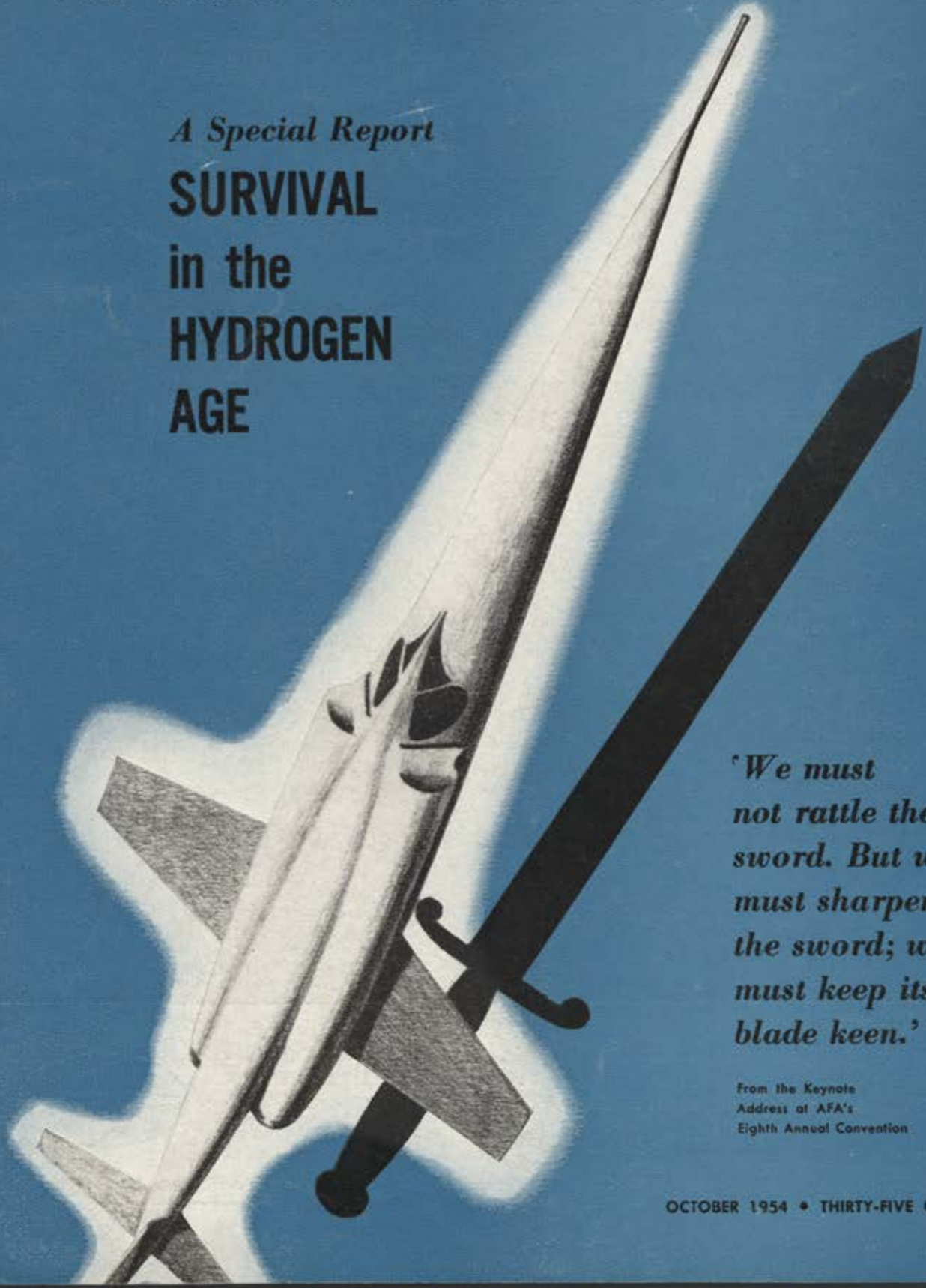
AIR FORCE

THE MAGAZINE OF AMERICAN AIRPOWER

A Special Report

SURVIVAL in the HYDROGEN AGE



'We must not rattle the sword. But we must sharpen the sword; we must keep its blade keen.'

From the Keynote Address at AFA's Eighth Annual Convention

OCTOBER 1954 • THIRTY-FIVE CENTS

HAMILTON STANDARD . . . leader for years in propeller design and production, is now supplying other essential equipment for such outstanding new jet aircraft as the Boeing 707 tanker-transport.

Wherever Man Flies

HAMILTON STANDARD

Propellers • Starters • Air Conditioning Fuel Controls • Pneumatic Valves • Hydraulic Pumps

HAMILTON STANDARD, WINDSOR LOCKS, CONNECTICUT

Salute to America's first all-jet bomber force

At Barksdale Air Force Base, La., late in July, the Second Air Force became America's first all-jet striking force with retirement of the last of its piston-driven bombers.

Now completely equipped with fast Boeing B-47 Stratojets, the Second Air Force is part of Strategic Air Command, America's global air arm. Its swept-wing Boeings are 600-mile-an-hour medium bombers that have broken all existing distance and endurance records for jet aircraft, including a nonstop trans-Pacific flight with aerial refueling from California to Japan.

Strategic Air Command continually flies training missions that simulate exacting combat assignments. Ranging the skies over three continents, the polar ice cap and vast expanses of ocean, SAC aircraft follow split-second timetables. Their trial bombing runs, defense and other maneuvers are all scored in a relentless drive for ever-increasing proficiency.

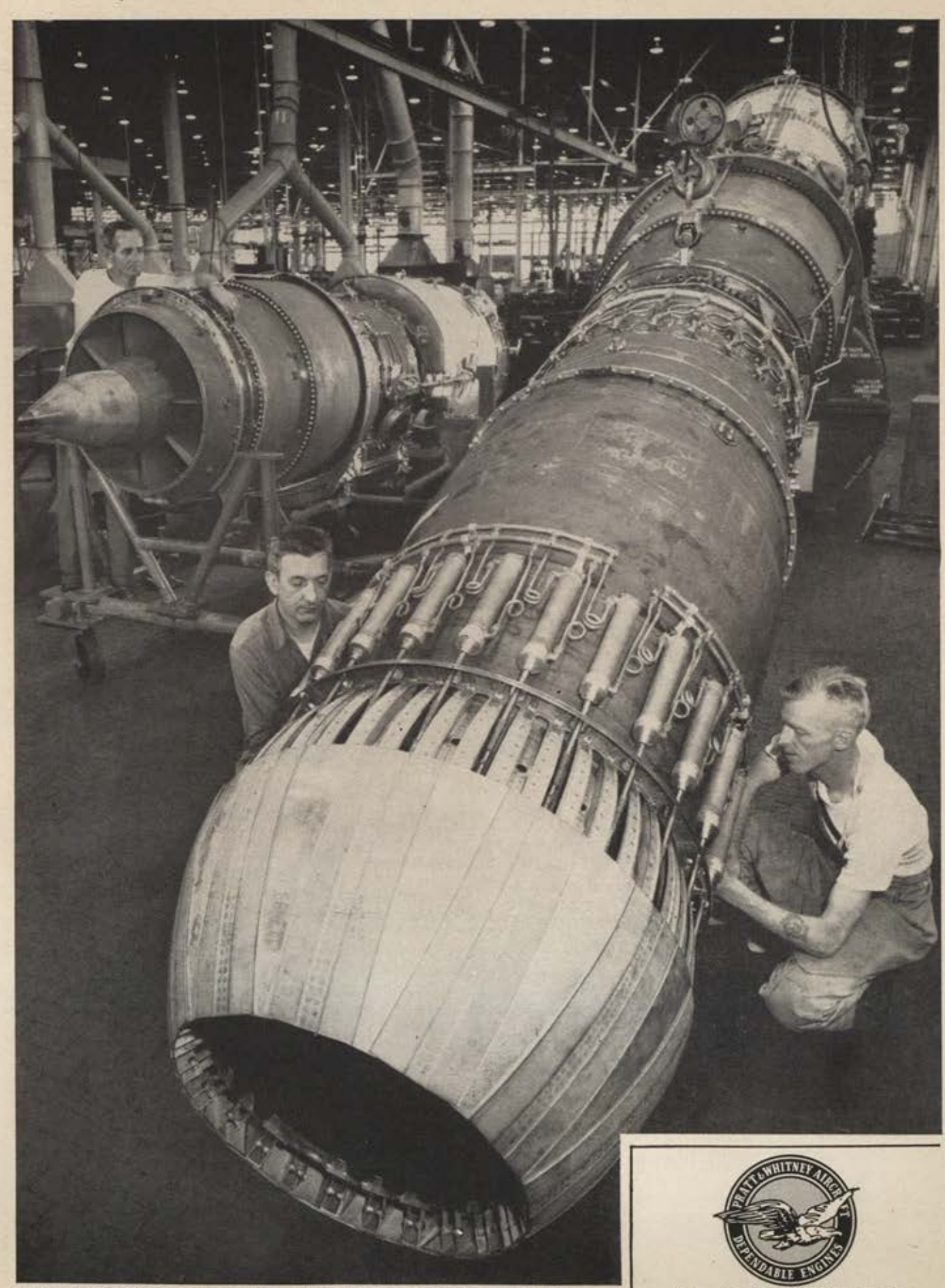
Entire wings, numbering 45 Stratojets and 20 Boeing KC-97 tanker-transports, are rotated regularly through scheduled training operations to English and North African bases. On these missions, tanker-transports provide aerial refueling for the jet bombers, and carry the ground personnel and equipment needed to make each unit self-sustaining for 30 days.

SAC is on an around-the-clock combat alert. Its operations have achieved such a high level of efficiency that its training missions could be transformed instantly into massive retaliatory action against the war-making power of any aggressor, anywhere.

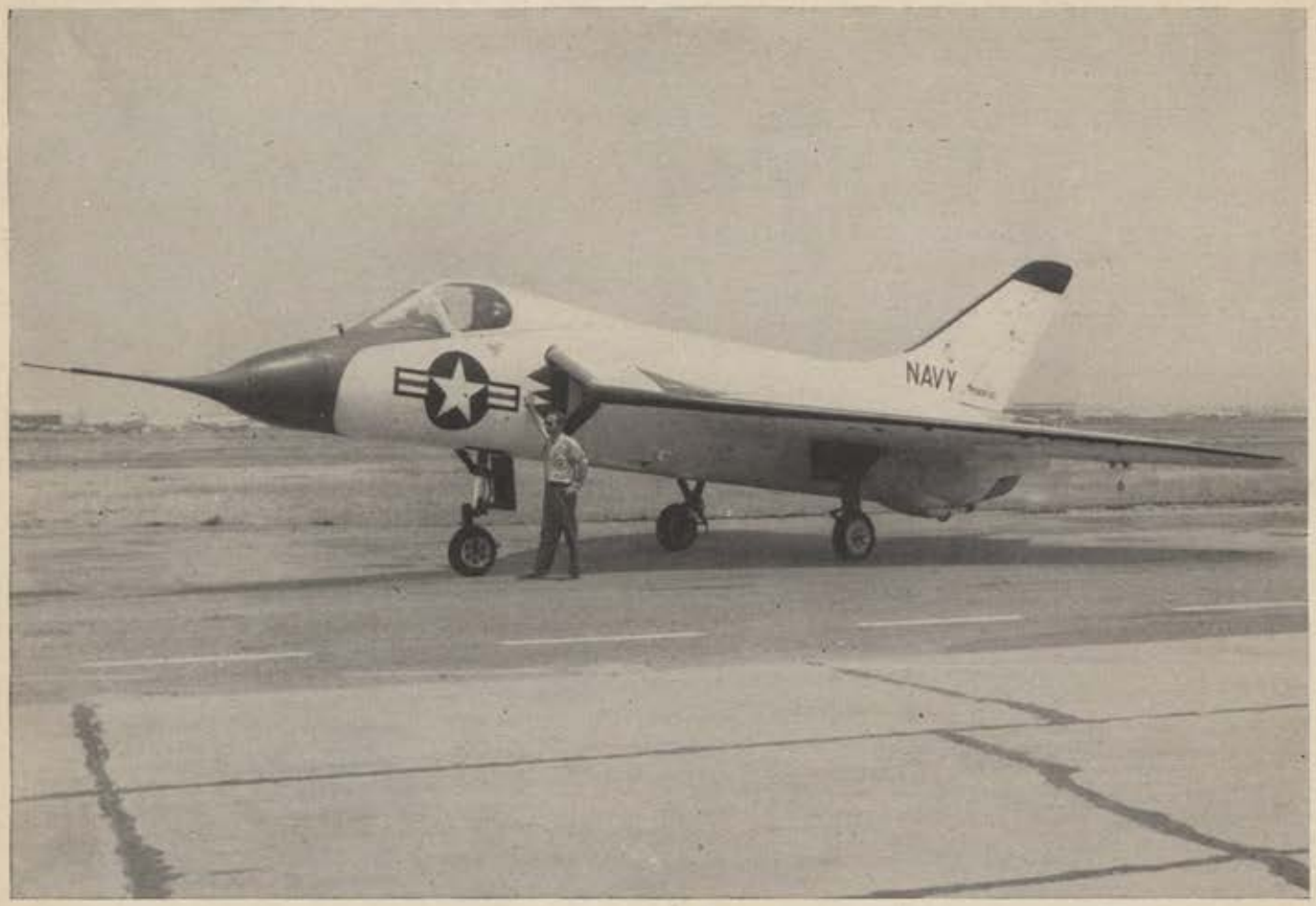
Establishing America's first all-jet striking force marks a giant stride forward in this nation's defense program. The advance is continuing as additional Strategic Air Command units complete their transition to all-jet operations.

Young men: You'll acquire "know how" as an airman in the United States Air Force. Opportunities for top technical schooling, world travel and a responsible position on the nation's defense team.

BOEING



Power behind the F4D's superlative performance is provided by one 10,000-pound thrust class Pratt & Whitney Aircraft J-57 turbojet, equipped with afterburner for short periods of huge additional power.



The sleek Douglas F4D is the latest carrier-based interceptor and the Navy's first combat aircraft to outspeed sound in level flight. Production airplanes, now coming from the Douglas El Segundo plant, are powered by Pratt & Whitney Aircraft's J-57 engines.

Skyray has High Performance with J-57 Power Plant

When it comes to interceptor performance, few combat planes can match the Douglas F4D Skyray, one of the aircraft bringing a new potency to Navy carrier aviation.

The Pratt & Whitney-powered Skyray is the Navy's first supersonic combat airplane, and one of the fastest aircraft in the world. Its rate of climb and many abilities at design altitude are unique among fighter aircraft. It is in production and scheduled for service with the Fleet in 1955.

In the Skyray, and in other combat airplanes, performance of Pratt & Whitney Aircraft's J-57 turbojet is fully justifying the long years and intensive effort required for its development and production.

Pratt & Whitney Aircraft

MAIN OFFICE AND PLANT: EAST HARTFORD, CONNECTICUT • BRANCH PLANTS: NORTH HAVEN, SOUTHINGTON, MERIDEN

In Canada: Canadian Pratt & Whitney Aircraft Co., Ltd.

AIR MAIL

Beautiful Planes

Gentlemen: In my opinion, the author of "Those Were Beautiful Planes" in your September issue left out the most beautiful plane of them all—the Lockheed P-38. In the air the '38 was extremely graceful and looked as if it were floating along. This is all models up to and including the P-38G. I was in the 54th Fighter Squadron, which was, as far as I know, the first outfit to take the P-38 into combat in World War II. This was in the Aleutian Islands, when the Japs attacked Dutch Harbor. The Lockheed P-38 gets my vote for the most beautiful plane.

Don Knapp
Hastings, Nebr.

• *Any other nominations?—The Editors.*

AEDC Tunnels

Gentlemen: The sincere thanks of all of us here at Arnold Engineering Development Center for the article "Tunnels Buy Time" in your September issue. Our work here is vital, but it is unglamorous in comparison with the other forms of aviation research. An article such as yours does much to reflect our proper stature to the industry and nation we serve.

Brig. Gen. S. R. Harris
Commander, AEDC
Tullahoma, Tenn.

Two Missing Engines

Gentlemen: I was most interested in Robert Gates' article on engine development in your August issue, but I notice that on page 34 the Vickers Viscount is described as being a two-engined aircraft. While this was probably a misprint (it has, of course, four Rolls-Royce propeller turbine Dart engines), I felt that your readers might be interested in some of the latest engine overhaul figures:

The engines in question are now approved for 750 hours between overhauls. British European Airways (who have logged nearly 4,000 hours of successful route flying with these aircraft) are operating a number of engines which are being checked for 900 hours between overhauls. It is hoped that this figure may be extended to 1,000 hours by the end of this year.

Christopher Clarkson
US Representative
Vickers-Armstrong, Ltd.
New York, N. Y.

• *Our apologies to Vickers, Mr. Clarkson, and the others who properly called us to task for stealing two engines from the Viscount. In the same issue (August), on page 62, we showed a picture of the Viscount with its full complement of four engines.—The Editors.*

Lobster Tale

Gentlemen: I have always admired your articles for their straightforward approach in helping the public understand the workings of the Air Force. That is to say until I read the article "Lobster Tale" by John A. Pope in your August issue. All through the issue and the issues of the past year you have been telling the public the cause for the great surge of enlisted personnel getting out of the Air Force. I don't think you realize how many men will read this article and say, "Here is the main reason I will be glad to get out."

Here is a man at the head of an organization, using the equipment of that organization for his own personal gain. If this had taken place in a civilian corporation, this man would have been dismissed or had to pay for the use of this equipment. But this particular fellow is in the service where the taxpayer foots the bill. If the general wanted those lobsters, he should have gone after them himself and paid for the gasoline and time that was consumed.

It is not only an injustice to all the enlisted men of that base but to the junior officer who had to pay for the loss of the dinghy.

Whoever decided to print this story should have his head examined. All of the helpful work that you have done in the past to help get the enlisted specialist to stay in has been damaged a great deal. They see enough to make them lose interest without your help.

John Warren
Philadelphia, Penna.

On Time With Enough

Gentlemen: I should like to pass on my hearty thanks for Edmund F. Hogan's able logistical presentation, "On Time With Enough," in your June issue. His argument for a fast, flexible, logistical system based on air movement is confirmed, I believe, by the experience of those of us who were in Col. S. J. Zoller's 13th Supply Group, Depot, during the Korean war.

To be specific, the elements of Colonel Zoller's nightmarish problem in early June 1950 appeared at least to include the following:

• Air Force supply support responsibilities for all FEAF units engaged in the Korean operation.

• Workloads that had at least quadrupled without any significant increase in personnel strength.

• Pre-war stockage that was neither (1) irrevelant to the requirements of new-type aircraft, or (2) so limited compared to overwhelming new demands that stock depletion was not over sixty to ninety days distant.

• Established pre-war pipelines for the replenishment of stock that ranged from 180 to 220 days.

• The virtual complete absence of adequate logistical or planning data.

Without getting into the solution of a problem that seemed, in statistical terms, to be impossible, I feel it fair to state that the job could not have been done if Air Force resources world-wide had been frozen in place by any greater shortage of airlift or if it had not been possible to apply those resources, almost globally, to the crisis of a single locale.

I feel that Mr. Hogan's argument is won, but beyond the vital need for reducing ZI-theater pipelines, I would humbly suggest that much remains to be done in the equally vital matter of reducing the quantities that must be carried therein. The arguments cannot be divorced; either must stand or fall with the other.

If airlift is to work, it must be conjoined with the most thorough sort of planning designed to make each theater logistically self-sufficient to a maximum degree.

Whether a large degree of logistical self-sufficiency is even possible, I do not know. However, I do know in event of a future war, and assuming its possibility, that degree of self-sufficiency could be invaluable added insurance for perhaps a million lives.

M/Sgt. Thomas W. Drayton
St. Paul, Minn.

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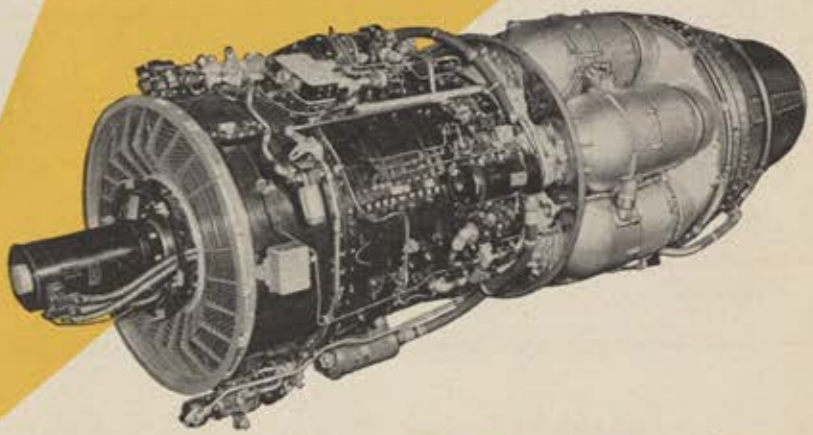
ORENDA powered SABRE V flies Ottawa-Montreal round trip at 732·5 m.p.h.

Convincing proof that the R.C.A.F. has an improved Sabre when powered with the AVRO Canada Orenda was recorded on Air Force Day—June 12, 1954.

Flying an Orenda-Sabre 5, Squadron Leader Robert Christie completed the 184 airline miles between Ottawa—Montreal and return in 15 minutes, 4.10 seconds, at 732.5 miles per hour. On this Air Force Day demonstration S/L Christie unofficially came within 21 m.p.h. of the world's speed record.

Orenda-powered Sabres, exclusively produced in Canada, are being flown across the Atlantic to re-equip R.C.A.F. squadrons in Europe. Orendas also power the R.C.A.F.'s twin-jet, all-weather CF-100, the mainstay of Canada's aerial defence.



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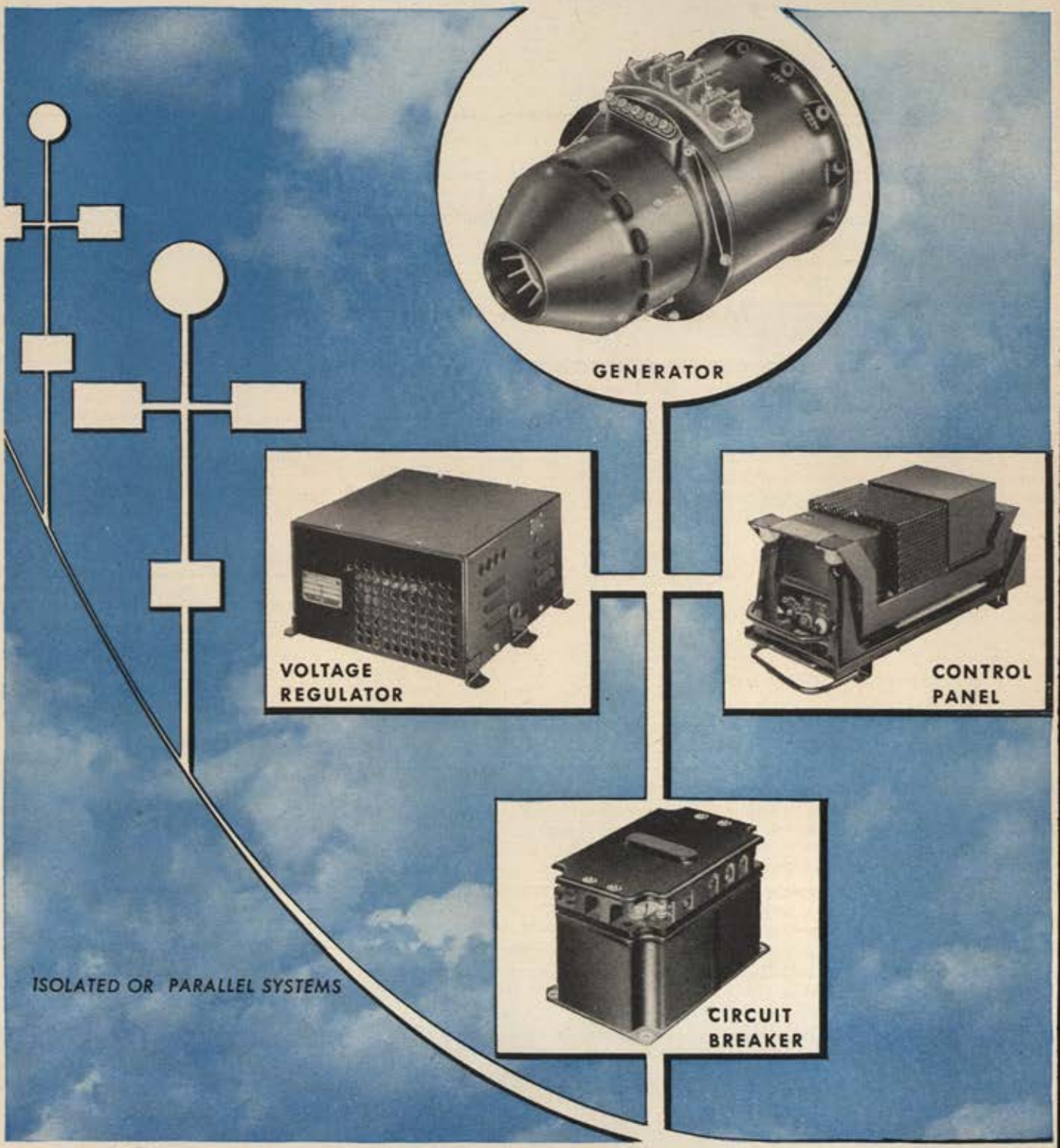
A-C SYSTEMS FOR AIRCRAFT



JH JACK & HEINTZ

...a report from JACK & HEINTZ

Wide range of a-c systems... result of expanded J&H Generator line

Jack & Heintz now offers the aircraft industry complete alternating-current systems and components "tailored" to meet the demands of tomorrow's high-performance aircraft.

With the expansion of its a-c generator line and extensive experience in the development and production of a-c control panels, regulators and other auxiliary components, J&H can now supply a-c systems ranging from 3 through 120 kva. These systems are capable of isolated or parallel operation.

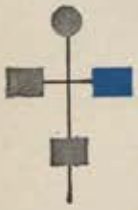
MAJOR SYSTEM COMPONENTS

GENERATORS: Designed to MIL-G-6099 and applicable drawings, J&H a-c Generators are among the smallest and lightest yet developed. Available models include cooling by blast air, oil or vapor.

Important features include:

Light weight* · High efficiency*
Low harmonic content* · Phase balance*

**Better than required by MIL-G-6099 and applicable drawings.*

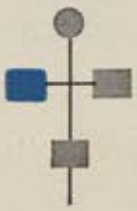


CONTROL PANELS: Designed to applicable USAF and Navy specifications, J&H Panels can also be built to special requirements. They can operate either from the d-c bus or independent of it.

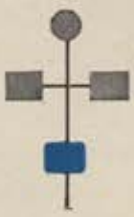
J&H Panels include any or all of the following functions (which can be supplied as individual components, if desired):

Generator control-relay · Over-voltage protection†
Undervoltage protection · Phase-sequence protection · Under-speed or under-frequency protection
Anti-cycling · Power indication · Field flashing
Special interlocking

†Overvoltage relay is insensitive to acceleration forces.



VOLTAGE REGULATORS: Designed to MIL-G-6099 and applicable drawings, J&H Regulators are of the static-magnetic-amplifier type. Weighing only twelve and one-half pounds, the regulators feature a magnetic reference eliminating the use of electronic tubes. Provision is made in all regulators for reactive load division function.



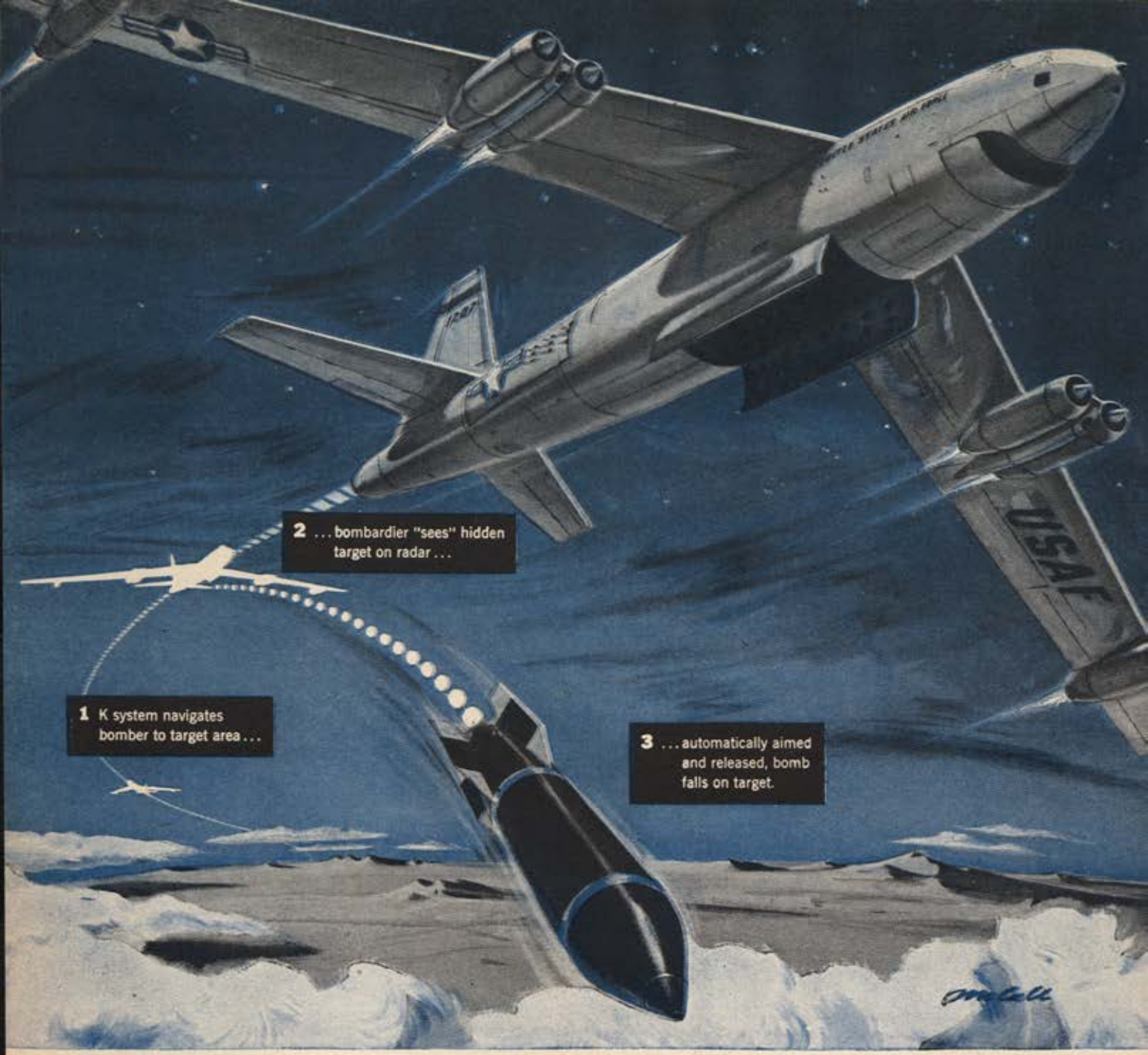
CIRCUIT BREAKERS: Designed to MIL-C-8379, J&H Circuit Breakers have the following outstanding features which make them exceptionally well suited for use on high performance aircraft:

Balanced rotary latch
Direct solenoid-actuated contacts
Noncritical adjustment of interlock contacts
Easy inspection of main contacts

OTHER COMPONENTS: In addition to the panel functions which can be supplied as individual components, Jack & Heintz has developed transformers, reverse power relays, phase sequence relays and other auxiliary a-c system components.

Jack & Heintz engineering personnel and manufacturing facilities are geared to undertake design and production of complete a-c systems or individual components. We invite your inquiry. Write Jack & Heintz, Inc., 17640 Broadway, Cleveland 1, Ohio.

Rotomotive AIRCRAFT EQUIPMENT



USAF DESTROYS UNSEEN TARGETS; PLANES USE RADAR BOMBSIGHT

THE STORY BEHIND THE STORY:

■ You've read headlines like the one above, reporting the precision of Air Force bombing—during tests. Within hours after an aggressor attack, you would read them again—reporting deadly counteraction. Night or day, regardless of weather, America can carry out its policy of instant retaliation to any aggressor—in any part of the world.

■ Now in large-scale production, the Air Force K Bombing System combines automatic navigation with all-weather identification and bombing of any target. With the aid of the Sperry Gyropilot* Flight Control and the K System, the crew flies the high-speed bomber to the target area. Using the Sperry-designed Bombing Navigational Computer, the bombardier locates the target optically, or if hidden, by radar. The effects of speed, altitude and wind on the falling bomb are automatically computed, enabling the bombardier to score direct hits. In simplifying the complex job of bombing at extreme altitude from high speed jets, the K System permits more time and flexibility on the bomb run . . . more certainty of "mission completed."

■ There's little resemblance between this automatic "brain" and the first bombsight developed by Sperry for use in World War I — a simple telescope and range scale no larger than an egg beater. But both were made possible because a military-industry team anticipated the needs of modern defense — then met those needs with a strategic bombing program which authorities credit with helping to prevent a new global war.

*T.M. REG. U.S. PAT. OFF.

SPERRY GYROSCOPE COMPANY

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Shooting the Breeze

THIS issue of AIR FORCE Magazine presents for our readers the most complete coverage we've ever given an AFA Convention—from the opening gun sounded by Keynoter Gill Robb Wilson, to the name of the final AFA award winner announced at the Airpower Brunch, on Sunday.

We're turning over this many pages of the magazine this month to the Convention for a couple of reasons: to give those not fortunate enough to be with us in Omaha an idea of what happened there and what the various speakers had to say, and also to give those who *were* there as complete a record as possible.

A lot of things go on at an AFA Convention, though, that don't make headlines in the nation's press—like when the elevators in the headquarters hotel went on the blink just before the Airpower Banquet, when everyone either wanted to go up to change clothes or wanted to come down *after* changing.

Or take the Curious Case of the Literal Signmaker, as reported in the "Miscellany" column of the September 20 issue of *Time Magazine*. Seems that before the first business session, an Omaha signmaker had been asked to letter fifty-one signs with the names of the forty-eight states, plus the District of Columbia, Puerto Rico, and Hawaii. The signs were delivered in due course. Each, we swear, was neatly lettered exactly the same way: "The Forty-Eight States, plus the District of Columbia, Puerto Rico, and Hawaii."—END

AIR FORCE

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FEATURES

DEPARTMENTS

MEMBERSHIP IN AFA

AIR FORCE Magazine is mailed monthly to all members of the Air Force Association. There are several ways you can become a member. If you were in the Air Force or its predecessor services, you're eligible. The $5 yearly dues include the magazine. Or if now on active duty, you can be a Service Member. Those interested in airpower can become Associate Members for $5 per year. The cost for CAP and AF-ROTC cadets is $3 per year. Details of membership in AFA on request.

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10-54

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- ☐ Associate Membership in AFA (includes magazine subscription) $5

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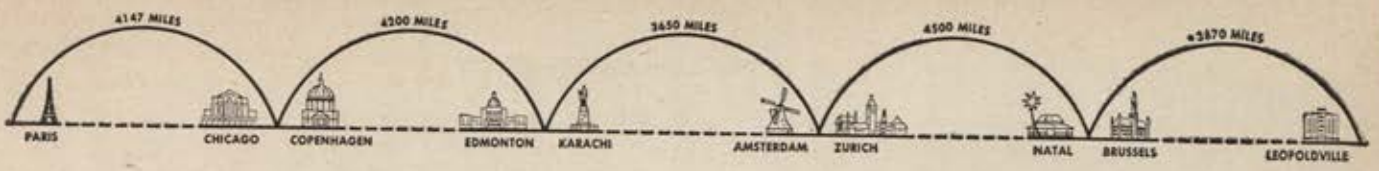
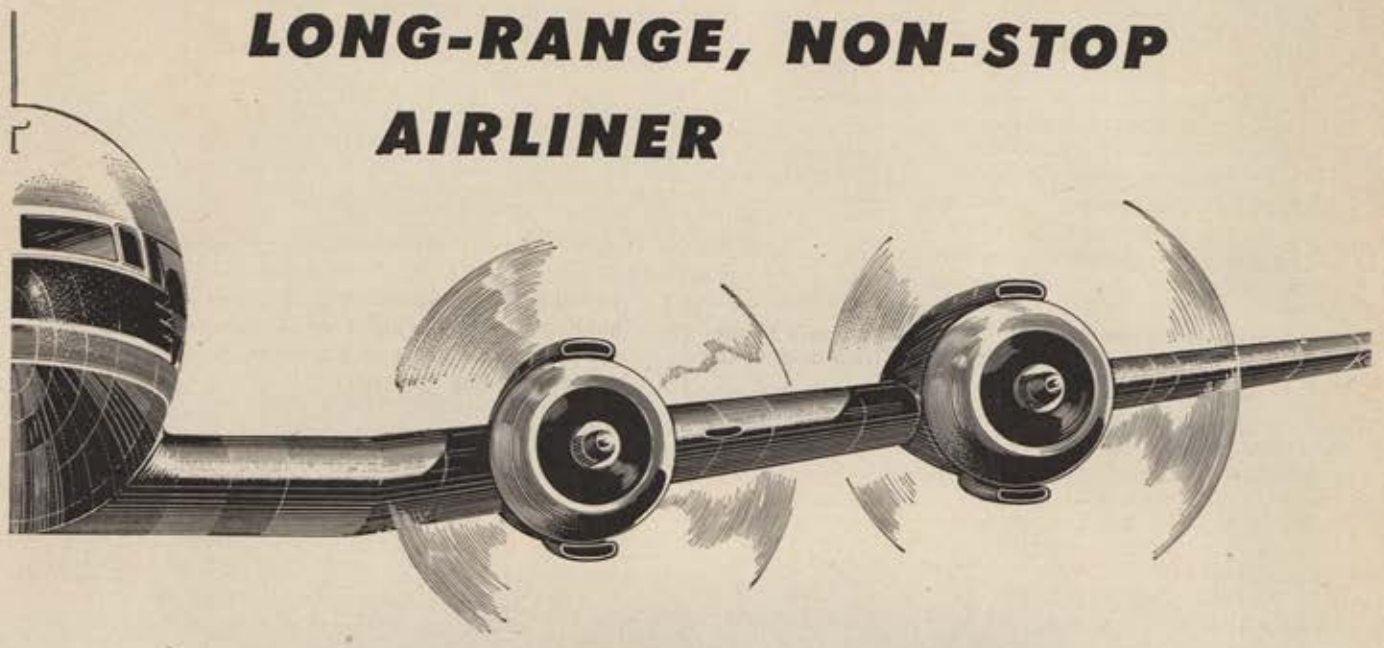


Always finest and fastest...

Now THE WORLD'S CHAMPION LONG-RANGE, NON-STOP AIRLINER



New DOUGLAS DC-7C

Adds 1000 miles to non-stop flight limits...

Adds up to 70 mph to cruising speed

Here is the first truly Intercontinental passenger airplane. This Douglas distance champion will carry competitive payloads up to 5000 miles non-stop . . . makes possible unrefueled flights like those illustrated...and because of its range and speed, promises to revolutionize air travel and airline operations between continents.

Longer wings to carry more fuel also allow engines to be moved further away from the cabin, making the DC-7C even more *quiet* and *comfortable*.

Already ordered in quantity by Pan American World Airways, these new model Douglas transports are scheduled to begin intercontinental service in 1956.

DOUGLAS

Twice as many people fly Douglas as all other airplanes combined

wing tips

By Wilfred Owen

Canadian Pacific Airlines, serving forty-seven points in the Far North, up to the Arctic Circle, provides regular transportation of fresh meats and vegetables and return loads of whitefish, furs, and gold dust.

° ° °

Last year the nation's airlines served 27 million cups of free coffee.

° ° °

Sabena Belgian Airlines will fly you from Brussels to Bonn by helicopter in one hour, fifty minutes. The train trip takes four hours, twenty-eight minutes.

° ° °

The Royal Air Force has parachuted two cats to a mouse-ridden British fort which radioed its distress from deep in the Malayan jungle.

° ° °

A block of air fifty miles long is reserved for each airliner traveling on the federal airways system. The space is required to maintain a ten-minute separation between planes traveling at 300 mph in the same direction, at the same altitude.

° ° °

The new instrument runway at Newark cost more than four times as much as the entire investment in the airport when it was first opened in 1928.

° ° °

Nearly 18,000,000 pieces of parcel post were carried by the nation's airlines last year.

° ° °

The pilots who fly for one of the big US airlines have spent

a combined total of 7,700 years in the air.

° ° °

The opposite of coach service is the Pacific Coast's red carpet service. Ladies deplaning from Western Air Lines' new luxury plane, "The Californian," are presented with orchid corsages, and everyone who rides the daily Los Angeles-San Francisco-Seattle flight gets the champagne-filet mignon treatment en route.

° ° °

National Airlines is carrying passengers by helicopter from Miami Airport to Miami, Boca Raton, Del Ray Beach, Hollywood, and West Palm Beach. Mohawk Airlines provides helicopter service from Newark to the Catskills.

° ° °

Tourist services provided by seventy of the world's airlines now make possible global trips at five cents a mile. A round-the-world trip of some 25,000 miles costs about $1,227.

° ° °

The scheduled airlines of the US use 2,000,000 gallons of gasoline per day.

AIRPOWER IN THE NEWS

■ The **American Legion,** at its recent convention in Washington, urged Congress to press for the achievement of a **137-wing combat-ready Air Force** in 1957. It also urged an increase over the proposed 137 wings if the security of the nation demanded it. Another resolution called on Congress, the President, and the Secretary of Defense to find ways to make **service life more attractive** through housing, medical care, and other benefits. The new National Commander of the American Legion, elected at the convention, is **Seaborn P. Collins, Jr.,** 41, a Las Cruces, N. M., real estate man who was a pilot with the Air Transport Command during WW II. He is still an aviation enthusiast and pilots his own single-engine Beechcraft on business trips.

■ The 1954 **National Aircraft Show at Dayton, Ohio** (Sept. 4-6) was marred by the death of **Maj. John L. Armstrong,** 32, in the crash of his F-86H Sabrejet within an hour after it was announced that he had set a world speed record of 649.302 mph for the 500-km. closed course. The show's closing program was dedicated to Major Armstrong and the **General Electric Trophy** was accepted for him by Maj. Gen. Albert Boyd, head of Wright Air Development Center.

On the first day of the show, a new record for the **Bendix Trophy** race was set by **Capt. Edward W. Kenny** of Luke AFB, Ariz. The 30-year-old World War II veteran, flying an F-84F Thunderstreak, covered the 1,900-mile course from Edwards

Wide World Photos, Inc.

The 1954 Bendix Trophy race was won by Capt. Edward W. Kenny, left. He averaged a record-breaking 616.208 mph. The Thompson Trophy went to Capt. Eugene P. Sonnenberg, right. His 692.823 mph in the event also set a record.

AFB, Calif., to Dayton, Ohio, in three hours, one minute, and fifty-six seconds—averaging 616.208 mph. Maj. Harry K. Evans, Langley AFB, was second with an average of 607.164 mph. The **Thompson Trophy,** 100-km. closed course race, was won by **Capt. Eugene P. Sonnenberg** of Eglin AFB, Fla., flying an F-86H Sabrejet. Sonnenberg, a World War II fighter pilot, set a new record of 692.823 mph for the event.

■ In the other major event at the air show, **2nd Lt. William J. Knight** and his radar observer, **2nd Lt. William J. Seller,** climbed to an altitude of 10,000 feet in two minutes and seven seconds, to win the **Allison Trophy.** The team from Kinross AFB, Mich., flew a Northrop F-89 Scorpion. Second place in the event went to Capt. Thomas D. Forsythe and his observer Capt. Frank L. Bosch, both of Moody AFB, Ga.

This year's show was the last to be held in the Wright Brothers' home town due to lack of hotel space—200,838 attended this year—and the fact that the high radius of turn required by high-speed jets presents a possible hazard in densely populated areas. Possibilities for next year's show: **Amon Carter Airport,** between Dallas and Fort Worth, Tex., and **Friendship International Airport,** between Baltimore and D. C.

■ The **Night Fighter Award,** donated by the **Hughes Aircraft Co.,** was won by the **96th Fighter-Interceptor Squadron,** based at New Castle County Airport, Del., at the Night Fighter's Reunion during the recent AFA Convention in Omaha. The award is given each year to the **outstanding all-weather interceptor squadron selected by the** Air Defense Command on a competitive point system. The trophy, a large hand-tooled silver punch bowl, was given for the first time last year, also at the Night Fighter's reunion.

■ **Headquarters Command, USAF,** was awarded the **Daedalian Trophy** for flying safety at the AFA Convention. The trophy, a silver cup, was presented by Gen. Nathan F. Twining, Chief of Staff, USAF, and accepted by **Brig. Gen. Stoyte O. Ross,** Commander, Hq. Command. Established in 1937 by a group of World War I pilots known as the Order of Daedalians, the trophy is given annually to the Air Force command flying more than 100,000 hours with the lowest adjusted aircraft accident rate.

■ Also, at the Convention, the **Air Force Scroll of Appreciation** for outstanding contributions to the USAF was presented to **John H. Batten,** president of the Twin Disc Clutch Company of Racine, Wis. The scroll, read by Deputy Assistant Secretary of the Air Force **John I. Lerom,** credited Batten with "gaining recognition and support for the Reserve Forces and the National Guard by the industrial community of his state." Batten, Deputy Director of the Great Lakes Region of the Civil Air Patrol, convinced industrialists in Wisconsin that they should give military leave without taking away family vacations. Batten has been flying since 1930, is a member of the Quiet Birdmen, and holds CAP's highest decoration—the Distinguished Service Award.

■ In a recent speech before the British Association for the Advancement of Science, one of England's leading scientists said that "repeated atomic explosions will lead to a degree of general radioactivity which no one can tolerate or escape." **Dr. Edgar Douglas Adrian,** Nobel Prize-winning physiologist, said that the human race could not survive the effects of **a thousand bombs** being exploded, regardless of where they fell.

■ The August issue of *Interavia* magazine devotes much of its space to what would happen **"If Atomic War Broke Out Tomorrow?"** In an interview with **Field Marshal Viscount Montgomery,** *Interavia* quotes him as saying that "the fear of atomic weapons is a powerful deterrent to war; but, so far as we can see today, once war has started, both sides are likely to use them." The Deputy Supreme Allied Commander for Europe labeled as "nonsense" suggestions that new weapons will not change the organization and tactics of land warfare. According to Montgomery, "An army must always be prepared mentally for new types of weapons and for the changed conditions which they bring about. The emphasis must be on tactical conceptions and weapons systems. We must not make the error of employing the weapons of today, or of the future, under the tactics of a previous war." US **Civil Defense Director Val Peterson,** in the same issue, points up some of the difficulties of civil defense in the thermonuclear age. "The age of big cities is past," he said. During WW II, according to *Interavia*, inhabitants of much-bombed cities still had a "chance of walking between the drops of steel that showered down from the sky." But if atomic war starts, "the city-dweller will be faced with the certainty of being killed if he cannot get to the proper shelter in time."

■ A recruiting sergeant in Ohio thought it would be a fine idea to fly a group of twenty **Air Force recruits** from that area to Sampson AFB, N. Y., recently, where they'd begin their basic training. But the flight had to be **called off** when the parents of some of the boys objected to their flying.

(Continued on page 15)

when is an airplane great?

...When its performance characteristics solve critical operational needs.
...When its versatility permits a wide range of functions.
...When a strong growth potential is inherent in its basic design.
...When it is a "pilot's airplane", essentially simple and easy to fly.
...And finally when it's out of engineering and in the air—when it's being delivered and in operation.

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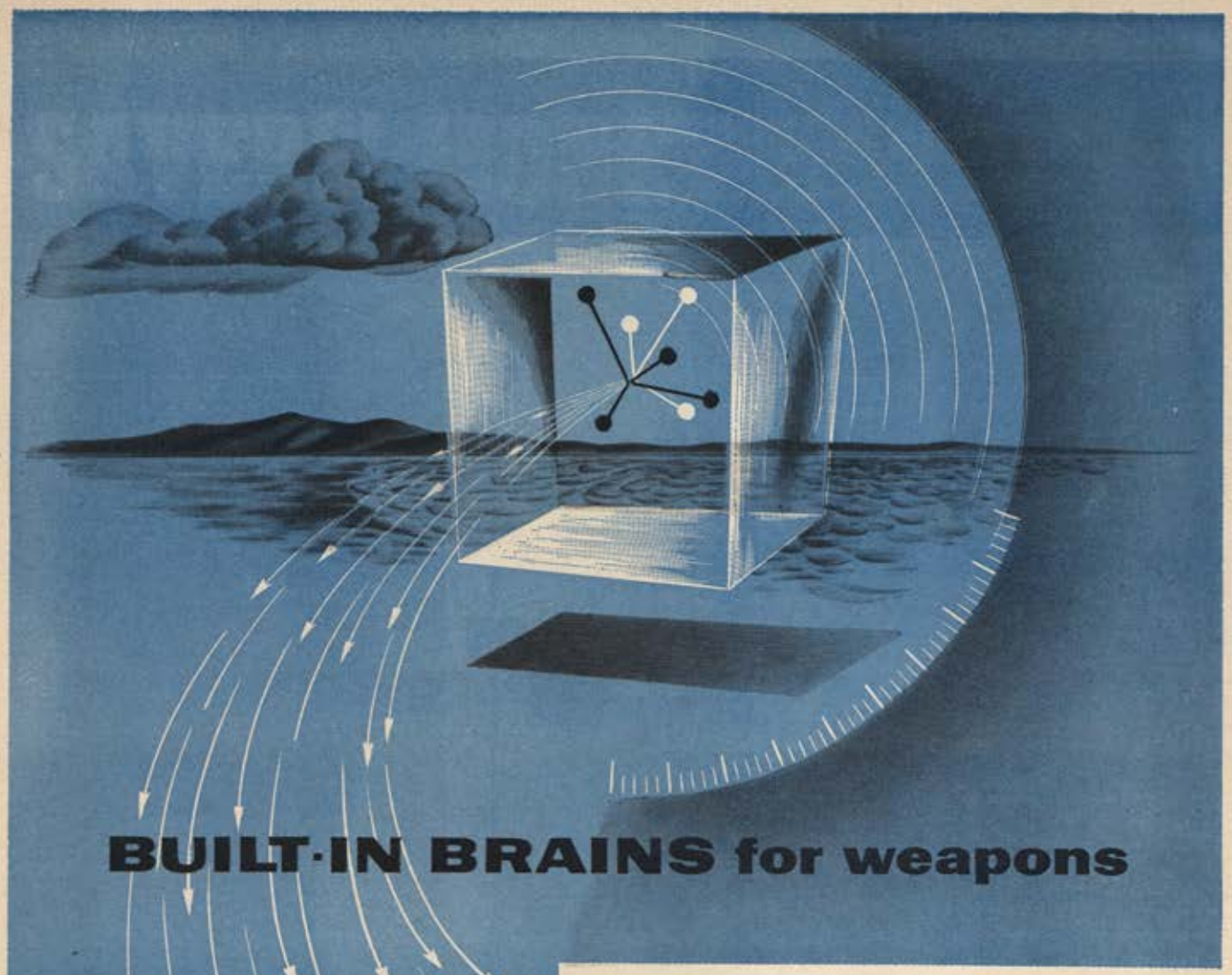

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AIRPOWER IN THE NEWS——CONTINUED

■ Anyone who has ever put in long hours of **KP duty** will realize how happy the airmen at **Vance AFB, Okla.**, must be, now that a **civilian catering firm** is providing the manpower for peeling potatoes, clearing tables, washing dishes, and all the related duties there. The Air Force is trying the system out to see if the job can be done more cheaply with hired help, thereby releasing servicemen for duties more related to national defense. If it works, KP will become just an unpleasant memory.

■ In a recent speech on the Senate floor, **Sen. Leverett Saltonstall** (R., Mass.) defended the Eisenhower Administration's "long pull" program for building up American airpower. The Chairman of the Senate Armed Services Committee said that military and civilian leaders are agreed that "the most important element in national defense at this time is airpower." He quoted **Adm. Arthur W. Radford**, chairman of the Joint Chiefs of Staff, as saying that United States national airpower—Air Force, Navy and Marines—"is superior to that of any other nation." Senator Saltonstall said there is no real disagreement today as to our airpower objectives. He said that the "crash" program advocated by some persons does not give us the security and combat readiness that the **"long pull"** approach does. Senator Saltonstall said that what the proponents of a rapid build-up of the Air Force overlook is "the effect of the projected rapid build-up on the combat effectiveness of the force as a whole." The present program (calling for eight to ten combat wings each year, '54 through '57) "is a rate of build-up which experience indicates is reasonably attainable without causing an imbalance in the Air Force program," he said.

■ On October 1, **Limestone AFB, Me.**, was renamed **Loring AFB** in honor of **Maj. Charles J. Loring, Jr.**, who died in Korea on Nov. 22, 1952, when he dived his F-80 into an enemy gun position. He was posthumously awarded the **Congressional Medal of Honor.**

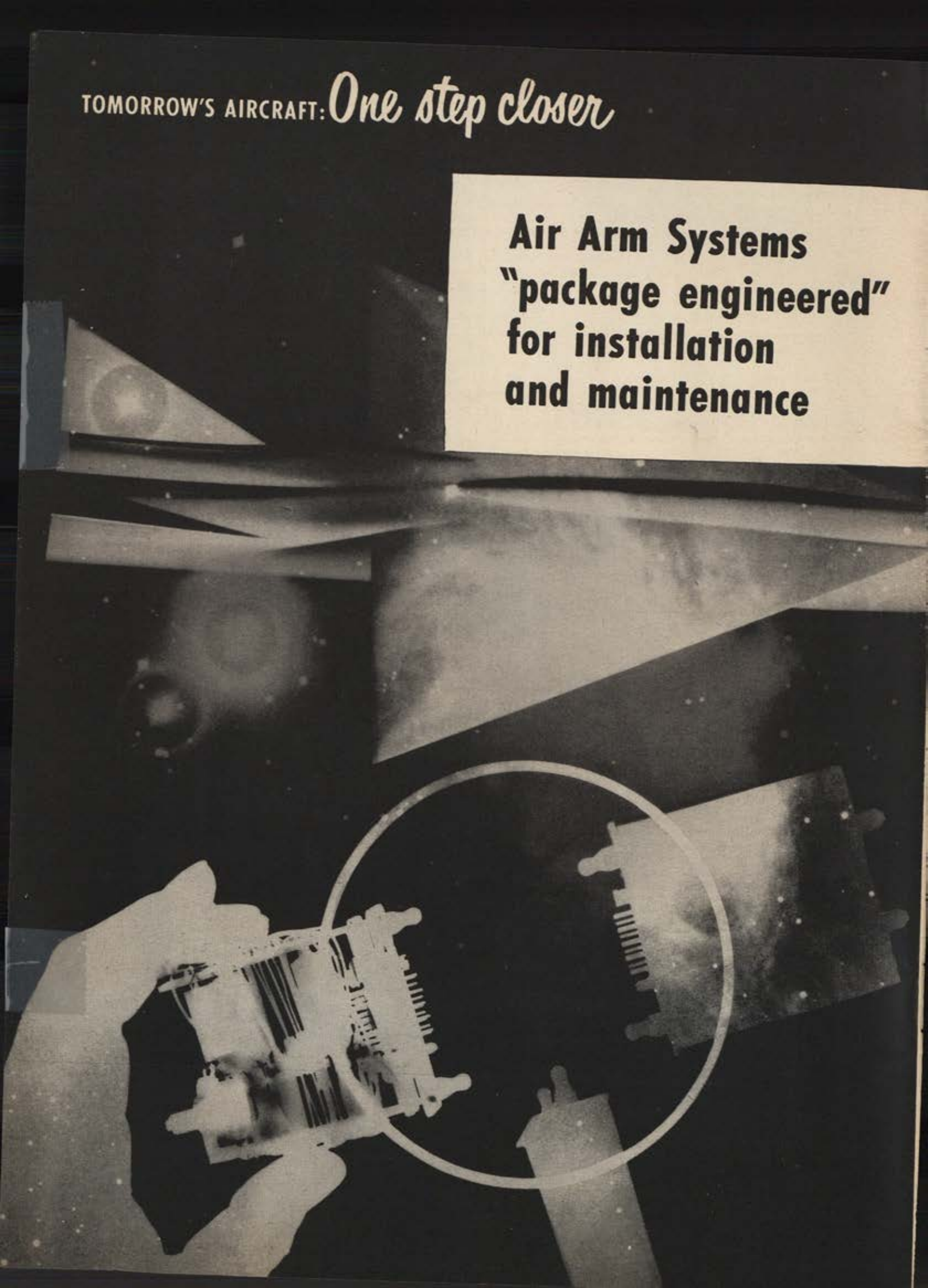
■ In August, the nation's **top jet ace, Capt. Joseph McConnell, Jr.**, 32, was killed while testing a new version of the same jet in which he scored sixteen MIG-15 kills over Korea. He was on a **routine test flight** when his F-86H crashed near Edwards AFB, Calif. His body, with parachute unopened, was found about a half mile from the plane. He is survived by his wife, Pearl, and their three children.

■ **Bert Acosta**, 59, veteran flyer, died of tuberculosis on September 1 in Denver. He started flying in a plane that he built in 1910 and is best remembered for flying with **Adm. Richard E. Byrd** and **Bernt Balchen** across the Atlantic shortly after Lindbergh's famous solo flight. He later became a test pilot and aviation consultant for several companies.

■ **STAFF CHANGES** . . . In September, **Maj. Gen. John W. Sessums** became Vice Commander of ARDC, replacing Maj. Gen. James McCormack, Jr. **Brig. Gen. William L. Lee** succeeded General Sessums as commander of the Thirteenth Air Force . . . New director of the Joint Air Defense Board is **Maj. Gen. Frederic H. Smith, Jr.** He was formerly Vice Commander of ADC . . . Also in September, **Maj. Gen. Ernest Moore** left his post as Deputy Chief of Staff, Far East Command, to become Chief of Staff of MATS . . . **Brig. Gen. Raymond L. Winn** has been named Chief of the Transportation and Packaging Division, AMC. He was formerly Commander of the 806th Air Division . . . Special Assistant to the Commander of the 3380th Technical Training Wing, **Brig. Gen. James H. Davies**, was scheduled to take over as Deputy Commander last month . . . A new organization in ARDC, the **Western Development Division**, at Inglewood, Calif., will be headed by **Brig. Gen. Bernard A. Schriever**, it was announced last month. General Schriever has been Assistant for Development Planning, Office of DCS/Development, Hq., USAF . . . **Brig. Gen. Harold W. Bowman**, Commander of the 62d Troop Carrier Wing at Larson AFB, Wash., has been reassigned to the US European Command as Chief of Plans. **Col. George F. McGuire** succeeds General Bowman . . . In September, **Maj. Gen. Kern D. Metzger retired.** He was chief of the Industrial Resources Division at Hq., Air Materiel Command since October 1951.—END

TOMORROW'S AIRCRAFT: *One step closer*

Air Arm Systems "package engineered" for installation and maintenance



Quicker installation and easier maintenance . . . important plus-features for airborne electronics equipment are a reality at Air Arm. The basic Air Arm approach to *all* electronic problems, combined with inherent ingenuity and capability, has led to concepts such as pallet packaging, encapsulated and functional circuitry, built-in test points . . . to mention just a few.

Applying these concepts to all Air Arm systems gives outstanding features . . .

- 100% accessibility
- compatibility with aerodynamic design
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MAGAMPS, potted units and other proven developments for weight and size reduction are a basic part of the new packaging concepts. Electronic circuits are physically combined and integrated into compact subassemblies—each of which has a single major function. Thus, over-all packages are made up of functional units of complete systems.

This "package-engineering" results from intense Air Arm development and close Air Arm association with the special problems of airframe design and operational requirements. Such achievements in electronic-mechanical design are typical of Air Arm's efforts to bring simplicity and increased reliability into airborne systems, thus bringing tomorrow's aircraft—One Step Closer. Westinghouse Electric Corporation, 3 Gateway Center, P. O. Box 868, Pittsburgh 30, Pennsylvania.

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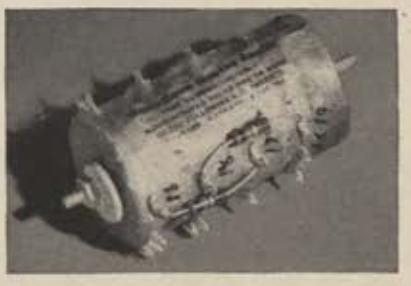

MAGAMPS typify the "package-engineering" which Air Arm applies to airborne systems. Simple and reliable as iron and copper, they are a rugged replacement for vacuum tubes. Wherever such packaging is used, maintenance is reduced, circuitry is simplified and systems are far more dependable.

The most advanced state-of-the-art is always brought to bear in Westinghouse design, evaluation and improvement of airborne systems. For example, human engineering studies help technicians perform tasks quickly, simply and surely—thus building the greatest amount of dependability into the system.

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Close to full-scale production at Fairchild — the new C-123 Assault Transport will fill specialized military requirements for an air transport sufficiently versatile to deliver men or equipment at advanced bases. This sturdy craft readily converts from a carrier of 60 fully equipped combat troops to a cargo plane delivering more than 15 tons of equipment.

Continuing quantity production of the combat proven C-119 Flying Boxcar assures the nation that our military transport program is completely flexible. This dual production brings closer the day when C-119's and C-123's will be in regular use as a part of the U. S. Air Force and U. S. Army military operations.

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A Special Report

SURVIVAL *in the* HYDROGEN AGE

THE AIR Force Association is performing many essential services for the people of the United States and for the armed forces of the United States. None of its missions is more important, however, than helping to explain to all Americans the perils and the opportunities of the air-atomic age."

General Nathan F. Twining
Chief of Staff, United States Air Force

The Eighth Annual Convention of the Air Force Association on August 19-22 in Omaha, Nebraska, was devoted to the mission explained by General Twining. This issue of AIR FORCE Magazine, which reports the Convention, is dedicated to helping explain "the perils and opportunities of the air-atomic age."—The Editors.

Unanimously adopted

by delegates to

AFA's Eighth Annual Convention

Omaha, Nebraska,

August 21, 1954

AFA'S

IN THIS Year Two of the Hydrogen Age, the Air Force Association sets its annual Statement of Policy against a background of these grim realities:

- There is no evidence that peaceful co-existence is possible with the Soviet-inspired Communist conspiracy for world domination.
- The Free World is fast approaching a time of total danger, when it is possible to destroy a nation's capacity and will to retaliate, or even to resist further aggression, by a single, large-scale, surprise attack.
- There is no easy or passive way to save ourselves, our country, and our civilization.
- Only our ability and our announced willingness to take decisive action during the present period might still resolve the issue between world freedom and world slavery without precipitating the catastrophe of all-out nuclear warfare.
- Time is working against the Free World.

★

These grim realities are conditioned by several basic factors:

- Available evidence indicates that the Soviets are gaining steadily on the Free World in the armaments race, including both nuclear weapons and adequate means for their delivery.
- Further, the Soviet attacking force is, at any given moment, considerably multiplied in power by the aggressor's inherent advantage of surprise and initiative.
- Soon the Kremlin will be militarily ready to launch a large-scale surprise assault on the United States, using nuclear weapons.
- With effective diplomatic action dependent in large degree on military capability, it is imperative that we achieve and maintain forces in being of sufficient strength to confront with certain defeat any nation or coalition of nations contemplating aggression.
- Our current strength in airpower and nuclear weapons, thus far the major deterrent to all-out war, has not been exploited in our reaction to continued local aggression, sponsored, supplied, and directed by the Kremlin.
- There can never be any real security so long as the Soviets hold the advantage of military and diplomatic initiative.
- For a relatively brief period, the Soviets may be unprepared for all-out war, and the Free World can react decisively to aggression with small risk of precipitating an all-out conflict.

★

These factors constitute the problem of Survival in the Hydrogen Age. In seeking solutions we proceed from the following premises:

- We cannot permit Soviet-directed Communism to engulf the Free World through subversion and local aggression.
- We cannot depend on Communism's collapsing from within.
- We cannot accept preventive war as a solution.
- Nor can we accept the possibility of our annihilation by surprise attack.

★

The dilemma is much like that faced by the town marshal in the Old West who, confronted by men of evil ways, upheld law and order primarily through his ability to beat such men to the draw. The marshal could not draw first and maintain the respect of his fellow citizens. But if he could draw faster, after the outlaw had reached for his gun, public opinion quite logically and properly supported his action as self-defense and as defense of the community. This placed a heavy responsibility on the marshal. He had to be better than his evil opponent. But there were enough good men to meet the challenge and the West was cleaned up for respectable citizens.

★

Since the Free World can reach for its gun only *after* the enemy has drawn his, we must be prepared to draw faster and shoot straighter, or be eliminated in the process. Our national policy must recognize such action as self-defense. Our weapons—particularly our airpower, our military intelligence, and our early warning systems—must be geared to the policy and equal to the task. The enemy must understand both our intentions and our capabilities. Only then will we have the strength to deter both local wars and all-out war, and pursue peaceful solutions to the world's problems.

1954 STATEMENT OF POLICY

We do not attempt to say at what point, in the modern world, men of good will are justified in reaching for their guns. But we do believe, in the interests of both peace and freedom, that the line of aggression must be drawn and the issue joined.

★

Looking squarely at the mounting strength and aggressive designs of the Soviet Union:

- We believe that the announced concept of "massive retaliation" contains the elements of adequate military support for a national policy to arrest the expansive aims of Communism. In saluting its architects, we emphasize that the concept is crying for official definition and clarification, and we urge that this be provided the American public and the entire world at the earliest possible moment. We believe that our people and the peoples of the Free World are confused as to how our government plans to use our airpower for peace. And if our own people are confused, we believe it likely that the Soviets have no clearer understanding of our policy—and, not understanding it, are therefore unlikely to be deterred by it.
- We believe that our national policy must clearly define nuclear weapons as legitimate and conventional instruments for resisting aggression, or the Free World's temporary advantage in weapons technology will continue to be seriously compromised.
- We believe it is in the direct interest of our national survival to attack the basic sources of military strength behind any future Communist aggression.
- We believe that the Free World's ability to survive and preserve its way of life depends on its ability to dominate the air spaces. Recent Soviet aeronautical progress in all fields, from jet engines and aircraft to intercontinental missiles, may have already erased our former advantage. We call upon the Executive Department, the Defense Department, and the Congress to take immediate steps to insure that our retaliatory force, on which so much depends, is speedily built to and maintained at proper levels of effectiveness.
- In addition to our overwhelming retaliatory striking force, we believe that Free World security also demands a vastly improved intelligence and air defense system; first, to provide adequate warning of impending Soviet air attack; second, to give our defense planners a more factual idea of the form and magnitude of the military threat against which we should build our defenses; third, to give our air defense forces adequate equipment and personnel to carry out their assigned missions; and fourth, to make possible civil defense measures adequate for coping with the inevitable aftermath of a Soviet attack.
- We believe that this system must be supported by realistic policies based on the traditional right of self-defense to permit positive action on the face of clear and unmistakable evidence of Communist aggression.
- We believe that only through an intensive program of research and development can we keep ahead in the present race for aeronautical and nuclear weapons superiority. To fall behind in this race could prove fatal to our existence. We believe that our present air research and development programs are lagging and we call for their expansion, to insure that we achieve and maintain technical superiority over any possible enemy in the fields of aeronautical and nuclear weapons development.
- We believe that the truth implanted in the minds of people enslaved by Communism could prove as important a factor in preserving the peace, in the future, as was the atomic bomb in the hands of the United States in the era of our atomic monopoly. We urge an expanded information program, including the full exploitation of modern technology, to break the Soviet monopoly of communications behind the Iron Curtain.

★

We believe that, in addition to the armed preparedness for which we stand, we must appreciate and be willing to fight to preserve the system of government under which we live—a system which allows each of us to live his life according to the dictates of his conscience, to speak his thoughts according to the dictates of his mind, and to worship at his altars according to the dictates of his faith.

★

The Air Force Association presents this Eighth Annual Statement of Policy out of its conviction that our freedoms can best be maintained through proper exploitation of airpower as an instrument of national policy and as one of the keys to Survival in the Hydrogen Age.—End

'WE MUST NOT RATTLE THE SWORD . . .'

Gill Robb Wilson

A MAN or an organization that devotes itself to a great ideal, itself becomes great. The thing we have dedicated ourselves to is great, and greatness is the only limit to the ultimate progress and stature of the Air Force Association.

The keynote of our 1954 Convention is our country; its welfare; the preservation of its institutions; the ideals for which it stands; all that pertains to it. Our keynote is our country.

The poet John Donne once wrote that through human unity in the face of what seemed overwhelming odds, truth could not be crushed to earth. He said no man is an island unto himself. He said, "Send not to inquire for whom the bell tolls. It tolls for thee." He reinstituted a spirit of human responsibility.

Always there have been individuals and institutions that have stood out by valuing things on a broad plane. Up until very recently, this sky above us – this firmament – was a realm of complete mystery to mankind. Man couldn't get together. No seas touched the shores for all life. And then the vehicle came. And men started to explore this thing. It became communicable, and the thing was explored. You did that, you and your kind.

You stand today as the one great barrier across the ambitions of the most godless, the most ruthless, the most immoral empire that has ever been conceived on the face of this earth. When I say that the mission of the Air Force Association is our country, I mean that with particular application to you. Such is your knowledge of this great shoreless domain that touches the doorstep of every man, that you and your concept and your ability to stand shoulder to shoulder, not to be divided by individual interests, not to be divided by group interests, but to represent vision for your people, places upon you a responsibility that has not been rivaled by many groups in the history of this entire country.

We must not rattle the sword. But we must sharpen the sword; we must keep its blade keen. We must preserve in the hands of our country an adequate weapon, for we are locked in the dark gloom of human cynicism with an assassin who has no equal in the history of mankind.

Sometimes we tend to be skeptical. We look at the vast proportion of the world that has come under this Communist-enslaving yoke. And it is true that if in the next decade, the same number of human beings on the face of this earth who fell into the hands of the Reds in the last decade continue to fall in the same proportion, in 1964 there will be no meeting of the Air Force Association. There would be no Air Force, there would be no Free World left.

As we look at Korea, at Indo-China, as we look at the various elements of the earth, it is easy to see why we could be skeptics. We could be discouraged; yet, something that has preceded us makes us unafraid and unable to yield unwillingly to these enslavements they would put upon us. As we look back, there is no time in the period of this civilization when truth has remained crushed to earth. So there are powerful things on our side. But it isn't just enough to pray, and it isn't enough to look back on history. We cannot be passive in the situation in which we find ourselves today. We must be incisive. So the voice of the Air Force Association must find its way into the councils of the Free World.

I was having lunch several days before coming out here with a group of industrialists in the East. The luncheon was attended by a member, Roy Hurley, president of Curtiss-Wright. He said, "Gill, to me and to my fellow Industrial Associates here, within aviation or on the fringe industries of aviation, the Air Force Association has the same relationship to the security of the United States as my anchor has to my yacht. I don't have to use it every day. I make many a voyage without it. But I wouldn't think of putting to sea unless I were assured it was in place. And you can always be sure that this Association will have the undying loyalty of American industry because we all feel exactly the same way about it."

If we have made an intellectual impact of that nature on the industrial power that is the United States, if we can command that sort of loyalty, then we must reciprocate with a sense of responsibility that can look the issues squarely in the face and keep us shoulder to shoulder throughout our efforts.

I never have any fear of our objective. In all associations, the danger is that they will go off on tangents, that they will lose the broad perspective which has made them great.

The United States and our neighbor to the north have been fortunate that in affairs of this air ocean and its vehicles, they have had men of vision and unselfish patriotism. They have had men who refused to be diverted from the main issues, so their security has been preserved. That is the great asset today in our American airmen and our neighbors in all the free nations.

Our keynote is our country, how we may defend it, how we may assure the peace of the world through the wise counseling of our political, our diplomatic, and our civic leaders. May that keynote prevail in all our deliberations.—END

(Condensed from the Keynote Address at AFA's Convention in Omaha.)

'IN THE

AFA's Eighth Annual Convention in Omaha was truly a National Airpower Conference

INTEREST OF PEACE AND FREEDOM'

Here's what was accomplished, as reported by the editorial staff of* AIR FORCE *Magazine

THEY billed it as the Eighth Annual Air Force Association Convention and Air Force Reunion. It was the understatement of the year. AFA's meeting in Omaha on August 19-22 was a National Airpower Conference, the only one of its kind.

The Conference included, of course, AFA's annual Convention as well as Air Force unit reunions. But it also featured a day-long Airpower Symposium, a Reserve Forces conference, a three-day Airpower Exhibit, and a Wing Ding program. Each was a major event in its own right.

Indeed, even Airpower Conference does not fully describe the Omaha gathering. Revival meetings have become part of the national scene. This was a "survival meeting."

The theme of the affair was actually "Survival in the Hydrogen Age" (also the title of the Statement of Policy adopted), and the theme was evident in every event on the crowded agenda. Airpower was, of course, the motivating factor of the moment and yet, in retrospect, the airplane took second billing to The Thing in its bomb bay.

The significance of the hydrogen bomb hung heavy over the deliberations in Omaha. It dominated the four AFA business sessions. Of the thirty-six resolutions adopted by the delegates, only eight pertained to AFA business. The remaining twenty-eight were sober policy resolutions related directly to national security.

This was the outgrowth of an informal gathering of Air Force people at AFA's first national meeting in Columbus, Ohio, in 1947. It began as a Convention, pure and simple, and out of Columbus came the yearly reunions of Air Force units. The annual Wing Ding was born in New York's Madison Square Garden; the Chicago meeting produced the Airpower Exhibit; and Detroit, the Airpower Symposium. Now Omaha introduced the Reserve Forces conference. All bring together the many elements of what retiring President George C. Kenney calls "the AFA family" (see p. 28).

Industrial Associates, the newest member of the family, came into their own at the Omaha meeting. Hundreds of industry leaders were on hand, including many company presidents. Most of the exhibits which filled the City Auditorium were of the industrial type. Now, in the plans being laid for AFA's National Airpower Conference a year hence (August 10-14, 1955) in San Francisco, we find, as a natural development of this experience, a day-long Industry Forum. So these annual affairs of the Air Force Asssociation continue to grow in scope and importance.

Nor were these people in Omaha merely talking to themselves, as so often is the case with airpower groups. On hand was a press corps which included top-flight correspondents from more than twenty-five different newspapers and magazines plus representatives of all the major wire services and radio and television networks. The journalists included members of such nationally known publications as the *N. Y. Times, N. Y. Herald Tribune, Life Magazine, Time Magazine,* and *US News and World Report.*

As a result, the Omaha meeting was brought to the attention of many millions of Americans and, by the Armed Forces Radio Network and the Voice of America, to people throughout the world. In fact, the meeting was well known to the public before it got under way.

First of all, the Symposium speakers, as they were announced in the weeks ahead, were of sufficient stature to command public notice. Then, to call attention to the Conference, the local Convention Committee announced the selection of a Miss Airpower. Not the usual Hollywood starlet type, but Miss Ann Griffis, daughter of SAC's Air Surgeon. Nor was the publicity which resulted of the usual cheesecake variety. The center-page picture of Miss Airpower in the *N. Y. Daily News* (circulation: 2,109,601), the largest daily newspaper in the nation, and her August 12 appearance before millions on Arthur Godfrey's coast-to-coast radio and television shows both highlighted the serious nature of the Conference in Omaha.

Arthur Godfrey's radio and television reports on the Conference were unprecedented. On August 19 this great airpower booster announced to his CBS radio listeners, "Soon as we are off the air today I'm going to get dressed and jump in the airplane and go to Omaha . . . to the Air Force Association Convention, which I wouldn't miss for anything on earth."

Godfrey's participation in Omaha was one of the highlights of the meeting. He addressed the group at both the Symposium Luncheon and the Airpower Banquet to restate his firm belief in airpower as the key to security and to plead for better living

(Continued on following page)

conditions for the men and women in uniform. At the big Wing Ding show, as a surprise event, Godfrey was presented with an AFA trophy (a model of a B-52 bomber). On his television program of August 23 he showed the trophy to his audience and read the inscription: "The Air Force Association honors Arthur Godfrey for distinguished service to airpower." Said Godfrey: "I am very proud of that."

On the same program he gave a detailed report on his stay in Omaha as an honored guest of AFA. He said:

"I have had four days of talking about bombs and airpower at the Air Force Association Convention in Omaha. A very fortunate site. Very wonderful choice in making Omaha the site of the Convention this year, very timely, because Omaha, you know, is the headquarters of the Strategic Air Command, under General LeMay. That's our front line now; that's the bulwark of our defense right now—has been for some years, and will be for some many more years, too."

And Arthur Godfrey added, "I have been to many conventions in my time. I never went to one like this in my life before."

Another nationally known figure was not as fortunate as Godfrey. He couldn't make the trip to Omaha because he was bogged down in one of his adventures across the world. But on August 15, Steve Canyon let some 30,000,000 Sunday newspaper readers of America know that the Air Force Association was meeting in Omaha—this the contribution of AFA's great friend and Steve Canyon's creator, Milton Caniff. (This year, as usual, the lobby of the headquarters hotel featured a large and exclusive drawing of Miss Lace, the famous wartime comic strip character, with an appropriate caption on the Conference.)

One way or another, the Omaha affair was broadcast far and wide. In this account of it, let us start at the beginning.

The big meeting was preceded on August 18 by a press conference with President Kenney, at which the explosive situation in the Far East occupied the minds of the correspondents present. The day before, President Eisenhower had said that the Seventh Fleet patrolling the Formosa Straits would resist any attempt by the Reds to invade the Nationalist-held island. Kenney expressed the belief that the US Seventh Fleet alone might not be enough to hold back the Chinese. He said Formosa could be the kickoff point for World War III (and was so quoted by Quincy Howe on the ABC nationwide network). His words drew much editorial comment. The *Phoenix (Ariz.) Gazette* (circulation: 51,436), in taking issue with Kenney, expressed the doubt that his views represented "those of the active Air Force command." (No one, of course, ever indicated that they did.) Said the *Gazette:*

"We believe that such speeches as that made by General Kenney are disturbing to the public consciousness, are subject to misinterpretation by the enemy, and are harmful to the purposes of the government. Retired commanding officers are closely linked in public opinion with the active branches of government. Their publicly expressed views carry almost equal weight with officially stated views. The public, as well as the government, should be protected from unofficial prophets who make scare headlines with their pronouncements on world policy."

The *Dothan (Ala.) Eagle* (circulation: 20,251), on the other hand, obviously thought more highly of Kenney's remarks. "A real invasion," said the *Eagle* editorial, "would find units other than the Navy involved, specifically elements of the Air Force. . . . The Chinese, said Kenney, have built up an air force which is probably the world's fourth strongest, with between 500 and 1,000 jet bombers. The American fleet, he said, doesn't have enough carrier-based aircraft to counter that kind of force of land-based aircraft which would have short flights between their bases and Formosa. In other words, if the Chinese

President Eisenhower's message, read at the Airpower Banquet at Boy's Town, cited AFA for "performing a genuine and a vigilant service to our country."

THE WHITE HOUSE
WASHINGTON

August 16, 1954

Dear Mr. Storz:

I am delighted to send my greetings to all the members of the Air Force Association on the occasion of the Eighth Annual Convention of your organization. Such a meeting should remind Americans once again of a clear fact: in these times it is imperative that we command a tremendous power in the air. By continually working to make the people of the United States more sharply aware of this need, and by supporting practical measures to increase our air strength, you are performing a genuine and a vigilant service to our country.

With my best wishes for a highly successful Convention,

Sincerely,

Dwight D. Eisenhower

Mr. Arthur C. Storz
Chairman
Air Force Association Convention
1807 North 16th Street
Omaha, Nebraska

are talking business instead of propaganda, there's going to be a real war in and around Formosa. All they need to do is pull the trigger."

Thus the Airpower Conference began on a controversial note.

The next morning (August 19), AFA's Board of Directors argued long and hard over the annual Statement of Policy before approving the version which went to the floor of the Convention, and was adopted without change. It was immediately quoted on all radio and television networks and given wide newspaper coverage, including a front-page story in *The New York Times*. Most of the papers featured the Statement's conclusion:

"We do believe, in the interests of both peace and freedom, that the line of aggression must be drawn and the issue joined."

This provoked editorial comment. Said the *Detroit Free Press* (circulation: 407,504):

"We'd like to know just where this line would run geographically, who is willing to welcome it in his national dooryard, and what would be construed as a crossing of it by the Russians.

"Unfortunately we don't ever expect to find these things out. Somehow the people who make spread-eagle pronouncements never sit down to the task of translating them into the immense, specific details of a state policy of staff plan.

" 'You get the general idea,' they say. 'Now take it from there. We've got to get busy on a resolution condemning the man-eating sharks.' "

Yet, some days later, on September 9, General Walter Bedell Smith, Under Secretary of State, in a public address, said: "The time has come to end the game of international quoits, in which the aggressor chooses the ground and the nature of the contest."

The AFA Statement had said:

"We believe that our national policy must clearly define nuclear weapons as legitimate and conventional instruments for resisting aggression, or the Free World's temporary advantage in weapons technology will continue to be seriously compromised."

In his address, General Smith commented:

"Are free men, in their defense, to be prevented from using the instrumentalities brought forward out of this technical inventiveness because of the brooding misgivings and distortion of purpose?"

There was, of course, no known connection between General Smith's remarks and the AFA Statement. However, commentators across the country, including the National Broadcasting Company, were quick to note the similarity of approach and report it.

A few days later, on September 16, Senator Republican leader William F. Knowland stated in a *Collier's Magazine* article that the US must "draw a line" in Asia and be ready to fight a major war "now" if the Communists cross it. The Association hadn't gone quite that far in its own Statement.

The Statement of Policy was quoted by magazines, including *Time* (circulation: 1,800,000). It stimulated the influential *Congressional Quarterly* (circulation: 3,000)—which *Time* itself recently called "one of the most important" publications in the nation—to do a full-scale analysis and report on the Air Force Association. In its September 10 issue, this magazine, to which more than half the members of Congress and 282 top newspapers subscribe, used the Statement of Policy as a kickoff point to describe what the Association is and what makes it tick. The 1,500-word article was reprinted in a number of newspapers.

To support the Statement of Policy, Convention delegates adopted a number of resolutions calling for specific action, as follows:

- Noting that the transonic Air Force is geared to a crawlingly slow, surface supply system, AFA called upon the Congress, the Department of Defense, and the US Air Force to "procure without delay modern transport aircraft and supporting facilities and techniques adequate to meet the global military requirement." Further, AFA asked for reinstatement of the transport wings scheduled for activation in the 143-wing program (but dropped in the 137-wing program), and recommended that these wings be "the laboratory units around which a modern air logistics system can be developed."
- In the belief that modern preparedness requires that each military service have a working knowledge of the other, AFA called upon the Department of Defense to "devise a system which will require that selected students at each service academy spend a reasonable portion of their training periods as exchange students at the academies of the other services."
- Claiming that ignorance of the security requirement imposed by modern airpower is compromising both public understanding of continental defense and public participation in it, AFA called upon the Department of Defense to "report to the best of its ability and within security limitations in the immediate future on the requirements necessary for this nation to resist all-out air nuclear attack, including the requirements for aircraft and related equipment, trained crews, supporting forces, electronic equipment, bases, dispersal, evacuation, and ground observers."
- Observing that diverse reports on the airpower capability of the Soviet Union have bred both complacency and confusion, AFA called upon the President of the United States to "initiate a continuing public education program on the nature, and the relative order of magnitude, of the Soviet military threat, including special reports by the President on the delivery and strike capabilities of the enemy, based on the latest intelligence information available."
- In support of its oft-stated demand for adequate airpower, AFA called upon both the President and the Congress to "gear military expenditures, not to be an arbitrary ceiling, but to whatever program may be adequate to meet the threat of Soviet aggression."
- Expressing a concern over the base structure of the Air Force, AFA called upon the Congress to "authorize and appropriate the necessary funds for a program of base construction adequate to support a modern combat Air Force of 137 wings." Further, AFA asked the Secretary of Defense and the Congress to "revise those operating and review procedures that contribute to unnecessary delay in implementing a construction program." (One of the first official acts of the newly elected AFA president, John R. Alison of Los Angeles, was to call these resolutions to the attention of the specified authorities in government.)

The Statement of Policy had concluded with this thought:

"We believe that, in addition to the armed preparedness for which we stand, we must appreciate and be willing to fight to preserve the system of government under which we live—a system which allows each of us to live his life according to the dictates of his conscience, to speak his thoughts according to the dictates of his mind, and to worship at his altars according to the dictates of his faith."

This expressed interest in the spiritual values attendant on national security was much in evidence at the Omaha meeting.

As reported under a six-column, front-page headline by *The St. Louis Register*, official Catholic newspaper of the Archdiocese of St. Louis, Convention delegates adopted a preamble to the AFA constitution which reads as follows:

"Whereas, the Creator has endowed all men with the right to life, liberty and the pursuit of happiness; and

"Whereas, men have the duty to protect and defend that right; and

"Whereas, adequate airpower is essential to the peace and order necessary for individuals and nations to use

(Continued on following page)

God's gift of freedom, Therefore,

"We band ourselves together in this Association to support the achievement of such airpower as is necessary for the defense and protection of our natural heritage as free men."

The Reserve Forces conference on August 19 brought together leaders of the Reserve and Air National Guard, including John I. Lerom, Deputy Assistant Secretary of the Air Force for Reserve Affairs; Lt. Gen. Leon Johnson, Commander of Continental Air Command; Maj. Gen. William F. Hall, Assistant Chief of Staff for Reserve Forces; and Brig. Gen. Winston P. Wilson, Chief of the Air Force Section, National Guard Bureau.

Participating in the question-and-answer sessions were hundreds of Air Reservists and Air Guardsmen from throughout the country. For the first time, the Air Force had authorized members of its Reserve units attending the conference to receive credit points upon reporting the session to follow Reservists in their communities. The same authorization applied to the Airpower Symposium. Thus, the message of Omaha was carried back to Main Street in yet another way.

Stimulated by the conference, Convention delegates in later business sessions adopted a number of resolutions relating to specific points in the Reserve program (see p. 71 and following). Copies of these resolutions were submitted by AFA to proper offices in the Pentagon, and several of them are now being studied by the Air Force's Section 5 Committee on Reserve and National Guard Policy, the top advisory group of its kind for the Air Force. Following the Convention, the complete text of the Reserve Forces conference was distributed by AFA to all Air Reserve and Air Guard units in the country. Thus, the Association assumed new leadership in keeping Air Reservists and Air Guardsmen appraised of their position in the Hydrogen Age.

No single statement has expressed this position more cogently than that of President Kenney before the Reserve Forces conference (see p. 73). Kenney portrayed the Ready Reserve, if immediately available, with a mission comparable to the Regular establishment's. For the second-line Reservist, he projected "the chaos" that would result with the defeat of Russia in a World War III, and said that in that circumstance it would be up to our Reserve forces to help restore world order.

The newspapers seized on the statement. To columnist Norman Levine of the *Long Beach (Calif.) Independent Press-Telegram* (circulation: 92,190), it was "as dark a word picture as anyone would want to look at." Yet he took no issue with the Kenney conclusions. The *Savannah (Ga.) News* (circulation: 50,545) headlined: " 'World Chaos' Is Predicted If War Comes." The *Duluth (Minn.) News-Tribune* (circulation: 48,296) said in an editorial:

"Anyone who has watched the course of the Twentieth Century under any condition short of total anesthesia knows what the general means. His words reflect the reasoning of President Eisenhower, who said earlier this month that there is no such thing as a preventive war. Strength enough to win a war, if it comes, falls short of Free World needs today. We ought to have more than that. We owe it to civilization to develop the power to prevent a war by making aggression utterly unattractive and hopeless."

On August 21 the third business session of the Convention opened with remarks on Air Force community relations by Brig. Gen. Brooke E. Allen, Director of Air Force Information Services. His address received wide press coverage, including a number of editorials across the nation. Bob Considine, whose well-read syndicated column for INS appears in 225 newspapers with a combined circulation of more than 10,000,000, devoted his entire column to General Allen's comments on noise annoyance from jet engines. As the *Schnectady (N. Y.) Union Star* (circulation: 36,182) put it: General Allen urged the delegates to "try to make the public realize that security comes before comfort."

The Airpower Symposium, on August 20, featured statements by Deputy Under Secretary of State Robert Murphy, Dr. Mervin J. Kelly, president of Bell Telephone Laboratories; Congressman Sterling Cole, chairman of the Joint Congressional Committee on Atomic Energy; and Donald A. Quarles, Assistant Secretary of Defense for Research and Development. Question-and-answer periods followed each statement. The Symposium was climaxed by briefings at Headquarters of the Strategic Air Command. Jimmy Doolittle, who served as moderator for the day-long affair, summed up the morning session of the Symposium in these words:

"There were certainly differences of opinion, but we had four splendid, meaty talks. To me, the Air Force Association Symposium this morning brought out these thoughts:

- "After World War II it became obvious that Russia had accepted us as allies only through necessity and in the interest of her own expediency, and was now a potential enemy.
- "We built up the Strategic Air Command which for eight years has maintained the peace.
- "Fearing the Strategic Air Command and having no long-range air-atomic power of her own, Soviet Russia started on and rapidly built up an extensive continental air defense.
- "Russia now has and is steadily increasing her air offensive capacity.
- "We must now, therefore, improve our own continental air defense.
- "Such a force can never be 100 percent effective because by the time that we learn how to stop all of her today's weapons, she shall have tomorrow's more modern, more effective, and more difficult-to-stop weapons.
- "Although our offensive capacity is still our best defense, we must also build up our defenses without interfering with the Strategic Air Command. We must spend as much money on defense as our economy will support.
- "While this will not stop all of a mass air attack launched at us, it will dull the blow and reduce our losses.

"Now I agree there could be a great deal of argument about what was said this morning, but that is my interpretation. Partly because that is what was said, partly because that is what I believe."

The "meat" of the Symposium was conveyed to millions of newspaper readers, radio listeners, and TV viewers. Vern Haugland, Associated Press aviation writer, whose coverage of the Symposium was reported by most of the newspapers in America, called the program at SAC Headquarters "a mass defense briefing, first of its kind," explaining: "Gen. Curtis E. LeMay, SAC commander; Maj. Gen. Archie Old, SAC's Director of Operations, and other key men in the global striking force, presented a frank picture of US preparedness to lash back—with every 'suitable' weapon—at an enemy aggressor. An aide called it 'the most complete such picture ever drawn—absolutely everything that could be told without giving an enemy information he may not already have.' "

The *Boston Herald* (circulation: 130,158), in an editorial titled "Time to Talk Turkey," referred to remarks of Dr. Kelly at the Symposium and issued a plea that "the American people should be told the danger in cold-blooded objective words." The plea paralleled that of a resolution adopted by the Convention.

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CAMERA HIGHLIGHTS

What Went On In Omaha

Nationally known personalities were much in evidence at Omaha. Here are radio-TV star Arthur Godfrey and Jimmy Doolittle at the Airpower Banquet.

A view of part of the crowd at the Airpower Brunch on Sunday morning in the Fontenelle ballroom. This was the last official event of the '54 Convention.

An "Indian" from one of the local Boy Scout troops entertains the Airpower Ball guests with his fire dance.

Marietta C. Miller, at left, outgoing President of the Ladies Auxiliary, is shown at the Fashion Luncheon with Mrs. James H. Doolittle, new Board Chairman.

The *Clarksburg (W. Va.) Exponent-Telegram* (circulation: 41,798) editorialized: "Discussion at the 'Hydrogen Age Symposium' during the annual conference of AFA in Omaha showed us clearly that the United States must be prepared to use nuclear weapons in case of an attack by some now known or unknown enemy."

The headlines across the nation indicated the impact of the Symposium. From the *Atlantic City Press* (circulation: 33,854) "Air Force Assn. Hears H-Bomb Branded 'Danger to Civilization!'" From the *Portland Oregonian* (circulation: 226,445) "H-Bomb Held World Peril, Be Prepared, Nation Told." From the *Indianapolis Star* (circulation: 196,362): "Be Ready to Fight Back, US Warned."

Radio and television commentators who spread the word of the Symposium included Bill Henry of Mutual Broadcasting System, Morgan Beatty of the National Broadcasting Company, John Daly of the American Broadcasting Company, and Bill Shadel of the Columbia Broadcasting System.

The remarks by Deputy Under Secretary of State Murphy and the question-and-answer period which followed were printed verbatim in the September 3 issue of *US News and World Report* (circulation: 691,418), under the headline "Massive Retaliation—Its True Meaning." Many newspapers called attention to the fact that, while Under Secretary Murphy said our strategy still depends on instant and massive retaliation in event of attack, AFA's Statement of Policy said the concept is "crying for official definition and clarification."

The remarks of Representative Cole were given feature treatment in *US News and World Report*, and wide press coverage was given to his Symposium statement that the US and Canada should enter into a continental defense pact to meet the threat of atomic attack. Again, the headlines indicated the impact. From the *Elmira (N. Y.) Star* (circulation: 38,453): "Job Acute in Face of Red Gains, Says Cole." From the *Sacramento (Calif.) Bee* (circulation 130,666): "Key Atom Lawmaker Points to Monumental Defense Job."

Papers quoted Secretary Quarles—"It is debatable whether a higher level for the military part of [research and development] is justifiable"—against the statement of Dr. Kelly that "there is a need in many areas for expansion

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From the Annual Report

The AFA Family

George C. Kenney

President, Air Force Association, 1953-54

WHEN THE Air Force Association was organized in 1946, the rallying cry was, "Keep the Gang Together."

The gang, as we knew it then, consisted mostly of young men and women who had served the Air Force in World War II, and a few of us who had served it in World War I as well.

We were proud of the gang, and rightly so. It was the first time a grass roots organization had been formed with membership conditioned by Air Force service. The idea has paid off. Over the years many aviation organizations have been born, and many have died, principally because there has been no cohesive element to keep them together. The common background of service in the Air Force has provided this element. It's been the key to our progress.

Yet, keeping the gang together has never been an end in itself. Our primary mission, as it was at the start, is to advance the cause of airpower.

We've shunned the selfish motive, whether it be promotions in the Air Force or contracts with the Air Force. In serving the Association, we have no "angles." Each issue of our official magazine, AIR FORCE, broadcasts the fact that we're "an independent, nonprofit airpower organization with no personal, political, or commercial axes to grind." Therein lies our strength.

From the start, the Air Force gang has included men and women on active duty with the Air Force. These Service Members, while not entitled to vote or hold office, have always been an important factor in our growth and development.

The gang was expanded a few years ago, to include men and women who are enrolled in the Air Force Reserve and Air National Guard, regardless of prior service in the Air Force. This action has recognized that members of the Reserve components, subject to call to active duty, deserve Active Membership in the Air Force Association.

The youth of the country are, after all, the future of airpower, and so we have created a Cadet Membership for cadet members of the Civil Air Patrol, and Air ROTC students.

For the many adults who are influential supporters of airpower, but not eligible for Active or Service membership, we have a non-voting Associate Membership.

The aviation industry has long been a prime factor in airpower education. We have recognized this fact, and have brought industry into the "gang," with our Industrial Associate program.

We have also recognized that airpower is not exclusively a man's world. So we have created the Ladies' Auxiliary of the Air Force Association to help us in our airpower job at the grass roots.

I have reviewed these steps, one by one, because the past AFA year, as I see it, has been, first of all, important for action taken to weld these several and often diverse elements into an organized and unified voice of airpower. In truth, the Air Force Gang has become the AFA family.

See page 89 for the complete text of the AFA President's Annual Report.

THE SECRETARY'S ANNUAL REPORT

Millions for Equipment, Nickels for the Men

'Every time a skilled man leaves the Air Force, it costs our country a fraction of its security and a valuable national asset which can't quickly be replaced.'

The Hon. Harold E. Talbott
Secretary of the Air Force

MAY I SAY, before we get down to brass tacks, that it's my job to make speeches from time to time, but this annual meeting with you good people of the Air Force Association is really a special occasion for me. I don't often get the chance to speak to people who understand air problems as thoroughly as you do. Moreover, this meeting gives me a chance to thank all of you personally for the splendid job you keep on doing year after year, for the Air Force. I just want you to know how much your help and support mean to me in my job. We are bound together by a common bond—an intense pride in our wonderful Air Force.

The year that has passed since I last spoke to you has been filled with achievements. In our build-up to 137 wings—approved by the President this year—we have now reached 115 wings fully activated. Every fighter plane in the Air Force is now jet-propelled. During the year, one of our test planes has broken the world's record for speed—1,650 miles an hour. *[Maj. Charles E. Yeager set this record December 12, 1953, near Edwards AFB, Calif., flying the rocket-powered Bell X-1A.—The Editors.]* I am able to announce to you tonight that an Air Force test plane has just broken the world's altitude record—it will go higher. *[After Mr. Talbott's speech, Air Force sources announced that Edwards AFB test pilot Maj. Arthur Murray set the new altitude record of some 90,000 feet "several months ago," also flying the Bell X-1A. The previous record was set August 31, 1953, by Marine Lt. Col. Marion E. Carl, who flew the Douglas Skyrocket D-558-2 to 83,235 feet. —The Editors.]* One of our refueled B-47 jet bombers has recently set another record—thirty-five hours in the air, 17,000 miles nonstop. Our new B-52 jet bomber has been tested and has exceeded our expectations. It has been ordered in quantity production, and as soon as the last of our B-50s and B-36s are replaced, the combat Air Force will be 100 percent jet-propelled.

Now, the problem I want to discuss with you tonight—one on which I am counting on your help and encouragement—is something very urgent, and *most* important. It has to do with human values. In speaking to you in this room, I also want to speak to the men and women in the Air Force all around the world, for the problem concerns the living conditions of our airmen and their families. Their welfare is my responsibility as Secretary of the Air Force. It is also the responsibility of every American citizen, for the peace of the world, the safety of our country, depends largely on the *quality* of our Air Force, not alone its size. More than anything, it depends on the skill and endurance of the men who handle the new equipment of the jet-atomic age. As you know, a directive issued two weeks ago gave the Air Force the prime responsibility for the defense of the Continental United States against air attack. This is a tremendous job. It may mean a day and night watch for the rest of our lives. We cannot maintain this watch with amateurs. Only the most skilled and experienced men can do it. That's what QUALITY means.

When I took office eighteen months ago, there were a lot of things I had to learn the hard way. But the biggest headache was obviously the increasing turnover of our skilled men. During the last four years, the AF reenlistment rate has fallen from sixty-six percent to about thirty percent. At some of our bases where the strain is greatest and the living conditions are the poorest the rate has fallen as low as six percent. On top of this, many highly skilled and experienced officers have sent in their resignations.

Now, every time a skilled man leaves the Air Force, *it costs our country a little fraction of its security.* It costs us a valuable national asset, which can't quickly be replaced. For example, it takes *five years* to train the triple-rated pilot of a B-47, and it costs us *$608,000* to give this one man the necessary training and experience. Currently we are losing more than $2 billion a year in trained airmen. We can pour in more money, but all the money in the world won't buy us the lost TIME if these men leave the service.

Well, it seemed to me a matter of top priority to get to the bottom of this situation—particularly since I knew that many years ago there were more applicants for Air Force careers than there were jobs to go around. It seemed to me that there must be some pretty powerful reasons behind this situation. I had extensive reports made in the field, I got away from my desk and went to look for myself.

In the past eighteen months I have flown about 200,000 miles and I've talked with all ranks, from basic airman to four-star general. I've also talked to their wives—for no one had to tell me that if I wanted to know the facts of Air Force life, I must ask the wives as well as the men. In just a minute I'm going to tell you what we have learned and what we are doing about it. But, first, I want to say this:

The facts prove overwhelmingly that men don't leave the Air Force because of picayune gripes. It is not a matter of swimming pools and fancy clubs, or of pessimism and self-pity. It is a matter of Air Force life at the family level—of the simple, honest, homely things that a man must have

(Continued on following page)

if he is to do a challenging job, often under great strain, and still hold his family together. Almost without exception, the career men I have talked to have given me this assurance: that if their living conditions can be raised up to a decent American standard, they ask for nothing better than to stay in the service.

I have never met more dedicated men. And there is nothing the matter with Air Force morale.

Finding out the causes of discontent with Air Force life, correcting as many as we could, has been a major program. I am sure that we have arrested the steady downgrading of pay and service privileges that has been going on for years. We aren't going to have any more hasty changes in the Air Force's contract with its people.

Now, let's get down to cases. I will start with pay. The cost of living has gone up over 200 percent since 1939. Industrial pay has gone up 315 percent. Air Force pay has risen only 110 percent for airmen and 59 percent for officers. Even these raises have been nullified somewhat by reductions in fringe benefits, and by the excise taxes and surcharges on commissary and PX items.

I think most civilian families would be scandalized if they could see how frugally Air Force families are obliged to live, how frequently they borrow money from relatives to pay for medical and other expenses which the government used to pay for them. I don't think I have encountered better managers than Air Force wives, or more thrifty budgeting, but if you take a look in their kitchens a few days before pay day, you won't find much on the shelves. Here is the heart of it, then: *we spend millions for equipment, and nickels for the manpower that operates it!*

Now, it requires legislative authority to obtain an across-the-board increase in service pay. I want the Air Force to know that I shall do all in my power to secure this at the next session of Congress. In the meantime, there are some things we can do in the Air Force to take a little pressure off the situation. Beginning in October, the Air Force will be paid twice a month. This will end the silly business of having to stretch a single paycheck over a thirty-day period. I think this will be welcome news to Air Force wives.

Next, we have definitely ended the constant, unreasonable attacks on flying pay. In this session of Congress, not one question was raised on the requirement for flight pay —and the restrictions for adequate flight training time have largely been removed.

Finally, we have secured legislation permitting us to boost the reenlistment bonus. For example, an airman, at the end of his first four-year enlistment, can draw as much as $800 instead of the old maximum of $160. And the maximum re-up bonus has been raised from $1,440 to $2,000.

But don't misunderstand me. These are just small easements. I don't think we can hope to compete with direct pay offered by industry. Instead, I think we should restore the security, and the privileges, which used to make Air Force careers attractive.

For instance, let us look at housing. I know perfectly well from my own investigation that this is one of the sorest points in Air Force life. I mean homes for our families and decent barracks for our airmen and bachelor officers.

In 1938, all our people had a home, *and we had no manpower problem.* During the terrific expansion of World War II airpower, only minimum facilities and temporary housing were built. After the war, the Air Force was so busy closing bases that scant heed was paid to housing.

Since wartime, much has been done. We have built up our housing from 2,500 family units to 78,000. But we still have about 100,000 AF families without adequate housing. When families aren't lucky enough to get base housing they have to hunt around in the nearest community, sometimes ten miles or more from a base. You can figure out the monthly gas bill that lets them in for. Worse than that, their quarters allowance is frequently not enough to pay the civilian rent. The airman pays the difference.

Sometimes there are no rentals at any price. Then, the family has to go out on a limb and buy a house, make a down payment. If they get shifted without warning, they're left holding the bag. Ladies and gentlemen, this is no way to treat the people who watch over our country.

The answer, of course, is to provide more permanent housing—both appropriated and Wherry—on-base. Under the law, such housing may only go on a permanent base. We are therefore going ahead as rapidly as possible to classify more of our bases as permanent. In addition, we have secured a change in the law whereby, for the first time, service personnel can obtain an FHA loan if they want to buy a house.

In passing, let me say that this Wherry Housing has been a godsend, but it has to be built and operated according to Air Force needs. For instance, I know a base in Florida where the partitions are so flimsy between the apartments that all the families might as well be living in one room, as far as noise is concerned. That's no way to house a man who must spend long hours, sometimes days, in the air, and needs his sleep.

At another base, in Texas, the local Wherry contractor is actually victimizing Air Force families with a system of fines and charges for a whole catalogue of alleged offenses—annoying little regulations that make an airman seem more like a prisoner than one of the most honored men in our country. No contractor has the right to victimize our men. I give notice here and now that as long as I am Secretary of the Air Force, I will not stand for degrading things of this nature.

In addition to setting up a major building program in this country, we must take steps to provide good housing overseas. When we get through, we shall have first-rate housing for every family overseas, as well as in the United States.

The next item on my list is the subject of medical care for dependents. We all know that a man entering the Air Force has been led to believe that his family would be well looked-after, especially when he is away on temporary duty. This is a moral contract.

This contract has not been kept. I know of hundreds of cases of hardship. I suppose there are few Air Force families who have not at some time or other been in debt for medical services they have had to purchase on the outside. When the husband, the breadwinner, has such a modest pay check, these doctor bills are a major problem, especially when there is a growing family.

The basic reason for these medical hardships is, once again, the great expansion of our Air Force. We simply haven't got enough doctors. They do a splendid job for the men, but there aren't enough of them to look after all the wives and children as well.

Here is what we are going to do about this problem:

- The Surgeon General is taking immediate steps to cut down the administrative paperwork, which is the bane of every doctor in the Air Force. We are going to insist that administrative personnel deal with these matters and that our available doctors be free to *doctor.*
- The Air Force has sponsored the submission to Con-

(Continued on page 60)

The Air-Atomic Age —Its Perils and Its Opportunities

'Only if we weaken in our relative strength or seem to waver in our determination are we likely to be hit'

General NATHAN F. TWINING

GENERAL TWINING
Chief of Staff, USAF

General Twining succeeded Gen. Hoyt S. Vandenberg as USAF Chief of Staff last year. Now 56, he was born in Wisconsin and began his military career with the Oregon National Guard in 1916. In 1918 he was graduated from West Point and received his wings in 1924. In part of World War II he had tactical command of all Army, Navy, Marine, and Allied Air Force in the South Pacific. He became Vice C/S of the USAF in 1950.

AT THE outset here I wish to express to the Air Force Association greetings and best wishes from the United States Air Force and congratulations to this fine organization for the seven years of very constructive work that it has done.

The Air Force is very happy with the association we have with your organization. You have patted us on the back when you felt a little praise was needed, and I might say you have been most critical at times when you felt that was appropriate. I hope that it continues that way because that is the best thing for the nation.

This is a gathering of people who know what airpower is and what it means to the security of the United States.

You are aware of the new capabilities of airpower.

You know of the increasing impact of airpower in war, and its rising influence in peace.

You want the people of the United States to understand these developments. You want them to know what is being done in the air—what is being done at their expense and for their protection.

The Air Force Association is performing many essential services for the people of the United States and for the armed forces of the United States. None of its missions is more important, however, than helping to explain to all Americans the perils and the opportunities of the air-atomic age.

The performance of planes and missiles—and the effectiveness of all types of air weapons—are constantly changing.

It is a big job to keep our people informed about them. It is an endless task to describe the numerous advances in air weapons and to explain what these advances mean.

Yet it is the duty of all who know the essential truths about airpower today to see to it that these truths are explained clearly and often.

We can carry out our duty to keep the American people accurately informed but only if we concentrate on the basic facts of life and death in this period of mounting danger.

The fundamental fact is that new vehicles of the air and the new weapons they carry now hold the power of life and death over all nations.

This fact is so stupendous that we are tempted to turn away from it. We try to find excuses for ignoring it.

We are inclined to hope that nobody, not even the most ruthless enemy, would ever use atomic or hydrogen weapons against us. It would be natural to wish that we never again have to use such weapons if we have an alternative.

The Soviets have tried to capitalize upon our natural reluctance to face the unpleasant realities of modern war. The Communist propaganda machine has repeatedly called on us for a pledge that we will never again use our superior new weapons.

And now we are beginning to hear, from other sources, the suggestion that if we promise our enemy we will use only the weapons of his choice he might not hit us quite so hard.

Such a promise, or such a policy, would only encourage the enemy to push his huge land army and his big air

(Continued on following page)

force against our allies and our overseas positions. He would no longer be restrained by the fear of bringing sudden and heavy retribution down upon his head.

If he moved against us and our allies with the massive forces at his command, we would have to strike back. If we struck back at him with nothing more than traditional weapons, it would probably take years to damage him decisively.

In the meantime our allies and our hundreds of thousands of troops overseas would be trying to hold against overwhelming odds.

The defenses of the Free World are spread around the edges of the continent of Eurasia—that vast and undivided reservoir of Red power. We cannot deploy sufficient strength everywhere around the Iron Curtain to stop a Red attack that may be concentrated anywhere at any time.

We have no choice but to rely primarily on our ability to counterattack against the deep roots of enemy strength with weapons of concentrated power.

This we can do and this we must be prepared to do, without hesitation, if the enemy moves against us.

The stated policy of our government, that we will rely primarily on our ability to launch a decisive counterattack, is no theory or no plan. It is simply a forthright recognition of the situation that has existed for years.

Gen. Alfred Gruenther, the Supreme Allied Commander in Europe, has emphasized repeatedly that we must and we will resist open aggression with every weapon in our arsenal.

I certainly agree with him that this fact must be well established.

To fail to use our most powerful weapons if an enemy moves against us might well insure defeat. To fail to make it clear that we are always ready to fight back with every type of weapon we have ever used would tempt an alert and aggressive enemy to gamble on our indecision and to make his first move.

There can be no objection to public discussion and debate as to the types of weapons that may be used by us and by our enemies. We should take care, however, that no enemy is deceived into the belief that the United States lacks the courage to resist any attack with the full measure of its power.

It is only by such resistance that we can hope to save our indispensable allies and our vital positions that lie within reach of the entire Red air force or the massive Red land forces.

We have already granted to an enemy the tremendous military advantage of striking the first blow. It would be fatal to grant him the advantage of completing these first heavy blows before we decide what kind of counterblow to launch against him.

There are some who profess to believe that the defenses of the Free World can be deployed against atomic attack and at the same time concentrated to meet a World War II type of offensive. This is impossible, of course.

It has always been difficult to bring about any strategy on top of an old strategy. To impose now the old strategy on top of the new is out of the question.

It would be pleasant and reassuring to pretend that we can create and operate two complete systems of defense, one against nuclear blitzes and another against old-fashioned war. Such a pretense would fool our enemies least of all.

Even if it were possible to have two complete systems of waging war, how could we know which to use? Would we allow our limited forces, including our Air Force, to be used up in indecisive non-atomic combat, only to have the enemy switch to nuclear weapons at his pleasure?

Could we permit our land, sea, and air bases near the Iron Curtain to be captured or neutralized in hope that out of gratitude for this windfall the enemy would never use his nuclear weapons?

Could we afford to wait until enemy planes have reached our deepest targets and dropped their bombs before deciding on the type of counterblow we will launch? Would we keep all our atomic striking forces on the ground during these attacks? Would we wait for the last bomb to fall in order to load only the same kinds of bombs for the counterattack? Would we use up this powerful but limited strategic force against heavy numerical odds, just in the hope that the enemy will not shift to an atomic strategy after it is gone?

Since nuclear weapons are thousands of times more effective than all other types of weapons combined, they are, beyond all question, the decisive weapons. We face an enemy who will not take one step toward dependable inspection and control of these weapons. We have no choice but to assume he will use them and to build our defense structure on that basis.

This task of building a defense system against nuclear attack is far from complete, and it may yet tax our resources. The new long-range jet planes recently displayed by the enemy represent a heavy investment of his limited scientific and technical skills. Such an investment is worthwhile only for mounting long-range nuclear attacks against the United States.

At present his ability to attack at long range is limited, but if he continues to increase it we will have to step up our own efforts in order to maintain our present lead in air striking power.

The size of the Air Force we are building today is planned on the basis of present, rather than future, Soviet air strength. Even more important is the fact that the planned size of our Air Force is predicated on the use of the most powerful weapons available to us.

If the most powerful air weapons are used, our disadvantages in distances, in numbers of planes, and in numbers of bases are less important.

The enemy's territory is big and his vital targets are deep. Many of our vital targets, particularly those overseas, are relatively near to the enemy's bases and within range of the entire Red air force.

If only the old weapons are used, the enormous task of gaining air superiority and of providing air support for other operations would demand airplanes in astronomical numbers to avoid defeat at the outset. It reverts to hundreds of thousands of tons of bombs flown millions of miles, as in World War II. There would have to be many trips to the same target areas with mounting losses in planes and crews. Our disadvantages in numbers of planes and bases, and in distances to vital targets would make the task a massive one.

With a huge Air Force, such as we had in World War II, the job could eventually be accomplished, as it was in World War II.

In that war some of our raids with ordinary bombs were more destructive than either of the two atomic raids, and the effect of these massive raids helped to bring about a complete surrender without an invasion.

The task of winning a non-atomic air war overseas could be accomplished, but the force required at the outset would be enormous. A very large Air Force would be the first essential, for air superiority well in advance of other types of operations is just as necessary today as it was in World War II.

Our hope of gaining and maintaining air superiority in overseas areas is heavily dependent on the use of our most effective weapons against the far more numerous planes and bases of the enemy. Any non-atomic strategy would require an Air Force much larger than we are now building.

Therefore, the question of whether we could win a non-atomic war and at the same time save our indispensable allies and our vital positions overseas resolves, first of all, into a question of how much air strength we could build and how quickly we could build it.

Let us keep these two facts clear in our minds:

First, air superiority is essential to successful overseas operations in any kind of war.

Second, because Air Forces take longer to build than other types of forces, any shift from an atomic strategy to a non-atomic strategy must be preceded by building the much larger Air Force required for a non-atomic strategy.

In any discussion of such a move it should be recognized that it might tax our resources so heavily as to delay the building of land and sea forces.

In any event, until some dependable control of armaments is worked out, it is imperative that our ability to deliver nuclear weapons be vastly superior to that of the Soviet Union. The Soviets must be deterred primarily by the certain knowledge that we can hurt them more than they can hurt us.

They have gambled desperately in the past and they might do so again unless our power in weapons of decision is unquestionably more effective than theirs.

It must be sufficiently superior to enable us to absorb the first heavy blow and still have enough left to win.

The first blow now offers far greater advantages to the aggressor than ever in the past, and those advantages are increasing. Nevertheless, we will not even consider the idea of preventive war. There is a military argument against it and there are also sound moral and political arguments.

From a military standpoint alone, we would not want to start a war without preparing for it more completely than we are prepared today.

If we should ever bring our preparedness to such a high level as to be ready to start a war, our enemies would probably respect us and our strength. They would sincerely seek to avoid it. They would surely show a greater willingness to cease their aggressive actions, and less willingness to risk provocations that could lead to war.

We have long recognized that there are only three choices open to us: we could attempt to appease our enemies by permitting the open conquest of more territory and by permitting them to gain equality in the weapons of decision; or we could of course surrender; or we could hold Communist power in check by maintaining our lead in the decisive arms.

We have already made our choice. We will not appease and we will not surrender.

We will maintain our lead in the decisive weapons, and whatever the cost proves, we are going to have to pay that cost.

We must continue to convince the Communist enemy that we will strike back as fast as we can and as hard as we can. We must continue to count on our capability for a massive counterattack to keep him in check and to prevent another war.

We stand firm in the defense of the Free World. In our hands we hold the most powerful gun ever designed. The gun we hold can penetrate directly to the heart of the giant whose shadow falls across half of the world.

As long as we hold that gun firmly and steadily he will not deliberately cause us to fire it. Only if we weaken in our relative strength, or if we seem to waver in our determination, are we likely to be hit.

Our fingers are not heavy on the trigger and we hope for peace. We seek to avoid incidents, rather than to provoke incidents. There is already sufficient reason for war if we want to go to war.

We must and we will defend ourselves and our allies if we are attacked. But this is a time for coolness as well as firmness, and a time for deliberation as well as readiness.

There is no excuse for panic and no sound reason for fear.

We have an advantage today and we can keep that advantage if we try.

Let us look to the future with all the courage that events of the future demand, and with all the confidence that our past and present achievements can justify.

Again I want to thank the many members and supporters of the Air Force Association who have contributed to this and other meetings. We of the active Air Force are appreciative of your many efforts and services in behalf of the men and women of the Air Force and of all the armed forces as a whole.

We want to continue to work with you closely; and with all other organizations and individuals who are willing to face the known realities of the present in order that we may prepare against the unknown possibilities of the future.

These are times of tremendous change. Many far-reaching decisions have already been made and still others lie ahead. These decisions must have the support of all of our people. They will have that support if our people know and understand the basic problem of Survival in this Hydrogen Age. To know the truth is to know that we must never plan or act in fear, but always with courage and with confidence in the strength we can build.—END

special report on

SECURITY IN THE HYDROGEN AGE

On the following pages,* AIR FORCE Magazine *presents the Third Airpower Symposium, which took place August 20 at AFA's Eighth Annual Convention, in Omaha, Nebr. Again this year—as in Washington last year and Detroit in 1952—the standing-room-only signs attested to the success of this feature of the AFA Convention. Here, in the words of four top policymakers in the fields of diplomacy, science, atomic energy, and research and development, are some of the answers to the big question—can we know security in the Hydrogen Age? With a view to the role of airpower in today's unfolding drama and the need for air supremacy if we are to survive, we present the following material as a public service.—The Editors.

International Policy

The Honorable ROBERT D. MURPHY
Deputy Under Secretary of State

I'M VERY happy to be out here in Omaha today for one reason among many others, and that is to meet up again with Gen. Curtis LeMay. Last evening we were talking about things in Germany a few years ago at a time when I was serving as political advisor to the Military Governor, who was then Gen. Lucius Clay. The Russians blockaded Berlin, which was our headquarters, and there was a problem of whether we'd stay, whether we'd force our way in on the surface; that is, by highway and rail; or whether we'd resort to airlift.

Our government decided on the airlift, and General Clay that morning called up Curtis LeMay, who was down to Wiesbaden. I happened to be on an extension phone listening in on this conversation, and Clay said to him, "Curtis, can you deliver coal by air?" There was a moment of shocked silence, then that cool voice of LeMay came over.

He said, "Would you mind repeating that question, General Clay?"

Clay said, "I'm asking you whether you can deliver coal by air," because coal was the key to the situation of the maintenance of the position in West Berlin.

After another second of silence, LeMay said, "I think the Air Force can deliver anything." That was the start of the airlift in the Berlin Blockade.

I think this is a good place and a good time to discuss the interrelationship of military power and foreign policy. Omaha is a good place because in the environs of this prosperous, peaceful, and hardworking community, deep in the American hinterland, is located the headquarters of the great Strategic Air Command. And the time is good for the reason that events are plainly compelling the United States to reexamine some of the assumptions and plans upon which it has heretofore approached its great task on behalf of its own vital interests and those of its partners in the Free World.

Precisely what is the American task? As defined in the recent past by the President and the Secretary of State, United States foreign policy is trying to do three things. Its aim is to prevent war and the further disruption of civilization as a result of war. Its aim is to demonstrate, by conduct and example, the good fruits of freedom in contrast with the bitter fruits of despotism. Its aim is to provide the major part of the world's effort needed for the healthy development of the world's undeveloped areas.

These are the simple fundamentals of the American approach to the rest of the world. As Secretary of State John Foster Dulles has said on another occasion, these aims do not include an obligation on our part to be responsible for everything and anything that may happen on this troubled and divided planet. We do not consider it to be our self-appointed mission to attempt to put things to right whenever they go awry elsewhere in the world. Nor are we under any delusion that there exists any magic American formula for solving the world's problems.

Our intent, as President Eisenhower recently put it, is to be above everything else a "good partner," and in that role we propose to proceed under the traditional assumption that as regards the rest of the world the best solutions to the common besetting problems are those originating with the peoples directly concerned.

Now, we have in ample measure the means to live with these aims, the crude and naked hostility of the Communist bloc notwithstanding. It is no exaggeration to say that never before, in a period short of general war, has American military power been so great relative to that of any avowed or prospective enemy, or combination of enemies. There is no question in my mind that our commanding position in the new technology of warfare—particularly nuclear weapons and the airpower for delivering them—leaves the balance of power very tilted in our favor.

Nevertheless a paradox today pervades the American position. These same weapons that assure us the margin of advantage over a thrusting and implacable enemy have themselves generated doubt and apprehensions, not only at home but also among our allies.

This is indeed a strange and puzzling situation. With what is this nation left to defend itself if the instrumentalities brought forward out of our technical inventiveness are themselves allowed to become the object of misgivings and indecisions?

Let me make myself clear. I share with all reasonable men an abhorrence of war, whether nuclear or conventional. Most of us here have had experience with war. We are all, I am sure, equally revolted by the mere thought of any possible resumption of slaughter, all the more so in the context in which, as a result of the develment of mass-destruction weapons, war is now commonly envisaged. If we Americans can be said to have one unifying desire, dominating others, it is to prevent the outbreak of more war.

Yet, it seems to us in the State Department that a good deal of nonsense is being written and spoken about

(Continued on page 37)

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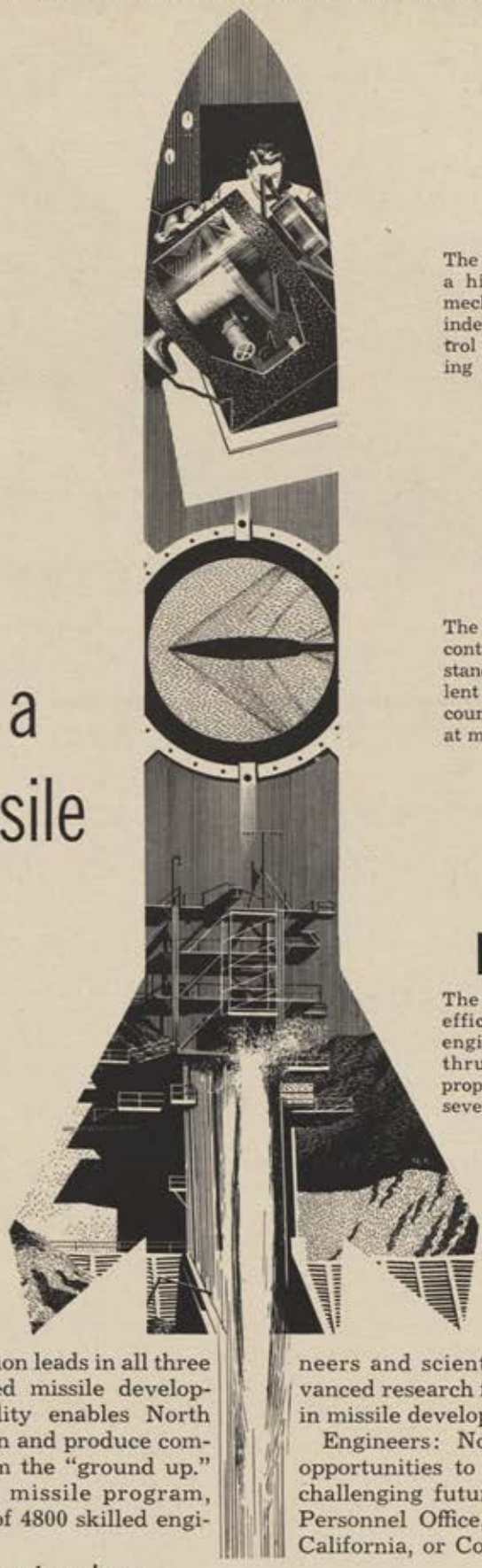

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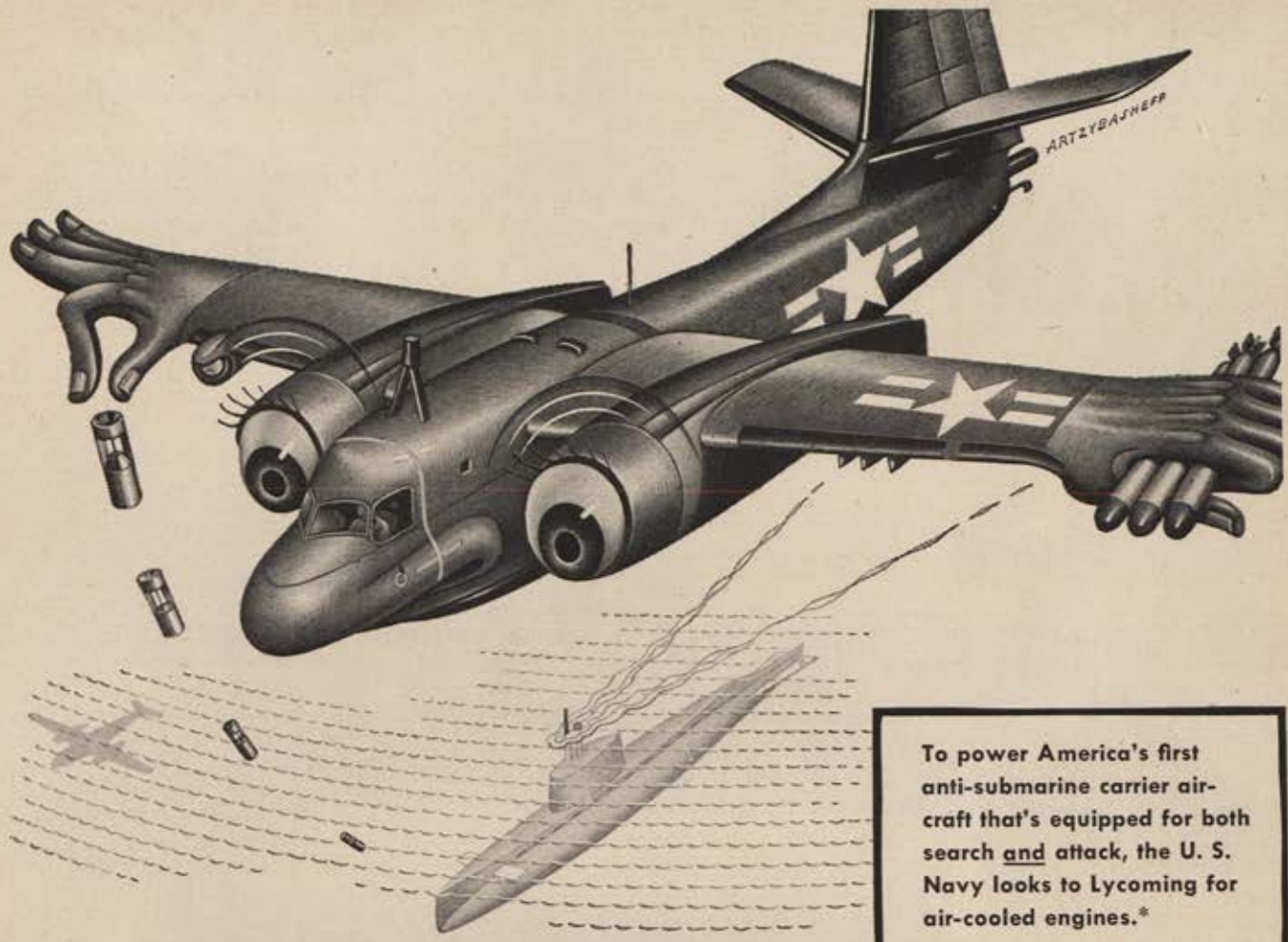
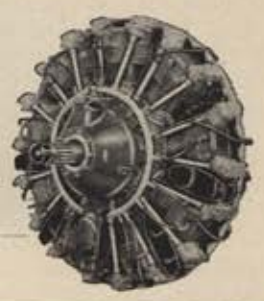


To power America's first anti-submarine carrier aircraft that's equipped for both search and attack, the U. S. Navy looks to Lycoming for air-cooled engines.*



*Wright-Cyclone engines built by Lycoming under license from Curtiss-Wright Corporation, Wright Aeronautical Division.

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these new weapons. Suppose the situation had been reversed. Suppose it had not been us but the other side that had first come into these weapons of advantage. Then there would indeed be reason for hysteria and handwringing. Let us be thankful that these new forms of power have been a bulwark to the Free World's defense.

Cold wars demand cold nerves. It is important, of course, not to underestimate one's enemy. But let us never be lulled into underestimating our own strength. The United States has no intention of dumping its nuclear stockpiles loose upon the world. Through all the harassment of a cynical and relentless enemy, our purpose has remained clear. These weapons will be called into play only to put down aggression. But neither does the United States propose to invite its own annihilation. We cannot—we will not—be annihilated.

The important thing is for Americans and our friends and allies to keep their perspective in this matter. We have strength—more, I suspect, than is generally realized. And that strength includes a good deal more than the obvious military quotients. Most importantly, they include the essential reserves of national character. We Americans have long since ceased to be a new and young and presumably reckless people. Compared to these totalitarian and authoritarian communities that now challenge the existing order we are really quite old and we are certainly mature as traditions are measured.

As the President wisely pointed out the other day, no one need fear that the United States will act impulsively or truculently. It is not in our character when great issues are at stake, to be diverted by small commotions. If we have held our fire, if we have refused to bring our reserves of power to bear peremptorily upon peripheral situations, it is because of our deliberate and calculated policy not fully to engage our strength so long as there is hope for a peaceful and reasonable settlement of the conflict that is engrossing too much of the energies and resources of the world today.

This audience can be depended upon to keep its head clear on this essential point. More than most, you have a professional knowledge of the nature and meaning of the new technical foundations of American power. But some perhaps are in danger of being misled. The Soviet adversary has been extremely clever. He has hammered tirelessly and, I regret to say, with some success on the bogus theme that if only the United States could be forced by the pressure of world opinion to spike its atomic weapons, peaceful co-existence would be possible and tension would disappear among nations.

That propaganda has played upon the natural instincts of decent people everywhere. In consequence, there has been generated in some of the communities which lie between us and the Soviet Union a generalized but baseless fear that the world is drifting toward a thermonuclear holocaust from which at best only the husk of civilization would survive.

I, for one, refuse to yield to so pessimistic a view. Marvelous as may be the progress of science, I cannot bring myself to believe that man has or ever will come into the means of encompassing his own extinction. My faith teaches me otherwise, and the slow progress of civilization confirms my belief. Moreover, as a practical matter, I believe that our possession of these weapons has confined the spread of the Soviet tyranny within its present limits.

There is no mystery about the American attitude in the matter of nuclear weapons. Ever since 1946 this country has endeavored to work out with Soviet Russia a plan for the control of mass-destruction weapons. We insisted, however, that this be done in such manner as to insure, by effective controls and safeguards, that these mass-destruction weapons would be abolished in fact and not in fancy. We also asked that, in the common interest, all other armed forces and conventional weapons should be simultaneously reduced and regulated under adequate safeguards and in such a balanced way as to avoid a disequilibrium of power. In brief, we believe that the Communist world must reduce those elements of armed strength in which it has preponderance, just as we would cut down those elements in which we have greater strength than the Communists.

The United States went farther. The President, in his historic proposal before the United Nations last December, offered to share with other nations, on a fair and equitable basis, part of the immense pool of energy now represented by the American atomic stockpiles. This was a *bona fide* offer. It was intended to divert the world from a morbid preoccupation with only the malign potentialities of atomic energy to the benign uses of which it is fully susceptible.

The American idea was to set up an international atomic energy agency or authority through which this material could be used to help supply the needs of the power-starved areas of the world and in time to supply the needs of industry, agriculture, medicine, and other peaceful pursuits.

This was not a new kind of disarmament proposal. This was a project for world cooperation in atomic energy—not for international control. The contributions of fissionable material to the international authority would be limited by prudence, and initially the quantities would be small. But the hope was that from such a beginning, with this new material being put to work in constructive and healing enterprises, the film of distrust that now clouds so much of the world's thinking would be dissipated and a basis of understanding would emerge.

Unfortunately, as Secretary Dulles mentioned the other day, the Soviet response to this proposal has been just about "ninety-nine percent negative." The Soviet Union has, in effect, said that it cannot discuss an agency devoted to the peaceful pursuits of atomic

(Continued on page 40)

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The Honorable
ROBERT D. MURPHY
Deputy Under Secretary of State

Robert D. Murphy, 59, has been a career diplomat since 1917. He was born in Milwaukee and educated at Marquette and George Washington Universities. Since his assignment to the US Legation at Berne, Switzerland, during the first World War, Mr. Murphy has served the State Department and his country in important capacities in both Europe and Asia. He was appointed Ambassador to Belgium in 1949 and to Japan in 1952. In 1953, he acted as Political Adviser to the United Nations Command in connection with the Korean armistice. In November 1953, he was designated Deputy Under Secretary of State.


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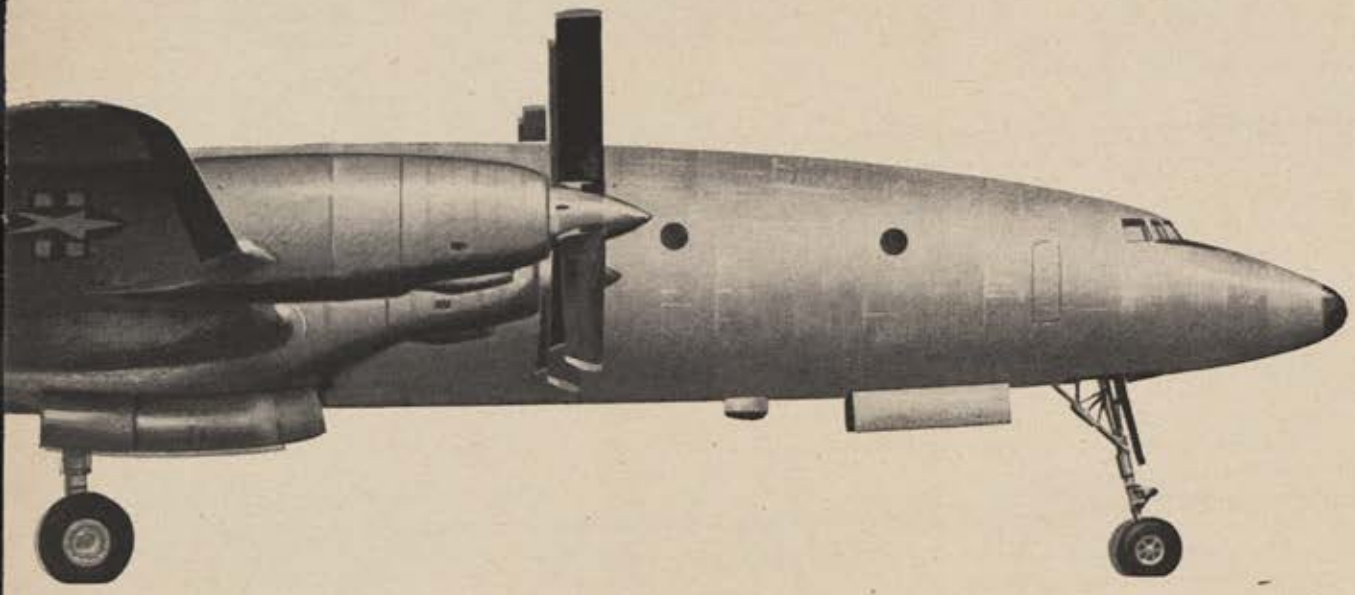

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LOOK TO LOCKHEED FOR LEADERSHIP

energy unless the United States agrees first to "a solemn and unqualified obligation not to use atomic, hydrogen, or other weapons of mass destruction."

The Soviets, in their perverse way, without ever quite saying no but never yes, have tried to torpedo the proposition.

There the matter rests. The Soviets—up to the present, at least—won't come forward to join the United States in a joint contribution of fissionable material to an international agency in the general interest. And they have made it plain there is to be no disarmament except on their terms—terms that call for banning atomic weapons by paper promises without adequate means by which to see the ban is a fact and not an illusion—terms which put off to an indefinite future any reduction in the weapons and manpower in which they have the military advantage.

In the face of these circumstances, the United States, while holding the door open for negotiation, has no choice, in the absence of a safe alternative, but to stand meanwhile on the resources it has developed for its own defense.

How these resources fit into American foreign policy and in turn into national strategy has been laid down by Secretary Dulles in a famous speech. He said that our strategy depends "primarily upon a great capacity (and I underscore 'great capacity') to retaliate, instantly, by means and at places of our choosing." The key phrase is "a great capacity." We, of course, also depend on collective security and on the necessity for flexibility and facilities which make various responses available to meet aggression. Our policy is not to turn all wars into total wars but to be able to insure that aggression does not pay. The strategy enunciated by Secretary Dulles still stands. There has been no turning away from it. And the fact that this capacity was not brought directly into action in the most recent theatres of provocation—Korea and Indo-China—in no way derogates from the validity of the strategy. On the contrary, it indicates the compunction with which it will be used.

There is increasing and convincing evidence that the Communist strategists have in their own secret councils tacitly acknowledged the superiority of American air and atomic power. It is noticeable that since Mr. Dulles made his pointed references to the American capacity to retaliate on a massive scale there has been a visible decline in the trend of open aggression—even a manifest eagerness, as in Viet Nam, to liquidate aggressive operations in progress short of full success.

In this new reluctance of the Communist bloc to undertake new overt military adventures we may have reason for encouragement, even though an occasional Red Chinese general or commissar may indulge in bombast about taking Formosa. The Soviet periphery extends across 20,000 miles and we can perhaps expect to hear more such threats in the future—threats that will from time to time undoubtedly be accompanied by hostile pressures, tentative or otherwise.

Nevertheless, the cold war at the moment appears to be entering a new phase. A lull seems to have fallen on Soviet-directed action. Where the game before was to step up the pressure and heighten the tension, Soviet strategy, in its current manifestation seems to have for its immediate object a gradual let-down in the pressure readings. This shift may be connected with a number of reasons, including, among others, a scheme to lull the non-communist world in order to divide it and, in any event, to isolate this country. But there may be another and more significant reason. It could well be that Soviet leadership has at long last perceived the unwisdom of recklessly challenging the determination of the American people as expressed by responsible members of our government.

But overt action is only one of the many means of conquest practiced by Soviet strategy and it is perhaps the easiest to oppose. Subversion as a highly developed technique poses for us a far more delicate and dangerous threat in those areas, where, for a complex of political, economic, and social reasons, the populations are especially vulnerable to Communist infiltration. Among people longing for independence or caught up in backward economies or suffering under social inequities the Communist drive has, in many instances, succeeded in undermining the political structure. These successes have no doubt whetted Communist appetites. In Indo-China, for example, successful infiltration and subversion of this kind finally led to open conflict. In such situations, where the American contribution is indirect and where control of matters rests in hands other than our own, the problem of devising a successful response becomes difficult.

Here, it seems to me, the capacity for retaliation by itself is not enough, nor, for that matter, was it ever intended to supply the whole answer. The world as it exists consists of many different bits and pieces, and a strategy that is effective in one part is not necessarily effective in another. It is one thing, for example, to draw a line across the highly developed communities of one continent and say that an open assault in that region could only result in starting a general war. But among the more distant and less politically stable communities, what good is a line if subversion and infiltration, reaching into innumerable villages and hamlets, have suddenly brought the friendly government down from within? The thing to retaliate against has by that time lost itself among and merged with the innocent and the duped; the line of demarcation has vanished, and only catastrophe could result from bringing the new means of power to bear.

My point is an obvious one. It is that while the capacity for retaliation—so long as it is maintained in such strength that it cannot be itself overpowered—can be a decisive deterrent to a general war, it is not necessarily the complete answer to all situations. Mr. Dulles saw this clearly when he defined the present strategy. He stressed the need for local defense, and for the shoring up of local governments against internal subversion and indirect or minor satellite aggressions. But, as Indo-China demonstrated, a gap lay exposed in the Free World's defense and the enemy exploited it.

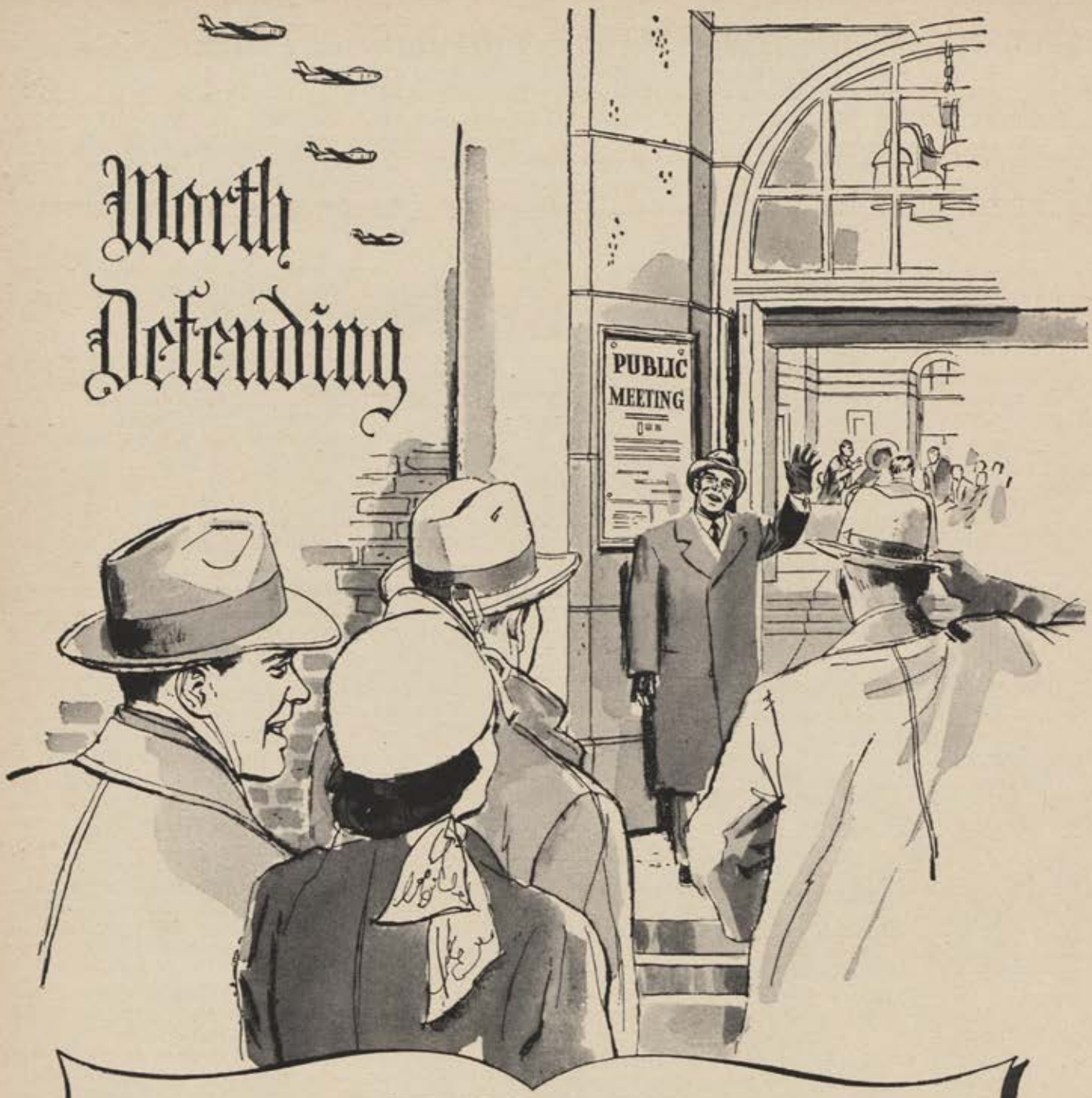
Plainly, Viet Nam was not the last such opening. The situation in Southeast Asia is still in danger. But out of the meeting of Pacific and Southeast Asia powers in the Philippines early next month will, we hope, develop a community defense embracing much of that area.

Elsewhere in the world the community-defense idea is developing slowly and unspectacularly, but solidly. In the Balkans and in the Near and Middle East along the so-called northern tier of nations between Turkey and Pakistan new alliances and consultative arrangements are taking shape. A deterring bulwark is materializing slowly around the Communist orbit.

All this is to the good. But there is one thought I should like to leave with this distinguished and experienced audience. In our response to the Soviet challenge, it has more than once occurred to me that we Americans have been inclined perhaps too

(Continued on page 42)

Worth Defending



FREEDOM OF ASSEMBLY

Public assemblies, the sounding boards of what people feel and want, the moulding pots of public opinion and influence are the sworn foes to any form of autocratic government. They are the first to be banned when totalitarianism gains a foothold — and they never return.

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quickly to the well-worn path of vast expenditures for military "hardware"; for the piling up of physical paraphernalia for defense and attack; for the organization, in short, of our national security almost exclusively in terms of physical safety and survival.

This, of course, is instinctive, basic, and essential. But have we not also tended to overlook something else equally advantageous? Specifically, I mean the possibility of influencing the minds and ideas of the masses behind the Iron and Bamboo Curtains and those elsewhere who are constantly exposed to the deceptions of Communist propaganda. Are we really doing all we should in the realm of this vast unknown? Is it not possible that the channeling of only a fraction of the ingenuity, effort, and imagination now going into weapons into the additional task of reaching and influencing these minds might produce in time an incalculable dividend?

The opportunity before us, as I see it, is a choice between the possibility of victory attended by a holocaust and a less spectacular but equally decisive victory minus the chaos and destruction that are implicit in these so-called unconventional weapons.

The ultimate strength of the American is not the weapons in our hands but our capacity for sustained purpose. We could make no greater mistake than to underestimate the profound importance of that resource.

Question: If you said earlier that the United States did not go all-out in the Korean conflict, that we held a lot of power in reserve, I'll ask you was that a decision made by the military department or agency chiefs?

Mr. Murphy: Well, those decisions are not made by any one agency of the government. You know how it works. The State Department is one factor in it, the Defense Department is another. Other agencies of the government enter into it. They consult with the leadership of both Houses of Congress, and, naturally, the President.

We have the National Security Council into which all of these ideas in the different agencies funnel, and there have been, as you know, on that particular subject a great many debates within our National Security Council. And we rely a great deal on the advice of the leadership of both the Senate and the House in the process. So it doesn't come out of just one agency; it's the whole government.

Question: Would the Secretary care to enlarge a little bit on his ideas about how we can get to the people behind the Iron Curtain in order to educate them and get this help to them?

Mr. Murphy: We have made, I think, a reasonable beginning. It's in the organization of our political structure in this country. It's not as easy perhaps as in the case of a totalitarian country.

We have had, I think, a very long tradition against official propaganda and conduct of propaganda by government, and naturally the area within which we have been permitted to operate has been more restricted than it has been in the case of other countries.

But I think it's a case of a determination to do something, and of getting together the brains of this country, and a concentration on the problem.

I don't know the answer. I'm sure, however, that there are possibilities and ways of doing so. Perhaps the radio is a very limited one, but it has been effective to a certain degree. And while we have heard a lot of critical comment about the Voice of America, it's passed through a very difficult period. I think the Voice of America today is doing an excellent job.

For example, just recently in connection with our proposal to grant relief to the countries in eastern Europe and central Europe affected by the floods, we were extremely doubtful whether this project would be approved. It finally was, with the ceiling of a few million dollars worth of surplus agricultural supplies.

The impact on the populations, we know by the reactions we received, has been enormous, much greater than we expected. The Voice there did an excellent job.

Now in delivering wheat from this country to eastern Germany or Hungary or, for example, Czechoslovakia, the doubt would be whether the recipient knew where it came from. You aren't able to package a material like that.

Now, to make the offer, if it were accepted we'd have to send it through some local organization, because we are not represented there.

But we relied on the Voice to carry the message, and much to our surprise it was very effective and we were very pleased in all the areas. Three have accepted it, which we doubted very much in the beginning—Eastern Germany, Czechoslovakia, and Hungary have all accepted.

And we feel that the impact of things like that can be very profound. Now there are vast possibilities of other overt and covert activities in which we can engage. I think once the American people demand that type of action and are determined to do it and will support it, there's no limit to which our ingenuity and imagination can go.

Question: Mr. Secretary, there was a question of philosophy that has bothered me for a long while, and I believe you're the chap that can answer it.

If one is in a barroom fight and the chap comes at you with a half broken bottle in one hand, jabbing at you, you don't fight him with Marquis of Queensbury rules. You are inclined to pick up a pool cue as an equalizer, and then you're about the same size against him.

In our present conflict with Soviet Russia, we are fighting fair and they are not. Our word is good; theirs is not. They do things we wouldn't do.

The question is, what can be done other than building up our military strength to permit us to improve our bargaining posture in our dealings with Soviet Russia, and still maintain our honor, still maintain our sense of spiritual values.

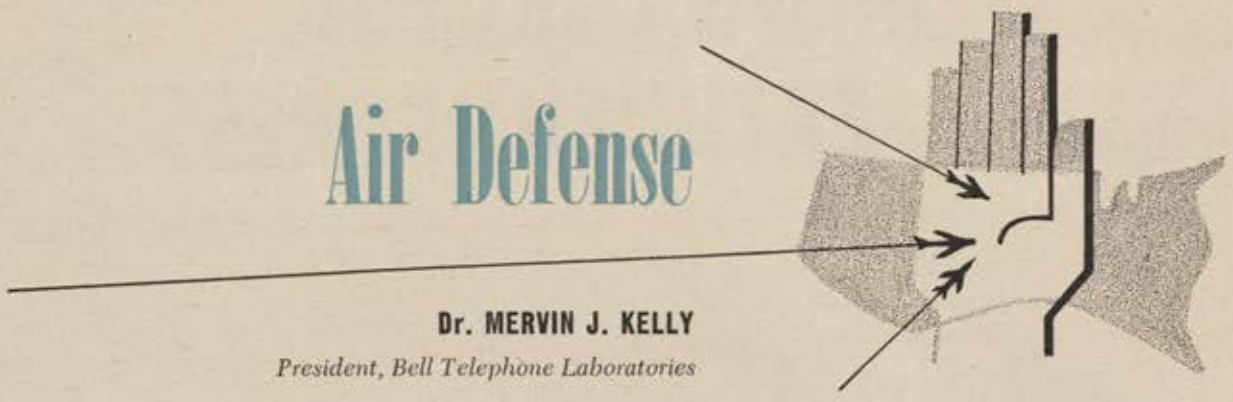
Mr. Murphy: When you talked about meeting in the barroom, of course, I would say that's not my jurisdiction. But I remember when we were in Berlin, we had quite a few fights with the Russians, and I remember the ratio of people killed in those brawls that happened around that town, which was pretty wild for a few months. It was seventeen Russians killed for every American.

I don't know whether that represented our barroom tactics or technique or not, but it worked out that way.

I feel that one thing we have tried to emphasize in promoting our interests lies in the field of collective security—starting with the thing that hasn't had perhaps the attention it deserves, the Pact in 1947, the collective security arrangement for this hemisphere, which was a prototype of the Atlantic Treaty organization—and working on from there through the various forms of collective arrangements that we have sought to achieve; I think that a good deal of progress has been made to build up a protective organization, and not just for Maginot-Line purposes but a much more forward-looking strategy than that, which I think will provide a tremendous source as we go along in case the issue has to be met, in promoting our purposes and in protecting the objectives for which we stand.

SECURITY IN THE HYDROGEN AGE

Air Defense



Dr. MERVIN J. KELLY

President, Bell Telephone Laboratories

WHILE in Europe last month I had a letter from your and my very good friend Jimmy Doolittle asking that I talk to you this morning about continental defense. Although I was not to be back home where I might do some preparation until just two weeks ago, I told Jimmy that I would give the talk he had requested. Where the Air Force and airpower are involved, it is a habit of mine to do what Jimmy asks, if at all possible. His dedication and ceaseless work for them puts most of us to shame, so he comes with very clean hands in asking effort from others. I was also pleased at the opportunity to be a guest of your Association as I take great pride in the honor you did me last year.

The defense of our continent against major enemy air attack is a new problem to our nation, and of increasing gravity since the close of World War II. Never before has there been a serious threat to our security through military air action against our homeland. It is true that during the last war there were air raid wardens and blackout of cities, even in the midwest. Such action was really not justified by the existence of a threat. The activities were probably directed at better civilian morale through participation in something of a military flavor by many who otherwise would not have an opportunity. This unwarranted action may well be a factor in the complacency of the nation about the increasingly serious problem of continental defense.

I cannot tell the members of the Air Force Association, especially in an unclassified meeting, anything really new to them about continental defense, for you are a group with a professional perspective of the problem. Also it has received much attention and emphasis from science and military writers of our press and magazines. Men of such competence and background as my good friends Hanson Baldwin, the Alsops, and Charles J. V. Murphy have repeatedly returned to the subject. Some of our knowledgeable academic friends have argued the pros and cons of the government policy on continental defense before committees of Congress, in the press, and in public meetings.

Because of this background and the limitations imposed upon me by my knowledge of classified information on continental defense, I have decided to present an unclassified analysis of the situation as of today which the nation faces, the defense problem itself, and our progress in facing up to it. I hope that my organization of the subject will prove to be of some interest to this unusually knowledgeable audience.

The tremendous destruction of the last war, the huge loss of life of the major European countries in the last two wars, and other factors have combined to place Soviet Russia and our country in unique positions of power in this postwar period. Actually Soviet Russia and the United States are the only first-class powers in the world of today. I am not saying this with pride for it is, indeed, a tragedy that this is so. The Soviets are taking full advantage of this situation for evil purposes. We, with our unique position of strength, are forced into the leadership of the Free World effort in preventing the Soviets from realizing their evil desires.

It is puzzling to analyze the Soviets' evil desires or objectives. This puzzle is probably occasioned by their desires and objectives being a mixture of those of the old Russian imperialism of the Czars and those of the dogmatism of Communism. This mixture produces, on the one hand, a zeal for possession and control of the huge land mass from the Arctic to the Mediterranean and from the Middle East to the Pacific, and on the other an almost religious fervor for worldwide Communism.

To attain these objectives they are pursuing methods that have a dualism in synchronism with the duality of their objectives. On the one hand they are building a military strength of ever-increasing power and are driving and depriving their peoples to the very limit of their endurance in continuously stepping up their tempo of accomplishment. On the other hand they are using the whole cross-section of cold war Communist tactics, so familiar that I will not list them, and applying them variously in every country of the Free World.

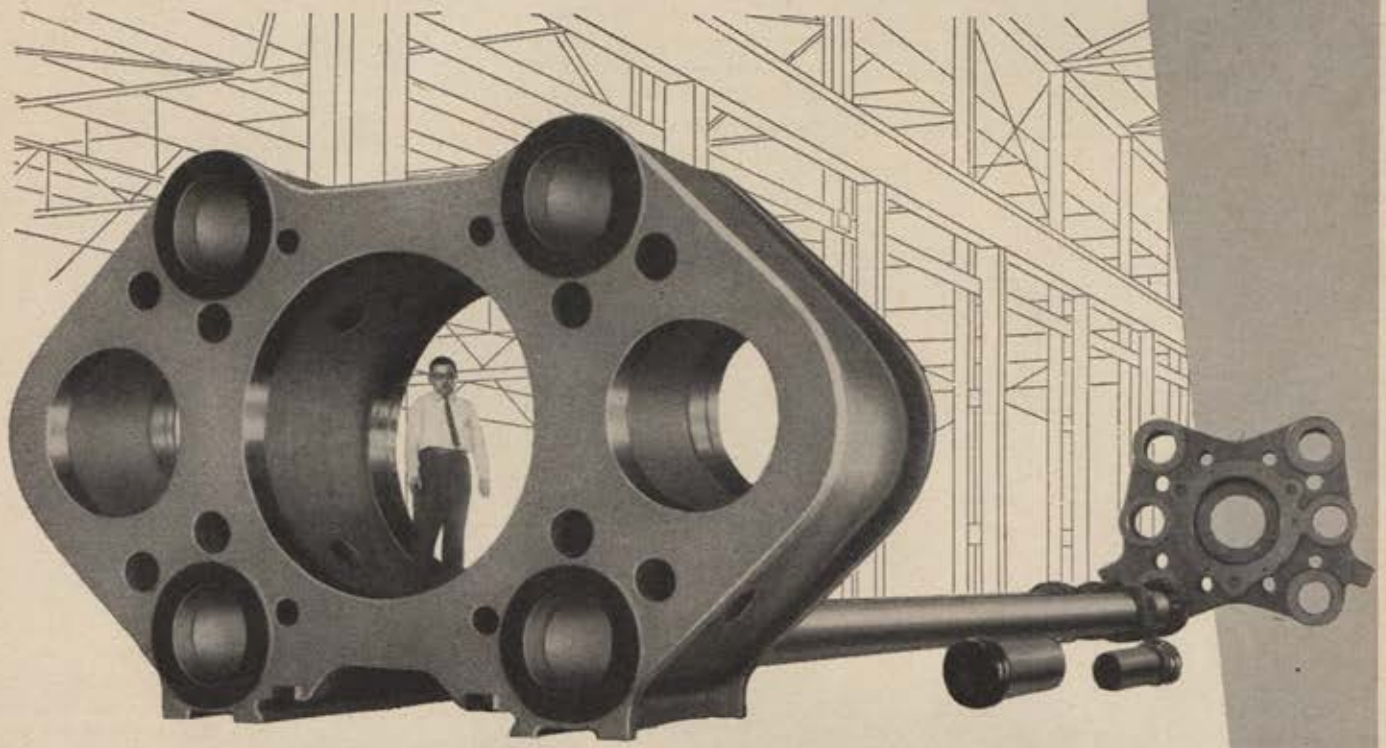
It has been the responsibility of the Department of Defense to counter the ever-growing military strength of the Soviets, a strength built upon the retention, in being, of a large fraction of their World War II strength. Our military was severely handicapped in the early postwar years by the almost complete melting away of our huge military strength of World War II. Quite properly in our democratic society, with our hopes for a peaceful world and the then lack of general understanding of the developing world situation with its threat to all free peoples, the boys had "to go home," and quite rapidly too, to pursue the normal life due them in our democratic society.

The military had, however, one advantage that has been our salvation until now, and that was the infant atomic warfare technology. In cooperation with the Atomic Energy Commission and with increasing support from the nation as the developing world situation with its tragic implications was appreciated, the military have exploited to the fullest the potentialities of a new warfare based on use of so-called atomic—actually nuclear—power.

The atomic bomb we dropped on

(Continued on page 45)

WORLD'S LARGEST Horizontal Steel EXTRUSION PRESS



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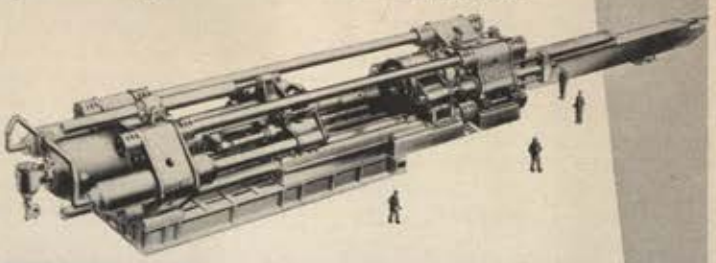
Completed on schedule after four years of intensive teamwork development, the world's largest horizontal steel extrusion press is now being installed at the Metals Processing Division of Curtiss-Wright at Buffalo, N. Y.

This 12,000-ton press, designed and built by the Loewy Construction Company, is capable of extruding 9,000 lb. billets to 40 foot lengths. It can handle steels, titanium, or non-ferrous alloys, and is supported by full supplementary processing equipment and a die shop — plus a staff of experienced metallurgists and product design engineers.

Created as part of the government's defense program, this giant press will, by January 1, 1955, be at the service of American industry. Design and industrial engineers are invited to consult with Curtiss-Wright on availability of this new tool in solving problems and advancing production goals beyond the capacities of conventional equipment.



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Japan near the close of the last war had a blast destructive power equivalent to some 20,000 tons of TNT. Through a most effective and comprehensive research, development, and design effort guided by military planning, test, and evaluation, the scientific and technologic communities of our country have increased the destructive power of a single fission bomb from this level to a level of some 500,000 tons of TNT—a twenty-five-fold increase over that of the initial bomb. In so doing, there is employed an amount of the precious fissionable uranium products of the same order of magnitude as that utilized in the initial bombs. A magnificent achievement.

Along the way they have developed a capability for the design of units of any destructive power intermediate to these two values of twenty and 500, as well as for the design of units of less power than the twenty.

A closely knit cooperative effort of the Department of Defense, the Atomic Energy Commission, and its academic and industrial contractors has by now employed this design capability to provide a family of atomic weapons of greatest versatility for strategic and tactical applications. For example, bombs of sizes suited to carriage by planes of the entire cross-section of size from fighter to largest bomber are or can readily be made available. Atomic warheads are becoming available for various guided missile developments as desired. An atomic capability for all phases of tactical and strategic warfare is rapidly emerging.

Coincident with this ever-increasing versatility in atomic weapons, the productive capacity of our country for fissionable material has expanded, the economy of production has steadily improved and sources of ore in quantities adequate for the expanding productive capacity has been found and exploited.

Today we are at the headquarters location of the Strategic Air Command. This command has magnificently exploited our expanding atomic weapons capabilities in its mission of instant readiness to destroy the enemy's war-making capabilities. This command, with the support of all other essential elements of the Air Force and the airframe, propulsion, and electronic industries, has built a continuously increasing effectiveness and capability for delivering on target atomic bombs of types appropriate to its different tasks and strategies, either from bases within our homeland or from bases established beyond the seas.

Our Navy is playing its appropriate role in developing a capability for the strategic mission through the delivery of atomic bombs by carrier-based planes and guided missiles launched from platforms of surfaced subs.

Only a few years ago the green light was given to another approach to nuclear explosive power for weapons. It was directed at the use of elements of low atomic weight, in contrast with the very heavy element uranium. This approach was not the result of a new concept. The basic considerations and accompanying research involved had been in progress at a lower priority for many years. At the lower end of the atomic weight table the nuclear power is realized through fusion of atomic nucleii instead of through fission. The effort has been most rewarding. The time required for the development, as estimated by the experts, has been materially shortened.

The performance of new nuclear explosive systems involving fusion has been demonstrated. Yields of an order of magnitude up to forty-fold greater than that of the largest fission bombs have been announced. The destructive power of bombs of this yield is colossal—it is frightening. The existence of such a destructive capability is fraught with unmeasurable danger to civilization. The integration of the techniques of these nuclear fusion experiments, with their high explosive yield, into weapons systems that can be air-delivered proceeds with amazing speed.

Our ever-increasing airborne atomic strike power for destroying the enemy's war-making potential has, without doubt, been the major deterrent to the Politburo in employing all-out war in accomplishing its objective of world domination. It has been an important factor in keeping them in the "cold and little" war areas. We can be confident that the accomplishments that I have sketched have been, broadly at least, known and their implications appreciated by the Politburo.

The Politburo has not stood idly by "shivering in its boots" at our accomplishments. Rather it has amassed a prodigious effort directed at duplicating our atomic weapons and delivery capabilities. It has made steady progress, and the gap between our strategic atomic strike capabilities and that of the Russians has steadily narrowed. This situation calls for an even greater and more effective effort on our part in the strategic and in the tactical atomic warfare areas. It is vital to the continuance of the freedoms of western man that we maintain a superiority in atomic war strength, for we cannot have it in manpower.

Now, the stern facts are that there can be no safety in the Atomic Age short of the elimination of atomic war. How and when this elimination may be brought about none can foresee. It must be brought about under conditions that insure man's freedom. Unless we maintain a position of superiority in the new atomic warfare this condition is unlikely to be met.

This brings me to the consideration of the defense of our homeland against atomic attack. This has come to be known—and quite properly—as continental defense. Until now the gap between our atomic weapons and their delivery on target capabilities and that of the Russians has been so great that the chance of an atomic attack on our homeland by them has, as a matter of logic, indeed not appeared to be large. As the gap has narrowed and continues to narrow,

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Dr. MERVIN J. KELLY
President,
Bell Telephone Laboratories

Dr. Mervin J. Kelly has been president of the Bell Telephone Laboratories since 1950. Born in Princeton, Mo., in 1894, he was educated in the Missouri School of Mines, the University of Kentucky, the University of Chicago, and the University of Missouri. His research career began in 1918 at Western Electric Co. He has been with the Bell Telephone Laboratories since 1925 and was closely associated with the development of the vacuum tube and the transistor. He received AFA's Science Award last year for his work as vice chairman of the USAF's Scientific Advisory Board and as chairman of the Defense Department committee that analyzed our air defenses.

the chance or the possibility of such an attack increases.

We must therefore give increasing attention to the minimizing of the damage of such an attack through building and evolving with time a continental defense system of ever-increasing effectiveness. If we do this job well, in the years to come this continental defense system will have increasing weight as a factor in the deterrence of the Russians from an all-out atomic war and should one come, a vital component of our ascendant survival.

Our atomic-offensive power derived through science and technology has advanced so rapidly that it has outdistanced defense against it. The gap between them will only be narrowed through the most effective application of science and technology. There has been and is now a large, comprehensive and effective research and development effort directed at every sector of this most difficult defense program. This effort has been productive and the gap between offense and defense, in relation to the continental problem, is narrowing through this effort. As large as this effort is, there is need in some areas of the problem for a further expansion of effort, and I hope that it will be made.

The air defense technology has now reached a level that clearly justifies the large capital outlay required for the establishment of a comprehensive integrated system. Its effectiveness, at the present level of the technology, cannot be as high as our country must have to insure its survival. Fortunately the system can be of such a character that, as improvements come (and they will come if we maintain an adequate level of effort in the science and technology of the area), they can be integrated into the system as they become available and their greater effectiveness justifies, without discarding the main framework and starting over.

You will observe that I have spoken of it as an integrated system. And so it is. It has many of the attributes of our nationally integrated telephone system. Through some thirty-five years now I have seen this system grow, meet new requirements, become more effective and more economical through advancing technology. New facilities for old and new services made possible through science and technology are integrated with the old facilities as they become available and their value justified without major "junking" of the old. This procedure has provided the most effective, economical and heavily used telephone system in the world, with plant components ranging in age from thirty or more years to a day or so. A parallel and quite similar evolution is possible in our continental defense system if we continue a high level of research and technologic effort, plan wisely, and organize for an effective and integrated system's evolution and operation.

We shall now look at the major elements of the continental defense system and their integration into a cohesive operating unity.

First, we must have advance warning of the approach of the enemy. The so-called early warning net provides this essential advance information. A minimum of two hours should be provided; four to six hours are highly desirable. One or more rings of radar detection units or their equivalent will detect oncoming planes or missiles. Of course, suitable means of information must distinguish approaching friend from foe. The ring or rings must have a geographic extension such that planes or missiles from Russia travel across them. They must have electromagnetic eyes that see from ground zero to heights as high as planes or missiles can fly.

Technology does not yet permit this requirement to be met in all respects. I am confident that advancing technology will "plug the holes." There must be instant, dependable, and continuous-in-time communications from these rings to system headquarters or to designated central places. Technology now has adequate answers to this requirement.

The ring complex is located on land and sea. The detailed radar technology for land and sea are different. Fixed ground stations suitably placed provide the electromagnetic eyes for the land sectors, while picket ships and patrol planes meet the special environment requirements of some of the sea approaches. To meet the warning time requirements to our north, we must cooperate with our Canadian friends in the sectors of the rings that must be on Canadian soil. This is being accomplished. Their needs and ours are being realized in this sector through friendly cooperative endeavor.

The area of battle is the next element of the system, looking from outside to the center. It is here that enemy planes and missiles must be intercepted and destroyed. This area should be to the greatest extent possible peripheral to our country. The more of the attacking complex that is at our northern border or off the shore of the sea approaches the better. Such location minimizes the damage done to the homeland. Advancing technology has made great strides in the instrumentation for the area of battle, but there is still great distance to go before complete annihilation of the enemy in the area of battle will be possible.

Radar systems or their equivalent are the central element in the direction of the battle. The oncoming enemy armada must be resolved into discrete units, the position of each unit continuously determined, and our interceptor planes and/or missiles be brought to within kill distances of each oncoming enemy plane or missile. This operation in the immediate postwar period was largely manual. Through advancing technology, automatic electronic computerlike facilities are assuming an increasing portion of the direction of battle function. There are many advantages in this trend, but an unclassified information talk is not the place to discuss them.

The all-weather interceptor plane as an aerodynamic unit has been greatly improved and its kill potential has been raised through both ordnance and electronic fire-control advances. Over the years, the anti-aircraft guided missile will be an increasingly important element of the battle area. Prompt, continuous, and reliable communications within the battle area between our different directing centers and from centers to our planes or missiles and from centers to command headquarters are essential and the technology for them is in good order.

We must assume that all enemy attacking planes or missiles will not be brought down in the battle area. It is therefore necessary to establish point defenses at military installations, industrial complexes, and cities. The number of points so defended is determined by a number of factors that cannot be reviewed here. Great progress has been made in this area in recent years. Interceptor planes, anti-aircraft guided missiles, and guns are employed in various combinations. The point defenses must have prompt, continuous, and reliable communications with battle area and command headquarters. Here again the technology is in good order.

In the discussion of the various elements of the continental defense system I have reported technical progress and have stated that the present level of the technology justifies our establishing a complete and integrated

(Continued on page 48)

Cold Frontier

Up where summers are cold and winters colder, where days are long and nights seem longer, U. S. Air Force men in Northrop Scorpion F-89 interceptors stand all-weather guard along our northern frontier. These reliable bomber destroyers fly through icy fog, storm and blackness to give around-the-clock protection to the heartland of America. Northrop Scorpions have speed to intercept invading aircraft, the endurance and firepower to follow, harass, and destroy them long before they can reach their intended target. F-89's are one of many contributions to national defense made by the experienced engineering and production complex of Northrop Aircraft, Inc., America's first company in the vital design, development and production of all-weather and pilotless aircraft.

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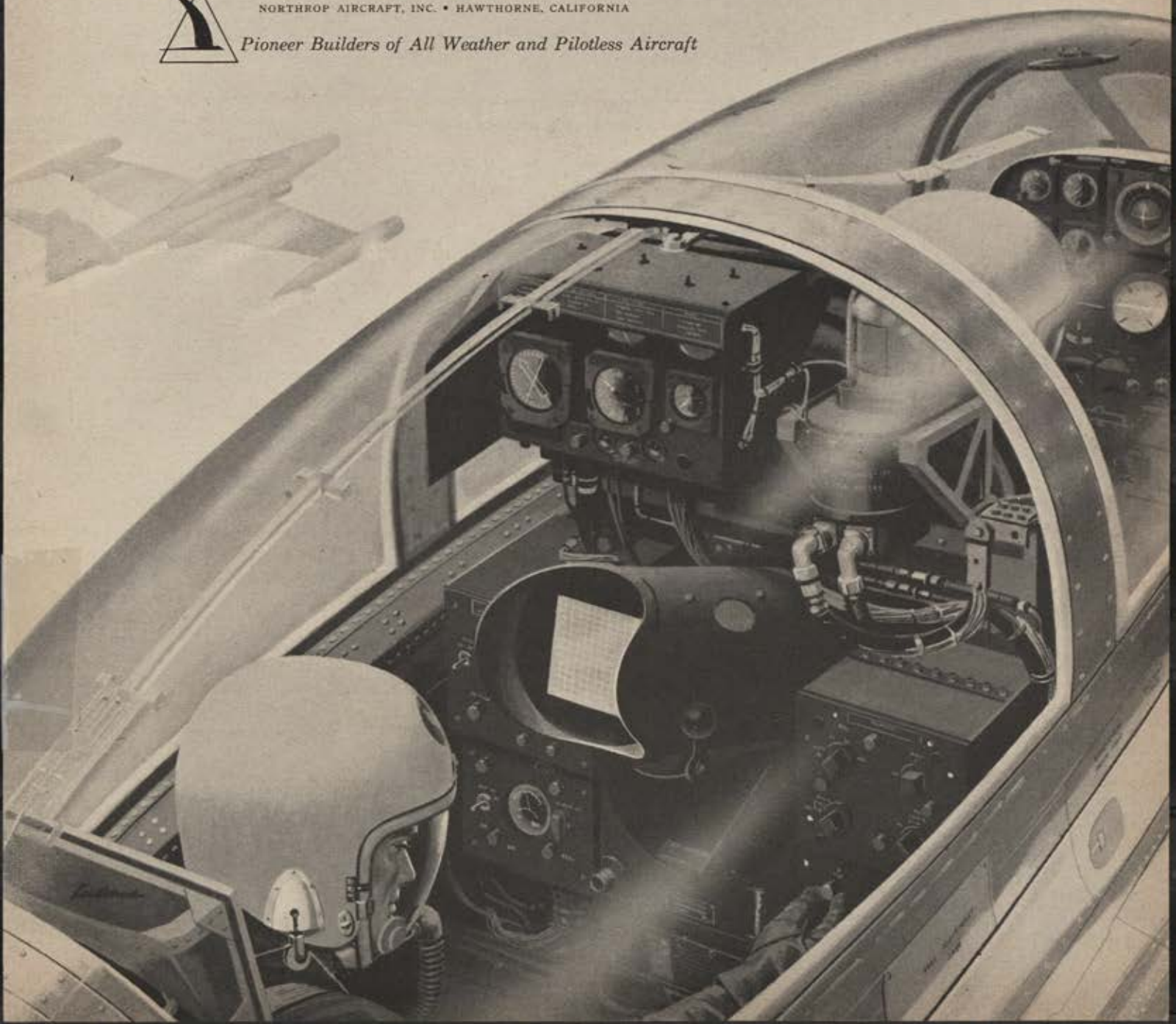


continental defense system. Let me warn, however, that there is still much research and development required to adequately narrow the gap between attack at its present level of technology and defense. Certainly the technologic level of attack will not be static. It is bound to advance. There is therefore no reason for complacency in the continental defense area; there is reason for hope and some optimism. We must press forward in research and development to advance the technology. We must expend large amounts of capital to fully establish the system.

I have stressed the integration and unity of the continental defense problem and have referred to the defense complex as a system. The full realization of unity in the system and the best insurance for effective operation is a unity in direction. I was therefore very much heartened by a dispatch from Washington in *The New York Times* of August 9, 1954, which said in substance that Gen. Benjamin Chidlaw will head an integrated continental Air Defense Command. It will include the Army, Navy, Marine Corps, National Guard, and the Air Force. This certainly appears as a step in the right direction. I hope that it goes as far in integration as the peculiar nature of the operation of the continental defense system requires.

'The increasing intercontinental attack potential of the Soviets makes it urgent that we get along with the completion of a comprehensive continental air defense system. It must be brought into better balance with the strategic and tactical elements of our military might.'

In the foregoing appraisal I have not considered ballistic intercontinental missiles. I do not wish to discuss in an unclassifiied meeting the special problems they present. Whatever their future may be, it is my view that we should proceed along the lines I have discussed.

In summary: The increasing intercontinental atomic weapons airborne attack potential of the Soviet makes it urgent that we get along with the completion of a comprehensive continental air defense system. The fruits of the advancing technology of recent years justify our moving foward rapidly but soundly in its completion. This in no sense represents a Maginot-Line philosophy. Our airborne, atomic, strike power is still the major element of deterrence. The development of a complete atomic weapon tactical warfare capability also must go forward with emphasis. Continental defense must now be brought into better balance with the strategic and tactical elements of our military might.

Question: Assuming that this technology for our continental defense advances to meet the requirements, assuming that all of our research, our advance in all this technology, is going to meet all of that, is the necessary planning to put it into action quick enough to do any good?

In other words is our political chain of authority down through the government, through the Air Force levels down to the man who is sitting there ready to pull the trigger going to be fast enough to do any good?

Dr. Kelly: Well, first, as to getting the completely integrated system, I would say that depending, of course, on when there is an all-out strike, if ever—and people can differ on when we might expect that—we could be caught to a degree with our pants down. But the actions, the plans, and actions of the last year have all heartened me very much to the belief that we are now set to attack the problem in a comprehensive way.

I don't follow closely the detail of Congressional authorizations, and I don't know how much the dollar level for this has been stepped up, or is being stepped up, and what is being done by the present Congress.

I do know that there is a framework of definite planning along the right lines that requires the beginnings of big money.

Now, once that we have it, the operation of this as an integrated unit is a must. And, as I said, I think that the recently announced change is a step in the right direction—for all I know it is an adequate step. I haven't seen the charter that General Chidlaw operates under, but certainly recognizing that need for an integrated operation, it is necessary, and if we have that, keep it in operation, and do a job of drilling, adequate maintenance, and so on, I'm of great confidence that we can have a degree of deterrence that will be a degree of major deterrence and will save us a lot of life and property should they come over. But never would you have a 100 percent kill. We are going to be hit when they come over, but we can minimize it greatly if we follow the lines that are moving in the last year on a broad front in the general planning and consideration area.

Question: Every once in a while when somebody brings up this business of continental defense, immediately the public reaction seems to be to withdraw in a complacent shell and say, "Hell, we have got it licked with this and this and this."

I would like to ask if the great continental defense isn't still the Strategic Air Command?

Dr. Kelly: Absolutely. There is no question but what the deterrence and the minimizing of what comes over is strike power. I've tried to say that in my words. Nothing that we do here must minimize our ability to make that as much better as we know how.

But we have the strength, and the financial strength—we haven't begun to do what is called sacrificing—and the stakes are so great here that it's unbalanced if we do not put the continental defense effort more nearly in balance.

Question: You mentioned at the beginning of your talk that the Russians were narrowing the gap between us now so far as strike power is concerned. Perhaps it would be of advantage to all publicity agencies to be able to put out information as to how much that gap is broadened now without sacrificing security.

Dr. Kelly: Well, I can say very broadly that the evidence our Atomic Intelligence picked up of their having atomic-explosion capability, which they didn't have before, demonstrated one. And then their more recent explosion of a fusion type, again which could be picked up by Atomic Intelligence, and recently, the demonstration of the carriers that have been discussed in the press—it was discussed by General Spaatz in the last *Newsweek*, I believe—are outstanding things to show that they are getting the framework of the capability of an intercontinental strike that means something.

Before they had all of those, we had an integrated continental strike power that they didn't have. We are

still well ahead, but we can see in their technology they are in a position to begin to round it out.

Question: Did you imply in your discussion of the personnel problem that we might have to consider a civilian air defense?

Dr. Kelly: I wasn't trying to solve the problem for the military. They have to work on this in the framework that they are permitted by over-all national authority. What I'm saying is that the well-recognized framework makes it a difficult job.

This is going to be a complex thing to maintain and keep it in apple pie order. The electronic system of the Bell System is a rough counterpart. Really it isn't as tough as this is, and I know how hard it would be for us to give a complete telephone service if we had a complete turnover every two years. And another thing is that we're always making better service and continuously so doing.

This problem is you have to train artificially, and you have to be awfully good at it the first time. You've got to mean business, and it's a tough problem, and it deserves the right kind of manpower and the most favorable conditions for the operation.

Question: What I'm interested in is the fact that we are becoming behind in regard to their atomic development. That is, the gap is being narrowed constantly. But at the same time the Soviets are able to progress along with defensive measures faster perhaps than we are. What can we do then to step up our means of developing these defenses to keep the gap between the Soviets' defenses and ours large enough? In other words, unless we are able to strike them, it doesn't mean much what we have if they develop their defenses so that we can't get through.

Dr. Kelly: I am not in a position to state because I haven't seen it in the press where they are in their technical capability in defense. I think that it can be said publicly that there is no question but what they have given greater attention to it than what we have up to this time.

And therefore I would expect that they would have considerably more gear. I would be greatly surprised as a scientist and technologist—and without any intelligence information—if they have any level of technology that is better than we have installed.

And I would also be very much surprised if they were as far as we are towards the automaton. In this particular area they have a lot tougher job actually than we because of the geography of the situation. We can do a solid warning and defense better with the same tools than can they

(Continued on following page)

with their geographical handicap.

I would doubt on general considerations of my knowledge of the state of their technology, and after discussions with Germans who have worked in their electronic plants, if they have anything installed in advance of what we have. They have a lot more of it and probably have been training on it longer. And I would be surprised if they were as far along as we are in these new facilities that are going to make the job even better.

Question: One of the discouraging things that I heard in the discussion in your answer to a question is the fact that there is not and cannot be, regardless of how wonderful the progression of our intelligence might be in the future, a complete defense.

I don't think that any of us care very much whether we are killed by one hydrogen bomb or seven. We'll still be dead. I think that the large communities and defense activities that we must protect will be obliterated by one hydrogen bomb as well as they might be by a plurality of hydrogen bombs.

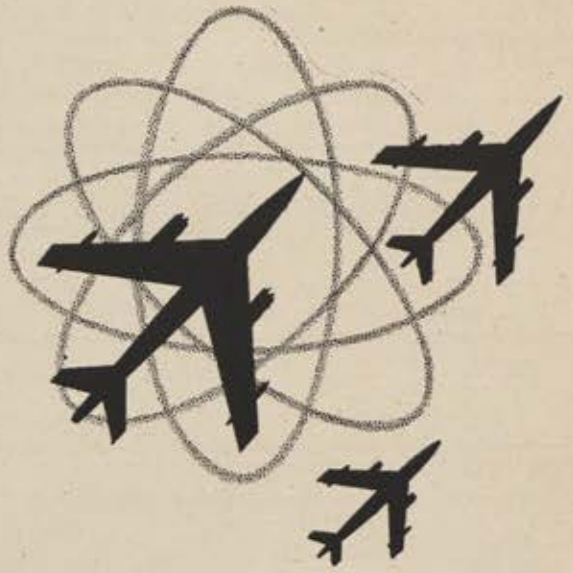
Is there a possibility that we can get the 100 percent defense because, as I see it, we must have this or the whole program is apt to fall of its own weight?

Dr. Kelly: I do not believe that in a complex of this kind, operated by human beings, we will ever achieve a 100 percent kill if they come over in large mass. I think some are bound to get through and if it comes to an all-out war, God forbid, it isn't a question of, then, your life or mine or anyone's else. It's a question of maintaining an adequate structure so that we can go on until we are in the ascendant when it finishes, and a very important point on that is the Strategic Air Command, and the biggest element in that is our strike power; but if we did that alone and left ourselves wide open, then with one sweep they would destroy us.

Question: May I comment on the question of total defense just addressed to Dr. Kelly? Right now, it would help greatly toward the desired goals if we could get an uninterrupted and badly needed supply of fuel cells for aircraft now in production and urgently required by our Air Force. This problem of total and adequate defense can only be met by a concentrated and consecrated patriotic effort on *all* fronts. This is not in criticism of any segment of industry. I only use this particular case as an example of the nervousness with which aircraft production is carried on.

SECURITY IN THE HYDROGEN AGE

Atomic Energy



The Honorable W. STERLING COLE

Chairman, Joint Congressional Committee on Atomic Energy

MY REMARKS will be brief—they concern the implications of nuclear weapons for our national survival.

More than any other single factor of military strength, it is American air-atomic supremacy which has so far kept the Kremlin from launching an all-out bid for world dominion. For this, our country must give heartfelt thanks to the men and women of our atomic energy program, and to all those who serve under General Curtis LeMay. I salute him and all his associates in the Strategic Air Command.

Today, however, intercontinental atomic war can proceed into two directions. Soviet progress, both in the output of nuclear weapons and in the development of high-performance delivery vehicles, has been unexpectedly, and appallingly, rapid.

It can, nonetheless, be contended that the threat of our atomic reprisal will suffice to stay the hand of the Kremlin. All of us fervently hope this will be so. Let us remember, however, that Tojo and Hitler suffered ultimate defeat—but not until they tested our resolve in the crucible of battle. It can be argued that, even if intercontinental atomic war should befall us, the destruction of New York would be answered by the destruction of Moscow and Leningrad. But a gutted building in a Russian city cannot compensate us for a gutted building in an American city.

Do not mistake the import of my words. The ability to answer a nuclear Pearl Harbor with a devastating counterblow must of course remain the military cornerstone of a national program for survival in this Atomic Age. No sensible person could recommend strengthening our passive defenses at the price of weakening our capacity to strike back against an aggressor. But atomic vengeance, standing by itself, is not enough. Our capacity to retaliate must now be coupled with a continental defense program of such scope and efficiency that our foes will know—in advance—that a nuclear attack can never bring this nation to its knees.

I say this in a spirit of humility, and with a keen awareness of the heavy burdens and solemn responsibilities imposed upon those officials of government charged with providing for the common defense and security. It is one thing to say to these men: "Our existing continental defenses are inadequate." It is quite another thing to sit in their places and build defenses which are adequate.

The task of creating an effective continental defense may well represent the greatest, and most difficult, national security problem ever faced by our country. Soviet air-atomic power is increasing at an accelerating rate. To answer its challenge, we need no less than a quantum jump in the effectiveness of our defenses against nuclear attack.

Some maintain that a continental defense system which could inflict large losses on enemy bomber formations is beyond our grasp. They hold that nuclear armaments have irrevocably tipped the unending contest between weapon and counter-weapon in favor of the offensive. We cannot dismiss such arguments lightly. Yet who could foretell, a short fifteen years ago, the incredible story of atomic and hydrogen bombs? The art of developing new tools of defense—new electronic detection devices, new interceptors, and new anti-aircraft missiles—is now in ferment. May it not therefore be that the continental defense problem—if attacked with all the vigor and boldness at our command and which the situation requires—will yield unexpected solutions?

Thanks to the efforts of such distinguished Americans as my fellow guests, Mr. Donald Quarles and Dr. Mervin Kelly, the best scientific minds in our nation are now being brought to bear on the problem of continental defense. The selection of General Benjamin Chidlaw to head our newly established Continental Defense Command makes it certain that the military direction of this program will be in good hands.

To my way of thinking, the overriding problem we now face in continental defense is that of combining the human and material resources now devoted to this effort into an organizational and administrative structure of maximum efficiency. All three branches of our armed services have indispensable tasks in our program for detecting, intercepting, and destroying enemy bombing formations. In my mind, the logic of this fact has long called for creating, within our armed forces, a theater commander for continental defense. I was therefore deeply gratified when such a command was established earlier this month. My only regret is that we waited so long to take this step.

If it is logical to centralize the continental defense operations of the three services under a single commander, it impresses me as equally logical—and equally necessary—to have a single, high-ranking civilian

(Continued on following page)

official within the Department of Defense made responsible for the overall supervision of our continental defense effort. At present, no official has the exclusive responsibility of making sure that our continental defense preparations are moving forward with maximum dispatch. In an attempt to help correct what I deem a dangerous diffusion of responsibility in this field, it was recently my privilege to introduce a bill aimed at establishing a new position within the Department of Defense—an Assistant Secretary for Continental Defense, who—subject only to the direction of the Secretary of Defense—would be charged with the task of furnishing leadership and direction to our program for repelling nuclear attack.

Yet the case for a unified continental defense effort does not end here. We need only look at a polar-projection map to realize that, without the cooperation of our Canadian friends, we simply cannot engage in realistic defense preparations. In this era of near-sonic, jet bombers, we must have it in our power to detect enemy aerial formations long before they reach the urban centers of North America. In the event of attack, it would be no less urgent to join battle with enemy bombers over the Arctic wastes and far out over the Atlantic and Pacific Oceans, than to confront our foes with successive barriers of defensive weapons. Yet neither detection-in-depth nor interception-in-depth would be possible without the aid of our northern neighbors.

Today, Canadian-American continental defense cooperation proceeds through the mechanism of numerous advisory committees and boards. But consultation is not the same as real coordination—it cannot substitute for a genuine unification of the continental defense efforts of our two nations.

I therefore again urge that, under the authority of the United Nations Charter, we now seek to enter into a Mutual Continental Defense Pact with Canada. Such a treaty would represent the continental defense equivalent of NATO. Under it, we could establish a North American Continental Defense Organization, to which military units from our two nations could be assigned in a manner akin to the forces now reporting to SHAPE headquarters in Paris.

I concede that such a pact would represent a bold departure in defense planning. Yet we must acknowledge the new dimensions to sovereignty brought about by the threat of nuclear warfare. Those new dimensions require new solutions.

Permit me to cite but one example of this. I am impressed by the arguments for building a distant early warning line in the far north of Canada, together with seaward extensions of such a line. Now, assume for the moment that such an early warning system were actually in existence. Suppose the Soviets thereupon proceeded to test our nerves by repeated aerial feints against such a system. What if massive Soviet bomber formations, capable of carrying hydrogen weapons, were sent over the Atlantic and Pacific in so-called "training flights"? In the event of actual attack, every minute would be precious—the slightest delay in alerting our civilian population and military forces might make effective defense hopeless. Would we therefore evacuate our cities the moment Soviet planes entered our distant early warning net even though we may have reason to believe that those flights were only training missions? Would the President immediately order the planes of our Strategic Air Command aloft? Or would we wait until the enemy formations neared our coastlines and our cities before issuing a general alert?

I hardly need spell out the extraordinary dilemma in which we might find ourselves. If we immediately respond to such repeated, large-scale feints by evacuating our cities, the Soviets might have it in their power to paralyze our economy and demoralize our population without dropping a single weapon. If we did not instantly respond to approaching formations, however, we might be overwhelmed by an actual attack.

May it not, therefore, be that the time has arrived when we must consider the possibility of defining anew the concept of armed aggression? May it not be that the day is nearing when international law will be forced to take account of the realities of atomic power and the ever-present danger of nuclear sneak attack? May it not be that the time is approaching when the mere appearance of significant numbers of unannounced and unauthorized enemy planes within an early warning network would in itself constitute an act of aggression?

It is the nature of the crisis in which the world finds itself as a result of nuclear weapons that now compels me to explore such thoughts, which to me are distasteful but realistic. I need hardly say that no such redefinitions of international law, even should they some day prove necessary, would bring us any real degree of military security.

This is the last audience which needs to be told that military might, even atomic might, cannot by itself bring just and lasting peace to this troubled planet. All recorded history proves again and again that prolonged armament races end in war. Military deterring power can do no more than buy us time—time which must be used to build the only foundations upon which real and enduring peace can rest—a world community of human brotherhood and the respect of man for his fellow men.

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The Honorable

W. STERLING COLE

Chairman, Joint Congressional Committee on Atomic Energy

W. Sterling Cole, 50, was born in New York State, the son of a State Commissioner of Education. He was graduated from Colgate University and received his LL.B. degree from Albany Law School. He was elected to Congress in 1934—the youngest GOP member of the 74th Congress—and has been reelected to each Congress since. He has been a member of the Joint Committee on Atomic Energy since 1947 and became Chairman in 1953. In the 83rd Congress he was also third-ranking Republican on the House Committee on Armed Services. Mr. Cole is a lieutenant commander in the Naval Reserve.

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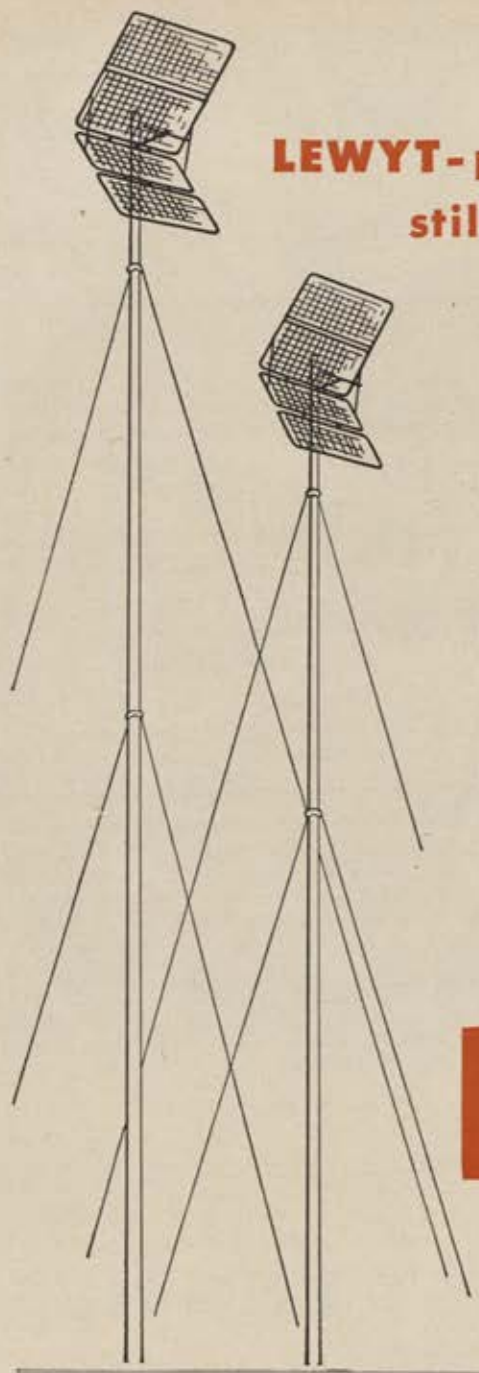

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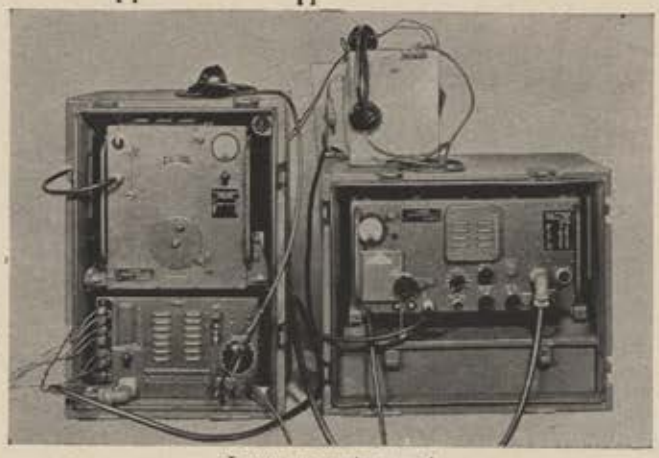

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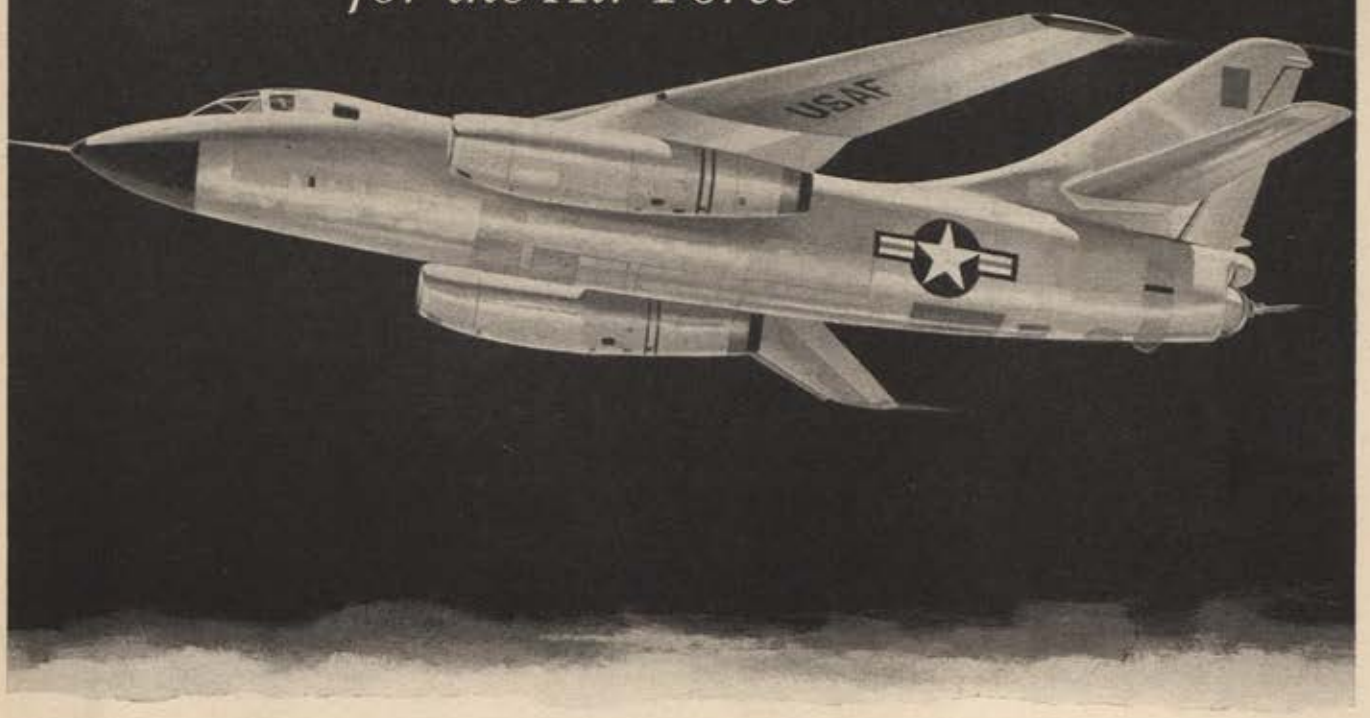

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Research and Development

The Honorable DONALD A. QUARLES
Assistant Secretary of Defense

I'M SURE when the committee planned this program they realized that you couldn't bring four speakers from four somewhat different walks of life, have them address themselves to somewhat the same topic—particularly under security wraps—and not have a certain amount of duplication, overlap of the ground that they would cover.

I'm not going to make any apology for this because I believe that the thought was to get a clear and frank statement from each point of view of how it approached this problem. And, therefore, I'm going to stick to my statement about it in spite of the fact that, as I say, I certainly overlap in some measure some of the things that have been said earlier.

There is no doubt that the world situation presents a very great challenge to us. The United States, because of its great accomplishments under our democratic system, is the special target of militant Soviet Communism.

Communism is an ideological threat which seeks to destroy our way of life, our political system, and our moral and spiritual values. It is an economic threat which seeks to divide allies and wreck their economies. It is a military threat—a real, instant, physical threat to our homes and our industry, posed by the Soviet nuclear capability.

To meet this challenge we must muster all of our elements of strength. From the purely military viewpoint, the challenge must be met by building up United States forces adequate for our security, which means military forces best to defend our own position and best to complement the collective forces of our friends and allies of the Free World.

The programming of our efforts must be a compromise between instant readiness and preparation for the indefinitely long pull. We must not be misled in our planning by the ebb and flow of propaganda from the Kremlin. Any wishful thinking we may have indulged in concerning a change in basic Soviet policy upon the passing of Stalin has been positively dispelled by the succession of events since that time. It would be folly to rely on revolution in Russia to solve the problem for us. In mustering our forces, therefore, defense planning is characterized by preparation for the long pull; by an emphasis on collective military security; and by full consideration of the impact of technology and new weapons on warfare.

Science and technology are high on the list of the elements which make up the foundation of our strength. Our industrial output was a major factor in both the first and second World Wars. It was only in the second, however, that science and technology emerged in their present dominant role of shaping the nature and outcome of warfare. The rise of airpower to its present key position, in which you here have played such an important part, was one aspect of the technological revolution in military science that has taken place. All arms, however, have been affected. Electronics and radar in particular also played a large and versatile part.

For example, radar gave naval surface vessels night vision with precision fire-control which made the difference between victory and defeat in such night engagements as the Battle of Surigao Strait. Fire power, mobility, and electrical communications furnished by modern technology were essential factors underlying the success of vast armored divisions in Western Europe. Finally, as a climax, the atom bomb was a major factor in the successful conclusion of the war. The United States was then—and continues to be—at the forefront in quickly applying scientific results to practical military use.

To insure the continuation of our technical leadership in the military field, we must have a sound military research and development program. Defense Secretary Charles Wilson has said, "Technology, through providing us with superior weapons and the knowledge of how to use them, offsets the possible greater numerical superiority of a potential enemy. The research and development program of the Defense Department is fundamental to achieving and maintaining a reasonable posture of defense for the nation."

The reorganization of the Defense Department a year ago recognized the importance of research and development by creating an Assistant Secretaryship in Defense, charged with re-

(Continued on following page)

sponsibilities in this field. Recently similar reorganization moves have been made in the Army, Navy, and Air Force, with research and development being assigned as an explicit function of one of the Assistant Secretaries of each department. All of our research and development planning is based on the principle that the military establishment must make the best possible use of the technical assistance available from our national scientific and engineering resources. The primary purpose, in fact, of our research and development offices is to establish close and effective ties between the military and the scientific fraternities.

In recent months there has been apprehension in some quarters about the health and vigor of this vital relationship. The rise of technology to a preeminent position in the art of warfare has been very rapid in the last fifteen years. The impact of the new weapons developed through science and the close liaison with scientists during these years greatly increased the understanding and appreciation of our military officers for the values of science. Scientists and engineers on their part have gone deep into military problems, working hand-in-hand as a team with the military establishment. During this period there have been ups and downs in this relationship. Immediately after World War II, scientists, reacting like most of the rest of the citizenry, were of a mind to drop military-related matters and go back to academic institutions, to civil-related industrial work, and the like.

The military establishment, for its part, reconstituted its research and development program at a reduced level and with greater emphasis on the research end of the spectrum. The Korean war brought a sharp reversal of this trend and, in fact, reestablished military research and development on about the level of World War II, with the highest dollar rate of expenditure in our history. Today, with Korean tensions somewhat eased, there is again talk of discouragement and dissatisfaction on the part of scientists.

The House Subcommittee on Military Operations has recently issued a report bearing on the relationship between the military and science and raising certain important issues. On the whole, however, the report is constructive rather than critical, and any thought that there is bad blood between the scientists and the military is without foundation and should not be taken seriously. Among the hundreds and thousands of such relationships there are always individual cases which are troublesome, but these are very rare and have attracted attention out of all proportion to their significance.

In this technological race we are in, we must take stock of our competition. All the evidence of World War II and what we know of the general standard of living in Russia tended to make us too complacent about the technological stature of the Soviets. There have been numerous evidences in recent years that in military technology they are proving to be worthy competitors in the race. You are aware of their thermonuclear experiment of last August; and of the events of their May Day air show in Moscow at which they showed two new types of jet bombers, more or less comparable with our medium B-47 and our heavy B-52 types. In this and other fields the Soviets have shown the capability to develop and produce technical devices of advanced design. While history has shown that we have led the Soviets in every important post-war technological break-through, we must be very cautious in assessing the margin of our advantage. My own appraisal is that we are in a race where our best is none too good.

Our own research and development program has been dominated since the war by considerations of the importance of nuclear weapons and the delivery systems for them. This has been the logical and proper thing to do. As our potential enemy builds up similar offensive capabilities, we must recognize the interplay between the offense and the defense. The Russian capabilities for nuclear attack against our homeland must be met not only by a threat of massive retaliation but also with a balanced defensive position. One can approach this from the air-atomic point of view in which case the problem is to optimize the balance between offense and defense in the struggle for air-atomic supremacy. Alternatively, one can talk about the necessity for defending our homeland, our strategic base and our will to fight. I suspect these are merely different sides of the same coin.

In any event, our military research and development program must provide coordination and balance between the offensive and defensive elements, and this balance must be constantly reviewed and adjusted. In addition to meeting the threat of air-atomic war, there is also a need for research and development directed toward fringe conflicts, the so-called brush-fire wars. The events of recent years have clearly indicated that the Soviets would prefer to accomplish their ultimate aims by a piecemeal gnawing away at the Free World, and we must not neglect this aspect of the threat.

Taken as a whole, these factors pose a great problem for us. It is not easy to devise policies and programs which will meet the vast and varied threat; nor is it easy to choose the balance of military effort and the research and development that will serve us best. The situation obviously calls for technical effort on a very wide front, which, in turn, requires a large and expensive program. Fortunately these facts have been well understood in the White House, in the Pentagon and on the Hill, and military research and development has had solid support. Congress has been willing to continue adequate appropriations to it. We are continuing at substantially the peak Korean level of about $1.2 billions of direct R&D expense in the military establishment, and I do not

(Continued on page 58)

The Honorable

DONALD A. QUARLES

Assistant Secretary of Defense

Donald A. Quarles, who is 60, was born in Van Buren, Ark., and received his education at Yale and Columbia Universities. After a tour of duty as an Army captain in the field artillery in World War I, he went to work as an engineer for Bell Telephone Laboratories. He became vice president and in 1952 was vice president of the Western Electric Co. When nominated by President Eisenhower to be Assistant Secretary of Defense for Research and Development in 1953, Mr. Quarles was president of the Sandia Corporation, Albuquerque, N. M.

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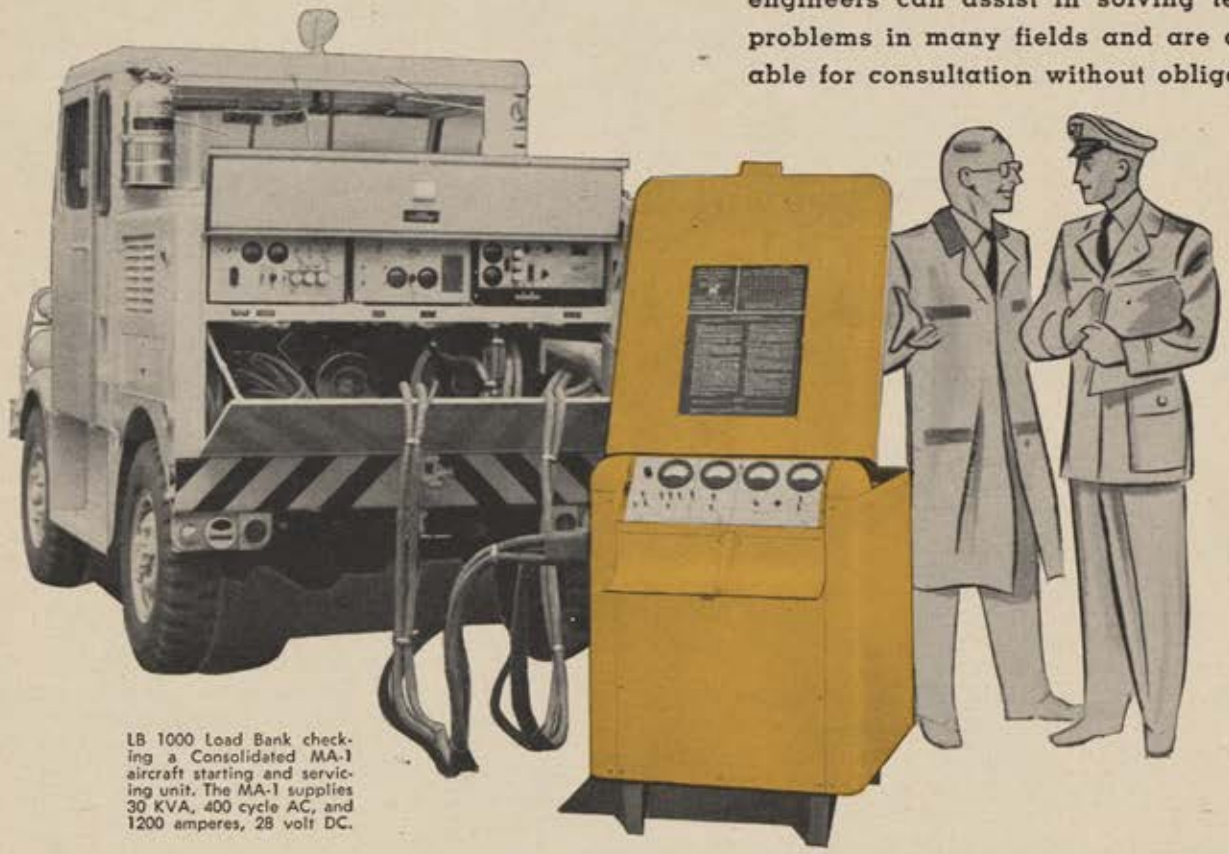

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feel that our program is dollar-limited.

According to our best estimates, the military research and development program, taken together with the military-related portions of the atomic energy program, now constitute about half the research and development effort of the country.

It is debatable whether a higher level for the military part of the national effort is justifiable. Certainly some of the immediate end products of the civilian developments are frivolous when considered in the light of the world situation. We must recognize, however, that support of our civilian economy and our standard of living is an essential part of our long-time survival in the face of Communist threat. Furthermore, defense profits indirectly from many of the civilian research and development activities. The telephone, the automobile, and to a degree the airplane, are examples of civilian developments which have proved to be of great military importance. The techniques and processes developed for one line of produce often form the basis of otherwise unrelated military applications.

The point is that many factors would have to be weighed before we could conclude that the military program should have a greater share in the total research and development effort. We do have, however, a real challenge to increase the effectiveness of the military program. With the fine group of officers and civilians, both inside and outside of government, who are dedicated to doing this, I have every confidence that this challenge will be met.

There is no doubt that the nuclear developments have completely devastating potentialities. They may appear to favor the aggressor and to work against the Free World whose moral code rejects aggression and preventive war. The advantage to the aggressor, however, may not be as great as it first appears. It is a two-way affair. Our powerful Strategic Air Command, backed up by a potent weapons development program and protected from surprise attack by a sound level of continental defense, is a most important and discouraging influence on the Soviets. Certainly our nuclear capability serves us well to discount the value of massive land armies, an area in which we could have been completely overwhelmed on a man-to-man basis by the military manpower of the Communists.

In conclusion, it seems to me that we could easily err on either extreme of this argument. We could read all the signs and portents in their most unfavorable light and thus develop a very gloomy picture. On the other hand, we could perpetuate a postwar fallacy and grossly underestimate the quality of our competition. Either extreme would be fatal. The balanced view could, I believe, be summed up something like this: Our defense rests on a stronger, broader, and more advanced technology than that of the Soviets. Moreover, we have a better and sounder social order on which the whole structure is based. The postwar history shows that we have been out ahead in the important technological break-throughs, such as atomic and thermonuclear weapons, jet aircraft, and the like. While in recent months there have been disturbing examples of Soviet progress, the facts justify a confident determination to stay ahead in this technological race.

Survival in the Atomic Age calls for the very best our science and technology can produce and this means the very best efforts of all of us in this cause. As President Eisenhower has so often pointed out, its real and final objective is not war but peace, and I can't think of a finer cause to be dedicated to.

Question: All morning I have heard the statement our policy seems to be retaliation. That might have been effective and the proper thing in the days of the old-type weapons, but I think Dr. Kelly made the statement that the fusion type of bomb explodes forty-four times as much as the first A-bomb. Are we going to wait for an overt act, such as the sacrifice of a large metropolitan city, before someone sees something and then takes the time to tell the Pentagon, and then we go back and do anything? Wouldn't it be preferable to establish a zone out in the hinterland, out in the ocean, and say, aggressively, "We don't know who you are, but if you do not take a prescribed path of entry into our country, we are going to assume that you are an aggressor and we will direct our airmen to go ahead and use force"?

Mr. Quarles: I would like to say to the gentleman first that the words that "We are going to wait" don't appeal to me. I don't regard what we are doing as waiting.

I regard what we are doing as organizing and mustering our very best forces to achieve an ultimate position.

Now, in any situation of this kind, obviously we can't be completely right. We can't have everything in our favor.

But my answer to the gentleman is that the wise course of action, at least to me, is exactly the course that Under Secretary Murphy and others on this platform have sketched, namely, the policy of directing all of our efforts toward an ultimate peace in which our way of life can survive. Doing that calls for a degree of moderation and restraint under circumstances where we might like to be trigger-happy.

Question: Secretary Quarles has spoken of a need for an increase in the perspective of our military research and development program. There have earlier been references to some organizational changes to improve the effectiveness of air defense. I wonder what the Secretary believes about the need for establishing combined operating control of the three military departments with research and development programs as distinguished from policy and coordination as he now exercises.

Mr. Quarles: That is a very important matter of policy—how our system makes research and development an essential part of the materiel function of each of the three military departments, and of course the materiel function is in turn their logistic means of carrying out their military mission.

'Survival in the Atomic Age calls for the very best our science can produce. Our defense rests on a stronger and more advanced technology than that of the Soviets, and we have a sounder social order. The facts justify a confident determination to stay out in front in the technological race.'

We would gain something in one direction by consolidating these programs of research and development and perhaps even the materiel program. We would certainly lose something in other directions by taking from the military departments who have the mission responsibility, the ability to supply themselves with the most modern materiel.

My own judgment is that we have presently a good balance between these alternatives, although I would not at all imply that there isn't further room for improvement. I do not advocate a consolidation of research and development on the research level.

Question: Would you comment on the long-term implications in the race for training scientific people, a race the Soviets seem to be winning at the present time?

Mr. Quarles: It is a fact that currently the Soviets are turning out from their educational institutions something on the order of twice as many engineers and scientists as we are in this country. That depends a lot on how you figure numbers.

I think it is also a fact that we must recognize that in the somewhat clumsy democratic process that we have to use in matters of this kind, we are not in all directions following a policy to make maximum use of those that we do turn out. This could also be improved.

I think that this whole situation poses a challenge to us and is certainly not one to be complacent about. On the other hand, my own appraisal is that we had such a long lead in technology, ten or fifteen years ago, that in spite of these numbers we can, as I said, competently set ourselves to maintain our technological superiority.

Question: I would like to ask Dr. Kelly this question, to determine the effectiveness of our present air defense—will you please give me your estimate of the bombers that would come through, assuming that a force of 1,000 bombers were mounted against us and we had the early warning from the furthest outpost. What would be the number that we would knock down and what would be the number of bombers that would get through?

Dr. Kelly: One would have to define a lot more about the 1,000 than you have, and also to have some detailed knowledge that I don't have at my fingertips, to give you percentages.

I would say that the number that got through would be varied depending, at the present time, on whether it was night or day, and conditions of the meteorology—it would be too many, no matter how favorable it was.

Question: I'd like to ask Mr. Quarles why it would not be better to invest the taxpayers' money in airpower rather than investing in ground atomic cannons?

Mr. Quarles: I prefer to answer that question in Langley Field or someplace other than Omaha. I think that one must, however, insist on a balanced view of this problem. If I had to say that we should have another B-36 bomber instead of a 280-millimeter atomic cannon, that would be a very difficult decision and one happily which the Assistant Secretary for Research and Development doesn't have to make.

The answer really is that we need both, and the answer really is that our economy is capable of producing both, and the answer really is, in my judgment, that the creation of the atomic cannon and the deploying of it in Europe has well justified the research and development and production expense that was involved.

Question: Do you think, Mr. Cole, that your proposal for an Assistant Secretary of Defense for Continental Defense establishes the Continental Defense Command as a corollary in the offensive field, having strike forces committed to the offensive task?

Mr. Cole: If you question whether I feel that we should have in the Department of Defense an individual whose sole responsibility is carrying the offense directly to the enemy, I assumed we had that in Secretary Wilson himself.—END

gress of a bill which provides that when government doctors and facilities are not available to give immediate and complete care to an Air Force family, that the family may call a *civilian* doctor at government expense.

Next to housing and medical care, I believe that a leading cause of hardship in the Air Force—perhaps the leading cause—is the incessant separations from wife and children. These are caused by frequent temporary duty, either overseas or at schools in this country. And think of the family insecurity that is brought about by frequent and sudden changes in station.

The cause of all this moving around is well known in the Air Force, but I doubt whether it is known at all to the general public.

Part of it has been due to our heavy undertakings to the NATO countries. We are by far the principal contributor to airpower of the Free World. For years now, a comparatively few wings have had to take repeated tours of duty overseas—sometimes at short notice, with the wives and families left behind to get on as best they could. (Incidentally, with the increasing strength of our Air Force, overseas duty will now be shared among many more units, and we shall achieve much more stability.)

Then, we have had to do a tremendous amount of retraining, during our change over from propeller to jet airplanes. Perhaps we have overdone this additional training, but I think that the whole Air Force will agree with me that it is better to over-train than under-train.

The greatest cause of family insecurity is the fact that we have had to draw skilled airmen and officers out of existing units, and use them as cadres to activate the new units of our expanding program. There has been no way we could avoid this. Each new wing requires a nucleus of highly trained men to handle its new equipment, and to teach new men how to take over.

We are not out of the woods yet on any part of this program. I am not going to make any easy promises that I cannot fulfill. We still have twenty-two more wings to activate. But I will say this: I think that the worst is over. Within two years, the Air Force will reach a stable point. In the meantime, here is what we are going to do to cut down hardships all we can:

- We are setting up procedures by which an airman and his family will get at least sixty days' notice of each permanent change of station. There will be exceptions—we can't do it all overnight, but in general, the family will know *when* they are going, *where* they are going, and the type of *housing* awaiting them. We are also going to try and make these moves coincide with the end of the children's school year, and we are providing for concurrent travel wherever housing is available.
- We have secured legislation which raises the weight allowance, for moving household effects, to a maximum 11,000 pounds. We can also vary the weight allowance to our families according to their needs. We are also considering provisions for travel allowances for children under five years old—an allowance that does not now exist.
- We are asking for the enactment of new legislation which would provide for a special dislocation allowance. Each family would be paid one month's extra housing allowance on a permanent change of station, to take care of the many extras involved in moving from one house to another.

The last, but far from least of the troubles we are trying to reform, has to do with the commissaries and Post Exchanges.

You know, the general public thinks that the Air Force lives for next-to-nothing, that they buy their groceries and clothes and almost anything they want at cut-rate prices. You and I know how untrue this is. The commissaries and Post Exchanges are under incessant attack. Their stocks have been cut back. Their prices have been raised. Surcharges have been imposed on their sales. Paid lobbies in Washington continue trying to get them closed altogether.

For my part, I can hardly tell you the contempt I feel for people, for organizations, who are trying to take away from the armed services their only chance to make their meager wages go a little farther. I will say this: as long as I have this job, I will fight to the utmost to prevent the closing of the commissaries and the Post Exchanges. Far from closing them, I want to see their facilities expanded. I want to see them have bigger stocks, more name brands, lower prices. I want to restore to them the right to take "special orders" for objects not in stock. We have already put an end to the unbusinesslike procedure of having the commissaries close on pay day, of all days, to take inventory. I believe there are many more things we can do to help them serve the Air Force better. I propose to secure an expert management survey to help us improve the way they operate.

And bear in mind, all this costs the government nothing! In fact, the government *makes* money, for the Post Exchanges pay for almost all the recreational activities on an air base—facilities which perhaps the government should provide.

Now, that covers the main items we are going to reform. I have only had time to cover the top of each problem. There are many I haven't touched at all. For example, I recognize the inequities in retirement and survivor benefits. These subjects are under study and will be corrected, I hope. Not one of these things is, in itself, all-important. Put together, however, they make the difference between an Air Force career being attractive to the best men in our country, or being unattractive.

There are things that have crept up on us unawares. Our pay has not kept pace with the times. Our facilities have not kept pace with our expansion. I wonder how many of us stop to think that while we had 1,800 officers before World War II, we have 130,000 today; that we had only 18,000 airmen then, against 818,000 today. The tremendous rise in the importance of airpower is still new. It is still hard to realize how much our equipment has changed, how much it demands of the men who are now responsible for the safety of our homes.

We must reform these evils. I give serious warning to the public that if we don't, we shall run into a serious crisis in manpower within twelve months—a crisis that won't be cured by money or by the draft. We shall face a serious drop in efficiency. We shall not be able to maintain an adequate watch over our country. That would be a tremendous opportunity for our enemies. Let us never forget that a single night could change the face of our country beyond recognition.

Now comes the question: What will all these reforms *cost?* The answer may surprise many people. Once they are set up, *they won't cost anything at all!* We *shall save* money. I remind you that, in terms of money, we are now losing some $2 billion a year in trained manpower. If we induce a highly skilled officer to withdraw his resignation, we save over $500,000. If an electronics expert decides to reenlist, we save $75,000. For each one percent rise in the over-all reenlistment rate, we save about $100 million in each four-year enlistment period. Compared with these savings, the cost of our reforms will be trifling.

Saving money is nothing new to the present Administra-

(Continued on page 63)

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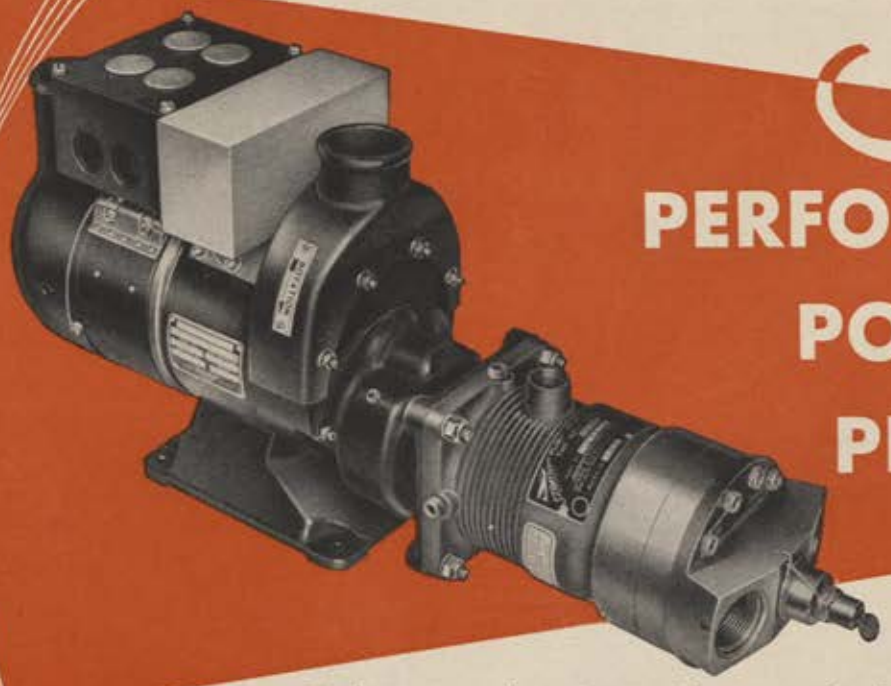

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tion of the Air Force. To give you some other examples: by various labor-saving moves in this country, and Operation Native Son overseas, we have saved the time of 54,000 airmen, enough to man eight medium bomb wings with all their support echelons. By the time we get through, we shall be able to run our 137-wing Air Force with 975,000 men—235,000 men fewer than was first estimated. And we are not forgetting the equipment. By increasing the life of an engine from seventy-five hours to 600 hours, and by tightening up our supply resources, we have been able to cancel some 12,000 engines, costing about $2 billion. These are just a few of many examples I could give you.

As of June 30, we had over $8 billion of unobligated, authorized funds. It is all earmarked, under the law, for public works and equipment, and I don't have authority to use any of it to set up the reforms I have described. I certainly think we should be authorized to better the living conditions of our people. That is the only way we can secure the utmost *quality* in the air defense of our country. To me, there is nothing impressive in *size* unless it is *accompanied* by quality. When you think of the immense power of each one of our modern aircraft, I think you will agree with me when I say, I would rather have *one* select, veteran crew for a long and dangerous mission, than I would have *ten* who lack experience. Bravery alone is not enough in the jet-atomic age.

On this subject of quality in the Air Force, I want to mention the Air Force Academy. It is the recognition that the Air Force has come of age. I have just come from its site. It is a magnificent setting. I met there with the architects and engineers who are to supervise its construction. They are enthusiastic about it, and tell me that we can build an outstanding institution which will be the pride of the nation. Here the Air Force will train its future leaders. Here we must assemble the best young men of our country. I want to call on the members of the Air Force Association, really the alumni of the Air Force, to assist us by getting the outstanding young men of your communities interested in this new institution. Incidentally, if one of these young men should turn out to be a star quarterback or halfback as well, don't let it stand in his way!

On a more serious level, I also want to appeal to you in this Association, and to all the citizens of our country, to help by letting the men now in the Air Force, their wives, and their loved ones, know how much we respect them, and that we do appreciate the sacrifices they make to keep our country safe.

Let us thank them not by words, but by improving their living conditions.

Now may I close on a personal note. It has been an inspiration to serve as your Secretary of the Air Force this last year and a half. I have nothing but praise for the airmen and officers for the outstanding job they are doing for their country.

When I see the devotion and dedication to duty that is so willingly given, it makes any contribution of mine seem small, but I do want to say this:

I realize perfectly well that in this speech I have made some serious commitments to the men and women of our service. I have not done so lightly. I have given each subject careful thought. I want everyone in the Air Force to hear me when I make this pledge: that as long as I am Secretary, I will fight unceasingly, with any and every resource I have, to make good on my commitments, and to make the Air Force the most sought-after and prized career in the United States.—END

AFA's action on

The MANPOWER PROBLEM

AIR Force Secretary Talbott received the support of AFA delegates in his pledge to make the Air Force a more sought-after career. Twelve of the resolutions passed by the delegates dealt with ways of brightening the manpower picture, and of these, five were concerned with improving conditions of men and women now in the Air Force.

Because the military man's pay scale has not kept pace with the rising cost of living, the delegates passed a resolution calling on Congress to grant servicemen a pay boost. The increase, delegates agreed, should be big enough to attract capable men who will make a career of the AF.

But increasing pay is only one way to help whip the manpower problem. Such benefits as housing, PX facilities, and a better system of transfers were among others delegates acted on in resolutions.

On housing, the delegates felt that Congress has fallen far short of the military requirement in relieving the family housing problem. The resolution called for legislation to provide adequate housing for all service families. The

(Continued on following page)

MANPOWER PROBLEM—CONTINUED

lopping off of the so-called fringe benefits was also criticized, since this practice has "reduced the standard of living of servicemen and their families to an irreducible minimum." This resolution listed areas in which fringe benefits could make service life more attractive:

- Restoring PX facilities.
- Giving substantial quarters and rations allowances to all grades of enlisted men with families living at military bases.
- Reinstating the system of transfer by application.
- Establishing and adhering to a better promotion system.
- Giving enlisted men a better chance for OCS.
- Considering home towns when making assignments.
- The resolution also called for the appointment of a civilian commission to investigate military benefits generally with a view toward seeing that servicemen are paid on a basis comparable to private industry.

The delegates also rapped the Air Force's career field concept, calling it too inflexible, and recommended that the USAF improve the program to provide greater flexibility while encouraging interest in highly-specialized fields.

In a move to give enlisted men more recognition, delegates resolved that a special AFA medal and ribbon should be awarded honor graduates from the Air Force's various non-com academies. AFA will ask the USAF to authorize such honor graduates to wear the ribbon on the regulation uniform.

AFA delegates, acknowledging that the quality of tomorrow's Air Force depends on the young men of the nation in school today, passed several resolutions aimed at improving the AF-ROTC and also stimulating an interest in flying among America's youth.

One resolution called on Congress to authorize flight training as a regular part of the Air-ROTC program, on the grounds that such action would provide a greater incentive for college graduates to follow Air Force careers.

Another declared that the AF-ROTC should be the "most desirable and attractive of any of the services," and recommended that there should be a complete review of the program in order to cure its present defects.

In line with the feeling that ROTC students should have the opportunity to participate in actual flying activities, the delegates also felt that this interest should be promoted at an even earlier age. This resulted in a resolution calling on the USAF to undertake a "vigorous program" to organize and instruct the youth of the nation in a glider flying activity, designed for those under eighteen.

Air Force Secretary Harold Talbott was commended in a resolution for the prompt action taken in selecting the Colorado Springs, Colo., site of the new Air Force Academy and for the steps already taken toward its construction. In other action dealing with the Academy, AFA delegates recommended that selected students from each service Academy spend a portion of their training as exchange students at the Academies of the other services. Another resolution asked Congressmen to give due consideration to qualified airmen from their respective states and districts when making appointments to the Air Force Academy.

The delegates noted that the Army has a system under which secondary-school students may receive military training, using equipment furnished by the Army but maintained by the training institution at no cost to the Army. The delegates recommended that Air Force authorities should follow suit and establish a similar training program under Air Force direction.—END

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Lt. Col. John P. Stapp, chief of the AF Aeromedical Field Laboratory, gets Science Trophy from General Doolittle.

Maj. Charles E. Yeager, USAF test pilot, receives the Flight Trophy from General Doolittle as Secretary Talbott watches.

Charles J. V. Murphy gets Arts and Letters award.

Gill Robb Wilson accepts the Hoyt S. Vandenberg Trophy.

Airpower Awards

Top awards for 1954 are presented at the Airpower Banquet at Boy's Town in climax to AFA's Eighth Annual Convention

AIR FORCE Association's six top awards were presented at the 1954 Airpower Banquet at Boy's Town, near Omaha. In addition, six Citations of Honor were given for contributions to airpower.

- AFA's highest honor, the H. H. Arnold Trophy, went to Secretary of State John Foster Dulles, named "Aviation's Man of the Year" for 1954, for his leadership in giving "needed recognition and expression to the concept of the importance of airpower as an instrument of national policy." Mr. Dulles was unable to be in Omaha to receive his trophy but sent a message of acceptance.
- The Hoyt S. Vandenberg Memorial Trophy, formerly called the Air Age Trophy, was awarded to Gill Robb Wilson, an AFA Director and editor and publisher of *Flying Magazine,* for "laboring unceasingly to educate America to the implications of the Air Age."
- The Science Trophy went to Lt. Col. John P. Stapp, chief of the Air Force's Aeromedical Field Laboratory at Holloman AFB, N. M., for his "research into the problems of high-speed flight, conducted at grave personal risk." Colonel Stapp has repeatedly subjected himself to high "G" loads to determine the effect of crashes and high-speed bailouts on the human body.
- Maj. Charles E. Yeager, USAF test pilot and the first man to fly faster than sound, was named for AFA's Flight Trophy and cited for his "continued skillful piloting of research aircraft," which has "opened new vistas of speed and altitude to meet the military requirement."
- The Arts and Letters Trophy went to Charles J. V. Murphy, one of the editors of *Fortune Magazine,* for his military-strategic reporting through which "thousands of influential readers have become aware of the complexity of the airpower requirement." Mr. Murphy was cited for his "wisdom, knowledge, and creative ability."
- The Earl T. Ricks Memorial Trophy (see page 67) went to 1st Lt. Charles J. Young, the New Jersey Air National Guard pilot who won the AFA-sponsored ANG-jet race from California to Detroit in July.

AFA Citations of Honor went to the city of Omaha, for achievement in community relations; the Thunderbirds, the USAF's precision jet flying team; Don Murray, Pulitzer Prize-winning editorial writer of the *Boston Herald;* the writing team of Francis and Katharine Drake for their stories in *The Reader's Digest;* William Guthrie, Warner Brothers film studio executive; and Congressman W. Sterling Cole (R.-N. Y.), chairman of the Joint Committee on Atomic Energy for his "leadership in the field of atomic energy."—END

AFA's Partners in Airpower

THE aviation industry's need to know more about its biggest customer was responsible for the birth of AFA's Industrial Associate program. Through it, firms with a stake in military aviation can participate in AFA activities and receive exclusive Industrial Service Reports, which keep them up-to-date on the organization and personnel of the USAF. Part of the funds from the Industrial Associate program is earmarked for AFA's Annual Convention. Thus, much credit for the success of the 1954 Convention must go to AFA's Partners in Airpower. Acknowledging that support, here are the companies now in AFA's Industrial Associate program.

Abrams Instrument Corporation, Lansing, Mich.
AC Spark Plug Division, General Motors Corporation, Flint, Mich.
Admiral Distributors, Inc., Molded Products Division, Chicago, Ill.
Aerojet-General Corp., Azusa, Calif.
Air Associates, Inc., Teterboro, N. J.
Aircraft Gas Turbine Division, General Electric Company, Cincinnati, Ohio
Aircraft Nuclear Propulsion Dept., General Electric Company, Cincinnati, Ohio
Aircraft Products Dept., General Electric Company, Johnson City, N. Y.
Air Products Company, Inglewood, Calif.
Allegheny Ludlum Steel Corporation, Pittsburgh, Penna.
Allison Division, General Motors Corporation, Indianapolis, Ind.
American Machine & Foundry Company, New York, N. Y.
Arma Corporation, Garden City, N. Y.
Aro Equipment Corporation, Bryan, Ohio
Avco Manufacturing Corporation, New York, N. Y.
Aviation Engineering Division Avien-Knickerbocker, Inc., Woodside, N. Y.
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Beaver Precision Products, Inc., Clawson, Mich.
Beech Aircraft Corporation, Wichita, Kan.
Bell Aircraft Corporation, Buffalo, N. Y.
Bell Telephone Company of Pennsylvania, Philadelphia, Penna.
Bendix Aviation Corporation, Detroit, Mich.
E. W. Bliss Company, Canton, Ohio
Boeing Airplane Company, Seattle, Wash.
Burroughs Corporation, Detroit, Mich.
Canadair, Limited, Montreal, Canada
Canadian Pratt & Whitney Aircraft Co., Ltd., Montreal, Canada
Cessna Aircraft Company, Wichita, Kan.
Chance Vought Aircraft, Dallas, Tex.
Chandler-Evans Div. Niles-Bement-Pond Company, West Hartford, Conn.
Chase Aircraft Company, West Trenton, N. J.
Cleveland Pneumatic Tool Company, Cleveland, Ohio
Coleman Instrument Company, Tulsa, Okla.
Consolidated Diesel Electric Corporation, Stamford, Conn.
Continental Aviation and Engineering Corp., Detroit, Mich.
Continental Motors Corporation, Detroit, Mich.
Convair Division, General Dynamics Corporation, San Diego, Calif.
Cornell Aeronautical Laboratory, Inc., Buffalo, N. Y.
Crown Cork and Seal Company, Baltimore, Md.
Curtiss-Wright Corporation, Wood-Ridge, N. J.
Daystrom Instrument Division of Daystrom, Inc., Archbald, Penna.
Decker Aviation Corporation, Philadelphia, Penna.
Diamond Manufacturing Corporation, Wakefield, Mass.
Diecraft, Baltimore, Md.
Douglas Aircraft Company, Inc., Santa Monica, Calif.
Eastman Kodak Company, Rochester, N. Y.
Elastic Stop Nut Corporation of America, Union, N. J.
Electric Auto-Lite Company, Toledo, Ohio
Electro Tec Corp., South Hackensack, N. J.
Emerson Electric Mfg. Co., St. Louis, Mo.
Fairchild Engine and Airplane Corporation, Hagerstown, Md.
Fenn Manufacturing Company, Hartford, Conn.
Firestone Tire & Rubber Company, Akron, Ohio
Fletcher Aviation Corporation, Pasadena, Calif.
Ford Motor Company, Dearborn, Mich.
Garrett Corporation, Los Angeles, Calif.
General Motors Corporation, Detroit, Mich.
Giddings & Lewis Machine Tool Co., Fond du Lac, Wis.
Gilfillan Bros., Inc., Los Angeles, Calif.
B. F. Goodrich Company, Akron, Ohio
Graham Aviation, Marianna, Fla.
Grand Central Aircraft Company, Glendale, Calif.
Harvey Machine Company, Inc., Torrance, Calif.
Heavy Military Electronic Equipment Dept., General Electric Company, Syracuse, N. Y.
Hughes Aircraft Company, Culver City, Calif.
International Harvester Company, Chicago, Ill.
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Kollsman Instrument Corporation, Elmhurst, N. Y.
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McDonnell Aircraft Corporation, St. Louis, Mo.
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Parker Appliance Company, Cleveland, Ohio
Pastushin Aviation Corporation, Los Angeles, Calif.
Pratt & Whitney Aircraft, East Hartford, Conn.
Pyle National Company, Chicago, Ill.
Raytheon Manufacturing Company, Waltham, Mass.
Republic Aviation Corporation, Farmingdale, L. I.
Rheem Manufacturing Company, Whittier, Calif.
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Springfield Machine Tool Company, Springfield, Ohio
Sundstrand Machine Tool Company, Rockford, Ill.
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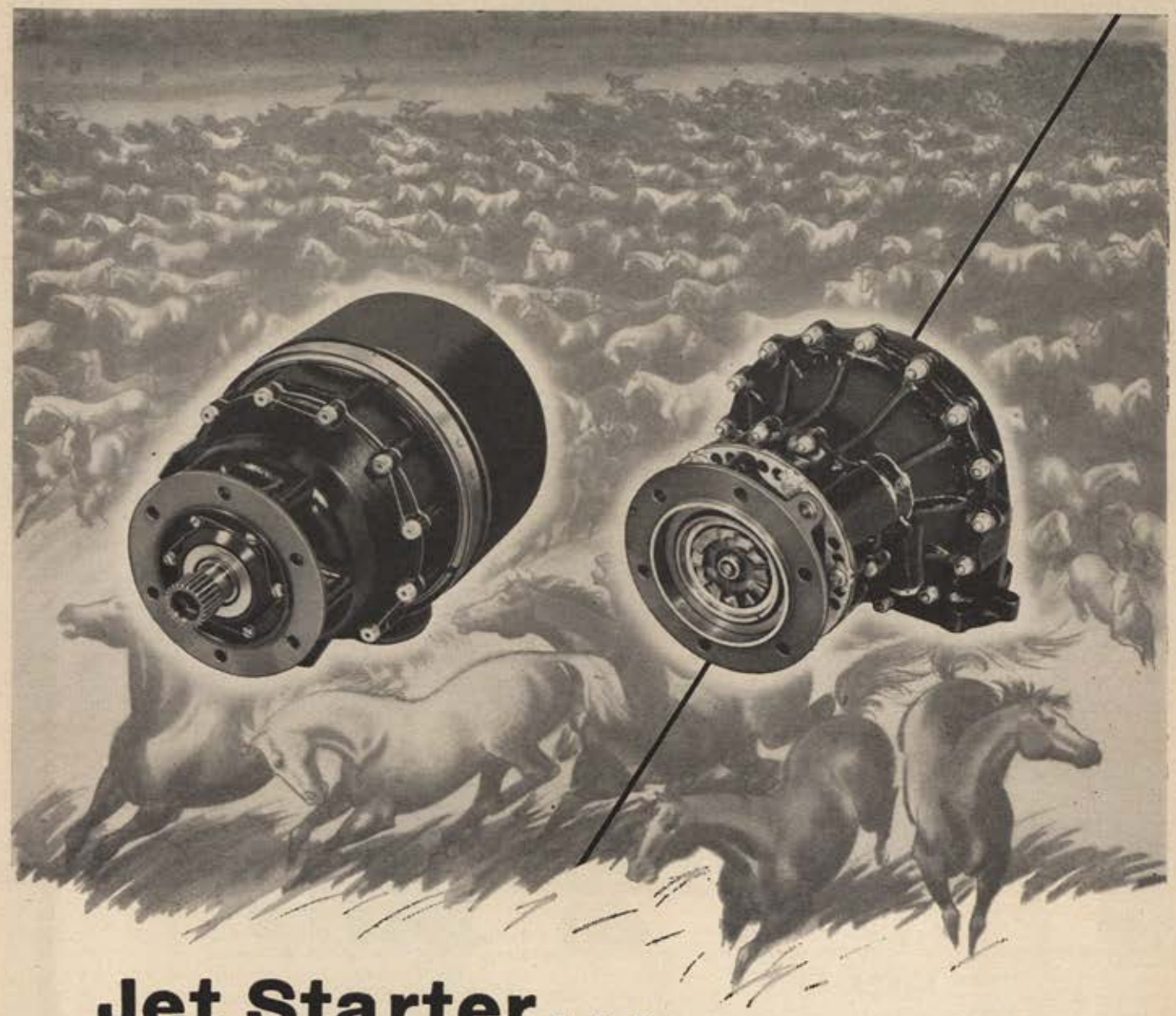

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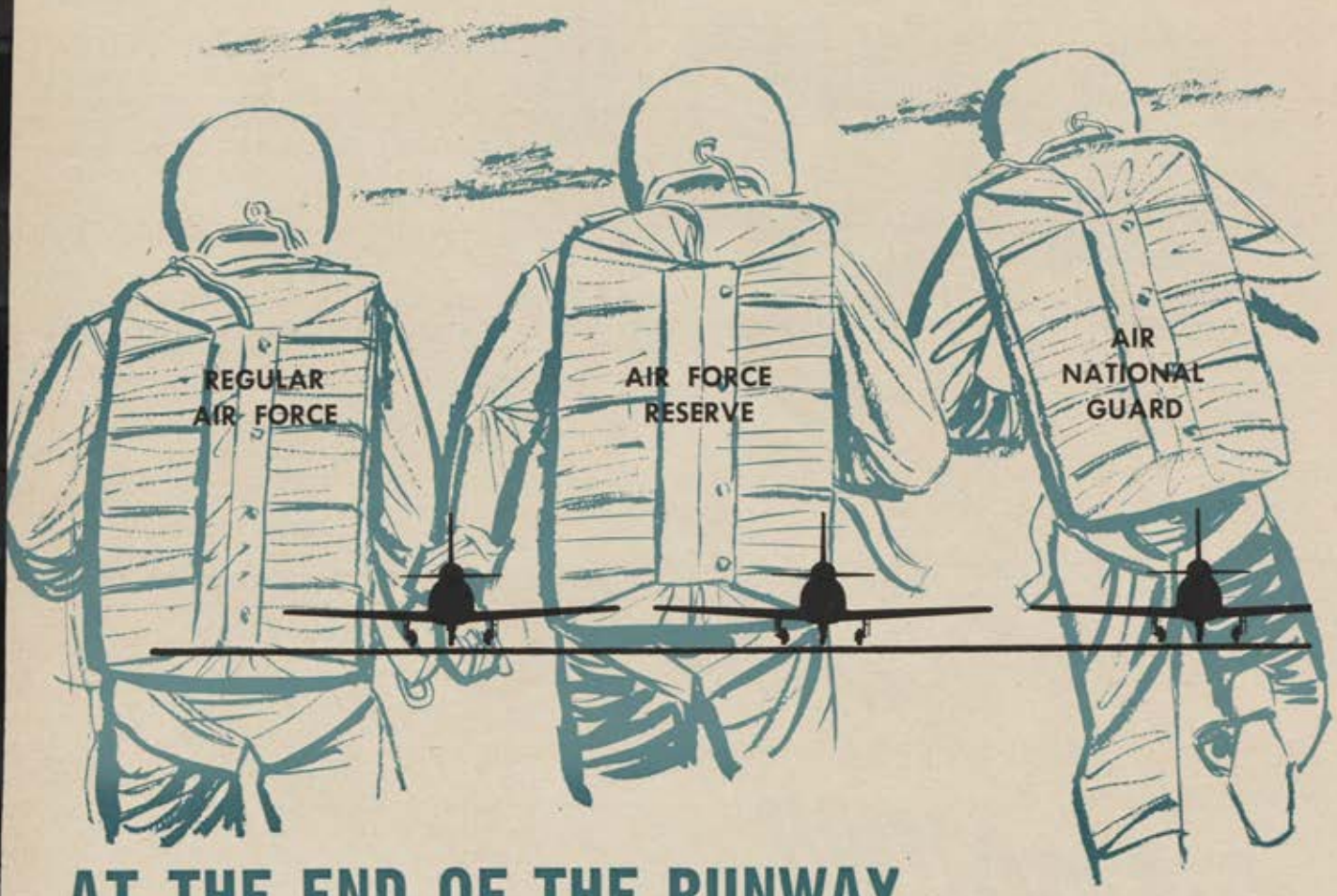
A report on the Air Reserve and Air National Guard



AT THE END OF THE RUNWAY

By Edmund F. Hogan

AIR National Guard fighter pilots are taking an active part in the air defense of the nation, and Air Reserve jet pilots soon will be on alert at the end of the runway, it was revealed at the first annual Reserve Forces Conference, which kicked off AFA's Eighth Annual Convention in Omaha.

Brig. Gen. Winston P. Wilson, chief of the Air Force Division, National Guard Bureau, told some 1,200 Regulars, Guardsmen, and Reservists packed into the main ballroom of the Fontenelle Hotel that a number of ANG units "are now standing five-minute runway alert."

The program, originally conceived by Maj. Gen. George G. Finch, Deputy for ANG Affairs at Continental Air Command, and approved by Lt. Gen. Leon W. Johnson, ConAC Commander, and Gen. Benjamin Chidlaw, Air Defense Commander, calls for five pilots to be available at selected locations. The pilots are called to active duty for short periods of time, ranging from one to fifty-nine days.

General Johnson told the conference that "we propose the same thing for our Reserve squadrons." ConAC, General Johnson said, "plans and expects to have Air Reservists guarding this country day-in and day-out, right along with the Air Defense Command at twenty-seven localities as soon as the arrangements can be worked out."

Generals Johnson and Wilson were two of the four panelists at the conference. The others were Maj. Gen. William E. Hall, Assistant Chief of Staff for Reserve Forces, and John I. Lerom, Deputy Assistant Secretary of the Air Force for Reserve and ROTC Affairs. Arthur F. Kelly, former President of AFA and a Reserve colonel, acted as moderator.

Gen. George C. Kenney set the stage for the conference in an opening address in which he placed the problem of the Reserve components in perspective. AFA's new Chairman of the Board called for establishing the mission of the Reserve, setting up the requirements, planning for the administration of the components, and sound legislation needed to implement a program (see page 73).

The issue of the Reserve program was the magnet that attracted Reservists and Guardsmen from every section of the country. General Hall did not sidestep it.

The Assistant Chief of Staff for Reserve Forces recalled that the former Assistant Secretary of Defense, Dr. John A. Hannah, had been quoted as saying substantially that the Eisenhower Administration was considering a program that would abolish the Air Force Reserve and create a federalized

(Continued on following page)

RESERVE—CONTINUED

Air National Guard as the sole Reserve component of the Air Force.

General Hall went on to say that Defense Secretary Charles E. Wilson had, in effect, denied the Hannah position with a statement on August 3, which said:

"Our plans call for a greatly strengthened National Guard and for increased responsibilities for the National Guard. There is no plan to abolish the organized Reserves of the Army or the Air Force. On the contrary, these units must be properly integrated into the entire program."

Numerous conflicting statements on the future of the Air Force Reserve have "caused uneasiness," General Hall said. But, he added, "I'd like to give it as my opinion—and I've been fairly close to this subject, including the study on Reserve mobilization requirements—that there is nothing in the present program which will not be required by any set of future mobilization requirements. And there is nothing going on in the Air Force Reserve today which will not fit into any scheme anybody can dream up."

Convention delegates themselves took notice of the federalization thought and adopted a resolution, sponsored by AFA's thirteen-member Air Guard Council, placing the Air Force Association on record against any plan to bring the Guard under direct federal control.

"Be it resolved," the resolution read, "that the President of the Air Force Association be directed to advise appropriate individuals and agencies in the Executive and Legislative branches of our government that this Association holds itself to be unalterably opposed to any plan, program, or organizational change that under any guise would have the effect of federalizing the Air National Guard by destroying the primary direct control of the states and territories."

General Hall decried what he called "shotgun criticisms" of the Reserve Forces program. These could, he said, "destroy any programs, irrespective of how good, and completely kill any interest that might exist."

The general questioned the validity of such criticisms in light of "a very substantial increase in every element of the Reserve Forces program" in the last year. These increases, General Hall said, could be found in membership and participation, and in facilities.

He called for assistance in encouraging greater participation by airmen in the Reserve program and for help in acquiring the proper space for location of the new Air Reserve Centers. Present law requires that the Air Force

THE PROBLEM IN PERSPECTIVE

Gen. George C. Kenney

AFA's new Chairman of the Board, speaking before the Reserve Forces Conference, asks that the military mission of the Reserve be established.

THE Reserve Forces problem, as far as the Air Force, the Army, and the Navy are concerned, has been kicked around for years. And no one in the Pentagon has yet come up with a sound program. The military mission of the Reserve Forces has not been established, so that it is impossible to set up sound requirements, or do sound military programming and planning. So long as this condition exists, we will have chaos with individual and group injustices, grievances, and many disgruntled Reservists.

I would like to see these issues aired on a broad basis, in the light of the precarious situation which confronts this country and the world.

Let us bear in mind that the survival of our country is at stake; that survival is far more important than the troubles of any individual. No personal problem can be as important as that confronting the country, and our thinking should be geared along that line—not to personalities.

The Russians are feverishly building a stockpile of nuclear weapons and the aircraft to deliver them. They are fast approaching the day when their staff will report to the fat boy in the Kremlin that they are ready for the knockout blow, and all indications are that on that day the whistle will blow and the attack will be launched.

On that day, the Active establishment, the Air National Guard, and those Air Reserve individuals or units who are ready to function in a matter of hours will be all that will stand between our survival or our downfall.

They are the ones who must halt the enemy bombing raids and knock out our opponent. If they fail, our problems will be solved by Kremlin edict. In this survival phase, the ready Reserve Forces play an important part.

Now, how about the rest of the Reserve Forces who will require retraining or refresher courses to carry out the military tasks to be assigned them?

If we get by the survival stage, it will be because we have knocked out the Soviet, and because his colossal empire, comprising a third of the population of the world, has collapsed.

We will still have the victory to win. The world chaos that will follow the Soviet collapse will parallel the break-up of the Roman Empire. The satellite nations will break away and the various races, now in the Soviet Union itself, will split into separate warring entities, all trying to carve out boundaries of their own.

Finland will move to get her lost territory. Latvia, Lithuania, and Estonia will try to regain their independence and acquire what they believe should be their domain. Poland will be in trouble with Germany and Czechoslovakia, and quarreling with her new neighbors—Byelo-Russia and the Ukraine, who will separate from the rest of Russia. The Balkans will be at each others throats, since they all hold territory that once belonged to someone else. Russia proper has Kazaks, Georgians, Azerbaijanians, and Armenians who have been, and will want to be, independent again. Asia will boil over from the Mediterranean to the Pacific. And famine, disease, and death will make orderly existence impossible unless something is done about it.

The United States is the only country that can handle the problems, and we would have to handle them to win the war and the peace.

This would be the second phase of the war—pacification and occupation until order is restored. It would not be over for years and here is where the balance of the Reserve components would go into action. We would need everything we could get. Air transport units, air support units, paratroopers, and light, fast-moving troop units would all play a vital part in speeding up the solution. The Army, both Regular and Reserve components, would go into action, and the Navy would transport men and supplies to trouble-spots overseas.

I believe that someone in Washington must see this picture in the light of present-day conditions, lay down the missions, set up the requirements, plan for the administration of the Reserve organization and put through the sound, carefully thought-out legislation needed to implement the program.

Until that is done, we are all groping in the dark. In the meantime, I am afraid that piecemeal legislation before the mission and requirements are defined will cloud the picture more than ever.

Therefore, while I believe that the subject of Reserve Forces needs to be discussed so that we can do what must be done to resolve the problem, I ask you once again to look at the broad picture and to make recommendations; first, to help this country counter the existing threat to our survival; and next, to take care of individual difficulties.—END

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acquire Air Reserve Center space through the General Services Administration. GSA contracts for space in two categories: general purpose and special purpose.

The Air Force gets into a bind because GSA operates under a directive which establishes space for Air Reserve Centers as "general purpose." This means that GSA finds the amount of space Air Force needs for the Center at the cheapest price. Thus, although a Center must be convenient and attractive to draw Reservists, GSA often makes available such space as old warehouses in out-of-the-way places, which need major rehabilitation before they can be used.

In support of the manpower and facilities thoughts raised by General Hall, the Convention adopted two resolutions. One declared that enlisted Reservists are staying away from the program because they feared recall to active duty would subject their families to financial hardship. To dispel this fear, the resolution called for a Reserve "recall bonus," similar to the reenlistment bonus in effect for active-duty airmen, as a means of helping "recruitment within the Air Force Reserve."

The second resolution would have the effect of switching Air Reserve Center space from the "general" into the "special purpose" category. It called upon the Department of Defense to "take necessary action to have

(Continued on following page)

the space for promotion of the Air Reserve program declared special purpose space, which will permit the Air Force to acquire suitable and adequate space to carry out the long-range Reserve program."

Mr. Lerom addressed the conference principally on the need to make flying training available to Air Force ROTC students. "If we can get these boys into light aircraft," he said, "indoctrinate them, and give them the urge and incentive to fly, we're going to have people swamping the gates at the flying schools."

The Deputy Assistant Secretary said America's youth seemingly had more interest in "security and retirement" than in "flying windmills." It is imperative, he continued, "that we reach the young man at an age when he is impressionistic enough to realize that the Wright Brothers' not staying in the bicycle business is the greatest thing that ever happened."

Legislation to authorize pilot training for ROTC students was introduced in the closing days of the 83d Congress, too late for action. Mr. Lerom, however, quoted a member of the House Armed Services Committee as saying:

"We think this is wholesome, it's non-controversial, it will stimulate that second line of training facilities which this country so desperately needs, and we don't foresee any difficulty in the next session in its early passage."

The legislation would provide about thirty hours of pilot training for each student enrolled in the program. It would affect some 6,000 cadets a year in 188 colleges and universities.

Training would be given by CAA-approved flying schools at a cost estimated in the neighborhood of $12 an hour. The Air Force would save money in the long run, Mr. Lerom said, because the program would serve to eliminate those not suited for Air Force Aviation Cadet training before they ever undertook to get their pilot's wings at a cost of about $50 per hour for each Cadet.

"Certain of these individuals," Mr. Lerom said, "may be prone to airsickness. They may have a fear-to-fly complex that's completely unknown to them. They may be completely inept. And we feel that we will save money by eliminating those boys who shouldn't be in the Air Force Cadet program at ten or twelve dollars an hour in contrast to what it costs when they go to flying schools in grade as a commissioned officer."

Mr. Lerom's introduction of Col. John H. Batten of Wisconsin, who received the United States Air Force's Scroll of Appreciation for his services to the Reserve components (see "Airpower in the News," page 12), brought the first official announcement of AFA's plans to inaugurate a number of awards to units and individuals of the Air Guard and Air Reserve.

This program actually began this year when the Air Force Association sponsored the first annual Earl T. Ricks Memorial Trophy Race, a competition for ANG jet pilots held last July 24 between Ontario International Airport, in California, and Detroit. The race was won by Lt. Charles J. Young of the New Jersey Air National Guard (AIR FORCE, Sept. '54), and he received the Ricks Trophy from James H. Doolittle, Medal of Honor winner and founder of AFA, at the eighth annual Airpower Banquet.

Mr. Kelly announced that at next year's Reserve Forces Conference, in San Francisco, the Air Force Association will present four Reserve awards. One will go to the outstanding Air National Guard unit. Another will be given to the outstanding Air Reserve unit. The third will go to the Reserve airman responsible for recruiting the greatest number of airmen into Air Reserve wings and Air Reserve support units. And the fourth will be presented to an outstanding airman of the Air National Guard.

Winners, the moderator said, "will be determined on the basis of criteria established by the Air Force and the National Guard Bureau."

Generals Johnson and Wilson expressed satisfaction at the progress being made in Reserve and Guard flying activity. And in this area AFA delegates approved three resolutions.

The first called attention to the fact that ANG and Reserve units have demonstrated in the past that when properly equipped they possess the ability to carry out the tactical missions assigned to them. Further, the resolution went on, the so-called "weekend warriors" are taking an active part in air defense at the present time. Therefore, the resolution concluded, the Air National Guard and the Air Reserve should be given "first-line, tactical equipment to make them more fully capable of carrying out the vital defense mission to which they are assigned."

The second resolution in this category concerned the Air National Guard exclusively. It noted that many states have indicated a willingness to support and recruit additional ANG tactical squadrons and that these would give the opportunity to participate to officers and airmen presently unable

(Continued on page 76)

Deputy Ass't Secretary of the AF, John I. Lerom, stresses the need for AF-ROTC flying training.

Reservists will help to guard the Nation along with ADC, according to Lt. Gen. Leon W. Johnson.

Maj. Gen. William E. Hall, Ass't C/S, Reserve, decries "shotgun criticisms" of the Reserve program.

ANG units are now standing five-minute runway alerts, according to Brig. Gen. Winston P. Wilson.

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1st Lt. Charles J. Young of the N. J. ANG, winner of the first AFA Ricks Memorial jet race, accepts his trophy.

to join a Tables of Organization unit. In the interest of providing additional airpower at reduced cost, the resolution concluded, additional Air National Guard tactical squadrons should "be made available for assignment to those states which express their willingness and capability to support them."

The third resolution in the series concerned with flying activities called for additional training periods for rated members of the Reserve and Guard to compensate these people for the amount of time they are required to spend to meet minimum flying time requirements. This resolution observed that rated Reserve and ANG people must meet the same yearly flying requirements—under Air Force Reg 60-2—as their counterparts on active duty. Reserve and Guard flyers do not receive monthly hazard pay as do flyers on active duty. Instead, they receive a fraction of this hazard pay, based on forty-eight air base assemblies and fifteen days of active duty per year. It is virtually impossible to meet 60-2 requirements on such a schedule, the Reservists contend, and therefore they are required to give up additional nights and weekends—without compensation—to satisfy flying time minimums.

In his prepared presentation, General Wilson made reference to the Air Guard's having reached a strength in excess of 50,000, including about 6,000 officers. The Air Guard Council, noting the officer strength, found the Convention solidly behind it in a resolution calling for a change in USAF policy and ANG manning tables to permit a greater number of experienced airmen to be commissioned. Present age limitations further preclude commissioning many outstanding airmen, the resolution added, and called for modification of "existing policies and regulations so as to permit the commissioning of qualified enlisted personnel according to equitable and forward-looking criteria so that the officer corps may be enriched by the knowledge and techniques that long experience alone can provide."

Ninety minutes of discussion followed the formal presentations of the four panel members and covered such diverse subjects as bases for Reserve flying units, short-course training for Air Guard radar observers, and preservation of units upon recall to active duty.

Continued joint use of air bases with the Regular establishment as well as with civil aviation is the immediate answer to the problem of flying facilities for the Reserve, General Johnson said in reply to a question on this subject.

The ConAC commander was asked how the Reserve will fare in light of the fact that air base construction for the 137-wing Air Force program is lagging and some commands are required to station as many as three wings at a single base.

General Johnson noted that a Strategic Air Command objection to placing a Reserve wing on a SAC base had been overruled by the Air Staff. "We will build facilities," he said, "adjacent to the field on land tied into the field and use the same runway and control tower."

Joint use with MATS at Randolph Air Force Base has worked out satisfactorily, he said, and concluded: "I am anxious to see that we have joint use wherever possible."

Arthur R. Stelljes, an Air Guard jet pilot in New York, brought into focus the short supply of radar observers in ANG all-weather interceptor squadrons. The RO training, Stelljes pointed out, requires sixteen months to complete. Yet, he said, a competent radar instructor had indicated that only four weeks are required to teach a "reasonably bright young man" how to operate the radar equipment in the rear cockpit of the F-94 well enough to perform the required mission.

General Johnson reported that ConAC intended to step up its program of sending mobile training units directly to ANG bases in an effort to reduce the need for Guardsmen to leave their homes and businesses for long-course training schools.

But the RO problem admits of no easy solution. Under present policy, the applicant for radar observer wings must have the same qualifications as the applicant for pilot's wings. "We are," said General Wilson, "still recruiting pilots, and you have a hard time talking a man into getting into the back seat when he has to have the same requirements to get into the front seat."

Air Force, however, has two studies under way on the problem. One contemplates assigning ROs from the active-duty Air Force to the ANG units where they would set up an observer training program at the home base. The other contemplates a short tour of active duty following a concentrated, short-course training period at home. Evaluations are scheduled to be made within a month.

In reply to a query from Gerald Hayes, Wisconsin Wing Commander, General Hall and Mr. Lerom discussed Air Force plans for improving relations between the Reserve components and communities.

The basic plan for bettering community relations has its foundation in Reserve Information Flights. These flights are composed of Reservists who work regularly in the information services field and who can work toward making their communities Reserve conscious. Additionally, Mr. Lerom disclosed, a Service Council has been established at his level in the Air Force. The Council includes members from the Regular Air Force, Air Force Reserve, Air ROTC, and Civil Air Patrol. It develops plans and polities, he said, which are passed on to the local Information Flights for guidance.

General Johnson told the conference that the Air Force is "trying to make sure" that Reserve units recalled in the future will not be broken up and members moved out as individual replacements, as happened in the majority of instances at the time of the recall for the Korean war.

The issue was raised by Merle Else, of Minnesota, who recounted the history of a Reserve wing in his state which was recalled for Korea, then "broken up and individuals sent all over to fill in holes throughout the United States." As a result, Else said, the wing is experiencing difficulty in attracting officers and airmen.

"I think," General Johnson said, "that everyone who has dealt with the Reserve problem knows that [break-up of units] has been one of the things that bothered the Reservists as much as anything else on the Korean recall. We are trying to make sure that that does not happen in the future, but we cannot guarantee that they will not be recalled and then broken up."

Frank T. McCoy, Jr., of Nashville, chairman of AFA's Air Reserve Council, warned, however, that it is wishful

thinking to believe units will be recalled and kept together. "I hate to see any of us hold on to what may be an illusion that we may go as a unit," he said.

The ConAC commander reported that he favored contract school training for Reserve units, wherever possible. Under this system, Air Force contracts with college instructors to teach Reservists during their scheduled meetings at a cost of about seventy cents per hour for each student. One such program in Seattle, General Johnson said, gives Reservists college credits.

General Johnson had welcome news for Reservists on flying status in the Seattle area. Previous attempts to establish a flying program in Seattle have met with little success. But, said General Johnson, the Navy now has agreed to the placement of one squadron at Sand Point. Another squadron will be established at Payne Field. Both, General Johnson predicted, will be operational "within a couple of months."

The conference learned that Air Force has started a program to update World War II observers, whose ratings will become obsolete in 1958 unless they are retrained.

Col. Harold E. Todd, executive to General Hall, reported that each of the thirty Reserve flying training centers will be authorized a separate squadron to retrain the old observers as navigator-observers.

"The old rating of observer is obsolete," Colonel Todd said, "so Air Force is planning to train 3,300 navigators through local flying units."

The problem of attracting airmen into the Reserve program is being whipped in several ways, according to General Johnson and Mr. Lerom.

ConAC's commander said enlistments at Hensley Field in Dallas had hit the 600 mark, and more than 500 airmen now were enrolled in the wings in Detroit and at Mitchel Air Force Base. ConAC, General Johnson reminded the conference, also has authority to take into the Reserve program 14,500 non-priority servicemen.

Mr. Lerom, in urging continued emphasis on recruiting, reported that the Reserve Records Center in Denver has "definite plans under way to furnish Reserve units in the various communities with the names of those people who are coming off active duty and going back home."

If Reserve units will contact these airmen, he said, "show them what there is in the program, give them a cooling-off period when they are tired of the Air Force, they will come back."

There is no airman problem in the Air Guard where, General Wilson

(Continued on following page)

AF-ROTC Cadet Maj. Kenneth C. Borcher was sworn in as a 2d Lt. by AF Chief of Staff Gen. Nathan F. Twining in a ceremony during the Convention. A 1954 Omaha University graduate, Borcher is a member of the Arnold Air Society.

said, more than 44,000 enlisted men were enrolled on June 30. By the end of Fiscal Year 1956, he added, the "present planned program of 725 units will have grown to a total strength of approximately 68,200 officers and airmen." He attributed the attainment of Guard strength to the "complete support of the states and communities where Guard units are located."

Both Generals Johnson and Wilson firmly established the operational capability of the Reserve components in the over-all airpower structure.

The Reserve has thirty flying wings and two depot wings. The Air National Guard has twenty-seven flying wings. Of the two, the Guard is further along in jet equipment. General Wilson disclosed that fifty-four of the ANG's eighty-seven tactical flying squadrons are equipped with jet aircraft, including Republic F-80s and F-84s, North American F-86s, and Lockheed F-94s.

To get more units into jet aircraft, he said, unit equipment has been shaved from an authorized twenty-five to approximately ten or twelve. Air Force, General Wilson reported, has programmed sufficient aircraft in the next year to convert nine more Guard squadrons to jet operation, which will give the ANG a total of sixty-three jet squadrons by next June 30.

In substance, the conference established that the Reserve and Guard have experienced a year of growth and are assets of considerable value in any evaluation of the nations' total airpower potential. The year ahead holds promise of greater growth but this will not be accomplished easily.

The Reserve still will require concentration of effort on enlisting airmen and, although $18 million has been allocated for construction this year and another $15 million is programmed for next year, facilities will remain a major headache.

The Guard still will have a shortage of suitable air-to-air and air-to-ground ranges and there is no guarantee that, in an expanding active-duty Air Force, allocations of jet aircraft will keep abreast of the programmed requirement.

The conference skirted any general discussion of policy for the Reserve components, but the Association's National Air Reserve Council took official notice of the place policy occupies in any Reserve program.

The Council sponsored, and the Convention approved, a resolution calling upon the Executive Department to direct that Reserve officers called to active duty under Section 252 of the Armed Forces Reserve Act be paid out of Reserve and Guard appropriations and be excluded from the authorized troop ceiling of the active-duty Air Force.

This act provides that there shall be Reserve officers on active duty at all headquarters of the Air Force to assist in preparing and administering Re-

serve policy. For this purpose, the act says, these people will be additional officers to the staff to which they are assigned.

The Department of Defense, in concert with the Bureau of Budget, however, has ruled that these officers are strictly on active duty and therefore come within the officer ceiling established by Congress.

This first Reserve Forces Conference clearly established that it will be a major event at all future Association Conventions. Scarcely had it been concluded, in fact, when the decision was made to open the 1955 Convention in San Francisco with this kind of forum. The principal difference between the '54 and '55 event will lie in time: the San Francisco conference will allot almost four hours to the forum, instead of the two and one-half hours it received in Omaha.

The problems of the Reserve components cannot, of course, be solved in four hours. Nine years after VJ-Day it is still questionable, as General Kenney told the conference, that a sound program exists.

But such conferences, in that they provide the medium for the broadest exchange of views between the Reservist and those who make and administer policies affecting him, serve to spotlight the manner in which the Reserve components can contribute their share to countering the threat to survival in the Hydrogen Age.

This first conference was a case in point.—END

FACT

New Gilfillan GCA Quadradar only complete, efficient, lowest-cost, best-proven, lightweight radar traffic control system available today!

PROOF

Check these exclusive and vital advantages:

- ☐ *Only* the Gilfillan GCA Quadradar provides *all four* important airport traffic control functions—surveillance, final approach, height-finding and airport taxi—in a single, lightweight one-scope equipment.
- ☐ All the Gilfillan GCA Quadradar advantages are already built in and proven. The price will not increase because of need for new designing, delays for "debugging" or the need for further proving. And the new equipment costs less than other lightweight one-function radars!
- ☐ *All* controls, both electronic and mechanical, are *remoted* to operator console. At the turn of a switch, the operator selects any of four radar displays within five seconds!
- ☐ Instant multiple runway coverage at the turn of a switch. Both antennas rotate electrically through 360°. No need to go out to the field to realign the entire equipment. Surveillance antenna tilt through 10° is also controlled remotely.
- ☐ Operates on 50 or 60 cycle power. Sets up, ready to operate within 2 hours.
- ☐ 20 mile range on final approach. Operator can switch, in seconds, to 10 mile display as aircraft comes in.
- ☐ Linear or logarithmic range marks and either fast or slow scan. Operator can switch, instantly, to logarithmic sweep and fast scan for greater precision during final critical approach miles.
- ☐ Surveillance display and airport taxi display can be off-centered instantly, giving maximum range in any desired direction.
- ☐ Provides widest angle of coverage with 30° in azimuth and 30° in elevation. Operator can also select either 30° or 7° elevation coverage.
- ☐ Circular polarization, eliminating rain or snow clutter, is already included in basic equipment.
- ☐ Completely flexible; operable without modification in a truck, on the field or in a building.

PROVEN PERFORMANCE GUARANTEED DELIVERY

Only the Gilfillan GCA Quadradar can bring the known reliability of components already proven under most adverse conditions in world-wide service. Built by the company with by far the greatest experience—builders of 500 GCA equipments.

Maintenance and training do not present new problems. Components are interchangeable with current GCA equipments now in operation in 28 countries around the world. Experienced GCA operators and maintenance personnel need only a few minutes further instruction.

Only Gilfillan provides field service through 200 Gilfillan technical experts located throughout the world.

Only Gilfillan offers a firm, low price on a superior, already-proven, in production, complete 4-way radar *now;* and a firm delivery date (10 months from date of order) backed by Gilfillan's unmatched record of on-time delivery.

Gilfillan

LOS ANGELES

of research and development," and against AFA's Statement of Policy that "our present air research and development programs are lacking, and we call for expansion."

The SAC briefing prompted widespread coverage of the claim made by Maj. Gen. William H. Blanchard, Deputy Director of Operations for SAC, that the Command's jet bombers, with air refueling, could fly non-stop around the world in fewer than forty-eight hours. The *New Orleans States* (circulation: 96,055) gave the statement a six-column headline. Such influential newspapers as the *Kansas City Star* (circulation: 344,580) and *Des Moines Tribune* (circulation: 142,862) gave detailed coverage to the SAC briefing.

The Symposium speakers made known their respect for the Air Force Association. Secretary Quarles referred to the "important part" the organization has played in "the rise of airpower to its present key position." Under Secretary Murphy paid tribute to his "distinguished and experienced audience." Dr. Kelly, in commenting on the complexity of the air defense issue, referred to AFA's "professional perspective of the problem." Representative Cole commented on the need for organized effort to direct the force of atomic energy in the proper channels or resist the force, if used in open warfare, and said, "There is no group of individuals more competent to fulfill that responsibility, nor upon whom rests greater degrees of responsibility, than the organization which you represent."

The morning and afternoon sessions were broken by a luncheon meeting which featured as principal speaker Gen. Nathan F. Twining, Air Force Chief of Staff. General Twining offered congratulations to AFA for the seven years of very constructive work it has done. He said:

"The Air Force is very happy with the association we have with your organization. You have patted us on the back when you felt a little praise was needed, and I might say you have been most critical at times when you felt that was appropriate. I hope that it continues that way because that is the best thing for the nation.

"This is a gathering of people who know what airpower is and what it means to the security of the United States.

"You are aware of the new capabilities of airpower.

"You know of the increasing impact of airpower in war, and its rising influence in peace.

"You want the people of the United States to understand these developments. You want them to know what is being done in the air—what is being done at their expense and for their protection."

General Twining's address became one of the feature newspaper articles of the day. The *San Angelo (Tex.) Standard* (circulation: 10,877) headlined, "AF Leader Cites Need for Coolness"; the *Baton Rouge (La.) State Times* (circulation: 31,812) said: "Leader Says US Won't Launch War"; and the *Orlando (Fla.) Sentinel* (circulation: 38,770) added the headline: "Twining Says US Must Ready Nuclear Power." The little *Beaver (Pa.) Valley Times* (circulation: 18,847) editorialized, as did many larger-circulation papers throughout the country, on General Twining's remarks that "our fingers are not heavy on the trigger and we hope for peace."

The luncheon program also featured remarks by actor Jimmy Stewart, former national officer of AFA, who attended all Conference functions, and served as director, master of ceremonies, and even script-writer for the Wing Ding on August 20. Stewart was the key figure in bringing the Conference to the attention of millions of theater-goers. Paramount News covered the arrival of Stewart at the Convention, being greeted by General LeMay and Jimmy Doolittle, the air demonstration at the SAC briefing, and the presentation of an AFA trophy (a model of the Boeing B-47) to Stewart at the Wing Ding program. The newsreel was shown in 5,000 theaters across America and thousands of others throughout the world.

Stewart had just completed his latest picture, "Air Command," based on the activities of SAC. In telling the luncheon audience of his experiences at SAC bases, he commented: "There has probably never been at any time a group of men who can compare with the combat crews of SAC, who must now be prepared in a single aircraft on a single sortie to perform a mission that a few short years ago was assigned to a whole Air Force. I personally believe that in every town and city in America, these men should walk the streets with their heads held high in the knowledge that they are honored and cherished by every one of us for whatever they are and their willingness to hold our survival in their bare hands."

The Wing Ding program featured the appearance of Paul Lavalle, conductor of the Cities Service Band of America, the popular radio musical organization. As Arthur F. Kelly, master of ceremonies for the Airpower Banquet, described it "People do wonderful things for us. A few days ago, for example, a well-known conductor, busy with network engagements, learned of our Wing Ding program, and came all the way from New York City specifically to direct the SAC band and present his latest composition to our Convention. You heard it last night—The United States Air Force March." Lavalle's march has been recorded by RCA-Victor for release shortly before Christmas.

On August 16, Lavalle told his radio audience of his forthcoming trip to the AFA meeting in Omaha, and on August 23 described to millions the importance of the Conference. His comments were made over the NBC network of 187 stations.

The Airpower Banquet, at famous Boy's Town near Omaha, climaxed the meeting. Here the annual Airpower Awards of the Association were presented. Here the principal speaker was the Hon. Harold E. Talbott, Secretary of the Air Force, who took the occasion to deliver his feature address of the year.

(Continued on following page)

In the words of the* Omaha Herald, *'This was no playboy convention. The delegates had other things on their minds than pranks and night clubs. The speakers included some of the best-informed men in America on the subject of national defense. And they came here to talk turkey, not platitudes.'

PEACE AND FREEDOM — CONTINUED

AFA's top award, which went to Secretary of State John Foster Dulles, was front-page news throughout the nation. Unable to be present, Secretary Dulles sent the following message to the Convention:

"I am delighted and deeply honored to have been chosen the recipient of the 1954 H. H. Arnold Award. My satisfaction in receiving the trophy which accompanies the award could be increased only if I were able to accept it in person. Unfortunately, my schedule obliges me to forego that pleasure.

"The effective work of the Air Force Association is something of which I am very much aware, and I am personally grateful for the part the Association plays in promoting and safeguarding our national security. Please convey to the members of the Association my thanks for the honor they have bestowed on me and give them my warm wishes for another successful Convention."

Secretary Talbott devoted most of his address to the men and women of the Air Force, although most papers gave the headline to his announcement that during the year an Air Force test plane had broken the world's speed record at 1,650 mph, or his announcement that another Air Force test plane had more recently broken the world's altitude record.

His address underlined, as never before to millions of Americans, the manpower problems facing the Air Force. It became the subject of many editorials. The *Wichita (Kans.) Beacon* (circulation: 105,688) concluded: "If we are to make the Air Force the first line of defense, then we would be doing ourselves a favor by making that service sufficiently attractive to keep experienced men in the service."

Rebroadcast regionally by Omaha radio station KFAB, one of the most powerful stations in the midwest, Secretary Talbott's address was featured on several network TV and radio programs, including the "Sunday Night News Special" of CBS on August 22, the "CBS Morning Show" on August 23, the "World News Round-Up" of NBC on August 22, and the "Mutual Radio Newsreel" on the same date.

Secretary Talbott's address was broadcast to all units of the Air Force through a special Armed Forces Radio project. The Armed Forces Press Service, the weekly clipsheet of the Department of Defense which is widely used by camp newspapers of all the services, contained five major articles on the AFA Conference. In addition, the Voice of America beamed out commentary on the Convention to the nations of the world.

In his address, Secretary Talbott referred to the "splendid job" AFA is doing "year after year for the Air Force." He said, "I just want you to know how much your help and support mean to me in my job. We are bound together by a common bond and intense pride in our wonderful Air Force."

Our Special Thanks . . .

to the following for sponsorship of these items and events at AFA's Convention:

Allison Division, General Motors Corp.
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Airpower Brunch

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Designing and printing programs

Seeger Refrigerator Company
Registration badges

Storz Brewing Company
Beverages and staff assistance

United Airlines
Co-sponsorship of Fashion Luncheon

When it was all over, it could be honestly reported that while the members of the AFA family had indeed rebriefed themselves on the major security issues of the moment, they had also spread the message—a somber and provoking message—to the people of the nation and to many peoples of the world.

The *Binghamton (N. Y.) Press* (circulation: 60,098) summed it up this way:

"Reports of the speeches made at the Air Force Association conference at Omaha give every American occasion for thought. The talks, delivered by men who can speak with authority, dealt with problems of military strategy in the Hydrogen Age. What made them thought-provoking was the underlying assumption that there can be another major war and that, if it comes, it will be fought with hydrogen weapons. . . . The public now understands what Mervin J. Kelly, president of Bell Telephone Laboratories and a high Defense Department advisor, meant in saying that hydrogen weapons have reached 'a colossal, frightening' destructive power fraught with 'unmeasurable danger to civilization.'"

But it was left for the *Omaha Herald* (circulation: 131,926) in a farewell editorial, to say this about AFA's stay in Omaha:

"Many people agreed with most of what was said. Perhaps others did not. But either way, it was a stimulating experience for this midwestern community to play host last week to the Air Force Association.

"For this was no playboy convention. The delegates had other things on their minds than pranks and night clubs. The speakers included some of the best-informed men in America on the subject of national defense. And they came here to talk turkey, not platitudes.

"Specifically, they came to talk about the problems of a nation which exists under the dark shadow of the H-Bomb—a weapon with the explosive force of 20,000,000 tons of TNT.

"Naturally they didn't come up with any answers. Those will have to be reached, if at all, in Washington and Moscow and points between. But the men who led the discussions in Omaha know about bombs and they know about airplanes, both from practical experience. What they said will be listened to respectfully in the great capitols. And it will have an effect on the thinking of those who will make the ultimate decisions.

"It's a mighty useful organization, this Air Force Association. We hope its leaders will keep pitching, and that they will see fit to come back to Omaha for another session, some year soon."—END

INDEX TO ADVERTISERS

After his election as AFA's new President, John R. Alison (right) is congratulated by radio and TV star Arthur Godfrey, a guest at the Omaha Convention.

AFA CONVENTION NEWS

What the Delegates Did

AFA's eighth annual Convention, though held in the smallest city ever to play host to such a gathering, was the biggest and, perhaps, the most successful in AFA history. A few statistics illustrate the size of the affair: the fifty-car motor pool made 3,000 trips, traveled a total distance of once around the world, got only one ticket for speeding and one dented fender.

Some 25,000 pieces of silverware and china were toted from the Paxton Hotel to Boy's Town for the Airpower Banquet Saturday night, August 21, and 150 cooks and waiters prepared and served the 400 pounds of shrimp and 2,400 pounds of prime ribs of beef consumed by the 1,784 people present.

More than 1,000 of Omaha's hotel rooms were filled with Convention delegates and guests. And by the end of the Convention, some 50,000 people had seen the Airpower Exhibits on display in the City Auditorium.

Convention business sessions got under way after outgoing President George C. Kenney, in his Annual Report, outlined the progress the Association made during his year in office (see page 89). Delegates ground out a record number of resolutions (thirty-six) and named a new slate of National officers. They heard speeches by Brig. Gen. Arno H. Luehman, commander of the new 3500th USAF Recruiting Wing; and Brig. Gen. Brooke E. Allen, chief of USAF Information Services (see page 87).

And Sunday, as the Convention wound up with the Airpower Brunch, fifty-two Family Awards (the largest number ever presented) went to individuals and units. The two top

(Continued on page 86)

AIR FORCE ASSOCIATION'S NEW LEADERS

Elected for the year 1954-55 at Omaha, Nebr., August 21, 1954

PRESIDENT
John R. Alison
Hawthorne, Calif.

SECRETARY
Julian B. Rosenthal
New York, N. Y.

TREASURER
Samuel M. Hecht
Baltimore, Md.

REGIONAL VICE PRESIDENTS

New England Region *Thomas C. Stebbins*	**Northeast Region** *Randall Leopold*	**Central East Region** *Willard W. Millikan*	**Southeast Region** *Jerome A. Waterman*	**Great Lakes Region** *Glenn D. Sanderson*	**North Central Region** *Edwin A. Kube*
South Central Region *Frank T. McCoy, Jr.*	**Midwest Region** *J. Chesley Stewart*	**Southwest Region** *Thomas D. Campbell*	**Rocky Mountain Region** *Wm. Thayer Tutt*	**Northwest Region** *Winfield G. Young*	**Far West Region** *Michel Pisani*

Pacific Ocean Area Region
Roy J. Leffingwell

NATIONAL DIRECTORS

Chairman of the Board—George C. Kenney, New York, N. Y.

George A. Anderl *Chicago, Ill.*	**Walter T. Bonney** *Washington, D. C.*	***Edward P. Curtis** *Rochester, N. Y.*	**John J. Currie** *Paterson, N. J.*	***James H. Doolittle** *New York, N. Y.*	**Merle S. Else** *Minneapolis, Minn.*
George D. Hardy *Hyattsville, Md.*	****John P. Henebry** *Park Ridge, Ill.*	***Robert S. Johnson** *Garden City, L. I., N. Y.*	***Arthur F. Kelly** *Los Angeles, Calif.*	***Thomas G. Lanphier, Jr.** *San Diego, Calif.*	**W. Barton Leach** *Cambridge, Mass.*
Carl J. Long *Pittsburgh, Penna.*	**James H. McDivitt** *Los Angeles, Calif.*	**Rev. John R. McLaughlin** *Englewood, N. J.*	**Clements McMullen** *San Antonio, Tex.*	****Dr. Jerome H. Meyer** *Dayton, Ohio*	****Msgr. Wm. F. Mullally** *St. Louis, Mo.*
Larry D. Peters (ex-officio) *Cmdr., Arnold Air Society Omaha, Nebr.*	****Charles W. Purcell** *Baltimore, Md.*	****Mary Gill Rice** *Huron, Ohio*	**Nancy W. Scherer (ex-officio)** *Inglewood, Calif.*	***C. R. Smith** *New York, N. Y.*	***Carl A. Spaatz** *Washington, D. C.*
****Thomas F. Stack** *San Francisco, Calif.*	***Harold C. Stuart** *Washington, D. C.*	****T. F. Walkowicz** *New York, N. Y.*	****Gill Robb Wilson** *New York, N. Y.*	****Morry Worshill** *Chicago, Ill.*	* Permanent member ** Incumbent

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AIRCRAFT CORPORATION

CHULA VISTA AND RIVERSIDE CALIFORNIA

WHAT THE DELEGATES DID

Arthur Godfrey promotes Gen. Kenney to "admiral" in the Nebraska Navy.

was elected President of AFA for the coming year. Alison, a 41-year-old World War II fighter ace and now administrative vice president of Northrop Aircraft, Inc., was elected by acclamation. He succeeds George C. Kenney, who became Chairman of AFA's Board of Directors.

At the same meeting, a perennial favorite, Julian B. Rosenthal, was reelected Secretary for the seventh consecutive time, and Samuel M. Hecht was renamed Treasurer. Five new Regional Vice Presidents were elected and eight others were returned to office.

Of the National Directors elected, ten were first-timers on the Board.

daysburg, Penna., in the Auxiliary's highest office. Mrs. Doolittle was named new Board Chairman of the Auxiliary. Ten new Board members were also elected. They are Eleanor Brazda and Phyllis Christensen, California; Frances Karr, Michigan; Mary Jane Long and Tess Ferry, Pennsylvania; Marie Moyer, Indiana; Emma Binns, New Jersey; Ruth Lauxman, Missouri; Mary Bolinger, Ohio; and Marian Johnson, Illinois. Mrs. Miller became an ex-officio member of the Auxiliary's Board.

Billie McLaughlin of Encino, Calif., was named new Auxiliary Secretary, and Nettie Richardson of Pittsburgh was reelected Treasurer. The new

The Thunderbirds, precision jet-flying team, put on a thrilling exhibition over Offutt AFB.

Convention Chairman Arthur C. Storz welcomes the delegates.

Jimmy Stewart admires a B-47 model presented him by Gen. Curtis LeMay.

awards were presented at the Airpower Banquet, to George A. Anderl, Chicago, named AFA's Man of the Year; and to the Santa Monica (Calif.) Area Squadron, named Squadron of the Year. Squadron Commander James Czach accepted the trophy for his unit. (See accompanying box for full list of award winners.)

But Convention-goers had time for fun, too. A highlight of the four-day meeting was the Western Wing Ding and Airpower Ball held Friday night in perfect weather under the stars at Peony Park. Film star and AFA veteran Jimmy Stewart emceed the three-hour stage show that featured the USAF revue, "Tops in Blue." Also on hand throughout the Convention was radio and TV star Arthur Godfrey, who spoke briefly at the Symposium luncheon Friday and also at the Airpower Banquet Saturday evening.

It was a particularly good Convention for the Santa Monica Area Squadron. Not only was the unit named Squadron of the Year, but one of its members, John R. Alison,

The new President of the Ladies Auxiliary, Nancy W. Scherer, automatically became an ex-officio member of the Board (for full listing of current Officers and Directors, see page 84).

The election of Mrs. Scherer to head the Auxiliary in the coming year wound up what had been a busy week for the ladies. The Auxiliary, celebrating its second birthday, reported an increase of eight units in the past year, for a total of twenty-seven units (including four Auxiliary Wings). Auxiliary delegates, with headquarters in the Paxton Hotel, attended their own business sessions and other affairs "for ladies only." These included a Fashion Luncheon on Friday and an Invitational Luncheon honoring Mrs. James H. Doolittle the following day at the Omaha Country Club.

The Auxiliary's new president, a former Navy WAVE, now from Inglewood, Calif., is the wife of Ray Scherer, Commander of the Los Angeles Squadron. Mrs. Scherer succeeded Marietta C. Miller of Holli-

Vice President for the Western Region is Rose Regan of Long Beach, Calif. Beulah Carr of Chicago is the new Central Region Vice President, and Kathleen Murray of Pittsburgh was named to head the Eastern Region.

Eight of the thirty-six resolutions passed on the floor at the Convention business sessions dealt with AFA matters. One provided a preamble for the National Constitution.

The delegates authorized AFA's President to appoint a National Advisory Council to the Ladies Auxiliary, to be composed of past or present Regional Vice Presidents or Wing Commanders. As a result of other delegate action, AFA Associate members may now serve on non-policy-making committees, and the exclusive right of Active members to vote and hold office was spelled out for the first time.

Two resolutions dealt with the move to associate with the Arnold Air Society. One limited the period of the association to a trial period of two years, in keeping with action taken previously by the Society. The

other permits the National Commander of the Arnold Air Society to be an ex-officio member, without a vote, on AFA's Board of Directors. The present National Commander is Larry D. Peters of the University of Omaha, Omaha, Nebr.

Another resolution urged that dues be paid through local Squadrons instead of directly to National Headquarters, to help "keep the gang together." Delegates also voted to admit to the floor in the future only resolutions that have been submitted in writing at least two weeks before an AFA Convention.

Finally, the Constitution was amended to empower the delegates, in convention, to select the site of the Convention two years hence. Such a site would then be investigated by a committee appointed by the President before final selection, with the committee reporting to the Board. If the Board rejects the delegates' selection and picks another site from among cities recommended by the committee, that selection must be approved by delegates at the next Convention, and in the final selection, the will of the delegates shall prevail.

There was a good deal of discussion at the Convention about one of the Air Force's biggest problems—finding the people to man its wings. The problem was posed at the first night business session on Thursday, when Brig. Gen. Arno H. Luehman, commander of the 3500th USAF Recruiting Wing, Wright-Patterson AFB, Ohio, told the delegates what the Air Force is doing to meet the problem at the grass roots level—local recruiting. He stressed the fact that recruiting should appeal to the highest type of youngsters and that "the most costly thing we can do is recruit the wrong people," with training costs so high.

Since the Air Force was established, recruiting has been conducted jointly

(Continued on page 89)

Nancy Scherer, left, who was once a Navy WAVE, was chosen as new national President of the Auxiliary by the ladies. She succeeds Marietta C. Miller, shown here with her.

★ AFA FAMILY AWARDS ★

THE PRESIDENT'S TROPHIES

George A. Anderl, Chicago, Ill., AFA's Man of the Year.
Santa Monica Area Squadron, Santa Monica, Calif., AFA's Squadron of the Year.

UNIT PRESIDENTIAL PLAQUES

Pasadena Area Squadron—Reserve Affairs Plaque.
Queens Squadron #1—Youth Aviation Education Plaque.
St. Louis Squadron—Membership Plaque.
San Diego Squadron—National Defense Plaque.
Wright Memorial Squadron—Civil Aviation Plaque.

INDIVIDUAL PRESIDENTIAL PLAQUES

Walter T. Bonney, Washington, D. C.
John L. Carr, Chicago, Ill.
John J. Currie, Paterson, N. J.
M. Josephine Groesbeck, State College, Penna.
Samuel M. Hecht, Baltimore, Md.
John P. Henebry, Park Ridge, Ill.
David F. Jamieson, Washington, D. C.
Edwin A. Kube, Minneapolis, Minn.
Leroy Kwiatt, Skokie, Ill.
Stephen F. Lea, St. Louis, Mo.
David F. McCallister, Folsom, Penna.
Willard W. Millikan, Alexandria, Va.
James P. Regan, Long Beach, Calif.
Earle P. Ribero, Albany, N. Y.
Glenn D. Sanderson, Battle Creek, Mich.
Peter J. Schenk, Fayetteville, N. Y.
Donald P. Spoerer, Chicago, Ill.
Arthur C. Storz, Omaha, Nebr.
T. F. Walkowicz, New York, N. Y.

PRESIDENTIAL MERITORIOUS SERVICE BARS

Robert F. Emerson, Lansing, Mich.
George D. Hardy, Hyattsville, Md.
Randall Leopold, Lewistown, Penna.
David S. Levison, Brooklyn, N. Y.
Joseph D. Myers, Venice, Calif.
Michel Pisani, San Francisco, Calif.
Thomas F. Stack, San Francisco, Calif.
Thomas C. Stebbins, Worcester, Mass.
Wm. Thayer Tutt, Colorado Springs, Colo.
William W. Walker, Los Angeles, Calif.
Marry Worshill, Chicago, Ill.

MEDALS OF MERIT

Vernal L. Boline, Minneapolis, Minn.
Mildred H. Buck, Boston, Mass.
James A. Doeler, South River, N. J.
Flint O. DuPre, Washington, D. C.
Nicholas J. Gyopyos, Los Angeles, Calif.
Herbert B. Kalish, Washington, D. C.
Frances E. Karr, East Lansing, Mich.
Max K. Kennedy, Clearfield, Utah
Norman M. Lauer, Skokie, Ill.
Merrill E. Levy, Los Angeles, Calif.
Frank T. McCoy, Jr., Nashville, Tenn.
Hazel B. Riley, North Hollywood, Calif.
Walter R. Savage, Washington, D. C.
Donald W. Steele, Falls Church, Va.
Winfield G. Young, Seattle, Wash.

"Squadron of the Year" Commander James F. Czach.

George Anderl, AFA's new "Man of the Year."

No scrambling for seats at this party

Ever been embarrassed seating your guests for television? Did some of them have to take the side rows and strain to see the screen, like the last arrivals at a drive-in movie?

You'd have no such problem if your receiver had *"Panoramic Vision"*—an exclusive Stromberg-Carlson feature.

We developed this exclusive because we not only manufacture TV—we also look at it, in our own homes. And even though a Stromberg-Carlson—pardoning our pride—is as fine as anything on the market, it would be no fun at all if some of the viewers received only a distorted, side-of-the-room look.

Hence *"Panoramic Vision."* This ingenious design, using a cylindrical television tube fitted snug against a curved safety glass, eliminates the usual "shadow box" effect and does away with blind spots. Result—at least twice as many people can see a perfect picture, in complete comfort.

How many people can see a TV program is hardly a concern in military life. But the same ingenuity which solves problems on the home front can also contribute mightily to armed forces needs. We've done many bang-up jobs already for the armed forces of Uncle Sam and we've more in work. Have *you* a problem we can help to solve?

There is nothing finer than a

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Telephones and Central Office XY Dial Equipment

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Sound and Public Address Systems

with the Army. In May of this year, General Luehman was told to be prepared to take over all Air Force recruiting by July 1, under the Air Training Command. The principal reason for the Wing he heads, he said, is "to help the 1,800 recruiters or salesmen in over 800 communities."

"To reach our goal," he continued, "these salesmen, representing the biggest and most important business in the world, must be truly effective in terms of operating in a favorable climate of public opinion; acquainting the potential recruit with the advantages and opportunities of an Air Force career; and closing the sale." General Luehman described all recruiting as local, and the personal contact (between recruiter and potential recruit) is "the pay-off of any advertising, publicity, or community relations program." The true measure of everything we do, he said, must be how much will it ultimately help the recruiter.

An attempt has been made, since the Air Force took over its own recruiting, to discover the factors that motivate potential recruits, aside from the obvious ones of patriotism, adventure, school opportunities, and security, General Luehman said. Public-service advertising must be used to influence these factors, he pointed out. The general congratulated AFA for bringing key members of industry to the Pentagon during the recent Manpower Conference, when they were given a first-hand picture of the manpower situation.

General Luehman felt that only the surface had been scratched in the area of community effort and support, and that national organizations of common interest with roots in the community such as AFA, CAP, the Junior Chamber of Commerce, and veterans' groups, should be encouraged to help the Air Force fill its manpower requirements.

In closing, he called on AFA to "get on our first team in your various communities and help us develop a better acceptance of the role of the Air Force in our society by helping to cement a solid Air Force-community relationship."

Delegates heard about another aspect of the community relations problem at the Saturday morning business session, when the Air Force's chief Information Officer, Brig. Gen. Brooke E. Allen, appealed for AFA's help in solving still another problem the Air Force faces.

In community relations, the key to any solution is public understanding, he said. "As a result of your experience," he told delegates, "each of you has a far greater understanding of the Air Force, its activities, and above all its importance, than your civilian neighbors." With help from AFA members, General Allen went on, community relations could become more harmonious.

One major problem the general pointed out was jet noise and possible hazard to communities around major air fields. General Allen said that Gen. Nathan F. Twining, Chief of Staff of the Air Force, had recently established a committee of fourteen general officers, headed by Maj. Gen. Herbert B. Thatcher, Assistant Deputy Chief of Staff for Development, to "undertake a study of the noise and hazard problem." The committee is empowered to take immediate action to improve conditions.

Other problems which General Allen felt could be solved through better public understanding included public discrimination against service personnel, rent-gouging and overcharging by merchants, and public misconceptions about service life. For example, he said, some civilians believe servicemen pay no income tax, that they "enjoy fantastic benefits and stupendous bargains at the Post Exchange and the Commissary."

To illustrate his point that the community problem raised by jet noise could be minimized by public understanding, General Allen described one recent case for AFA delegates. An elderly gentleman in a midwestern city, the general said, was most annoyed by noise from the base near his city. Finally the base commander persuaded the gentleman to tour the base and see first-hand the men and equipment responsible for the noise. Now, said General Allen, night take-offs don't disturb the man any longer. He now says, "When a jet arouses me, I lie quietly there in bed and say a little prayer. First, to thank God some alert youngster is up in that jet watching over me. Second, I ask that the plane and boy get safely back. After that, with no trouble at all, I turn over and go back to sleep."

In the final AFA business session, the afternoon after General Allen's speech, new officers were elected and resolutions acted upon. Then, when the final gavel was sounded, delegates could look back on a full year of activity and progress (see the Annual Report, at right). They could, equally well, look forward toward the year ahead—and toward the 1955 Convention in San Francisco.—END

1953-54 Annual Report

★ ★ ★

Here's how AFA's outgoing President, George C. Kenney, reported the year's activities while he was in office

THE PAID membership of Air Force Association, in keeping with the provisions of the Constitution, is 37,589, which is a net gain of 2,221 members over the membership figures of 35,368 reported at the 1953 Convention. Our membership renewal rate for the past year has been seventy-eight percent, a gain of three percentage points over the previous twelve-month period.

While our membership position has improved since we last got together in Convention, I'm far from satisfied with it, and I urge you to expand your membership efforts. Right here in Omaha it has been proved that initiative and hard work can do the trick. Art Storz, our Convention Chairman, has been personally responsible for obtaining 1,533 new members—the most successful individual effort of the past year. Also, a membership campaign at nearby Offutt AFB netted 435 new Service members, thanks to the cooperation of Col. A. J. Beck, the base commander, and Lt. Harry J. Dalton, Jr. who assisted him.

There have been other good jobs. For example, a drive by the St. Louis Squadron at Scott AFB produced 250 Service members. And several new AFA units have given our older Squadrons a real race in this membership business. Among these are the Clearfield, Utah; Lincoln, Nebr., and Rainier, Wash., Squadrons. In July, for instance, only the second month after their Charter was issued, our Lincoln outfit signed up more than 200 new members. During the year, 3,306 new members were obtained by Squadrons and Wings. Meanwhile, our units have increased their membership renewal activity. Outstanding in this work are the New York and California Wings, and the San Francisco, St. Louis, and Brooklyn Squadrons.

(Continued on following page)

ANNUAL REPORT — CONTINUED

Wings and Squadrons were refunded $10,904.50 for their membership activity during the year. An additional $976.50, obtained by Squadrons in states without active Wings, is being held in suspense at our headquarters office pending formation of these Wing organizations.

The financial status of the AFA family has continued to improve. During the past twelve months, income exceeded expenses by $19,593.54. On June 30, close of the fiscal year, the Association showed a balance in principal of $51,161.20, a gain of slightly more than $20,000 over the principal reported at the Washington Convention. These figures are based on an independent audit by Certified Public Accountants.

I am happy to report that we have continued to increase our financing of local activities. A total of $15,454.50 was ploughed back into Wing and Squadron treasuries, $10,904.50 in membership refunds, as already mentioned, and $4,550.00 in expense allocations to Wings under the program administered by our National Wing Advisory Council. Let me take this opportunity to thank the Council. The Chairman is Randall Leopold, and the members are Roland Frey, Dave Levison, Mike Pisani, and Morry Worshill. They've done Air Force Association a real service.

AIR FORCE Magazine continues to be the key to our financial progress. For example, the annual net income from our magazine operation now exceeds our annual net membership income by almost $40,000. In addition, our Industrial Associate program has continued to expand. There are now 108 companies affiliated with us as Industrial Associates, a gain of twenty-two companies in the past year. [See page 67 for list.] These companies are special friends of the Air Force Association, real boosters for airpower, and they are also co-sponsors of this Convention.

While the financial report is encouraging, we are just beginning to build up the reserve accounts that are essential to sound business practice. Until those accounts are established and we have put aside money for a rainy day, let us be proud but not overly optimistic about our financial position.

We can also be proud of our organizational activity. Since we met a year ago in Washington, we have formed five new Wings, nineteen new Squadrons and five new Flights. We now have, as active working units, twenty-nine Wings, 109 Squadrons and five Flights in the Air Force Association.

I have been happy to see the continued development of Wing Conventions. Nine of these state meetings were held this year. I attended six of them and can testify to their importance to AFA. Outstanding was the California Wing Convention in Santa Monica with 200 registered delegates and 500 in attendance at the Convention banquet.

This past year saw the start of a movement to organize our local airpower efforts against prescribed minimum standards. Up to now, there has been no real connection between the activities of one Squadron and another. With this in mind, our Executive Director made an extensive trip to meet with Squadron and Wing leaders, and as a result, we have developed what we refer to as our four-committee system. We have concluded that to be properly integrated into community life, Squadrons should have continuing committee activity in at least four areas: youth education, civil defense, civil aviation, and Reserve components. Corresponding committees should be established at Wing and Regional levels with four corresponding national committees serving to coordinate the entire effort. There has been some progress in putting such a program into gear.

Let's look at another side of the family for a moment—the people on active duty with the Air Force. One of the major problems facing the active establishment is in the field of manpower. The combat readiness of the Air Force is menaced by the dangerously low reenlistment rate and a shortage of qualified recruits.

During the past year we have given strong editorial emphasis to the problem in AIR FORCE Magazine. In June the Association sponsored an Air Force manpower conference at the Pentagon attended by more than ninety of our Industrial Associate companies. Here several members of this AFA family really worked together. The industry members, after being briefed by Air Force leaders, established an advisory group to stimulate continued activity in the manpower effort. As a result of this conference, it is expected that some $5 million worth of public service advertising will be made available to the Air Force. In addition, companies are working on billboard advertising, radio and television announcements, and aviation exhibits – all to help solve the Air Force manpower dilemma.

(Continued on page 93)

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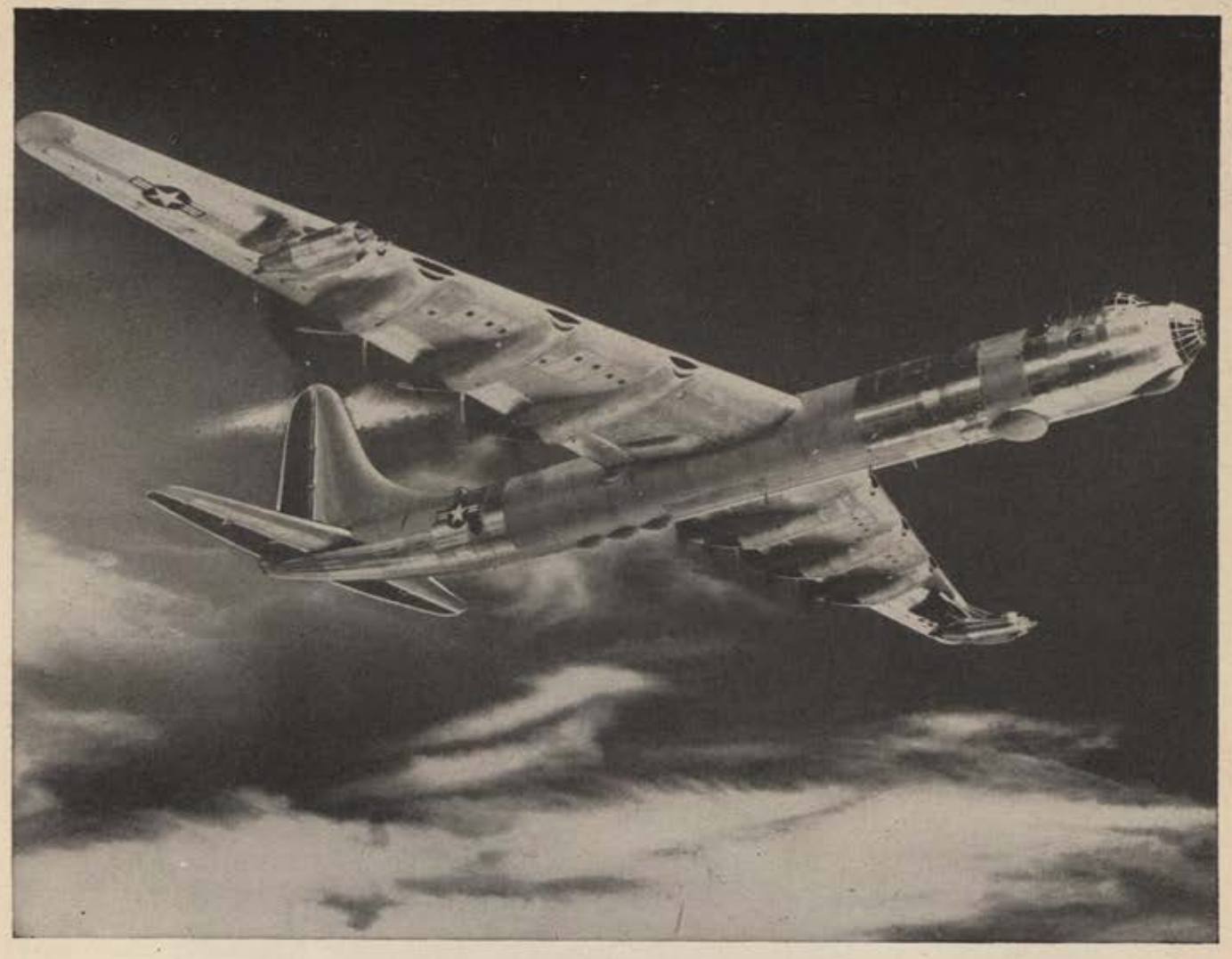

The plane that prevented a war

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Convair's B-36's and the men of SAC were about all that stood between this country and its enemies in the late 1940's and early 1950's. Many feel that this team prevented a third World War. Today, as then, they are powerful deterents to any would be aggressor. Production of those giant planes required thousands of man hours and involved many problems. Convair helped simplify production by sub-contracting elevator, rudder, and door assemblies to TEMCO.

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Giant B-36 elevator dwarfs TEMCO workers as it is wheeled into wet spray booth for its last coat of paint before being shipped to Convair, Ft. Worth, for final assembly.

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In the following months, I hope that our local units will hold manpower symposiums. These programs could bring the issue to the people who deal directly with the youngsters we need in the Air Force of tomorrow, including teachers, counsellors, youth group leaders and the like. Our headquarters office will assist you in planning such programs.

As a corollary to this manpower effort, the Board has just approved a program under which the Association each year will pay special recognition to cities giving outstanding support to the military personnel and dependents at nearby Air Force bases. We plan to have award banquets in these cities and honor the public-spirited citizens who have contributed to this community-relations effort.

As a part of our continuing campaign to increase the attractiveness of military service, the Executive Committee has prepared for your consideration several resolutions on fringe benefits for active-duty people. I recommend them to you.

During the past year the Association, through the magazine, took the leadership in insisting that Air Force POWs who were subjected to brainwashing and other forms of inhuman treatment in Korea be given a break in the judgment placed upon them for false confessions of germ warfare. I think we can all be proud of the fact that the findings of the special Air Force Board which made this judgment were substantially the same as those of the Association.

In our work with active-duty people we have not forgotten the dependents. Widows of Air Force personnel killed in line of duty have received letters of sympathy from the Association, with copies going to the nearest AFA Squadron or Auxiliary unit for possible follow-up action. From June 1, 1953, through July 31, 1954, a total of 609 such letters were sent out for an average of approximately fifty per month. I should like to commend the Greater Los Angeles and Pittsburgh units of our Ladies Auxiliary for their excellent programs for contacting the widows and offering their assistance to them. Typical of the response received from widows was this note: "I have heard my husband speak of your organization often and with deep respect. It was a good experience to hear from you so very soon. Like a good friend reaching over and shaking my hands and saying that I was not alone in my misery and heartache."

This was the year we all mourned the death of one of the former leaders of the active establishment—Gen. Hoyt S. Vandenberg—also a national director and great booster of AFA.

The Air Force Association was officially selected to represent Air Force veterans at the funeral and held special Memorial Day services at Arlington National Cemetery in Honor of General Vandenberg and the late Generals H. H. Arnold and Muir S. Fairchild.

At the local level there have been several fine projects in the field of Air Force relations. Special mention is due the San Diego Squadron, with its flying tours of nearby Air Force bases to better acquaint civic and publicity leaders with the Air Force.

In concluding my remarks about the active-duty members of the AFA family, I can report that during the year our headquarters office made a special survey of the membership record of the leaders of the Air Force. In contacting 1,300-odd people in the Air Force who are officially considered to be "key personnel," we have found that a very high percentage are Service members of the Association. Of 360 general officers in the Air Force, all but a few are members of the Association. Further, we are now making plans to bring more retired officers of the Air Force into the family. We are putting together a list of retired people to help them keep in contact with one another. This program should give us additional strength.

This Convention marks the second anniversary of our Ladies Auxiliary. This segment of the AFA family added eight new units during the last year, and now has twenty-seven organizations operating in eleven states. In addition to the widow's rehabilitation project, already mentioned, the Auxiliary, particularly the Greater Pittsburgh unit, participated in the Ground Observer Corps program and in a number of other activities allied with our airpower mission. Also, we have ample evidence that our Squadron programs have become more effective as a result of the cooperation received from our Auxiliary units. I'm proud of these women who work for airpower, and wish them every success in their meetings during this Convention.

For the younger members of the AFA family, we have had our biggest year. Air Explorer Scout Troops have been sponsored by our Squadrons in Pasadena; Mifflin County, Penna.; Detroit; and Queens, N. Y. In fact, the Queens Squadron sponsors three troops, and has trained the members of these units. In addition, aviation education programs for young people have been sponsored by the DuPage, Ill., Squadron and Chicago Squadron 101; and essay contests, designed to stimulate youth interest in aviation, have been carried out by the Albany and Syracuse Squadrons.

The Air Force Association is closely allied with the Air ROTC program. During the year, AFA Silver Medals have been presented to more than one hundred outstanding Air ROTC cadets, and a good percentage of the presentations were made by AFA units or individuals. Many Professors of Air Science and Tactics have written that our medal is the most sought-after Air ROTC award of the year.

Last December the Air Force Association sponsored a two-day conference of Arnold Air Society leaders in Washington, which included briefings and discussions at the Pentagon on the Air ROTC program.

The Arnold Air Society, which the Association helped organize several years ago, approached the Association at that time with a view to setting up a joint membership arrangement. In April, at the Society's National Conclave here in Omaha, the Society formally accepted, on a two-year trial basis, a program whereby membership in the Society will include automatic Cadet membership in AFA. I consider this a major step for all concerned. The Arnold Air Society has grown to a strength of 163 squadrons and a total membership of over 5,000. As new members of the AFA family, when they enroll this fall, we will welcome the outstanding students of the Air ROTC program. I have spent some time with them and I know they will make excellent Cadet members of the Association, and eventually, I trust, strong Active members.

The past year has seen integration of the former Air Reserve Association into the Air Force Association, a move stemming from action taken at the 1953 Convention. I am glad to report that the integration has been completed, and I know that our airpower mission has been furthered in the process.

Of the seventeen active ARA chapters, we have organized and chartered nine AFA Squadrons, and four others are now being chartered. The Louisiana Wing was formed as a result of the merger, due chiefly to the efforts of F. O. Rudesill, formerly president of the New Orleans chapter of ARA. Our new Squadrons resulting from the ARA merger are Daytona Beach

(Continued on following page)

AFA EXHIBITORS

AFA salutes the following exhibitors at Omaha Convention and Reunion:

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★ UNITED STATES AIR FORCE

ANNUAL REPORT — CONTINUED

and Leesburg, in Florida; Ken Fogle of Chicago; Lubbock and Dallas in Texas; Long Beach, Calif.; Seattle, Wash.; New York City; and New Orleans. In Philadelphia, on Long Island, and in other areas, former ARA chapters have merged with existing AFA Squadrons. Our Air Reserve Council, formerly the governing body of ARA, is operating under the fine leadership of Frank McCoy of Nashville, Tenn.

Simultaneously with the formation of this group, we established an Air National Guard Council, composed of outstanding Air Guard leaders from throughout the country, with Willard W. Millikan of Washington, D. C., as a very capable chairman.

In full gear at our Washington headquarters is the office for Reserve Affairs as prescribed in the merger agreement with ARA. Edmund F. Hogan is in charge of the office and doing a good job. One of the functions of this office is to coordinate the activities of the two councils and maintain liaison with the Arnold Air Society.

Incidentally, this office was instrumental in obtaining commissions for some 4,000 June graduates of the Air ROTC program who were faced with the probability of active-duty tours as airmen despite an official promise from our government that, if qualified, they would be commissioned as officers in the Air Force.

As a result of all of this activity, the Air Force Association has assumed a new position of leadership in Reserve Affairs. We are the largest organization of Air Reservists in the country and, as a Reserve group, we are the only national organization which includes Reservists and Guardsmen.

Our relationship with the Air National Guard is now excellent and is getting stronger by the day. We are proud of our growing number of Air Guard members and of their valuable participation in our program.

This Reserve Affairs office of ours conceived the idea for a race for Air Guard jet pilots in memory of the late Maj. Gen. Earl T. Ricks, famous Chief of the Air Section at the National Guard Bureau. It was held in July in conjunction with the International Aviation Exposition at Detroit on July 24. The Ricks Trophy will be presented at the Airpower Banquet, Saturday night.

The Association has taken a keen interest in legislation affecting the Reserve components, and I can assure you that there is a new awareness on Capitol Hill and in the Pentagon that we are a powerful factor in the Reserve picture.

In July, for example, our Executive Director made a statement to the Senate Armed Services Committee in connection with the proposed Reserve Officers Personnel Act of 1954. Without opposing the proposed legislation, we assumed leadership in the demand to give the Reserve components—at long last—a strong program, and dig out of the mothballs whatever plans the Administration may have for the Reserve Forces. As you may know, we are beginning to get some action.

Just last week, our Association had the unique distinction of calling to the attention of the chairman of the House Armed Services Committee, proposed Department of Defense legislation authorizing contract private flying training for ROTC students. Further, we sent wires to the American Legion, Veterans of Foreign Wars, National Guard Association, and Reserve Officers Association, requesting that they indorse our support.

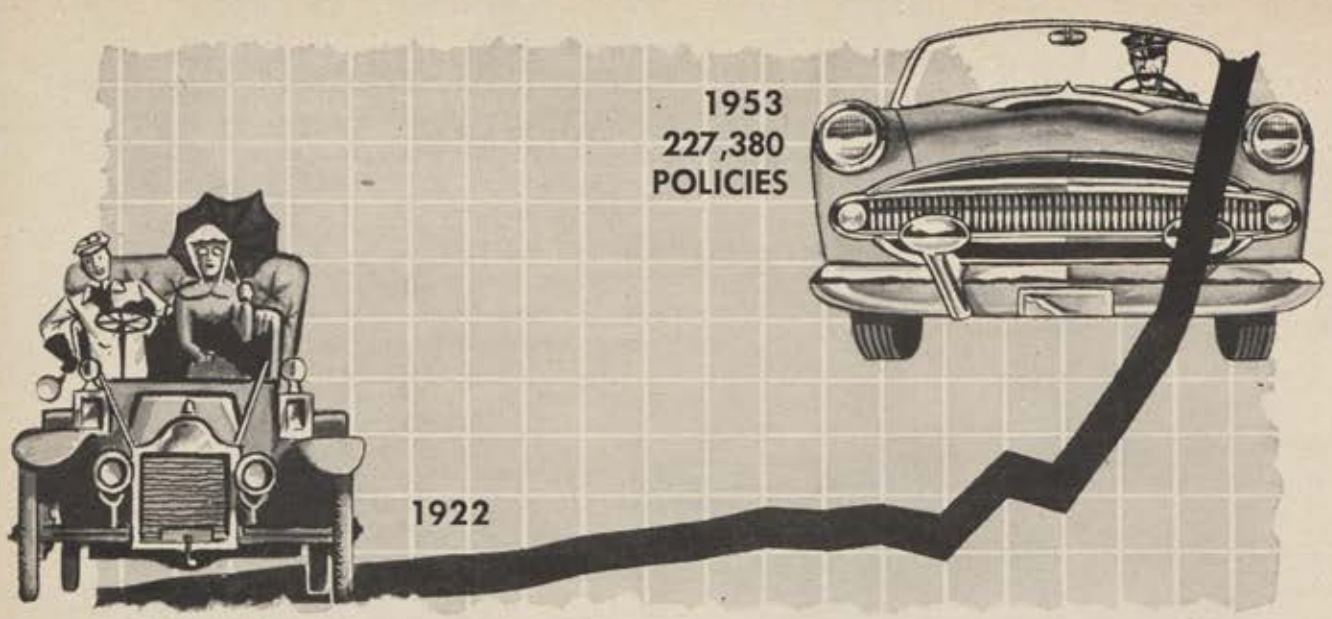
I believe that this legislation is important to the future airpower stature of our country, and I urge each member of the Association to give it his full support. This legislation will help get America's young men back into cockpits, and it will be consistent with our long-standing sponsorship of aviation education.

The Reserve Forces Conference which opened this Convention provided Reservists and Air Guardsmen an opportunity to get first-hand information on what is being considered as the "New Look" Reserve program. I hope it will be the first of a series of conferences on this subject.

We have arranged with the United States Air Force, Continental Air Command, and the National Guard Bureau for annual Air Force Association awards to outstanding units and individuals of the Reserve and Air Guard.

I should mention that our Reserve Affairs office also handles the hundreds of personal service requests filled by our headquarters office—many from Reservists and Air Guardsmen. These range from routine requests for information on new regulations to pleas for assistance in having personnel records straightened out. I might add that filling personal service requirements is a major function of AFA. We believe implicitly that when one of our members asks us to do something, we do it. The volume of our personal service requests continues to increase. We are not unhappy at this turn of events. It

(Continued on page 96)



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Is the automobile customarily used in driving to or from work?_____

If the automobile is customarily used in driving to or from work, how many road miles is the car driven one way?_____

How many operators under age 25?_____

Age of each:_____

Are any of the operators under 25 owners or principal operators of the automobile?_____

If any of the operators under 25 are owners, or principal operators, of the automobile,

(a) are all such operators married?_____

(b) do all such operators have legal custody of a child resident in the household?_____

Name & Rank_____

Military Address_____

If car not at above address, give location of car_____

proves that we are satisfying the requirements of our members.

The unifying force, in all these operations, is AIR FORCE Magazine. It is the voice of the entire family—a tough editorial assignment, but one which, by and large, is being fulfilled. Beyond that, of course, AIR FORCE continues to be the leading magazine on military aviation in this country, and I don't know of a better one in the entire world.

The magazine is being used more and more as a training instrument throughout the Air Force, especially at the Air University, and as a supplementary text within the Air Reserve and Air ROTC programs. As an educational medium, it is recognized by other segments of the armed forces. During the year, articles from the magazine have been reprinted, on request, and given official distribution at the National War College and Army's General Staff College. Other articles were reprinted by the Armed Forces Communications Association and the Coast Artillery Association, and reprints from our magazine appeared during the year in aviation magazines of several other countries in the Free World.

AIR FORCE has been quoted and requoted, during the year, by the *Congressional Record*, by the newspapers, and by radio and television stations throughout the country.

All in all, the message of AIR FORCE Magazine reaches far beyond the membership strength of the Association to an audience of millions.

This was the year in which the nation observed the Fiftieth Anniversary of Powered Flight, and the Air Force Association was a leader in the celebration. We co-sponsored—with the National Park Service, Kill Devil Hill Memorial Society, and the North Carolina 50th Anniversary Commission—a four-day celebration at Kitty Hawk leading up to the historic December 17 date. For this event, we were instrumental in the reconstruction of the hangars and living quarters of the Wright Brothers exactly as they existed in 1903. The program resulted in newspaper coverage reaching a combined circulation of 16,000,000 readers.

Yet, just as a series of sonic booms climaxed that glance at the past, so do we of the Air Force Association concern ourselves primarily with the future—with a critical world situation—with our very survival. On that grim note we meet here in Convention, and on that note I submit my annual report.—END

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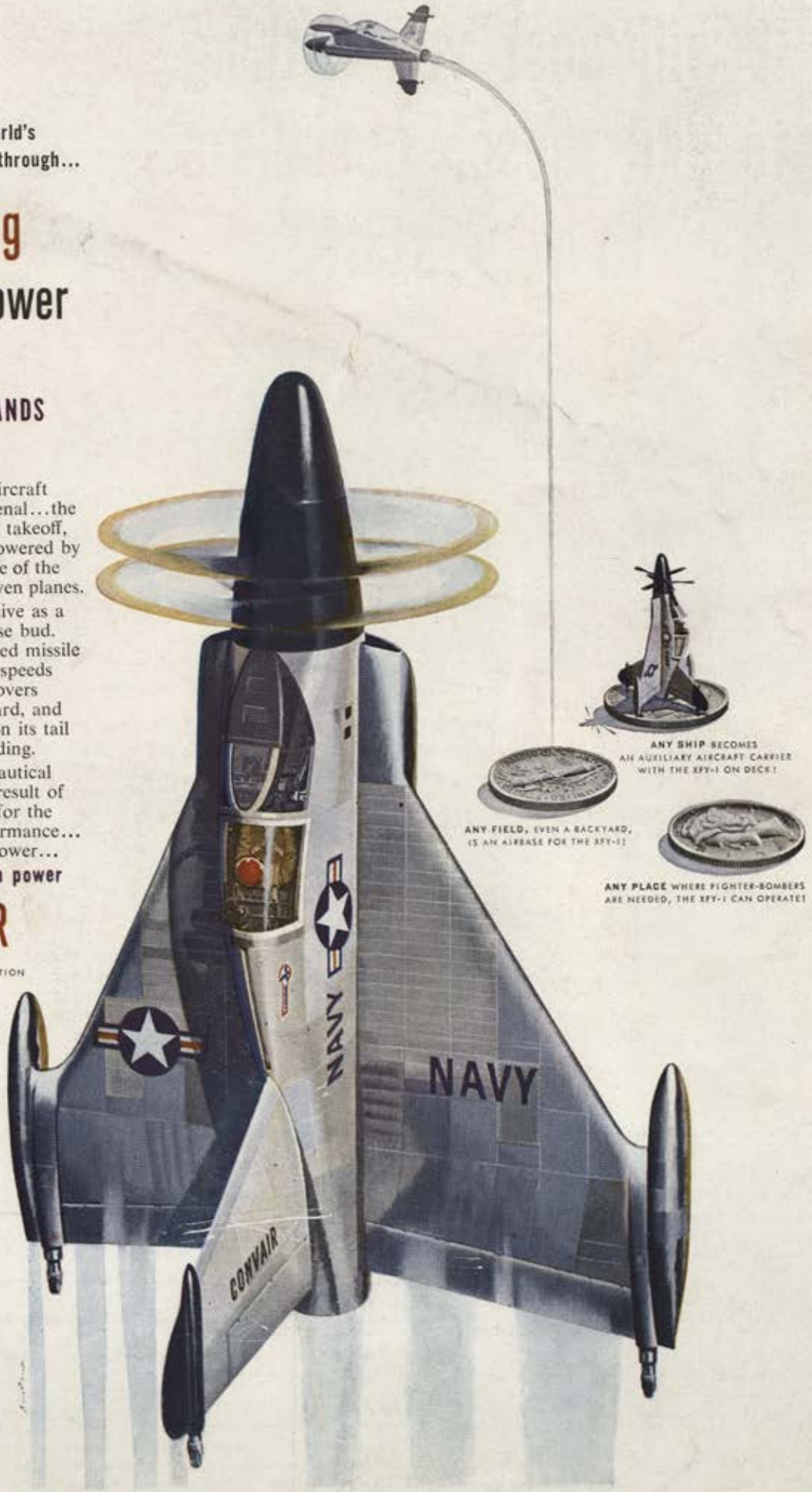

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