHANICAL LINEAR AND ROTARY ACTUATORS ALSO AVAILABLE

BUILDING for today
DESIGNING for tomorrow



Aeroproducts

ACTUATORS—Linear & Rotary, Electro-Mechanical, Hydraulic & Pneumatic

AEROPROPS—Single and Dual Rotation

TURBO-PROP CONTROL SYSTEMS



AEROPRODUCTS DIVISION • GENERAL MOTORS CORPORATION • DAYTON, OHIO



World Leader in JETS

The Lockheed Aircraft Corporation is the largest producer of jet aircraft in the world.

Lockheed's five-year continuous production of practical jet airplanes almost equals the total output of all other U.S. manufacturers combined.

The world's first mass producer of jets, Lockheed established this leadership with the F-80 *Shooting Star*, America's first operational jet airplane. This fighter, like other Lockheed jets (the T-33 two-place jet trainer and the new F-94 interceptor), is noted for its speed, versatility and strength.

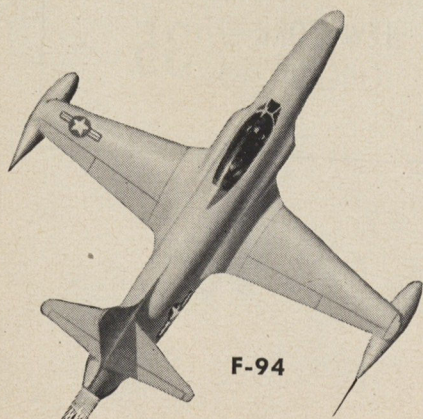
Carrying on this tradition is the newest member of the Lockheed jet family, the rugged, twin-engined F-90 Jet Penetration Fighter, now undergoing evaluation tests by the U.S. Air Force.

This broad experience in the development of practical jet aircraft is invaluable in the Lockheed laboratories where the designs of the future are taking shape today.

LOCKHEED

Aircraft Corporation, Burbank, California

Look to Lockheed for Leadership



F-94



Where the Gang gets together

MISSING: Anyone knowing the whereabouts of Air Force vet James G. Condes, missing since last July, please contact his mother, Mrs. Anna Condes, 365 Park Avenue, Passaic, N. J.

PHOTOS WANTED: My picture album is lacking snaps of my stay at Port O'Connor, Texas. Would like to hear from my old buddies stationed there. Charles R. ("Dick") Seidel, 452 Mulberry Street, Reading, Pa.

BILL LOWE: I would like to get in touch with a William Lowe who was with me in gunnery training at Hammer Field, Fresno, Calif. Francis A. Hamilton, Lake Mohunk Mt. House, Mohunk Lake, N. Y.

748TH: Trying to locate fellows who were members of the 748th Bomb Sq., 457th Bomb Gp., in England between July and September 1944. Melvin Milbouer, 2566 Ocean Ave., Brooklyn 29, N. Y.

ROSTER: Want information from any former member of the 316th Fighter Sq., 324th Fighter Gp. who has a roster of squadron members from 1942 to date. Leslie P. Hamilton, P. O. Box 693, Bound Brook, N. J.

HARRY THE COOK: Does anyone know the whereabouts of Harry Julian who used to cook for Hq. Sq. of the 60th A.D.C. at Stinson Field, Texas about October 1943. Gregor Hulsman, St. Anthony, Ind.

COMBAT PHOTOS: Would like to obtain some actual combat photos of B-24s and B-17s in action. Burrell L. Robertson, 249 6th Ave., New Kensington, Pa.

CREW 13: Sure would like to hear from any of Lt.

Carlson's crew 13, 332nd Bomb Sq., 94th Bomb Gp. Gary L. Hinote, 509 Smith St., Flint, Mich.

REUNION: All former members of the 388th Bomb Gp. are urged to attend its first reunion to be held at French Lick Springs Hotel, French Lick, Indiana, July 6-8. For reservations write Robert L. Pfeiffer, French Lick Springs Hotel, French Lick, Ind.

NEGATIVES: Would like to borrow negatives from any member of the 32nd Troop Carrier Sq. taken while we were in Africa, Sicily, England, France and other European countries. Will pay postage and return negatives. Don W. Dickey, P.O. Box 87, Negley, Ohio.

FIGHTER PILOTS: Am writing a story on heroic wartime exploits and am therefore seeking present whereabouts or any information re Col. James H. Howard, Ret., former Flying Tiger and Mustang pilot over Germany, last known address St. Louis. Also Lt. Vernon E. Graham, carrier plane pilot U.S.N., fought in South Pacific near New Georgia, 1943. Last address Fowler, Colo. Bern Williams, 38 Monroe St., New York 2, N.Y.

COINS WANTED: I am starting a hobby of collecting Old American coins and all foreign coins. Anybody who brought back souvenir coins from foreign countries during the war and who would like to send them to me for my collection would greatly oblige Ernest Petersen, Groff St., Kingston, N.Y.

WAC WANTED: Does anyone know the whereabouts or home address of Gracie Allen, former WAC sergeant? We were stationed together in Fort

Worth during 1943-44. Her home town was Albany, N.Y. Mrs. Elizabeth (Roberts) Somick, 12701 Astor Ave., Cleveland, O.

HISTORY BOOKS: Does anyone know how I can obtain unit histories of any of the following organizations: 379th Bomb Sq; 380th Bomb Sq; 81st Bomb Sq; 428th Bomb Sq; and Hq. & Hq. Sq. 310th Bomb Gp. Lyle R. Bigelow, VA Hospital, Tomah, Wisc.

224TH: Any chance of my getting in touch with members of my old outfit, the 224th Aero Sq? Haven't heard from any of them since we were discharged. Fred G. Michel, Veterans Hospital, Ward 14, Palo Alto, Calif.

CALLING CLIVE: Been trying for two years to contact an old buddy of mine. His name is Clive Jarnigan, last known address Stockton, Calif. Melvin Stuckenschmidt, Pender, Neb.

POWS & POCO LOCO: Would like very much to have photos taken at Stalag-Luft #1 in Germany. Col. Gabby Gabreskie's old outfit. Also want photos of the B-24 Poco Loco, 577th Bomb Sq. shot down on her 34th mission on Feb. 24, 1944. Jan Brown, 494 East 171st St., Bronx 57, N. Y.

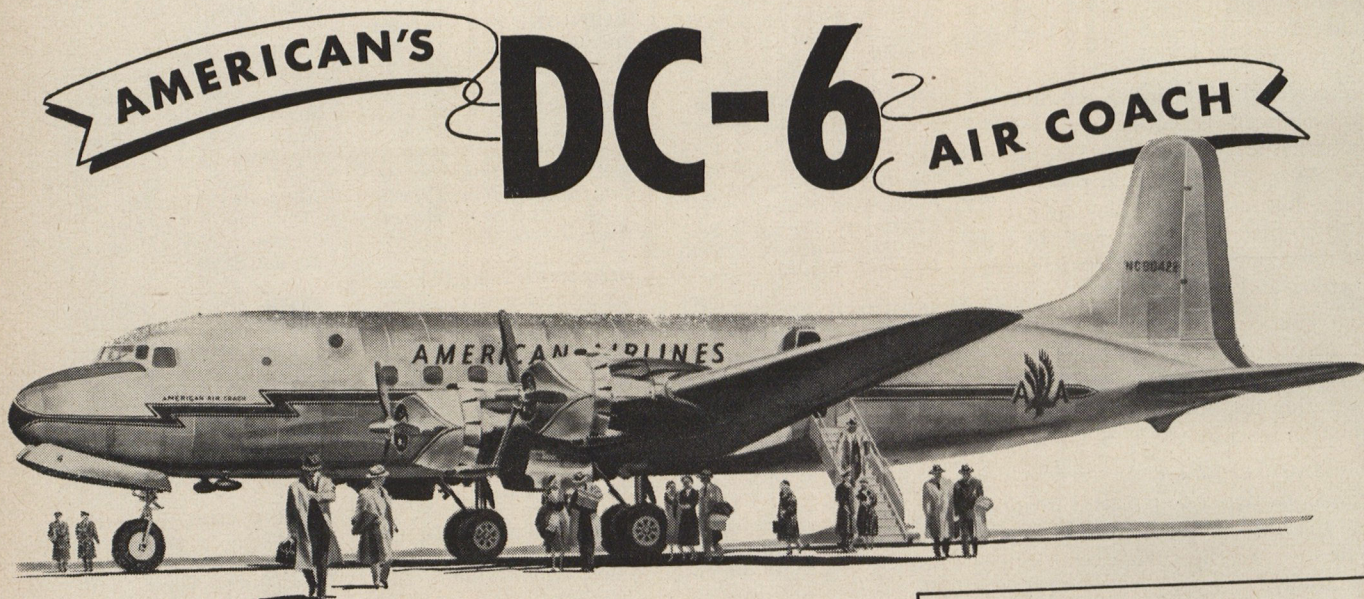
REUNION RETREADS: The annual reunion of retreads will be held in Chicago Aug. 26-28, La Salle Hotel. Details from S. P. Medbury, Room 636, 29 South La Salle St., Chicago, Ill.

NELSON: Would like to hear from, or get the address of, Lt. Nelson, engineering officer for the 40th Bomb Gp., Forward Detachment at Hsin-ching, China. James E. Nunnally, Box 1935, University Sta., Austin, Tex.

LOOKING FOR SOMEONE? ANY ANNOUNCEMENTS TO MAKE? WRITE
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The fastest and most modern air coach service ever offered



The only scheduled DC-6 air coach service

- Passengers may now enjoy extra speed as well as economy when they fly American Air Coach. For only American has added the dependability and speed of DC-6 aircraft to this service making it the finest in low cost air travel. Manned by the same crews who fly the Flagships, these giant 4-engine planes with pressurized cabins will operate on a daily schedule between New York, Chicago and Los Angeles.

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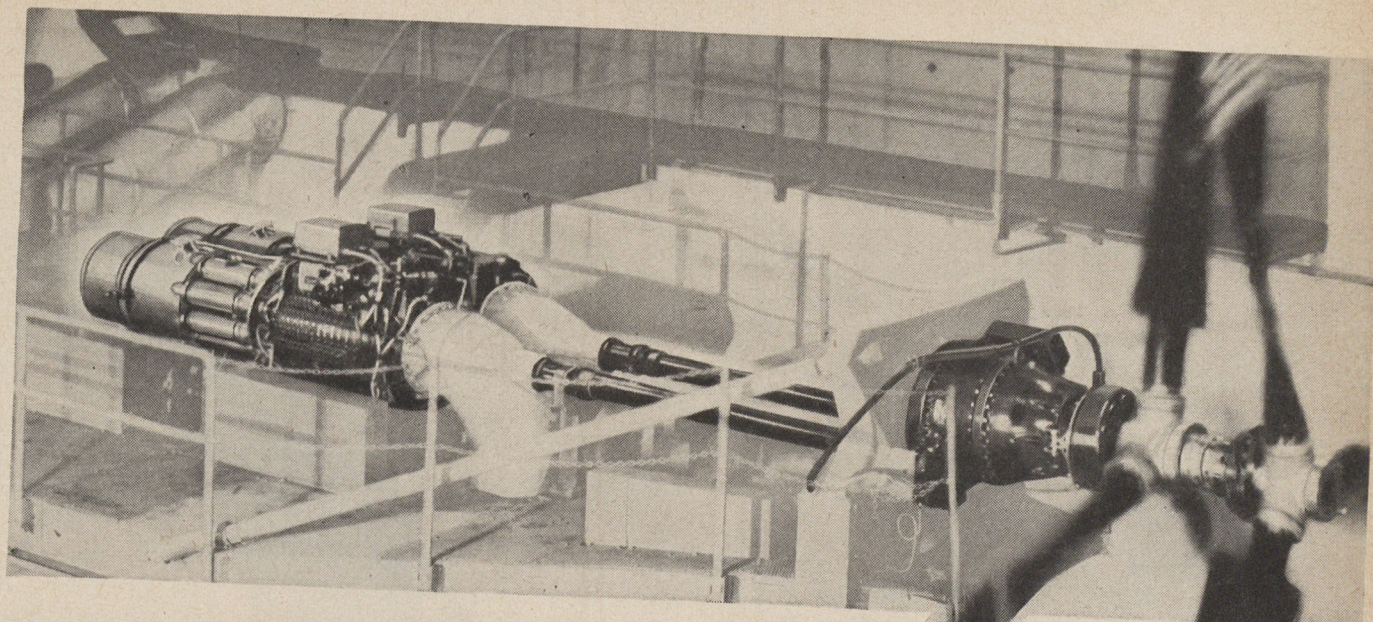
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CHICAGO }

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Allison Turbo-Prop Engine
***MOST* power per pound**
***LEAST* fuel per horsepower**

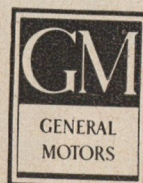
The new 5500 horsepower Allison T40 Turbo-Prop is the most powerful propeller-type engine in the world today. It develops more than two horsepower for each pound of weight —yet its fuel economy is better than that of any other Turbo-Prop engine in the world.

Its twin-engine-unit design permits full power for shorter take-off, faster climb and top cruising speed. In flight, to gain best fuel economy for cruising, one power unit may be shut off entirely, allowing the other to operate at its most efficient setting. Through shafting, clutches and a reduction gear, either engine unit drives both propellers. Thus there is no drag from a feathered propeller when one power unit is shut down. This feature, permitting maximum power and maximum fuel economy, cannot be matched by a single unit engine.

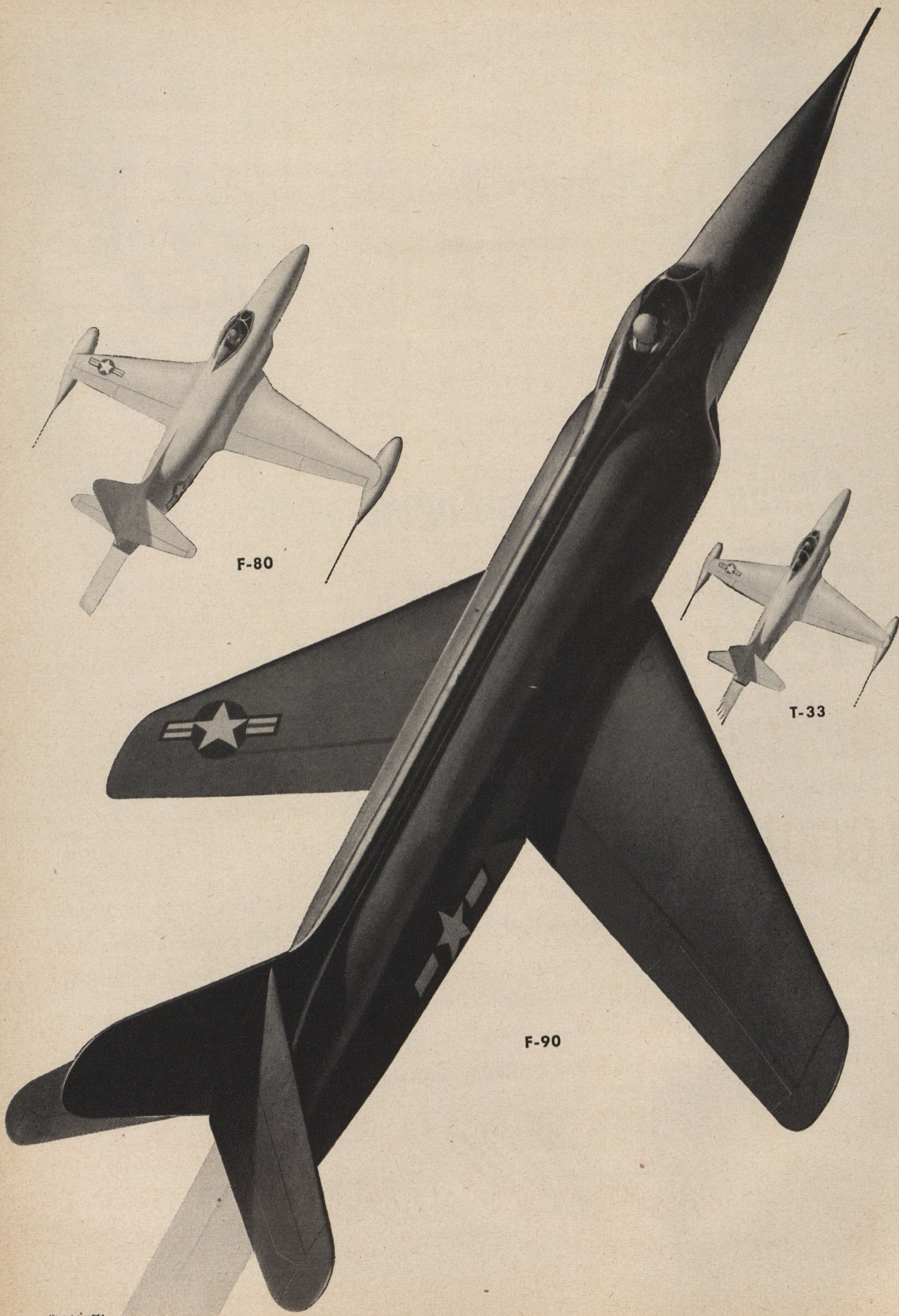
Allison

Builder of the famous J33 and J35 Turbo-Jet aircraft engines

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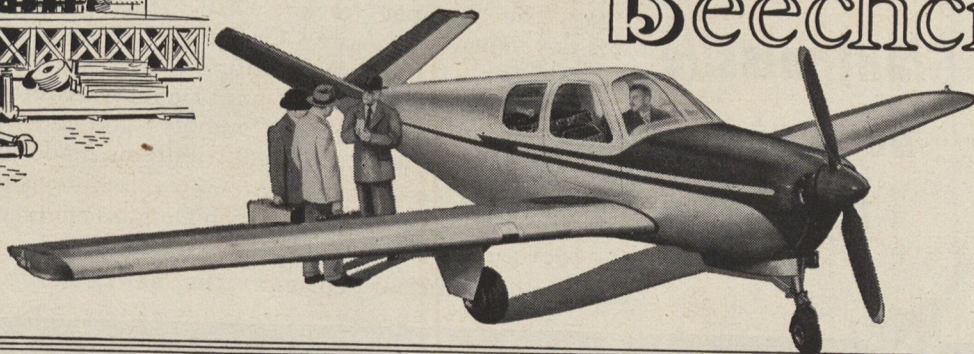
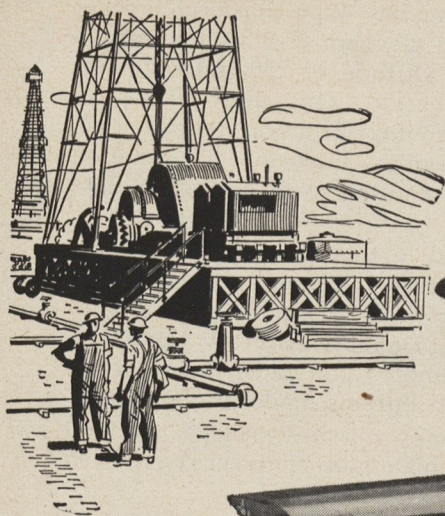
F-80

T-33

F-90

**Businesses that grow
need the go of a**

Beechcraft



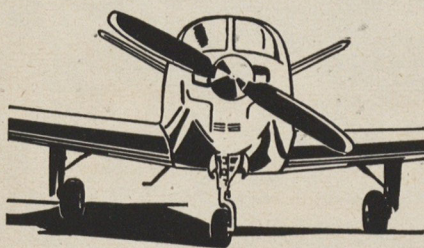
You make more calls when you cruise at a 170-mile clip. No wasted time, no wasted effort. Travel *means* more! Minutes in the air pay you back with hours of productive time.



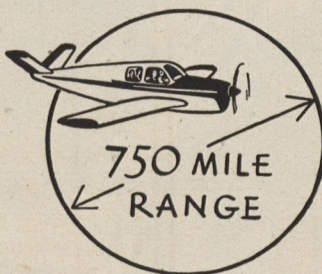
You get to where the business is in luxurious comfort. Room to spare for four big people in the smartly tailored, quiet Beechcraft Bonanza cabin. Maximum 5-way visibility.



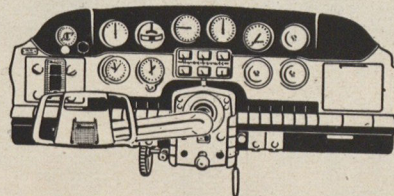
You travel in safety. The B-35 Beechcraft Bonanza is extra rugged, withstanding shock and stress tests far surpassing CAA requirements. All-metal construction.



You get top performance. Flight characteristics make it exceptionally easy to handle. Speed, range and fuel economy unexcelled! Wide, sturdy landing gear smooths out short, rough-field landings.



You get amazing efficiency. At cruising, the Beechcraft Bonanza uses only 56% of the engine's rated take-off horsepower! And fuel consumption is low—amounting to only 9.5 gallons per hour!



You enjoy many extra features. For instance, a functionally designed instrument panel, highly efficient . . . but handsome, too! Touches of luxurious comfort everywhere—even to coat hangers, ash trays, map pockets!

Get all the facts! There are hundreds more . . . about the extra advantages of the new Model B-35 Beechcraft Bonanza. Check with your nearest Beechcraft distributor or dealer, or write for complete information on your company letterhead to Beech Aircraft Corporation, Wichita, Kansas, U.S.A.

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

Beechcraft
BONANZA

BEECHCRAFTS ARE THE AIR FLEET OF AMERICAN BUSINESS



'BUMPER'

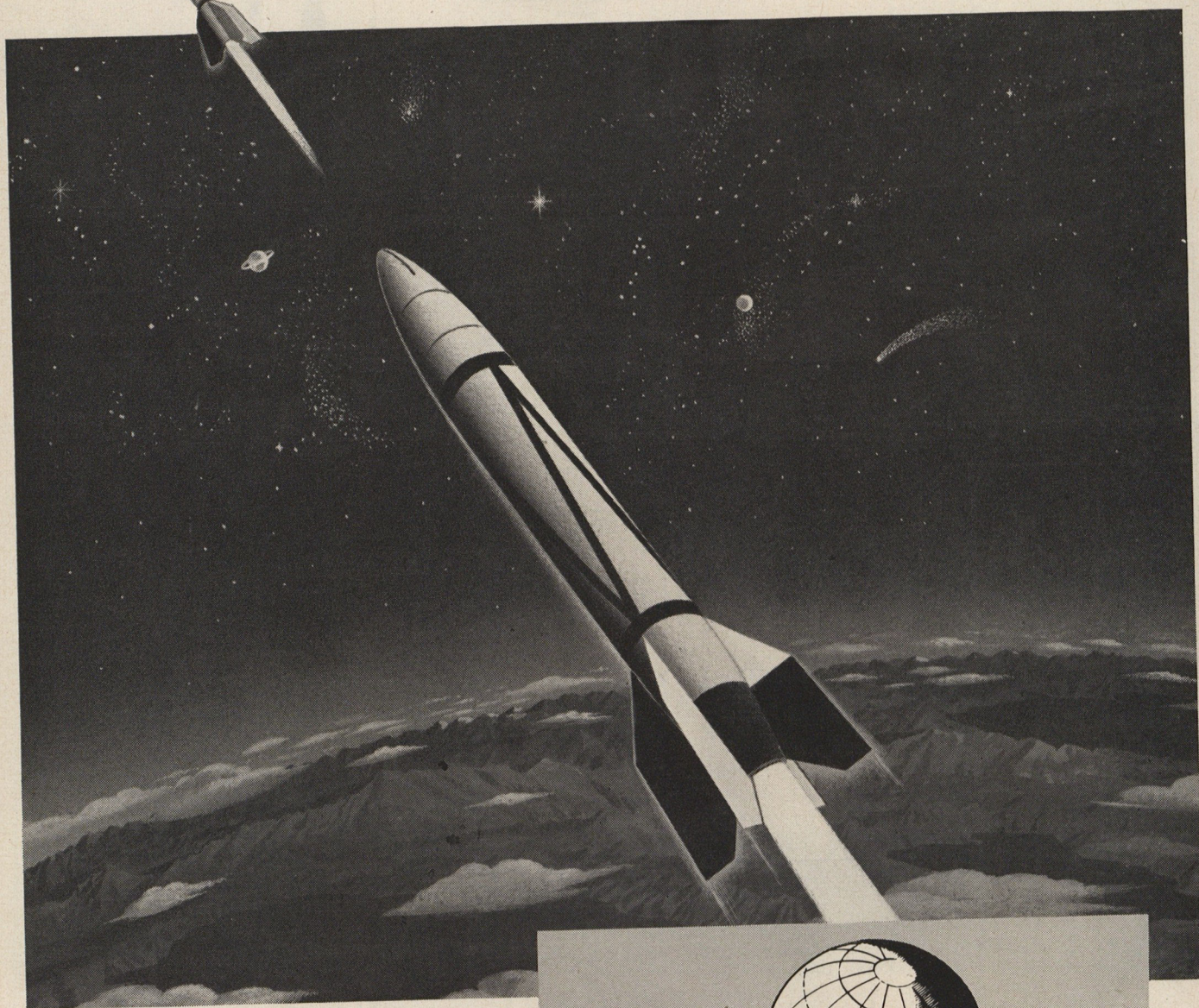
**Giant missile
born of
teamwork!**

Miles above the earth, the slender "Wac Corporal" rocket blasts loose from a modified German V-2, and attains a speed of 5,000 mph and an altitude of 250 miles—fastest and highest flight by any rocket. This most successful firing, from White Sands Proving Ground, New Mexico, February 25, 1949, gave scientists important information on little known phenomena of outer space and other data required in missile research.

The "bumper" rocket used in this spectacular test was developed by Army Ordnance working with General Electric, California Institute of Technology Ballistics Research Laboratories, and Douglas Aircraft Company. Structural design of the "bumper" and construction of the "Wac" were among the contributions made by Douglas.

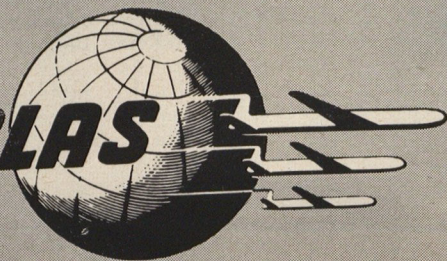
This is just one of the many missiles projects, so vital to America's defense, to which Douglas engineers have been devoting their skill and energies since 1941.

DOUGLAS AIRCRAFT COMPANY, INC., SANTA MONICA, CALIFORNIA



DEPEND ON

DOUGLAS



30TH ANNIVERSARY YEAR

AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION

CONTENTS

MAY, 1950

VOL. 33, NO. 5

THIS IS AFA

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

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

ITS OBJECTIVES

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

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

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

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THE COVER

On the page immediately following this one is a short story of five boys whose greatest thrill is cutting patterns in the air that would make a figure skating team run for its rocking chairs.

READ "ARIZONA'S ACROJETS"—PAGE 4

AIR FORCE STAFF

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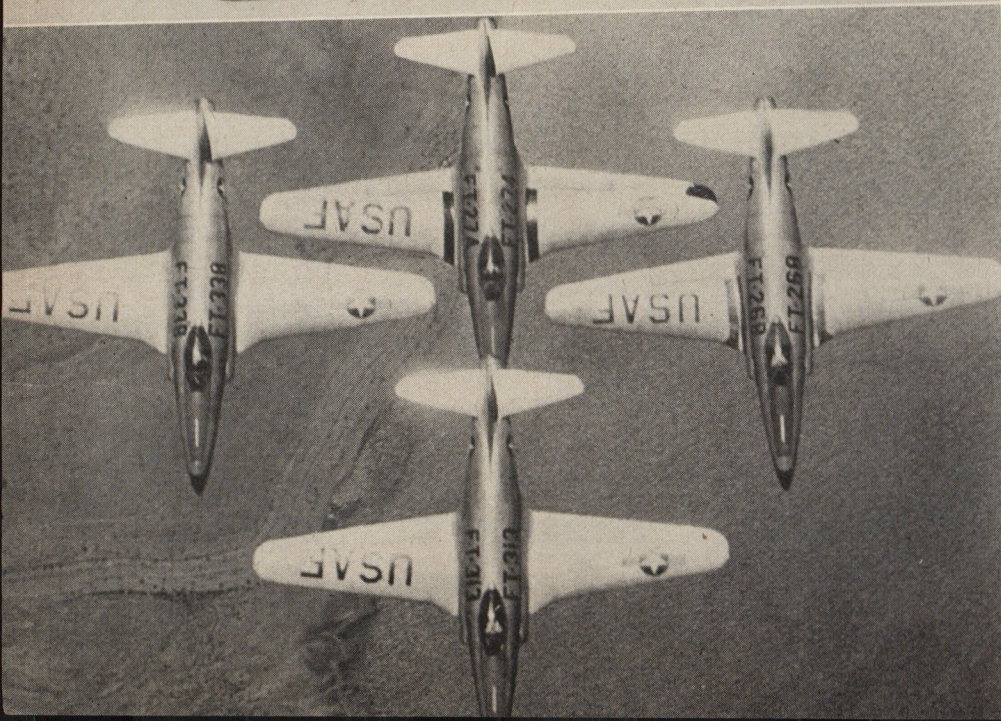
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Arizona's ACROJETS

The sharpest group of pilots in today's Air Force is a black-covered quintet from the Fighter School, Williams, Arizona, who call themselves the "Acrojets." The pictures on this page and on the cover provide an indication of some of their formation work. Tricky as their aerial maneuvers are, they are serious men who take real offense when they are referred to (as they often are) as "hot pilots." In the measured words of Fighter School Wing Commander Col. Louis R. Hughes, Jr.: "Acrobatics are not something to be thought of only as thrilling, but rather as an integral part of the training of every fighter pilot. Each acrobatic maneuver plays a part and is necessary to the fighter pilot in accomplishing his goal. That goal is to fly a gun platform with precision."

The Acrojets begin their show with a four ship takeoff in finger formation. After gaining altitude, the team makes a high speed pass in tight diamond formation as an "attention getter." And that formation is really "tight"—routine clearance: 18 inches. Out of the high speed pass an Immelmann is executed. The next maneuver is a loop followed by a Cuban Eight. Going away, the foursome gains altitude for a split "S". Then they come back in line parallel to the crowd and time a barrel roll so that all planes are on their backs when directly in front of the crowd. Again they gain altitude going away and after another split "S" the formation begins a loop and rolls at the top of it. The four jets chandelle as one after completing the roll and come in facing the crowd to make a clover leaf. The final maneuver an exclusive landing called "The Bombshell", which consists of a loop off the end of the runway and a single ship "pitchout" at the bottom of the loop so that the planes land singly.

How tight can you get? Maj. Howard Jensen, Acrojet leader, shows his team. Squatting, Lt. Michael Smolen and Maj. Jones E. Bolt. Standing Maj. Walter Selenger, and Capt. Robert Tomlinson, who can step in and fly any position.



AIRPOWER IN THE NEWS

VOL. 33, NO. 5

WASHINGTON, D. C.

MAY, 1950

GENERAL EISENHOWER IS THE LATEST MILITARY EXPERT TO "QUESTION" THE PROPOSED '51 FY DEFENSE BUDGET. On March 29 he told Senate Appropriations Committee that although an up-to-date 48-group AF is adequate for the defense of the Nation, the \$1.2 billion provided for USAF aircraft procurement in '51 is not enough to maintain a 48-group force equipped with modern planes. The general also advocated more funds be allocated to strengthen antisubmarine forces and Alaskan air bases. This testimony brought forth a statement from Chairman Carl Vinson that members of his House Armed Services Committee are planning amendments to the money bill that would add \$583 million to the 1951 budget, \$200 million for USAF funds and \$383 million to go to Naval Air Arm.

THREE NEW MEMBERS OF NACA HAVE BEEN APPOINTED BY PRESIDENT TRUMAN. They are Honorable W. S. Davis, Assistant Secretary of Commerce; William Webster, Chairman of the Research and Development Board; and Vice Adm. John H. Cassady, USN, Deputy Chief of Naval Operations (Air).

FORMER AF SEC'Y SYMINGTON'S DEDICATION OF WORLD'S LARGEST AIRCRAFT HANGAR at Rapid City AF Base (Weaver, S. D.) is one of outstanding events scheduled for Armed Forces Day.

MODIFICATION OF USAF'S B-36B HEAVY BOMBERS TO B-36D MODELS will be accomplished at the San Diego plant of CONVAIR. Modification program includes, in addition to other changes, the installation of four jet engines to supplement the six 3,500 HP piston engines with which the "B" model bombers are already equipped. . . . Meanwhile, Boeing has released an artist's conception showing three of its design studies of proposed jet airliners. For greatest efficiency, the jet transport should have a long, thin wing, sharply swept back, similar to that of the performance-proved Boeing B-47 Stratojet bomber, Maynard Pennell, the company's chief preliminary design engineer, declared in Boeing Magazine article.

NAVY WILL ORDER AN ADDITIONAL 100 MEDICAL OFFICERS TO DUTY WITH USAF within the next year. . . . Graduates of medical, dental, pharmacology and veterinary colleges who participate in the medical ROTC program of U. S. Army may now receive commissions in the Medical Service, USAF Reserve, according to recent agreement between the Army and AF. Prior to the agreement, it was necessary for students in these categories who preferred reserve commissions in AF to accept Army commissions, and then transfer. . . . A standardized program for emergency stand-by crash medical service will be established immediately at all AF hospitals at bases having an active flying program, Maj. Gen. Harry G. Armstrong, USAF Surgeon General, has announced. The program is patterned after the Crash Service organized more than two years ago by Maj. Howard R. Lawrence, when he was Flight Surgical Chief of Bolling AF Base Hospital, Washington, D. C.

WEARING OF SHOULDER PATCH ON NEW AF BLUE UNIFORM is limited to WW II combat unit to which assigned in overseas theater of operations--no other unit insignia is authorized. The combat patch must be worn on upper left shoulder sleeve; however, it is entirely voluntary and must be procured at individual's own expense.

THE FIRST FLIGHT OF MEDIUM BOMBERS (B-29s) BEING TRANSFERRED OVERSEAS UNDER TERMS OF \$1 BILLION MUTUAL DEFENSE ASSISTANCE PROGRAM for North Atlantic Treaty countries, took off for Great Britain on March 20. . . . A B-29 Mobile Training Detachment left Chanute AF Base recently for England where it will con-

(Continued on page 10)

AIRPOWER IN THE NEWS CONTINUED

duct familiarization courses for RAF personnel currently receiving the Superforts from U. S. See page 12.

BOUNDARIES OF U. S. NAVAL DISTRICTS SHIFTED TO COINCIDE WITH ARMY AND AF AREAS, Sec'y Matthews announced recently. . . . USAF's 81st Fighter-Interceptor Wing Headquarters and two squadrons of the Wing now located at Kirtland AF Base, N. Mex., will move to Moses Lake AF Base, Wash., in the near future. The transfer is designed to make best use of available fighter squadrons in organization of modern air defense front across Pacific northwest approaches Approximately 2,100 Naval Air Reserve recruits will be given eight weeks of indoctrination training at Naval air stations this summer.

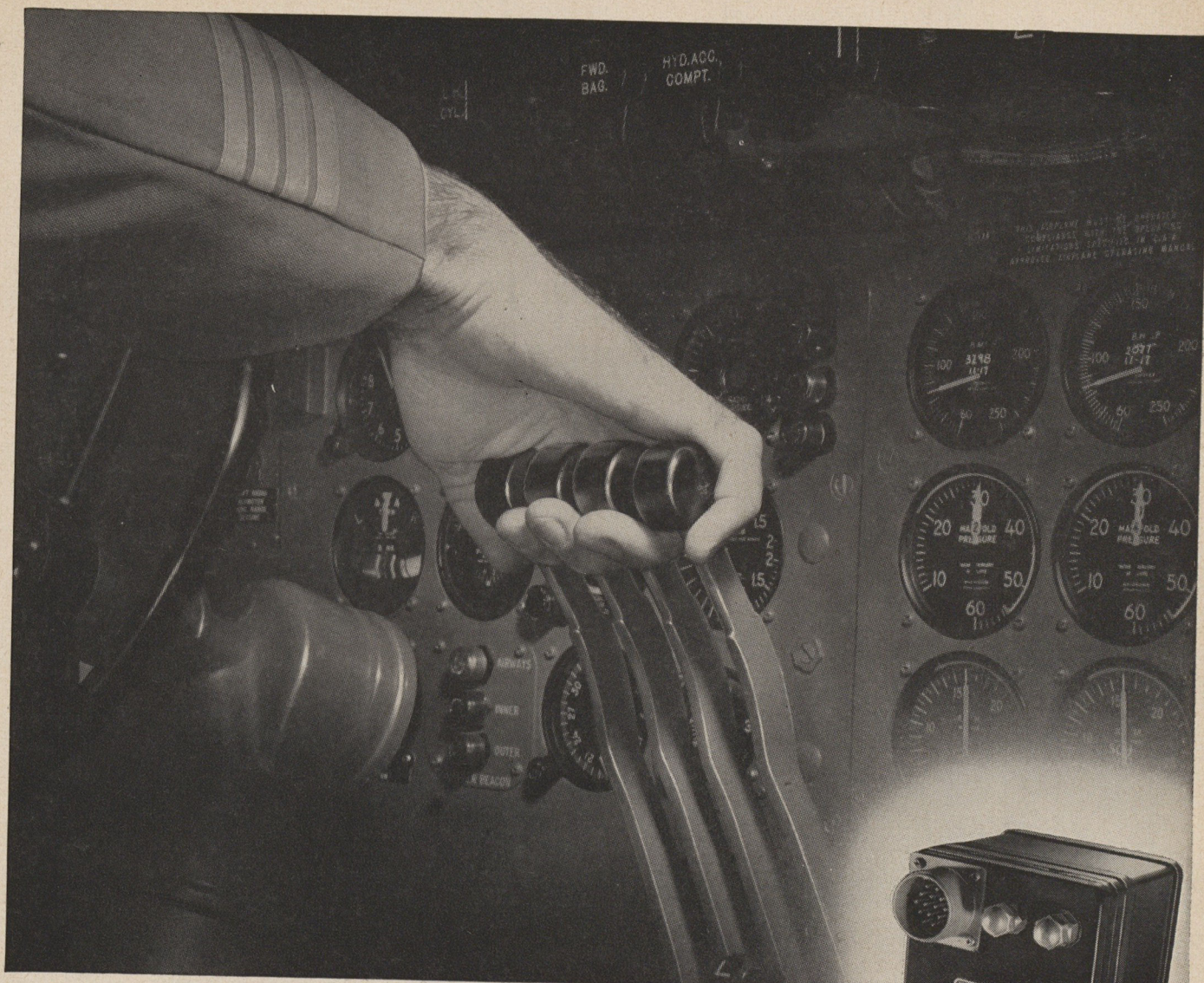
INEXPENSIVE RAMJET ENGINES MAY BECOME THE "MISSING LINK," which could put the helicopter within the financial reach of the average American family, by cutting down helicopter cost to within price range of the automobile, according to Igor B. Bensen, General Electric Company engineer, in a speech before Sixth Annual Forum of the American Helicopter Society and the Institute of Aeronautical Sciences on March 30, he said that helicopter manufacturing costs tumble when ramjet power is used. Even though man has learned to fly faster than sound can travel, the bulk of this country's combat aircraft will still be subsonic for many years to come. The American Society of Mechanical Engineers was told on April 13 at its spring meeting in Washington's Hotel Statler by Carl C. Sorgen, technical assistant to the head of Experimental Engines Branch, Bureau of Aeronautics, Department of Navy. He said the brute force required for propulsion beyond the sonic barrier made supersonic aircraft "tremendously expensive."

FAIRCHILD ENGINE AND AIRPLANE CORPORATION netted \$1,575,328 for 1949, Richard S. Boutelle, President, announced recently. . . . Boeing Stratocruisers carried more than 160 thousand revenue passengers on flights totaling over nine million airplane miles during their first year of scheduled service, Boeing Airplane Company announced on April 3. . . . Notification has been given to U. S. Government of intention of Republic Aviation to purchase all leased premises, (buildings and land), not now owned by Republic at their Farmingdale, L. I., location.

A TOTAL OF 35 FAIRCHILD C-119 PACKETS from the 314th Troop Carrier Wing at Sewart AF Base, Tenn., will play leading role in "Operation Swarmer" war games, a maneuver designed to prove that every piece of equipment, all supplies and all troops involved in any major military operation can be moved by air.

AF's FIRST VARTU IN MILITARY JUSTICE PROFESSION was activated at the Pentagon on March 29. The all-legal outfit is the 9465th Volunteer Air Reserve Training Squadron. Besides the headquarters, it has flight A (military justice); flight B (claims), and flight C (military affairs). . . . Minimum time-in-grade promotion requirements ofr airmen -- ranging up to four years for advancement from tech sergeant to master -- have been issued by USAF. . . . An estimated 42,000 officers and men will take part in 1950 field training exercises to be held by Air National Guard this summer, AF has announced. See page 38. . . . USAF enlistments in February totaled 12,636 and AF strength numbered 414,600 on February 28 as compared with 415,000 on January 31.

OPERATION OF USAF INSTITUTE OF TECHNOLOGY at Wright-Patterson AF Base, Ohio, was taken over by Air University on April 1. . . . At request of USAF, Walter Kidde and Co. is preparing specifications for conversion of present fire extinguishing equipment on all B-29's to handle CB (Monochloromonobromomethane), powerful new fire-killing agent. . . . AF plans to send 780 officers to civilian educational institutions during 1951 for advanced studies.



FIRST "FAIL SAFE" ELECTRONIC CONTROL

Pilots on today's giant aircraft adjust engine throttles by means of elaborate remote control electronic systems.

Problem has been to devise an electronic control that would "fail safe" in case trouble developed anywhere in the system. In other words, controls that would stop and hold position at the exact moment of system failure.

Engineers at AiResearch have now perfected such an electronic control. This control has many applications in the regulation of pressure... temperature... and remote positioning. For the first time, it provides a "fail safe" method of electronic control.

In addition, this new type of AiResearch electronic control is ultra sensitive. It makes possible the application of maximum power—or response to temperature or pressure changes—in almost microscopic degrees.

Such pioneering in the field of electronic development and manufacture is typical of the day-to-day operations of the skilled scientists and engineers at work at AiResearch.

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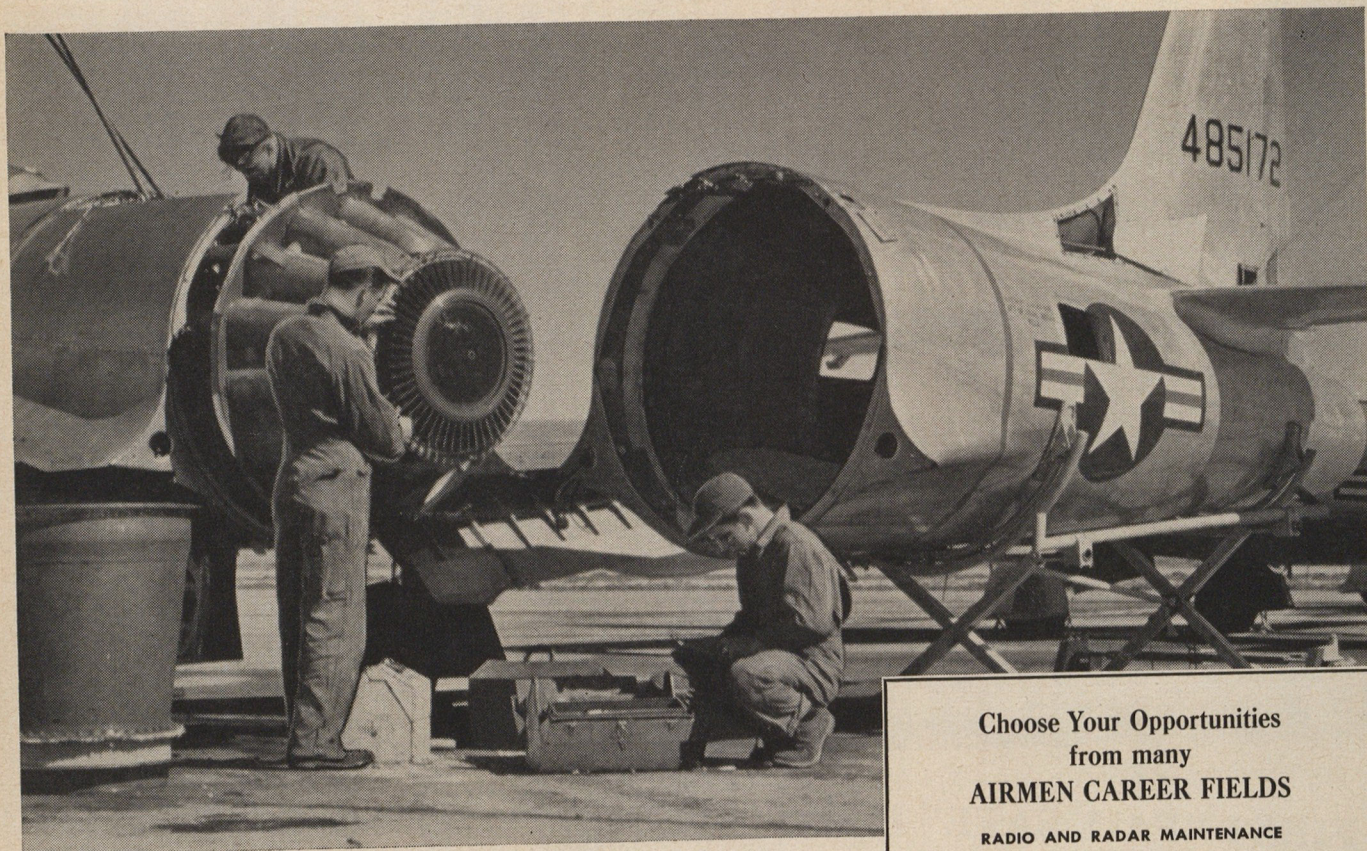


ILLUSTRATION F-80 SHOOTING STAR

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FABRIC LEATHER AND RUBBER
PROCUREMENT ADMINISTRATIVE
PERSONNEL EDUCATION MEDICAL
ENTERTAINMENT
MANAGEMENT METHODS
BUDGETARY ACCOUNTING AND DISBURSING
STATISTICAL AND MACHINE ACCOUNTING
GROUND SAFETY MARINE
FIREFIGHTING
SECURITY AND LAW ENFORCEMENT



BOMBERS FOR BRITAIN

One of the more fashionable debates among military armchair strategists in recent months has been the question of how earnest an effort would be made in the event of war to halt a Russian ground attack short of the English channel. Some have held that the US has no intention of digging in on the continent; that to do so would be to invite disaster comparable to the Nazi march through France; that our declarations of defending Western Europe are for the primary purpose of giving heart to the nations on the iron curtain frontier. The opposite point of view is based for the most part on the theory that aside from moral obligations, the US has no choice but to keep a foothold on the continent if for no other reason than to avoid another Normandy landing which, with the A-bomb, has become next to impossible.

Last month as American war equipment began to flow to Italy, France and England there seemed little reason for the debate to continue. Clearly the US meant to keep the frontier where it was. If the Red high command had planned to waltz to the channel in a few weeks their strategy would have to undergo considerable revision. As Secretary Louis Johnson said upon the occasion of the departure of the first B-29s for the Royal Air Force, "These planes should prove harbingers of peace because they are symbols of strength; and peace today is possible only through strength."



Top, Sir Oliver Franks, British Ambassador to the US, and Defense Secretary Louis Johnson bid *bon voyage* to four B-29s destined to fly in the ranks of RAF bomber forces. The planes were taken out of storage and "modernized" before delivery. Left, Major William C. Lewis, commander of the mission, points out the eastern flight path to Col. R. A. Gardner, CO of Andrews AFB from whence the flight originated. Above, the four planes pass in review.



AFA And AIR

As Jimmy Doolittle remarked, "This program is right for everybody. It's a natural!"

The parties involved were 56,000 cadets of the Air Force Reserve Officers' Training Corps, and as many members of the Air Force Association.

Air Force ROTC was now the principal source of commissioned officers for the Air Force. AFA was the largest organization of Air Force veterans and Air Force Reservists.

The current Air Force ROTC and the Association were both organized in the same year—1946. Both stemmed from the fertile brain of the same man—General Hap Arnold.

AFA had long and strongly supported Air Force ROTC. At its initial convention, in 1947, when the policies of the organization were established, AFA urged, in the national interest, "more effective operation and expansion of the Reserve Officers' Training Corps."

That same year the Association established its Air Force ROTC Medal as an annual award to the outstanding Air Force ROTC student at each of the schools offering the prescribed course. More than 300 of these medals have been awarded in the last four years; and dozens more are being awarded this month and next.

There were any number of reasons for Jimmy Doolittle's remark. It was indeed a natural that these future and prospective members of the US Air Force should get to-

gether. And that's exactly what happened last month.

Air Force Association now proudly announces establishment of its Cadet Membership—available to all students, both basic and advanced, enrolled in the Air Force Reserve Officers' Training Corps—and simultaneously, sponsorship of the Arnold Air Society, the unified fraternal organization of the Air Force ROTC program, as a full-fledged affiliate of Air Force Association, with its own officers and national headquarters.

The Association has put into action a program especially designed to assist Cadet Members and further the Air Force ROTC program, including: Monthly reports on Air Force ROTC activities in Air Force magazine; Information Center facilities to provide pertinent data as desired; continued awarding of AFA's ROTC medal and, as an expansion of that activity, establishment of an appropriate annual award for outstanding Air Force ROTC units; assistance in providing speakers, films and other training aids for meetings; an annual Air Force ROTC Reunion in conjunction with AFA's annual national convention; assistance in obtaining specific Air Reserve assignments upon completion of Air Force ROTC courses.

Each Cadet Member of AFA receives a special membership pin and membership card, and a twelve-month subscription to Air Force magazine, for annual dues of \$4.

Creation of the Arnold Air So-

FORCE ROTC

ciety under AFA sponsorship represents unification in action. This development stems from the formation of two major Air Force ROTC fraternal groups—The Arnold Society of Air Cadets, named in honor of the General and largest of the Cadet organizations, and Prop and Wing—and a third group, The Billy Mitchell Society.

Faculty advisors and cadet leaders of these societies early recognized the advantages of merging into one unified air fraternity. Further, they agreed that affiliation with a parent organization was essential, and would be of vital long-range importance to fraternity members. After considering all possible “parents”, they selected Air Force Association.

Through the efforts of the student presidents and faculty advisors of the existing fraternal groups, the unification effort was put into motion. At their request, the provision for affiliation with AFA was integrated into the fraternity merger plan; Cadet Membership in the Association was proposed as a prerequisite to membership in the merged society.

This plan was presented at the

national convention of the Arnold Society of Air Cadets, held March 4 in Cincinnati, and was approved unanimously by delegates from 40 colleges and universities. The units of Prop and Wing, canvassed by mail, adopted the program, also unanimously. The Billy Mitchell Society supported the plan, and to prove it, merged with the Arnold Society of Air Cadets.

Meanwhile, the proposal was brought to the attention of each professor of Air Science and Tactics; the response was an overwhelming endorsement of the plan.

AFA's Board of Directors, meeting in Washington on April 1, voted unanimously to establish the Cadet Membership (non-voting and non-office holding) and sponsor the Arnold Air Society. To make it complete, (Lt. Gen.) Jimmy Doolittle, founder of AFA and the ranking Air Force Reservist, accepted the job as Chairman of Air Force Association's ROTC Committee.

Our Association welcomes the affiliation of Air Force ROTC Cadets and the Arnold Air Society, confident that this union will strengthen our combined efforts for national security.

“I am pleased to learn that the three major Air Force ROTC Fraternities—Arnold Society of Air Cadets, Prop and Wing, and the Billy Mitchell Society—have on their own initiative taken action to merge their respective units into one unified Air Force ROTC fraternal organization.

“It is gratifying to know that this merged organization will gain additional strength through its affiliation with and sponsorship by the Air Force Association, and that all Air Force ROTC cadets will be eligible for Cadet Membership in the Air Force Association.”

Harold C. Stuart
Assistant Secretary of the Air Force



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AIR FORCE
MAY, 1950

CIVIL DEFENSE IS HERE TO STAY

By James H. Straubel

Sound measures to be taken in the event
of A-attack must be drafted now—and
the public must learn to live with them

Civil Defense Is Here To Stay

At the first flush of spring it is the habit of the average American to become preoccupied with grass seed and baseball, new hats, new spark plugs, new vacation spots. The year 1950 was no exception. And as was their custom, thousands of these Americans, already on vacation, came to the nation's capital to gaze at cherry blossoms, climb the Washington Monument, and take souvenir snapshots in front of the White House.

From the big gray government buildings of Washington, officials burdened with defense problems peered out of their conference room windows and philosophized about the tourists with some degree of personal frustration and more than the usual official interest. These sightseers and millions of citizens like them, the officials reflected, made up the "missing link" in our national security system. Without the wholehearted and effective participation of these sightseers, the nation would be grossly unprepared to deal with an enemy attack.

They were speaking of Civil Defense. They were also speaking of an unknown quantity. For while the emergency potential of military manpower and military equipment could be measured with a reasonable degree of accuracy, the emergency capabilities of America's civilian population—as yet untested under combat conditions—were surrounded in mystery.

That the United States was susceptible to enemy attack was too obvious for discussion. That Civil Defense was essential to minimize such attack was well recognized at the highest levels of government. And as Senator Brien McMahon (D-Conn.) explained it: "Civil Defense is a job for civilians. The cooperation of the military will be very much needed; but men of the armed forces neither wish nor should be diverted from their primary task—carrying the war to the enemy's soil." The sightseers out under the cherry blossoms, and their counterparts at home, were being handed a huge job, the size and complexity of which was just now being revealed in Washington.

Here the Joint Committee on Atomic Energy, with Senator McMahon as Chairman, was conducting hearings on "Civil Defense Against Atomic Attack." As a result, the true character of the beast was reaching the public for the first time. (Much of the testimony, especially that of civic leaders, concerned organiza-

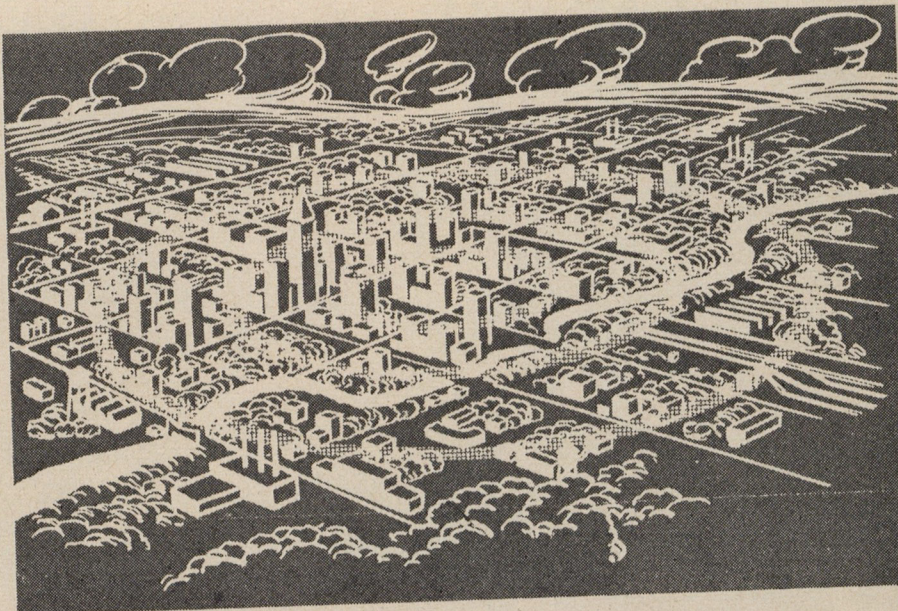
tional problems of the Civil Defense program. No effort is made to cover these aspects of the hearings in this article.)

To begin with, the name "Civil Defense" bothered most everyone. It was downright misleading, for it did not represent defense in the usual sense of warding off an enemy. To be sure, it included measures to help avert a blow, but for the most part

enemy attack (camouflage, black-outs, aircraft observer systems, and other measures.

- Minimize the effects of such enemy attacks as may be successful in penetrating military defenses (civil air raid warning, dispersion or relocation of facilities, prior evacuation of children and personnel not essential to the war effort, etc.)

- Alleviate, control and repair damages created by enemy attack (medical and health services, decontamination, fire-fighting, removal of debris and salvage, etc.)



**THE METROPOLITAN PATTERN
TRADITIONAL AND DANGEROUS**

it assumed penetration and attack by the enemy. Equally disturbing was the natural tendency to link Civil Defense with the program known by the same name during World War II. In all fairness, many people had put in many constructive hours of Civil Defense work back then, but, lacking an enemy threat after the first few months of war, Civil Defense disintegrated into a variety of home front activities; these included, on the morale booster side of it, a fan dancer or two.

Civil Defense today is the primary responsibility of the National Security Resources Board, an executive office of the President which now has W. Stuart Symington, former Secretary of the Air Force, as its Chairman. Paul J. Larsen, its Director of Civilian Mobilization, is in direct charge of the Civil Defense program. He explains that the program consists of measures to:

- Assist military forces in averting

Scientists with Hiroshima and Nagasaki experience behind them assured the investigating committee that in another emergency Civil Defense workers would serve as full-fledged front-line shock troops.

Mr. Larsen explained, "Civil Defense is a national task which must be shared by all levels of government—federal, state and local. The federal government has the important obligation of developing and furnishing to the states and local governments the information, advice and guidance which they need to develop sound plans for their own communities. The detailed planning for specific communities must be done by local governments. Civil Defense must be based on self-help . . . on development in peacetime of a sense of community responsibility for self preservation . . . the main effort, therefore, must come from the individual citizen and community group."

The problem of putting the pro-

gram into effect on a national scale was not complicated so much by the individual citizen's preoccupation with grass seed and other fancies of spring, which would imply apathy toward self-preservation, as it was by his inner feelings toward the A-bomb. The average American, it seemed, had developed an alarming philosophy of fatalism over the realization that Russia possessed atomic weapons, and might conceivably add the gruesome H-bomb to her arsenal. As Dr. Walter I. Cronin, Disaster Relief Coordinator for the City of

To accomplish such a program we would have to be willing to become a garrison state."

The average citizen, however, considered himself quite mobile, and his first reaction to atomic attack might well be to run for the hills." That well be to run for the hills."

Still other problems centered in the individual who said, in essence, "OK, so I'll stick around to help with this Civil Defense, but what can I do? I'm no expert on radiation and all that stuff."

In answer, the experts produced

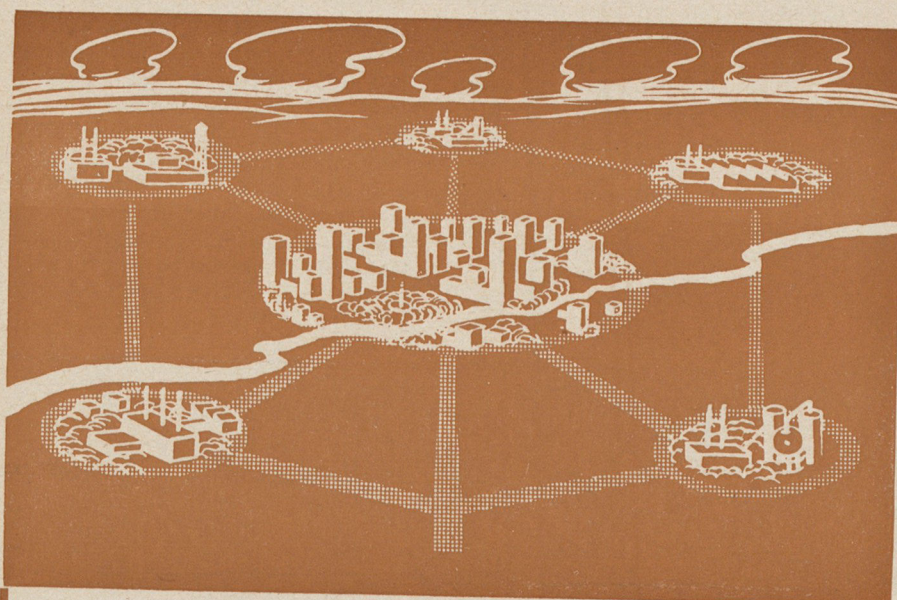
Dr. Kiefer also explained: "There is little about the effects of either old or new weapons which is new to the health professions. The atomic bomb produces burns, lacerations, amputations, crushing injuries, and blast injuries which all surgeons are accustomed to treating. Radiation sickness is a new type of wartime injury, but it is not a new disease and its symptoms are recognized by physicians, particularly radiologists. Biological warfare is only an extension—with some new means of introduction and dissemination—of a form of warfare that nature has waged against man for centuries and for which our health departments have, over decades, built effective defenses. Chemical warfare introduces new agents but does not materially change principles or treatment now used by internists and surgeons."

A revealing insight into the reactions of people under constant bombing attack came from Ralph R. Kaul, acting director of housing and community facilities for NSRB's Civil Defense office. Investigation of the bombed cities of England, Germany and Japan had proved, he said, that "The separation of parents from children, or the lack of a private bathroom or kitchen, with no foreseeable prospect of getting them, proved to demoralize families and war workers even more than bombings."

Civil Defense authorities explained that the increased destructive power of the atomic bomb—though always horrible to contemplate—was, for the most part, quantitative rather than qualitative in relation to the bombs of World War II. The Atomic Energy Commission submitted detailed studies of the destruction at Hiroshima and Nagasaki; rather simple multiplication made it possible, it was explained, to estimate the effect of the new and more powerful bombs.

Radioactivity, the biggest bugaboo of the program, was covered by Dr. Shields Warren, director of biology and medicine for the Atomic Energy Commission. Dr. Warren reported that "the vast majority" of the Hiroshima and Nagasaki survivors are "in surprisingly good shape and . . . back at their ordinary activities." In answer to a key question he explained, "In the case of an air burst, such as at Nagasaki or Hiroshima, it would be feasible to go in practically immediately afterward." Of the underwater type of atomic burst, he commented, "With present monitoring instruments (Geiger counters) it is quite possible to determine just what the hazards are, where the hazards are, to know what zones to keep out of and what zones are safe to

(Continued on page 20)



**THE METROPOLITAN PATTERN
PROPOSED BUT UNLIKELY**

Cambridge, Mass., testified: "The individual citizen asks 'What is the sense of doing anything (about Civil Defense). We will all be wiped out and we won't know anything about it.'" Father Paul C. Potter, an expert on panic research (recently elected a national director of AFA) documented in grim terms what he called the American tendency toward mass hysteria, and concluded, "The Kremlin planners know the weakest point of the world's strongest nation—its susceptibility to panic."

Experts on housing and related matters admitted that the only true defense against atomic attack was all-out dispersion, but Mr. Larsen explained: "The dollars and cents cost of decentralizing the some 200 cities in the US having populations of more than 50,000 would probably be in the neighborhood of \$300,000,000. The social and political costs of such decentralization might put an end to democracy as we know it.

several reports which revealed quite conclusively that effective measures could be taken by the average citizen, after routine training, to minimize the effects of atomic attack. The experts explained, in passing, that casualties at Hiroshima and Nagasaki might have been reduced by as much as 30 percent had these cities been equipped with an organized Civil Defense program.

Dr. Norman C. Kiefer, health resources director of the NSRB's Civil Defense office, pulled no punches in his presentation on the first aid supplies required for an effective Civil Defense program (for a disaster of Hiroshima proportions, 200 railroad boxcars of first-aid supplies the first week after attack). Nor did he minimize the problems still unsolved. For example, stockpiles of whole blood in large quantity would be essential, yet whole blood at present could not be preserved under refrigeration for more than four weeks.

CIVIL DEFENSE IS HERE TO STAY

CONTINUED

enter." Such instruments, he added, could be operated by "persons of average intelligence."

Civil Defense officials, confident they have the facts with which to shape a realistic Civil Defense program, are forever plagued with the problem of getting such facts to the people who need them. The Atomic Energy Commission has finally declassified 150 of some 400 documents it believes to be useful for Civil Defense planning, but much of the important material remains shrouded in secrecy. There is good evidence that much of this secrecy has been prompted by the false fears of policy makers that the facts of atomic destruction, if released to the public, would produce panic and hysteria. As Senator McMahon has commented, "The antidote to panic and hysteria is not excessive secrecy. It is cold facts—presented objectively and without emotional coloration." At the same time, he readily admits

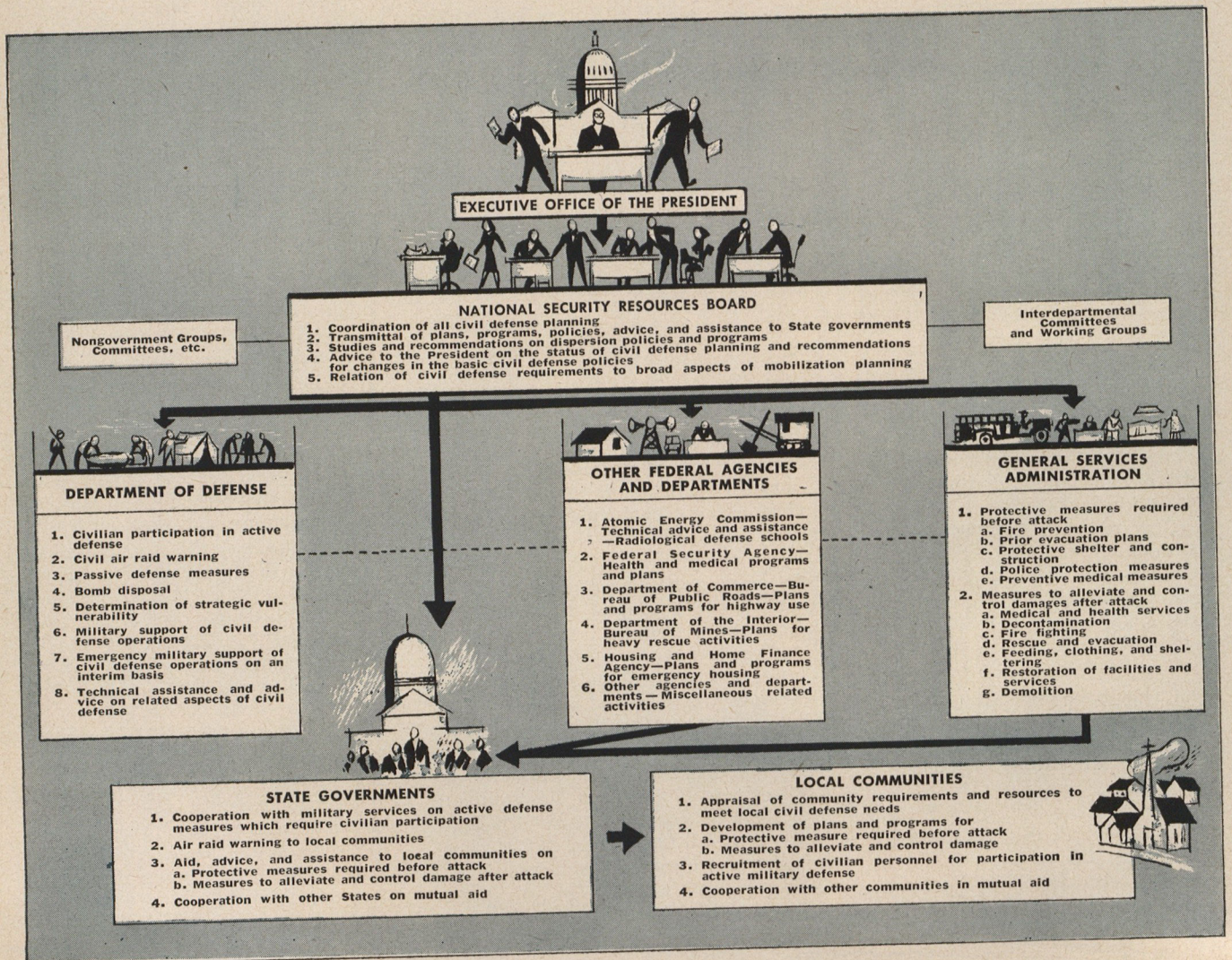
this tough problem: "How to tell the people the facts they need to know for their own protection without harming military security."

The information and education phase of Civil Defense, we are told, is due for greatly increased activity in the months to follow. With the obvious need for such a program, one might expect a campaign of War Bond Drive proportions. But that will hardly develop, for there are several nasty complications. First of all, overemphasis on the eye-catching but strategically unsound premise of defense for defense alone—and the ensuing demands to build up our ability to withstand attack at the expense of our ability to retaliate, could very well disrupt the desired balance between offense and defense.

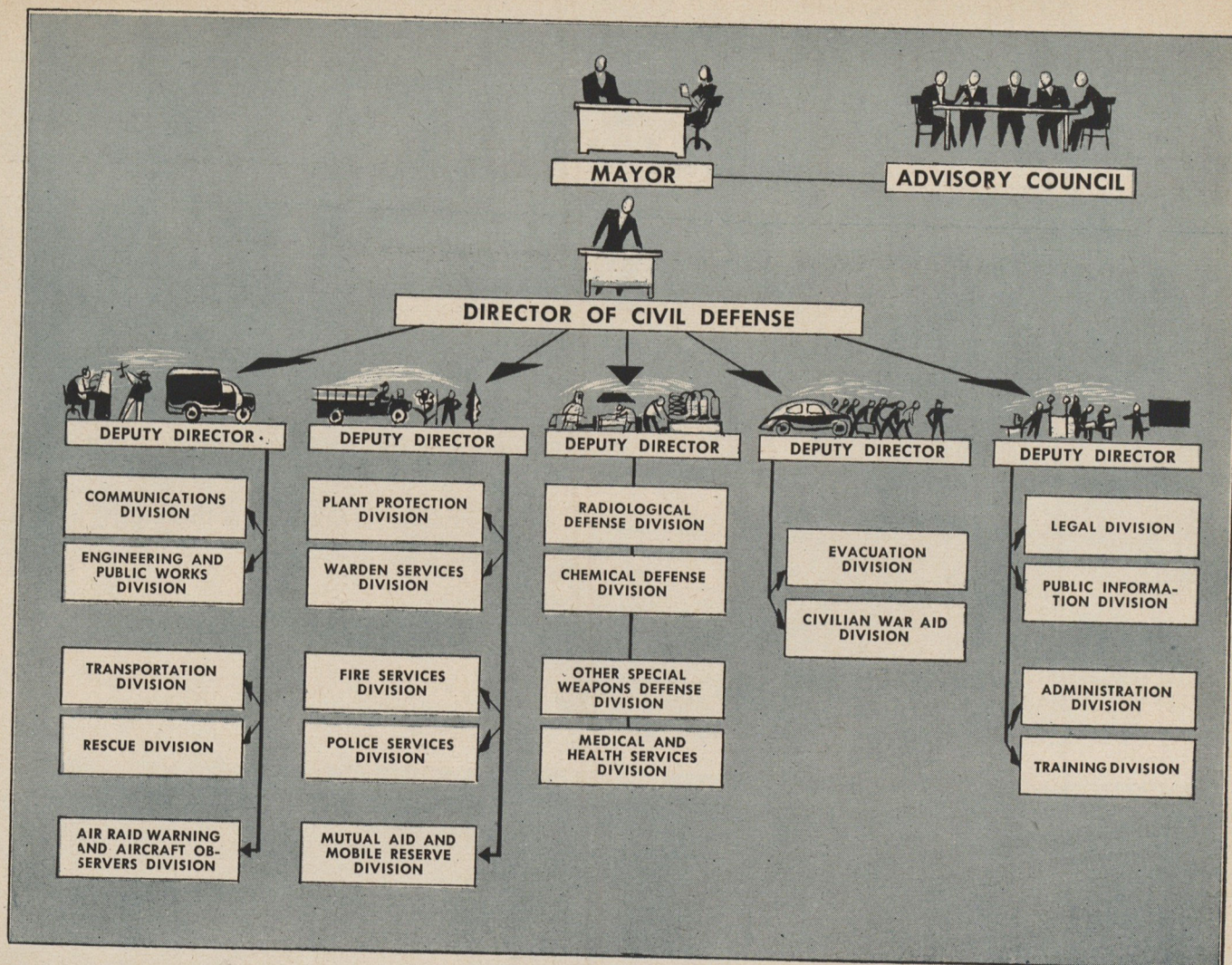
The fact that every aspect of our security effort must be secondary to our program for retaliation poses, however, a far more unpleasant problem. Mayor Fletcher Bowron of Los

Angeles stood up to the issue when he told the investigating committee, "In the war of national survival, as the next one clearly will be, it is cold blooded but nevertheless true to state that the national interest in Civil Defense in any area is concerned primarily with sustaining the capacity of the country to prosecute the war and the will of the people to fight. The humanitarian aspects of Civil Defense are secondary."

The will of our people to fight, with bandages instead of bullets, knowing full well that their own welfare is only a secondary consideration, is strained to the utmost under this set of circumstances. In some respects it is a tougher assignment than that which faces the man in uniform. Nor can the will to fight be measured solely by counting the volunteers on D-Day. As Father Potter, the panic expert, explained, "The means of survival in an age of technological warfare do not come as an inborn or intuitive or instinctive knowledge." In other words, good Civil Defense workers are made, not



THE ESTABLISHED FRAMEWORK OF CIVIL DEFENSE AGENCIES FROM NATIONAL TO LOCAL LEVELS



A MODEL FOR LOCAL ORGANIZATION OF CIVIL DEFENSE SUGGESTED BY HOPELY REPORT

born. Thus, the will of the people to participate effectively in modern war includes their will to work and train for that service in peacetime. This means, of course, that people must be stirred to action. But the stirring must be geared closely to the overall preparedness timetable, geared so Civil Defense is available in the right quantity at the right time. The average American can wax hot over an issue he believes in, but can cool off just as quickly if the sponsors let him down. The Civil Defense effort calls for precision timing.

All in all, as Senator McMahon expressed it, "The testimony vividly brings home to me the enormous problems we face in preparing for possible atomic attack. The most careful and thorough kind of advance preparation is necessary."

That the government has moved cautiously in its Civil Defense work is evident in the caustic demands from civic leaders for less planning and more action. But Director Larsen has held firm. "Premature action based on ill-considered plans," he re-

plies, "could prejudice the effectiveness of our Civil Defense in time of enemy attack . . . At the present time the need is for intelligent basic planning upon which operating Civil Defense programs at the federal, state and local levels can be built."

Meanwhile, Civil Defense authorities are struggling to overcome the traditional concept of Civil Defense as an emergency measure, and are endeavoring to project it as a long range program for integration, much as police and fire protection facilities are integrated, into the daily life of the nation. Civil Defense, they exclaim, is here to stay as long as there is evidence of world unrest.

And so the average American is to settle down, for better or worse, with his bandages, his blood plasma and his Geiger Counter. He is being handed the equivalent of a soldier's duties and responsibilities.

You can order soldiers around; with civilians you express your desires in the form of a request. You can, presumably, transmit classified information with safety to the men

in uniform; you withhold such information from civilians for fear of giving it to the enemy as well. You are in contact with military units through command channels expressly designed for direct and rapid compliance with orders, if you want to reach the civilian in an organized manner you become entangled in a network of state, county and city governments, and you get your answer at their pleasure. In effect, you have your hand on the man in uniform; the fellow in blue serge slips away from your grasp into that nebulous and wonderful mass known as The People, protected by his constitutional rights—God Bless 'em—and by public opinion.

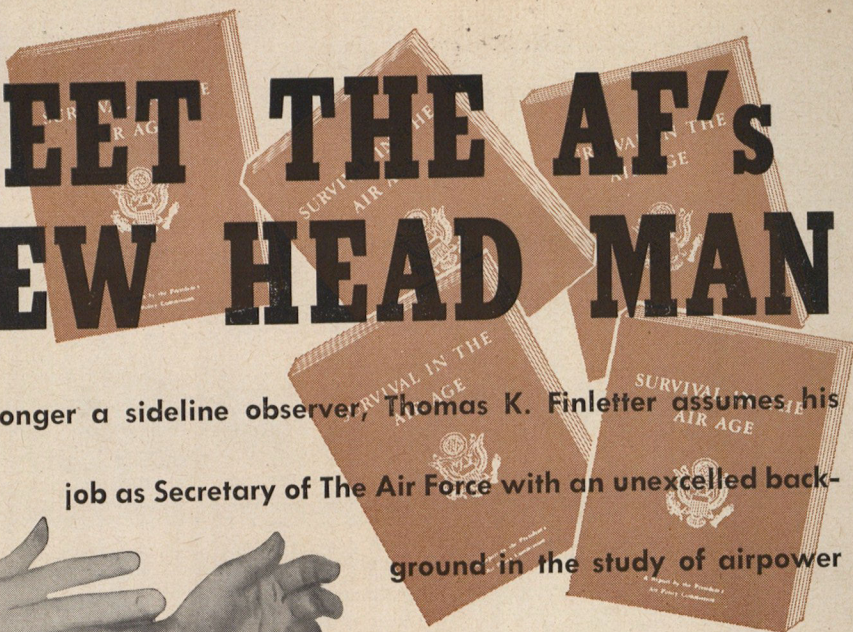
These differences between soldier and civilian are an American tradition. But when you're serving at the business end of an atomic bomb, you must agree with Senator McMahon when he says, "Hiroshima brought to an end the distinction between civilians and soldiers."

(This is the first of a series of articles to appear on Civil Defense.)



MEET THE AF'S NEW HEAD MAN

No longer a sideline observer, Thomas K. Finletter assumes his job as Secretary of The Air Force with an unexcelled background in the study of airpower





Mr. Finletter (center) with members of the Air Policy Commission. Standing, Palmer Hoyt and Henry Ford II (non-member). Seated, George P. Baker, Finletter, and A. D. Whiteside. Absent is J. A. McCone who may become Under Secretary.

As a general rule, nothing is so likely to bestir the usual calm of Washington's Pentagon as an important change in high command. Often the commotion is most apparent in the hurried building or tearing down of plasterboard partitions or doorways. Sometimes it is more perceptible in the tension of staff officers who have never found in the record of the Department of Defense any consistent violation of the old axiom that a new broom sweeps clean. Between carpenters and knitted brows, front office switches have, upon occasion, developed into quite a show.

Last month there was an important change in high command. On April 4th President Truman announced from his Florida "White House" that he had selected Thomas K. Finletter of New York for the Air Secretary's post recently vacated by Stuart Symington who was taking over the chairmanship of the National Security Resources Board. But strangely enough, in this instance the Pentagon's composure was hardly disturbed. There were several possible reasons.

In the first place, from what could be gathered, it was doubtful that Finletter was by nature a man disposed to making like a broom. A corporation lawyer by profession, it seemed a good guess that whatever action he took—whether it had to do with personnel, partitions or high-policy—would be thoroughly contemplated before the fact.

In the second place, Thomas K. Finletter was not a new broom at all. True he had never before served officially with the Defense Department, but his monumental work as head of the President's Air Policy Commission in 1947-48 had long ago won for him a place in the Air Force's inner circle, and one in every airman's heart as well.

Finletter is a man who has worked, written and prayed for effective world government. He is now taking over a

(Continued on page 45)



Left, Finletter and Ike in close huddle. Right, the new Secretary snapped as he boarded a plane for London in 1948 to assume duties as director of ECA in the United Kingdom.

Engineering a

Engineering an airplane propeller installation is one of the most complex tasks in the aviation industry. It's an art that calls for smooth integration of aerodynamic, metallurgical, hydraulic, electronic and vibratory techniques — plus the ability to anticipate and plan for tomorrow's needs.

A typical problem tackled by Hamilton Standard's engineering team is the propeller installation for a new passenger liner. Our design engineers must come up with a sturdy, reliable propeller that will have high performance and comparatively low weight, and it must meet all specifications laid down by the airplane manufacturer.

It sounds easy, but that's only the beginning. This propeller installation probably would call for constant speed, effective internal de-icing, quick feathering to prevent vibration and drag if engine trouble arises, an automatic device to synchronize all propellers of a multi-engine plane for smooth and comfortable flight, and fast, reliable reversing for shorter, safer landings. In addition, it must handle, efficiently, higher take-off and higher cruising horsepowers than ever before.

We call that a normal assignment, but in meeting all requirements of such a job our engineering team carries a tremendous work load. One propeller type isn't suitable for all airplane-engine combinations. Each new-type plane requires a tailor-made propeller. That's why Hamilton Standard has hundreds of aluminum alloy and steel blade designs, plus scores of major propeller hub designs.

Anything so complicated demands engineering of a high order. Each new feature built into a propeller is the result of many years of engineering. For example, it took 5 years and 10 million dollars to develop fully the reversible, Hydromatic steel-bladed propeller.

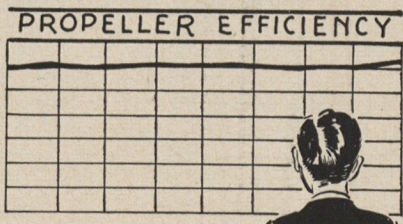
Today, we are meeting a new challenge in aircraft propulsion — propellers to handle exceedingly high power outputs of new turbo-prop engines. With the aid and collaboration of the military services, we already have devoted large amounts of money and engineering time to exhaustive exploration in this new field. The first in a series of Hamilton Standard Turbo-Hydromatic propellers recently passed its AN type tests.

Facts and figures on some phases of the art of engineering a modern propeller installation appear on the opposite page.

modern propeller

WHAT IS THE EFFICIENCY OF A MODERN AIRPLANE PROPELLER?

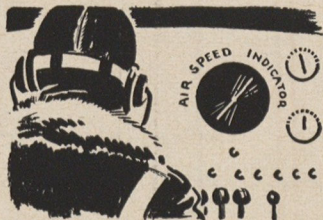
- ☐ 50 per cent?
- ☐ 75 per cent?
- ☐ 90 per cent?
- ☐ 100 per cent?



The efficiency of a modern propeller is high, ranging from 80% to as much as 90%, due in large measure to the vast background of engineering knowledge on which Hamilton Standard can draw. Our "strip analysis" method of calculating performance enables us to refine the efficiency of a propeller for any airplane-engine combination down to the last one percent. Recently, we improved the climb performance of a large, four-engine transport's propellers by 3% and made possible a certifiable increase of 1,400 pounds in the plane's gross weight. That meant greater payload and more efficient operation. Even increases in efficiency as small as 1% or 2% can improve plane payload from 10% to 50%.

PROPELLERS ARE EFFICIENT UP TO WHAT AIRPLANE SPEEDS?

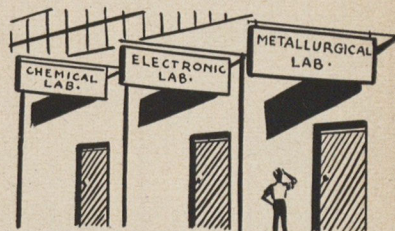
- ☐ 200 miles an hour?
- ☐ 400 miles an hour?
- ☐ 600 miles an hour?
- ☐ 800 miles an hour?



Today's airliners cruise between 250 and 350 miles an hour. But Hamilton Standard is now designing propellers for dependable, efficient propulsion at twice those speeds. Our engineering research program pioneered investigation of propellers for aircraft operating at high subsonic speeds and was the first to obtain confirmation of the supersonic propeller concept. We actually have been running propellers on gas turbine power plants for over 5 years. The total test time in that field is now over 2,000 hours — more than any other propeller in the United States.

WHAT TYPES OF LABORATORIES ARE USED BY HAMILTON STANDARD?

- ☐ Metallurgical?
- ☐ Electronic?
- ☐ Chemical?
- ☐ Rubber?



The list of facilities available to Hamilton Standard's engineering team includes metallurgical, electronic, chemical, rubber, vibration, instrumentation, pneumatic and accessory test laboratories among major aids in the art-science of engineering a modern propeller. In addition, there are numerous test cells, a cold room, a hot room and whirl rigs. Together, they represent a heavy investment in manpower, plant area and millions of dollars. But all are vitally necessary to members of our engineering staff, who pool their skills to give the world of aviation the design leadership for which Hamilton Standard propellers are known — wherever man flies.

HAMILTON STANDARD



EAST HARTFORD, CONNECTICUT

ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION



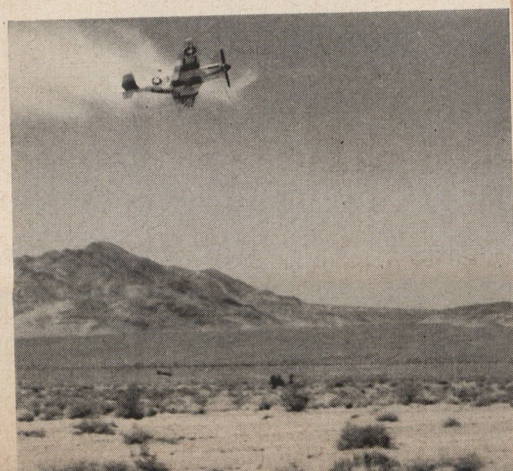
This was first year for F-86s in meet.



F-80 climbs steeply out of strafing run.



Above, F-84 stirs up dust behind target.
Below, old F-51s may never appear again.



For the Record

JET COMPETITION—EXCLUDING ROCKET FIRING

STANDING	TEAM	BASE	TYPE PLANE	POINTS
1st	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-80s, F-86s	300.40
2nd	33rd Ftr. Interceptor Gp.	Otis AFB	F-84s	250.92
3rd	81st Ftr. Interceptor Gp.	Kirtland AFB	F-86s	235.53
4th	49th Ftr. Bomber Gp.	Misawa AFB	F-80s	222.10
5th	56th Ftr. Interceptor Gp.	Selfridge AFB	F-80s	207.54
6th	1st Fighter Gp.	March AFB	F-86s	203.31
7th	4th Ftr. Interceptor Gp.	Langley AFB	F-86s	178.55
8th	116th Fighter Gp. (ANG.)	Jacksonville, Fla.	F-80s	175.84
9th	20th Ftr. Bomber Gp.	Shaw AFB	F-84s	175.16
10th	57th Ftr. Interceptor Gp.	Elmendorf AFB	F-80s	162.21
11th	36th Ftr. Bomber Gp.	Furstenfeldbruck AFB	F-80s	161.92
12th	78th Ftr. Interceptor Gp.	Hamilton AFB	F-84s	161.54
13th	31st Ftr. Bomber Gp.	Turner AFB	F-84s	154.68

JET ROCKET COMPETITION

1st	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-80s, F-86s	112.62
2nd	81st Ftr. Interceptor Gp.	Kirtland AFB	F-86s	103.06
3rd	4th Ftr. Interceptor Gp.	Langley AFB	F-86s	97.25
4th	1st Fighter Gp.	March AFB	F-86s	96.69
5th	33rd Ftr. Interceptor Gp.	Otis AFB	F-84s	81.92
6th	20th Ftr. Bomber Gp.	Shaw AFB	F-84s	49.43
7th	78th Ftr. Interceptor Gp.	Hamilton AFB	F-84s	41.93
8th	31st Ftr. Bomber Gp.	Turner AFB	F-84s	37.56

INDIVIDUAL HIGH SCORES JET COMPETITION EXCLUDING ROCKETS

STANDING	NAME	TEAM	BASE	TYPE PLANE	POINTS
1st	1st Lt. John Roberts	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-80	341.72
2nd	1st Lt. Jack Schwab	33rd Ftr. Interceptor Gp.	Otis AFB	F-84	297.12
3rd	Capt. R. H. Knapp	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-86	293.66

INDIVIDUAL HIGH SCORES JET ROCKET COMPETITION

1st	Capt. Francis Bailey	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-80	120.56
2nd	Capt. Lewis W. Powers	1st Fighter Gp.	March AFB	F-86	113.06
3rd	Capt. R. H. Knapp	3525 Aircraft Gunnery Sqdn.	Las Vegas AFB	F-86	111.00

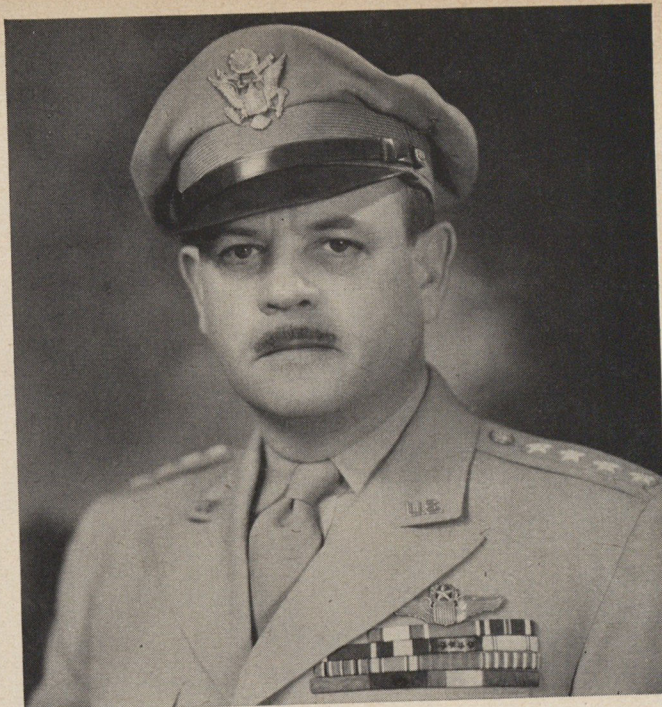
CONVENTIONAL COMPETITION

STANDING	TEAM	BASE	TYPE PLANE	POINTS
1st	27th Ftr. Escort Gp.	Bergstrom AFB	F-82s	301.30
2nd	8th Ftr. Bomber Gp.	Itazuke AFB	F-51s	261.53
3rd	86th Ftr. Bomber Gp.	Neubiberg AFB	F-47s	249.56
4th	144th Fighter Gp. (ANG.)	Salt Lake City AFB	F-51s	238.87
5th	52nd Ftr. All-Weather Gp.	McGuire AFB	F-82s	174.52
6th	325 Ftr. All-Weather Gp.	Moses Lake AFB	F-82s	115.15

INDIVIDUAL HIGH SCORES CONVENTIONAL COMPETITION

STANDING	NAME	TEAM	BASE	TYPE PLANE	POINTS
1st	1st Lt. C. A. McWhirk	27th Ftr. Escort Group	Bergstrom AFB	F-82	329.44
2nd	Capt. John B. Westwood	27th Ftr. Escort Group	Bergstrom AFB	F-82	309.70
3rd	Capt. Franklin C. Crain	86th Ftr. Bomber Group	Neubiberg AFB	F-47	286.15

The United States Air Force lost one of its truly great leaders recently with the death of General Fairchild. He shunned the spotlight, but insiders knew him as a top-notch planner



When General Muir S. Fairchild died suddenly on March 17, 1950, at the age of 55, there were relatively few people, in or out of the military establishment, who didn't wonder who he was.

For General Fairchild had a passion for anonymity. Not since 1926-27, when he took part in a good will flight to South America, had the public heard much of the man who later became the USAF's number two officer.

GEN. MUIR S. FAIRCHILD

He was a planner. While more famous Air Force generals were leading combat commands during the last war, Fairchild was sitting in the Pentagon—planning. And he was planning until the day he died. If America suffers an A-Bomb attack in the near future, our plans for instant retaliation will be, in large part, those drawn up by Muir Fairchild.

He came up the hard way. General Fairchild began his military career as a sergeant in the Washington National Guard in 1916, and became a flying cadet the following year. He was commissioned a second lieutenant in January 1918 and spent two months as a bomber pilot on detached service with the French Army. He was discharged from the Army in October 1919 but civilian life was not for him. On July 1, 1920, he was back in, this time as a first lieutenant in the regular Army assigned to Air Service. From then on he received the usual run of Army assignments and attended the usual Army schools. In 1926 he participated in the good will flight to South America along with Capt. Ira Eaker and Lt. Ennis Whitehead.

When the second World War came, Fairchild was just a lieutenant colonel, but he was quickly promoted to Brigadier General and assigned to working on war plans. He was one of three officers on the Joint Strategic Survey Committee. When the war ended, General Fairchild received the Legion of Merit and the Distinguished Service Medal. In 1946 he drew up plans for an Air University, got them approved and was appointed its first head.

On May 27, 1948, he was promoted to full general and named Vice Chief of Staff of the United States Air Force.

General Fairchild was buried at Arlington National Cemetery on March 21 with full military honors. Forty jet aircraft and 27 B-29s formed an air cover. The lead flight of four jets formed in a five-aircraft "vee" with the second file vacant, symbolic of the loss of a flier.

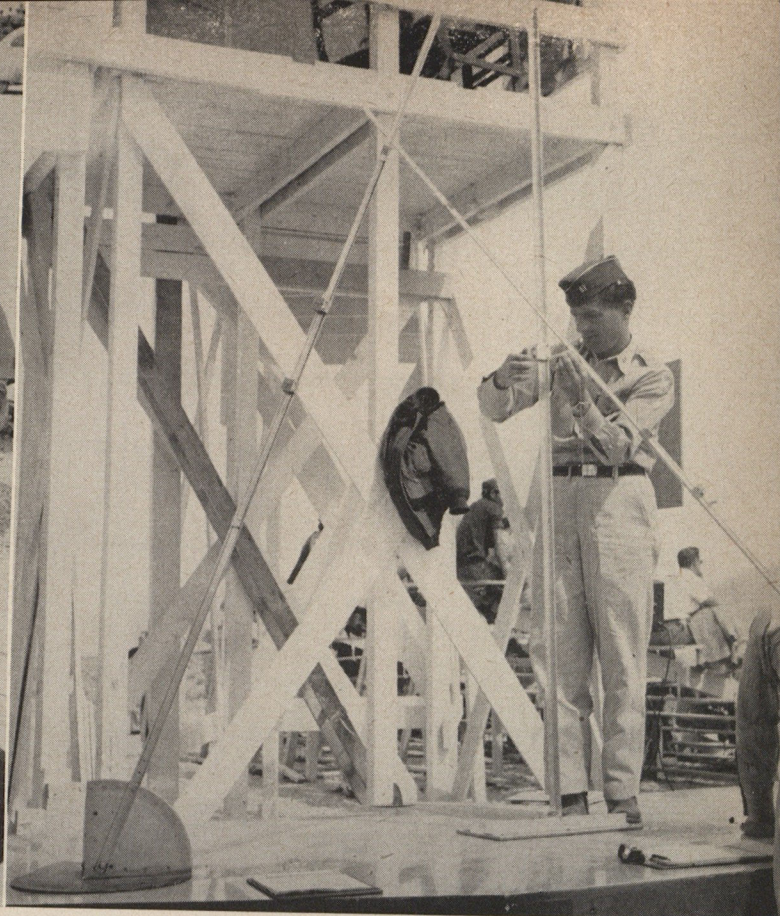
Of his career, Lt. Gen. James H. Doolittle said: "When considering the men who made the Air Force what it is today, one cannot over-emphasize the role of General Muir S. Fairchild. He was a stabilizing influence where stability was required."

In December, 1926, General Fairchild, then a lieutenant, took part in the first Pan American goodwill flight. They flew four Loening amphibians 22,000 miles from San Antonio, around South America and arrived back in Washington on May 2, 1927.





It was a good sized job just keeping targets whitewashed.



Altitude computer is checked to keep planes within set limits.



Ex-gunnery champ Vandenberg tries a hand.

Deadly Little Friends

The best show in today's Air Force is the annual
six-day fighter gunnery meet at Las Vegas

Of all the calisthenics invented by the Air Force to keep its muscles hard and in fighting trim, perhaps none is more realistically attuned to the winning of a real-war decision than the annual fighter gunnery competition at Las Vegas. That this is so, is especially heartening to those who remember the time, not long past, when the Air Force was particularly flabby in this department; when Las Vegas itself (the first gunnery school) was non-existent although the war was only weeks away, and when more than one pilot learned to work a machine gun the hard way—by shooting it at an enemy plane. That the Air Force has no intention of entering the ring in any such shape again was clearly demonstrated at the second Las Vegas meeting last month.

Of 20 fighter groups now in the Air Force, all but four sent representative teams to the six day shoot which ended April 4. Included
(Continued on page 48)

While contestants look on anxiously, a team of judges counts the bullet holes.



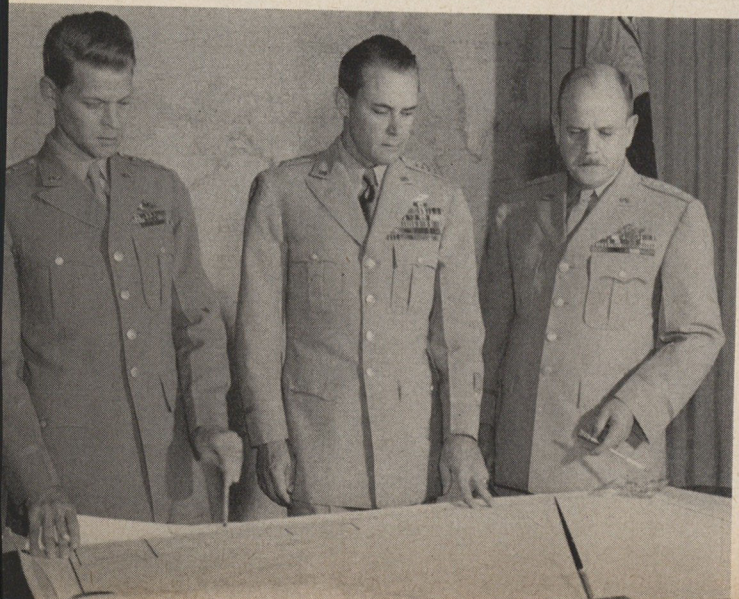


President Coolidge greets fliers who took part in Pan American good will flight. Lt. Fairchild, third from right, was one of ten who were the first to receive the newly authorized Distinguished Flying Cross for their part in the flight.



Gen. Carl A. Spaatz decorates General Fairchild with the Distinguished Service Medal for brilliant wartime planning.

Lt. Gen. Lauris Norstad, Gen. Hoyt S. Vandenberg and General Fairchild study map in conjunction with postwar plans.

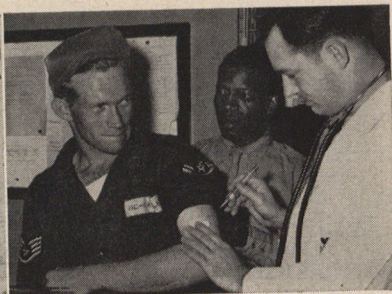


Part of the 40-plane jet cover which flew over the grave-site. Fairchild is buried near his old boss, Hap Arnold.





While paratroopers descend in great array, left, the brass looks on with solemn interest. From left, Navy Secretary Francis Matthews; Lt. Gen. W. H. H. Morris, USA; Secretary Louis Johnson; Maj. Gen. Ray Porter, USA. Drop casualties were unusually high.



CARIBBEAN CAPER

Above, part of Portrex atmosphere—drop casualties and inoculations. Below, left, lessons in aerial logistics were among most beneficial aspects of exercise. Below, right, the landing itself. As can be seen in this photo, aerial cover was conspicuously absent.





Brig. Gen. W. R. Wolfinbarger, left, discusses Portrex plans with Maj. Gen. R. Lee.

Portrex will probably go down as one of the most controversial exercises in history. Here are the pros and cons

During landing, the F-84s, below, stayed down. Somebody forgot to call for them.



If it didn't do anything else, Operation Portrex (short for the Puerto Rican Exercises held in March proved that air indoctrination of Army units is going to be a constant peacetime problem unless air-ground liaison is greatly improved.

Portrex was a demonstration of a smallscale amphibious landing which, in isolated instances, would be valuable in another war. The most glaring weakness was lack of air support—the planes just weren't called in. The reason hasn't been given yet. The maneuver emphasized the futility of large scale landings, both from the standpoint of losses to submarine attacks under present anti-submarine warfare and from that of vulnerability to air attack during the period of landings.

It was valuable to the Air Force in many ways, mostly foreign to the maneuver itself. For the two fighter groups—20th and 31st—it meant movement, mostly by air, of airmen and supplies from bases in the United States to Ramey Air Force Base in Puerto Rico. Both units operated under field conditions at Ramey, with most of the maintenance, armament and refueling handled from tent encampments. The 31st unfortunately got knocked out of action by grounding of the Republic F-84E Thunderjets because of engine trouble. But the 84D's of the 20th functioned without hitch during the entire maneuver period, the 50 aircraft flying more than 80 missions daily in the week prior to D-Day. They flew just over 40 in D-Day. Correspondents were told: "There just weren't any calls for air support". There wasn't any explanation, even though landing forces—both Airborne and amphibious troops—obviously were hitting tough going against the cunningly contrived defenses of the so-called Aggressor forces.

It gave the visiting firemen—some 700 "observers"—a strange impression. D-Day started off auspiciously enough on a minor scale, with four 84's working over the landing area of the paratroops, others flying cover for the approaching Fairchild C-82 Packets. As a show it was good, with 84's slamming over the observer group in a simulated beating up of the surrounding hills. The paratroopers, dropping under unfavorable conditions with a bad wind onto difficult ground, sustained quite a few injuries as well as high umpire-imposed casualties. The artillery echelon in a later drop fell short of their drop zone and smack into the middle of an Aggressor tank formation. Their loss merely served to heighten the mystery of grounded

air support, since the tanks had been in the open field for at least ten minutes.

But when the VIP group lined up in bleachers along the beaches things went sour. The skies were perfectly clear of airplanes and remained so for some time. When the first boats started hitting the beaches two Chance Vought F4U-5 Corsairs appeared and began a leisurely, throttled-back circling of the area, apparently primarily for the benefit of a Marine Corps wire tape correspondent who did his damndest to build them up into a terrific air coverage. But even he felt it necessary to apologize for his taped up air force to surrounding observers, and later subsided into describing a bulldozer futilely attempting to bull its way through the exercises' Aggressor beach defenses.

Even though explanations ran through the crowd that air strikes were being made on the impact area on the eastern end of the island, it did not stop a flood of comment on lack of air coverage; nor was there any evidence of umpire-ordered destruction of Aggressor defense positions. Certainly the beach defenses of the Aggressors would not have stood up as they did had their been anything approaching the logical employment of air or ship fire.

The situation did not improve as the day went on and the tourist contingent moved over to VIP hill for a broad scale view of operations. By this time the attack was so far behind schedule that little could be seen except some smoke from distant Pole Hill, then under attack, and little could be heard except the pinprick popping of some rifles and the bark of 50-caliber machine guns being operated with some enthusiasm by Aggressor forces under the shoulder of VIP Hill.

For the military student, VIP Hill could have been translated into terms of the Battle of Kennesaw Mountain in the Civil War, with the main engagement a turning operation centering around a commanding knoll four miles away. In its lack of air operations, it also resembled the Battle of Kennesaw Mountain—or San Juan Hill.

The finale was a great one. As the last boatload of VIPs left for their ships lying off-shore, an attacking tank crossed a road under simulated enemy fire. It skidded down the slope of a small hill, continued across the road and reached the safety of the other side. There it stopped abruptly. It was safe, but bogged down in a nice, oozy swamp. It was, to put it mildly, symbolic of at least the air phases of Portrex.

"This is it!" was said at thousands of briefings during the war. But when the commanding officer of our bombardment group of B-26 Marauders—we were known as "The Bridge Busters"—mounted the briefing platform one morning nearly six years ago at the ungodly hour of 0208, he spoke the familiar words with a significant shift of accent. He said: "This *is* it!"

It was. The date was June 6th, 1944.

At the Commanding Officer's next words, there was a stir among the pilots, navigators, bombardiers, and gunners in the jam-packed briefing room:

"You will probably have undercast at target. If you do, you are to go down into the clear, no matter how low that takes you. You are to hit your targets today if you have to go in at tree-top.

"You are flying this morning in support of the First Army's landing on the Cotentin Peninsula. Each of the three flights in each of our three boxes will drop its bombs at 0620, as briefed. You will then get the hell out of there, because fifteen hundred Flying Forts are coming in on another heading to blast the beach defenses at 0625. The first men out of the barges will hit the shore at 0630 and the invasion will be on."

The Commanding General of Ninth Bomber Command, in an unexpected personal appearance, made us a short "I know you will not fail" speech. We felt flattered that he had chosen to come to our particular base that morning.

The Chaplain prayed—another unprecedented thing at a briefing. Takeoff was set for 0402. It would still be full night at that hour.

When, at 0130, we had filed, cold and sleepy, into the briefing room, the weather was so thick and the night so black and rain-filled that nobody thought a mission would be possible,

That WAS IT

By Charles Cooke

although everybody knew, of course, that this was D-Day. The Marauder was a daylight bomber and it disliked dirty weather more than most combat planes because it was so heavy for its wing and so hard to handle even under the best conditions.

It was, of course, a "maximum effort" mission. Normally, a Marauder group put 36 planes in the air. This time every B-26 on the base was scheduled—54.

Our ground crew wasn't there at all. The air crew (I was an observer)—pilot, co-pilot, navigator, bombardier, engineer-gunner, radio gunner, and tail gunner—stood around in the drizzle in a numb, frustrated way. As I joined them, the pilot, an ordinarily cheerful captain named Hixon, swore prodigiously.

"Well, look her over as fast as you can. It's all we can do."

Hixon stood a moment as though dazed; his nerves, already under the strain of the impending night takeoff and the possibility of low-altitude flying, had to take on the added strain of the non-appearance of his ground crew. He climbed in and took his seat.

At this point another outlandish thing became apparent. The plane's "put-

put," an auxiliary gasoline motor which was used to start the big four-bladed electric propellers turning, was not in the plane. Its proper place was in the waist compartment, but on this fabulous morning it squatted outside on the wet concrete of the hardstand, like a cold, brass toad. It was still connected: its long leader coiled up into the fuselage like a black snake.

When Hixon shouted "Start the put-put!" over the interphone about forty seconds later, the engineer dropped out of the plane, started the "put-put" where it squatted, and climbed back in.

The props revved up like charms. The lack of a pre-flight had apparently done no harm.

It was time for "Taxi Out."

We moved out of our hardstand and started slowly down the perimeter track. Looking out of the navigator's bubble, I was barely able to make out a jeep that whirled up to a wild stop. Figures jumped out, gesticulating. I could see by their mouths that they were yelling blue murder, but the roar of the engines made it impossible to hear what they were saying.

Both pilots had seen them, but, once a bombardment mission has started to move, screaming and pointing men are not reason enough to halt a taxiing plane and throw the whole takeoff out of gear.

Over the interphone, to nobody in particular, Hixon said: "What the hell was eating them?"

After we had been airborne an hour: "Tail Gunner to Pilot! Tail Gunner to Pilot! We got a tail!"

"What?"

"Yes, sir! I just now noticed it. It's whippin' around out there behind us and it's snappin' and jerkin' and givin' off red, green, and blue sparks!"

"Hendershot, are you flak-happy?"

"No, sir."

The engineer, standing beside me, suddenly bent double with laughter.

"I know what it is. It's the put-put. I forgot to tell Ames to disconnect it."

Pilot: "Christ in the foot-hills, that means we taxied out with it, too! Right past Operations and General Anderson!"

Engineer: "That must be what those men were pointing at."

Pilot: A groan.

Tail Gunner: "It just fell off, sir."

We were still over England, climbing, forming our boxes, and heading for our rallying point on the coast.

The big, three-box formation started across the Channel at 13,000 feet. The plane shook to a series of *rat-ta-tat-tats*



The Bridge Busters are not likely to forget the morning of June 6, 1944

that sounded like a steam riveter at work in the plane: our gunners were clearing their 50-calibre machine guns. We kept going into and out of clouds, losing, re-sighting, and losing again the wing of the Marauder which, ahead and to our left, was our visual contact for keeping our place in the formation.

Above the clouds, the sky was purple and the stars and moon were brilliant. The undercast looked in the moonlight like a field of incredibly piled-up snowbanks. Some of the cloud-snowbanks towered so high that we had to fly through them.

The interior of the clouds was solid white. Each time we plunged from transparent purple light into opaque white, I recalled, with unpleasant vividness, things I had heard about vertigo:

"In a cloud, you don't know, you *can't* know, which way is up."

"You can be in a bank and think you're straight and level."

"You have to trust your instruments, you have to trust them absolutely."

"If you lose your nerve in a cloud, you've had it."

We lost the formation twice. Interphone conversation ceased as we strained our eyes for the wing of our "contact" sister. It wasn't cloud vertigo the crew feared, for our pilots were very sharp. It was collision.

By a combination of luck and skill of our pilots, we regained our proper position just before our box started its long slant down for the kill.

We put on our helmets and struggled into our heavy flak suits, which cuirassed us front and back.

It was then, through a hole in the undercast, that I saw, in the dawn's early light, a sight I will never forget: hundreds on hundreds of ships heading toward France in a leagues-long semicircle spread out on the gray, white-capped water. From our height they were toy ships, with toy wakes showing the unanimous direction of this segment of the invasion armada.

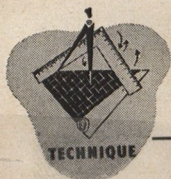
We left the ships behind. It was 0612. The navigator tapped me on the shoulder and pointed down through his blister. "Navy offshore batteries!" he roared in my ear. Looking down, remembering our soldiers crouched in the approaching landing craft, it was good to see the flashes of the big Navy guns.

The hole below us was gone: we were over the cloud-snowfield again. We put our nose down as the box began to lose altitude. We were in the white for what seemed hours.

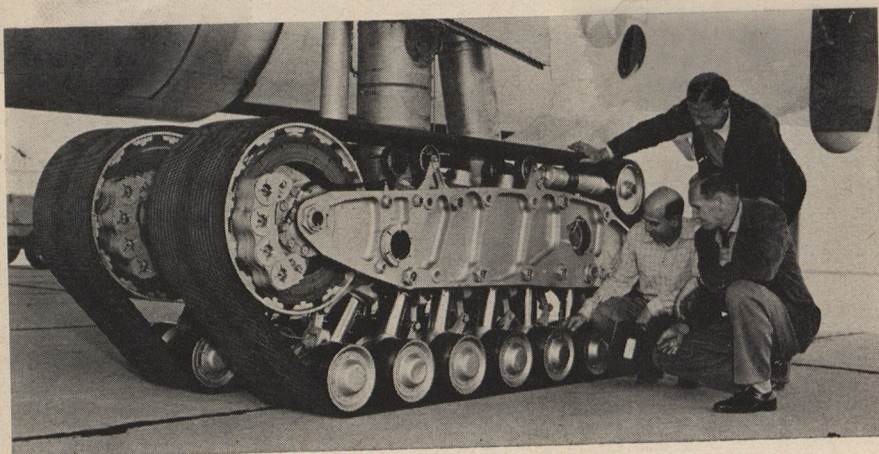
When we came into the clear, the undercast was an overcast. The altim-

(Continued on page 43)





TECHNIQUE PIXS



Tractor Gear For AF's Biggest Plane

Greater operational versatility for the AF's B-36 was indicated last month with the announcement that taxi tests were under way with enormous track-tread landing gear shown above. If successful, the new gear will make it possible for

the B-36 to be flown from airstrips of far less strength than now required. Originally the "foot" was developed by Firestone and Fairchild Aircraft Company, and has been used on light and medium bombers as well as medium transports.

Bell for Postmen

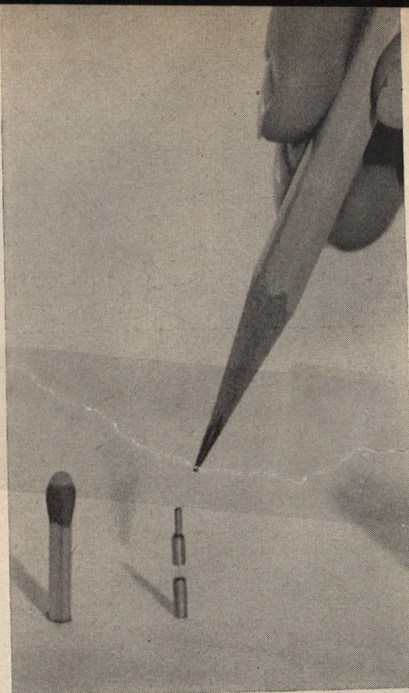
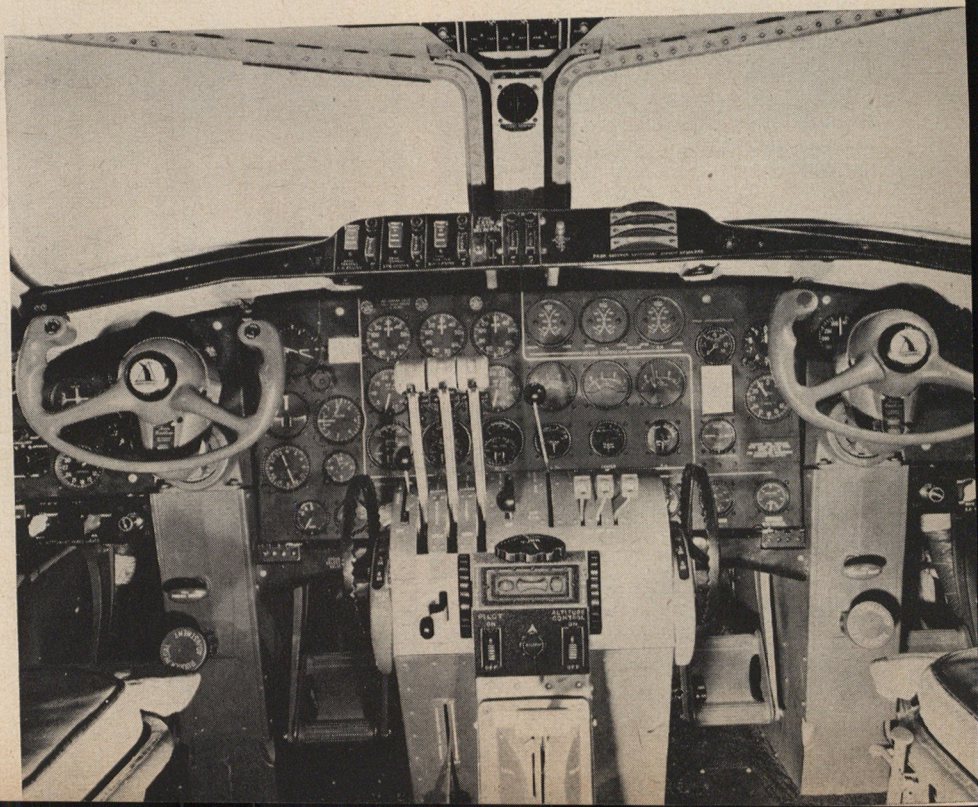
In suburban Chicago, mail delivery has been speeded from six to 24 hours with the help of six new Bell helicopters, like one below. Forty-four suburbs are served by nine daily flights. Millionth pound of mail was carried in March.



Raider Has "Fatigue Free" Cockpit

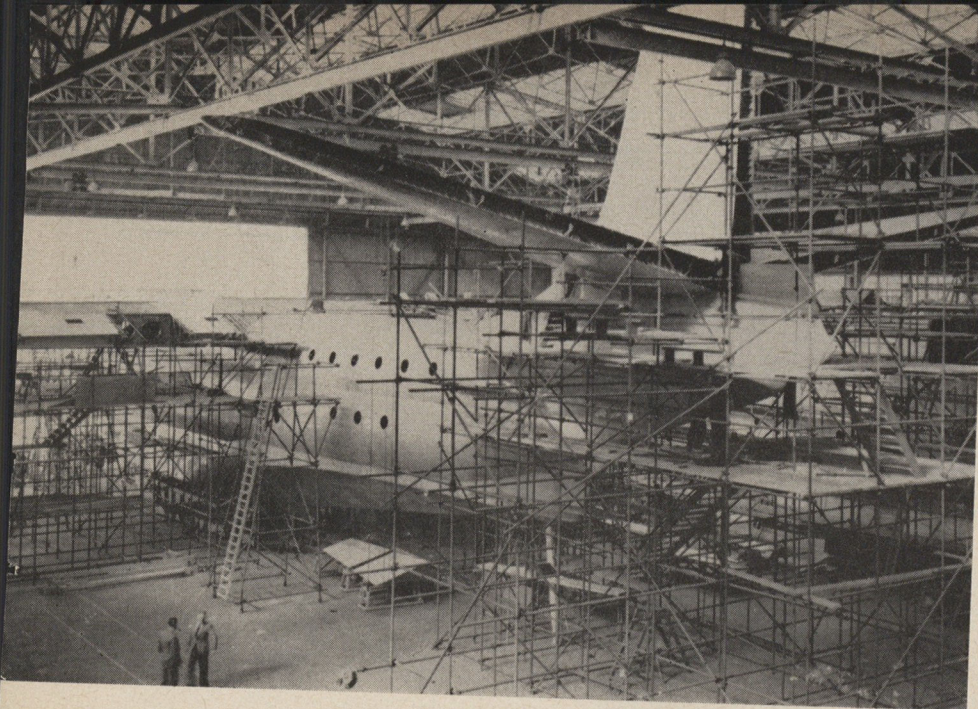
Northrop's new tri-motored C-125 has incorporated the ultimate in pilot comfort, as indicated by the recently-released photo below. Working on the theory that a goodly number of pilot errors (viz. accidents) are caused by in-

conveniently arranged cockpits, Northrop has taken special care to make the front office as spacious and as free of entangling gadgets as possible. Also incorporated are extra large dual-pane windshield defrosted by hot air.



Match-head Tube

Radio tubes about 1/90 the size of in-use models are being developed by Air Materiel Command, it was announced last month. The Tiny Tims, above, have demonstrated that they can withstand engine vibration, gunfire and landing shock better than their big brothers. Only 250 hand made models have been built so far. General adoption is some time off.



British Show Flying Boat "Princess"

While the US Navy and Convair were readying their huge XP-5Y turbo-prop flying boat for its initial flight, the British announced that they too were still very much in the water-based field. Their entry, the Saunders-Roe SR-5, above, was a commercial transport rather than a military plane however. Considerably behind the US ship in construction, the "Princess" will be powered by ten turbo-prop engines. It is designed to carry 105 passengers and seven tons

of freight at a cruising speed of 380 mph over a range of 5,500 miles. Unlike the sleek XP15Y, the Princess has stuck pretty closely to traditional flying boat length-over-beam ratio which usually runs in the neighborhood of five to one. Design engineers in this country have pointed out that it is this pudginess of shape—a hangover from the days of trying to get a "boat" in the air—that has so seriously retarded the advancement of water-based aviation.

Now Testing 92

Once thought of as only a test machine similar to the X-1, the AF's XF-92, below, now bids fair to win a place in the Air Force's string of regular fighter planes. Flight tests at Muroc, conducted by Capt. Chuck Yeager, left, and Consolidated's E. D. Shannon have shown the 92 to have tremendous speed as well as unprecedented stability. So enthused are some AF officials that they freely predict the delta wing will become the standard design for all interceptor fighters and possibly for other type fighters as well.



Group Coming Up

Prospect of a Boeing B-47 jet group being added to AF forces before many months was seen last month as Boeing Airplane Company released the above photo of planes being completed on the Stratojet assembly line at Wichita, Kan. So far the Air Force has made no announcement of when such a group would be activated. An experimental 47 now holds the unofficial transcontinental speed record of 3 hours and 46 minutes made last year.



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1	2	3	4	5	6	7	8	9
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19	20	21	22	23				

SORRY, NO C.O.D.'s

Name.....

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AFA STATE ROUNDUP



AFA's Organizational Director Ralph Whitener presents Past Commander pin to Raymond Guay, retiring commander of Washington's Cardinal Squadron, AFA. At left is Walter W. Hubbard, noted author and guest speaker for the occasion.

San Jose: AFA's San Jose Squadron celebrated its first anniversary with installation of new officers in the Fiesta Room of Lou's Village in San Jose on March 10.

The program for the evening included a Smorgasbord dinner, dancing and a floor show. As a special guest and speaker, Capt. John W. Thompson, Department of Military Science and Tactics, Air ROTC, San Jose State College, told of his personal experiences on "Operation Vittles." Capt. Thompson was assigned to "Vittles" during most of the operation.

New officers installed for the year include: Lee Jones, 1736 Guadalupe, commander; Joe Marchisella, vice-commander; Bob Locks, secretary-treasurer; Bill French, sergeant-at-arms; the council: Ted Stiner, Wally Benech, Jim McKinney and Clarence Fagalde, Jr. Barney Barrett, past commander and organizer of the squadron, assumes the position as chairman of the executive committee.

Squadron plans are under way for an Air Safety Program to start sometime in the spring. Working with the Green Cross, National Safety Council, meetings have been held at the Councils' office in San Jose. Present were representatives of CAA, Southwest Airways; Jim Nisson, manager of the San Jose Airport; managers and owners of Reid and Hillview airports; and San Jose State College Air ROTC officers. The San Jose AFA Squadron was represented by Bob Locks, Barney Barrett, chairman of the Air Safety Committee,

CALIFORNIA

San Francisco: The new Civil Air Defense program for the industrialized Far West was set out in detail for AFA's San Francisco Squadron at its March Meeting. Lt. Col. Stanley Mathews, project officer for the San Francisco Bay Area Defense Zone and attached to headquarters, Western Air Defense Command at Hamilton AF Base, addressed the AFA unit, outlining the program of Civil Air Defense that is being installed along the Pacific Seaboard from Alaska to Mexico.

The ground control information centers are presently being set up to work with the filter posts that will be manned entirely by civilians.

House-to-house membership campaigning has resulted in 36 new members for the San Francisco Squadron in the first month of its 1950 membership drive.

Eight teams, named after wartime air forces, are canvassing eight different regions in the city, and the leading team at the conclusion of the drive will win a case of champagne.

At present, the Fifth AF team, with Cliff Griffin as captain, and Twelfth AF team, led by Vic Rosenstein, are tied for the lead with eight members each.

The first sortie has been directed towards the National members of AFA living in San Francisco who are not associated with the Squadron. The second phase of the operations is directed at Air Reservists and USAF vets.

The drive will end with a "welcome banquet" to be staged on the evening of May 20, the night of the Squadron's regular meeting, it has been announced by Mike Kavanaugh, chairman of the

San Francisco Membership Committee.

The first independent production of the San Francisco Squadron Auxiliary, AFA, in the form of a barn dance took place on April 15 in a specially designed "hayloft" in Veterans War Memorial Building in the Golden Gate City's Civic Center. The Auxiliary president is Donna Pisani, and the Dance Committee was headed by Millie Gable.



Modelists in The Press-Cuyahoga Founders AFA Sqdn's recent Indoor Air Meet answer "chow call." Sandwiches and milk were furnished by local auto dealer and two bakeries, fliers were served by members of CFS's Women's Auxiliary.

and William J. Moore, the third member.

Bob Locks, the new treasurer, has taken over the chairmanship of the Squadron's Air Scout Squadron. He plans to have it organized and functioning within the next 60 days.

Another Squadron project for 1950 is the formation of a model airplane club.

DISTRICT OF COLUMBIA

Washington: Members and guests of the Nation's Capital Cardinal Squadron, AFA, celebrated its first anniversary as a chartered squadron with a dinner-dance at the Hotel Continental on March 11.

Guest speaker for the evening was Walter W. Hubbard, a member of both the American Oriental Society and the China Society of America. He was former editor of the magazine "China and Asiatic Affairs," and is the author of "Red Flows the Yellow River." Mr. Hubbard chose as his topic, "Russia, the Bear that walks like Japan."

During the dance intermission members were entertained by Miss Gini Bradley, popular Washington songstress. Music for the evening was furnished by the Air Force Band.

Master of ceremonies for the occasion was retiring commander Raymond G. Guay.

ILLINOIS

Chicago: AFA Squadron No. 101 of Chicago held its third annual dinner dance recently at the National Restaurant, 5213 N. Pulaski Street. Several hundred people including Chicago Group Commander Charlie Stebbings and his wife attended the affair.

A family style dinner including chicken, beef, pork and all the trimmings were served. After dinner there was dancing and guests were entertained by eight different acts. Seventeen door prizes were given away.

As added attractions, a raffle was held on a combination radio-phonograph and guests participated in a square dance.

AFA and its principles were explained to guests, and those eligible were invited to join. AFA magazines and booklets were distributed.

George A. Anderl is commander of the unit.

MARYLAND

Baltimore: Though this is not "leap year," Baltimore's all-WAC AFA Squadron recently staged a Squadron dance and managed the invitations to the male patrons very well. The event was held in the VFW Dugout, and the dancing lasted from 9 until 1. Lillian B. Beard, 2234 North Calvert Street, commands the unit and urges all former WACs who served with the Air Force to get in touch with her for information on the Squadron and its future plans.

MICHIGAN

Detroit: The combined installation of officers and the first annual banquet of AFA's Detroit Squadron No. 1 was held on March 18 at the home of William T. Amos, retiring squadron commander.

The new officers are: Berge Manooigian, 756 North Waterman Street, com-

mander; Stefania M. Lucyszn, vice-commander; and Al Lewis, secretary.

Congressional Medal of Honor winner, Major William Shomo, who is now stationed at Selfridge AF Base, was the guest of honor. He presented a short speech on his high hopes for the future of AFA.

Alexander Ross served as master of ceremonies for the banquet.

NEW JERSEY

Montclair: Alex M. Cochran, adviser protem of the Montclair-Essex Squadron Explorer movement of the Boy Scouts,

convention to be held in Garden City on May 13. Requests for rooms should be mailed to: Reservations, AFA Convention, Garden City Hotel, Garden City, N. Y.

The convention program will include business sessions, election of group and wing officers, a cocktail party and banquet.

New York City: Marine Captain Frank Farrell, well-known columnist of the New York World Telegram and Sun, was the principal speaker at the monthly meeting of AFA's Manhattan Squadron No. 1 on March 23 at the Hotel



Col. Douglas Johnson, 1st AF Inspector Gen., presents charter to Mitchel AFA Sqdn. Cmdr. George Griffin during local "12 O'Clock High" premiere. Mrs. Leon Vance, recipient of husband's posthumous Medal of Honor, looks on.

gave an explanatory talk on the plan at a recent meeting of the AFA unit.

An organization meeting has been held to start the program, and committees have been named as advisers and liaison officers between the Boy Scouts of America and AFA. A meeting place was furnished by the Montclair Police Department.

NEW YORK

Niagara Falls: The Niagara Falls Squadron, AFA, at the March meeting voted to donate a wheel chair to the Veterans Hospital in Buffalo. The chair was furnished by Paul Nesbitt.

Bill Landis, speaker for the evening, gave a talk on Air National Guard and its policies.

Commander of the Squadron is Lloyd W. Jordan, 1354 James Avenue.

New York City: Mary Gill Rice, chairman of the N. Y. State convention committee, urges members to send in their reservations immediately for the State

Russell, located at 45 Park Avenue.

Captain Farrell, who was chief of Reconnaissance Patrol in the South Pacific during the war, addressed 60 members of the Squadron for more than a half hour on his experiences rescuing allied soldiers from prison camps in Japan. He also was an important witness against the Japanese war criminals in the Tokyo war trials.

Squadron Commander Steve Calhoun, 164 E. 72nd Street, introduced the popular news columnist.

Other squadron officers in attendance were: Don Mac Ausland, secretary; Harold Glasser, vice-commander; and Ernest Page, treasurer.

OHIO

Dayton: The Dayton Squadron No. 1, AFA, has a lion's share of the Armed Forces Day activities in the Dayton area, Squadron Commander Dr. J. H. Meyer has reported.

(Continued on page 42)



IN RESERVE

ANG, AROTC and USAFR Ready Summer Plans

More Than 65,000 Officers and Men Will Take the Field for Intensive Two-Week Maneuvers at Bases Throughout the Country

More than 65,000 members of the Air National Guard, Air ROTC and TO&E units of the Air Force Reserve are ready to take the field in the biggest summer maneuvers in history. An undisclosed number of reservists in Voluntary Training units will train at various air bases.

Leading the field numerically is the Air National Guard which plans to put more than 42,000 men and officers in the field for two weeks intensive training. These programs will run from the second week in June to September 3.

For the second successive year, the Guard will train on a wing basis and will put all of their 84 fighter and bomber squadrons in the field at the same time. Of the 72 ANG fighter squadrons, 11 have been equipped with jets including seven squadrons of F-80s and four squadrons of F-84s. The others are flying Mustangs and Thunderbolts. The 12 light bomber squadrons are equipped with B-26s.

The ANG summer training program is being closely synchronized to regular and reserve Air Force activities. The Air Guard of Colorado and Wyoming,

for example, will be "air lifted" in Reserve C-46s to and from their encampments in Michigan and Wisconsin. Aircraft control and warning units from Texas and Louisiana will be flown to their training site at Albuquerque N.M. in Reserve C-46s from the 12th AF area. Permanently assigned regular Air Force instructors will accompany the units to the field.

This year, for the first time, the ability of the Air Guard to operate on a wing basis will get a thorough test. In 1948 the Air Guard trained almost exclusively on a squadron basis. Last year an arrangement with the Air Force was affected permitting Air Guard commanders, from group level up, to exercise training supervision over subordinate units and personnel in all matters relating to preparation for their Federal mission regardless of State boundaries.

Fighter units of the Guard will practice gunnery, group and wing tactical problems and ground-controlled intercepts using wing communication and radar units, and radar stations of the Air Defense Network where practical.

Operational flying will include rapid takeoffs, and assemblies from dispersed positions on the airfields; precision landings in rapid succession; formation takeoffs; escort of bombers to simulated targets; and interception and attack of "enemy" bombers.

Bomber units will emphasize group and wing tactical problems, weather penetration and tactical support of ground forces.

TO&E (AFRTC) units of the Reserve will field more than 17,000 officers and men, a slight increase over last year's number. Twenty Troop Carrier Wings, 17 of which are equipped with C-46s and three with C-47s, will take their two week training periods with their full strength of 279 officers and 422 airmen. Five light bomber Wings, flying B-26s will train at Eglin, Florida and Long Beach, California. Each wing has an authorized strength of 192 officers and 428 men.

Members of the Air Reserve Officers Training Corps, nearly 7,000 strong, will train at Stewart, Hamilton, Langley, Wright-Patterson, Chanute, Scott, Lowry, Kelly and Robins Air Force Bases. Here they will get a chance, under simulated war time conditions, to put into use the things they have learned in their college military courses. Most of the boys have been specializing in Administration Air Installations, aircraft maintenance, communications and armament. Qualified graduates are commissioned in the Air Force Reserve.

Assignment of ROTC Grads

Since graduating ROTC students are a major source of supply of junior officers for various components of the USAF, Air Force officials are taking particular pains to see that each graduate is assigned to a suitable unit where he can continue his training.

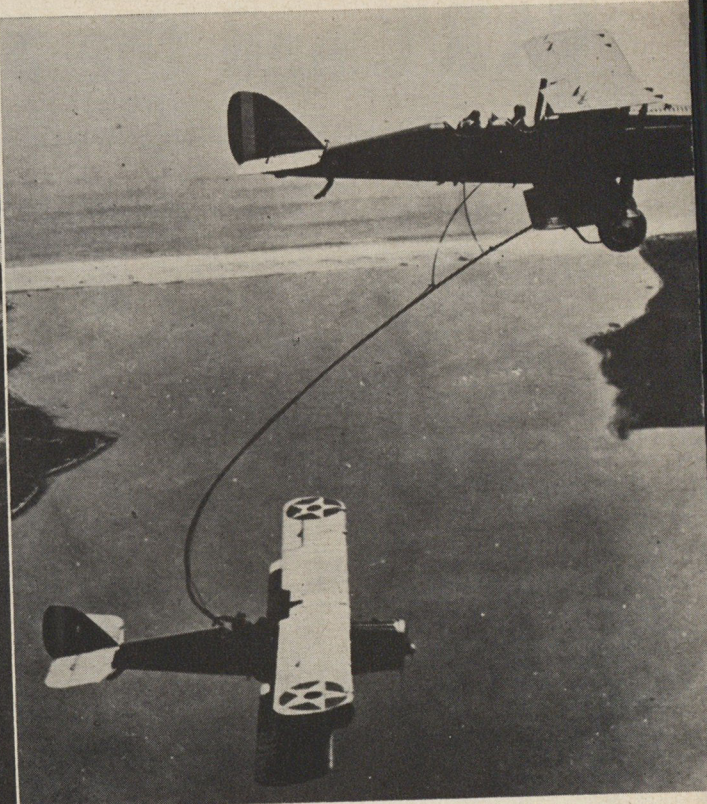
Most ROTC students receive a reserve commission upon graduation but in order to assure their prompt assignment, each Professor of Air Science and Tactics will forward to the Continental Air Command through the numbered Air Force command having jurisdiction over the area in which the graduate lives, a roster of such newly commissioned officers.

Upon receipt of these rosters, the numbered Air Force commanders will forward the necessary information to the commanding officers of the Air Force Reserve Training Center, Volunteer Reserve Liaison officers and the Air Force recruiting center in whose area each of the newly appointed officers is located. These commanding officers will get in touch with each graduate, by personal visit or telephone, if practical, to welcome them to the Air Force and encourage their affiliation with an organized unit of the USAF.

BILLBOARDS GO TO BAT FOR AIR RESERVE



To help publicize the 497th Air Base Group, a Seattle Air Force Reserve unit, the Boeing Aircraft Company and the Foster & Kleiser Advertising Company cooperated to give the unit outdoor billboard space. Boeing, sponsors of the reserve group, paid for the posters. Foster & Kleiser furnished art work.



History's first air-to-air refueling. Left, just before takeoff, Lt. Frank Seifert holds the nozzle of the hose while Lt. Virgil Hines, who flew the DH-4B refueling plane sits in front cockpit. Right, the operation itself, June 1923.

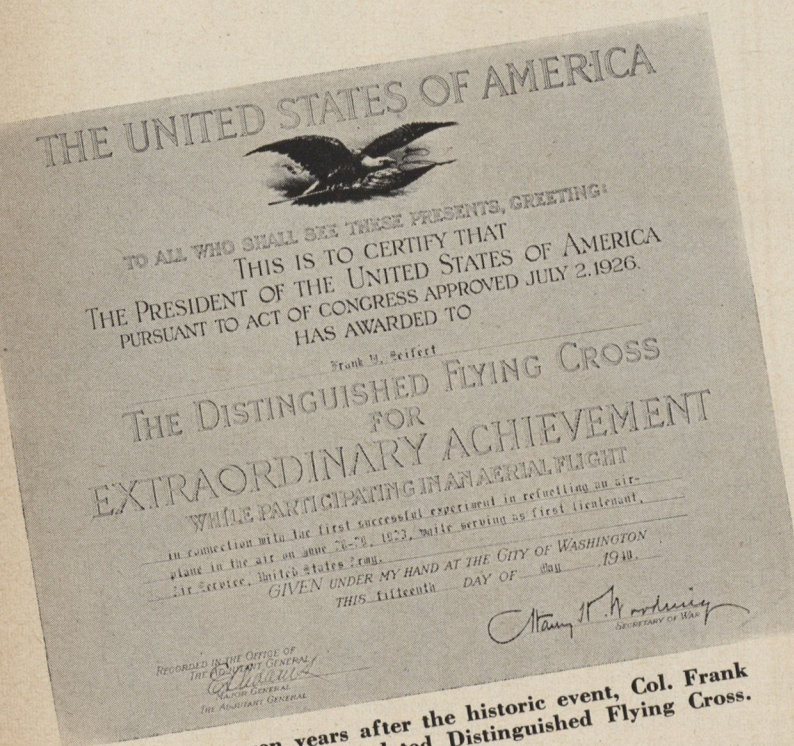
If You Can't Beat The Law—Skirt It

New air-to-air refueling system will lengthen the arm of American airpower, but it's only a half-answer to the speed-size-range dilemma

There are times when new inventions tend to emphasize the limits rather than the latitude of man's creativeness. One of the latest cases in point is the AF's new air-to-air refueling system. For at least three decades design engineers have been chasing their aeronautical tails in an effort to build planes that would at one and the same time carry bigger loads greater distances at faster speeds. The trouble has always been that building a plane is like cutting a pie. If you cut a big slice for speed there is less for size and range. To date, the designers have found no way out. Yet as far as the strategists are concerned compromising one characteristic for another is unacceptable.

One answer to the problem—more an expedient than a solution—was introduced 27 years ago when four young officers in the Air Service made the first successful experiment with air-to-air refueling in the skies above Rockwell Field, California. Their planes were two seated, D'Havillands. The feat was accomplished in wide open air. A man in the tanker plane merely lowered a hose to a man in the endurance craft who caught it with his hands and hooked it to the gas tank.

The system announced last month was merely a refinement of the old artifice. Valuable as the device will be in lengthening the arm of American airpower, it was nonetheless an interesting admission that the designers had been unable to beat the law. They had gotten around it.



Twenty-seven years after the historic event, Col. Frank Seifert received a belated Distinguished Flying Cross.

VART and the State of Massachusetts

With wholehearted cooperation of the Governor, the 9002nd has its educational program in high

By Maj. John J. Powers

(First Air Force Liaison Officer New England Sub-Area)

A novel innovation in Air Force Reserve Training programs is under way in the State of Massachusetts with the full support and cooperation of Governor Paul A. Dever and State educational authorities.

The Commonwealth has rolled out the magic carpet of education for the more than 4,000 Reservists in the 9002d Volunteer Air Reserve Training Wing of the First Air Force, and the approximately two-score carefully selected pay-collecting specialists from the Air Materiel Command's Mobilization Training Program.

It all began with a modest appeal on my part to both Governor Dever and Mr. E. Everett Clark, Director of the Division of University Extension for the Massachusetts State Education Department, for professional advice on the complex "revving up" process involved in the pioneer phases of our Reserve Training planning.

Ours was a job as difficult as that posed by all early Air Force Reserve efforts. We were confronted with a roster of men from all walks of life: students, factory workers, bankers, firemen and lawyers, to name just a few.

Lt. Col. A. H. Wait, USAFR, Commanding Officer of the 9002d Volunteer Air Reserve Training Wing, and Lt. Col. Harry Mahan, USAFR, Commanding Officer of the 9231st Volunteer Air Reserve Training Squadron (Intelligence) joined me in the conviction that something would have to be done to hold the group together.

We knew of the limitless educational possibilities provided by the State of Massachusetts. We had learned that the Division of University Extension of the Massachusetts State Education Department had long been conducting a comprehensive educational program. It seemed that any worthy group of 20 or more candidates could petition the Commonwealth for a subsidized course of study along almost any line.

We also learned that these courses are provided free of charge to veterans of World War II who are residents of Massachusetts and that courses in any particular field could be organized to meet the needs of residents of the State.

To achieve effective results in the training of our Volunteer Air Reservists, we needed courses with a continuity of study, qualified teachers, and centrally located classrooms.

We went to work with the blessing of Governor Dever. "Any help the Commonwealth of Massachusetts can render the Air Force in this field will be forthcoming", he said.

Our plans immediately won the en-



Governor Paul A. Dever, center, offers the use of state extension course facilities to members of the 9002nd VART Wing. Left is Lt. Col. A. H. Wait, Wing Commanding Officer. Right, Maj. John J. Powers, Wing Liaison Officer.

thusiastic endorsement of Lt. Gen. Ennis C. Whitehead, Commanding General, Continental Air Command, and Maj. Gen. Robert M. Webster, then Commanding General, First Air Force, Continental Air Command.

We brought back to the State a suggested training plan. It was tailored for operation on a state-wide basis with all the atmosphere of college lecture courses and with provisions for college credit as well as points toward retirement and promotion.

We submitted a tentative list of general fields of study aimed at obtaining a cross-section maximum in values for our 4,000-odd Reservists.

Our beneficent co-pilot throughout all our planning, Mr. E. Everett Clark of the Massachusetts State Education Department, apologetically explained that our original planned list of 14 courses must be reduced to nine, because of budget limitations.

However, a larger budget was in the offing for 1950 and we were assured that more courses could be made available to meet the future training needs of our Volunteer Air Reserve. The nine courses listed for the Boston area, where the largest number of Reservists are located, now include: military law; remedial reading; geography of Russia; personnel management; public speaking; air gas turbine theory; elementary electronics; traffic management; and statistical control.

In addition to the courses provided for the VARTU's in the Boston area, similar courses in the fields of personnel management, public speaking, military law, electronics and traffic management are available to other units of the 9002d Wing throughout the state. These courses are spotted geographically to provide study facilities for all members of the 9002d Wing.

All veterans are eligible to attend

these courses free of charge. Each course carries college credits for one to three semester hours.

The instructors, in some instances, are personnel suggested by the Volunteer Air Reserve Wing in Massachusetts, and in others are provided by the Department of Education. Authorities in a variety of fields are available to us from neighboring educational institutions.

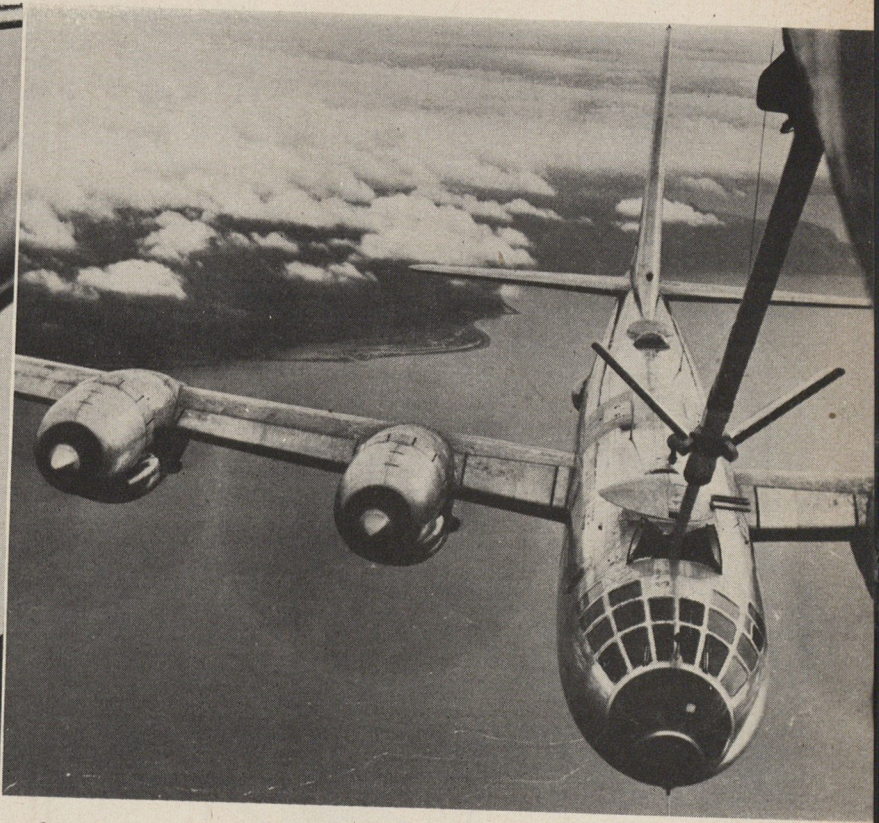
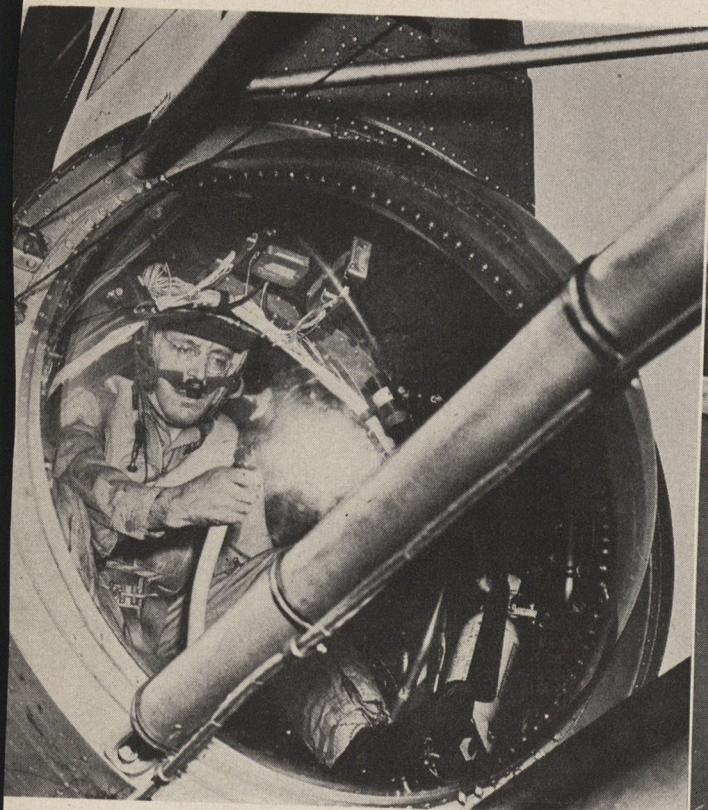
Included among participating instructors, for example, are: Dr. Demetri Boris Shimkin, Colonel, Field Artillery, O.R.C. of Harvard University and frequent guest lecturer at the National War College, Naval War College, Industrial College of Armed Forces; Professor John Francis Byrnes, Chairman of the Department of Industrial Management, Boston College, and special lecturer on Industrial Purchasing at General Electric Company; Myles K. Wolfson, General Electric Company turbo jet authority; and Louis B. Hawes, Industrial engineer, Dewey-Almy Chemical Company.

Lecture halls at Harvard University and Massachusetts Institute of Technology have been made available to us rent-free.

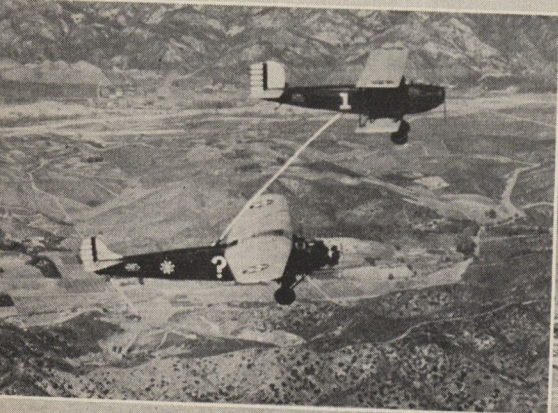
We feel that Operation Massachusetts has stimulated scholastic competition, academic achievements, and has provided a sound stepping-up of Air Force Reserve Training standards in general.

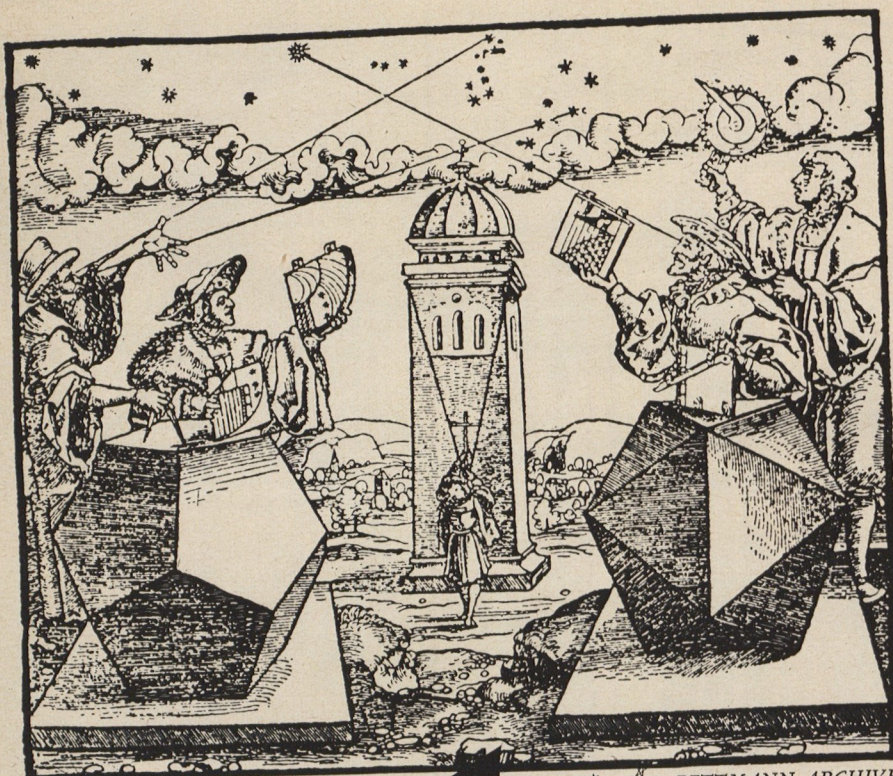
Our basic plan has been adopted by the Air Materiel Command's Boston Air Force Procurement Field Office, headed by Lt. Col. Philip J. Kuhl, which is charged with the responsibility for the Air Materiel Command Mobilization Training Program.

The instructors serving the Air Materiel Command Reservists are daytime civilian specialists employed at the Boston Air Force Procurement Field Office and receive regular State instructor's compensation.



Today's flying boom for air-to-air refueling is a far cry from the ordinary filling station hose used in early attempts like that of the Question Mark in 1927, lower inset. Developed by the Boeing Aircraft Company, the boom makes it possible to refuel in flight with greater speed and at higher altitudes than previously was possible. "Clancy" in the tail, above left, "flies" the boom into position for coupling. Upper right, a B-50 gasses up. Note "vanes" which guide boom to position.





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For centuries, man has looked to the universal constants, the stars, to establish his location on the earth's surface.

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The recently developed Kollsman Periscopic Sextant, with special automatic averager, enables the airborne navigator of high-speed craft to obtain a series of extremely accurate sights. It also eliminates the need for an astrodome.

The Periscopic Sextant reflects Kollsman leadership in the fields of precision instrumentation and fine optical systems. The same high standard of manufacturing and engineering skill marks the complete Kollsman line of Sard marine, sport, and opera binoculars. No finer prismatic binoculars are made.

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ROUNDUP

CONTINUED

The program for Dayton has been placed in the hands of the Dayton Armed Forces Day Civic Committee. Some of its plans include an AF Day Ball, a public rally, speaker's bureau, window displays and information-education program.

The Dayton AFA group is on the overall planning and operating committee, and it works closely with veteran and reserve elements of the three services. Approximately 180 organizations, including women's clubs, labor, youth, civic, veteran and other units, have pledged full working cooperation to the Civic Committee, according to Dr. Meyer.

The Squadron is continuing plans for the second annual Wright Memorial Glider meet which will be held from May 27 through 30. Displays for the meet will be furnished by the USAF Exhibit Unit.

The Soaring Society of Dayton and Soaring Society of America are aiding the Squadron in issuing invitations and establishing the formal competitive program for the meet.

Entries are expected from six or seven states, including Ohio, Indiana, Michigan, Illinois, Kentucky, Missouri and Pennsylvania.

Music will be available on Memorial Day afternoon by the 661st USAF Band from Wright-Patterson AF Base. Elements of the Ohio Air National Guard and the local model airplane group have been invited to participate.

TEXAS

Dallas: Two hundred and fifty Dallas AFAers met in the Hotel Adolphus recently to hear Lt. Col. Cecil Scott, Public Information Officer of the Eighth Air Force, speak on "The Role of the Eighth Air Force in Strategic Bombing."

Through the cooperation of Consolidated-Vultee of Fort Worth, the B-36 film, "Target: Peace" was shown as well as another Air Force film on late planes and equipment.

The unit is headed by Tom McHale, former AFA board member, whose address is Chamber of Commerce, Dallas.

WEST VIRGINIA

Beckley: The first Wing Girl Scout Troop of the state has been organized in Beckley under the leadership of Miss Judith Jackson. It is being sponsored by the Air Force Auxiliary of the Beckley AFA Squadron.

Joan Maples serves as pilot of the local troop. Sally Bunch is co-pilot; Mary Sue Malone, dispatcher, and Jo Lee Quesenberry, purser.

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FREE Listings if you write today
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THAT WAS IT

CONTINUED

eter read 6,300 feet and the French Channel coast was below.

Looking out of the radio operator's window I saw red streaks slanting up between us and the plane on our left. The streaks looked like red, reversed rain. I watched them without any reaction, because, combat missions being the exception and not the rule in my military routine, I didn't know what they were. I had been watching for the black puffs of typical flak.

The streaks had stopped by the time we heard:

"Bombardier to Pilot, open bomb bay!"

"Roger!"

A terrific clatter was audible to all of us over the sound of the engines and the grating of the opening bay. The navigator, radio man, and I looked at each other blankly.

"What in the name of God was that?"

Hixon said over the interphone.

"Damned if I know, sir," said the engineer.

"Didn't you check the bomb bay?"

"I flashed a light in there and saw that the bombs were in. There wasn't time—"

"Bombardier to Pilot, straight and level!"

The climatic moment came at exactly 0620:

"Bombs away!"

The yell of "Yay-y-y-y!" that filled our earphones sounded as though it came from one throat. Although no flak was visible, our box went into violent evasive action, as briefed, then turned off across the peninsula.

Bombardier: "A superior, I think! Check off one Kraut strong point!"

It was nearly daylight.

Tail Gunner: "Ten million planes at four o'clock!"

Pilot: "That'll be the heavies."

Over water again, heading north, we saw heavy flak to our left over Guernsey Island, much too far away to threaten us. As we flew over England, laughing and singing, we sounded like a B-26 full of happy magpies. Early morning sunlight flooded in through the Plexiglas nose.

The Interrogation Room buzzed with relief, high spirits, and the general excitement of The Day.

The "Bridge Buster" had not lost a ship or a man, although Box One, whose target was an ammunition dump, had had to go in at 1,200 feet. All three boxes reported "Superior" results, but six of Box One's planes were hit by machine-gun tracer bullets, the red rain I had watched with the fearlessness of ignorance. One Box One crew swore that a Kraut had heaved a rock at them, they were so low.

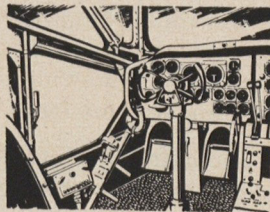
Hixon was sarcastically congratulated because of our "tail." It had been marvelled at during the taxiing and takeoff by the entire groundling population of the base—over 2,000 officers and enlisted men. The screaming gesticulating men we had seen as we

(Continued on page 48)



The AVITRUC YC-122B

efficient



maximum visibility for crew
 • standardized controls and instrument panel • fast acting ramp and cargo door • ramp loading at truck bed height • cargo floor only 29 inches above ground level • **result** = reduced ground handling costs + fast, safe, economical air cargo transportation •

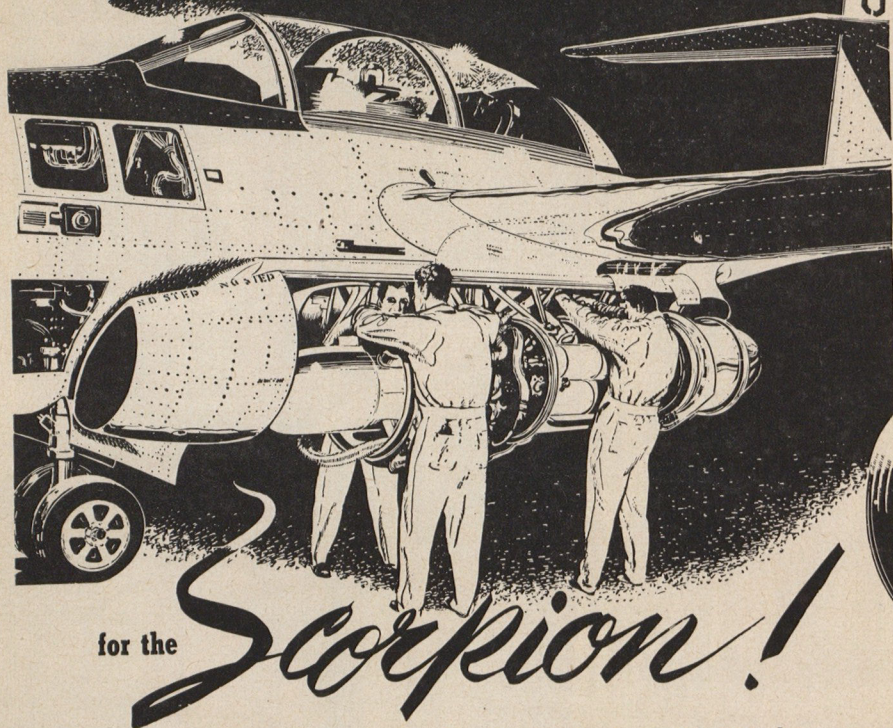


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less time on the ground
means more time in the air



Airplanes are built to fly, but a sad fact is that many aircraft spend too much time on the ground for service and maintenance.

The Northrop Scorpion F-89 all-weather interceptor—latest in the long line of Air Force aircraft built by Northrop—is a shining example of how the designer's ingenuity can give an airplane more time in the air—where it belongs.

Remarkable ease of maintenance has been built into the Scorpion. Mechanics with simple tools can gain quick access to engines, electronic equipment, controls, armament and accessories, without special ground equipment and without "tearing the airplane apart."

This ease of maintenance combined with high-altitude, high-speed performance makes the Scorpion a formidable addition to the Air Force defense team.

NORTHROP AIRCRAFT, INC., Hawthorne, Calif.

Builders of the RAIDER C-125 transport



The Airman's Bookshelf

Visibility Unlimited

by Dick Grace

Longmans, Green & Co., 276 pp., \$2.75

Dick Grace was a scientific daredevil. That he is alive today is a tribute to his skill and courage as well as to the fact that he labored under the beneficent smile of Lady Luck.

Grace must certainly be one of the very few men who soloed the first time he ever sat in an airplane. He was only a kid then, back before the first World War, and he had gotten a job with a barnstorming pilot. All he had to do was wash the plane and keep the crowd from sticking its fingers through the fabric. Then one day his boss cracked up and broke an ankle. Rather than give up the tour, he "told" Grace how to fly the plane. "This is your chance to find out if you're a natural flier or not," he told him. "If you make it, swell, if you don't..." Dick Grace "made it."

He was too young for the first World War and too old for the second but he got into both of them anyhow. In the years between, Dick lived the life of a stuntman. Hollywood had him doing everything from climbing into cages with wild animals, and being burned in a saloon fire to crashing planes the way they wanted them crashed—into barns, over trenches, into hillsides or whatever the script called for. Dick did the crashes for "Wings," "Hell's Angels" and other famous movies. He left nothing to chance—every move was plotted in advance and the execution had to be letter perfect or else.

In a sense, Dick never looked upon his work as mere stunting. Knowing how to crash—having a set pattern which could be followed for every possible emergency, should be, he felt, a part of the training of every flier. Dick established these patterns the hard way—by trial and error.

Despite the fact that he had crashes down to a science, he was near death on more than one occasion. At last count, he had suffered more than 80 bone breaks as well as countless burns and sprains.

Along the road he was lucky enough to meet and eventually marry a wonderful woman who understood his need for his career and never asked him to quit for a less dangerous profession.

CREDITS

COVER: Acme. Page 13—Wide World, USAF; Pages 22-23—International News; Pages 28-29—USAF, Wide World; Pages 34-35—Wide World, Boeing, Consolidated, USAF, Bell, Northrop; Page 36—Jack A. Richey; Page 38—Roger Dudley.

MEET THE MAN

CONTINUED

large share of the responsibility for a program which is admittedly second best to that—the building of an effective US military establishment. The one objective he will set for himself in his new job seems sure—to keep his part of that establishment at the minimum size and expense consistent with security. Since this was the identical objective of the man he is replacing, there is, after all, little reason for excitement.

Mr. Finletter was born November 11, 1893 in Philadelphia. He attended the Episcopal Academy there, and when he was 17, went to Paris for a year's study.

He was graduated from the University of Pennsylvania in 1915 and returned after the first world war to complete the studies for his law degree. During the war he served with the 312th Field Artillery.

In 1920 he entered law practice in New York City with the firm of Cravath and Henderson. In 1926 he moved to another New York firm, Coudert Brothers, and it was while he was there that he began writing legal works, the first of which was published in 1937.

In 1943 he was appointed by the then Secretary of State, Cordell Hull to the office of executive director of the newly formed Office of Foreign Economic Cooperation. In 1945 he published a book "Can Representative Government Do The Job?" in which he emphasized the necessity of teamwork between branches of the government.

Little more than five months after his work on the Air Policy Commission was finished, the government called upon his services once more—this time to head the ECA mission to England. He took the job with some trepidation. "Never before," he commented, "have the representatives of one country been given the responsibility of reviewing in detail and in public the acts of another country in dealing with its own affairs." That he handled the job with the required delicacy was attested by Sir Stafford Cripps when Finletter returned to the US at the completion of his tour.

"He had a distinguished career in his own country," said Cripps, "but nothing he has ever done had equalled or excelled the contribution he made to the launching of the ECA program upon sound ideas."

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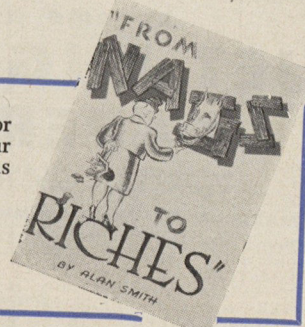
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DEADLY LITTLE FRIENDS

were five teams from Europe, Alaska
and the Orient, two Air National Guard
units and a squadron from the Las
Vegas gunnery school. Teams consisted
of 25 officers and airmen and six planes
—three for competition and three as
standbys. All but the FEAF and USAFE
units brought their own ships. As was the
case last year, there were five fields of
competition: aerial gunnery, panel gun-
nery, dive bombing, low altitude bomb-
ing, and rockets. In the jet class, rocket
competition was separated and scored
apart from the other categories since
four of the jet teams were not equipped
for rocket firing.

When the last bullet hole was marked
on the final day of the meet, the tabula-
tion showed that the 3525th Aircraft
Gunnery Squadron of Las Vegas had
won handily although they had been
pushed hard until the final day by teams
from the 33rd and 81st groups. Flying
two F-80s and one F-86, the desert
squad scored 300.40 in the regular jet
competition and 112.62 in rocket firing
for a total of 413 out of a possible 850.
In the conventional class, the 27th
Fighter Escort Group of Bergstrom
AFB won top honors with a point total
(including rockets) of 301.30. In view
of the fact that they flew F-82s, one of
the toughest of aerial platforms, this
was considered an exceptional achieve-
ment.

Not only did the Las Vegas squadron
cop both team trophies in the jet class,
and amass a higher point total than any
team in any class, but they took away
the two individual high scoring awards
as well. Number one scorer of the en-
tire meet was 1st Lt. John Roberts of
the 3525th with 341.72. In the jet
rocket category, Capt. Francis Bailey,
same outfit, came out on top with a
mark of 120.56. In the conventional
class, the cup for individual high scor-
ing went to 1st Lt. Charles McWhirk
of the 27th with a tally of 329.44.

An innovation this year—Group Com-
mander competition—saw Lt. Col. Stan-
ton Smith, boss of the 49th Fighter
Bomber Group, Misawa AFB, Japan,
take the lead in regular jet competition
with 215.39. In jet rocket firing, Lt.
Col. Maurice Martin of Las Vegas won
with a mark of 78.50. In the conven-
tional class, war-famous Col. William H.
Councill, CO of the 86th Fighter Bomber
Group in Germany won with 276.22.

Spirited as the competition for scoring
honors was, the meet could hardly be
compared to usual competitive events
where the only objective is to get more
points than the opposition. Las Vegas
was not a sports arena. It was more
akin to a clinic where professional men
meet to extend the frontier of a highly
skilled art. Here they did it with bul-
lets, practice bombs, careful timing and
determination. And it is likely that the
group that wound up on the bottom in
scoring was just as big a winner as the
group that finished first. Discipline was
superb and self imposed. From 05:40
Wednesday morning, there was a take-

CONTINUED

off or landing about every two minutes,
six hours a day, for six straight days.
Total number of sorties flown was 1484.
Yet the accident rate was exactly .000.
Among those primarily responsible for
the meetings success were Col. David
Schilling and Lt. Col. Al Schinz of AF
headquarters, and Col. Joe Mason, Base
CO at Las Vegas. Spectators included
nearly every ranking AF general con-
cerned with training or operations of
fighter aircraft. The head man himself,
General Vandenberg, (who was AF gun-
nery champ in the 20's incidentally)
took advantage of the occasion to check
out on a TF-80 with Col. Mason riding
in the front seat.

As the meet ended, plans were al-
ready afoot to make future gatherings
even more beneficial. By next year it
was likely that improved tow-targets
would make it possible to extend the
ceiling in air-to-air competition from 20
to 40 thousand feet. And before many
more competitions, project officers hoped
to devise some way of incorporating
night and all-weather trials.

Without question the Las Vegas Gun-
nery Meet was invaluable in teaching
today's airmen to get the maximum per-
formance out of today's weapons. But
while the last keg of beer was being
emptied at Las Vegas "Flamingo" there
were those who contemplated the likeli-
hood—perhaps with some regret—that
the meeting as now constituted will never
have time to become traditional. For
the days of the machine gun on fighter
planes are numbered. Sooner or later
they will be replaced by rockets and
guided missiles. When that time comes
some new form of competition will have
to be devised. It may be at Las Vegas
with its abundance of facilities (includ-
ing the Flamingo) but it will be some-
thing entirely different from the two
meets held thus far.

THAT WAS IT

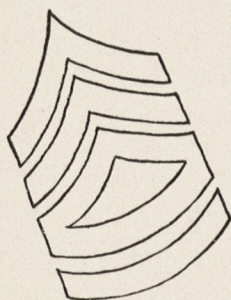
CONTINUED

started to taxi turned out to have been
our ground crew. They had been awak-
ened late.

And gradually the explanation came
out of the clatter we heard when our
bomb bay opened. Inside the bay, rest-
ing on the doors, had been fifteen Army
cots, dozens of new, shiny kitchen pots
and pans, and seven cases of K Rations.
Our crew chief had drawn these things
for his barracks and mess hall and had
laid them on the bomb bay doors, after
the bombs were in, to protect them
from moonlight requisition. He had in-
tended to remove them while pre-
flighting the plane, then take them to
their destination after take-off. When
the bomb bay swung open, the whole
conglomeration fell out into German-
occupied France. It was the considered
opinion of everybody that a case of K
Rations was at least as lethal as a 250-
pound bomb.



"SHE'S A FINE JOB TO SERVICE, SIR!"



Maintenance crews in a fighter group are decidedly realistic . . . and from the "old man" down are uncompromising in their judgment of structural design which helps or hinders . . . the problem of keeping 'em flying with the least time off for service, or over-haul. > > > Perhaps that's another reason why the Thunderjet is so appreciated. It helps get 'em back upstairs . . . quickly . .

when the need for service puts the F-84-E in their care. > > > Maintenance time on the Thunderjet is now the lowest for any jet fighter in service. > > >

Over a period of accelerated service tests, three F-84-E's completed 450 hours of test flying with only 1.34 man hours for every hour of flight.

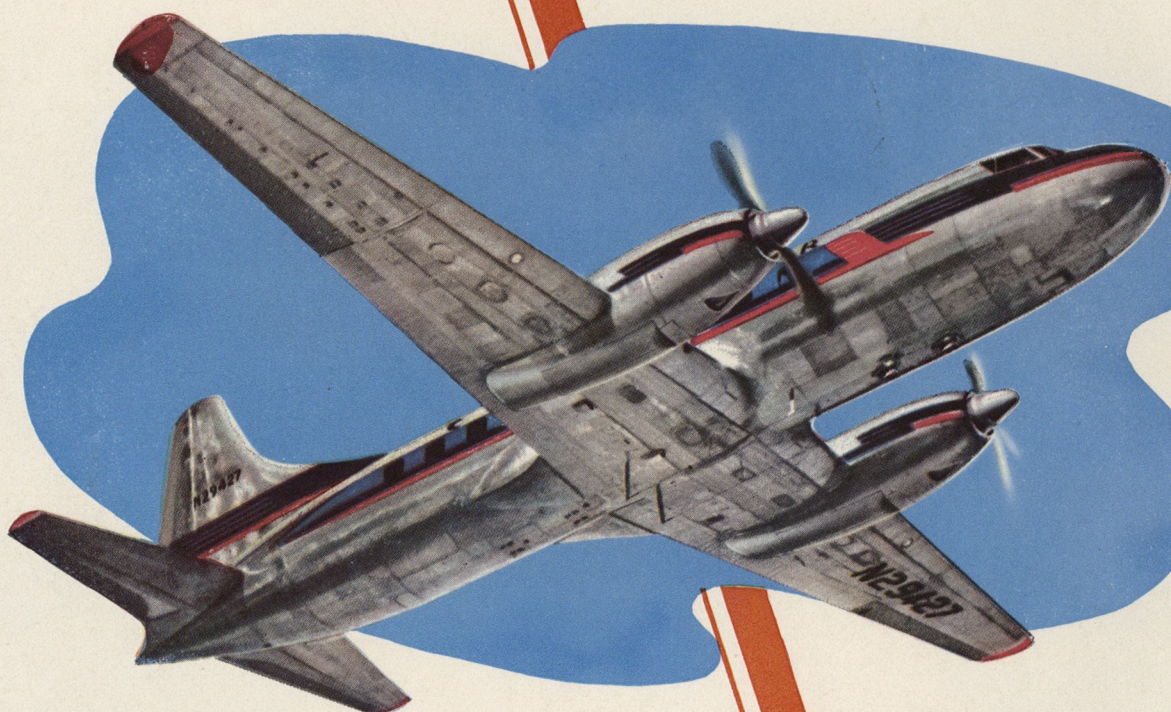
Republic Aviation Corporation, Farmingdale, L. I., New York

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