AIR FORCE

THE MAGAZINE OF AMERICAN AIRPOWER

April 1955 • 35c

The Ramparts We Watch

A Report on Our Air Defense

School for Zebras—A Report on SAC's Non-Com Academies

Second-Chance Camp—The AF's Prisons Without Bars

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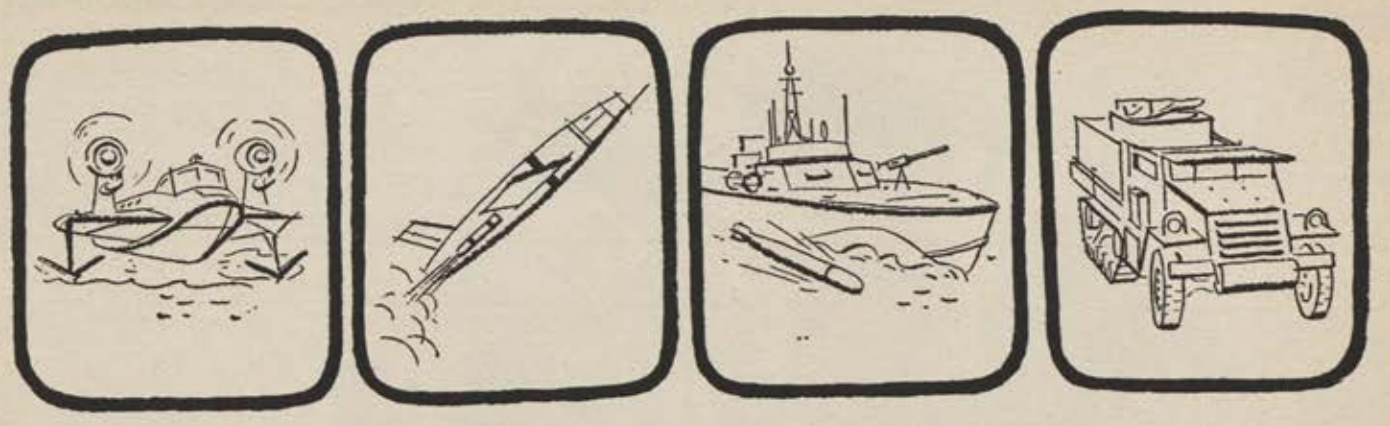

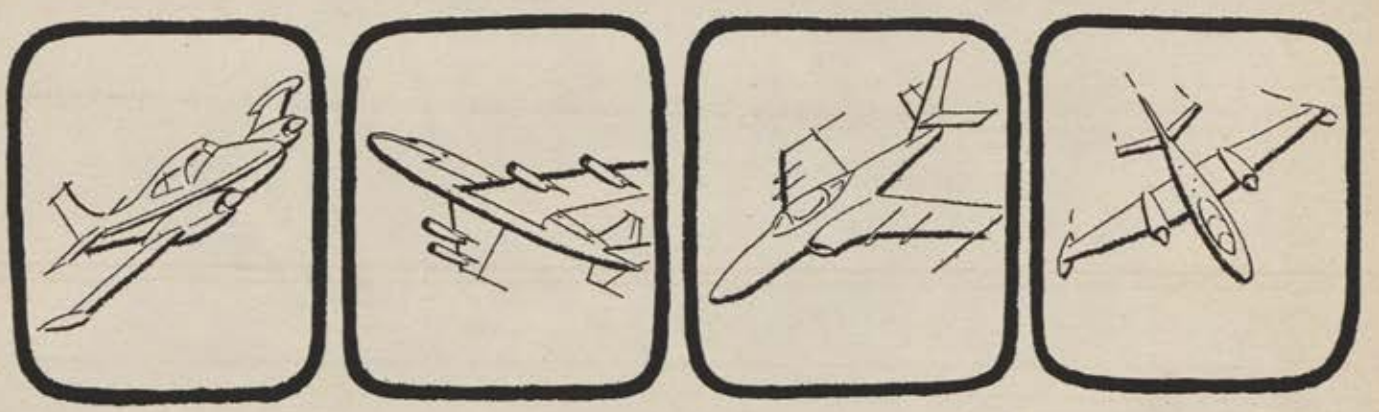

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PUBLICATION GEA-6136, "Operation Service," describes the six-point program in detail. For a copy, contact a G-E Aircraft Specialist via your nearest G-E Apparatus Sales Office. Or write *Section 232-4, General Electric Company, Schenectady 5, N. Y.*

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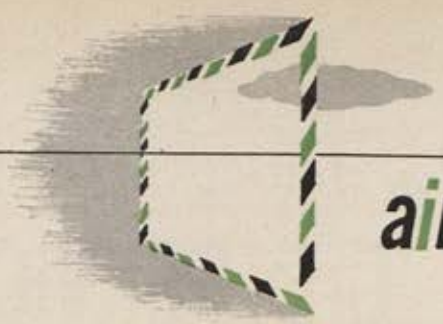

air mail

Counter-Force Strategy

Gentlemen: T. F. Walkowicz's article on counter-force strategy in AIR FORCE of February 1955 is a fine contribution to thinking on this all-important subject.

Also, may I congratulate you on the magazine itself, not just the February issue but the whole run of issues. It is as well-edited a magazine as there is and the content is very superior.

Thomas K. Finletter
New York, N. Y.

Gentlemen: I have carefully read the article "Counter-Force Strategy" by T. F. Walkowicz (February '55), and find that it sized up the different phases to be considered on the complex question of our best policy of defense and, if necessary, offense against Communism with the use or non-use of atomic power, first, as a threat, and secondly, as a retaliatory weapon. It indeed gives food for much deep thought on the problems presented.

Congressman Frank T. Bow
Washington, D. C.

Gentlemen: I would like twelve copies of the magazine containing the counter-force article which ran in the February issue of AIR FORCE. I want to distribute them to our men in the field who work with various Air Force components on behalf of Republic Aviation. It seemed to me a fine way to call their attention to some of the real background of today's—and tomorrow's—air thinking.

Reavis O'Neal, Jr.
Carl Byoir & Associates, Inc.
New York, N. Y.

Gentlemen: I found the February feature article "Counter-Force Strategy," by T. F. Walkowicz, intensely interesting.

The very natural fear of the horrors of atomic warfare has, perhaps, paralyzed the thinking process of many of our citizens, with the result that our national defense appropriations may not be as wisely distributed as they should be.

At a time when large atomic bombs are said to be so destructive that they might never be used unless the world is prepared to commit suicide, there appears to be good reason to question whether or not we are putting too much money into our strategic bombing capacity to the detriment of our capacity to fight other kinds of warfare. Mr. Walkowicz's article, which emphasizes the tactical use of atomic weapons, is particularly timely. It will certainly attract a great deal of attention.

Wm. Barclay Harding
New York, N. Y.

• *Mr. Walkowicz said: (1) The budget for SAC should, if anything, be increased; and (2) All programmed military forces—air, sea, ground—should be reassessed on the basis of "effectiveness vs. cost" in the hydrogen age.—The Editors.*

Bouquets & Blackjack

Gentlemen: I had the good fortune to read the article "Bootstrap or Blackjack?" in the December issue of AIR FORCE. I must say I enjoyed learning Colonel Kandel's views and heartily concur that what this Air Force needs is not necessarily education—but more intelligence. I once heard a definition of a "snob," which was "a person who is educated far above his intelligence."

I do not wish to belittle the merits of a college education, having obtained mine during depression days when only those who really desired it made many sacrifices (along with their parents) to attain the goals of knowledge. I do resent the attitude of many who uphold a college attainment as a key to unearned success. I feel that this article should appeal to the greater majority of Air Force personnel, since roughly forty-three percent of commissioned officers are college accredited. This audience is ripe for consumption of articles pitched at their level—which this article is.

I was particularly pleased with that portion of the article which stressed the shortcomings of Air Force officers in the basic measurements of ability in the fields of reading, writing, and speaking. I have strong views on the subject and was moved at one time to put them on public display.

Col. William C. Odell
Office of the Air Attaché
American Embassy
Athens, Greece

Gentlemen: I want to take this opportunity to congratulate you on publishing Lt. Col. Edward Kandel's very timely article in the December issue of AIR FORCE.

He is certainly on the right track.

Colonel, USAF
Havana, Cuba

Gentlemen: I was somewhat amused by the article "Bootstrap or Blackjack," by Lt. Col. Edward R. Kandel in the December issue of AIR FORCE. I am so busy attaining the college education derided by Colonel Kandel that it took me until now to finish reading that issue. I have just begun to read the February issue and hope a busy scholastic schedule will permit finishing it before the next issue.

Certainly this article is not to be taken seriously by anyone who has been exposed to a formal education. The implication that achieving a college degree is actually *harmful* is the height of vapidity. AIR FORCE should be congratulated that it is democratic enough to permit all viewpoints, even banal comments as this article presented. For example, Colonel Kandel mentions some famous personalities who did not have to go to college to be "brilliant." Some alluded to were Henry Ford, the Wright Brothers, Abe Lincoln, etc. These famous personages attained success *in spite of, not because of* the fact they didn't attend college. But more important is the fact that when these gentlemen were at the height of their careers, few people went to college anyway and most didn't even graduate from high school in that day and age. Colonel Kandel, then, was unfair in bringing these names to light as those who didn't attend college. In those days it wasn't necessary to attend college as the world was simpler and generally more ignorant than it is now.

The good colonel is really revealing a "sour-grapes" philosophy, for I note he does not possess a college degree and is vexed at the attention and importance paid to its acquisition in the service. Since the value of a college education could fill many volumes and, in fact, has, it is not my intent to prove it here. My best advice to Colonel Kandel is to obtain for himself a college education and his lack of a college degree will not irk him any longer. Besides, who ever met or saw an attorney, physician, engineer, or scientist who *didn't* have a college

(Continued on page 7)

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Similar emphasis on subcontracting is the rule at Boeing's Wichita Division. Here Boeing builds the Strategic Air Command's front-line nuclear weapons carrier, the six-jet B-47, and is tooling up for B-52 second-source production. No fewer than 3,588 individual companies, more than 75% of them small businesses, share the work of this Division.

Out of every Air Force dollar contracted to Boeing, approximately 65 cents is passed on by Boeing to its subcontractors and suppliers. The remainder—about 35 cents out of each dollar—is retained by Boeing to cover all items in connection with its own in-plant operations. Boeing airplanes are truly nation-wide projects.

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degree or several degrees in fact. There must be something to it!

Henry S. Tugender
Brooklyn, N. Y.

Difference of Opinion

Gentlemen: With reference to M/Sgt. Frank Clifford's article "How to Be an SOB" in the January issue of AIR FORCE Magazine—I object. I do not consider myself an SOB yet—nor a nitpicking nincompoop; but in the eyes of many of your readers, anyone who returns correspondence for correction would probably fall in the latter category. First of all, a question. Do you object to the nitpicking nincompoop using a *red pencil* or to returning correspondence regardless of the tools he may use to discover these . . . errors? Correspondence errors have always been a sore spot. If you are on the controlling side and you return a piece of correspondence for correction, you are *chicken*; if you don't, you are careless. You can't win for losing. The solution to this problem lies with the originator of a piece of correspondence and the typist, and I might add mostly with the typist. In this respect, I invite the attention of *all typists* to Para. 10, Chapter 16, AFM 10-1, Oct. '50, and the originators to Para. 11, same chapter. Let a typist submit an "issue slip" to Base Supply, a "purchase order" to P&C, or a "work order" to AIO with an error and the odds are she will get it back. She will probably correct the mistake and charge it to experience. But just let her get back a letter for correction and she will holler to high heaven or run to the "old man" and say that the Adjutant's Section is picking on her, or that they are always changing their minds. It is true that the Adjutant's Section may appear to be changing their minds, but the truth of the matter in most cases is that changes have been made and the clerk who prepared a letter, message form, endorsement, etc., three months ago expects a similar instrument to go through today without even bothering to find out if changes were made, let alone what they were.

The following procedures are in effect within my section:

a. Correspondence meetings are held as needed in the form of round-table discussions.

b. Portions of AFM 10-1 ("Correspondence Preparation and Procedures") and AFM 11-3 ("Guide for Air Force Writing") are extracted and published in the Daily Bulletin as "Correspondence Tips."

c. Use of a form titled "Correspondence Check List" commonly referred to as a "Gig Sheet." This form is affixed to the correspondence in question if it warrants reaccomplishment in accordance with Para. 12b, Chapter 16, AFM 10-1. In those instances where the correspondence contains errors that are considered minor, the correspondence is released and a check list is affixed to the file copy and returned to the section concerned, requesting a notation that the errors have been brought to the attention of the originator and typist. At the end of the month, the check lists are reviewed and the errors are thrashed out at the next correspondence meeting. If it appears that a section is making too many errors, the clerks in question are summoned to the Adjutant's office at which time each and every error is discussed and the correct procedure furnished.

In my opinion one rule is as important as another. If it is as easy to do a thing the "right" way as it is the "wrong" way, then why not do it the "right" way? The old saying goes, that higher and lateral headquarters have a tendency to judge the efficiency of a unit by the quality of correspondence they submit and subordinate units rely on a headquarters' setting the pattern. Therefore, I say, more power to the Sergeant Major and the Field Grade Officer; however, I would suggest in lieu of the offending *Red Pencil*, the use of a "Check List."

Lt. Ernest A. Montemayor
APO, San Francisco, Calif.

Gentlemen: After reading your January issue I was most impressed with the feature article "How to Be an SOB" by M/Sgt. Frank J. Clifford.

In fact, our management considers this article so highly that we have made it required reading for our Department Foremen. We need, now and then, as fine an article as Sergeant Clifford has writ-

(Continued on following page)

ten to keep us on the right path and remind us of our responsibility toward the employee.

I am anticipating more fine work by the author.

Lawrence E. Hyde
A. R. Hyde & Sons Co.
Cambridge, Mass.

Our Friend McSnap

Gentlemen: Hurrah for the "Genius" McCallister! The editors of AIR FORCE Magazine must love him. ["Last Show," by David McCallister, February '55].

I, for one, do not think the editors should waste the magazine pages for "fictional dreams."

Eddie S. Makowski
Endicott, N. Y.

Gentlemen: If we were to write an article entitled "My Most Unforgettable Character," it would be "Snapper" McCallister: author, fighter, jockey, soup connoisseur, and caterer *cum laude.*

Our association with the incomparable Snapper was when we were in the 142d Luxurious Flying Club, better known in the hired killer ranks as the 142d Fighter-Interceptor Squadron, New Castle, Del.

At first we had difficulty understanding his "language," later defined as Snapperisms. Though he has been happily married for a number of years, he only refers to his wife as "my bride." A jet aircraft is spoken of only as "torch, pipe, or blower." Any woman is referred to as a "Sugar Yoke Tare," which is a Snapperism for a Sweet Young Thing. Civilians are "Rose Bush Trimmers." A regular Air Force officer is known only as a "Hired Killer." A Reservist is only a "Semi-Pro," and then there are the "RANGUS" types (*Regular* Air National Guard) which can have no peers. West Point is defined as "Hudson High" and Annapolis is merely "Canoe U."

His jargon lives on—*ad infinitum*! If he were to write a story of his life, it would be as interesting as any fiction ever penned to parchment.

We are anxiously awaiting for AIR FORCE to continue the policy of publishing stories by the indomitable McSnapper!

Capt. John G. Pabst
Capt. William L. Smith
1st Lt. Robert Diaz
Yuma AFB, Ariz.

For Civil Defense

Gentlemen: I have a need for a minimum of thirty and a maximum of 150 copies of AIR FORCE Magazine for February 1955. This particular issue has two of the finest articles on Civil Defense that have appeared in any magazine for a long time. ["Get Out of Town," by Brig. Gen. Dale O. Smith, and "Do Your Homework," by Maj. Ken Blank.] As the Michigan Coordinator for Civil Defense for more than one hundred Civil Air Patrol units, I would like to distribute copies of AIR FORCE Magazine to Civil Defense Coordinators in each of these units.

W. S. Karr
Lansing, Mich.

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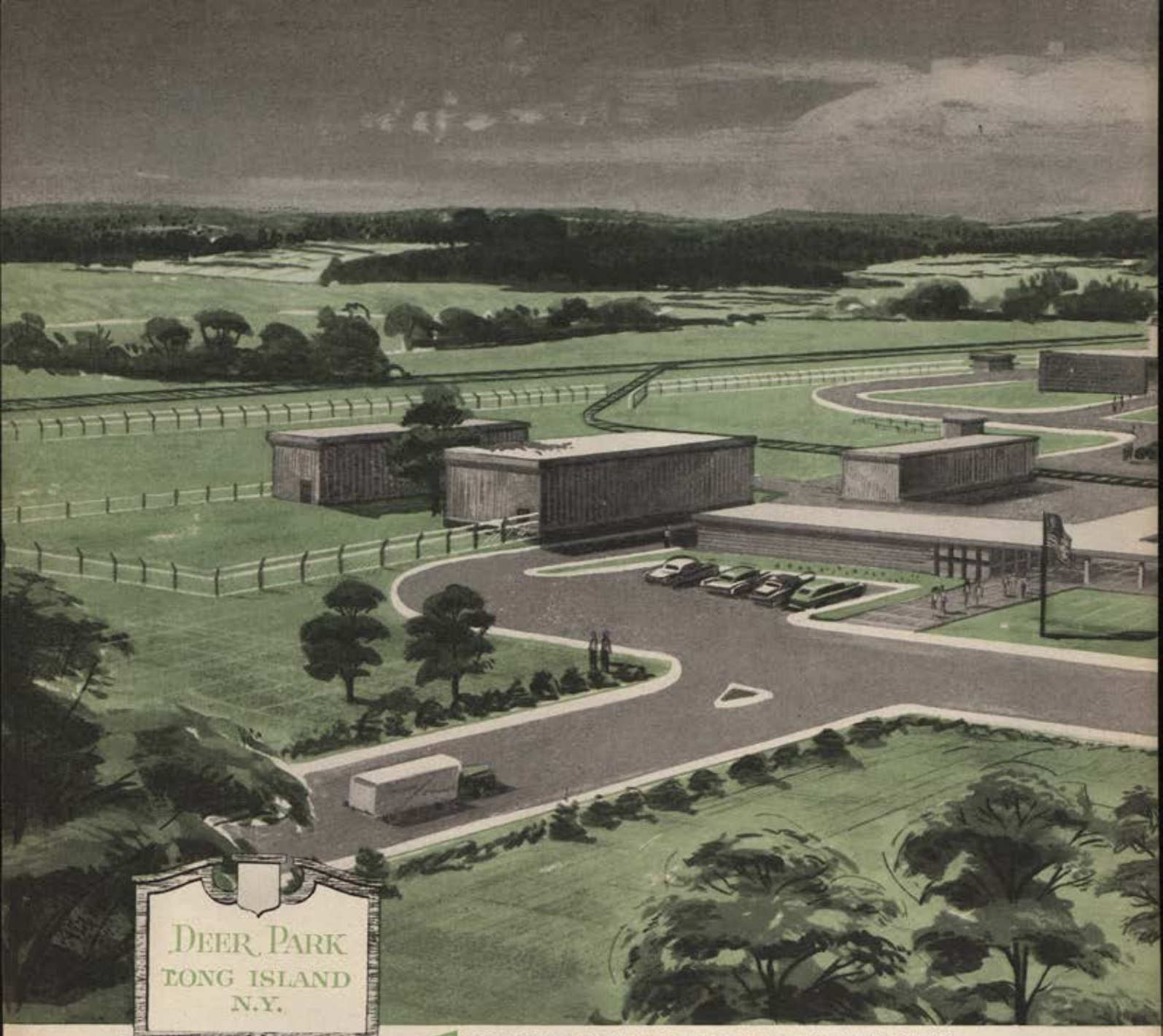

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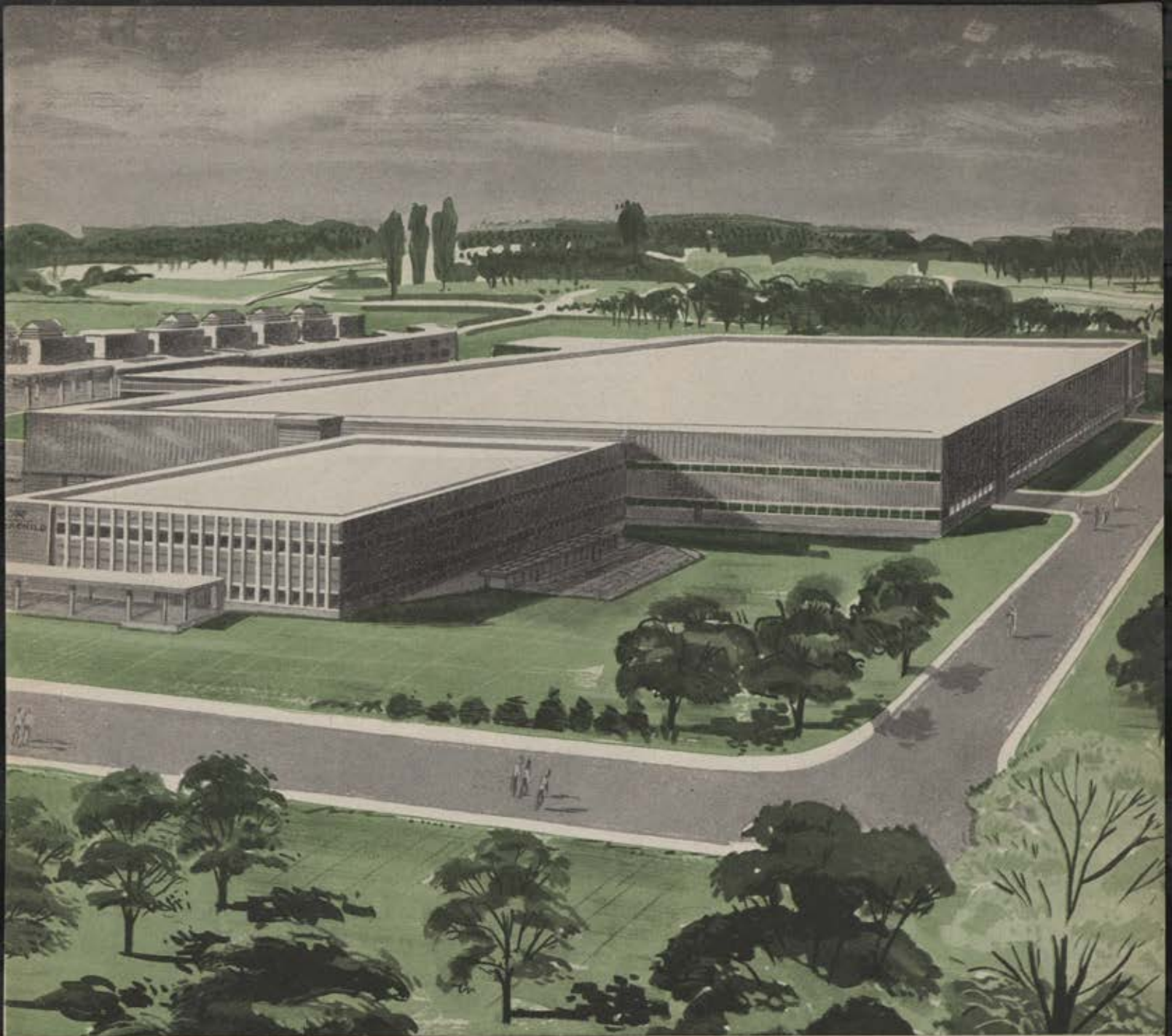

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THE COVER

Two vital ingredients of an air defense system appear on our cover this month: an early-warning radar post and a first-line interceptor, a Northrop F-89 Scorpion. The painting was done by Ray Wallace, formerly a technical illustrator for Northrop, now an art director in Southern California. Wallace, a veteran of some sixteen years as an artist, was with the Coast Guard in World War II. His work appeared in *Yank*, *Life*, and other magazines. For more on air defense, see the special report on page 82.

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wing tips

By Wilfred Owen

Agricultural planes used for pest control, weed control, and fertilization add an estimated $3 billion to US farm income every year. The CAA reports that dust and spray applied from the air each year in the US would fill 50,000 freight cars.

° ° °

A new turbo supercharger reduces engine temperatures sufficiently to permit the cowling flaps on an airliner to be closed an inch more than they otherwise would be. The reduction in drag from this one inch increases the aircraft's range by sixty to a hundred miles.

° ° °

Canadian Pacific Airlines will begin one-stop service from Vancouver, British Columbia, to Amsterdam, Holland, via the Polar route in May. Flying time will be 18½ hours and the new route will cut 1,000 miles from the shortest routing now available via Montreal.

° ° °

Canadian zoologists studying the migratory habits of

buffalo use helicopters to hover over the herds and brand them with squirts of paint from a paint gun.

° ° °

During 1954 a total of 2,291 additional air markers were installed on roof tops and towers to guide pilots. There are now 9,200 of these chrome yellow markers that tell with ten-foot letters the name of the town and the direction and distance to the nearest airport.

° ° °

For every pound of equipment added to the average military plane, the gross weight of the aircraft must be increased ten pounds. Since the cost of military planes is about $50 per pound, every pound added in equipment adds $500 to the cost of the plane.

° ° °

The total number of passengers leaving Newark Airport by helicopter last year was 1,416.

° ° °

Twenty-two cities accounted for sixty-five percent of all airline passengers in 1954. There were 396 other airline stops that were responsible for only 4.8 percent of total passengers.

° ° °

Last year the Washington, D. C. metropolitan area originated approximately the same number of air passengers as its total population: 1.4 million. But Las Vegas, with 25,000 population, originated more than five times that number of passengers, while New York's 13,000,000 people were able to produce only one-fourth as many passengers as the number of New York residents.

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"STAYED WITH THE SHIP"

Up to the last split second of impact, *Bendix-Pacific* telemetering systems continue to furnish information which would never be obtained with other instrumentation methods.

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AIRPOWER IN THE NEWS

■ Surprising hardly anyone, **Secretary of the Air Force Harold E. Talbott** announced last month that the AF is placing additional **orders for the Boeing KC-135 jet tanker.** While **Lockheed, Douglas,** and **Convair** had also been competing with their own jet tanker designs in the **race for the prize award,** indications had been that Boeing, with a protoype already in the air, would be favored.

The Air Force placed a limited order for the Boeing tankers last August and has since been considering **proposals** by other manufacturers concerning establishment of a **second source of supply.** According to Secretary Talbott, however, the Air Force decided that a second source would not substantially speed up deliveries of jet tankers and **would be prohibitive** in cost. The total value of the orders, placed over an extended period, is approximately **$700 million**—representing about **300 of the planes.**

At the same time, Secretary Talbott announced that **Lockheed Aircraft Corporation** will get a contract for the design and development of what was described as "a technically **advanced tanker** of great interest."

■ On March 9, three Air Force pilots flew the 2,445 miles from **Los Angeles to New York** in less than four hours, to better the record set by **ANG Col. Willard W. Millikan** more than a year ago. Flying **Republic F-84F Thunderstreaks, Lt. Col. Robert R. Scott,** Des Moines, Iowa, covered the route in three hours, 46 minutes, and 33 seconds. **Maj. Robert C. Ruby,** Des Moines, did it in 3:47:33 and **Capt. Charles T. Hudson,** Gulfport, Miss., trailed at 3:49:53. The old record of 4 hours, 6 minutes, and 16 seconds was established on January 2, 1954, by Millikan, who is commander of the **113th Fighter Wing of the DC-ANG** and a **Vice President of the Air Force Association.**

The unofficial **climb record** mentioned last month (see "Airpower in the News," March '55) had a much shorter life. After we went to press a **Navy Douglas F4D Skyray** flashed from a standing start at Edwards AFB, Calif., to **10,000 feet** in **56 seconds,** cutting 15 seconds off the two-week-old record. The stubby-winged plane was the third Navy fighter to establish an unofficial climb record in **less than a month.**

■ After **Trevor Gardner's** nomination as **Assistant Secretary of the Air Force** for research and development was resubmitted to the Senate in February, (see "Airpower in the News," March '54) it was speedily **approved.** On March 2, Mr. Gardner began his new duties. He had been special assistant for research and development to **Air Force Secretary Harold E. Talbott.**

Col. Robert L. Scott, named to be new chief of USAF Office of Public Information.

■ **Col. Robert L. Scott** will succeed **Brig. Gen. Brooke E. Allen** as chief of the USAF **Office of Public Information.** Scott, a World War II ace, authored the book **"God Is My Co-Pilot"**—later made into a movie.

■ The men who took part in the famous **Tokyo raid** with **Gen. Jimmy Doolittle,** will celebrate the thirteenth anniversary of the event with an annual banquet on April 18 at the Coconut Grove in Los Angeles, Calif. Guests, besides General Doolittle and his Tokyo Raiders, will include **California's Governor Knight, Los Angeles' Mayor Poulson,** and **Seaborn Collins, National Commander of the American Legion. Bob Hope** will emcee the event.

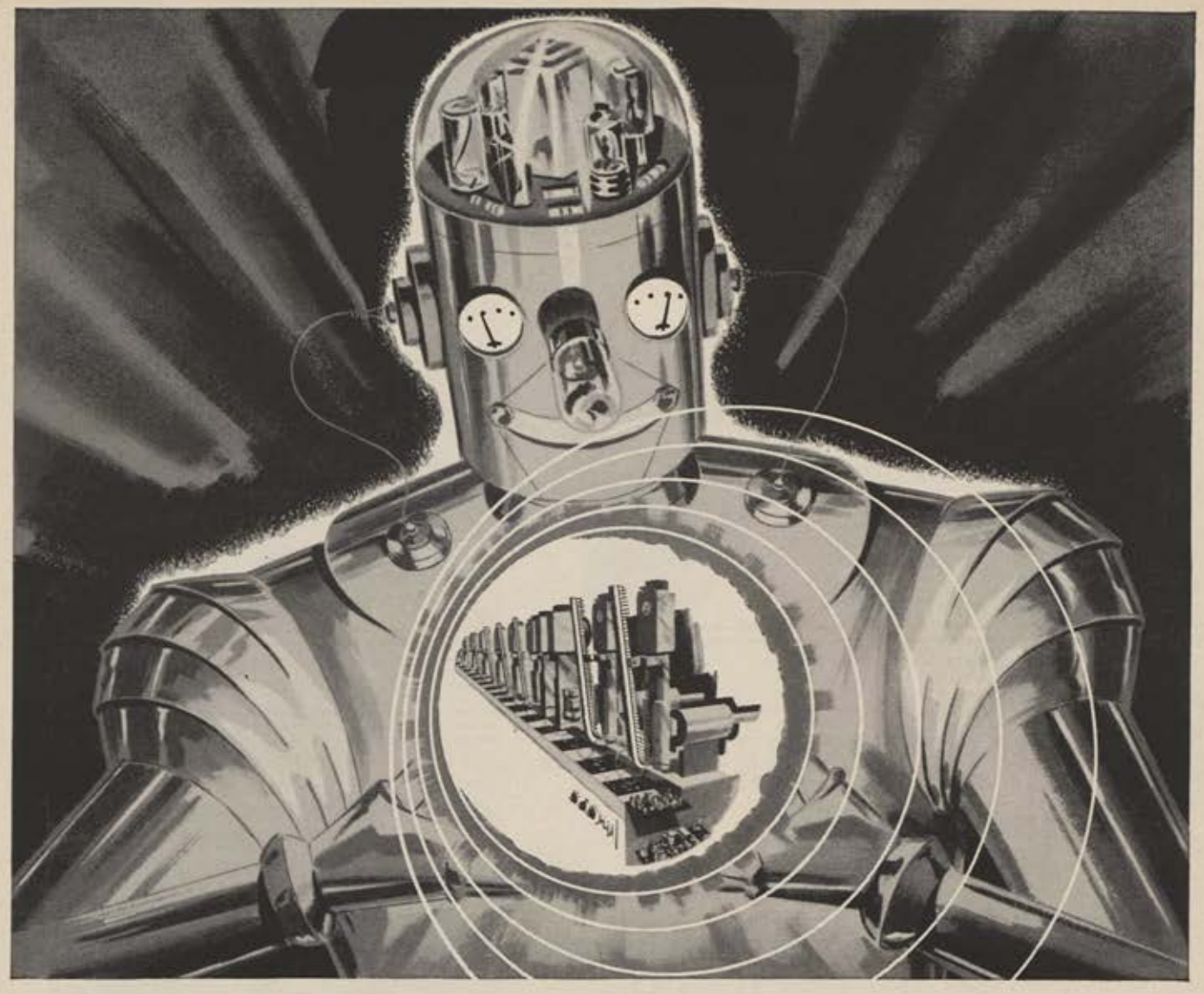
■ **Stanley Hiller, Jr.,** president of **Hiller Helicopters,** said in a San Francisco speech last month that "one of the most **unconventional lifting devices** imaginable" has been flying for several months at his Palo Alto, Calif., helicopter plant. Although refusing to divulge any details, he said that it was a **"revolutionary means of flying,"** and uses none of the principles

(Continued on page 19)

Wide World Photos, Inc.

Secretary of the AF Harold E. Talbott and his new Assistant Secretary of the AF for research and development, Trevor Gardner. Mr. Gardner had been a special assistant to the Secretary before assuming his new duties March 2.

Republic F-84F Thunderstreaks. Three planes of this type recently set a new transcontinental jet speed record when they flew from Los Angeles to New York in less than four hours. Best time for the 2,445-mile route was 3:46:33.



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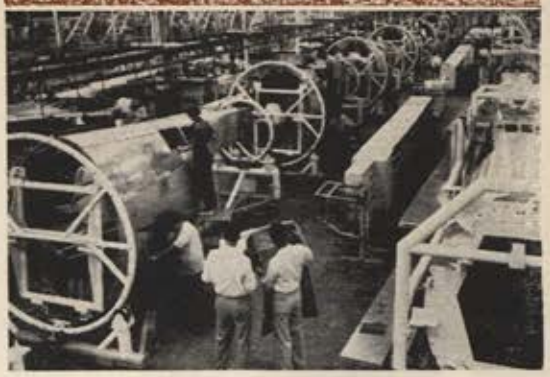
Still another weapon from the spirit world...

McDONNELL SPEEDS ***DEMON*** PRODUCTION WITH A SUB-CONTRACT TO **TEMCO.**

First the *Phantom*, then the *Banshee*, now the *Demon* — and soon the *Voodoo*. If the names of McDonnell's sleek fighters aren't enough to haunt aggressors' dreams, their performance certainly will. The Navy, with twin-jet Banshee squadrons already in operation, saw the new F3H *Demon* design... liked it... wanted some quick. McDonnell sped the job by sharing the responsibility with TEMCO, giving sub-contracts for aft fuselages, inner and outer wings, flaps, and other components totaling 35 per cent of the airframe. McDonnell thus joined Boeing, Convair, Lockheed, Martin, and Republic — all of whom have found that TEMCO delivers a quality product, on schedule, at the lowest possible cost.



F3H aft fuselage sections on rotating circular jigs move down TEMCO-Dallas assembly lines. Elsewhere in the Dallas plant, a twin line is devoted to inner wings, while outer wings take shape at TEMCO's Garland plant.

ENGINEERS... If you are interested in a position with a *growing weapon systems organization*, write full particulars to E. J. Horton, Jr., Engineering Personnel, TEMCO Aircraft Corporation, P. O. Box 6191, Dallas 2, Texas.

TEMCO
AIRCRAFT CORPORATION
DALLAS, TEXAS

found in conventional aircraft. The thirty-year-old helicopter pioneer said that he was unable to give more details at this time because of **military security.**

■ **Functions of guided missiles** can be determined at a glance by the new Air Force **designations** assigned to them. The **Martin B-61 Matador,** a tactical missile, becomes the **TM-61.** Surface-to-air, or interceptor missiles become **IMs. (Boeing Bomarc** is now the **IM-89.)** The **Northrop B-62 Snark,** a long-range, surface-to-surface missile will be known as the **SM-62** (strategic missile). Air-to-ground missiles become **GAMs (guided air missiles)** air-to-air missiles become **GARs (guided air rockets.)**

■ On March 2, 1910, at **Fort Sam Houston,** San Antonio, Tex., an Army Signal Corps officer took off in a **Wright Biplane** and circled the area for seven minutes at fifty mph and an altitude of 100 feet. This marked the **birth of military aviation** in this country—the first flight in a government-owned aircraft by a military-trained pilot. Last month, on the forty-fifth anniversary of the event, a **flight memorial** was unveiled near the spot by the San Antonio Chamber of Commerce. Honored at the ceremony were **Maj. Gen. Benjamin D. Foulois,** USAF-Ret., pilot of that first flight, and members of his aerial detachment, **Col. Vernon L. Burge,** USAF-Ret., and **M/Sgt. Herbert Marcus,**

From left: Col. Vernon L. Burge, USAF-Ret.; Maj. Gen. Benjamin D. Foulois, USAF-Ret.; and M/Sgt. Herbert Marcus, USA-Ret. Site marks birthplace of military aviation

USA-Ret. The fourth surviving member of the group, **Col. Stephen J. Idzorek,** USAF-Ret., was unable to attend. The original plane is now on display at the **Smithsonian Institute** in Washington, D. C.

■ **PERSONNEL** . . . The next few months will see more than **70,000 wives and children** joining American servicemen overseas. **Improved housing conditions** at foreign posts was cited as the reason for the speed up by the Pentagon. At present, there are more than **305,000 dependents** overseas including 117,235 Air Force wives and children.

■ A **six-week public relations course,** to provide training in the theories and practices of public relations principles pertinent to the AF's Information Service program, is tentatively scheduled to begin in July at the **University of Maryland.** Information Services Officers and those qualified for that assignment should apply—**not later than April 15**—to the **USAF Institute of Technology** in accordance with AFR 53-11, 17 May 1954. The first class will be limited to field grades, but future plans call for company grade classes.

(Continued on following page)

AIRPOWER IN THE NEWS——CONTINUED

■ **The USAF Surgeon General's** office estimated that if the 1950 sickness and accident rate had prevailed in 1954, 1,900,000 additional man-days would have been lost. While each Air Force man lost **an average of six days** from duty for medical reasons **in 1950,** he lost only **four days in 1954.**

■ The Air Force's **2225th Personnel Processing Group** will move from **Camp Kilmer, N. J.,** to **Manhattan Beach Air Force Station, Long Island, N. Y.,** between June 15 and 30. Beginning in July, personnel scheduled for **USAFE, Northeast Air Command,** and **MATS Atlantic Division** overseas assignments will be processed at the new facility at Manhattan Beach. Other AF facilities will handle processing while the 2225th moves.

■ STAFF CHANGES . . . **Gen. John E. Hull, Commander-in-Chief** of both the **Far East Command** and the **United Nations Command** since October 1953, will retire from the Army on April 30. His successor has not yet been named . . . **Brig. Gen. Raymond L. Winn** will head the new **Transportation and Services Directorate at Hq. AMC.** The new post was created when Transportation and Packaging and Air Force Services were transferred from the Supply and Services Directorate . . . **Brig. Gen. A. W. Martenstein,** USAF-Ret., a former head of the **Japan Materiel Area** and chief of the supply division at Wright-Patterson AFB, Ohio, **died February 16** in Mobile, Ala. He was sixty-one years old and had been a vice president of **Hayes Aircraft Corp.,** Birmingham, Ala., since 1953 . . . **Brig. Gen. Richard J. O'Keefe, Director of Flight Safety Research** at Norton AFB, San Bernardino, Calif., will report to the office of the **Deputy Chief of Staff, Materiel,** Washington, D. C., by May 9 for duty as **Deputy Director of Supply Services.** New director of Flight Safety Research is **Brig. Gen. Joseph D. C. Caldara.** He had been Commander of the 3d Air Division, Norton AFB . . . On April 15, **Brig. Gen. James K. Dearmond** will report to **Hq. 6th Air Division,** SAC, MacDill AFB, Fla., to await retirement. He has been **Assistant Chief of Staff, Communications, for USAFE** . . . **Rear Adm. James S. Russell,** formerly **Commander of Carrier Division Five** in the Formosa Area, will become **Chief of the Naval Bureau of Aeronautics.** He will replace **Rear Adm. Apollo Soucek** who is confined to Bethesda Naval Hospital and is expected to retire . . . On February 28, **Maj. Gen. Victor E. Bertrandias** retired from active duty. He had been the **USAF Deputy Inspector General** at Norton AFB, Calif., since 1950. **Maj. Gen. Howard G. Bunker** took over as Deputy Inspector General on March 1 . . . On March 3, **Maj. Gen. Frederic H. Smith, Jr., Vice Commander of ADC,** was released from additional duty as **Director of the Joint Air Defense Board.**—END

Maj. James Jabara, triple jet ace (15 MIG-15s in Korea), shakes hands with Charlie McCarthy as Edgar Bergen looks on. Jabara, presently assigned to Yuma AFB, Ariz., was on the CBS comedy program in Hollywood, Calif., recently.

It was natural for Lewyt to be brought into the radar picture when, in 1942, radar became a vital part of our war effort . . . because Lewyt is amazingly versatile!

Lewyt has been producing electronic equipment of all types for the Military since World War I.

And since joining the radar effort, Lewyt has engineered and produced everything from giant "bedspring" antennas to miniaturized airborne IFF equipment.

RADAR...another example of LEWYT versatility!

. . . Lewyt-engineered early-warning equipment was among the first to serve in the Pacific

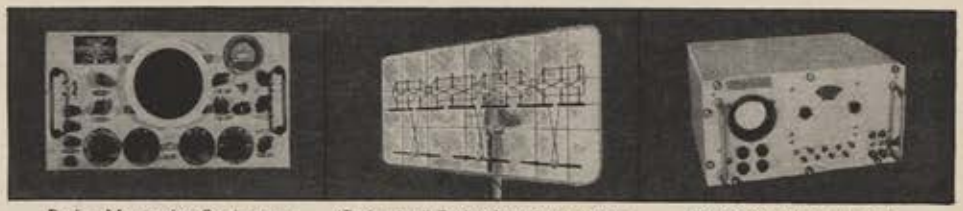
. . . Lewyt-built radar gear homed our first guided missiles on their targets

. . . Lewyt test equipment still monitors and maintains radar systems throughout the world

. . . And today, Lewyt is engaged in the development and production of highly classified equipment for America's defense.

Radar is another example of the versatility which enables Lewyt to "fill the bill" when called on to design and produce equipment utilizing the techniques demanded by modern electronic advances.

In addition to being a Government Contractor, Lewyt is also one of the country's largest vacuum cleaner manufacturers. Thus, Lewyt is able to keep 1,800 trained workers on its production lines at all times—producing for peace, geared for emergencies.



Radar Monitoring Equipment "Bedspring" Radar Search Antennas (TS-452) Signal Generator

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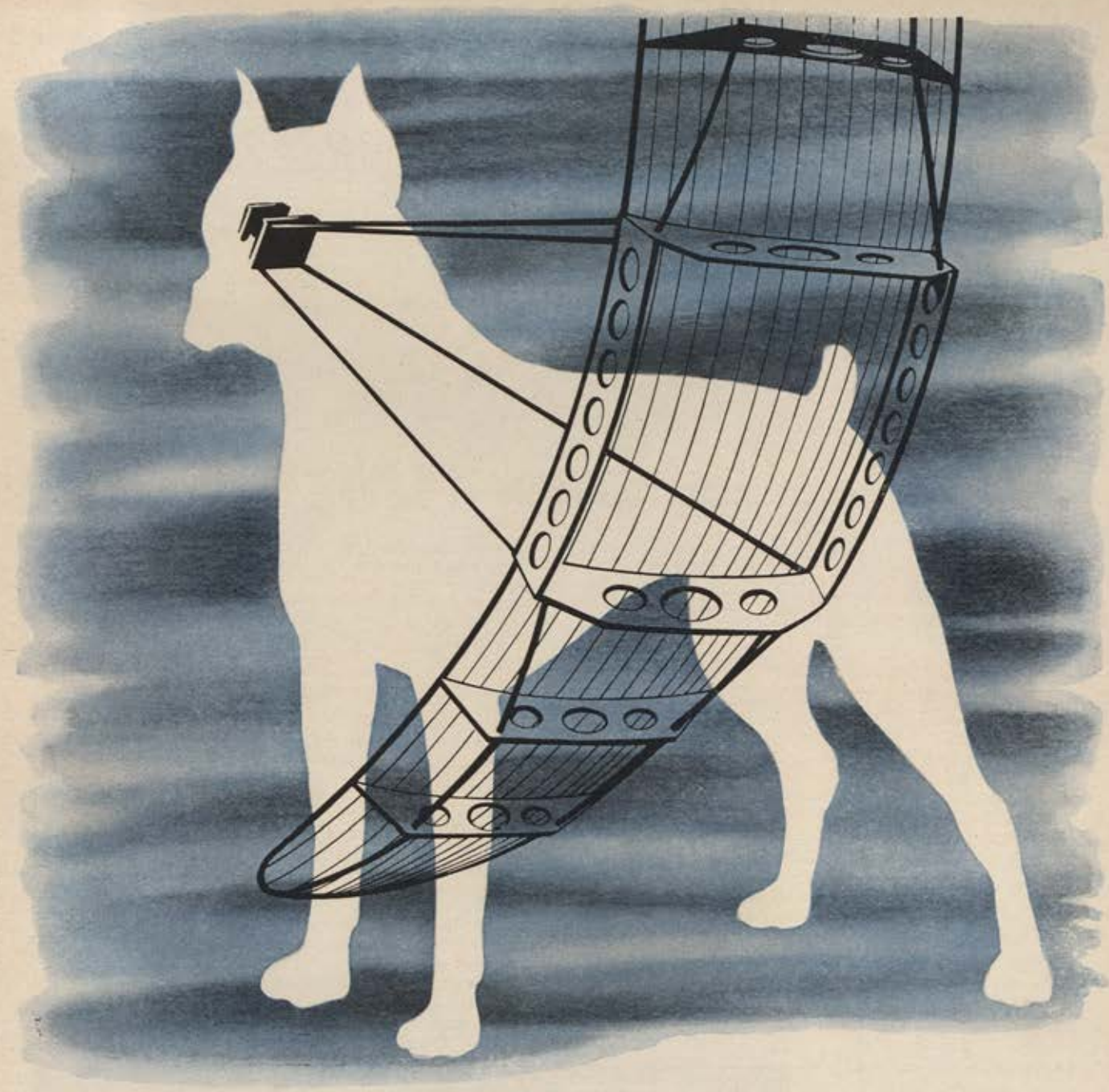

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RADAR—silent, faithful guardian of our ships at sea, our aircraft, our men in the field.

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SHOOTING THE BREEZE

An editorial in *The Boston Herald* puts the finger on the significance of the British announcement that the United Kingdom now has the capability to produce the hydrogen bomb and that its military policy has switched from one of defense to one of deterrence (see Churchill, page 33). Since Britain now has her own stack of blue chips in the cold war poker game, she, for the first time since World War II, "can now afford the luxury of a greater independence from United States leadership." But, adds *The Herald*, "this more independent British policy will be more likely to agree with our own. . . . A new balance of forces is coming into being. It carries a warm reassurance."

☆

Western Reserve University, in Ohio, has started the first television course for the public in "Contemporary Diplomatic Problems." For supplemental reading the university has compiled a list of some twenty-five magazines among which, we are proud to report, is AIR FORCE.

☆

Take your pick:

"The aircraft carrier has the unique quality of giving us, in the same package, both a hot-war and a cold-war capability. For example, our Sixth Fleet in the Mediterranean provides the primary heavy-air striking force for NATO's southern flank . . . Its presence has had a profound influence on the national attitudes and favorable political actions of our friends in the Mediterranean area."—From a speech February 21, 1955, by Admiral Robert B. Carney, Chief of Naval Operations.

"In my opinion, narrow seas should not need naval striking forces and I only regret that there are not air forces in Europe which could control the narrow seas such as the Mediterranean and the air above."—From a news release dated December 9, 1954, from James H. Smith, Assistant Secretary of the Navy for Air.

☆

Sometimes we have the feeling that the main trouble with our Civil Defense program is that it's too civil. As long as it's a volunteer operation, with no real authority, we suspect it will continue to get the short end of the stick. Even a tiny gesture of urgency that would affect everyone might help shock the nation out of its complacency. How about a set of government-issued dog-tags for everyone as a minimum beginning?

☆

The Air Force has given its approval for the Air Force Association's second annual Earl T. Ricks Memorial Trophy event. This cross-country exercise for Air National Guard jet pilots will be held July 2. The event will be staged between California and Detroit, Mich., in conjunction with the annual International Aviation Exposition of the Aero Club of Michigan. The opening event, held last summer, was won by Lt. Charles Young of New Jersey. Details will be announced by the National Guard Bureau this month.

☆

The announcement from the Atomic Energy Commission on the frightening effects of radioactive "fall-out" from a hydrogen bomb explosion was almost as ominous in what it didn't say as in what it did. The report said that the Bikini H-bomb explosion of March 1954 contaminated an area downwind from the explosion 140 miles long by 20 miles wide. In this cigar-shaped area the local fall-out of radioactive particles of sand, dust, and coral was so intense that no one in it could have survived without protective measures. An even larger area, roughly the size of the state of New Jersey, was contaminated to the extent that there would have been deaths, although some persons would have survived. Among questions not answered in the AEC statement were how long an area would be lethally contaminated, how it could be decontaminated, and what would happen, say in a port like New York, if the explosion were under water?

We seem to note the beginning of a trend in aviation news releases towards what is popularly termed "cheesecake." Here's a sample that flew in over the transom recently. The manufacturer states that the fuel consumption is less than half a gallon per hour. This model, the caption says, is designed for use around airports and is completely self-contained. It has suction-cup feet that keep it from shifting around, is highly suitable for charging batteries, and is equipped with a muffler. Watch this corner for further examples.

☆

"Strato-sack" is the nickname for the hammock-like bed B-47 crewmen use for catnapping on long missions.

☆

Our associate editor, Lee Klein, who is an experienced Navy and airlines pilot, reports that he was quite startled on his recent Lowry visit (see page 48) when he spotted a train chugging across the runway. Said he'd felt a little shook if he were making an instrument landing and heard something like this, "AF 211, there is a train on the runway. Hold east

(Continued on following page)

of inner marker until further advised." Seems it's an AF railway connecting two sections of the base. We're wondering if this situation exists at any other bases.

☆

A perceptive instructor in electronics at Keesler AFB, Miss., A/2C Harry G. Methven, puts the finger on the poor instructor in Air Training Command's "Instructor's Journal." Methven

casts a baleful eye on eight of the most common teaching personality problems, which he classifies thusly:

- The Egoist—builds up the importance of his own position by stressing the inferiority of the student.
- The Joker—Employs the "keep 'em laughing" philosophy to cover up his own mistakes and lack of knowledge.
- The Snow Man—Figures if he talks fast enough he can tell the unwary student anything and make him believe it.
- Everybody's Buddy—Goes to great lengths to get students on his side so he can get by with low-grade instruction.
- The Persecuted Instructor—Makes his job sound tougher than it is so that he has an alibi if he doesn't measure up.
- The Militarist—Insists on strict discipline to get the attention that he can't earn through the quality of his instruction.
- The Bookworm—So much in love with his subject that he can't bring himself down to earth long enough to get his points across to the students.
- The Scapegrace—Takes the attitude that he merely puts out the material; if the students don't learn it isn't his fault.

☆

A Moscow popular science magazine predicts that the Russians will make the first successful flight to the moon in about 1974. The moon will then become a Soviet satellite, says the magazine. It predicts that this will annoy the Americans no end.

☆

Naval aviation got a knock and boost early in March. The boost was approval by the House Armed Services Committee for the super-carrier program. The knock was the resignation of Commander Bill Fay, highly capable public information officer for the Bureau of Aeronautics. Fay was, we believe, the only active-duty Navy flyer who is an associate member of the Air Force Association. He will be Washington Representative for Sikorsky.

☆

One of the odd jobs that turn up around AFA Headquarters was a request to find a "well-known Air Force figure" to act as one of the judges at the Mile High Kite Flying Contest at Grandfather Mountain, North Carolina. This is an annual event which draws thousands of kids from all over the South. Thanks to the good offices of the Community Relations Division, Office of Information Services, we came up with Col. Dean Hess. Colonel Hess is a happy choice for representing the Air Force at any event involving children for, while a fighter pilot in Korea, he was instrumental in setting up a program for Korean orphans into which he sunk virtually all of his spare time and a good chunk of his spare money. Right now he's special assistant to Lt. Gen. Emmett "Rosy" O'Donnell, DCS for Personnel.

☆

Troubled security officers would be relieved a great deal by an advertisement we received in the mail the other morning. We quote, "Don't Let Your CONFIDENTIAL PAPERS Get in the Wrong Hands." An accompanying illustration showed a large, hairy, and obviously wrong hand. The text went on, "We will have them destroyed by incineration! You may witness and supervise the burning for assurance that your old records are completely destroyed." Then followed the name and address of a Washington trash-removal company. But what really got us was the postscript, which said, "Special Prices Quoted on Large Projects."

☆

Add double-takes—"The giant ten-engined B-36 bomber, once described by the Navy as a 'billion-dollar blunder,' has justified the faith of the Air Force. This long-range heavyweight . . . has progressed from its unsatisfactory performance of three to four years ago to a reliable, and in some ways, highly spectacular instrument of strategic air warfare."—Hanson Baldwin in *The New York Times.*

☆

Col. Benjamin Cassiday, Director of Military Training at the AF Academy, showed our Lee Klein a set of sweptback pilot's

wings for supersonic flyers (see cut). Seems they were dreamed up by an F-86 squadron (the 91st) that Cassiday once commanded in Germany, in order to needle pilots of a straight-wing F-84 squadron on the base.

☆

Most venturesome quote of the month—"I believe the Navy's Carrier Task Force of today is the most potent offensive weapon in existence. I will venture to say that in the event this country sustains an atomic attack, it will be the Navy's carrier which will be in the forefront of our retaliatory atomic blow."—From a speech on February 25, 1955, by Assistant Secretary of the Navy (Financial Management) William B. Franke.

What ever happened to a guy named Curt LeMay?

☆

A release from the staid E. I. du Pont de Nemours & Co. crossed our desk the other day, announcing a toy mechanical bird that flies by flapping its wings. The ornithoper is made of a du Pont plastic, of course.

☆

We might get more and better manuscripts from AF people if they would read Lt. Col. Kenneth F. Gantz's article "Sit Down and Write," in last summer's issue of *Air University Quarterly Review.*

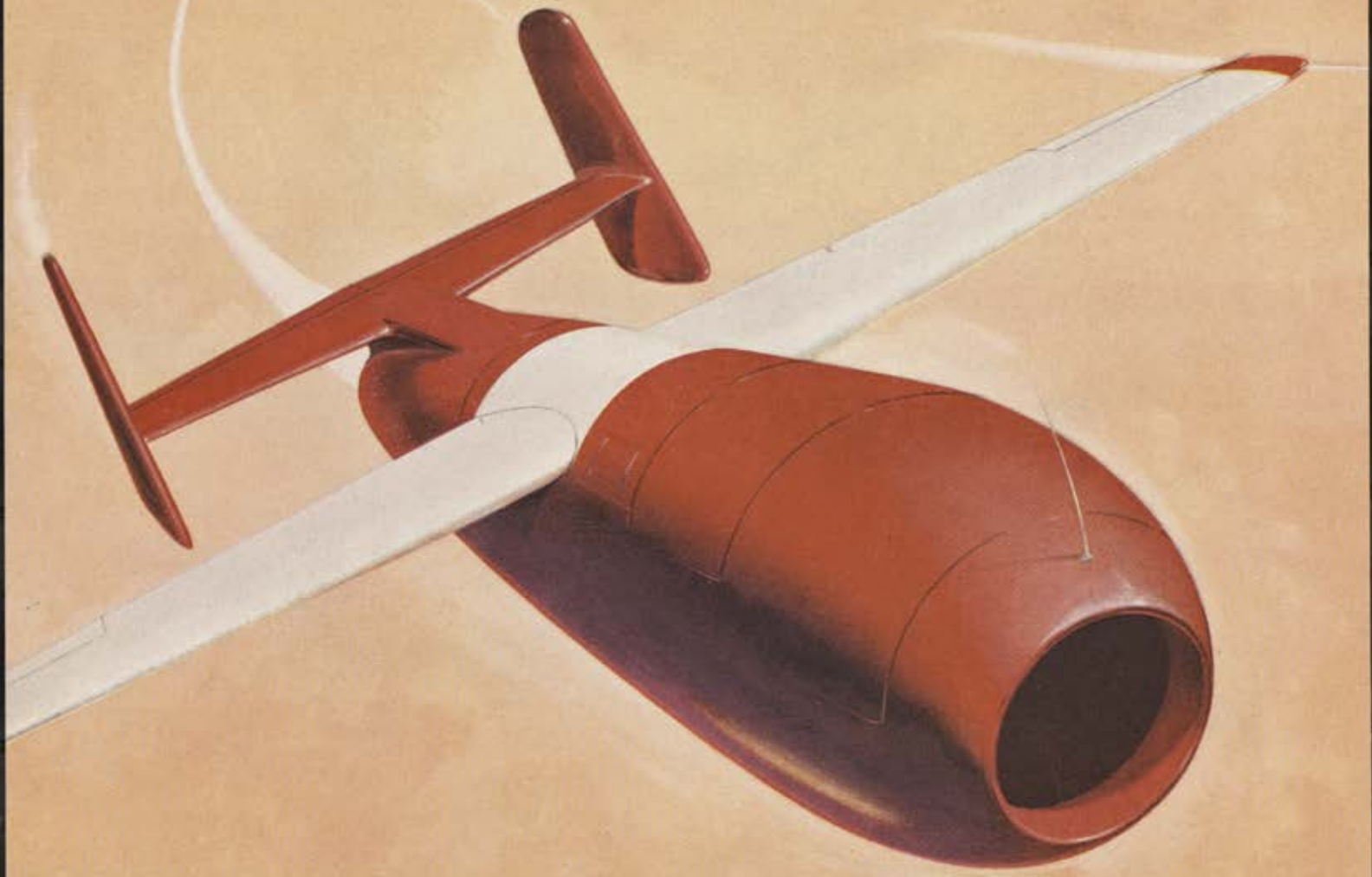
Vital Weapons

FORTY THOUSAND pilotless aircraft have been built since 1939 by Northrop Aircraft's subsidiary, the Radioplane Company. A pioneer in the field of unmanned flight, Radioplane is America's principal producer of radio controlled aerial targets. Propeller-driven drones and their new jet-powered counterparts are important members of the famed Northrop family of all-weather and pilotless aircraft. Together with Northrop's Scorpion F-89 rocket-armed interceptors, Snark B-62 long-range pilotless bombers, and many yet-to-be-disclosed developments, they are basic elements of this nation's power to deter enemy aggression.

NORTHROP

NORTHROP AIRCRAFT, INC. · HAWTHORNE, CALIFORNIA

Pioneer Builders of All Weather and Pilotless Aircraft



Piston . . .

turbo-prop . . .

jet . . .

and rocket . . .

—only Douglas has used all four basic aircraft power plants

From *Cloudster*, first airplane to lift its weight in payload, to *Skyrocket*—first to fly twice as fast as sound—Douglas has now built and flown airframes for all basic power plant types.

Such experience leads to better integration of airframe and engine to tactical or logistic needs—more performance per pound of plane. The *jet-powered* F4D Skyray, capable of low-speed carrier landings, outraces sound in level flight. The piston-engine R6D-1 typifies the Douglas genius for economical and dependable air transports. The *turbo-prop* YC-124B points to a new race of larger, faster cargo planes. The *rocket-powered* D-558-2 hits 1327 m.p.h.!

Experience in use of *all* available engine types contributes to Douglas aviation leadership—and planes that fly *farther and faster with a bigger payload.*

Depend on *DOUGLAS* First in Aviation

AIR FORCE
APRIL 1955

school for ZEBRAS

That's what they call the Second Air Force's Non-Commissioned Officer Academy, where SAC master sergeants pull post-graduate duty—and like it

By M/Sgt. FRANK J. CLIFFORD

EVER hear of an unauthorized flower pot? At least one veteran master sergeant got gigged for having one. He is M/Sgt. Charles E. Burns, from Lockbourne Air Force Base. Burns was a student at the Second Air Force Non-Commissioned Officer Academy last summer. He thought he was ready for room inspection when he noticed a dime-sized water spot on his glistening, waxed floor. Thinking fast and moving faster, Burns, who weighs 250 pounds, reached out of the barracks window, grabbed a flower pot and whisked it over the spot in the nick of time.

The Academy's Commandant, Maj. Charles W. Sampson, missed the water spot but his practiced eye locked on fast to the flower pot. Chalk up one flower pot gig, probably the first logged in the Air Force—but definitely not the first or last of gigs at the Strategic Air Command's NCO Academy at Barksdale Air Force Base, Louisiana.

Students arriving at Barksdale from the far-flung installations of the Second AF get a pleasant surprise when they see their quarters. Two men to a room is the rule, and every room has a private sink, roomy built-in wall lockers, a study table, complete with two comfortable chairs and a fluorescent study lamp. Floors are decked with green and black linoleum tile. A semi-private latrine and shower is shared by the men in the next room. Beds are already made, floors waxed, and the wide, picture window a glittering wall of glass.

Processing starts at once and the

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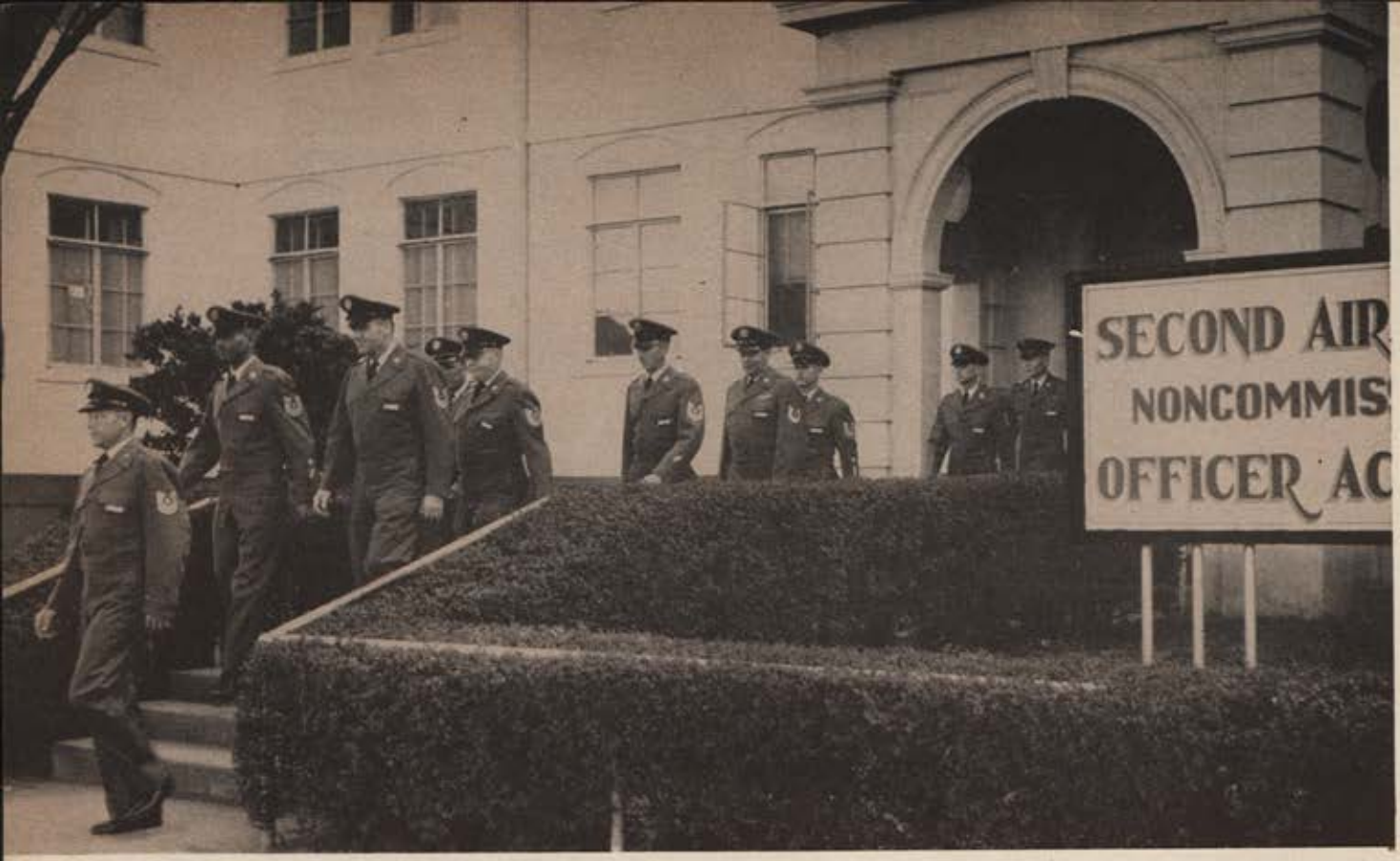

Off to an hour of "Hup, tup, threep, horp" on the drill field, NCO Academy students leave the modern, three-story Academy building. Besides the classrooms, the building includes administrative and instructors' offices, mess hall, and student lounge. Classrooms are well-lighted, and — for comfort in semi-tropical Louisiana — air conditioned.

honeymoon ends. A fifty-question, pre-entrance exam, purposely tough, deflates most egos and what is left standing after this blast is mowed down by indoctrination talks. Before the end of the first day, even the densest dunce knows that he is not going to get a free ride.

For me, the honeymoon ended even quicker when I joined class 55-A for the last week of school. Guest or no guest, I was on board, and I had better behave. I know a cue to "soldier" when I hear one, so I buckled down.

The pre-entrance exam is not mere academic knuckle-rapping. The same test is trotted out again during the last week of school and the results are dramatic.

The first time around, class 55-A averaged forty-six percent. Given a second shot at it, they racked up an average eighty percent. Three students picked up fifty-two percent each and one upped his score by seventy percent!

As part of the psychological one-two, the first classroom sessions are deliberately scheduled on Friday, the day after arrival, and no holds are barred. By mid-morning every man knows he is in a bare-knuckle battle for survival. The first Saturday inspection leads to profound soul-searching coupled with some blistering dialogue at the post mortem.

"You need a shine, Sergeant, like mine," Major Sampson says, standing toe-to-tie with the inspectee. There is no argument. After the first Saturday morning, you don't need a post graduate course to read the handwriting on the wall.

You learn quickly that the pillow is exactly four inches from the top edge of the white collar—and the white collar is precisely six inches wide, no more, no less. Similarly, the bunk is exactly four inches from the wall on two sides; footlockers are delicately tapped by hand into place, also four inches from the wall.

The golden rule is an ordinary twelve-inch hickory stick which regulates a student's life to a sixteenth of an inch.

"We don't make beds around here," explained M/Sgt. Charles E. Plants, former B-17 pilot and now an aerial photographer with a Puerto Rico-based B-36 outfit. "We survey them!"

The discipline is tough but fair. One master sergeant put it this way, "These guys didn't need an act of Congress to make them gentlemen." Since this evaluation took place in the barracks, far from supervision, its candidness can be regarded as authentic.

Is the "spit-and-polish" worthwhile? To find out this and other answers, I distributed a thirty-five-question questionnaire to all fifty-nine students in class 55-A. If the replies are any yardstick, here is what the non-coms themselves think. Fifty-one men gave spit-and-polish a flat OK, with remarks like, "It gives a man pride in himself and his outfit," "It makes a man feel military again," "It gets you back on the ball."

Two men answered the question with a "no," but one qualified his opinion by saying, "More time could be spent on studies." Six had no opinion.

Like Major Sampson, his tactical officer Capt. John G. Williams, Jr., is a West Pointer, both class of 1944. Each has served on the faculty at the Point, Sampson in the Mechanics Department and Williams in the Department of Social Sciences. Sampson is thirty-five, Williams, thirty-three—both are pilots. Later this year, Captain Williams expects to join the faculty at the new Air Force Academy.

The rest of the faculty is similarly highly regarded and the respect they command is the rightful dividend of practicing what they preach. Personal appearance is impeccable; performance, in or out of the classrooms, superior.

Why the NCO school? Why should we "schoolhouse" master sergeants, of all people? A look at the program of instruction will answer both questions —and give an idea of how much is packed into five and a half weeks of nose-to-the-grindstone study.

For example, students get ten hours of Military Management (Organization Phase); twelve hours of Military Instructor Training; twenty-two hours

of Speech; ten hours of Problem Solving—and this is only a small part of the 265 hours poured into actual classroom and drill field work.

These titles are merely labels. Each subject is further broken down, in hour-to-hour bits. Take "World Situation," for example, taught by M/Sgt. Victor J. Ceryanec, the slender, intense chief of the Academic Department. The students, who are world travelers by trade, named this course number one in their preference. Accordingly, the course is being enlarged from nine hours to fourteen. By hands-down agreement, Ceryanec is regarded by the students as the top instructor in the school.

"He motivates us," is the phrase they use and to anyone who has attended the school, this speaks worlds.

Ceryanec puts it this way, "These men have been to every place I talk about and they know the lay of the land like no geography could teach them. A lot of them have had a very active part in the shaping of world events as they are today."

Sergeant Ceryanec is correct, and my questionnaire proved his point. Class 55-A men admit to having been in nearly every country in the world, including Russia, Siberia, and over the North Pole. One blasé master sergeant filled out his questionnaire like this, "England, France, Africa, Australia, etc."

The professional caliber of instruction at the Academy is not accidental. Formal lesson plans covering every hour of instruction are compiled and a beginning and end clearly staked out. This is important. "It is easy for a 'discussion' to degenerate into a bull session," explains T/Sgt. Donald Smith, who teaches Military Management. There is simply no time for "war stories."

The same control is held on training aids. Although all the popular ones—movies, slides, tape recorders, recordings, blown-up charts—are used, they are only introduced when needed. M/Sgt. B. Plocica made the reason clear when he said, "We are here to instruct, not to entertain."

Classes are kept small. The entire student body, per five and a half week cycle, is only sixty men, or twenty men to a classroom. Classes will be doubled later this year, but the faculty will be expanded proportionately. "We will not compromise quality," says Captain Williams. Chief bottleneck right now is getting instructors who measure up to Academy standards.

During the first week instructors watch for the "weak" men. A "no-monkey-business" tutoring program orders the "weak" men to report after hours for a supervised bout with the books. This is no chaise lounge for lazy laggards limping toward a diploma. It is aimed at helping men who are honestly in trouble—there is no spoon-feeding, and the supervised study period is not a prep course to beat a particular exam. Thanks to supervised study, remarkably few men fail to win a diploma.

The Stategic Air Command pioneered the NCO Academy idea. After a trial run at 7th Air Division at Ruislip, England, in 1952, SAC gave the green light to all Air Forces under its control. Now the Eighth Air Force has an Academy at Bergstrom Air Force Base, Texas, the Fifteenth Air Force keeps school at March Air Force Base, Calif., and the Second at Barksdale. Every five and a half weeks the four schools produce about 234 graduates.

How good, actually, is the Second AF NCO Academy?

If the better mousetrap story has any validity, then it is very good, indeed. Almost weekly, officers from other Air Force commands arrive at the school, briefcases at high port, to find out how to assemble one of their own. The NCO Academy "movement" is gaining momentum, and all major air commands probably will have schools in operation before the end of this year.

The students figure all this should have happened long ago. Thirty-six-year-old M/Sgt. William L. Tomlinson, Mess Steward from the 72d Air Base Group, Puerto Rico, says, "This is one of the best things that could have happened to the Air Force." He is not alone.

To the question, "Are you glad you came to the Academy?" a thumping majority wrote an emphatic "Yes," and all but one took the time to explain why. I was amazed by the frankness of the answers to my questionnaire. Obviously everyone leveled with me.

Here are some samples: "It provides needed polish"; "It proved to me that I did not know all the answers"; "I feel that I have picked up a great many ideas I can use on my job"; "For training I never had the

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Spit-and-polish from the ground up is the foundation on which the NCO Academy at Barksdale AFB functions.

Students take a reading on their standing. Grades go up once a week, and report cards go to the "Old Man."

"When a room is buttoned-up for inspection, there is only one place to wash your hands, brother."

opportunity to receive"; "The course has proved to me how little I know about the Air Force and SAC"; "This is a damn good thing. . . . Try to convince some of those characters that don't want to come that they should."

An interesting development is the emergence of Academy "alumni associations" on SAC bases. At Lake Charles, the alumni association not only has the blessing of the Base CO, Col. Floyd Gudgel, but he has invited graduates to participate in an advisory capacity in the management of the base.

At Colonel Gudgel's base, Academy graduates are employed on promotion, classification, and special fact-finding boards, positions traditionally held down by officers. Alumni also assist in the selection of candidates to attend the Academy and brief new men on what to expect at school. As a result, Lake Charles men rate high at the Academy and competition is brisk.

"You might say, 'They care enough to send the very best,' " is the waggish way Leadership Instructor M/Sgt. Joseph Zegler, chief of the Tactical Department, describes the Lake Charles phenomenon.

In an attempt to get the very best, the Academy is toying with the idea of a pre-entrance test. Experimental tests have been preflighted at several bases, and final decision hangs on what the test analysis shows up. The experimental test has about 400 questions, which sample service savvy on everything from leadership techniques through personnel management to group proficiency. Before the test is finally turned loose on Academy candidates, it will be whittled to about 150 questions.

Students I talked with endorsed the idea and offered two more of their own. They'd like to see appointment become truly competitive so that selection would be a mark of distinction. They think this could be done by driving home to unit commanders the true nature of the school. The students would also like to see a more distinctive shoulder-loop device, worn on both shoulders any time the uniform is worn. At present, a graduate can wear his pale blue shoulder tab on one shoulder and that only when on a SAC base.

Unfortunately, not all commanders are enthusiastic about the Academy. Barracks bull sessions reveal that some graduates are told, "OK, you're back. Your vacation is over."

Students answered my question, "Do you think you will be able to employ your schooling after you return to your base?" in illuminating ways.

One man wrote, "Under my present CO, no. He is the one and only boss." Another said, "Depends on CO, am personally more than willing."

Seventeen men presented similar answers. Some took a rain check on this one and left it blank. Thirty-three said they would be able to employ their school-learned knowledge.

A companion question—"Do you know of graduates who were not permitted to exercise their schooling"—produced some interesting answers. Twelve men said "Yes," and cited cases. "[They] were transferred to other commands," said one man. "Line chief was fired while in school"; "Our First Sergeant was relieved and transferred"; "By observation—several graduates have not [been permitted to put into practice what they learned]!"

One man told me he knew of a man who made the school quota because number one on the list was excused to help his wife move her private business establishment from a town location to one on the base. This is not an isolated case.

The working day for Academy students starts at a crackling 0530—officially. Actually, things start shaking at 0500 to the jazzy strains of "Dixie," sign-on theme of a Shreveport radio station. From there on in the pace is hectic and the race is to the swift and deft. Three times a week bunks are stripped down—three times as often as is done in an operational squadron—and even the bed frame is carefully dusted.

The importance of uniformity is learned early in the game. This is no place for a man with a flair for interior decoration. The story is told about the Academy student who stood at the head of a long line of fellow students in the PX, where they all had converged to make up shortages or buy items prescribed by the school faculty.

"A thimble, please," he said, picked up his purchases and walked off. The next man figured he had missed something in the briefing and asked for a thimble, too. The panic was on! Before the shelf was swept bare, the PX had sold twenty-two thimbles, usually a notoriously slow mover.

While beds are being made, elaborate precautions are taken to protect the glittering floor, lovingly polished the night before. Papers cover strategic areas and all locomotion is done on stockinged feet. This included me, too, even though I was not "with it." I was on a visit and theoretically allowed to sleep as long as I liked, but this idea never got beyond the theory stage.

At breakfast time the men march through the pre-dawn darkness to the mess hall, pausing en route for a snappy fifteen-minute dose of calisthenics.

"When you fall out for reveille you figure someone goofed and it is still

Close to a century of service is represented by this quintet talking things over during the pre-graduation reception in the Academy's student lounge.

yesterday," lamented one sleepy-eyed six-striper.

After breakfast it is back to the barracks and a few final touches before the first class at 0730. At this point, the barracks hall resembles a well-kept European hotel, what with two pairs of highly polished shoes parked outside each door. One man set the school on its ear by placing a pair of high-heeled pumps alongside his own shoes.

Students take no chances at inspection time. Sinks are not merely turned off at the faucets but all bets are copped by turning off the main valves under the bowl. A drop of water in the sink, or a water spot on the chrome fixture constitutes sloppy housekeeping. Barracks are subject to inspection until 1630, when classes end. Actually they could be inspected at any hour of the day or night and they would check out better than most outfits could manage for a formal Saturday morning inspection.

Classes are conducted in a modern, three-story, cement building which not only houses the three classrooms, administrative offices, and instructors' office but the mess hall and student lounge as well. Classrooms are well lighted and air conditioned. At the present time the Academy occupies only the first floor but it will take over additional space as the need for it arises.

If you miss a class you make it up after hours. Even a broken leg is no excuse—fifty-year-old M/Sgt. William Barrett, oldest man in 55-A, stomped through the last two weeks of the course with his leg in a walk-around plaster cast.

The classroom has an air of calm deliberation. There is no hectoring from the podium, no pedagogic pontification. The students are relaxed, but there is no slackness, no slouching, and no smoking.

I sat in on a speech class during the final exercise, a ten-minute talk. The speaker was M/Sgt. Reney Scimio, from MacDill Air Force Base, Fla., a Brooklynite whose fifteen years of service have not altered his accent. He was entirely at ease. His talk on aircraft maintenance was authoritative and informative and it fitted neatly into the ten minutes allotted him.

Later, during the ten-minute break, I complimented him on his performance. He told me, "You should have seen me the first time. Wow. I had to give a two-minute talk and I was all primed, see. I get up. Bam, twenty seconds later I'm through."

"The strong silent type who knows his stuff but can't instruct is on the way out," T/Sgt. Harry Heagy, who

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TOP: M/Sgt. Victor Ceryanec, chief of the Academic Branch and instructor in "World Situations," lays the pointer on a sensitive spot in Asia. Class 55-A voted this course first in interest.

CENTER: Honor student Kermit McArthur, right, hits the books with his roommate, M/Sgt. Reny Scimio. The men wear no shoes while they study for fear of scuffing the highly polished floors.

BOTTOM: Shoulder loops are switched from left to right, signifying completion of the 5½-week course. Honor men M/Sgt. Kermit McArthur, left, and M/Sgt. A. H. Kirkner perform the ritual.

presides over the speech class, told me. A forceful, energetic giant who sports a combat infantry badge on his uniform, Heagy is a patient but exacting drillmaster.

During practice speeches, Heagy sits on the sidelines with a grade sheet, stop watch, and tape recorder. Later, the class criticizes—gestures, vocabulary, delivery, knowledge of the subject. The tape recorder has proved to be a valuable tool because of its ability to "turn back the hands of time."

Heaviest emphasis is placed on Leadership and Speech, which together consume forty-eight hours of the 265 allotted to the course. Since the non-commissioned officer spends eighty percent of this time learning new skills and teaching them to others, it is obvious that a facility of language and an understanding of leadership are musts.

For the more technical courses, such as "Universal Code of Military Justice," experts are brought in. This has proved popular because the guest lecturer often spices his material with case histories and little-known facts. It also gives the students a welcome change of pace.

On the drill field the course is basic, concentrating on the fundamentals. Practice is given in voice and command, and it is a bit disconcerting to come upon a field full of master sergeants shouting orders at the top of their lungs to no one in particular.

"We have to begin right from the beginning," explained M/Sgt. John Dill, whose thick "honey-chile" accent does not in any way interfere with his parade-ground voice. "A lot of these guys went right from the reception center directly to a 'tech' school when they came into the service during World War II. Didn't have a chance to take basic and most of them never drilled a 'troop' in their lives. You'd be surprised how many of these 'zebras' are actually afraid to handle troops."

The fear wears off with practice and before the end of the course every man has several opportunities to maneuver the entire corps of students.

An unlooked-for development which grew quite naturally and spontaneously resulted from student staff studies. At first, topics were arbitrarily assigned, just for practice. But it quickly became apparent that the students not only could turn in high-quality work but, more important, they were contributing original thoughts and fresh vantage points.

Staff studies are now assigned with an eye to practical, right-now, problems of the Air Force in general and SAC in particular. Five students, as a rule, are assigned to a study and the sky, literally, is the limit. There is no limit on length, and opinions are unrestricted. Sacred cows are vulnerable to criticism and many a moribund practice or procedure suffers the slings and arrows of an outrageously candid battery of master sergeants who don't mind tipping a few apple carts to get a job done.

A typical topic is "The Role of the First Sergeant." Since this has been a subject of lurid debate ever since the First Sergeant became a chief clerk during World War II, it was a natural. To get the inside story, three of the five collaborators on this one were practicing First Sergeants.

"We like to think we were partly responsible for bringing back the 'diamond' to the First Sergeant's chevron," says Sergeant Ceryanec, who assigned the topic.

Outspoken in their recommendations, the zebras stated flatly that the First Sergeant should be well qualified in leadership and all phases of military procedures. Furthermore, they prescribed, he should carry brevet rank above all NCOs in his outfit and he should be in a command position rather than in an administrative one.

Another hotly debated topic, "Technician versus NCO," was neatly dissected in a mature, well-thought-out

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M/Sgt. Frank Clifford hasn't taken long to become our most prolific author. He took leave from his ROTC duty at the University of Pennsylvania to go down to Barksdale to do this piece for us and says he enjoyed every minute of it. We figured "it takes one to know one" and thought we'd like to have a non-com's eye view of what goes on at a non-com academy. Clifford's fourteen years of service have left him a little cynical about many aspects of service life but when he dropped in our office on his way home, he was dewy-eyed about his week at Barksdale. On the more serious side, we feel that SAC, and its personnel director, Col. Steve McElroy, deserve a lot of credit for setting the pace with these academies. The rest of the AF is beginning to follow suit and we think it's all to the good. The only real long-range answer to the AF's manpower problem is a hard core of career professionals in the enlisted ranks. The academies are a step in that direction. We'd like to see the concept carried further, so its impact would be felt among the techs and staffs, where the reenlistment rate is more critical than among the masters. — The Editors.

Maj. Charles W. Sampson, Commandant of the Second AF NCO Academy since it opened in April 1954, toasts Class 55-A.

"Safety will be the sturdy child of terror, and survival the twin brother of annihilation"

Defense Through Deterrents

In the power of the atom, Sir Winston Churchill sees hope as well as mankind's destruction

Below are excerpts from an address by the Prime Minister of Great Britain, Sir Winston Churchill, to the House of Commons, on March 1. Sir Winston, who is without peer as an orator, has seldom been more moving than in this speech, which is regarded as one of the most significant of his remarkable career.

WE LIVE in a period happily unique in human history when the whole world is divided intellectually and to a large extent geographically between the creeds of Communist discipline and individual freedom and when at the same time this mental and psychological division is accompanied by the possession by both sides of the obliterating weapons of the nuclear age. . . .

There is an immense gulf between the atomic and the hydrogen bomb. The atomic bomb, with all its terror, did not carry us outside the scope of human control or manageable events in thought or action, in peace or war. . . .

What ought we to do? Which way shall we turn to save our lives and the future of the world? It does not matter so much to old people. They are going soon anyway. But I find it poignant to look at youth in all its activities and ardor and most of all to watch little children playing their merry games and wonder what would lie before them if God wearied of mankind. . . .

Unless a trustworthy and universal agreement upon disarmament, conventional and nuclear alike, can be reached and an effective system of inspection is established and is actually working, there is only one sane policy for the Free World in the next few years. That is what we call defense through deterrents. This we have already adopted and proclaimed.

These deterrents may at any time become the parents of disarmament, provided that they deter. To make our contribution to the deterrent we must ourselves possess the most up-to-date nuclear weapons and the means of delivering them. . . .

Should war come, which God forbid, there are a large number of targets that we and the Americans must be able to strike at once. There are scores of airfields from which the Soviets could launch attacks with hydrogen bombs as soon as they have the bombers to carry them. It is essential to our deterrent policy and to our survival to have, with our American allies, the strength and numbers to be able to paralyze these potential Communist assaults in the first few hours of the war, should it come. . . .

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There are also big administrative and industrial targets behind the Iron Curtain, and any effective deterrent policy must have the power to paralyze them all at the outset, or shortly after. There are also the Soviet submarine bases and other naval targets which will need early attention. Unless we make a contribution of our own—that is the point which I am pressing—we cannot be sure that in an emergency the resources of other powers would be planned exactly as we would wish or that the targets which would threaten us most would be given what we consider the necessary priority, or the deserved priority, in the first few hours.

These targets might be of such cardinal importance that it would really be a matter of life and death for us. . . .

I shall content myself with saying about the power of this weapon, the hydrogen bomb, that, apart from all the statements about blast and heat effects over increasingly wide areas, there are now to be considered the consequences of "fall-out" as it is called, of wind-borne radioactive particles. There is both an immediate direct effect on human beings who are in the path of such a cloud and an indirect effect through animals, grass, and vegetables, which pass on these contagions to human beings through food.

This would confront many who escaped the direct effects of the explosion with poisoning or starvation or both. Imagination stands appalled. There are, of course, the palliatives and precautions of a courageous civil defense. . . .

• • •

However, a curious paradox has emerged. Let me put it simply. After a certain point has been passed, it may be said, the worse things get the better. The broad effect of the latest developments is to spread almost indefinitely and at least to a vast extent the area of mortal danger. This should certainly increase the deterrent upon Soviet Russia by putting her enormous spaces and scattered population on an equality, or near equality, of vulnerability with our small, densely populated island and with Western Europe.

I cannot regard this development as adding to our dangers. We have reached the maximum already. On the contrary, to this form of attack continents are vulnerable as well as islands. Hitherto crowded countries, as I have said, like the United Kingdom and Western Europe, have had this outstanding vulnerability to carry. But the hydrogen bomb, with its vast range of destruction and the even wider area of contamination, would be effective also against nations whose population hitherto has been so widely dispersed over large land areas as to make them feel that they were not in any danger at all.

They too become highly vulnerable; not yet equally perhaps, but still highly and increasingly vulnerable. Here

(Continued on page 37)

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Eisenhower's Comment on the Churchill Speech

A lead may not be significant, the President said, when you have "enough" of certain weapons

At President Eisenhower's press conference on March 2, the day after the British Prime Minister's pronouncement on the H-Bomb, the President was asked by Merriman Smith of the United Press to comment on Sir Winston's statements. Below is his reply, with the President's words quoted directly, as authorized by the White House.

QUESTION: Mr. President, Mr. Churchill said yesterday that Western superiority in the hydrogen bomb will prevent Russia from starting a big war within the next three or four years.

Now, from this, or from your own sources of information, did you get the idea that Russia will pull even with the West in three or four years?

THE PRESIDENT: Anything dealing with such a subject, any conclusion, is really nothing more than a speculative estimate. However, we do know that the Western world has—has had and enjoyed—a great lead in this whole field, both in the atomic fission and atomic fusion.

Now, exactly how long that lead can be sustained is problematical, and again another factor enters this question: There comes a time, possibly, when a lead is not significant in the defensive arrangements of a country. If you get enough of a particular type of weapon, I doubt that it is particularly important to have a lot more of it. So I think that it would be unwise to attempt any fixed conclusions based on the information available to any of us.

Western Europe's Answer To The 'Knock Out' Attack

If—and when—war breaks out again the only warning we can count on is a radar signal flash.

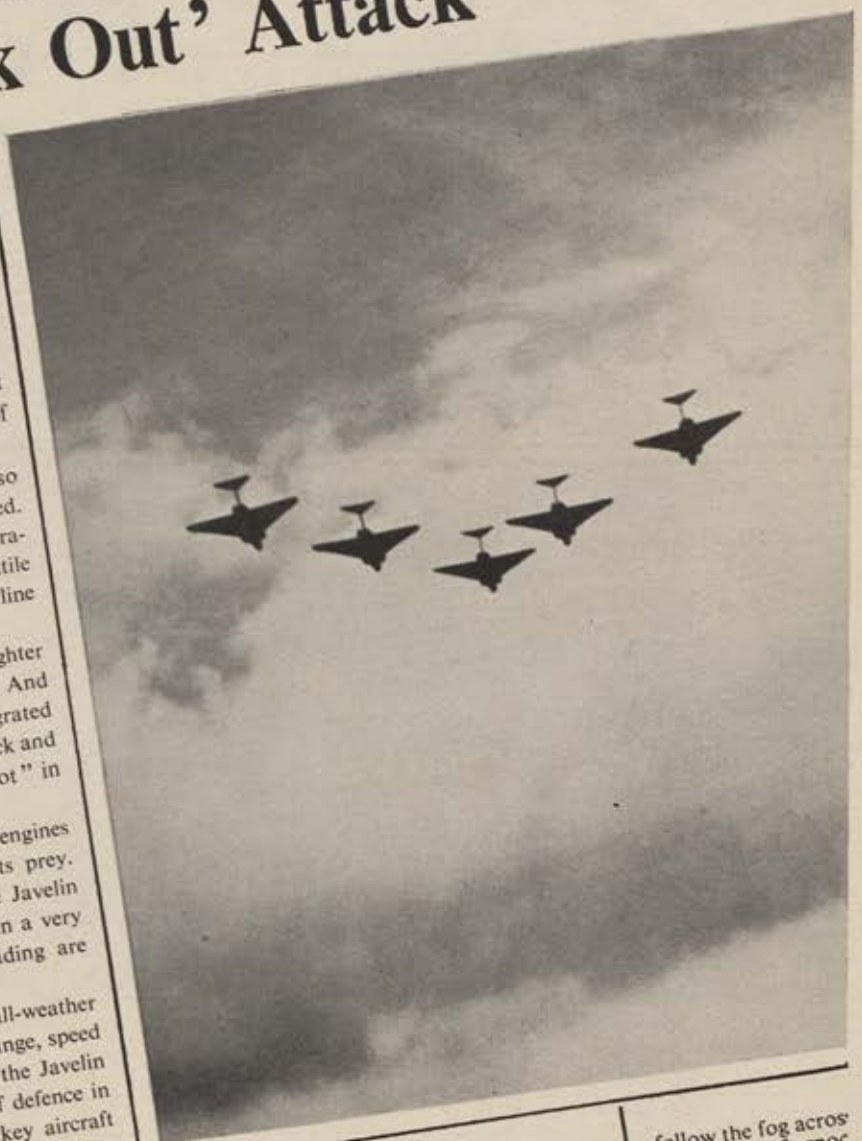
One thing is certain. The days of thousand-bomber raids and official declarations of war are over for good. Security now lies in efficient systems of aircraft detection and the speed and fire-power of fighters that can fly in all weathers.

This is what makes the Gloster Javelin so important. It solves a critical operational need. The improved radar, fire power and extraordinary high rate of climb of this versatile aircraft puts new teeth into Europe's first line of defence against sneak raids.

No other all-weather day and night fighter packs such a big punch as the Javelin. And because of its highly sensitive integrated radar system, no other fighter is as quick and accurate in getting to the "trouble spot" in time.

Twin Armstrong Siddeley Sapphire engines thrust the Javelin speedily toward its prey. From the first flash of warning the Javelin can be attacking at over 50,000 ft. in a very few minutes. Refueling and reloading are also a matter of minutes.

It is true to say that no other all-weather fighter made anywhere has such range, speed or destructive firepower. In fact, the Javelin has already altered the pattern of defence in Western Europe's favour. This key aircraft was designed and developed by Gloster, makers of the world's first successful jet aircraft and one of the remarkable Hawker Siddeley Group of companies.



THE WEATHER

Widespread fog

Vigorous troughs of low pressure will move E. across the British Isles. It will be dry in some E. dist[illegible] fog affect[illegible] Isles [illegible]

follow the fog across during the afternoo many N. areas of Temperatures will normal. Winds wi and reach gale for

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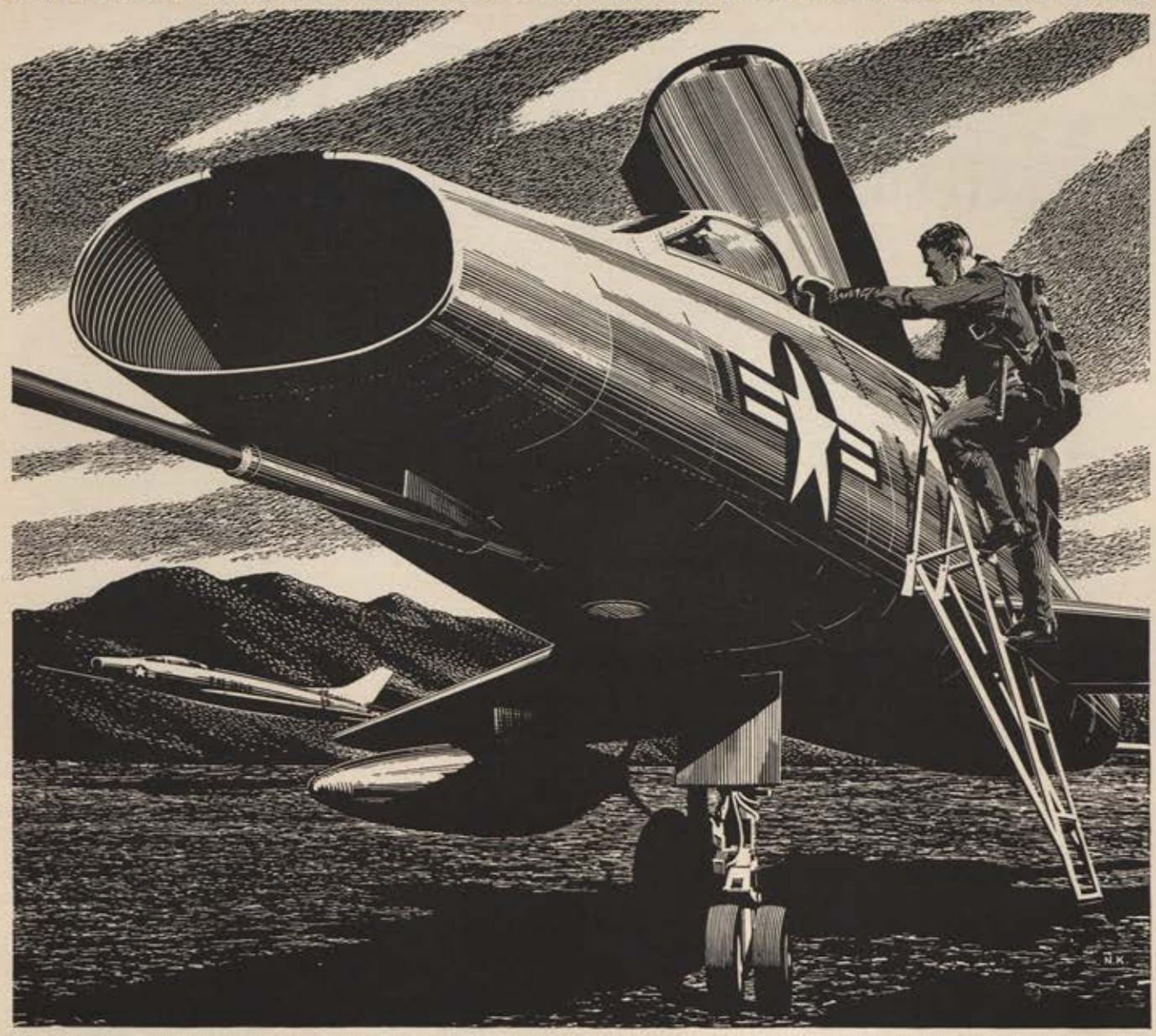
DAY AND NIGHT ALL WEATHER FIGHTER

Gloster Javelin

GLOSTER AIRCRAFT CO. LIMITED, GLOUCESTER, ENGLAND. *Member of the Hawker Siddeley Group/Pioneer ... and World Leader in Aviation*

NORTH AMERICAN HAS BUILT MORE AIRPLANES THAN ANY OTHER COMPANY IN THE WORLD



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READY! AMERICA'S FIRST SUPERSONIC SQUADRONS

North American F-100 Super Sabres—now on active operational duty with the 479th Fighter Wing at George Air Force Base, Victorville, California—form America's first Supersonic Squadrons . . . a powerful new defense force unequalled anywhere in the world.

Exemplifying a totally new concept for modern air power, the North American designed and built F-100 Super Sabre flies beyond the speed of sound in level or climbing flight, and is designed to perform equally well in air combat or close-support bombing missions.

This year, to better meet our Air Force needs, North American will produce F-100 Super Sabres at its Columbus, Ohio plant in addition to continued production at Los Angeles.

Constant research and development keep North American foremost in aircraft, rocket engines, guided missiles, electronics and peaceful applications of atomic energy.

ENGINEERING AHEAD FOR A BETTER TOMORROW

NORTH AMERICAN AVIATION, INC.

again we see the value of deterrents, immune against surprise and well understood by all persons on both sides—repeat, on both sides—who have the power to control events. That is why I have hoped for a long time for a top-level conference where these matters could be put plainly and bluntly from one friendly visitor to the conference to another.

Then it may well be that we shall, by a process of sublime irony, have reached a stage in this story where safety will be the sturdy child of terror, and survival the twin brother of annihilation. Although the Americans have developed weapons capable of producing all the effects I have mentioned, we believe that the Soviets so far have tested by explosion only a type of bomb of intermediate power.

There is no reason why, however, they should not develop some time within the next four, three, or even two years more advanced weapons and full means to deliver them on North American targets. Indeed, there is every reason to believe that within that period they will. In trying to look ahead like this, we must be careful ourselves to avoid the error of comparing the present state of our preparations with the stage which the Soviets may reach in three or four years' time. It is a major error of thought to contrast the Soviet position three or four years hence with our own position today. It is a mistake to do this, either in the comparatively precise details of aircraft development or in the measureless sphere of nuclear weapons.

The threat of hydrogen attack on these islands lies in the future. It is not with us now.

According to the information that I have been able to obtain—I have taken every opportunity to consult all the highest authorities at our disposal—the only country which is able to deliver today a full-scale nuclear attack with hydrogen bombs at a few hours' notice is the United States. That surely is an important fact, and from some points of view and to some of us it is not entirely without comfort.

It is conceivable that Soviet Russia, fearing a nuclear attack before she has caught up with the United States and created deterrents of her own, as she might argue that they are, might attempt to bridge the gulf by a surprise attack with such nuclear weapons as she has already. American superiority in nuclear weapons, reinforced by Britain, must therefore be so organized as to make it clear that no such surprise attack would prevent immediate retaliation on a far larger scale. This is an essential of the deterrent policy.

For this purpose, not only must the nuclear superiority of the Western powers be stimulated in every possible way, but their means of delivery of bombs must be expanded, improved, and varied. It is even probable, though we have not been told about it outside the NATO sphere, that a great deal of this has been already done by the United States. We should aid them in every possible way.

I will not attempt to go into details, but it is known that bases have been and are being established in as many parts of the world as possible and that over all rests the United States Strategic Air Force, which is in itself a deterrent of the highest order and is in ceaseless readiness. The Soviet government probably knows in general terms of the policy that is being pursued, and of the present United States strength and our own growing addition to it.

Thus, they should be convinced that a surprise attack could not exclude immediate retaliation. As one might say to them: Although you might kill millions of our peoples, and cause widespread havoc by a surprise attack, we could, within a few hours of this outrage, certainly deliver several, indeed, many times, the weight of nuclear material which you have used, and continue retaliation on that same scale. We have, we could say, already hundreds of bases for attack from all angles and have made an intricate study of suitable targets. . . .

* * *

I must make one admission, and any admission is formidable. The deterrent does not cover the case of lunatics or dictators in the mood of Hitler when he found himself in his final dugout. That is a blank. Happily, we may find methods of protecting ourselves, if we were all agreed, against that.

All these considerations lead me to believe that, on a broad view, the Soviets would be ill-advised to embark on major aggression within the next three or four years. . . .

* * *

During that period it is most unlikely that the Russians would deliberately embark on major war or attempt a surprise attack either of which would bring down upon them at once a crushing weight of nuclear retaliation. In three or four years' time—it may be even less—the scene will be changed. The Soviets will probably stand possessed of hydrogen bombs and the means of delivering them not only on the United Kingdom but also on North American targets. They may then have reached a stage not indeed of parity with the United States and Britain but of what is called "saturation."

I must explain this term of art. "Saturation" in this connection means the point where although one power is stronger than the other—perhaps much stronger—both are capable of inflicting crippling or quasi-mortal injury on the other with what they have got. It does not follow, however, that the risk of war will then be greater. Indeed, it is arguable that it will be less, for both sides will then realize that global war would result in mutual annihilation.

Major war of the future will differ, therefore, from anything we have known in the past in this one significant respect, that each side at the outset will suffer what it dreads the most—the loss of everything that it has ever known. The deterrents will grow continually in value. In the past, an aggressor has been tempted by the hope of snatching an early advantage. In future, he may be deterred by the knowledge that the other side has the certain power to inflict swift, inescapable, and crushing retaliation.

Of course, we should all agree that a world-wide international agreement on disarmament is the goal at which we should aim. The Western democracies disarmed themselves at the end of the war. The Soviet government did not disarm, and the Western nations were forced to rearm, though only partially after the Soviets and Communists had dominated all China and half Europe. That is the present position. It is easy, of course, for the Communists to say now, "Let us ban all nuclear weapons." Communist ascendancy in conventional weapons would then become overwhelming. That might bring peace, but only peace in the form of the subjugation of the Free World to the Communist system. . . .

* * *

The hydrogen bomb has made an astounding incursion into the structure of our lives and thoughts. Its impact is prodigious and profound, but I do not agree with those who say, "Let us sweep away forthwith all our existing defense services and concentrate our energy and resources on nuclear weapons and their immediate ancillaries."

The policy of the deterrent cannot rest on nuclear weapons alone. We must, together with our NATO allies, maintain the defensive shield in Western Europe.

Unless the NATO powers had effective forces there on the ground and could make a front, there would be nothing to prevent piecemeal advance and encroachment by the

(Continued on following page)

CHURCHILL — CONTINUED

Communists in this time of so-called peace. By successive infiltration the Communists could progressively undermine the security of Europe. Unless we were prepared to unleash a full-scale nuclear war as soon as some local incident occurs in some distant country, we must have conventional forces in readiness to deal with such situations as they arise.

We must, therefore, honor our undertaking to maintain our contribution to the NATO forces in Europe in time of peace. In war, this defensive shield would be of vital importance, for we must do our utmost to hold the Soviet and satellite forces at arm's length in order to prevent short-range air and rocket attack on these islands. Thus, substantial strength in conventional forces has still a vital part to play in the policy of the deterrent. It is perhaps of even greater importance in the cold war.

Though world war may be prevented by the deterrent power of nuclear weapons, the Communists may well resort to military action in furtherance of their policy of infiltration and encroachment in many parts of the world. There may well be limited wars on the Korean model, with limited objectives. We must be able to play our part in these, if called upon by the United Nations Organization. In the conditions of today, this is also an aspect of our Commonwealth responsibility. We shall need substantial strength in conventional forces to fulfill our world-wide obligations in these days of uneasy peace and extreme bad temper.

To sum up this part of the argument, of course, the development of nuclear weapons will affect the shape and organization of the armed forces and also of civil defense. We have entered a period of transition which the past and the future will overlap. But it is an error to suppose that, because of these changes, our traditional forces can be cast away or superseded. . . .

° ° °

The argument which I have been endeavoring to unfold and consolidate gives us in this island an interlude. Let us not waste it. Let us hope we shall use it to augment or at least to prolong our security and that of mankind.

But how?

There are those who believe, or at any rate say: If we have the protection of the overwhelmingly powerful United States, we need not make the hydrogen bomb for ourselves or build a fleet of bombers for its delivery. We can leave that to our friends across the ocean. Our contribution should be criticism of any unwise policy into which they may drift or plunge. We should throw our hearts and consciences into that.

Personally, I cannot feel that we should have much influence over their policy or actions, wise or unwise, while we are largely dependent, as we are today, upon their protection. We, too, must possess substantial deterrent power of our own. We must also never allow, above all, I hold, the growing sense of unity and brotherhood between the United Kingdom and the United States and throughout the English-speaking world to be injured or retarded. Its maintenance, its stimulation, and its fortifying is one of the first duties of every person who wishes to see peace in the world and wishes to see the survival of this country.

To conclude, mercifully, there is time and hope if we combine patience and courage. All deterrents will improve and gain authority during the next ten years. By that time, the deterrent may well reach its acme and reap its final reward. The day may dawn when fair play, love of one's fellow men, respect for justice and freedom, will enable tormented generations to march forth serene and triumphant from the hideous epoch in which we have to dwell. Meanwhile, never flinch, never weary, never despair!—END

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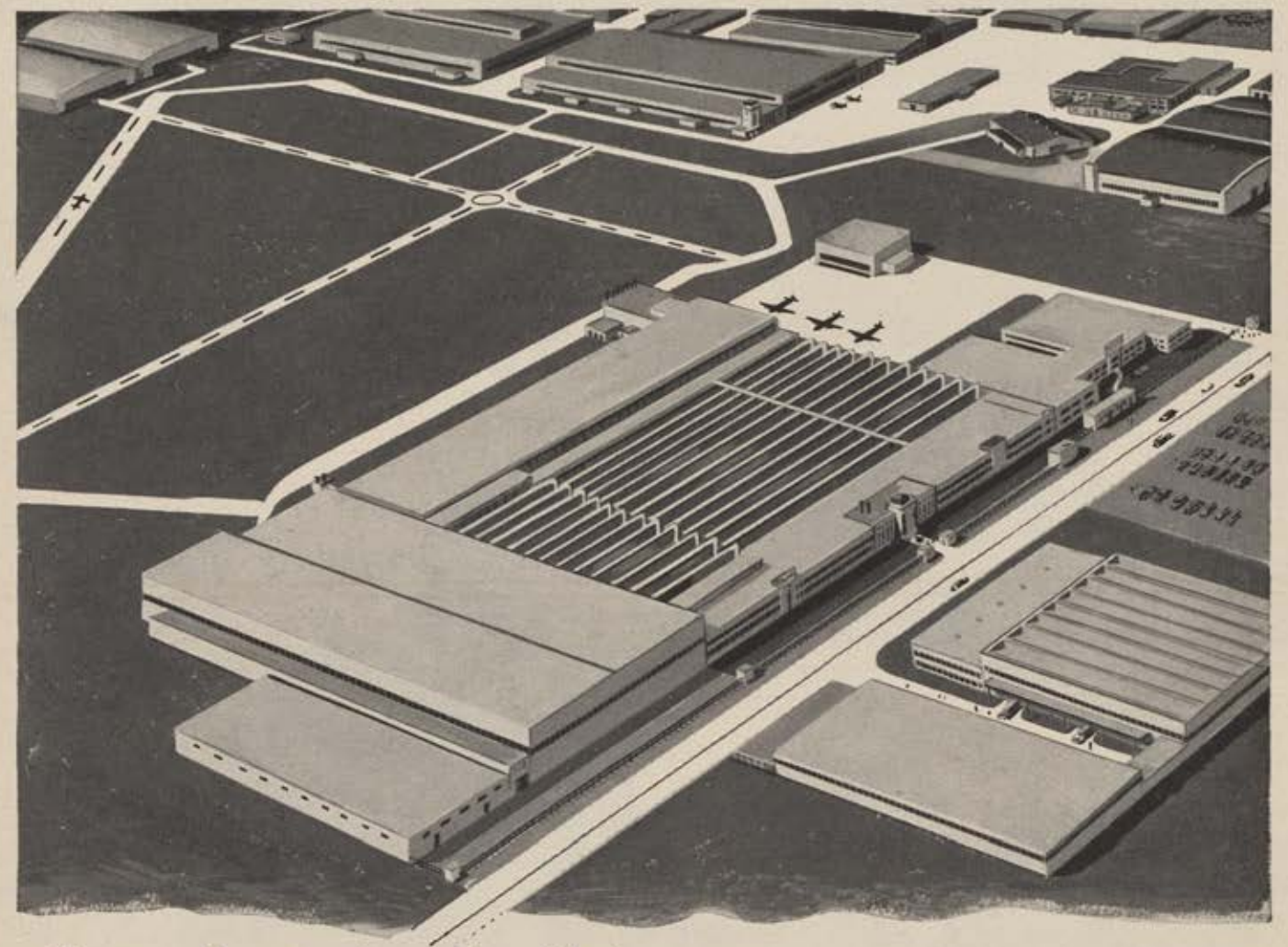

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Jimmy Stewart struggles into his flight gear, assisted by Col. Dick Lassiter, technical adviser for the film.

'Strategic Air

By Jimmy Stewart

On location in Florida, June Allyson takes a look at a B-47 Stratojet

Command'

Here, in Jimmy Stewart's own words, are the reasons he wanted to do a movie about the dedicated men who fly and maintain the planes of the greatest military force in the world—SAC

ABOVE: Miss Allyson autographs the cast on the broken arm of a sergeant she meets in the base exchange while on location for "Strategic Air Command."

Jimmy Stewart points out the route he flew across the Pacific in a B-47 in Paramount's "Strategic Air Command." June Allyson's his wife in the film.

EVER since I was mustered out of the service I'd been thinking about making a service picture, preferably one that dealt with the Air Force. But there were a lot of excellent military pictures coming out of Hollywood and I didn't want to do a war film. I was stumped, temporarily at least.

As an Air Force Reservist and charter member of the Air Force Association I had kept pretty close to the Air Force and its problems. I knew that manpower was proving to be one of airpower's major headaches. But it wasn't until I picked up a magazine and read about the Strategic Air Command and its personnel problems that I was able to visualize a motion picture built around just that theme.

Not that I think a movie should preach a sermon. When you plunk down your money for a theater ticket you expect entertainment, and rightly so. But the drama inherent in the SAC story made me think that here was a unique opportunity to combine some needed public education with a lot of entertainment.

Few Americans know enough about their Strategic Air Command. It's really an amazing organization, which clutches the olive branch of peace in one hand and the lightning bolts of destruction in the other. We could have stockpiles of both atomic and hydrogen bombs stretching from here to yonder and they wouldn't do us a bit of good if we couldn't put them on a target—anywhere in the world, if necessary. That's SAC's job. Getting the bomb on the target. Its B-36s and B-47s—and the men who fly them and maintain them—are the most precious weapons we have.

But SAC is more than just a military organization. It's made up of people—American families, fathers, mothers, and children. We tried to tell the story of these people, and the sacrifices they are making every day to make your bed and mine a safe place in which to sleep, in our picture, "Strategic Air Command."

For that reason it's quite different from the average Air Force movie. SAC's combat crews are mature men. They average thirty-two years of age. Most are married, with family responsibilities. There is a dearth of dashing "wild-blue-yonder" types—the adventurous war birds who are fun to watch but you really don't believe in them. SAC's men are old pros. As General LeMay says, "There's as much difference between SAC crews and a World War II bomber crew as between a bush league ball club and the New York Yankees."

That's a pretty apt illustration to use in discussing the picture. For in it I play Dutch Holland, $70,000-a-year third baseman for the St. Louis Cardinals, who served a few years as a bomber pilot in World War II. I'm recalled to active duty by the Air Force just when I'm at the peak of my baseball career—and at the top of my earning power. Quite naturally, I get a little sore at the thought of giving up all this to put the suit on again. And it isn't even the same suit. I have to invest in blues.

But my squawks don't do much good. I happen to fall into just the bracket SAC needs—mature men, experienced men, physically and mentally qualified to carry the immense responsibilities of shielding the Free

(*Continued on page 43*)

EVER HEAR A FISH COUGH?

Fish and other underwater creatures make peculiar whistling, grunting and clicking noises—some of which could well be their way of talking.

Of course, the whisper-sensitive underwater listening equipment manufactured for the Navy by Raytheon is not for eavesdropping on underwater life, but for detecting enemy submarines.

The Raytheon-Submarine Signal Company merger in 1946 grouped under one roof some of the nation's foremost sonar engineers and added new luster to the phrase "Excellence in Electronics."

RAYTHEON

RAYTHEON MANUFACTURING COMPANY
WALTHAM 54, MASSACHUSETTS

Photos, courtesy Paramount Pictures

When a $70,000-a-year professional baseball player is recalled to active duty, there are bound to be some domestic crises. Here, June Allyson and Jimmy Stewart, as "Col. and Mrs. Dutch Holland," are shown in the midst of one.

World against Communist aggression. So I go—and that's the story.

When I first got the idea for a picture about SAC I sat down with General LeMay and got his ideas on what it should say. Then I sold Paramount on the idea of making the film. Paramount is an old hand at aviation pictures, dating all the way back to "Wings." They assigned Samuel J. Briskin, a top-ranking Hollywood producer to the film. Sam was a colonel in the Army Signal Corps during World War II and was familiar with the problems inherent in making a service picture. June Allyson, who played my wife in "The Stratton Story" and later in "The Glenn Miller Story," agreed to be my wife in this one, too.

Beirne Lay, Jr., who was a bomber colonel in World War II, wrote the original screen story, and he and Valentine Davies collaborated on the screenplay. Frank Lovejoy plays a forceful air chief who will remind you of an Air Force general named LeMay. Barry Sullivan, Bruce Bennett, James Millican, Jay C. Flippen, and Alex Nicol were signed to play key roles. Anthony Mann, who has been associated with me in a number of films, was the director. Paul Mantz, one of America's finest flyers, supervised some of the most breath-taking aerial photography you'll ever see. The picture was shot in VistaVision.

We filmed the B-36 scenes at Carswell AFB, Fort Worth, Tex. Then we went to MacDill, at Tampa, Fla., to shoot the B-47 sequences. The baseball scenes were done at the St. Petersburg training camp of the Cards. The picture shows all the planes of the SAC family in operation — the C-124 Globemasters, the C-97s, T-33 jets, the KC-97 in aerial refueling shots, and one exciting scene shows the refueling of a B-47 in the air.

While I'm passing out bouquets I don't want to forget to say thanks

Sweating out an Arctic mission as pilot of a B-36. The flight scenes in the movie are expertly handled.

to the United States Air Force, for the use of the sky, so to speak. And the same, only more so for Gen. Curtis E. LeMay and all of his SAC people who were so helpful in planning and shooting the picture. I'd like to single out for special mention Col. Dick Lassiter, a veteran SAC pilot who acted as technical adviser on the picture. Among other things, Dick had to give us enough information to tell the story without compromising security; steer our production crew around busy Air Force bases without interfering with SAC's main military mission; dig up the necessary props, background, supplies, and aircraft mockups without putting any strain on the AF supply system; help us shoot the picture without setting up any extra flights, people, or equipment beyond the requirements of normal training. Dick did all this efficiently and good humoredly and, in the process, I think got a big kick out of sitting in behind the scenes.

This is a motion picture I believe in, and am proud to be identified with. If we're to have peace, SAC

"Col. Dutch Holland," badly in need of a shave, returns to his home after flying a long and exhausting mission.

will be responsible, in large measure, for it. These babies can reach any potential enemy anywhere on the face of the globe. You take a look at one of those B-36s sitting there at Carswell AFB, and you feel like taking off your hat in reverence. You know that so long as the enemy knows the striking power of SAC, he'll hesitate a long time before trying to hit the USA.

Here's the most powerful air striking force ever created—but its mission is not to wage war. Its mission is to keep the peace. One B-47, with its crew of three, has the potential of 1,000 bombers and 10,000 crewmen in World War II. The very thought of such military might staggers one's imagination. Maybe a few Russians or other potential war makers will get to see the picture. Heck, I'll even send

(Continued on following page)

'em free passes, with my compliments. We don't give away any military secrets, of course, but it's pretty dramatic. Maybe the message will get through the Iron Curtain that SAC is no dream. It's a reality. That's one of our motives for doing the picture.

The other? Well, aside from the fact that I'm daffy about planes and love being around them, I thought maybe some of our own folks would lose a few jitters if they got an idea of what SAC is, and why. It's mighty comforting to know that it's on our side.—END

About the Author

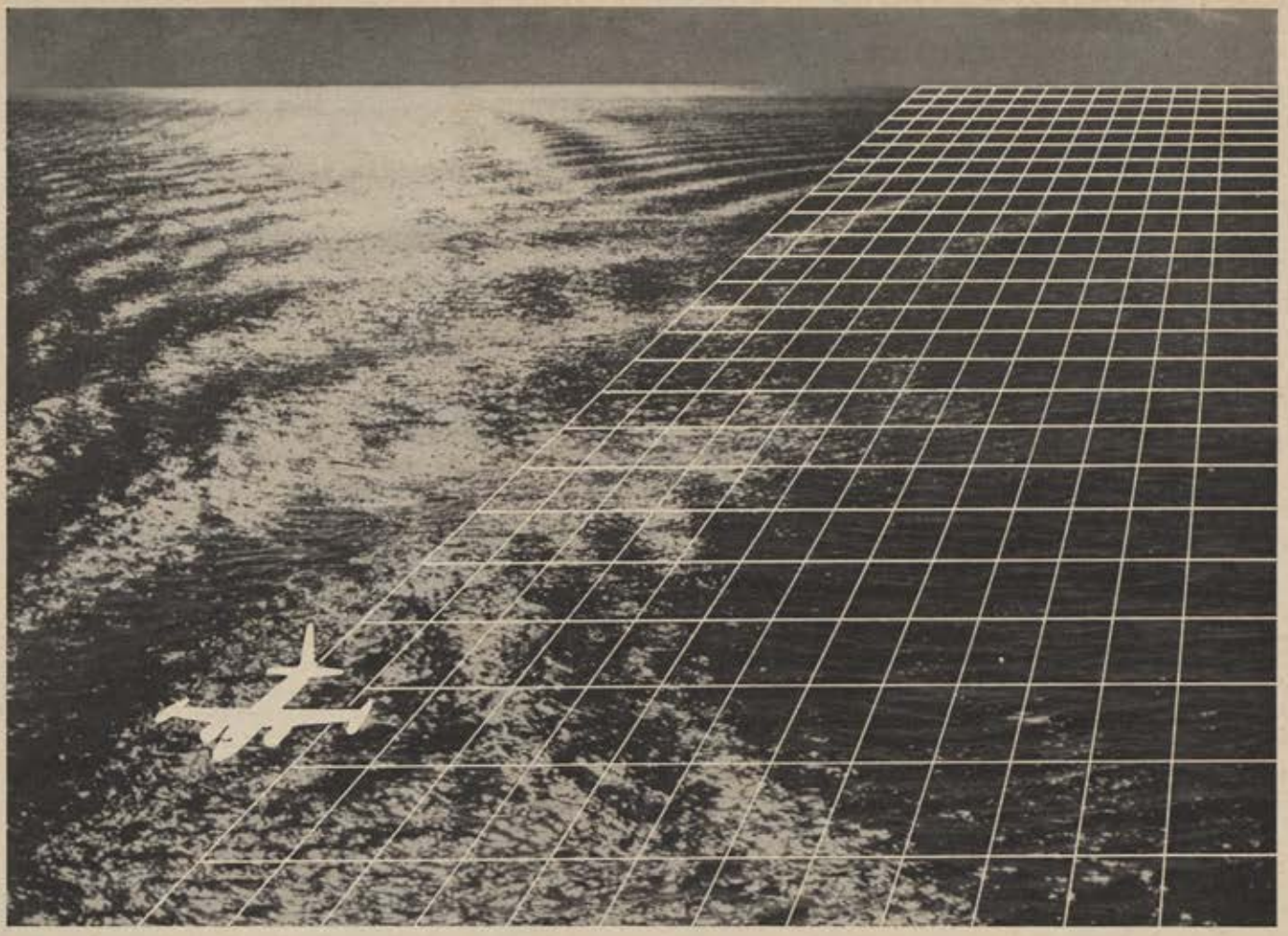
Jimmy Stewart, distinguished actor and airman, knows how it feels to leave a successful career to answer the call of duty. He forsook motion pictures in March 1941 to enlist in the Army Air Forces as a private. Before the end of that year, he had a lieutenant's commission. He served as a B-17 pilot instructor, later flew B-24s in raids on German targets like Berlin, Bremen, and Brunswick. By war's end he had a Distinguished Flying Cross and a colonel's eagle on each shoulder. He's still in the Air Force Reserve, so playing a colonel in the picture "Strategic Air Command" came easy.

He's also a loyal member of the Air Force Association. In fact, he was one of AFA's founding fathers and served for several years on its Board of Directors. The way he feels about the Association can best be told in his own words:

"I remember back right after the war when the Air Force Association slogan was 'Let's Keep the Gang Together.' They busted up all the airplanes but we wanted to keep ourselves together. It's been a wonderful thing to watch the Air Force Association grow into the fine organization that it is today. It's the kind of an outfit that can stand up on its hind legs and lay it on the line about airpower. I'm proud to be a member. I think everyone interested in the safety of our nation should be."

SAN FRANCISCO-BOUND?

Plan now to make San Francisco one of your ports of call this summer—August 10 through 14, to be exact. The occasion? It's AFA's big 1955 Convention and Airpower Panorama. You'll find details on pages 74 and 75 of this issue.



Manhunt

on a grid etched in the ocean!

The ocean isn't trackless any more.

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A new navigation unit with a cybernetic brain, developed by General Precision Laboratory in cooperation with the Air Force, links plane course with grid course. It is never fooled by shifting winds, nor fazed by absence of sun, stars or radio beams. Ceiling can be down on the deck, but the search goes along grid lines like flanged wheels on rails.

With inexhaustible patience, this electronic brain keeps a mile-by-mile record of plane speed in climb, cruise or descent, in turbulence or still air . . . notes every shift in course, measures and remembers each variance in wind. It gives an exact fix, at any instant of flight.

Its uses are many, in precision flight free of ground communication. Search and rescue is an obvious one. And morale is higher when airmen know that if they are downed in the far reaches of a strange ocean, rescue planes will look for them with a device that follows signposts in the sea.

This device emerged from the advanced research and development work of GPL; it is typical of the challenge it offers engineers, the facilities it adds to the nation's might.

Engineers: Write for employment information

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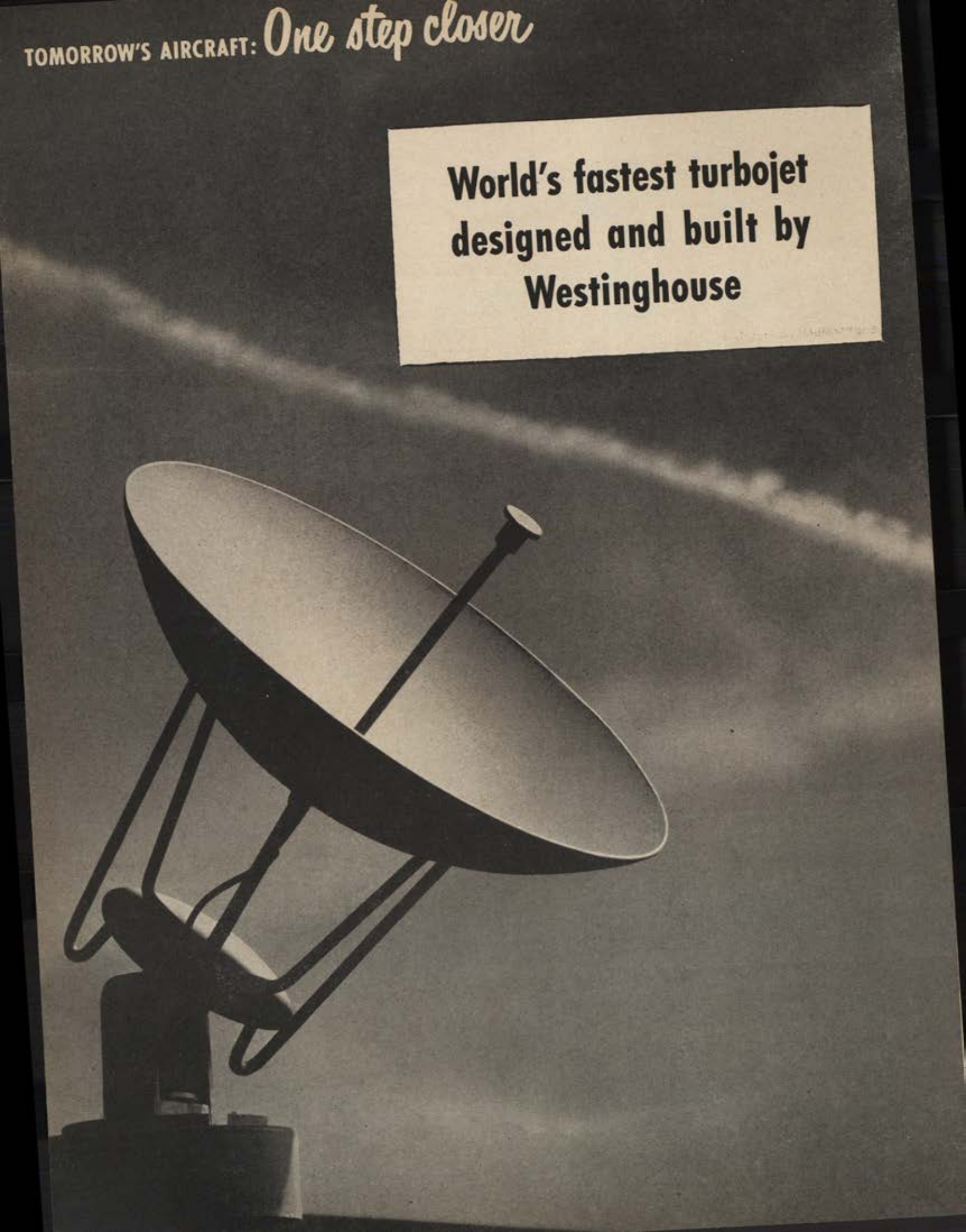

The time, place and vehicle remain classified—Westinghouse turbojet engines have flown faster than any turbojet engine in the world.

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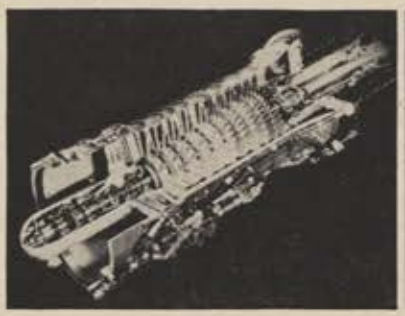

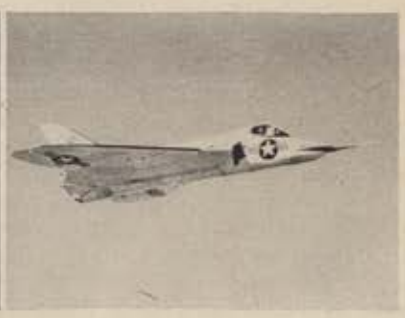

"FASTER THAN YOU THINK" is the title of a new movie about the Westinghouse family of turbojets. It presents features of Westinghouse engines which have set records for speed, endurance and availability. This includes scenes of the XF4D-1, world's record holder; and the J34 turbojet, having best specific fuel consumption in thrust and weight class. If you'd like to see the 17-minute film, check with your Westinghouse AGT representative.

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YOU CAN BE SURE... IF IT'S

Westinghouse

To Fly, Or Not

That was a question that perplexed the Air Force Academy planners. They once decided against flying, but here's what they came up with

By Lee Klein
ASSOCIATE EDITOR, AIR FORCE MAGAZINE

PICTURE an Annapolis without boats and water—or a West Point without guns and drill fields. A midshipman could still come away from such an Academy with a pretty good education, but he would be about as prepared for his first tour of duty on a tin-can as the new recruit from Sioux Falls.

And the shavetail fresh from West Point might be able to recite endless regulations and theoretical field problems, but imagine his bewilderment on his first maneuver in Louisiana.

Unthinkable? And yet, as late as 1949, the late Chief of Staff Gen. Hoyt S. Vandenberg approved a plan *not* to include flying training in the curriculum of the proposed new Air Force Academy.

It wasn't that General Vandenberg and his planners were not aware of the importance of flying training for the AF Academy. But facing a choice between giving a man a thorough education and skimping on the academics in order also to teach him to fly, they quite logically chose the former. On the other hand, many senior Air Force officers were appalled at any plan that did not include flying training. Those opposed to full-fledged pilot training said that it would place too great a strain on the cadet, as the wartime flight training program at West Point demonstrated.

Fortunately, the conflict was resolved in what appears to be a very satisfactory compromise. And navigation-observer training—but only the beginnings of pilot training—will be given under the Airmanship program when the Air Force Academy opens its doors at the temporary site at Lowry AFB, Colo., this July.

Airmanship is one of two main divisions under the direction of the Superintendent, Lt. Gen. Hubert R. Harmon. The second, under the Dean of Faculty, Brig. Gen. Don Z. Zimmerman, is the Academic Department. Its purpose is to provide the potential Air Force officer, through its Social Humanities Division, "with a knowledge of the world about him, an understanding of the people in that world, and a skill in dealing with those people." It will also, through its Scientific Division, "provide the future Air Force officer with a fundamental knowledge of the aeronautical sciences."

In other words, the Academic Department will be concerned with the phases of undergraduate study that lead to a baccalaureate degree.

Everything else—the specialized training needed to produce professional airmen—is the responsibility of the Commandant of Cadets. As spelled out in the Academy catalogue, "The purpose of the airmanship program is to train and condition the cadet for his destined role of leadership in the field of aviation. Toward this end, he will be trained to full qualification as a rated aerial navigator; he will be given indoctrination training in piloting aircraft; he will be instructed in the composition, administration, and control of military forces; he will be given thorough training in the art of leadership; and he will be developed physically to such condition as will permit him most successfully to employ the skills he acquires."

A big job, and it rests squarely on the shoulders of Col. Robert M. Stillman, the Academy's first Commandant of Cadets.

Robert Morris Stillman, a big, pleasant man with a quick smile, was born in Greenville, Ohio, forty-three years ago and went to school in Pueblo and Colorado Springs, Colo. A 1935 graduate of West Point, Stillman received his pilot wings in 1936. He says that his only claim to distinction during World War II was that he participated in the only two low-level, daylight B-25 bombing missions against the Germans. The first one took the enemy by surprise, but on the second one our crews were clobbered. Stillman was captured on that raid and spent two years as a prisoner of the Germans. He came to the Academy post last September.

I talked with Stillman in his temporary offices at Lowry one day recently. He told me that "the decision to give navigation training, instead of pilot training, was a logical solution to the flying versus no flying controversy." The cadets may get weekend jet rides, and during one of their summers they will go to a training field for two weeks of primary. A few may even solo during this period. But the main purpose of the indoctrination is to build up interest and give the cadets an appreciation of flying problems. In Stillman's words, "They should know how it feels to fly."

Stillman is enthusiastic about the Airmanship program—including flying training—as it is now set up. He points out that navigation training is basic to all flying skills and that it can be integrated into the academic program. The students will not have to fly as much for navigation training as they would for pilot training. They can fly only once a week and still make progress because they will learn many of their skills on the ground.

Whenever possible, flying training will mesh with the academic training. The mechanical drawing course at the Academy, for example, will be taught as aeronautical graphics, and the students will work with dead reckoning, vector problems, aerial projections, and maps and charts. And in physics, Boyle's law will be illustrated with aircraft instruments.

Although an important part of the Airmanship program, flying training is not Stillman's only responsibility. As Commandant of Cadets, he is responsible for everything that does not fall under General Zimmerman and his Academic Department. The three basic parts of his mission are military

To Fly?

General Harmon and the Commandant of Cadets, Col. Robert M. Stillman, discussing one of many details in the Superintendent's office at Lowry.

Col. Carl C. Barthel will direct the flying training at the Academy.

instruction, physical training, and flying training.

According to Stillman, a prime motive of the Airmanship program is to instill a keen competitive spirit in the future officers, because "a study of aces in Korea showed that the best ones were the most competitive in school."

In addition, the Airmanship program includes the cadet stores, housing and feeding, and the personal, social, and moral guidance of the cadet. It will do everything for the cadet from giving him the requisites of a tiger, to acting almost as a fraternity housemother.

With only a short time to get this formidable program into operation (the first 300 cadets will arrive at Lowry this July), you would expect the Academy offices to be a scene of frantic activity. But Stillman's unhurried, deliberate manner is reflected throughout the offices of the Airmanship Department. A visit leaves you with a definite impression that here is a group of competent men and women who know what they want to do—and are doing it with little sweat and fanfare.

I got a chance to see Stillman at work when we lunched at Lowry. On the way to the club, we stopped by at the section of Lowry where the cadets will eat and sleep. Stillman walked into one of the drab, World War II barracks that was being transformed into a trim new home for the cadets. He checked the fresh paint and newly constructed closets in one of the two-cadet rooms, pointing out that the beds were king-sized, to accommodate the tall boys.

Next stop was the cadet theater, with a look at the cadet chapel on the way. Stillman wanted to see how the theater's new blue walls would look. They looked fine.

At the huge, barn-like structure that will be the cadet club, Stillman inspected the newly sanded dance floor. Besides the dancing area, the club will include a ping-pong and pool room, a music room, a reading room, a soda fountain, a TV room, a reception room, and an area for juke box dancing. Stillman has conducted an unsuccessful search for a dignified juke box. It looks like he'll have to settle for a standard gaudy model and build a cabinet around it. Offices, including that of the woman who will act as a sort of counselor and housemother, will be on the second floor of the club.

Since the Lowry site is only temporary, the aim is merely to make facilities adequate and comfortable. But the club should be something special, Stillman thinks. That's where the public will get their first impression of the Academy, where the cadet will meet his guests, and where he will spend many of his off-duty hours.

The whole area at Lowry gives a striking before-and-after contrast. Many of the barracks are near completion—neat and trim in new paint. Others, in their shabby World War II state, patiently wait their turn at renovation. When everything is finished, complete with landscaping, the area will be a big addition to the permament setup at Lowry.

A look at the two old mess halls being transformed into cadet dining halls reminded Colonel Stillman that we were on our way to lunch. On the way to the club he explained that they had considered hiring civilian caterers, but decided not to—at least for the present. Service at meals will be family style—as at West Point—with ten men to a table and one waiter for three tables.

Directly under Stillman, and the man who would take over in the Commandant's absence, is Col. Benjamin B. Cassiday, Jr., Director of Military Training. A 1943 graduate of West Point and a native of Honolulu, Cassiday—who is only thirty-two—is re-

(Continued on page 51)

Head of the Department of Military Training, Col. Benjamin B. Cassiday, Jr.

Physical Training Director Maj. William C. McGlothlin, Jr. He was a West Point boxer.

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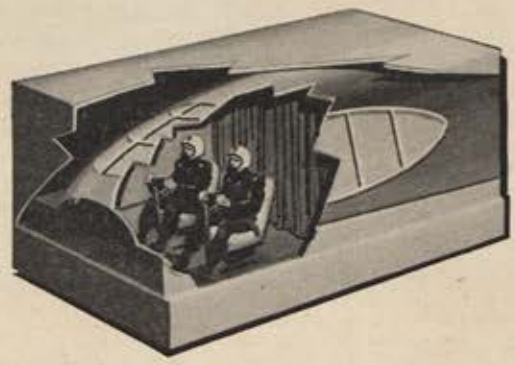

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sponsible for all the military training at the Academy. His department includes field training, guard duty, military ethics (the honor system), regulations, manuals, and inspections. Cassiday also has the unique responsibility of training the seventy junior Air Force officers who will act as training officers and take the place of upperclassmen for the first couple of cadet classes. Some of these have reported in, and the rest are scheduled to arrive by the first of May. All of them are single. All are rated pilots. They will live with the cadets.

Cassiday's job as head of the Department of Military Training is defined as "the development of character and the provision of a broad military education. This education will include the basic concepts of airpower and air tactics and will acquaint the cadet with the equipment and techniques of all the armed forces of the United States." This is a twenty-four-hour-a-day job, even though part of it will be given in the regular courses of study.

Summer field trips will play a big part in a cadet's military training. In his sophomore summer, the cadet will visit such Air Force headquarters as the Air Defense Command, Strategic Air Command, and Tactical Air Command. He will spend four or five days at each. Junior summer trips will include the Air Materiel Command, the Air Proving Ground Command at Eglin AFB, Fla., and the Air University at Maxwell AFB, Ala. At the Air University the cadet will get a short indoctrination in nuclear weapons. By the time a cadet is in his senior summer, according to Colonel Stillman, "he can be trusted on naval installations or at Fort Benning. During this summer we will probably even let him walk on a carrier or be dunked in a submarine."

The cadet's navigator-observer training will be administered by the Department of Flying Training under Col. Carl C. Barthel. A native of Green Spring Valley, near Baltimore, Md., Barthel received his BS in physics from the University of Maryland and came to his present position from James Connally AFB, Waco, Tex., where he was head of observer training.

Most of Barthel's time must be devoted to planning for the permanent Academy site at Colorado Springs. This means working closely with people at the Air Research and Development Command. Aviation is changing so rapidly that it is difficult to plan for facilities that will be needed several years from now. Some educated guesses have to be made. For example, asks Barthel, "How far apart do you space the fuel outlets along the flight line?"

The Department of Flying Training will be responsible for the navigation training and for the indoctrination and training flights given at the Academy. The student will get 171 hours in the air and will be a rated observer-navigator when he graduates. In his four years he will study all phases of flying, beginning in the first summer when he will learn about such basics as parachutes, oxygen, ditching procedures, and so on. He will be thoroughly trained in radar, loran, and polar navigation. Upon graduation, according to Barthel, he will be able to navigate anywhere in the world, but he may need some additional training, depending on the type of equipment he is assigned to. It should be pointed out that most of the cadets, upon graduation, will go on to the regular flight schools of the Air Force to qualify as rated pilots.

Right now, the department has two Convair T-29 navigation trainers and Barthel hopes to have thirty of them by the time the Academy reaches its full strength. Each T-29 can seat twelve students, but usually only about six cadets will go up on the five-hour navigation flights. The pilots will fly the T-29s as their primary duty and will be assigned to the Department of Flying Training.

Barthel says that an airfield will definitely be built at the permanent Academy site at Colorado Springs. At first the Academy was thinking of using the strip at nearby Peterson Field, but Colonel Barthel pointed out that it would be a tremendous waste of time to truck cadets back and forth.

A firm believer in using ground trainers, Barthel would eventually like to have an artificial planetarium for teaching constellations and star identification. Most of the equipment can be simulated, and by using simulators, the cadet will have procedures down cold by the time he goes up for an actual flight. His instructors will be experienced navigators and navigator-bombardiers and most will have combat experience.

The Director of Physical Training, Maj. William C. McGlothlin, Jr., looks the part. McGlothlin was captain of the boxing team at West Point, was once aide to Lt. Gen. Laurence S. Kuter, and was a hurricane hunter on Guam, where he flew B-29s. His office should not be confused with that of the Director of Intercollegiate Athletics, Lt. Col. Robert V. Whitlow. Whitlow is directly responsible to the Superintendent and is concerned primarily with intercollegiate competition, while McGlothlin's department is responsible for the physical training of every cadet during his four years at the Academy.

Major McGlothlin talks about his job with an infectious enthusiasm. A major aim of the department is to help build up a good intramural program in the AF. He hopes the training at the Academy will instill a liking for sports that cadets will carry with them when they go out into the Air Force. Physical education will include instructional courses and intramurals.

The sports program will be much like the setups at West Point and Annapolis except for less emphasis on swimming, and more on judo and unarmed combat. Skiing may be a part of the military training program.

The cadets will receive instruction in boxing, gymnastics, guerrilla exercises, wrestling, judo, basketball, badminton, golf, handball, squash, tennis, and volleyball. Cadets not on the varsity teams will have to participate in intramural competition in many of the sports named and also in football, track, soccer, and softball.

When the first batch of students arrive at Lowry on July 11, most of the details involved in getting them settled will have been handled beforehand. The cadets will even find khaki uniforms in their rooms to tide them over until they can be fitted for complete outfits.

General Harmon is studying several designs for an interim uniform. It will be standard Air Force issue with some sort of distinctive marking. But it is a good bet that the uniform eventually chosen will be a departure from the standard uniform—such as it is at West Point—rather than a variation of the existing uniform—as at Annapolis.

Indications that the youth of the country have faith in the program being shaped by Harmon, Zimmerman, Stillman and company at Lowry, came from the office of the Secretary of the Air Force recently. Secretary Harold E. Talbott announced that more than 6,000 nominations and military applications had been received for the 300 spots in the first class. In his opinion, "the historic first class of 300 cadets will be the result of intensive selection—the cream of a very large crop. Many years from now, the high quality of this first class will still be paying dividends in national defense."—END

exposition which examined the question from five different positions.

Topics for staff studies now come in from the field. Maj. Gen. Robert B. Landry, former Deputy Commander at Second Air Force, suggested that the NCOs investigate "Noticeable Disregard for Saluting Policies and Regulations." The zebras fell to and whittled out a comprehensive set of recommendations.

No one could accuse the Second Air Force NCO Academy of being collegiate, but its intramural athletic teams have a fair share of the "old college try." Teams compete tooth-and-nail and no varsity competition was ever more closely followed than the final week playoffs. Sergeant Barrett, the man with the broken leg, earned his cast in a softball game.

To graduate, a student must earn at least 700 points out of a possible 1,000. Points are assigned to subjects in varying weights. For example, Speech counts fifty points. To determine the point score, a percent average is reached by averaging out all test grades for a particular course. This figure is multiplied by the number of points and the product, split by a decimal point if necessary, is the point score.

Point auditing is serious business and figures are checked and rechecked with zealous attention to every fragment of a point. On his report card, which goes to the CO of his outfit, a man is graded in four ways—percent, class standing, points earned, and by a written evaluation over the signature of the Commandant of the Academy.

The written evaluation is a sore point with many students who feel that five and a half weeks is not time enough to bracket a man accurately. Moreover, they feel that at best, it can only be an opinion and cannot be pinned down like an exam grade. Yet the fact that it is a written statement lends an authenticity it doesn't really have.

More strenuous objections are raised to the evaluation each man must make out on the men in his own flight. "It stands to reason that I can't possibly know enough about a man who I never met before and see only occasionally, to grade him with any fairness," is the way one man explained his feelings to me. He was on the point of going to Major Sampson to ask to be relieved of the task. I never met anyone who liked the system.

Who is this man they are trying to evaluate? What does a typical SAC master sergeant look like? If 55-A is

(Continued on page 55)

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any yardstick, he is thirty-six years old, married and has 1.5 children. He has 11.8 years of schooling and has about 13.8 years of service. Fifty-four men of the fifty-nine in 55-A have fathered a total of ninety-six children—fifty boys and forty-six girls. The youngest man in the class is twenty-five and the oldest is exactly twice that age. All together, they have 788 years of service in all branches of the Armed Forces. Many of them were commissioned officers in World War II.

During the final week of school everything goes to the firewall and study lamps burn at all hours. Except for an occasional early movie there is no night life beyond the books—the 2300 bedcheck is almost unnecessary because the pressure to "max" a test far outweighs the temptations of the fleshpots.

During this last week students meet, by class, with Major Sampson to critique the course. This is a give-and-take session and frankness is common currency. What could be added, what could be dropped from the curriculum, teaching suggestions, grievances, brickbats and bouquets, are handed out with complete impartiality.

This is not a "bitch" session—its purpose is to improve the school and the critiques have done a lot of good. This is probably due, in large part, to the fact that the sergeants have confidence in Major Sampson—they feel that he is on the level.

A formal graduation ceremony winds up the school cycle but not before a very congenial blow-out the night before in the student mess. Since this affair is formal, liberally sprinkled with assorted big shots, black bow ties are compulsory. Even the bow ties are becoming something of a tradition since they are handed down from class to class. At this affair student awards and honors are presented.

Should the NCO Academy idea become a permanent part of the Air Force scene? To the question, "Do you think an NCO Academy on a national scale would be feasible? For example, a US Air Force NCO Academy (with greatly expanded faculty, facilities and student body)," there were forty-five affirmative answers ranging from "Yes" to "Hell, yes!" Plainly, the NCOs are sold on the Academy and would like to see the program greatly expanded.

The non-commissioned officers of the Air Force want to be professional—does the Air Force want professional non-commissioned officers?—END

Veterans of World War II duty in England will remember Piccadilly Circus, headquarters of the far-famed "commandos."

They won't remember it this way, though. Blazing signs rivalling Times Square have long since replaced the wartime inky blackout. But it's still a busy spot for the AP's of the 7500th Sqdn.

Air Police work closely with London's friendly bobbies. Here a foot patrol sets out from AP headquarters near Grosvenor Sq.

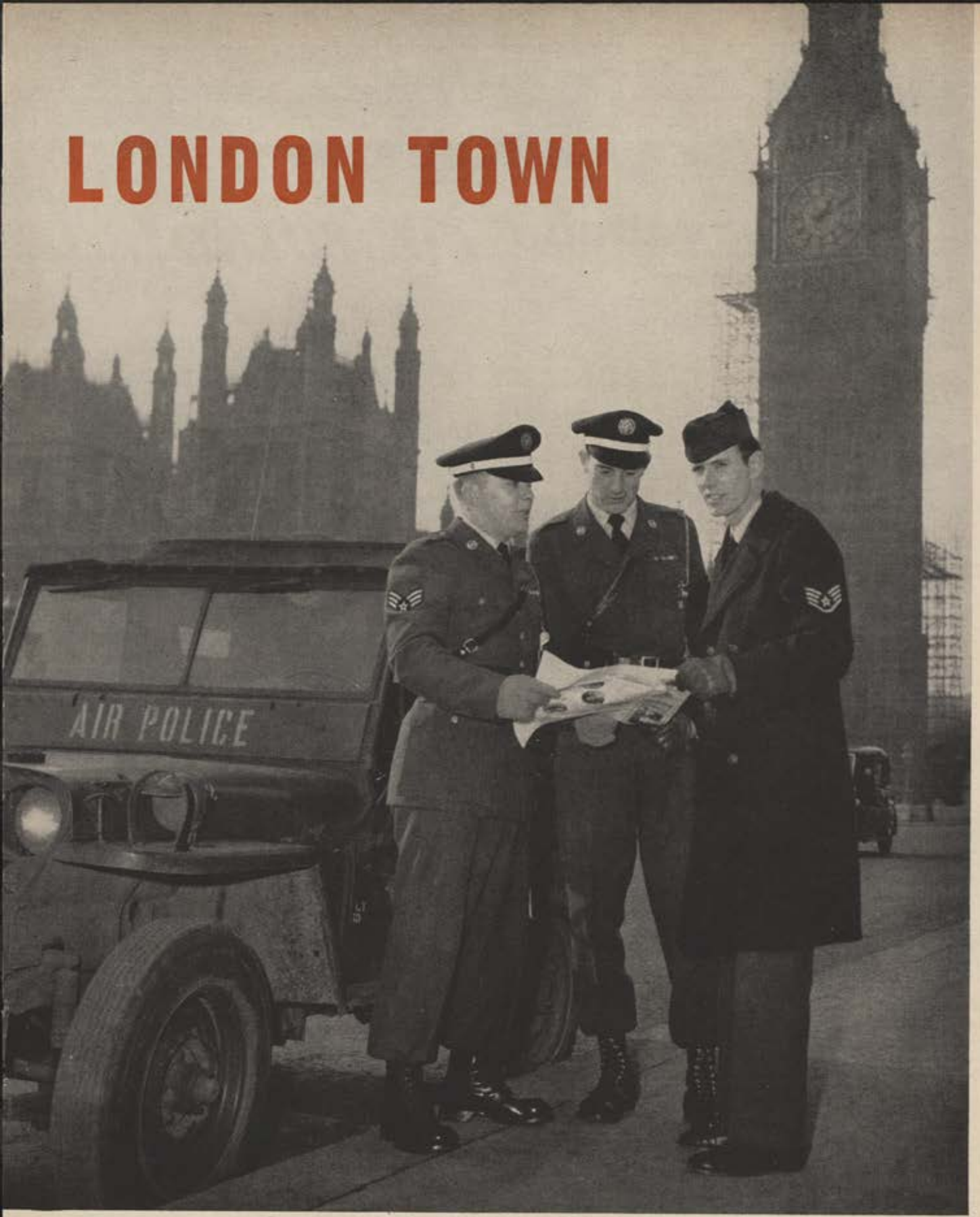
POLICING

That's the job of the Third AF's 6500th Air Police Squadron—and it's pretty good duty

A POLICEMAN'S lot is not a happy one." So goes the old song. But it ain't necessarily so, to quote another songwriter. Not if you're a member of the 7500th Air Police Squadron and your beat is metropolitan London. It's good duty, they say, and to APs of the Third Air Force, it's the big leagues. The squadron's five jeeps keep busy, log an average of 500 miles each day out of headquarters in Douglas House, the American servicemen's center just off Grosvenor Square. Duties are much the same as for Air Police everywhere. It's the surroundings that make the difference.—END

Two-way radio keeps five jeeps in constant touch with each other and with headquarters. Area covered stretches to Brighton, sixty miles away.

LONDON TOWN



One big job is helping Yanks find their way about sprawling London. Here's an assist on Westminster Bridge; Parliament and Big Ben in the background.

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More Legislation; Fewer Mumbles

Mumbles was a sad young man whose name fitted like the cowling on an engine.

Although Mumbles was the best mechanic at the garage where he worked, his boss would have settled for a more mediocre talent. Mumbles's constant mumbling wore the nerves of his co-workers razor-thin and as a result the turnover at Matson's Garage was higher than at the dirt track raceway on a Saturday in July.

Mumbles griped about the tools, the position of the oil gauge on the 1939 Ford, the heat, the cold, the time of day, the pay, the food at the diner across the road, the results of the previous night's Giant game, the coke machine, the dog that hung around the place, and various other real and imagined conditions.

But Matson's personnel problems were over one day in 1941 when his star mechanic signed up for the Air Corps. Naturally, Mumbles was shipped to Texas where he never had to grope for something to gripe about.

It was also in Texas that Mumbles ran into stiff competition. Alongside a certain drill sergeant in his squadron Mumbles' complaints sounded as pleasant as an infant's cooing. Sergeant Bones was a true professional in every sense of the word. He griped loud, clear and continuously.

Mumbles learned a lot from Bones. And after Bones made first sergeant and picked up a cadre Mumbles wasted no time in showing off his new technique.

It took just three weeks for his griping to empty barrack T-110. Of the forty men in the barracks, thirty-eight volunteered for overseas (three for the Ascension Islands). The other soldier was madly in love with a redhead who worked at the PX.

Throughout World War II Mumbles served as a crew chief on heavy bombers. He was as good an airplane mechanic as he was a griper. But it was during the post-war period, when the AF budget was smaller than a gleam in a parakeet's eye, that he and his griping reached full flower. Everything was being in-activated or de-emphasized. Barracks were falling apart, recreation facilities were Spartan, and the local civilians could not understand why anyone wanted to stay in uniform. So his gripes fell on sympathetic ears.

Then came Korea and the 137-wing Air Force. About that time Mumbles ran across his former mentor at a West Coast air base.

At the BX one afternoon, when the Aircraft-Out-of-Commission-for-Parts rate was well in hand, he was relaxing on his fourth beer, dreamily preparing an exposition on the poultry-like tactics of the new engineering officer, when Sergeant Bones sat down at his table.

"Whattaya say, Mumbles?"

"Where you been these past ten years, Bones? See you made master. You stationed here? Crummy place, isn't it?"

"Easy, boy. Let me get a sip of this foam before I handle your questions."

"Did you ever see such a hole in the desert since Sheppard Field? And the girls . . . the females in this state could wear veils like the Arabs and it would be an improvement. I met one. . . ."

"Mumbles, I see you learned the English language since you joined this man's Air Force."

The conversation and the beer continued to flow. Mumbles soon realized that he was talking to a changed man. Bones seemed more sedate, even-tempered, optimistic. Not one complaint from this strange, this reasonable version of Sergeant Bones.

Mumbles decided to attack the problem.

"Bones, are you feeling OK?"

"Feel great."

"You been this way long?"

"What way?"

"Look, Bones, don't kid me. I knew you before you got all those rockers. The way you usta gripe would stop a two-star SAC general. How come this sweetness and jellybean outlook?"

"You mean why don't I gripe all the time? It's simple. I grew up."

"You were over thirty when I first saw you. What kind of talk is that?"

"Mumbles, I grew up mentally. It took a long time—but I'm not a knocker any more. I used to grumble for the exercise. But I did so much of it that when I had a justified complaint no one would listen."

"What happened to change your personality?"

"It's these questionaires and surveys. They're shooting the gripes right out from under you. You gripe one day and what happens? The thing you been yakkin' about—if it's at all reasonable and you can document it—disappears. Not me, I'm keeping my mouth shut."

Mumbles gulped his beer.

"You must be getting old."

"I don't care what you call it. All I know is years ago a guy could gripe about the same thing for a whole hitch. Now you gotta look for trouble. That's not for me. I like to know what I'm talking about."

A few weeks later they met again.

"Bones, a funny thing happened. I just picked up a rumor that the Air Force was considering a new tropical service uniform."

"So? What's funny about that?" Bones asked.

"I've been saying we needed short sleeves and short pants for bases in Puerto Rico and Guam and now some smart joker in the Pentagon is gonna buy it," said Mumbles.

"If I had a pair of knobby knees like yours I'd keep quiet."

"That isn't all," went on Mumbles. "A couple of sergeants came down from the Pentagon last week. They said they were on a tour of bases to find out what was wrong with the Air Force and what could be done to improve things."

"Did you tell them?"

"Once I got over the shock I gave them a few ideas."

"What did you say?"

"More dough, more per diem on TDY. I thought the fellows on active duty ought to have the same benefits as the guys who left . . . and then I told them . . ."

Bones interrupted.

"That did it. You're gonna be known as Silent Sam after a while."

"Ah, nothing will come of it. They'll write a memo and let the dust gather on it in the Pentagon basement," Mumbles said.

"Man, some day you're gonna have a real shock. They're cleaning house like mad. This isn't the ordinary personnel paper shuffle either. They brought in some real combat types and told them to find out what's wrong and how to fix it. What they can't do themselves they bale up and send to Congress."

"I heard that line before . . . at the end of World War II."

"OK, Mumbles. Keep griping and pretty soon you'll be out of material, unless you do what I did," Bones advised.

"What's that?"

"Get married."

A MIT graduate with access to Univac could probably figure out exactly how many young men left the service in the past two years because of Mumbles and Bones and men like them. As a ball-park

(Continued on page 63)

Up front in the Turbo-Prop Race

Allison Model 501 for commercial use develops more power for its size and weight than any other Turbo-Prop engine built today

Pay-off on ten years of Turbo-Prop pioneering is the Allison Model 501 engine, commercial version of the T56 which recently completed the most exacting model test ever required of a propeller-type engine.

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estimate, there would probably be enough men to man two medium bomb wings and represent a loss of around $50 million.

Their line of chatter was harmless in pre-Pearl Harbor days when griping was not in itself malicious or harmful. Under the comparatively strict discipline of the old way of military life it was a form of release. However, today's impressionable young men, nudged into the AF by the threat of the draft, are influenced by the old hands. Whether a decent proportion of the youngsters remain in the service, or succumb to the inducements of an industry hungry for service-trained personnel, has become a critical issue.

In the months that followed Mumbles' gripes lost some of the old confidence and certainty. He was "shook" when the Congress passed legislation authorizing an increased bonus for reenlistment. He was aware that he was out of step when the bill was passed giving servicemen the same opportunity to secure federal housing as is afforded veterans. It also was apparent to Mumbles that the Secretary's talk about increased pay and dislocation allowance for permanent change of station was not just lip service.

But it was a chance meeting with Walker, an electronics specialist who used to work for Mumbles, that really pointed up the harm of his griping.

Walker, a twenty-four-year-old wizard with the black boxes, was now working for an aviation manufacturer. He confessed that he was sorry he had left the Air Force, even for more money.

"But you kept saying the set-up was bad and getting worse," Walker said. "I didn't agree with you but I was afraid of wasting ten years finding out whether you were right."

That statement made a lasting impression on Mumbles. While he was talking to Walker there were two sleek B-47s on the line, unable to do their job because of a few faulty black boxes. If Walker was still in the outfit, Mumbles thought, those planes would be flying.

Mumbles realized he was as far behind the times as a straight-wing fighter configuration. And that is when he did something about it.

He took Bones's advice and got married.

His wife will undoubtedly have a rough time at first. That is, until she wises up and does a little legislating, too.

Major, USAF
Arlington, Va.

Let's Face It

The Pilot Training Wings (SE) Reserve have the mission of preparing for the training of aviation cadets in time of national emergency. They devote one weekend each month and fifteen days' active duty each year toward achieving this goal. However, there is only one drawback—there are no actual students to train!

Under the expanded Reserve program, "weekend aviation cadets" should be screened for educational and physical fitness and given the opportunity of enlisting for aviation cadet training on a Reserve basis with these Pilot Training Wings.

This innovation would cancel the difficult decision of leaving home, school, or business, and taking the the chance of possible failure as a regular Aviation Cadet. At the same time, it would also cut the tremendous cost of trial and error necessary to train a pilot.

It is my firm conviction that if "Student Aviation Cadet Squadrons" were formed and made a part of the Reserve Pilot Training Wings, they would be instantly filled with potential pilots.

Think of the recruiting value alone with such a project! The big problem today is arousing interest first, and developing it into a desire to continue.

In addition to the potential advantages of this scheme, we must not forget the extra valuable experience that the permanent personnel of the wing would derive from the handling of actual students. All wings operate on the directives as handed down by FLYTAF so, in turn, these students would receive the standardized training as prescribed by the regular establishment.

Considering all the possibilities, there is only one way such a program could go . . . UP! Evaluate these facts:

1. Full utilization of the existing facilities of the Reserve Pilot Training Wing.
2. Stimulated interest in flight training without the risk of severing personal ties.
3. Tremendous savings in training costs of unpredictable "washouts."
4. Renewed interest on the part of present wing personnel to accomplish its mission.
5. Recruiting service without additional expenditure.

The screening of "Reserve Aviation Cadets" could be accomplished by ConAC and student squadrons formed prior to their assignment to the respective Pilot Training Wings. The commander of the wing would then be responsible for the basic indoctrination of the student and preparation of the flight curricula based on proper directives. The end accomplishment would be to give the student an interest in flying and the desire to accept an appointment as an aviation cadet with the Air Force—not to graduate pilots!

Think of it! Would we have more applications forthcoming for flight training if the applicant could find out first if flying agreed with him? Would our quotas be filled if the applicants didn't have to "put it on the line" first? Would the Air Force benefit from this "primary elimination" school at no extra cost?

Weigh these statements carefully! Home affiliation and family influence can keep these young men away from the Air Force in droves, but just "let them have their cake and eat it too" and both parties—our potential pilots *and* the Air Force—will benefit greatly and lose nothing.

Capt. Leonard F. X. Pickel
Brooklyn, N. Y.

The READY ROOM

RESERVE AND AIR GUARD NEWS

The **Air National Guard** will **redesignate** twenty-three fighter-bomber wings as **fighter-interceptor** on July 1 but no one yet knows what effect, if any, the redesignation will have on the present ANG organization structure.

There has been considerable talk in recent months that Air Force wants these **twenty-three wings reorganized** along the lines of the air defense group. This is the basic structure of **Air Defense Command**, to which Guard interceptor units would be assigned upon mobilization.

If such reorganization takes place, the Guard's **wings will be eliminated** and in their place seventy air defense groups will be created. This would result in the **loss of** between twenty and thirty **field grade officers** in each of the present interceptor wings. The **big states**, where wing headquarters are located for the most part, **would be hit hardest.** These include California—which has two wings—New York, Texas, Pennsylvania, Illinois, and Michigan.

At the same time, however, the individual squadrons would be beefed up to an air defense group. As a result, **smaller states**, which now support a single squadron, would stand to **pick up a number of field grade slots** now denied to them.

Mrs. H. H. Arnold greets a group of AF-ROTC Cadets from Wichita, Kan., on their arrival for a visit to Hamilton AFB, Calif. With her is Cadet Col. Dave E. Bowersock.

While many of the smaller states would welcome the prospect of additional rank, the **National Guard Bureau** is not certain they would be able to recruit the **additional airmen required** to support the air defense group.

In the absence of official word from USAF, the National Guard Bureau will **sit tight** with the present Tables of Organization and the present wing-base structure.

• • •

The **Reserve Officers Personnel Act**—ROPA, by its short name—is scheduled to become effective **July 1.** Already, the ANG, restricted in its ability to promote by rigid T/Os, is **pondering the effect** of the legislation on its fighter units.

The legislation was one of the principal items considered at a two-day meeting of **Adjutants General** and **Air Chiefs of Staff in Washington** last month. Despite the **Department of Defense** announcement that the law would be given a chance to operate before amendments would be offered, it is apparent that the Air Guard people will **ask for a major change.**

The desired change **would exclude** from provisions of the law any officer who has been **commissioned or promoted since 1952.** A complicated technicality, this would have the effect of saving a number of pilots who otherwise will be **forced out next year.**

• • •

Brig. Gen. Robert E. Condon, Deputy Commander for Reserve Affairs of Continental Air Command, **has retired** and his successor in this key Reserve assignment is **Brig. Gen. Felix L. Vidal** of Grosse Point, Mich.

Brig. Gen. Robert E. Condon, who has retired.

Brig. Gen. Felix L. Vidal, now at ConAC.

General Condon's military career spanned thirty-eight years and three wars. He **enlisted** in the Army **in 1917** and was **commissioned** from the ranks **in 1918.** In **World War II** he served as a combat intelligence officer in the **Middle East and Mediterranean Theaters.** He was separated in 1946 and recalled for the **Korean war** in 1951. General Condon became Deputy Commander for Reserve Affairs of ConAC in 1952.

The retired general is one of the **founders of the American Legion** and has been one of the most active and widely known Reservists in the nation since World War I.

General Vidal, the new appointee, is a 1933 West Point graduate who has commanded **Detroit's 439th Reserve Fighter-Bomber Wing** since April 1952.

A command pilot, General Vidal served in the **Mediterranean Theater** in World War II. He resigned his Regular commission in 1946 and a year later was commissioned in the Reserve. He became **Michigan's first Reserve general** in the Air Force when he was promoted last year.

One of the most active members of the **Air Force Association,** General Vidal helped form the **Gen. Hoyt S. Vandenberg Squadron** of AFA in Detroit. General Vidal served as director of labor relations for **Hudson Motor Car Co.** until recalled last month to succeed General Condon.

• • •

Legislation to authorize **flying training for Air ROTC cadets,** desired by the Air Force and strongly supported by AFA, has **cleared the Pentagon** and gone to the Capitol.

The legislation is designed to give eligible cadets approximately **thirty-five hours** of flying time in **light aircraft** under supervision of civilian contract operators sometime during their college careers. The program, essentially, is the same as that which was so successful in World War II.

Estimates are that the training will cost about **$12.50 per hour** and that the first-year price tag for the program will be $1,850,000.

• • •

Brig. Gen. Royal S. Hatch of Alabama has been recalled to active duty to serve as **Deputy Commander for ANG Affairs** of Continental Air Command. He succeeds **Maj. Gen. George G. Finch,** who has become commander of the Fourteenth Air Force.

Between 1950 and 1953, General Hatch **served in the Pentagon** in the office of the Deputy Chief of Staff for Operations. He won his wings in 1941 and spent most of his World War II service in Training Command positions. He was graduated from the **Air Command and Staff School** in 1949.

• • •

A two-year project to assemble a graphic **history of the Air Guard** has culminated in a major **heraldic display,** open to

(Continued on page 67)

V. I. P.

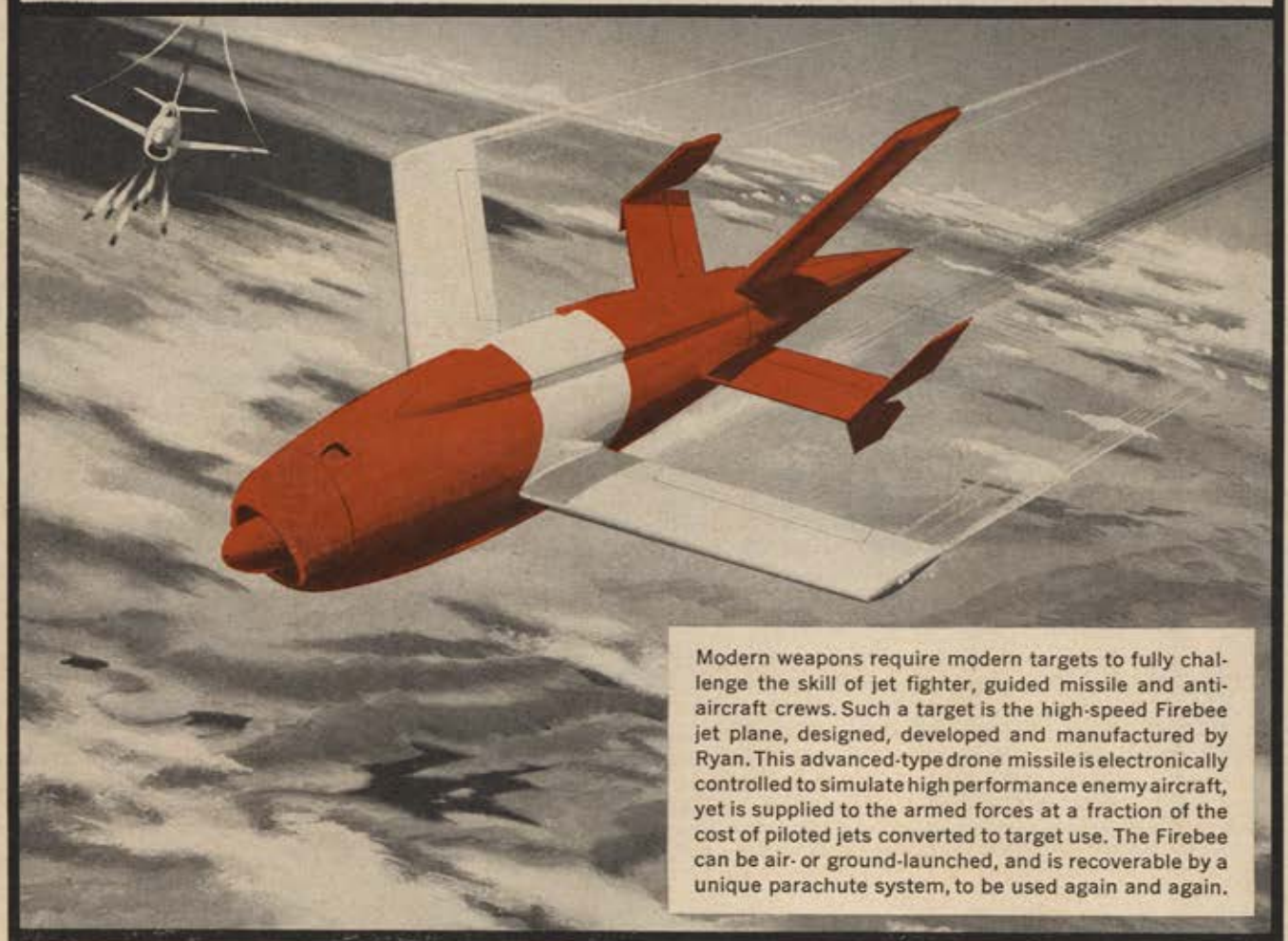
VERY IMPORTANT PILOT

In him are combined the training, the scientific knowledge, the personal qualities that fit him to be master of a screaming fury that is faster than sound, faster than human senses. As he flies, electronic "crewmen" wait on him every mile and every moment. They peer through the dark, give him voice contact with far-away places, pinpoint his targets, fire his guns, tell him where he is . . . extend the power of arm and brain a thousand times. To speed his mission, bring him back surer and sooner, to enlarge his opportunities—RCA has assembled many of the world's foremost engineers and scientists. Their job is to study the pilot's needs, hear his viewpoint and search everlastingly for new and better electronic aids for him. And what they do for the pilot, they do for others in the armed forces—on land, at sea and in the air.

RCA

GOVERNMENT DEPARTMENT
RADIO CORPORATION of AMERICA
ENGINEERING PRODUCTS DIVISION CAMDEN, N.J.

FIREBEE...TARGET FOR TODAY



Modern weapons require modern targets to fully challenge the skill of jet fighter, guided missile and anti-aircraft crews. Such a target is the high-speed Firebee jet plane, designed, developed and manufactured by Ryan. This advanced-type drone missile is electronically controlled to simulate high performance enemy aircraft, yet is supplied to the armed forces at a fraction of the cost of piloted jets converted to target use. The Firebee can be air- or ground-launched, and is recoverable by a unique parachute system, to be used again and again.

Another Example of How

RYAN BUILDS BETTER

Already a seven league stride ahead of other target planes and towed targets, the Firebee drone missile has a large growth factor for future development. Its development demanded special ingenuity and the most advanced scientific knowledge. This achievement is just one of a long list of solid contributions in the company's 32 years of consistent growth in building the planes and aeronautical products which have helped develop America's air power.

Specialized, yet versatile, Ryan is uniquely equipped for today's difficult research, engineering and production tasks. It excels in the ability to create and produce complex, high quality products at low cost—and deliver them on time.

Engineers looking for a challenging future will find outstanding opportunities at Ryan.

AIRCRAFT & COMPONENTS	AIRBORNE ELECTRONICS EQUIPMENT	RYAN AERONAUTICAL COMPANY SAN DIEGO 12, CALIFORNIA	AFTERBURNERS & JET COMPONENTS	PILOTLESS JET AIRCRAFT
METALLURGICAL ENGINEERING	WEAPONS SYSTEMS		ROCKET MOTORS & RAM JETS	AIRCRAFT EXHAUST & DUCTING SYSTEMS

the public in the concourse of the Pentagon early in April.

The display ranges from World War I photos of such legendary ANG figures as **Maj. Reynal C. Bolling** to the complete insignia of current wings and individual squadrons.

• • •

Maj. Gen. Robert B. Landry, Air Force aide to **President Truman** throughout the latter's term of office, has taken over command of **ConAC's Fourth Air Force** at Hamilton AFB, Calif.

A native of **New Orleans,** General Landry was graduated from West Point in 1932. During World War II he was successively chief of combat operations for the **Eighth Air Force,** commander of the **56th Fighter Group,** executive officer of the **93d Combat Wing,** and commander of the **493d Bomb Group.**

Since leaving the White House, General Landry has served with **Strategic Air Command.** Until his appointment to head the Fourth Air Force, he had been Deputy Commander of SAC's **Second Air Force** at Barksdale AFB, La.

Maj. Gen. Robert B. Landry, the new Commander of the Fourth Air Force.

• • •

Indiana's second **Air Reserve Center** has opened in South Bend, the thirteenth of its kind established in the area under jurisdiction of **Tenth Air Force. Maj. James W. Seay,** for the last three years assistant professor of Air Science at **Detroit University,** has been assigned as acting commandant.

Tenth Air Force also has appointed **Col. Lawrence E. Cole** of Yuma, Ariz., as commandant of the **Denver Air Reserve Center.** For the last year Colonel Cole served in Korea as Deputy Chief of Staff for Personnel of the **Fifth Air Force.**

• • •

ConAC has announced the **promotion** of 2,686 Reserve officers not on active duty. The first list contained the names of **1,908** officers promoted **to captain.** The second list up-graded **548** captains **to major.** The final roster advanced **230** to the rank of **lieutenant colonel.**

First Air Force elevated 483 to captain, 153 to major, and seventy-three to light colonel. **Fourth Air Force** advanced 466 to captain, 131 to major, and forty-six to lieutenant colonel. **Tenth Air Force** promoted 449 to captain, 105 to major, and fifty-three to lieutenant colonel. **Fourteenth Air Force** upped 510 to captain, 159 to major, and fifty-eight to light colonel.

• • •

Notes on the back of a **Form 175** . . . Pending amendment to **AFR 35-71,** NGB asks that **Forms 190** received by the States for former AF Reservists now in the ANG be retained and continued in use . . . **New airmen tests** for three cryptographic specialties have been developed and will be supplied by ConAC, instead of by USAF Security Service . . . **No security classification** is required for ANG quarterly ammunition reports. Units have been asked to downgrade classified file copies . . . NGB is requesting units in the ADV augmentation plan to submit their reports not later than the **tenth of each month** . . . Four technician **security guards** have been **authorized** for each AC&W squadron or flight which has classified equipment. The authority, however, does not extend to units located on ANG bases where security guards already function . . . The present **Warrant Officer Test** to determine whether an airman is qualified for appointment is being discontinued. Any "seven" level proficiency test within the career field ladder for which warrant officer vacancy exists may be administered.—END

UMT and THE HYDROGEN AGE

Beginning below is the statement of James H. Straubel, Executive Director of the Air Force Association and Editor and Publishing Director of this magazine, before the House Armed Services Committee of the US Congress, on March 3, 1955. Mr. Straubel's statement concerns H.R. 2967, the National Reserve Plan.

H. R. 2967 bears the official legend that it is "a bill to provide for strengthening of the Reserve forces and for other purposes."

The Air Force Association is in complete agreement with these objectives, and we are delighted with the exhaustive analysis being given the National Reserve Plan by your Committee.

The need for qualified participating enlisted men is the major Reserve problem at the moment. They continue to stay away from the Reserve *in droves*. Now, failing to have lured them into the program in one way or another, we are considering legislation to compel them to serve. H.R. 2967 is being strongly promoted. Let us be sure it lives up to its billings.

To begin with, you have heard it argued, in testimony before this Committee, that by strengthening our Reserve forces it should be possible "to more safely reduce the size of our Regular establishment without jeopardizing our country's security."

We worry about such statements. The Air Force Association believes wholeheartedly in strengthening our Reserve components and has consistently been on record in this regard, year after year. At the same time, we have tried to face up to the perils to our security in this Hydrogen Age. The revolution in weapons makes the active-duty establishment the first and only real hope of deterring all-out aggression or blunting it and striking back effectively should it come. Some Reservists, specifically those of the Air National Guard, fit solidly into the air defense network of the active Air Force. They are on the front line—at the end of the runway. These Air Guard Squadrons are exceptions to the rule.

This may be the time to state that, while this bill purports to greatly strengthen the Reserve Forces, it makes no provision for the equipment adequate to the task. Nor, to my knowledge, does any legislation now before the Congress. Adequate equipment is essential to an improved Reserve forces program. There is no assurance that this equipment is forthcoming.

And let not the Reservist be misled by talk of so-called "hurricane forces." With our present intelligence system, our Reserve cannot be expected to cope with surprise atomic attack. It has its place—and a vital place—in the event of all-out attack—but as a second line force, with the exceptions noted.

We hope that the National Reserve Plan will not be used as an argument for reducing the size of the Regular Air Force establishment. That would be foolhardy indeed.

Next, let us consider peripheral wars. The legislation now before the Committee had its genesis, to some degree, in the Korean war, which drained the Air Force Reserve and Air National Guard of its units to beef up an inadequate Regular establishment. Even worse, it dragged back to duty with the Air Force more than 100,000 involuntary recallees, who were Reservists in name only, and who had assumed they would not put on the uniform again in any circumstance short of all-out mobilization.

We complained bitterly at the time about the inequities involved in giving the World War II veteran another war to cope with while millions of young men with no active-duty experience sat by and escaped the blow. We know how deeply this distinguished Committee has felt about that wretched situation.

We hope the Reservists will not be led to believe that with the National Reserve Plan equity would prevail, and —come another Korea—he might not be called upon to go. It has been implied that UMT, or some version of it, would do that trick. But let us look at the facts of life. Let us assume that a UMT plan is well underway, and that the enemy engages us in another Korean-type adventure, and that sentiment prevails for a "limited war"—limited this time in geographical area or by a prohibition on the use of atomic weapons. The enemy could be expected to stir up simultaneously either real or diversionary activity in areas where our tactical air units are now deployed—the Far East and Western Europe. That would keep these units, for the most part, pinned down to those areas and in constant readiness. Our Strategic Air Command and Air Defense Command would necessarily be pinned down in this country. Our Tactical Air Command, which must bear the brunt of the air battle, could hardly be expected to go it alone. Some Air National Guard units would be called up, and again the Air Force would have to dig into the Reserve pool. And again the critical occupational specialties would rule the day. The military requirement would call for trained and experienced specialists in air warfare. Yes, and again the veterans—now of two wars—would get the call while young inexperienced men—although now in the service as a result of UMT—would stay at home by the numbers. That is not a nice prospect. Nor is the situation as presented an unrealistic one. But the facts cannot be ignored by wishful thinking.

It is true, of course, that our present system, lacking a National Reserve Plan, gives no *more* assurance that the air war veteran would be spared further combat under the circumstances projected. At least, no one has said it would. Let us not lead the Reservist into thinking that this so-called equity plan would do so.

The question of equity is a huge one and can be easily over-simplified. Certainly, there is an *equity of obligation* to help defend this nation on the part of every citizen, but it need not follow that this means *equity of service*. The first is inherent in our way of life. The second—equity of service—should be dependent upon the military requirement. If, for example, it is possible to deter aggression and defend the nation without running every qualified male citizen through the military mill, it would be inefficient and wasteful to do so.

H.R. 2967 is premised, according to its spokesmen, on compulsory military service for every able-bodied male

(Continued on page 70)

The Air Force Association's concern that the Air National Guard and Air Force Reserve are not properly equipped for their assigned missions was voiced by James H. Straubel, AFA's Executive Director, in his appearance last month before a subcommittee of the House Armed Services Committee in connection with the National Reserve Plan legislation.

The Association's position with reference to Guard and Reserve equipment was developed during an interruption of Mr. Straubel's prepared statement (opposite page). Representatives Overton Brooks of Louisiana, chairman of the subcommittee; LeRoy Johnson of California; James Van Zandt of Pennsylvania; and James P. Devereux of Maryland were the questioners.

Since this position does not appear in detail in Mr. Straubel's prepared testimony, AIR FORCE Magazine *presents this transcript of the interlude:*

. . . **Mr. Straubel.** Our organization is particularly concerned that now, for the first time, a Reserve component, namely, the Air National Guard, has a front-line mission. There are seventeen Air National Guard Squadrons that are now "on alert" throughout

Reserve Forces' Dilemma . . .

A Front-Line Mission, 'Hand-me-down' Equipment

America. They are on the front lines for an air war. They do not have the same equipment as the Regular forces, which have the same mission. There may be one exception: that the Regular forces are providing an all-weather, around-the-clock alert. But the equipment that the Reserve components obtain is still hand-me-down equipment that comes from the Regular establishment.

Mr. Brooks. You urge that they be given the same equipment as the Regular establishment for their mission?

Mr. Straubel. We have never urged it, sir, until the front-line mission came around, which is quite recent. But we feel if the Reserve component is given a mission comparable to the mission of the Regular establishment, it therefore deserves comparable equipment.

Mr. Johnson. It seemed to me we heard some testimony the other day that it was on the way and a probability of an early delivery of the kind of equipment you want and the kind of equipment they should have to carry out their mission. I agree with you one hundred percent, that if you give a group a mission, you have to give them the best possible weapons to handle the mission. That is essentially true in the air.

Now, is it your information that this is being dragged along and delayed and put aside?

Mr. Straubel. I believe there was testimony to this effect, but to my knowledge, at least, and I have tried to check it as carefully as I could, there is no provision at the moment in Air Force procurement for the Reserve components to get the equipment right off the line. They will get equipment that has passed through the Regular establishment.

In other words, if we start off with an "A" model of an aircraft, that will go to the Regulars first, and it will pass on through and when you get your "B" and "C" models the Regulars would get them and the Guard would get the "A" models. These days there can be quite a bit of difference between types and models, as you well know. So all the equipment that is in the Guard today is hand-me-down equipment rather than equipment that is of the latest variety.

Mr. Johnson. They are getting what the Regulars have on hand.

Mr. Straubel. That is right, sir.

Mr. Johnson. When the replacement comes?

Mr. Straubel. That is right, when the replacement comes.

Mr. Van Zandt. Mr. Chairman.

Mr. Brooks. Mr. Van Zandt.

Mr. Van Zandt. Is it not true that some of the Air National Guard has jet aircraft?

Mr. Straubel. That is right.

Mr. Van Zandt. Is it modern?

Mr. Straubel. It is modern, but there are so many models of jet aircraft that it is not what you call first-line equipment. Jets can be obsolete, as you well know. They have been in production for sometime.

Mr. Van Zandt. How about your Air Reserve units?

Mr. Straubel. Your Air Reserve units, sir, are in the same position. They are primarily tactical and primarily cargo. Now they are still flying—

Mr. Van Zandt. You say cargo?

Mr. Straubel. Yes, transport. That is one of their major missions. They are in even worse shape, relatively, inasmuch as the cargo aircraft they are flying are World War II models, many of them C-46s, they must be considered obsolescent or obsolete in this day and age. . . .

Mr. Devereux. In case of limited supply, would you not agree that the Regular forces should have priority on equipment?

Mr. Straubel. Absolutely, sir. We feel that the Regular forces should always have priority, inasmuch as their mission is a front-line mission. This is a peculiar instance where the Air Guard has been given a mission comparable to the Regular establishment, with the one exception of an all-weather capabiltiy.—END

in certain age brackets, regardless of the need. For example, the size of the Army Reserve after a five-year period, under this plan, would be staggering—and very costly—with no military requirement to support it. In reading some testimony on the bill it is difficult to tell whether equity is thought of as means to an end or the end itself.

Now what about the military requirement? The National Reserve Plan is designed, according to the testimony, primarily to satisfy the needs of the Army for a large Reserve corps, particularly enlisted Reservists. Testimony before this Committee indicates that it is basically an Army matter and, in fact, that the Reserve programs of the Air Force will proceed without change.

There is evidence, however, that this legislation would actually harm both the Air Guard and Air Reserve. It would have the effect of eliminating non-prior-service personnel from their programs. These are the Indians—the people of the lower two grades who support the operational mission. They form, for example, thirty-four percent of the total enlisted strength of the Air National Guard. The current system for enlistment of these people meets the requirement. The new plan would abolish this system. It hardly seems justified.

There are more important considerations.

At the present time our announced military and foreign policy is keyed to the deterrent strength of airpower. Hence, it is essential that we assess our military plans and programs in light of their possible effect on this airpower.

Testimony on this bill indicates some lack of understanding of the Air Force's manpower requirements. For example, take the Air Force requirement for a minimum four-year tour of duty. One major proponent of the National Reserve Plan, during testimony, in questioning the stated Air Force requirement, noted that the first World War "was won by men who had not been in two years, because it didn't last that long." The significance of the analogy escapes me. I cite it only as a warning that there appears to be more than a little World War I thinking behind this legislation.

If we gear our thinking to World War III, and ways to prevent it, and if we logically start with the military requirement, we run headlong into the needs of the active Air Force establishment.

The manpower problems of the active Air Force are acute, more acute than its leaders like to admit. For example, many of our military and foreign policy decisions are based on the combat readiness of the Strategic Air Command. In assessing this factor, we must consider the readiness of men as well as machines. A large percentage of the personnel of this vital command are on their first tour of enlistment and therefore are only partially trained. In certain technical categories, as many as eighty percent of the personnel must be considered apprentices in their jobs. Experienced crew chiefs—truly key personnel—are steadily leaving the Command and the departure curve is running upward.

I am sure the Committee is familiar with such facts as these and is equally disturbed by them. I am sure also that the Air Force is taking every means to improve its reenlistment rate. It is my understanding that the reenlistment problems of the other services are equally great, if not more so, but I merely point out that if airpower is the key to our defense program, as officially stated, and if SAC is the key to our airpower program, as officially stated, than the manpower requirements of SAC must be given top priority. Unless we take first things first in a matter as complex as this, we can easily wind up with too little of everything.

To offset its low reenlistments, the Air Force, some eight months ago began an intensified recruiting campaign. For the first time its recruiting program was permitted to operate independently, in most respects, of the Army recruiting effort. Air Force recruiters faced a bleak situation. The requirement for enlisted personnel was such that many Air Force leaders thought the established requirement impossible of achievement.

I am personally familiar with the problem because our Association at that time called an Air Force manpower conference in Washington, attended by representatives of some ninety of our industrial affiliates, to see whether business and private groups could, on a voluntary basis, help solve the Air Force problem.

Today, the Air Force can report that it is meeting its current recruiting quotas and has met the so-called impossible enlistment goal of the past eight months.

Thus, the present system, from an Air Force standpoint, seems to be equal to the establishment requirement. But voluntary enlistment is a touchy thing. It fluctuates with the many tides that run through a free society. It demands and deserves constant attention.

The National Reserve Plan, with its provision for a six-month training program, is a potential danger to the voluntary enlistment program of the Air Force.

Now, it is well established that many of these Air Force enlistees chose four years in the Air Force rather than two years of drafted service in the Army. The program is voluntary in the sense that these recruits do not enter the Air Force merely to fulfill an obligation, that they are not *driven* into this branch of the service. But the success of the program is dependent to a great degree on the draft law. Let me at this time congratulate the House Armed Services Committee for its work in behalf of the draft law extension.

Give a number of these young men an opportunity to fulfill their military obligation with only six months' duty in the Army and extended Reserve service, and you obviously threaten the Air Force manpower program. How much you threaten it, no one can say. But the risk is there and we do not believe the new plan is worth the risk.

In testimony before the Committee some concern has been expressed on this point, but the prevailing attitude of Air Force spokesmen seems to have been that the controls established under the plan—to regulate the number of six-month trainees—would safeguard the Air Force's enlistment quotas. We have equal confidence in the Commander-in-Chief's interest in and knowledge of the Air Force requirement, and in his ability to exercise the proper controls. If 100,000 six-month trainees are involved, as has been proposed, the President's job would be difficult enough. And there are those who seem to consider this quota a floor. This thinking could be disastrous. But this is not the major issue.

In the first place, the voluntary enlistment faucet cannot be turned off and on at will without losses occurring. There is a three- to four-month lead time on those volunteer enlistments. If the controls are applied to the six-month trainee quotas, and the Air Force enlistments increase as a result, we would see a peak and valley cycle. The training centers might be relatively idle for several months, and then overloaded for several months.

Further, the Air Force is beginning to learn that its enlistment problem is part and parcel of its reenlistment problem. If the motivation for enlistment is thoughtful and sincere, it is believed that the young men obtained will think more highly of their AF career and will be less

(Continued on page 73)

the Army salutes a "Corporal"!

YES, THE MIGHTY "CORPORAL" is the new pride and joy of the U. S. Army ... and largest guided missile now in production for the Ordnance Corps.

It's a remarkable achievement of both the Jet Propulsion Laboratory of California Institute of Technology, the developer... and Firestone Tire and Rubber Company, the manufacturer.

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Our special services include:

- **Designing and testing to established specifications and envelope drawings.**
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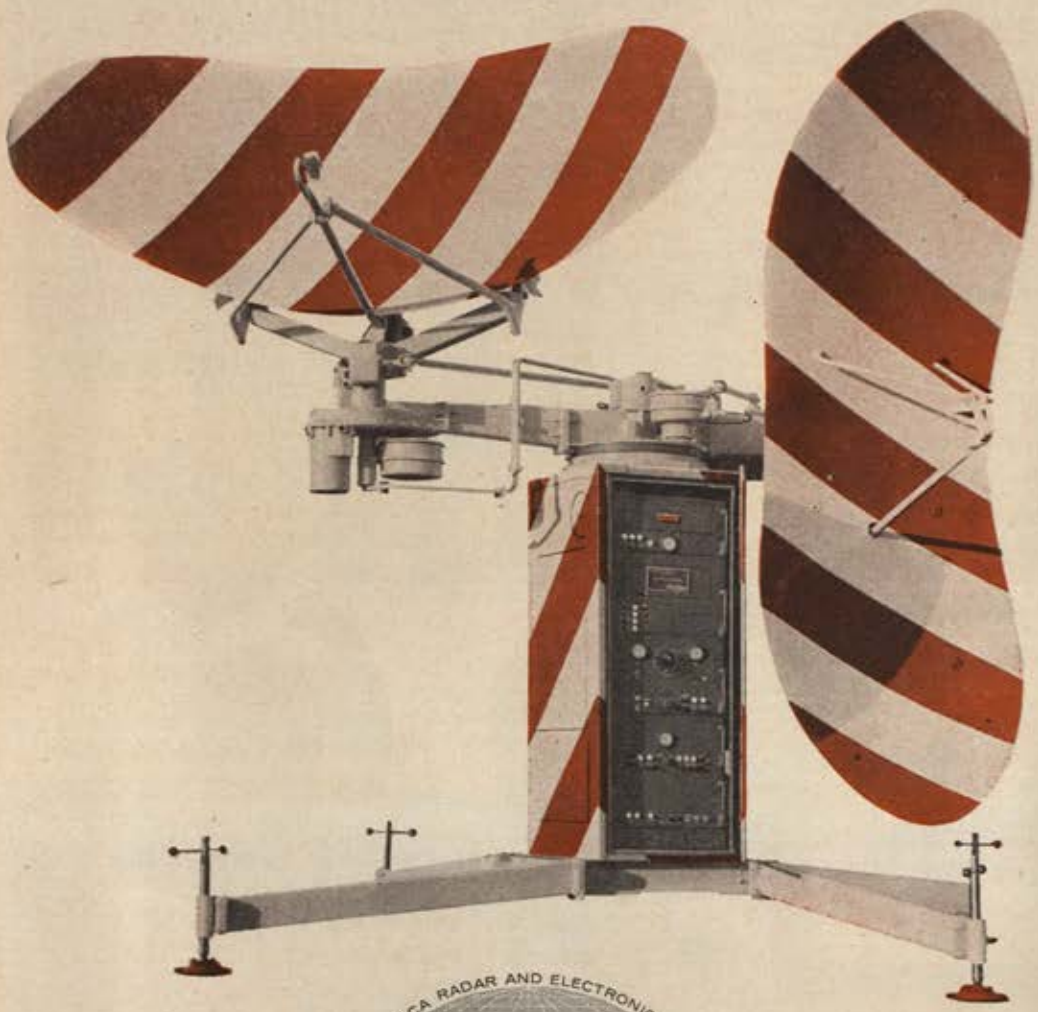

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remote control

ONLY

4-in-1 system: final approach; surveillance; height-finding; airport taxi control

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removal of snow and rain "clutter" (circular polarization)

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linear or logarithmic range marks

ONLY

proven performance of all GCA functions

inclined to leave the service whenever their tour is up.

Reenlistments are the major manpower problem of all services. They seriously affect combat readiness. Compulsory enlistment, which is a keystone of the National Reserve Plan, will only increase the reenlistment problem. At least, these are the views of recruiters in the field who are in daily contact with the families of America, and with whom our Association is working very closely.

Coupled with its personal approach to recruiting, the Air Force has had the help of many private and industrial organizations in making the public more aware of the importance of military service and the benefits of an Air Force career. At no government expense, an estimated five million dollars in advertising, billboard space, motion picture films, television and radio programs, pamphlets, and the like have been devoted to this cause. Our Association is proud to have stimulated this effort and to act as the coordinating agency for it.

As a result of this experience and our studies of the military manpower problem we strongly urge that this Committee consider a National Reserve Plan based on *inducements for voluntary enlistment* rather than compulsory service.

The nation has not even scratched the surface in voluntary enlistments for military service. Indeed, voluntary enlistments are not given the dignity they deserve. For example, the military services are required by law to use government free space, where available, for their recruiting centers throughout the country. As a result, you will find these centers located in the basements of warehouses, in red light districts, and on skid row.

Military duty is an honorable profession. It does not seem consistent with our democratic ideals to force our young men to enlist for military duty in such surroundings. We must dignify voluntary enlistment. This Committee can help do so, and we respectfully suggest that a good first step would be to enact legislation to permit recruiting centers to be located in better surroundings.

We believe that with the joint effort of the Congress, the executive branch, the nation's industry and its civic agencies—that voluntary enlistments in *all* services can be vastly increased. We think voluntary enlistment is more democratic, more in tune with public desire, than compulsory service.

The programs I have described not only aid directly in recruiting but lift the prestige of military service and aid in morale. These educational efforts could help build better Reserve programs. In fact, if applied directly to the Reservist, which has never really been done, interest can be stimulated in Reserve duty for all the services.

Other steps can be taken to induce participation in the Reserve forces. In relation to the National Reserve Plan now before us, I would like to make these recommendations in behalf of my organization:

First, the proposed penalty—of less than honorable discharge—for failure to participate in the Reserves will not be accepted by the public.

Second, the size of the Stand-by Reserve, as projected, is not related to the military requirement. It would seem more preferable to release this entire group to the civilian manpower pool.

Third, control over the Stand-by Reservist is now split between agencies. It should be unified under one agency.

Fourth, and most important, as an inducement to participation in the Reserve program, the total period of Reserve obligation should be shortened. The latter point could be important in terms of rehabilitating the Army Reserve program.

We suggest that the Reserve obligation for a man drafted into the Army be reduced from six to three years, providing he participates in the program satisfactorily against established standards.

We suggest that the Reserve obligation for voluntary enlistees in *all* services be omitted entirely, with four years the minimum enlistment period.

The Air Force, and Navy, and Marines are on record that they desire a voluntary Reserve. Thus, this change should not affect them. It could, however, be an important inducement for a man to volunteer for Army service rather than wait to be drafted.

May I repeat that any program should be accompanied by an organized effort on the part of all the services to promote dignity of service and dignity of Reserve duty. It also might be worth considering a reenlistment bonus for non-commissioned Reservists.

In conclusion: We do not find that the concept of equity of service, as advanced to support the bill, is compatible with the military requirement.

We cannot support legislation which threatens the combat readiness of the active establishment. We believe that the six-month training option in the National Reserve Plan threatens the effectiveness of the active Air Force. Therefore, we recommend that this option be eliminated from the bill.

We recommend that the system now supporting a voluntary active Air Force, a voluntary Air Force Reserve, and a voluntary Air Guard be maintained and strengthened in the best interests of the national security.—END

FAIRMONT HOTEL

PROGRAM

Wednesday—August 10

AFA Golf Tournament ..... *Lakeside Olympic Club*
AFA Directors' Meeting ..... *Fairmont Hotel*

Thursday—August 11

Reserve Forces Clinic ..... *Fairmont Hotel*
ARDC-AMC-Industry Forums *Mark Hopkins Hotel*
USAF-Industry Luncheon ..... *Mark Hopkins Hotel*
AFA Commanders' Luncheon ..... *Fairmont Hotel*
Opening AFA Business Session ..... *Fairmont Hotel*
AFA Auxiliary Board Meeting *Mark Hopkins Hotel*
Press-VIP Preview of Airpower Panorama *Civic Auditorium*

Friday—August 12

Airpower Panorama Open to Public *Civic Auditorium*
Annual Airpower Symposium ..... *Fairmont Hotel*
Airpower Symposium Luncheon ..... *Fairmont Hotel*
Ladies Fashion Luncheon ..... *Mark Hopkins Hotel*
AFA Business Session ..... *Fairmont Hotel*
AFA Aux. Business Session ..... *Mark Hopkins Hotel*
Ladies Tour of Fashion Shops *Triangle, San Francisco*
Annual Reunion Cocktail Party *Civic Auditorium*
Hollywood Wing Ding ..... *Civic Auditorium*
Annual Airpower Ball ..... *Fairmont Hotel*

Saturday—August 13

Airpower Panorama Open to Public *Civic Auditorium*
Final AFA Business Session ..... *Fairmont Hotel*
Final Aux. Business Session ..... *Mark Hopkins Hotel*
Wartime Unit Reunion ..... *Hotels*
Annual Airpower Banquet ..... *Sheraton-Palace Hotel*

Sunday—August 14

V-J Day Memorial Day Service *Golden Gate Memorial Cemetery*
Annual Airpower Brunch ..... *Fairmont Hotel*
Installation of AFA National Officers *Fairmont Hotel*

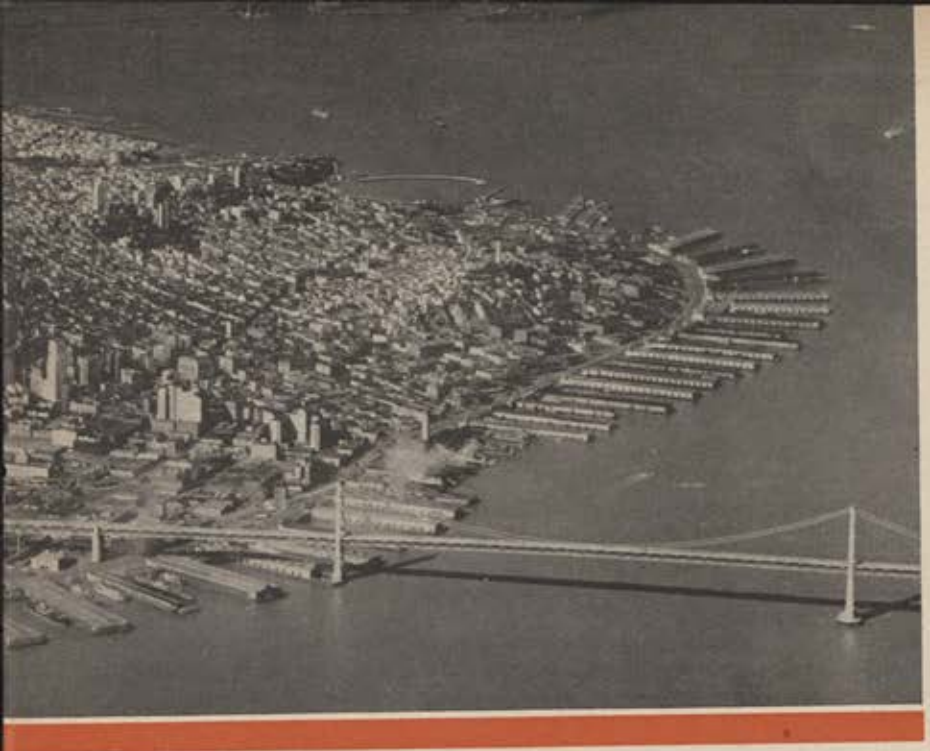
AFA's Convention | Air

SAN FRANCISCO ★

THE airpower meeting of the year! That's the Air Force Association's 1955 Convention and Airpower Panorama in San Francisco. It will be a combination of conferences, meetings, forums, banquets, exhibits, stage shows, and reunions — all wrapped up in one package — ideally suited for every airpower booster. At no other time or place during the year will every element of airpower be so well represented and offer so much. The date is not far off — make your plans and reservations now. Don't forget to bring your topcoats with you — it gets pretty cool on Nob Hill in August—so the San Francisco Chamber of Commerce informs us.

Don't miss this

★ **Renew wartime acquaintances**
★ **Get the latest word on airpower**
★ **See AFA's block-square Airpower Panorama**
★ **Enjoy cool August breezes on Nob Hill**



MARK HOPKINS HOTEL

1955 power Panorama

Headquarters **FAIRMONT HOTEL**
MARK HOPKINS HOTEL

Making AFA's 1955 Convention the best ever held is the objective of Tom Stack, who is General Chairman of the Convention Committee, and scores of committee workers. Stack is well experienced in AFA matters. He has served as a Wing and Squadron Commander, Vice President, and is now a National Director. He was Vice Chairman of the spectacular 1951 Convention in Los Angeles and Hollywood. The Honorary Chairman of the 1955 Convention is the grand lady of airpower—one who is known and loved throughout aviation—Mrs. H. H. Arnold, widow of the late General of the Air Force, "Hap" Arnold.

opportunity to:

- ★ See beautiful San Francisco
- ★ Meet the leaders in aviation
- ★ See the latest in ladies' fashions
- ★ Participate in timely airpower forums

HOTEL RESERVATIONS

Ten San Francisco hotels have set aside rooms for the AFA Convention. Reservations must be made through the AFA HOUSING BUREAU in San Francisco—not AFA in Washington. List first- and second-choice hotels. A $10 deposit is required on each room, and will be credited to your account. Requests for suites at the Fairmont and Mark Hopkins Hotels should be sent to AFA in Washington for approval and forwarding to the AFA Housing Bureau. Reservations will be confirmed upon receipt by the AFA HOUSING BUREAU.

AFA HOTELS AND ROOM RATES

HOTEL	SINGLE	DOUBLE	TWIN
Fairmont	$10.50-16.00	$13.50-19.00	$13.50-19.00
Mark Hopkins	10.00-14.00	13.00-20.00	13.00-20.00
Huntington			8.00-15.00
Sheraton-Palace	8.00-13.00	10.00-15.00	12.00-17.00
Sir Francis Drake	9.50-13.50	11.50-15.50	13.00-19.50
St. Francis	8.00-18.00	10.00-15.00	13.00-20.00
Chancellor	5.50	7.50	8.50
Plaza	5.00- 7.00	7.00- 8.50	8.00-10.00
Stewart	4.50- 7.00	6.00- 8.00	7.00-12.00
Richelieu	4.50- 6.00		8.00- 9.00
Whitcomb	5.00- 9.00	7.00-12.00	8.00-12.00

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San Francisco 2, Calif.

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ADDRESS _____

CITY & STATE _____

HOTEL _____ (FIRST CHOICE) _____ (SECOND CHOICE)

_____ (TYPE ROOM) _____ (DESIRED RATE)

SHARING ROOM _____

ARRIVAL DATE & HOUR _____

DEPARTURE DATE _____

( ) Room deposit of $_____ is attached.

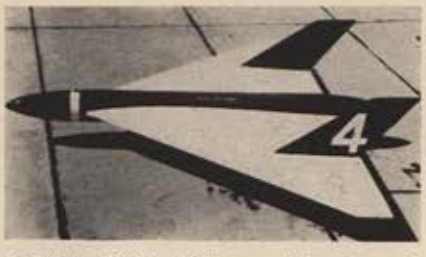
Tech Talk

By Lee Klein

Coming in second to Dick Tracy, the **Army Signal Corps** announced it has developed a **"wrist-watch" radio receiver** that gives sharp reception at distances up to forty-five miles. The receiver incorporates a **printed circuit** and three **transistors** and is powered by a **½ by ⅝-inch battery** in the case. It was developed to study miniaturization of electronic equipment.

At about the same time, the **Allen B. DuMont Laboratories** announced that they have developed a TV "station" about the **size of a cigar box.** It can send pictures by cable to the screens of standard receivers.

This sleek delta-wing is not a new fighter, or even a missile, but a new **high-speed tow-target.** Called the **Del Mar Delta,** it was developed to fulfill the requirement for a high-speed target that would also incorporate a device for **measuring near misses.** Such a device is essential in the engineering and testing of complex fire-control systems of modern aircraft. While the old canvas tow-targets would record hits and be helpful in improving the pilot's marksmanship, they weren't much help in improving fire-control systems. This new target incorporates an **Acoustical Firing Error Indicator** that listens for near misses, measures the distance and angle, and passes this information to the ground. Engineers can then make necessary modifications and adjustments to the fire-control system undergoing tests. The tow-target development program is being conducted at ARDC's Air Force Armament Center, Eglin AFB, Fla.



Del Mar Delta, high-speed tow target.

A **British Gloster Meteor** has been fitted with **jet deflectors** (see cut) to permit the aircraft to operate from much smaller runways than normal. The deflectors—placed midway along the jet pipes—bend the thrust of the twin Rolls-Royce Nene jet engines downward under the wings. This produces a **considerable reduction** in the plane's **stalling speed.** British officials revealed that the plane has been flying successfully with the deflectors for almost a year.

The Air Research and Development Command recently received the first of thirty-six **Convair C-131B** aircraft to be used as **flying labs** for testing various airborne equipment. The military version of the civilian Convair 340 will **replace World War II aircraft,** such as the B-29 and the B-17 which had been used as test vehicles in the past. ARDC says the switch will mean **lower maintenance** costs and **reduction of supply** problems.

Snug as a bug—Navy's Convair XFY-1 "Pogo" sits inside its new tepee-shaped hangar. The wood, steel, and fiberglass shelter has 3 built-in work decks.

Aircraft equipment is being tested at **altitudes up to nearly 100,000 feet** in a new low-pressure test chamber designed by **Boeing Airplane Company** engineers at Seattle, Washington. The low pressure is attained when steam flowing at supersonic speeds through special nozzles meets with air from the test chamber in a special compartment and drags it out of the chamber.

The Air Force has allocated $2,200,000 for construction of **additional flight test facilities** at Edwards AFB, Calif. The new construction—scheduled to be ready by late summer—will include **hangars, shops, and offices** and will be shared by **Convair** and **Douglas Aircraft Co.**

The Air Force has placed an initial

(Continued on page 79)

Deflectors, seen below engines, lower stalling speed of this Gloster Meteor.

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Clearly, the big trend in transport aviation today is toward powerful turboprop engines and propellers. This combination enables both military and commercial aircraft to carry bigger payloads farther, faster, and more economically than ever.

And most importantly, turboprop engines equipped with Aeroproducts turbopropellers combine high power with low weight—features important in aircraft design and in airline operation.

Today, Aeroproducts turboprops are America's most widely used because they have proved their quality and stamina on the Allison Turboliner, the USAF Convair YC-131C, and other military aircraft. They are backed by more flight hours than any other American-made turbopropellers.

Whatever your design demands, you'll find Aeroproducts ready to meet your most detailed specifications—not just for turbopropellers, but for all propellers requiring high horsepower absorption. Also available are actuators, air-driven generators and air-driven hydraulic pumps, with other aircraft components still under development. Call or write us for details.

Portable steel maintenance dock for B-47s built by Luria Engineering Company.

order for a **portable 100-ton steel maintenance dock** (see cut) developed by the **Luria Engineering Company of Bethlehem, Penna.** Designed to fit around the **Air Force B-47 Stratojet** like a glove, the dock can be unbolted into five sections and moved on dollies from one place to another by a tow truck. The interior of the facility is equipped with an attached **system of work platforms** that follows the contour of the wings, banks of **steel lockers for tools** and equipment, and facilities for lighting, power, and ventilation. The service facilities will be erected at McConnell AFB, Wichita, Kan.; Lincoln AFB, Lincoln, Nebr.; Davis-Monthan AFB, Tucson, Ariz.; and March AFB, Riverside, Calif.

With the same objective, but on a smaller scale, **Convair** showed a two-section, thirty-six foot-high **"tepee,"** designed to provide protected platforms for maintenance on its **XFY-1 "Pogo."** The sections are mounted on wheels and **open like a clamshell** to receive the Navy's vertical take-off fighter. Built by Convair personnel assigned to the "Pogo" at the Brown Field NAAS, San Diego, the small hangar has built-in work decks and interior lighting. It is built of wood, steel, and fiberglass.

An amphibious **de Havilland "Beaver"** that operates off runways using wheels and brakes like a normal landplane has been demonstrated (see cut). The floats, developed by **Edo Corporation** and modified by de Havilland, have **two main wheels** that retract into wells for water landings. The smaller wheels at the bows are full-swivelling and retract upward for water landings.

The **British Navy** has announced that its newest and largest aircraft carrier, the 45,000-ton **Ark Royal,** can be run by remote control with no men in her engine spaces. Acording to **Capt. D. R. F. Cambell,** skipper of the ship, this will permit the crew to be sheltered in **special compartments** in the event of **atomic attack,** when the carrier's massive machinery would gulp in large quantities of radioactive air and contaminate unprotected persons.

For the new feature to really afford protection, it seems that one must assume that the ship is not damaged in the first place, that the atomic attack stops while the crew is hustled to safety, and that it is spared further attack while speeding to an uncontaminated area.

North American Aviation, Inc. has announced the development of a new fire-control system for use in the **F-86K Sabrejet.** Designated the MG-4, the all-weather system enables the interceptor pilot to **locate** targets, **select** a particular target and **fly an attack course** that keeps his aircraft pointed slightly ahead of the target. It also indicates the **range** to the target, and includes **beacon interrogation** and ground **mapping** facilities for use as navigational aids. The F-86K, a cannon-firing version of the all-weather F-86D, is now being procured by the Air Force with **Mutual Defense Aid Program** funds for delivery to **NATO** countries.

Kaman Aircraft Corporation has been flying a helicopter by **remote control** for more than a year. The helicopter, which has logged more than 100 hours of remote-controlled operation, is basically a modified **Kaman HTK-1** designed for research and development and is currently

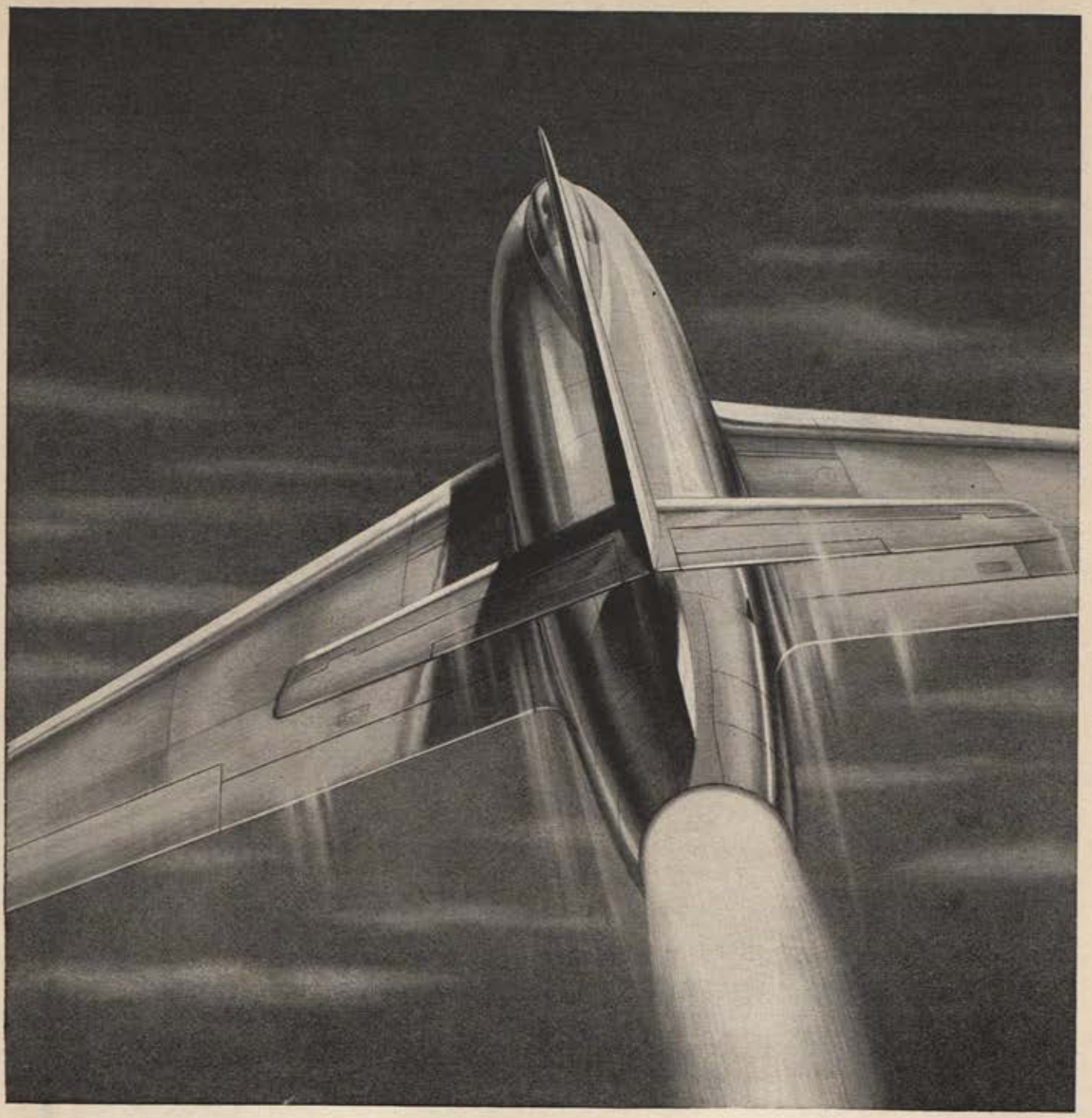
Kaman Aircraft's remote-controlled helicopter, developed for the Navy.

being evaluated under a **Navy contract.** Since the helicopter is the only one of its type, the company reports that all flights thus far have been made with a **safety pilot** aboard and limited to the visual range of the ground operator.

A new **cooling suit** for airmen is being tested by the British in Malaya. It incorporates dozens of **thin plastic tubes,** through which **air is blown** onto the wearer's body.

Sir Arnold Hall, Director of Britain's **Royal Aircraft Establishment at Farnborough,** says that airliners of the future may be built of a **glass-fiber reinforced plastic.** This material, according to Sir Arnold, would be cheaper and lighter than aluminum, free from metal fatigue, and suitable for the supersonic high-altitude airliners of the future. He visualized **1,300-mph passenger planes** that would cross the Atlantic in less than three hours at altitudes of 45,000 to 50,000 feet.—END

Floats on de Havilland's "Beaver" use wheels and brakes for runway operation.



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RENDEZVOUS

Where the Gang gets together

83D INFANTRY DIVISION ASSOCIATION: Giving notice to all you 83d Infantry Division (Thunderbolt) men of our forthcoming reunion, which will be held on August 18, 19, and 20 at the Ben Franklin Hotel in Philadelphia, Penna. Get in touch with *George Cooley, Sr., Secretary-Treasurer, 1459 Beechwood St., N. E., Warren, Ohio.*

STATIC OFFICER PERSONNEL: There will be a reunion of all Static Officer personnel, Pyote Army Air Base, Pyote, Tex., World War II. This includes all officers of the base, flying medical and ground. The reunion will be held in Chicago June 17, 18, and 19. Officers wishing further information should write to *Dr. William S. McMurry, Box 208, Okmulgee, Okla.*

ALUMNI OF STALAG LUFT III: Here we go again—the annual Prisoner of War Reunion for Alumni of Stalag Luft III. It'll be held at the Van Cleve Hotel, Dayton, Ohio, on Saturday, May 7. The theme will be "Come dressed as you were ten years ago, or if that won't work, just come dressed." For information or reservations write *David Pollak, c/o The Pollak Steel Company, Marion, Ohio.*

STICK AND WIRE ERA: Pilots and aviation dignitaries who operated from Teterboro Airport up to and including the peak of the barnstorming era in 1930 are being sought for a July reunion at the famous New Jersey field. The ranks of the list of eligibles have been greatly depleted since the days of the Gates Flying Circus, but a committee of old timers, including Col. Bernt Balchen, is making every effort to bring together all the survivors of the old flying crate days. Each of the persons eligible has had more than twenty-five years' association with flying. Anyone knowing the whereabouts of some of these people write to *Russ Brinkley, WHP-TV, Harrisburg, Penna.*

LT. THORNDAL: Does anyone know the whereabouts of 1st Lt. Herbert L. Thorndal, Jr., who was with the 4th Fighter Wing in Korea in 1952? *John R. Kreger, 3339 Quesada St., N. W., Washington, D. C.*

RAY T. ELSMORE: I have been trying to obtain the address of Col. Ray T. Elsmore, who was a staff officer in 5th Bomber Command, 5th Air Force, SWPA in 1942. *Neil R. Fairbanks, 715 Monroe St. Anoka, Minn.*

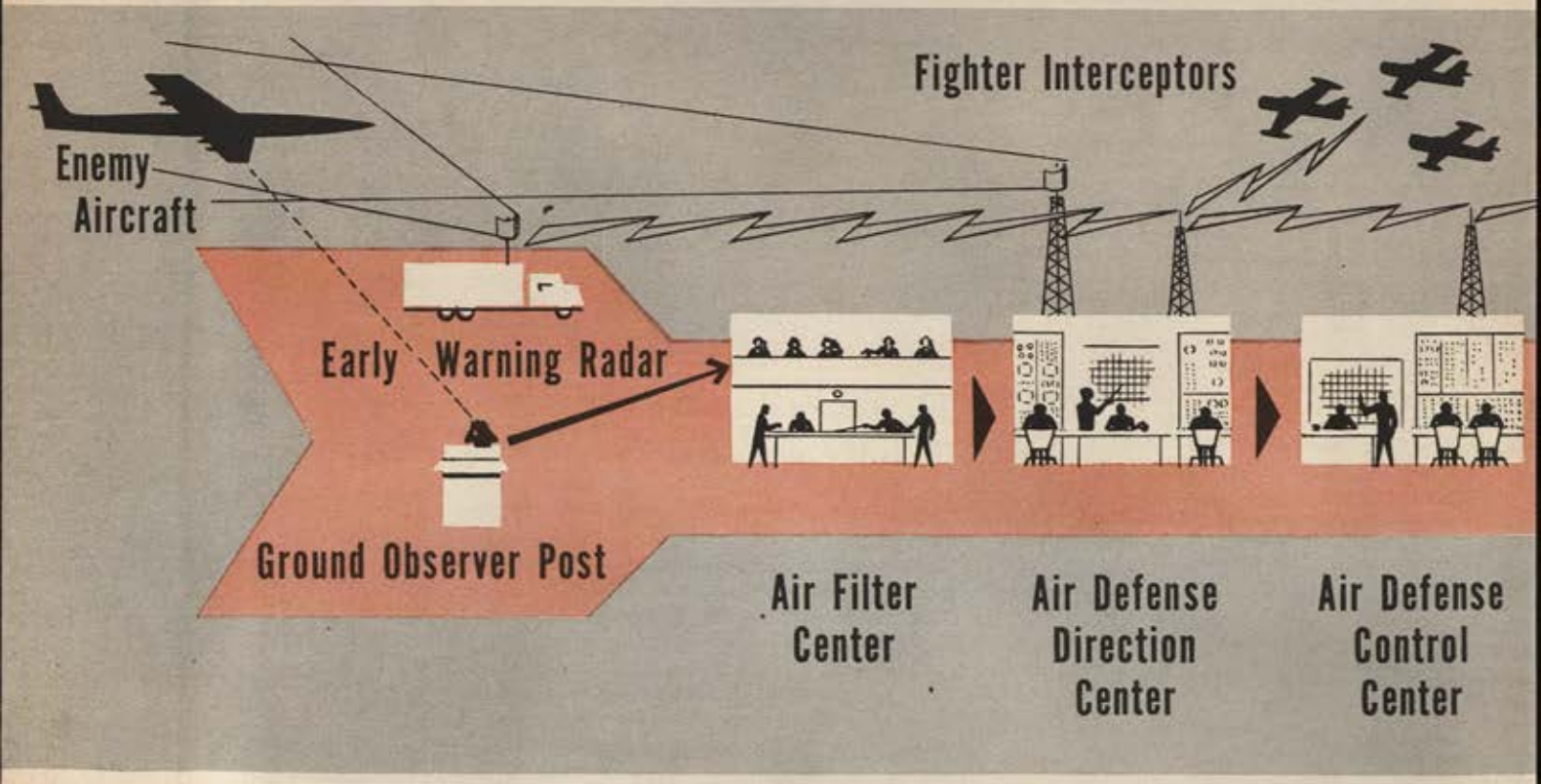
To be sure your Rendezvous item appears in the June issue, we should have your request by April 15.—THE EDITORS.

'Defend the United States Against

To learn more about the mission and how it is being accomplished was the object of the AFA-sponsored Air Defense Conference at ADC Headquarters in Colorado Springs. Here's a report

IN THE days before the hydrogen bomb and aircraft capable of delivering this terror anywhere in the world, the United States homefront could be considered a relative sanctuary from the danger of aerial attack. This consideration is not valid today; it will be even less so in the future. So the nation has been forced to create a new philosophy—the philosophy of Continental Air Defense.

In a two-day conference sponsored by the Air Force Association at Colo-



AIR DEFENSE OPERATIONS

Air Attack'

—THE MISSION

At the conference: Left, AFA President John R. Alison stands between James H. Doolittle and Thomas G. Lanphier. At right, Gen. Benjamin W. Chidlaw and Rep. Shepard J. Crumpacker, Jr. (R.-Ind.) talk with Gen. George C. Kenney.

rado Springs a few weeks ago, the new Continental Air Defense Command explained this philosophy in detail to some 160 executives of the country's leading industrial organizations, about 200 National Guard and Air Force Reserve representatives, and more than a dozen of the Congressmen who sit on the House Armed Services and Appropriations Committees.

Industry's executives were briefed by Gen. Benjamin W. Chidlaw's command on the opening day of the conference. The second day was reserved exclusively for the Reserve and Guard representatives, who included commanders and operations officers from those fighter units in all but six states whose primary mission is to augment Regular Air Defense forces. Both days were virtually the same.

Morning sessions included a discussion of the threat by Brig. Gen. Woodbury Burgess, Deputy Chief of Staff for Intelligence; outline of the mission and organization of CONAD (see page 84) by Maj. Gen. Kenneth P. Bergquist, Deputy Chief of Staff for Operations, and Col. Edward A. Herbes; and a tour of the huge Combat Operations Center.

Afternoon sessions opened with the presentation of air defense in action by Col. John C. Meyer, Director of Operations and Training, and closed with a presentation of air base problems by Col. Harry W. Shoup, Chief of the Combat Operations Center. A special briefing on materiel for industry on opening day by Maj. Gen. M. S. Roth, Deputy for Materiel, was replaced on the second day by a special report for the Reservists on augmentation forces by Col. Ben I. Mayo, Jr., Chief of Operational Plans.

Several hours were allotted each day for questions and answers. James H. Doolittle, former president of AFA, moderated the industrial portion of the conference, and Gen. Gerge C. Kenney, AFA's Chairman of the Board, served in the same capacity for Guard and Reserve.

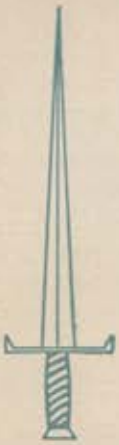
One of the highlights was a major address by General Chidlaw (see page 87) at a banquet in the Broadmoor Hotel on opening night.

The conference, one of a series being sponsored by AFA, was designed to acquaint industrial leaders and Reservists, who have a primary stake in preventing enemy bombers from reaching US targets, with the urgency of the new philosophy of air defense.

That it succeeded cannot be questioned. Industries' executives, as well as Guard and Reserve conferees agreed they now had a clearer understanding of the grave responsibility resting on the shoulders of our air defense forces.

Because of the nature of the conference, it is impossible to present a verbatim transcript. But highlights, which point up the new philosophy, appear on the following pages, with an AIR FORCE Magazine photochart of ADC on pages 88 and 89.—END

Delegates at the AFA-sponsored Air Defense Conference saw first-hand the workings of an air defense system's basic elements: detection, identification, interception, and destruction. When an enemy is detected, the ADDC scrambles our interceptors, while the ADCC alerts the population center.



We must have the ability to

Parry the Blow And Fight Back

Even though the best defense may be a good offense, the fact that the enemy is granted the first move poses a continually growing threat to our air defense organization

Maj. Gen. Kenneth P. Bergquist
Deputy Chief of Staff, Operations, ADC

AIR defense is a comparative newcomer to the field of military science in the United States. Our forces had very little experience with this type operation during World War II. Not until Soviet aims became clear to us in 1946, and Soviet efforts to duplicate our B-29 in numbers became known, was serious consideration given the problem here in our country.

This country took the first big step in 1948 by authorizing a permanent radar net of seventy-five stations. At that time, air defense was a subordinate responsibility of the Continental Air Command. As the radar screen became a reality and plans for a defensive weapons system crystallized, the need for a separate command of greater stature became apparent. In 1951, the Congress established the Air Defense Command as a major command within the USAF, along with SAC and TAC. Since that time it has been realized that all the military services must be directly involved in the air defense of our homeland; therefore, on September 1, 1954, the Continental Air Defense Command was established as a joint command under the Joint Chiefs of Staff.

Thus—our history is quite short—we lack experience—there are many unknowns in the equation—but we have the situation of a wide-open field for exploration, and survival of the nation might depend upon the results.

The major threat we face today is well known by you. To counter this threat requires the coordinated effort of all of us—military and civilian. Today wars are fought by the people as a whole, not merely by military forces. Civil defense programs must go hand-in-hand with the military program.

The basic prerequisite for countering this threat, as in all military operations, is availability of timely and accurate intelligence. We require two types. The first is intelligence on enemy development, production, force build-up, etc., so that we can design and build an effective system to cope with the future threat. The second requirement is for warning of an impending attack.

While over-all considerations indicate that the two types of intelligence should receive approximately equal effort, the threat of an attack at any unknown time indicates a continuously current over-riding requirement for warning.

Given this attack warning, Strategic Air Command will not be caught on the ground—naval vessels and shipping will be dispersed—the Air Defense Forces will be in a maximum operational status—essential identification procedures will be in effect—and civil defense measures can be more readily accomplished.

This outlines the responsibilities of various agencies in our air defense.

The mission of the Commander-in-Chief, Continental Air Defense Command, is: "Defend the continental United States against air attack." His functions include: preparing plans and requirements; implementation of JCS-approved plans, coordination with other government agencies, other US commanders, Allied commanders, Canadian commanders and Mexican commanders, and operational control of forces made temporarily available from other commands.

The Air Force has been given primary responsibility for the air defense mission and functions as the Department of Defense agency for the Continental Air Defense Command. The Air Force furnishes interceptor forces and the basic ground environment for surveillance of the air and for the control of all weapons.

The Army furnishes anti-aircraft forces.

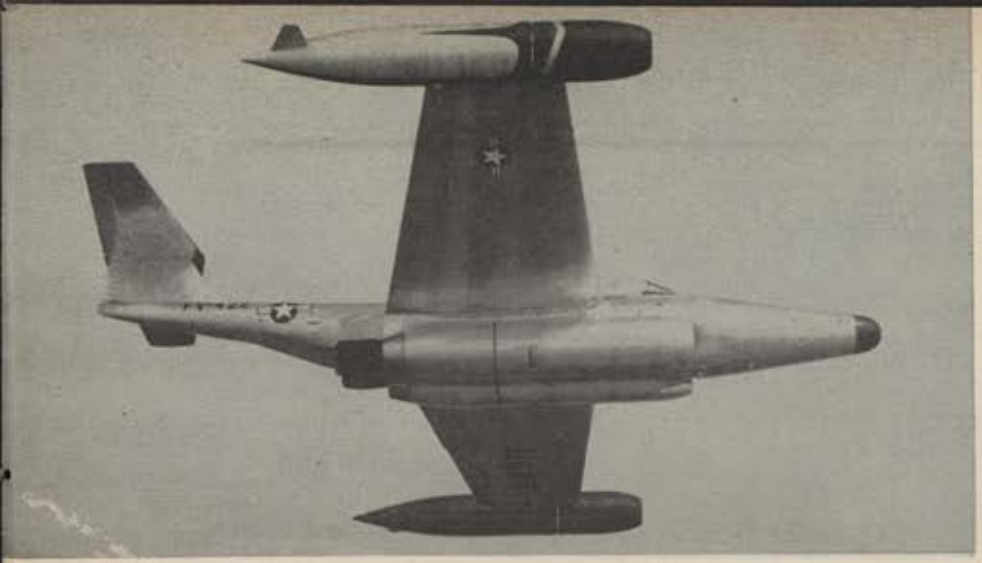
The Navy furnishes picket vessels for offshore contiguous coverage, and, in emergency, will furnish additional forces which have an air defense capability.

Other agencies, such as the Federal Civil Defense Administration, the Civil Aeronautics Administration, and the Federal Communications Commission, coordinate and cooperate with the Department of Defense in the establishment of procedures, and the execution of plans, designed to provide for: an adequate civil defense, the control of civil air traffic, and the control of electronic emissions.

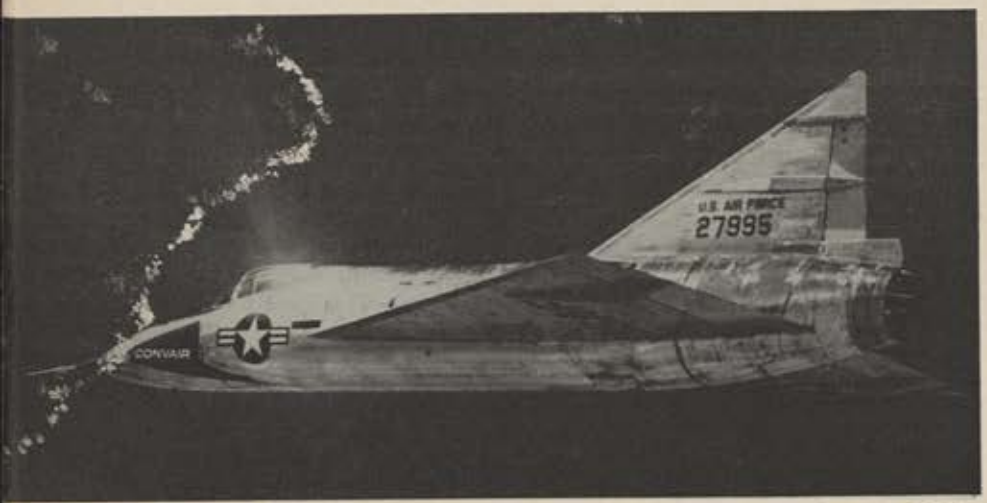
In an organizational and operational breakdown of the Continental Air Defense Command (CONAD), we have divided the United States into three geographical regions—each region being the air defense area of responsibility of a Joint Air Defense Force. Thus, we have a "Joint Eastern Air Defense Force" with headquarters near Newburgh, New York; a "Joint Central Air Defense Force" with its headquarters at Grandview, Missouri; and a "Joint Western Air Defense Force" with headquarters near San Francisco. Headquarters of CONAD are in Colorado Springs.

Each Joint Air Defense Force is further subdivided into sectors; each sector being the air defense area of responsibility of a numbered Joint Air Defense Division. For example, the Air Defense Control Center of the 30th Joint Air Defense Division is at Detroit and the 33d at Oklahoma City. Thus we have three Joint Air Defense Forces and twelve Joint Air Defense Divisions.

The Joint Air Defense Division commander is really the battle director and exercises operational control over the forces from all services which



Northrop Scorpion F-89D is in 600-mph class, carries 104 rockets in pods.



A Pratt and Whitney J-57-11 turbojet powers this supersonic Convair F-102.

Above: North American F-86D Sabrejet. Below: the Lockheed F-94C Starfire.

At left are three of the planes now operational in our Air Defense Command. The fourth, Convair's F-102, is now in production. Standing round-the-clock runway alerts, these all-weather interceptors can be in the air within minutes after a warning. These planes, and the crews who keep them always ready, constitute our first line of defense against enemy aerial attack.

have been furnished him for the air defense of his sector. To assist him in planning, and the proper team employment of these forces, he has appropriate Army and Navy representatives on his staff, as does the commander at Joint Air Defense Force level and at Headquarters CONAD.

No radical reorganizations or disruptions of the normal functions and responsibilities of the different services have been required in the establishment of the Continental Air Defense Command and its subordinate headquarters.

Command arrangements and administrative and logistics channels remain with the services concerned, with operational control and planning responsibilities being vested in the joint commander.

At this time I would like to mention the relationship between Canada and the United States with respect to air defense, and our relationship with the Alaskan Command and the Northeast Command. These are the Commands of this continent having forces specifically assigned for air defense.

The Continental Air Defense Command coordinates very closely with the Canadian Air Defense Command, and the respective air defense systems operate practically as one. Exchange of information, combined planning, agreed standard operating procedures, cross-border communications tie in at all levels, passing of weapons control—all are in effect now and applied daily. National sovereignty is maintained by insuring that, in a general sense, operational control is maintained by the appropriate personnel of the country in, or over which, the operation is taking place.

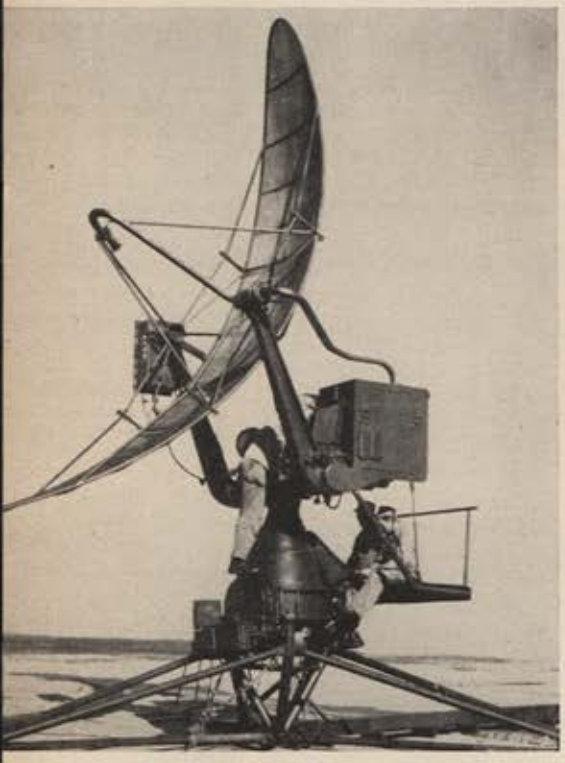
The Alaskan Command and the Northeast Command coordinate closely with CONAD. Their assigned mission is to defend their bases and provide warning of attacks in or through their areas.

In the building of the air defense systems, logic, priorities, and meager means dictated development from the prime targets outward. Thus, we

(Continued on following page)

evolved island-type systems, such as Alaska. Expansion of the separate systems brought our planning to the consideration of North America as a whole.

This air defense system is composed of two basic parts: the air defense combat zone, which includes the active air defense forces of the United States and Canada; and the air defense warning zone which is composed of the necessary detection and communications facilities required to provide early warning.



First air attack warnings will probably come from radar units like this.

The function of air defense is divided into four basic actions: detection, identification, interception, and destruction. Given adequate means to accomplish these actions, effective air defense becomes a function of time. These actions must be completed in less time than is required for the attacker to proceed from the initial detection point to bomb-release line.

In planning defense there are two general types of attacks we must plan against:

First is the massive "all-out" attack against the United States designed to be decisive in one strike. This type attack is relatively easy to detect and identify but hard to combat.

The second type is the sneak attack with relatively small numbers of aircraft against, perhaps, our offensive striking force. This type attack is hard to detect and identify but it is somewhat less difficult to combat.

I will now outline the present and proposed means to accomplish the four basic actions. The first is detection.

Successful air defense must start with detection. We have a network of radar stations covering large portions of our country, Canada, Alaska, Greenland, and Iceland.

The US permanent radar net is in a fully operational status, operating on a twenty-four-hour-per-day schedule. This net gives us good high-altitude coverage over a large portion of the country.

Our joint Canadian-US radar net is expanding and you have undoubtedly read about the planned early warning lines. In addition to the ground early warning lines in Canada, we plan overwater coverage with airborne, as well as surface-borne, radars.

Another integral and vital part of the existing detection net is the Ground Observer Corps. This Corps depends upon civilian volunteers. Its efficiency is in direct proportion to the manning achieved, the spirit and enthusiasm of the volunteers, and the continual training effort given by the Air Defense Command.

The Corps is organized into areas, each containing a filter center. Within thirty-six states of the union approximately 19,000 observation posts and at least half a million volunteers are required to effectively perform the GOC mission. The filter centers are staffed with a small permanent Air Defense Command detachment consisting of about five officers and fifteen airmen with the mission of training civilian volunteers in both filter center and observation post techniques, and supervising operations.

We are now expanding the GOC into all forty-eight states, which means we are about to establish twenty-four new filter centers and about 200 supporting observer posts for each center. This expansion takes us into twelve new states and increases our requirement for civilian observers to over a million.

There is also an established GOC in the east and west portions of southern Canada and a proposal has been made for the expansion of the GOC across the Prairie Provinces.

Thirteen filter centers, eleven in the East and two in the West, are ready for operation now. Eight additional filter centers are required to complete the coverage across the Prairie Provinces. This proposal is in the office of the Canadian Defense Minister for approval.

In addition to the southern organization of the GOC, Canada's northern division has been in the active defense reporting system for over a year. More than 280 reporting stations have been integrated into the net. These are weather stations, Royal Canadian Mounted Police outposts, lumber camps, mining camps, trading posts, and trappers, most of whom are equipped with radio for contact with a base station The Canadian government requires that each of these stations report by the fastest possible communications means any flights of multi-engine aircraft observed over northern Canada. Although the reports have not been many, they have been relatively rapid.

If we depend solely upon land-based radar, coastal targets, such as New York, are virtually indefensible. Therefore, we must extend the radar coverage seaward. One means of doing this is the use of Airborne Early Warning and Control aircraft. Another way of extending coverage is by the utilization of radar-equipped Navy picket vessels.

The Air Force has programmed several squadrons, equipped with RC-121 Lockheed Constellation-type aircraft, for the contiguous coverage mission while the Navy has programmed for the picket vessel stations off each coast.

This completes the detection phase of our four basic actions. The next is identification.

Identification of aircraft is one of our big air defense problems today. An indication of the magnitude of the problem is the amount of air traffic—about 30,000 flights per day from fields within the United States and some 600 daily international flights.

To do identification today, the air defense system tries to keep track of all friendly aircraft penetrating the United States and those within certain critical areas. This involves the assistance and coordination of the CAA, the Department of Transport of Canada, and our own Military Flight Service. Rapid correlation of flight plans must be accomplished.

Friendly aircraft using the Air Defense Identification Zones are required to file flight plans in advance of penetration. However, in the internal zones, flights below 4,000 feet are not thus restricted. This freedom was granted because it is impractical to further restrict private "puddle-jumper" operations—plus the inability to police due to lack of surveillance capability.

(Continued on page 94)

Raising the price of aggression

Air Defense— A Major Deterrent

If Communist Russia knows that her attacking planes must fight their way to their targets, she will be less likely to strike the blow

Gen. Benjamin W. Chidlaw
Commander, Air Defense Command

DEFENSE of the United States from air attack is today a number one preoccupation of the American people, and that defense is the mission of the Continental Air Defense system.

Our command is perhaps the first major organization of the few in our whole military structure which must meet its acid test on D-Day—in fact, on H-Hour of that D-Day—and D-Day could come tomorrow.

Therefore, the shadow of reality is always as close to us as our own shadow.

And the Continental Air Defense Command must work, tirelessly and ceaselessly. It must undergo constant test, and revision based on the showing of these tests. It must be re-equipped to be ever new, and ever newer. It can never be truly effective if any portion of our system is approaching museum status nor is it ever safe to view or inspect if from the attitude of veneration for past achievement. Rather, it must be continually assessed for vigilance, or virility.

In this vein, I am frequently asked the question, "Since our scientists, our research and development people, anticipate many major improvements at somewhat later time periods, why should it be necessary to spend large sums of money modifying and improving the present system since ultimately much larger gains in the effectiveness can be anticipated at that later date?" Viewing the world situation as it is today, I think the answer to that question is pretty obvious. Remembering always in this business that our D-Day may be tomorrow, we cannot, we dare not, risk less than achieving the maximum "kill effectiveness" possible, employing the tools we have presently at hand. . . .

True air defense takes in the complete array of the offensive and defensive capacities of all services to make up this effective air defense, everything to keep the enemy guessing, everything to keep him off balance, to make him puzzle and pause, attempting to figure our airpower out and make him doubtful of his own ability to cope with it.

Thus, I believe our Continental Air Defense System starts with . . . the Strategic Air Command with its long-range, atomic packhorses; the Navy's carrier task forces wherever it is possible for them to contribute; and also those Air Forces, tactical in nature, which are based far out from this country and on the fringes of the Iron Curtain, represented in our own commitments to the North Atlantic Treaty Organization and those of our partners in this alliance. . . .

Concerned as we all are that we keep this far-out extension of our defenses and improve them daily, and concerned as we all are to preserve and ever strengthen the mighty fists of our strategic striking air arms, we of the Continental Air Defense Command are also concerned that our assigned mission, that of defending the skies over and the aerial approaches to our homeland, be likewise fully understood and fully appreciated. Appreciated as the nation's blunting force which may have to endure its greatest battles while the enemy is at full strength and while the enemy effort is freshest.

Facing squarely up to the problem, I feel, as do all military commanders, that little has altered that old military truism that "the best defense is a strong offense." I am certain that a purely defensive system alone would never be the one single force which would deter forever a Russian decision to strike us.

We must, at all costs, maintain our own long-range striking forces, our Strategic Air Command, and those other forces which are capable of striking at the vitals, the heartland, of any aggressor. And they must be kept at the highest levels of efficiency and size to do their job, once their mission is ordered.

But, I'm just as certain, that a major deterring factor lies in being able to guarantee that our striking forces will not be caught in their lairs. If that aggressor, specifically, if Communist Russia, knows that while she is fighting her way toward her targets, that the golden opportunity of easy destruction on the ground has passed,

(Continued on page 90)

THE AIR DEFENSE COMMAND

Hq., Air Defense Command
Ent AFB, Colo.

1 **Commander**
Gen. Benjamin W. Chidlaw

2 **Vice Commander**
Maj. Gen. Frederic H. Smith, Jr.

3 **Inspector General**
Brig. Gen. Emmett F. Yost

4 **Judge Advocate**
Col. Stewart S. Maxey

5 **Chief of Staff**
Maj. Gen. George F. Smith

6 **Director, Information Services**
Col. Barney A. Oldfield

7 **Surgeon**
Brig. Gen. Albert H. Schwichtenberg

Adjutant General
Col. Walter W. Robinson

8

9 **DCS/Comptroller**
Brig. Gen.
Robert S. Macrum

10 **DCS/Personnel**
Col. John C. Horton

11 **DCS/Operations**
Maj. Gen.
Kenneth P. Bergquist

12 **DCS/Intelligence**
Brig. Gen.
Woodbury M. Burgess

13 **DCS/Materiel**
Maj. Gen. Marshall S. Roth

14 **Commander**
Maj. Gen. Morris R. Nelson

26 **Commander**
Maj. Gen. Jarred V. Crabb

38 **Commander**
Maj. Gen. Walter E. Todd

An **AIR FORCE** Magazine photochart
(Corrected as of March 7, 1955)

Hq., Eastern Air Defense Force
Stewart AFB, N.Y.

15 **Vice Commander**
Brig. Gen. Donald B. Smith

16 **Adjutant**
Col. John L. Warren

17 **Inspector General**
Col. H. H. Van Auken

18 **Judge Advocate**
Col. George O. Hanford

19 **Chief, Information Services**
Col. Joseph B. McShane

20 **Surgeon**
Col. Charles C. Scamahorn

21 **Comptroller**
Lt. Col. Lester H. Showers

22 **Deputy for Personnel**
Col. John B. Gaffney

23 **Deputy for Operations**
Col. Arthur C. Agan

24 **Deputy for Materiel**
Col. John R. Dowswell

25 **Deputy for Intelligence**
Col. Aram S. Tootelian

Hq., Central Air Defense Force
Grandview AFB, Mo.

27 **Vice Commander**
Brig. Gen. Edward W. Suarez

28 **Adjutant**
Lt. Col. Harold C. Smith

29 **Inspector General**
Col. Frederick A. Pillet

30 **Judge Advocate**
Col. Jerome L. Loewenberg

31 **Chief, Information Services**
Maj. Charles A. Harris

32 **Surgeon**
Col. Clarence A. Tinsman

33 **Comptroller**
Col. Duward L. Crow

34 **Deputy for Personnel**
Col. Olin L. Wilson

35 **Deputy for Operations**
Brig. Gen. Clifford H. Rees

36 **Deputy for Intelligence**
Col. Roy E. Weinzettel

37 **Deputy for Materiel**
Col. Harold S. Ecklund

Hq., Western Air Defense Force
Hamilton AFB, Calif.

39 **Vice Commander**
Brig. Gen. Clinton D. Vincent

40 **Adjutant**
Lt. Col. Albert D. Fallows

41 **Inspector General**
Col. Philip C. Loofbourrow

42 **Judge Advocate**
Lt. Col. Milton Goldinger

43 **Chief, Information Services**
Lt. Col. Philip D. Wachtel, Jr.

44 **Surgeon**
Col. James G. Moore

45 **Comptroller**
Col. Harry F. Cruver

46 **Deputy for Personnel**
Col. James H. Bearly

47 **Deputy for Operations**
Col. Clayton B. Claassen

48 **Deputy for Materiel**
Col. Orin M. Bixby

49 **Deputy for Intelligence**
Col. Robert B. Sullivan

and the visitation of death and destruction to their homeland is but a few, very few, short hours away, then a decision by them to launch their first aggressive blow must be born only of sheer desperation.

The objective of our present and any future air defense system is, thus, to ward off or reduce to acceptable limits the impact of enemy air attack, should our national aim of prevention of war itself fail. I feel, as do my people, that the market value of air defense will undoubtedly be at its highest, at its very peak on D-Day and possibly a few days or weeks thereafter. We hope, we pray, that our offensive and defensive efforts will jointly cause it to taper off markedly from that point on.

We know that nuclear armament has revolutionized not only air defense thinking, but military strategy in its entirety.

We know that A-bombs and H-bombs plus the means of carting them accurately to and over a target complex for release, compel consideration of national survival itself as the number one mission of our country's military action.

Enemy capabilities, weighed against the cost and effectiveness of an immobilizing defensive force to put in the way of those capabilities, outline the general dimensions of our air defense problem.

Dozens of factors, i.e., possible enemy approach routes, his likely target selections, his delivery equipment, prevailing winds and weather, and the like, dictate our defensive deployments.

And always the question of national economics is before us. For example, must we or should we try to add a couple of fighter-interceptors, or a new guided missile position to our defenses as the Russian adds new types or numbers to his long-range air army inventory?

And in these considerations, there is always the thought that there may be, somewhere along the line, "a point of diminishing returns" in this air defense business as we currently know it or visualize it and that it is and will be extremely difficult to determine just exactly where this point lies. . . .

Obviously, if we assumed complete desperation and tried to completely blanket the nation with radar in overlays and layers, at the same time providing the well over three million square miles of our country with maximum intensity fighter-interceptor and guided missile coverage, we would run into economic and manpower impossibility.

It is up to us, therefore, to go about the job of doing the most we can, and the best we can, with those present and programmed forces of men and weapons which can be made available to us.

Our national sense of morality, our tradition of never having struck the first aggressive blow, would, I imagine, cause the enemy to assume, and we must assume, that they will have on their side the initial advantage because of their ability to select the time (and place) of attack and start unmolested the take-off for delivery of what they hope will be the first great blow.

They patently will have many avenues of approach which gives them great flexibility in choosing and charting their hydrogen highways, as it correspondingly confronts us with multiple problems in blocking any aerial power play they initiate.

They undoubtedly assume, and we must assume, that they will have to go for a "package deal" in target arrangements—a veritable bag of varieties. In a civilization and with a defense system as complex as ours, they must know that there is no one solar plexus, no single touch-point, which when struck could leave us totally paralyzed, broken, completely subdued and subjugated.

Therefore, his offensive efforts would logically have to be as big as the target bag, and be designed to put us in an atomic vise.

In such a packet, we must figure that he would undoubtedly attempt to neutralize or wipe our our counter-offensive capability such as our retaliatory forces and their bases—the origin of our atomic stocks—certain of our major population and communication centers—and our industrial capacity for military production. . . .

[Hence] we must seek constantly for outward extension of our warning and tracking capability to take maximum advantage of area defense weapons in the Continental Air Defense Command. Our action must start with his

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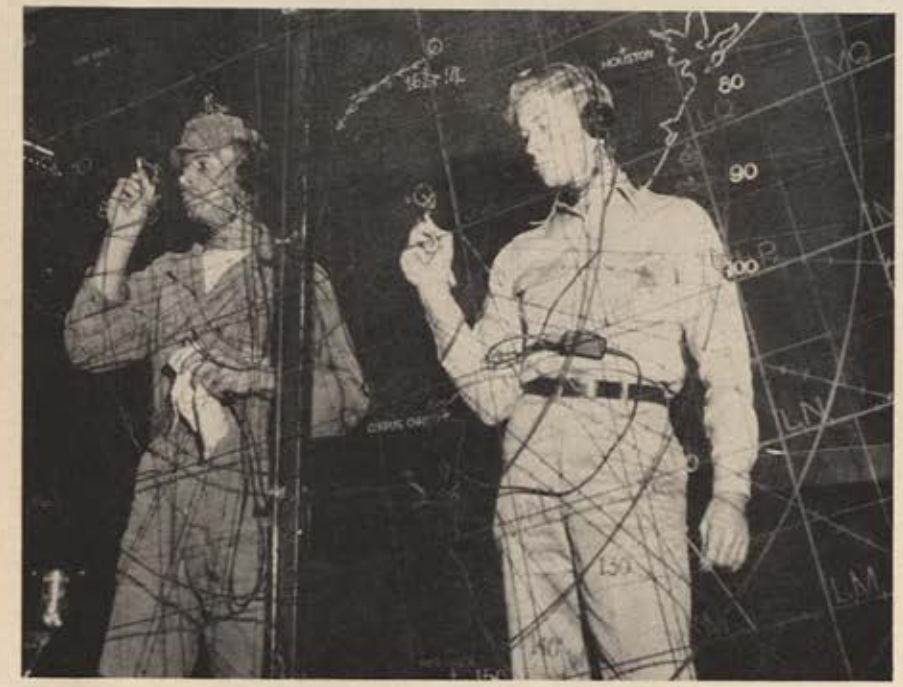
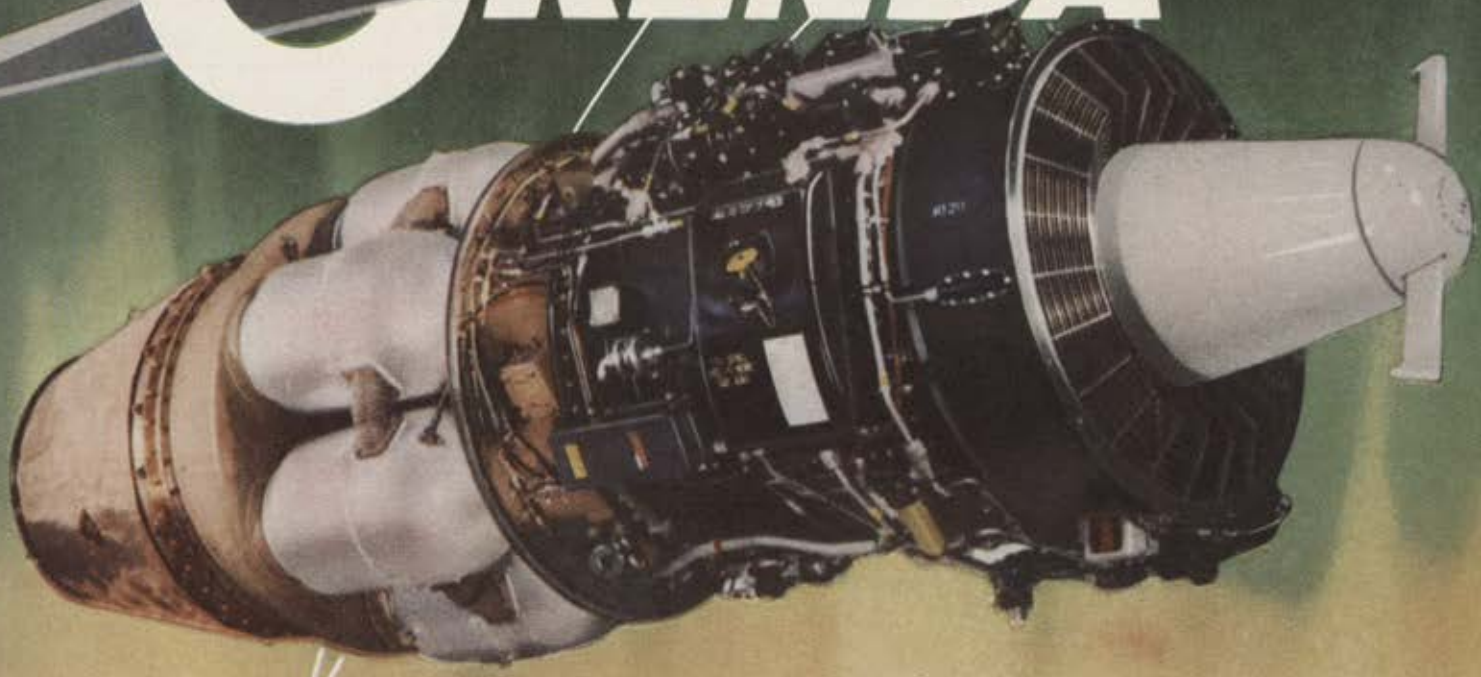


Control and warning plotters write backwards, giving teller on this side of board unobstructed view of data.

The AF recently initiated airborne radar coverage off the Atlantic coast with Lockheed RC-121 Super Connies.

ORENDA*



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action, so our forces must be so disposed in depth as to make him run a gauntlet of continual harrassing and destructive attack as soon as we make contact with him. To be sure that our response is instantaneous and rapid toward any hostile threat, our control must be decentralized.

Our full national potential in air defense must be available and have its well-defined place in the Continental Air Defense Command System, the organization which will probably fight its major battle on the day, and hour, the fight starts.

All usable fighters of other Air Force commands, those based in this country, must be slotted into usable places in the system. All Navy and Marine Corps fighter aricraft based coastally or inland, even those on carriers in or near port, figure in the system. The shore-based radar equipment of the Navy and various proving ground and guided missile test centers can make their contribution. The anti-aircraft guns of naval vessels in port must have their place alongside the guns and missile batteries which the Army contributes to the regular defenses. The National Guard and certain parts of the Reserve forces strength must come into the bag with us.

The contribution of these forces, taking their control and operational direction from the Continental Air Defense Command, can be an enormous help. We are now going forward rapidly with the planning which will make thorough use of all these augmentation elements and to make sure that the control machinery is fully ready.

Our first and most pressing need is that we obtain the greatest possible advance warning of any attack. To achieve this, we are shoving our radar detection nets further and further to the north, further and further out to sea, extending our detection, identification and tracking capabilities as rapidly as circumstances permit. Our second, and nearly as pressing need, is for streamlining the processes by which we put into motion all the vast resources of those strengths I have mentioned, and putting them into motion toward the places in the system where they will contribute the most, the quickest, and to maximum effect. . . .

We must be sure at the first flicker that the enemy is taking to the high aerial road, that we set up a series of toll gates, barriers, in his way as soon as he gets on that road. These toll gates, these barriers, should be all the missiles and jet-propelled carriers of destruction we can put out along that road to regulate or halt that travel as he comes on his atomic outing.

He must pay heavily at those toll gates. He must be fought to a standstill there, shot down out there, and, God willing, his whole effort die out there. Because every uninterrupted second that we let him come on and every mile we let him penetrate our borders to get in reach of his strike position makes the cost ratio in blood, in life and treasure of this country mount.

If we have the means to erect these toll gates when it has to be done, the nation lives.

If we do not, the nation dies.—END

Gen. Benjamin W. Chidlaw wears two military hats. In addition to commanding the Air Defense Command, where he has been since July 1951, he also heads the Continental Air Defense Command. He played a big part in the development of the first American jet airplane, and was one of the first to flight test our original jet fighter. During World War II, he commanded the 22d Tactical Air Command which supported the Fifth Army's drive through Italy. He is fifty-four years old, was graduated from West Point in 1922, and is a native of Cleves, Ohio.

BERGQUIST——CONTINUED

For emergency use we now have a coordinated plan for the security control of air traffic known as "SCAT." This plan provides for the temporary diversion or grounding of all unessential civil and military air traffic and then a carefully regulated flow of priority flights. This action is essential to the safety of the aircraft involved and is necessary to avoid oversaturation of our identification system. The policy, however, is to permit a controlled maximum flow of civil air traffic, since this traffic represents a vital part of the US economy in peace or war.

Of great importance to CONAD is the use of the IFF beacon feature to extend the effective ground radar range for control of interceptors.

The CAA is studying the application of IFF techniques to civil or commercial carriers in order to obtain positive and selective identification for air traffic control purposes. Such identification would, of course, be a valuable aid but it presents some security problems, and the present type equipment is costly.

Interception and destruction is the "pay-off" phase of the basic functions and deals with the deployment and employment of weapons. Anti-aircraft and interceptor weapons are employed under the operational control of the Joint Air Defense Commander as the fighting members of the air defense team. Interceptor and anti-aircraft forces are so closely related, and complementary to each other, that it is difficult to discuss one without the other.

The commander who is responsible for air defense must plan and utilize both forces as a team and operate each in its true role to its maximum extent. Our aim is the integrated and proper utilization of any and all weapons which are capable of contributing to active air defense.

Given some warning time and suitable weather, we would have a considerable additional fighter force available for air defense action. I am referring to the fighter aircraft forces of other Air Force commands, of the Navy, and of the Air Force Reserve and of the Air National Guard.

Tested augmentation plans provide for employment, in place, of all available fighter aircraft and, if we have several hours' warning, the redeployment of some fighters to more critical locations.

Air National Guard fighter squadrons are being equipped with fighter-type jet aircraft. While these units would have little capability against an

(Continued on page 97)


FROM TAKE OFF . . .
Whenever an American jet needs a burst of extra speed — whether to get upstairs *fast* . . . to pull up and away after a "wave off" . . . or to flash out of the clouds on an approaching invader — it's the afterburner that adds the power boost! *And with CECO Afterburner Controls to govern afterburner thrust, extra power for speed bursts can be counted on when needed.* The engineering and production of dependable afterburner fuel controls for jet engines is but one of many CECO contributions to America's aerial supremacy.
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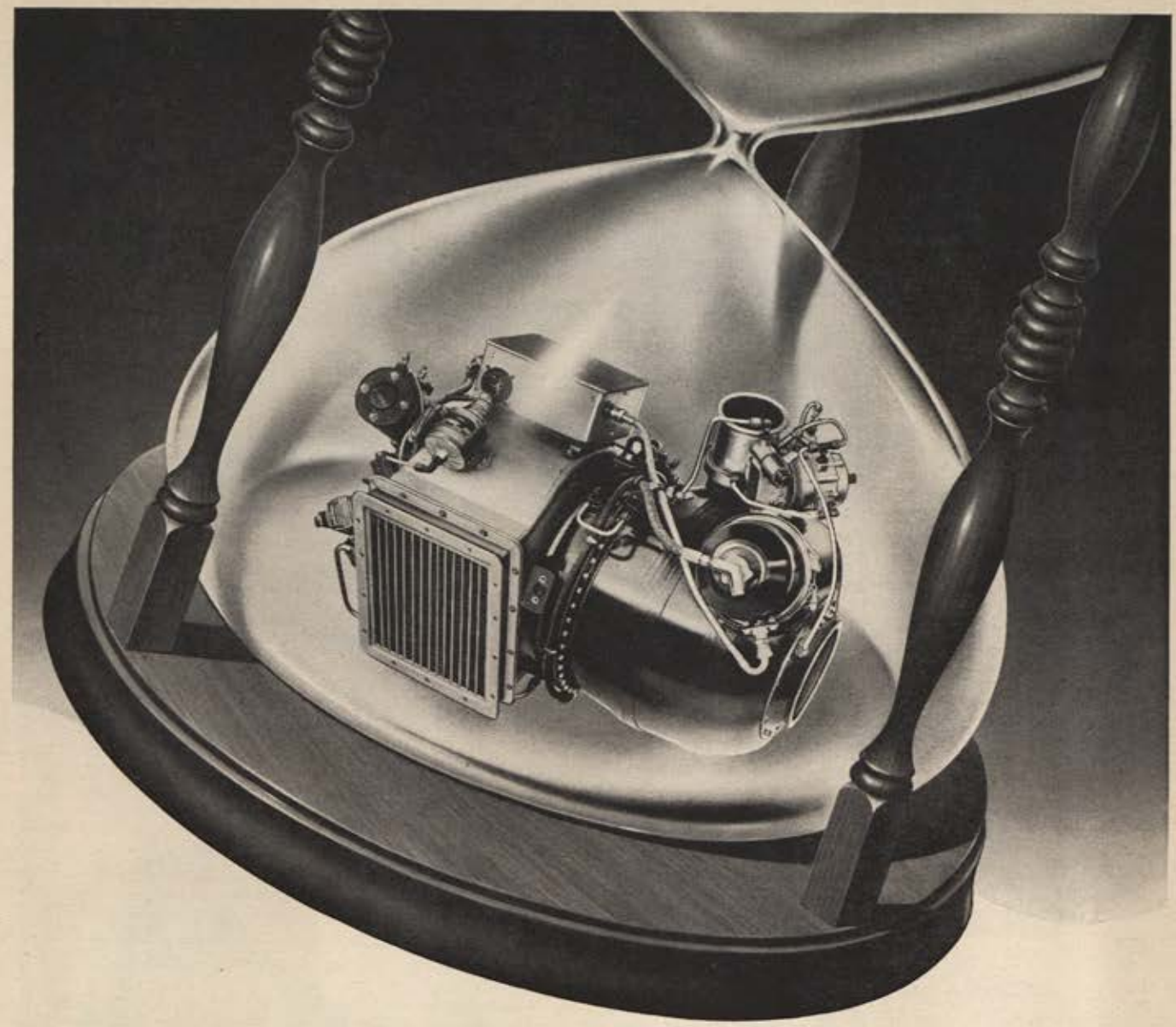
TO TOUCHDOWN



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initial surprise attack, they may be of considerable value if we have a few hours' warning.

We now have covered briefly the means to accomplish our four basic actions. Detection and identification by an extensive warning and surveillance system—interception and destruction by an integrated control system operating an entire family of weapons.

I would like to emphasize "family of weapons." To rely on any one type of weapon would, in our opinion, be disastrous. The more types (within reason), the more insurance against countermeasures. The weakness of one should be covered by the strong point of another. To attempt accomplishment of maximum attrition requires time and space for combat, starting as far out as feasible and applying ever-increasing quantity and concentration as the enemy approaches his target—this necessitates several types of weapons.

Another essential part of the air defense system are the air defense warnings. The Air Division Control Center is responsible for giving these warnings but they can also be given by higher headquarters. The system includes the following warning conditions:

- Warning Red—means that attack is imminent or underway;
- Warning Yellow—means that attack is likely;
- Warning White — means "all clear" to the general public, but a military emergency exists and emergency air traffic controls are in effect.

A fourth condition, applying only to the active air defense units, is called "Air Defense Readiness," which means that intelligence information and/or suspicious patterns of unidentified aircraft indicate an increased possibility of an attack. This condition is disseminated only to the military and is a means of placing the air defense system in an advanced state of preparedness without unnecessarily disrupting other activities.

We also have a condition called "Increased Intelligence Watch." As the title implies, this requires intense activity of our intelligence staffs. It affects the commanders, intelligence staffs, and certain other key staff personnel of only the three levels of Joint Air Defense Headquarters.

The condition of air defense warning, as determined by the appropriate commander, is passed over the special air defense warning net, simultaneously, to all civil key point air defense warning centers, within the air divi-

(Continued on following page)

sion area. Every state has one or more key points.

The FCDA has liaison personnel at our Air Division Headquarters. One of their functions is operational control of the civil air defense warning system. The Air Division advises the FCDA representatives of the condition of air defense warning. The responsibility for dissemination from the Air Defense Control Center to the public, then, rests entirely with civil authority. The military air defense warning net is established in a similar manner, but is operated entirely by military personnel.

The Department of Defense, in conjunction with the Federal Communications Commission, has developed plans to control electronic facilities which might be used by hostile aircraft for navigational purposes (CONELRAD).

This plan includes the control of commercial broadcasting stations. The requirement for denying their use can be met by stopping operations, but it is essential that their services continue in order to supply civil defense information to the general public. This plan meets both requirements. It is a synchronous-sequential system that provides for three or more stations in a city or small area to broadcast in a varied sequence on the same frequency, thus negating the use of the aircraft radio direction-finding equipment. Tests to date have proven the effectiveness of the plan.

For the control of air navigation aids we have an approved joint Department of Defense-Department of Commerce plan. In addition, plans for the control of radio stations of various other governmental agencies are now complete.

We face a continually growing threat that even now might well spell defeat if war comes. We all agree that the best defense is a good offense, but if we grant the initial move to the enemy, we must have an air defense adequate to insure our ability to get up off the floor after a Sunday punch and fight back with the will and the strength to win.—END

Maj. Gen. Kenneth P. Bergquist has been in his present post as Deputy Chief of Staff for Operations at Air Defense Command since 1951. In World War II he was DCS/Operations for the 73d Bomb Wing whose Saipan-based B-29s then were hitting Japan. General Bergquist is a 1935-graduate of West Point, and went on to become a pilot the following year. He joined the Air Defense Command in 1950.

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Michigan Squadron Backs Heliport

MEMBERS OF THE DEARBORN UNIT PRESENT A MODEL THEY MADE TO CIVIC OFFICIALS

The youngest AFA Squadron in Michigan, **Dearborn,** is sponsoring an ambitious program that is aimed at making Dearborn one of the first cities of its size in the US with an **active helicopter program.** During the past year, Squadron members, under the leadership of **Commander Berge Manoogian,** have been building a scale **model of the modern heliport.** In January, at a Dearborn Council meeting, this model and drawings were **presented to the city** by Manoogian.

In making the presentation, Manoogian said, "The Air Force Association is vitally interested in civil air transportation and the construction of heliports on a national scale. We want Dearborn to be the first Michigan city with a modern helicopter program."

William Broomhall, Council President, and Councilman George Bondie accepted the model on behalf of the city.

On January 22, leaders of AFA's **Northeast Region** (New York, New Jersey, and Pennsylvania) met in **Philadelphia** at the request of **Regional Vice President Randall Leopold,** for the first Conference held in the Region. The turnout included three Wing Commanders and a National Director, in addition to many Squadron and Group leaders.

Among the subjects discussed was the inauguration of a **perpetual trophy** to be awarded the **best all-around Wing,** based on a **point system** set up and approved by the Region. Under this system, a Wing receives points for increasing its membership, and can also garner points for the number of Squadrons it has and for the total miles traveled by delegates to national and wing conventions. The trophy was donated by Leopold.

Attending from **New York** were David Levison, Wing Commander; and Henry Breen. From **New Jersey,** Joseph Boricheski, Wing Commander; John Miller, James Doeler, and Ken Hamler. From **Pennsylvania,** Leonard Work, Commander; Josephine Groesbeck, Chester Richardson, Prestie Headings, Robert Carr, James Gilboy, Owen Ferry, Sally Downing, National Director Carl Long, and Leopold.

On January 26, **Maj. Gen. Alfred A. Kessler, Jr.,** received the plaudits of members of the **San Francisco Squadron,** along with those of top-flight civic leaders in the area, for his accomplishments during his stay in the Bay Area as **Fourth Air Force Commander.**

Tom Stack, a past Commander of the Squadron and current member of the Board of Directors, organized a dinner at the **University Club** in General Kessler's honor, which was attended by twenty-four prominent San Franciscans.

Among the guests were Elmer Barber, San Francisco Squadron Commander; Tom Barbour, American Airlines; Bob Begley, Clay Bernard, Western Airlines; Bob Dobbins, Don Farbstein, Cliff Griffin, Hank Johnson, Mike Kavanaugh, Lt. Jim Low, Thomas Mellon, Chamber of Commerce President; Al Mitchell, Oakland Airport manager; Col. Sam Moise, Air Force Reserve Center Commander; Charles Morgan, Col. Robert Northrup, Fourth Air Force Vice Commander; Mike Pisani, Regional Vice President; Adrian Rose, Chet Siverson, Bill Sutherlin, Brig. Gen. Clinton Vincent, Western Air Defense Force Vice Commander; Stack, and General Kessler.

The new **Skokie Valley, Ill., Squadron**

(Continued on page 97)

SQUADRON OF THE MONTH

The Rainier Squadron
Seattle, Wash.

CITED FOR

consistent sponsorship of outstanding programs designed to further the cause of the Air Force Reserve program in the community, and promote a better understanding of the Reservist's role in civilian life.

Berge Manoogian, Dearborn Squadron Commander (holding model) presents model heliport to Dearborn village officials. Members of Squadron donated time and materials to build model.

Head table at Seattle dinner honoring Maj. Gen. Alfred A. Kessler included local and regional leaders in addition to President John Alison and Gen. George C. Kenney.

New Jersey, New York, and Pennsylvania leaders meet in Philadelphia for Northeast Region Conference. All the Wings and Squadrons in the Region were represented.

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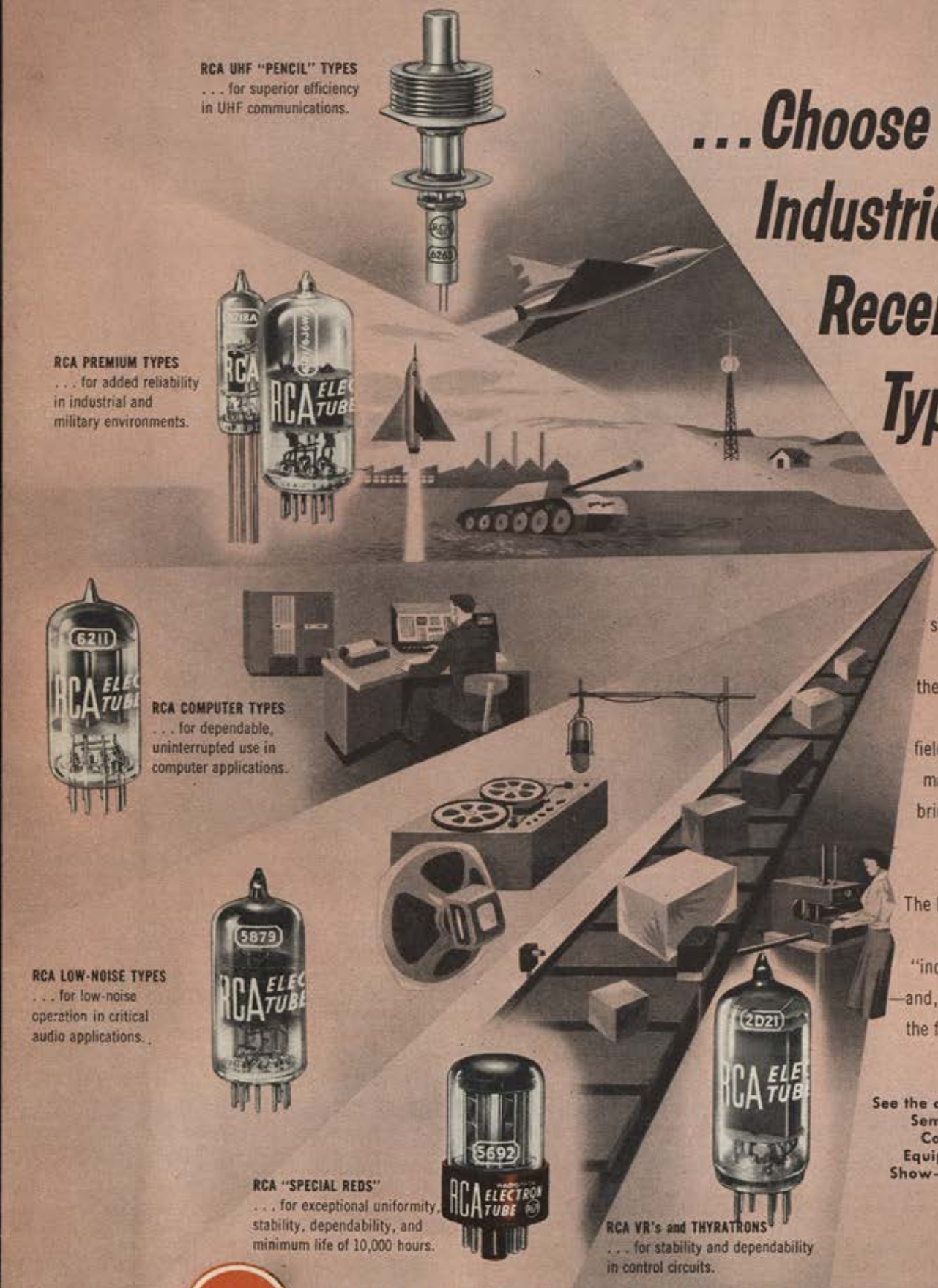

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was officially welcomed to the community on January 27, when **George D. Wilson,** Mayor of Skokie, presented the Squadron its Charter in ceremonies at the City Hall. **Robert Vaughan,** 8303 Monticello, Commander, accepted for the Squadron.

National Directors **George Anderl** and **Morry Worshill,** and Chicago Group Commander **Leroy Kwiatt,** one of the organizers of the new unit, also spoke briefly.

Guests at the meeting included Jack Seeley, Village Clerk; William Krewer and Fred Wakefield, Village Trustees; and Lt. Col. John Gaffney.

In addition to Vaughan, officers of the new Squadron are **William Kearney,** Vice Commander; **Warren Hanke,** Secretary-Treasurer; and **Norman Lauer** and **George Wilson,** Councilmen. Vaughan has been appointed Publicity Chairman of the Illinois Wing convention, to be held in the Sheraton Hotel in Chicago on April 30.

The **Lansing, Mich., Auxiliary unit,** one of the oldest in the nation, celebrated its **third birthday** on January 15 with a **Charter Day Luncheon** in the Roosevelt Hotel. **Mrs. Richard Taylor,** President of the unit, presided.

Lt. Col. Alice Hammond (CAP) was the main speaker. She discussed the value of airpower as a force for cementing friendships around the world. After her speech, Colonel Hammond was made an honorary member of the unit.

Mrs. W. S. Karr, Wing Auxiliary President, gave the opening invocation, a prayer that was adopted as official at the last unit meeting.

Other guests included Regional Vice President Glenn Sanderson; Auxiliary Vice President Beulah Carr; Wing Commander Robert Emerson; and Lansing Squadron Commander James G. Vignola.

The **Minute Man Squadron,** one of two new units in Massachusetts, held its charter meeting last month in Boston. **Harold F. O'Neil,** Squadron Commander, accepted the Charter from Regional Vice President **Thomas Stebbins** during the ceremony.

Attending as guests were Commanders of two other Squadrons, **Philipe Coury** of Boston, and **Harold E. Lawson** of the new Laurence G. Hanscom Squadron, chartered in February.

All the members of the Minute Man Squadron also are active in the 89th Fighter-Bomber Wing of the Air Force Reserve.

One feature of the February meeting of the **Santa Monica, Calif., Squadron**—AFA's "Squadron of the Year" for 1954—was the presentation to **James Czach,** Commander, of the official charter for the **Air Explorer Scout Troop 444,** organized and sponsored by the Squadron. Howard Crooks and Percy Woodford, Bay District officials of the Boy Scouts, presented the charter.

At the same time, the AFA Squadron gave the Explorers the official Troop banner and an American flag. Wilbur Reeser is Scoutmaster of the Troop.

Guest speaker for the evening was **John J. Northrop,** the well known aircraft designer and retired board chairman of Northrop Aircraft, Inc.

The first chartered Squadron in the California Wing, Santa Monica is also the first to sponsor an Explorer Troop.

CROSS-COUNTRY . . . Tom Stebbins, New England Regional Vice President, has done a fine job in his area in rounding up potential Squadron organizers. Two Squadrons have already been chartered (**Minute Man** and **Hanscom**), and others are being formed in Bangor, Me., and Rutland, Vt. . . . **"Kiwi's Flight Log,"** the monthly bulletin of the San Fernando Valley, Calif., Squadron, is an excellent publication. Credit is due the entire Squadron, but particularly editorial

(Continued on following page)

Morry Worshill, center, a member of the new Illinois Skokie Valley Squadron, accepts the unit's Charter from Skokie Mayor George D. Wilson, right, at ceremony at City Hall in January. At left, Squadron Cmdr. Robert Vaughan.

SAN FRANCISCO . . .

where the climate is delightful in August . . . is the site of AFA's 1955 Convention

DETAILS ON PAGE 74

At California Group meeting in Fresno Wing CO Cecil Howard and Bob Dobbins hold banner. In center is Wing Auxiliary President Dorothy M. Myers.

staffers **Curt Christensen, Bob Feldtkeller, Adelaide Dobson,** and **Bud Riley** . . . **Jim McDivitt,** California Wing Organization Director, reports the new Squadron in **Hawthorne** will apply for a Charter this month . . . Dates and details are not known at the time this goes to press, but two more Wings—**Utah** and **Massachusetts**—have announced **1955 conventions.** If interested in more details, contact the respective **Commanders**—Paul M. Fisher, 2922 Taylor Ave., Ogden, Utah, or Edwin Tomawski, 55 Danforth St., Taunton, Mass.

Another **husband-wife team** has joined forces in AFA activities. The **Robert S. Hart Squadron,** of New Orleans, La., and its Auxiliary Unit, have installed **Mr. and Mrs. Clyde H. Hailes** as Squadron Commander and Auxiliary President, respectively.

Mr. and Mrs. Hailes live at 5218 St. Roch Ave., New Orleans. He is a tower operator for the Municipal Airport.

Other officers in the Squadron are **John Nichols,** Vice Commander; **Pat Raftery,** Secretary, and **Cyprian Casadaban,** Treasurer. The Squadron meets in the St. Charles Hotel.

Fred O. Rudesill, outgoing Commander, is Louisiana Wing Commander. Two other Squadrons are active in the Wing, in Lake Charles and Shreveport. —END

ATTEND YOUR WING CONVENTION

California	Fresno	April 30-May 1
Illinois	Chicago	April 30
Ohio	Toledo	May 7-8
New York	New York City	May 21
Wisconsin	Milwaukee	May 21
Pennsylvania	Lewistown	June 4

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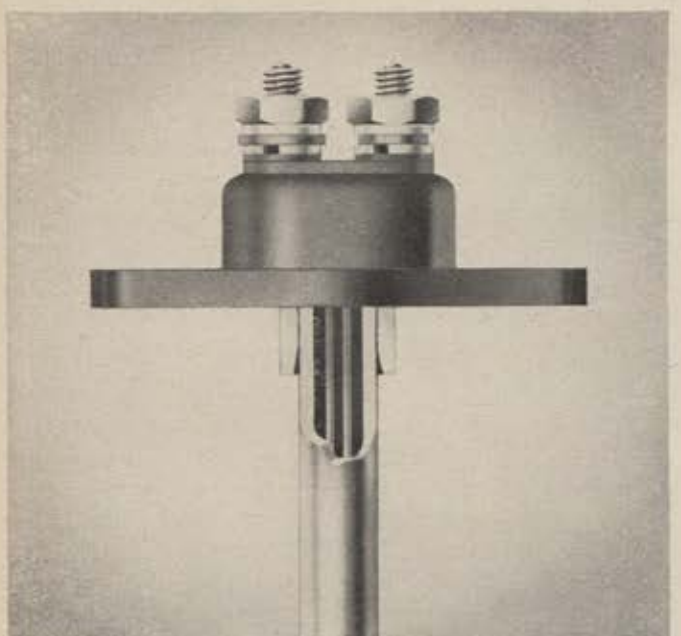

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The Third Air Force Retraining Center at Sealand, Wales, has done away with barbed wire and the suggestion of confinement. Honor has proved a more effective means of keeping men in the center.

The Air Force's prisons-without-bars

Second-Chance Camp

How the Third AF in Great Britain is replacing the stockade with the retraining center. It means a better shake for minor offenders, and it's paying off for the Air Force, too

By Lawrence P. Bachmann

"Retrainee" (posed by A/1C Donald R. Edgington) on arrival at the center.

THERE are no bad men, nor are there good men—there are only weak men and strong men, and if the weak men can be helped and their weakness bolstered, then they will cease being "bad." Such is the basic theory of the Third Air Force in Great Britain in dealing with first offenders and airmen convicted of petty crimes.

Instead of being sent to a stockade or prison to serve their terms and then often given a dishonorable discharge, these men are sent to a new type of detention camp—a prison-without-bars, where every possible effort is made to find the source of the individual offender's weakness, to explain it to him, and to restore him not only to the US Air Force but also to a full and good citizenship.

Barbed-wire fencing, guard posts, and confinement. This was the guardhouse at the RAF Station Sealand before the AF Retraining Center was established.

The offenders sent to the Third Air Force Retraining Center at Sealand, Wales, face no easy time. In many ways it's tougher than serving time in a regularly guarded and maintained stockade. It is one thing to plod through the routine of prison life, to stew in your own juice of grievances, blaming on the outside world everything that has happened to you, never on yourself. It is quite another thing to be forced to think; to examine yourself; to be probed and searched mentally, emotionally, and spiritually first by the psychologists and then by your own tortured conscience until you finally discover for yourself the un-

Retrainees, working without guards, construct storage bins in the warehouse of the Northern Materiel Area.

Each retrainee begins his stay at the center by surrendering his personal effects, as in this posed picture.

derlying motives for your attitudes and behavior—the behavior which got you into trouble in the service. Probably the same behavior got you into trouble in school and it will only intensify and rub the world the wrong way after you leave the service.

Col. L. H. Erichs, Third Air Force Provost Marshal, explains that a number of elements went into the carefully weighed decision to start "Second-Chance Camp." One was the waste of manpower and money involved when an offender went to prison. The gov-

(Continued on following page)

A "Second-Chance Camp" at Amarillo AFB

Retraining . . . Not Revenge

By Gilbert Geis

IT WAS a typical scene at an Air Force base in early winter.

On the field below us, two Air Force units were battling for the touch-tackle football championship of Amarillo (Texas) Air Force Base. On my right, Col. David B. Borden, Jr., commanding officer of one of the units, shouted encouragement to his team as it dug in to stave off a last-minute passing attack.

The defense held, and Colonel Borden's team went on to post a 13-12 victory. After the game, the winners—members of the 3320th Retraining Group, all of them Air Force prisoners—were given a trophy by Gen. Walter R. Agee, commander of the base.

This was my introduction to the Air Force's retraining program, rightfully labelled "the world's most unusual military prison."

What exactly is being done at Amarillo? Those in charge of the retraining program insist that their work cannot be summarized in simple praise which notes this or that concrete aspect of the over-all program. It is the elusive, hard-to-grasp, harder-to-convey "climate" of the program that is of crucial importance.

A young boy, half-shy, half-puzzled by an unexpected question, came as close as anyone to putting a finger on the "climate" at Amarillo. He was unpacking his gear after a move from the indoctrination barracks into the housing unit for the next phase of the retraining program.

"I thought this was going to be another round of basic training, only more so," he said. "I came here because I was badly loused up. I would have grabbed at anything. Somebody must of thought I wasn't hopeless and had me sent here. It sure was good to get away from that stockade."

He paused, thinking hard. "You know, it ain't like basic at all," he said. "They treat you like a person here, like a human being—they treat you like they trust you. Pretty soon you begin to feel that you don't want to let them down."

Not all retrainees react so positively, and with those who do not respond favorably, the Air Force wastes no time. This is not a program to coddle the hopelessly immature. Retraining is not, as one officer put it, "a pasture for contented cows."

There are no fences, no locked doors, no guards, and no barred windows. If a man doesn't have the stuff to provide his own self-discipline—after he has been thoroughly and painstakingly told exactly what will be expected of him while he is in the program—then he is simply dropped from the retraining roster.

Recommendations on each case are made after careful screening by skilled personnel. The man is observed closely while he is passing through the program. He is examined comprehensively with a battery of standard psychometric tests, administered by Maj. Ronald C. Force, a career officer with an advanced degree in psychology. Generally, if returned to duty, the man does not go back to his original unit. He can start anew with a clean slate.

Like the Air Force itself, retraining benefited from its relative youth which allowed it to begin from scratch, unfettered by outmoded tradition. The original plan was developed by a group of farsighted young officers who began laying the groundwork for the system when the Air Force was created as a separate service in 1947.

Retraining received official approval of the Air Force Council on October 15, 1951. Lt. Col. Stephen E. Tackney, who himself had once faced a court-martial for fraudulent enlistment in the Army—he was only sixteen at the time—was the first commanding officer. Tackney at present holds the position of Assistant for Clemency and Parole in the office of the Assistant Secretary of the Air Force (Manpower and Personnel). Colonel Borden took over in 1953.

Since its inception, nearly 2,000 airmen have gone through the retraining program at Amarillo. Normal inmate population ranges from 220 to a maximum of 250. The retraining staff has been continually impressed with the fact that intelligently administered trust can be as effective in maintaining discipline as a forbidding gun tower. In some ways in fact, it is more effective, since inmates no longer spend endless hours plotting means of escape and ways to outwit the authorities. If they want to leave the retraining unit, they can just amble out—and there's no glory in that.

In the first phase of retraining, an airman is interviewed and tested. He hears a series of orientation talks,

(Continued on following page)

ernment has a considerable amount invested in every airman. It's a dead loss when he's in prison. If he is discharged from the service, this investment likewise is lost, and the man must also be replaced. In civilian life the man is likely to wind up as a further drain on the taxpayer. Another factor was the studies made by psychologists during the war years concerning men and women in the service. The Air Force has realized that something is wrong with a penal system which only punishes a violator and does little about finding the reason for the crime and preventing it from recurring. Most important of all was the fact that this was an opportunity at an early stage to save the weak and to turn them into good citizens.

Sealand was chosen because it had a prison stockade and it was part of a large Air Force supply base. The barbed-wire fences and guarded gates were taken down, the guards removed. The whole place was revamped to look like any other Air Force installation, the only evidence of its identity the simple sign "Third Air Force Retraining Center." (Before the camp was changed six men escaped. Since the removal of guards and fences not one man has fled.) The commandant is Capt. Albert B. Todd, Jr., of Newtonville, Mass., whose outfit is called the 7502d Retraining Squadron—a carefully selected group of officers and NCOs, including not only psychologists, educators, and sociologists, but also chaplains. They are not there to punish the men in their charge. They are not interested in whatever crime

(Continued on page 111)

Upon his arrival at Sealand, admission papers and records of a "retrainee" are handed over to the Provost Sergeant.

Mission of the center is explained to a "new arrival" by Capt. Albert B. Todd, Jr., Commandant at Sealand.

1st Lt. Jordan E. Rizer, retraining officer at the center, administers the Wechsler-Bellevue intelligence test to the "retrainee."

RETRAINING—continued

designed to impress upon him the responsibilities he must shoulder if he is to be successful in the program. The second phase puts greater stress on formal training, partly of a classroom nature and partly supervised activities, including athletics, hobbies, and entertainment. The retrainee also is introduced into group therapy sessions which allow him to give expression to his feelings and to vent his hostilities in a socially approved manner. Under expert guidance, he is led to acquire a greater understanding of both himself and his fellows.

These phases are not formal, time-bound sequences, but are flexible programs that can be matched to the requirements and responses of individuals. In Phase III and Phase IV, labelled Specialized Career Training and Counseling, the man is prepared for possible return to service by vocational or educational training.

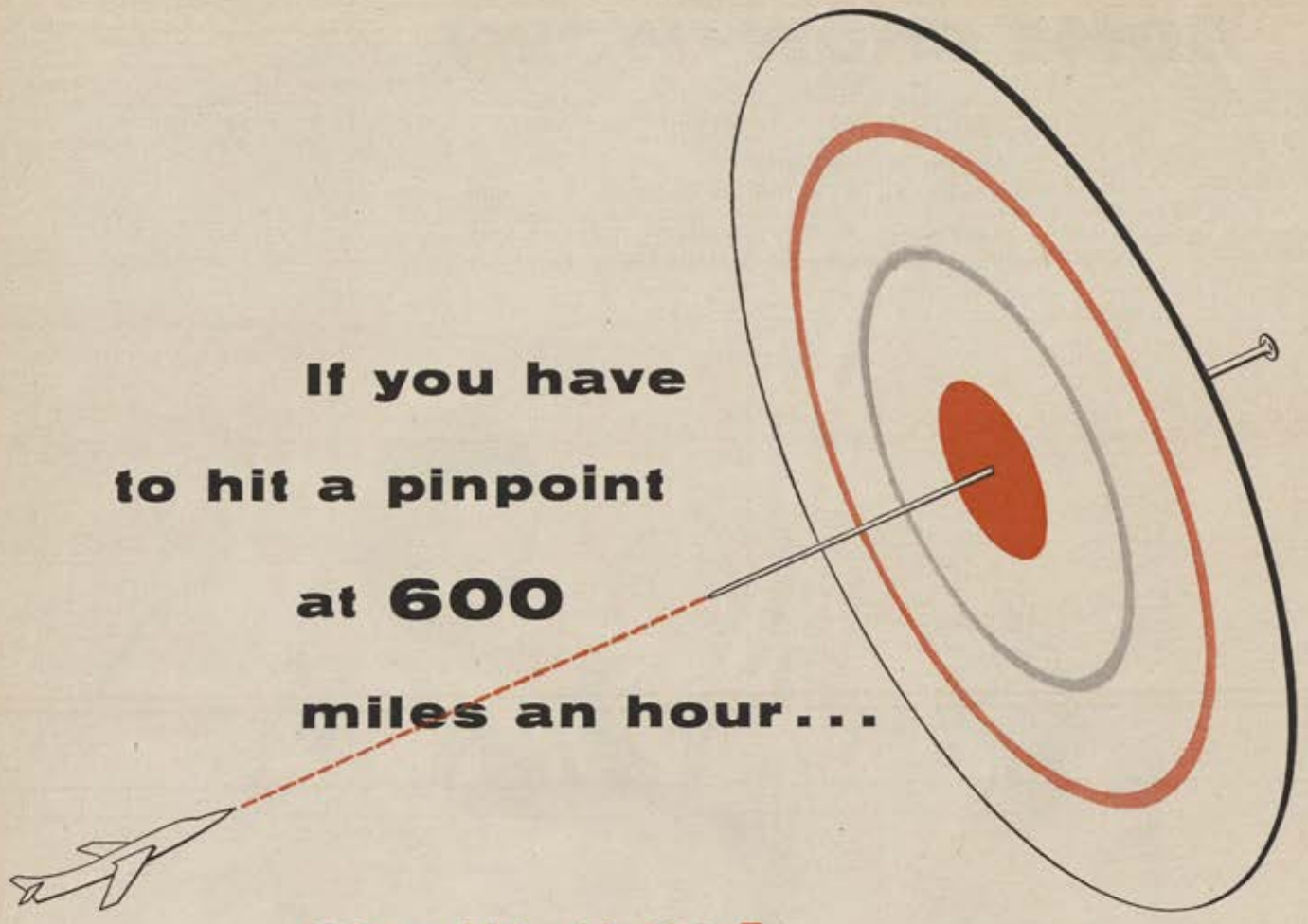
Retrainees are integrated into almost all of the regular activities on the far-flung Amarillo base, so much so that, "you can't tell a retrainee without a score card." When I first arrived at the base, in fact, I talked with an extremely polite young airman who was busily pounding a typewriter in one of the administrative offices. When I mentioned my interest in retraining, and asked him for an honest opinion, he explained that he would not be a fair critic since he was a member of the retraining group.

"But if you still want to know," he went on, "it's the best thing that ever happened to me."

This personal testimonial is corroborated by a study which matched a group of stockade prisoners against a retrainee group. After they returned to duty, the retrainees received higher proficiency scores and showed lesser degrees of maladjustment.

Summarizing this study and the achievements of the retraining program, Dr. Berlie Fallon, of the Training Analysis and Development Division at the Amarillo base, points out that the retraining program pays off in at least three areas: (1) to the Air Force in terms of well-adjusted individuals; (2) to the individual airman in terms of increased self-understanding; and (3) to the larger society in terms of good citizens, both military and civilian.—END

The author, a WW II Navy Radioman, is a Ph.D. from the Univ. of Wisconsin and now a member of the department of sociology at the Univ. of Oklahoma.



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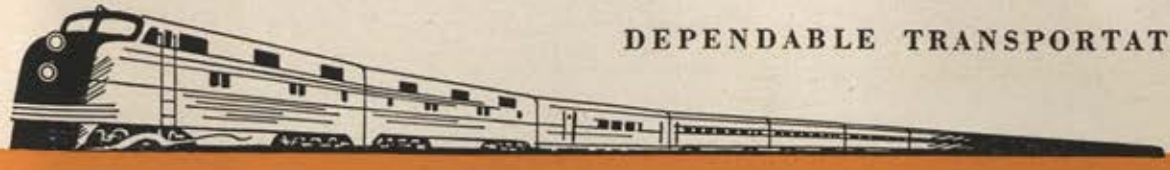

the retrainee has committed. They are only interested in why he did it. And to show the man why he did it, because once he understands his weakness he will overcome it.

This all sounds like simple psychiatric theory and technique and so it is—with major modifications. The first one is that no one lies on a sofa and talks. Possibly it would be a good way to do it but it just so happens that sofas aren't government issue and there aren't enough trained analysts or time.

The first phase for a retrainee after he arrives at "Second-Chance Camp" is a period of sharp discipline, to make him aware of the difficulties he is in and to jog him to do something about them. At the same time his reactions to the strict discipline are carefully observed.

After the initial phase the discipline is continued but now the retrainee is given twenty-eight days of formal schooling in citizenship and customs and courtesies of the service. The purpose of the camp is explained to him and he is able to see for himself that he has a second chance. But his rehabilitation is up to himself. This schooling period consists of real study and examinations. The retrainee must get a minimum of seventy-five percent in his tests before he can move on to the next phase of his training—a diagnostic treatment of tests and interviews.

You don't see anything prison-like in the retrainee barracks at Sealand.

Just like airmen everywhere, a "retrainee" prepares for an inspection.

Here he gets a battery of psychological tests, including the Minnesota Multiphase Personality Inventory and the Wechsler-Bellevue intelligence test. These tests are conducted by NCOs, who wear civilian clothes so that there is no question that the interviewer is "pulling rank."

Most of the men's difficulties come from all sorts of basic reasons, usually stemming from childhood—alcoholic parent or parents; being an over-protected, only child; bullying at school, etc. The belated discovery that he was born out of wedlock has caused more than one airman to become a chronic alcoholic. Basic inadequacy or weakness are contributory factors. The most frequent and the strongest appears to be the loss of individuality in the service. So, besides learning to cope with the basic source of his

(Continued on following page)

SECOND-CHANCE—CONTINUED

disturbance, it is vital that he become a person in his own eyes.

Throughout this time the retrainee's behavior is carefully noted. His change in attitudes, his behavior during the formal training period, as well as all of the information revealed in the tests and interviews, are examined and discussed by the camp board.

This board, made up of officers, NCOs, and the chaplain, working with the man, meets informally in the camp dayroom. It has the power to recommend immediate clemency for any retrainee found worthy of it; discharge

Trim picket fences dress up the center. Barbed wire has been removed.

from the service for the most incorrigible cases; or a further period of training for the men to be retained.

The latter is the course most usually prescribed. With it often goes a change in the retrainee's AFSC (job assignment specialty). In many cases the man's AFSC might have contributed to his difficulties. He may have lost his individuality through being forced into a job for which he is temperamentally unsuited. The intensive psychological testing reveals the individual's true interests and capabilities and he is put into the correct AFSC if he is not in it already. A change to the correct occupation does a great deal towards helping a man to find himself.

(Continued on page 115)

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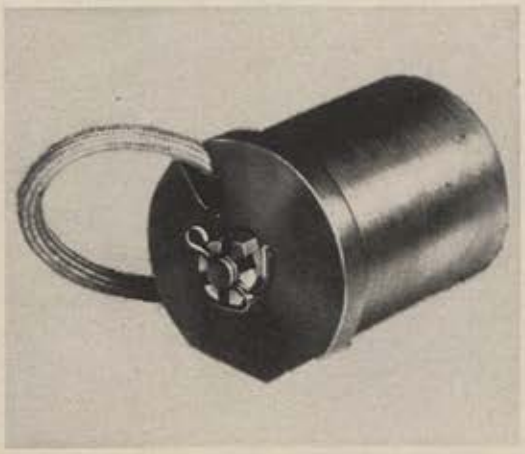

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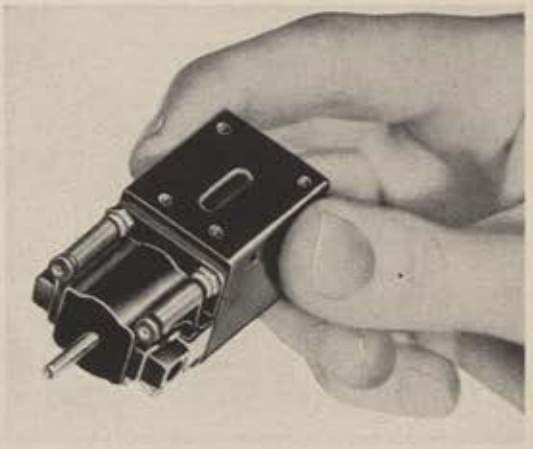

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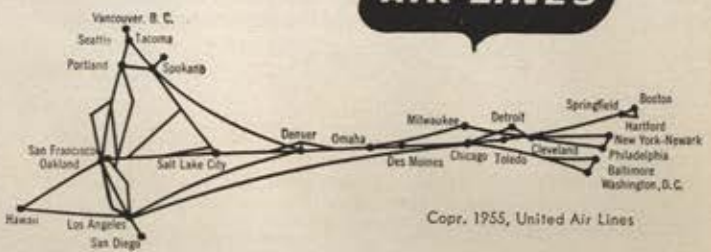

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SECOND-CHANCE—CONTINUED

He gets on-the-job training in his new or even old AFSC. It is during this last phase at "Second-Chance Camp" that he is integrated into his future life. He moves from the camp to the main supply base, where he lives and works with other airmen. Usually the airmen he works with don't know that the new man came from the camp across the road. The retrainee has all the privileges of any airman except one—he is not allowed to leave the base. He has his own money. He can go to the movies, bowl, play baseball or basketball, read in the camp library, go to the club, do everything and anything any other airman can do on the base. No guards watch him. The NCO counselors are available to help advise if necessary. At the end of this pre-release phase or retraining, both in mental outlook and on the new job, the man is usually assigned to a new base. He is off to a fresh start, not only in the Air Force, but in life.

How successful is the Second-Chance Camp? The simplest way of measuring that is by the number of men who have passed through this camp and have gotten into trouble after being sent out on new assignments. To date the percentage of those who graduated and are in difficulties is one percent. Ninety-nine percent have found their lost individualism and the source of their weakness—they have become good airmen and good citizens.—END

The author, Larry Bachmann, a wartime staffer on this magazine, now lives in London. His article "On Target" appeared in our March issue.

A "retrainee" leaves the center with a new attitude toward his service.

THIS IS AFA

The Air Force Association is an independent, non-profit, airpower organization with no personal, political or commercial axes to grind; established January 26, 1946; incorporated February 4, 1946.

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• To assist in obtaining and maintaining adequate airpower for national security and world peace. • To keep AFA members and the public abreast of developments in the field of aviation. • To preserve and foster the spirit of fellowship among former and present members of the United States Air Force.

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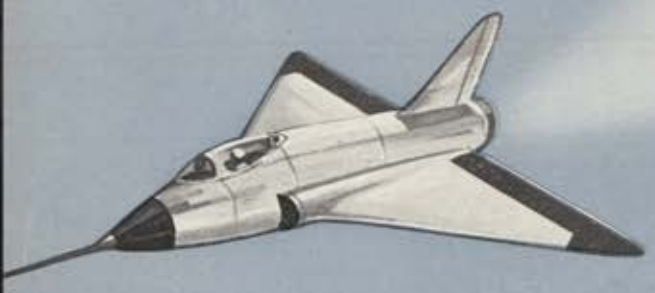

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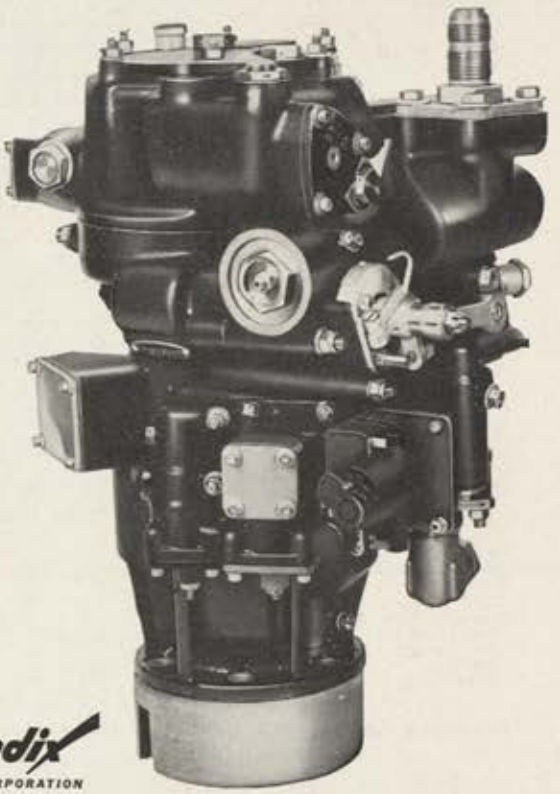

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